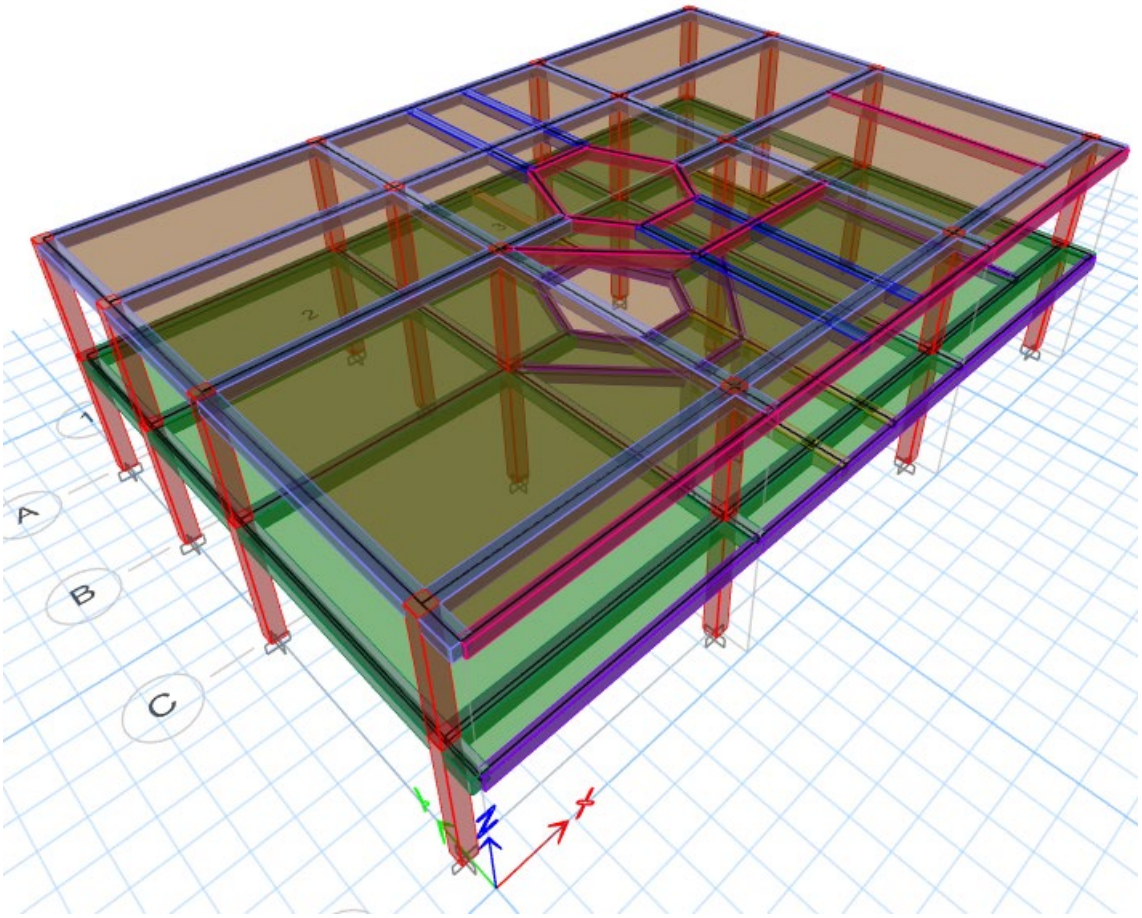
PROYECTO:
JARDIN SALAMANDRA
Calle 75A Bis Sur #27-22, Bogotá D.C – Cundinamarca



ESTUDIO DE VULNERABILIDAD SISMICA
Bogotá D.C. 2025

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JARDIN SALAMANDRA – BOGOTA D.C.

1. INTRODUCCION

El edificio es para uso institucional en todos sus pisos, está ubicado en la Calle 75A Bis Sur #27-22 de la Ciudad de Bogotá D.C. El edificio es una estructura de Dos (2) pisos con Cubierta Liviana.

La distribución arquitectónica del edificio será definida de la siguiente forma:

- ✓ En el primer piso se desarrolla hall de entrada, cocina, baños, salones, administración y las escaleras para el segundo piso.
- ✓ En el segundo se desarrolla salones, baños, sala de profesores y por último se encuentra la cubierta liviana, este piso presenta una altura entre placas de 2.95m.
- ✓ En el último nivel esta la cubierta liviana, este tendría una altura entre placas de 2.70m.

Dado que se trata de una estructura para jardín infantil, es indispensable que debe operar de la ocurrencia de un sismo, se hace necesario revisar la vulnerabilidad sísmica de la estructura teniendo en cuenta el estado de conocimiento, en lo relativo a amenazas de respuesta de edificaciones ante eventos sísmicos, representados en las actualizaciones que ha sufrido el reglamento colombiano de diseño y construcción sismo resistente NSR-10 (Ley 400 de 1997/Decreto 926 de 2016).

Dicho reglamento define los parámetros, procedimientos y requisitos de análisis de vulnerabilidad para el análisis de edificaciones construidas de manera previa a la entrada en vigor de este en los títulos A.10.1.5 y A.10.2.

1.1. CONCEPTO DE VULNERABILIDAD

La vulnerabilidad sísmica de una estructura se define como su predisposición intrínseca a sufrir daño ante la ocurrencia de un movimiento sísmico de determinada severidad, y está directamente relacionada con las características de diseño y construcción de la estructura.

Si bien los avances en diseño estructural son aplicables únicamente a construcciones nuevas, es necesario mejorar las estructuras antiguas para reducir las pérdidas debidas a los sismos. Dicha mejora requiere una evaluación previa del comportamiento sísmico esperado, para predecir de alguna manera los daños de vulnerabilidad sísmica, se definen soluciones de reducción de la vulnerabilidad estructura y, en consecuencia, de las perdidas esperadas en los edificios, es decir, del riesgo sísmico.

La Vulnerabilidad Sísmica de la edificación se califica con base en dos parámetros principales según la NSR-10: Rigidez y Resistencia. Para calificar la rigidez de la estructura existente, se comparan los desplazamientos obtenidos en el análisis contra los límites impuestos por la norma, calificando el edificio según su ***Índice de Flexibilidad.*** En cuanto a la Resistencia, se comprueba si las secciones y refuerzo de los elementos existentes en la construcción están en capacidad de soportar adecuadamente los esfuerzos inducidos por las cargas sísmicas, calificando el edificio según su ***Índice de Sobreesfuerzo.***

A continuación, se presenta el procedimiento de evaluación a ejecutar en el proyecto Jardin Salamandra.

1.2. OBJETIVOS

1.2.1. General

El objetivo principal del estudio es el de evaluar el grado de vulnerabilidad sísmica estructural del Jardín Salamandra en la Ciudad de Bogotá D.C. - Cundinamarca, con base en los requisitos establecidos por el Reglamento Colombiano de Construcción Sismo-Resistente, NSR-10 (ley 400 de 1997 y Modificada con el Decreto 926 de 2010), y de acuerdo con esto formular los eventuales requerimientos de rehabilitación o reforzamiento en caso que se identifiquen deficiencia en el comportamiento esperado con respecto al establecido por la norma.

1.2.2. Específicos

Los objetivos específicos del estudio son los siguientes:

1. Realizar pruebas de campo para determinar la resistencia de los materiales, verificación e inspección de acero de refuerzo y en general todas las actividades necesarias para evaluar la vulnerabilidad sísmica de la estructura.

2. Determinar las cargas reales, muertas o permanentes, cargas vivas o variables, carga de equipos y maquinaria, necesarias para efectuar el análisis estructural.

3. Modelos elásticos lineales de la estructura: el análisis estructural se realizará elaborando modelos tridimensionales de la edificación teniendo en cuenta la geometría, propiedades de los materiales, de los elementos estructurales y cargas actuantes obtenidas en el proceso de inspección, pruebas de campo y laboratorio. Esta tarea se desarrollará mediante software especializado de análisis estructural por elementos finitos.

4. Evaluación de los índices de flexibilidad de la estructura para determinar la susceptibilidad a tener deflexiones o derivas excesivas y su comparación con los criterios de aceptación definidos en la NSR-10.

5. Evaluación de índices de sobreesfuerzo: a partir del análisis estructural se obtienen las solicitaciones en cada uno de los elementos, de manera simultánea se evalúa la resistencia efectiva de dichos elementos considerando las características actuales tales como la calidad de los materiales, cantidad de refuerzo, estado de conservación, entre otros. Una vez definida las solicitaciones y la capacidad de cada uno de los elementos, se evalúan los índices de sobreesfuerzo para efectos tales como (flexión, cortante, torsión y flexo-compresión).

6. Plantear de manera conceptual posibles soluciones o alternativas de reforzamiento.

7. Seleccionar la alternativa más favorable teniendo en cuenta los siguientes factores:
   - Cumplimiento de los requerimientos de la normativa de capacidad y funcionalidad.
   - Afectación de la funcionalidad de las estructuras.
   - Aspectos arquitectónicos de las intervenciones planteadas.

8. Evaluar las cargas reales, muertas o permanentes, cargas vivas o variables, cargas sísmicas, necesarias para efectuar los análisis y diseños de la alternativa de reforzamiento estructural planteadas.

9. Evaluar los índices de sobre esfuerzo y de flexibilidad de la estructura reforzada de acuerdo con la alternativa seleccionada y determinar el nivel de comportamiento esperado de las estructuras para las cargas de diseño establecidos en la NSR-10.

10. Entregar los documentos necesarios, que permitan adelantar las obras de rehabilitación estructural, como memorias de cálculo, planos estructurales.

1.3. DESCRIPCION DE LA ESTRUCTURA

1.3.1 Ubicación y Características.

La estructura está ubicada en la Calle 75A Bis Sur #27-22 en la Ciudad de Bogotá D.C. El Edificio está conformada por un sistema de resistencia sísmica y ante cargas verticales de pórticos de columnas y vigas en concreto reforzado. La edificación se construyó en el 2005, la edificación fue construida previa a la vigencia de la norma de diseño NSR-10, el mapa de amenaza sísmico ya es el actualizado, ya la ciudad de Bogotá contaba con estudio de microzonificación sísmica.

El sistema de entrepiso para el Edificio consiste en una placa maciza en dos direcciones con vigas y viguetas descolgadas con una sección de 30cm de alto en todos los pisos, tiene una placa maciza superior de 15cm en todos los pisos, la altura total del sistema es de 30cm para todos los pisos.

En concordancia con lo establecido en el numeral A.10.2 de la Norma NSR-10, se realizó un peritaje tendiente a determinar las características más importantes de la edificación actual.

Según lo establece la Norma NSR-10, la ciudad de Bogotá se encuentra ubicado dentro de una zona de amenaza sísmica **Intermedia.**

Características	Información
Altura Total de la Estructura	5.65m sobre el terreno
Sistema Estructural	Pórticos en Concreto Reforzado
Sistema de Placa Entrepiso	Placa Maciza en dos direcciones con vigas descolgadas de 0.30m en todos los pisos.
Sistema de Cubierta Plana	Cubierta Liviana en teja de Barro, apoyada sobre vigas de 0.25m de alto

Tabla 1-Caracteristicas de la Estructura Existente

1.4. INFORMACION SUMINISTRADA

Para la elaboración del presente estudio ha sido suministrada la siguiente información:

- *Planos Arquitectónicos*
  Para el estudio de vulnerabilidad fueron suministrado planos arquitectónicos digitales, que contienen plantas arquitectónicas y cortes del edificio.

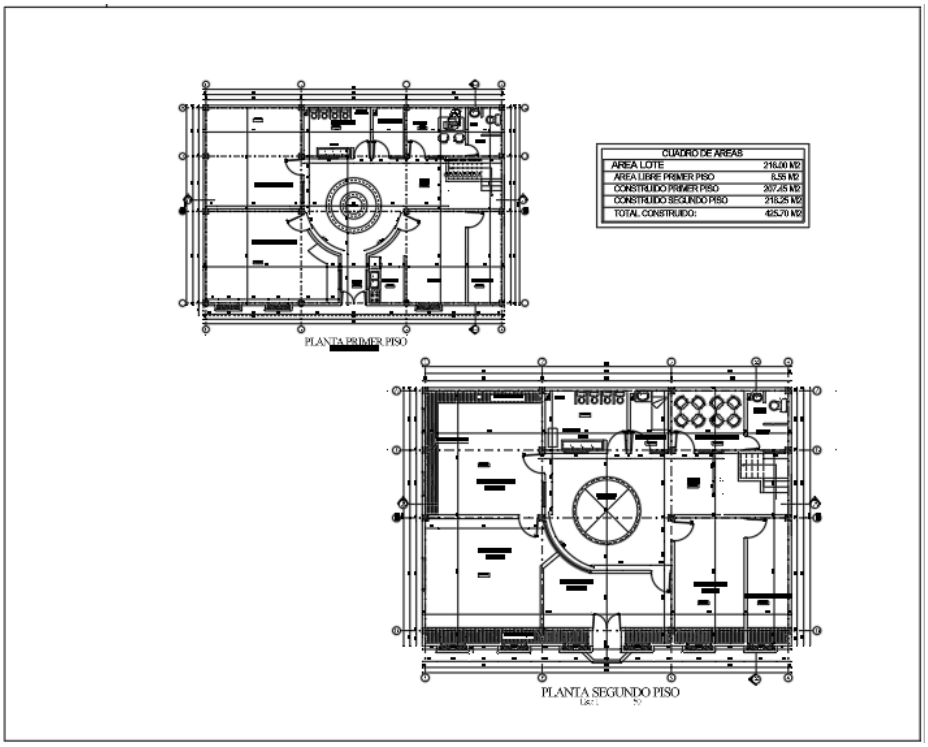


Imagen 1-Plantas Arquitectónicas.

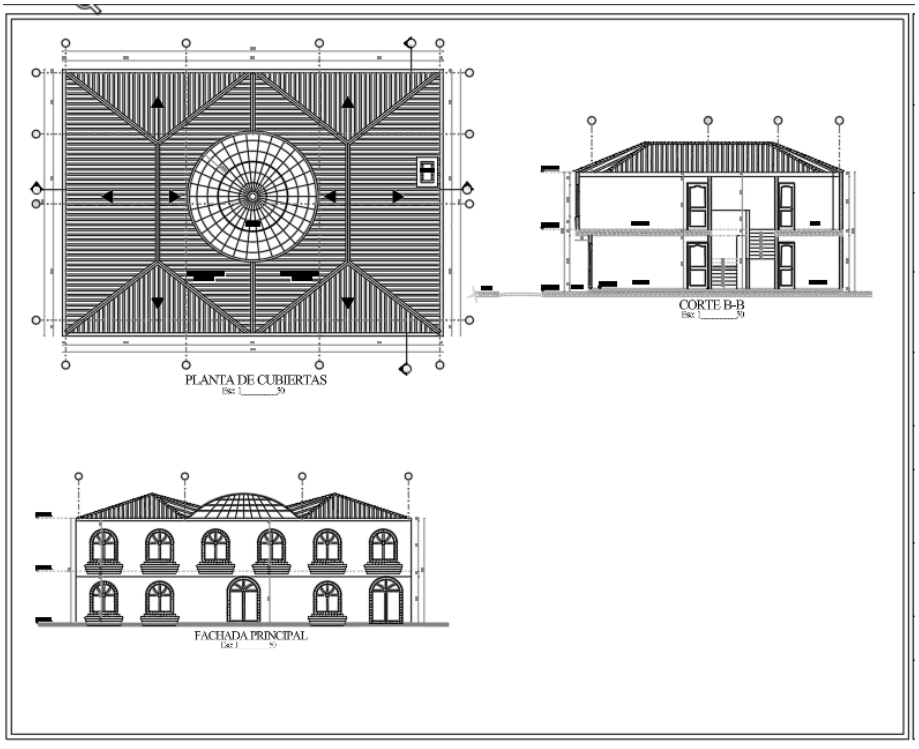


Imagen 2-Costes Arquitectónicas.

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- *Planos Estructurales*
  No se cuenta con planos estructurales, por lo que se realiza un levantamiento estructural de la Vivienda, ya que no se cuenta con secciones de vigas, viguetas, zapatas y columnas, con esta información podremos hacer el modelo analítico del edificio.

- *Memorias de Calculo Estructural*
  No se cuenta con las memorias de diseño estructural original, por lo que se procede a ejecutar actividades de investigación sobre los materiales de la edificación existente mediante ensayos de laboratorio.

2. INVESTIGACION CONSTRUCTIVA

2.1. INVESTIGACION DOCUMENTAL

No se cuenta con información preliminar de los diseños estructurales con los que se realizaron la edificación, por lo tanto, se tiene que realizar los ensayos de Extracción de Núcleos para determinar el tipo de concreto y el escáner de ferroscan para determinar aproximadamente la cantidad y diámetro del acero de refuerzo que tiene los elementos estructurales principales (Columnas, Vigas).

2.2. INVESTIGACION SOBRE MATERIALES

Para corroborar el valor de resistencia real de la estructura, se realizó un plan de ensayos al concreto de los elementos estructurales principales mediante dos metodologías: Extracción de núcleos para la determinación de la resistencia característica del concreto e identificación del refuerzo para confirmar con los planos de construcción. El objetivo es obtener valores de resistencia a la compresión del concreto a partir de los núcleos extraídos.

2.2.1. Extracción de Núcleos.

Se extrajeron 7 núcleos de muestras de concreto de columnas y vigas principales, de acuerdo con el procedimiento descrito en la Norma Sismo Resistente Colombiana, NSR-10 y en la Norma Técnica Colombiana NTC 3658:1994.

- Maquina Extractora de Núcleos de 2200 W de Potencia, que contiene unas dimensiones de 50 cm de Ancho por 100 cm de largo y altura de 1.00 a 1.50 m.
- Broca Diamante de 2” para la Extracción de los Cilindros.

METODOLOGIA: Se perfila el taladro frente al elemento del cual se va a extraer el núcleo, mediante rotación de la broca se procede a perforar el elemento, durante este procedimiento se generan ruido y desperdicio de agua, que es usada como medio refrigerante, el núcleo tiene unas dimensiones mínimas de 2” de diámetro por una longitud de 6”.

Finalmente se rellena la zona del núcleo extraído mediante un grouting de alta resistencia, y se limpia la zona afectada, almacenando de manera adecuada los especímenes para fallar a compresión en el laboratorio.

Se adjunta a continuación la ubicación de los 7 núcleos extraídos en campo el día 15 de marzo:

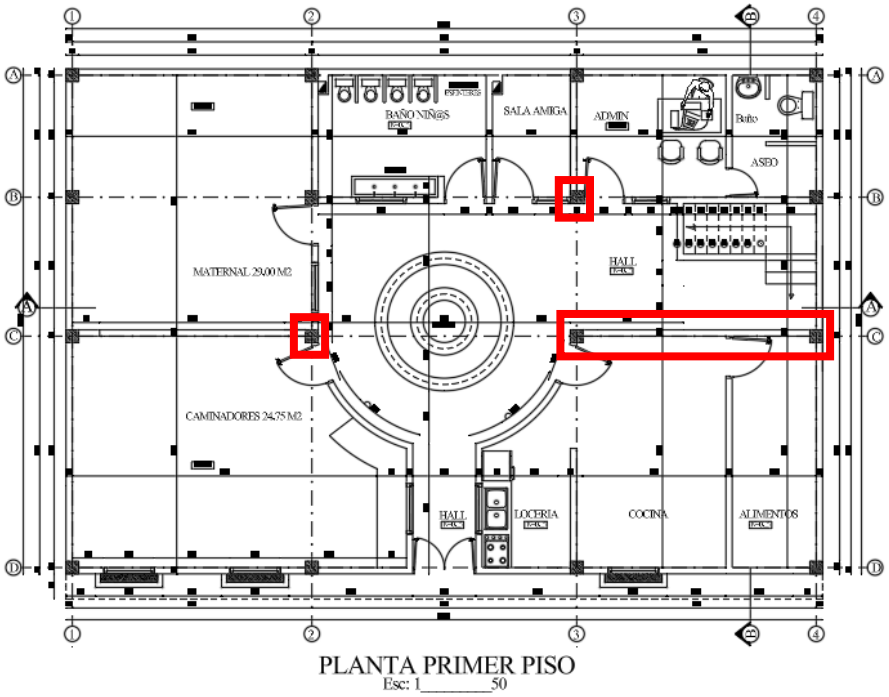


Imagen 3-Localización de Extracción en Primer Piso

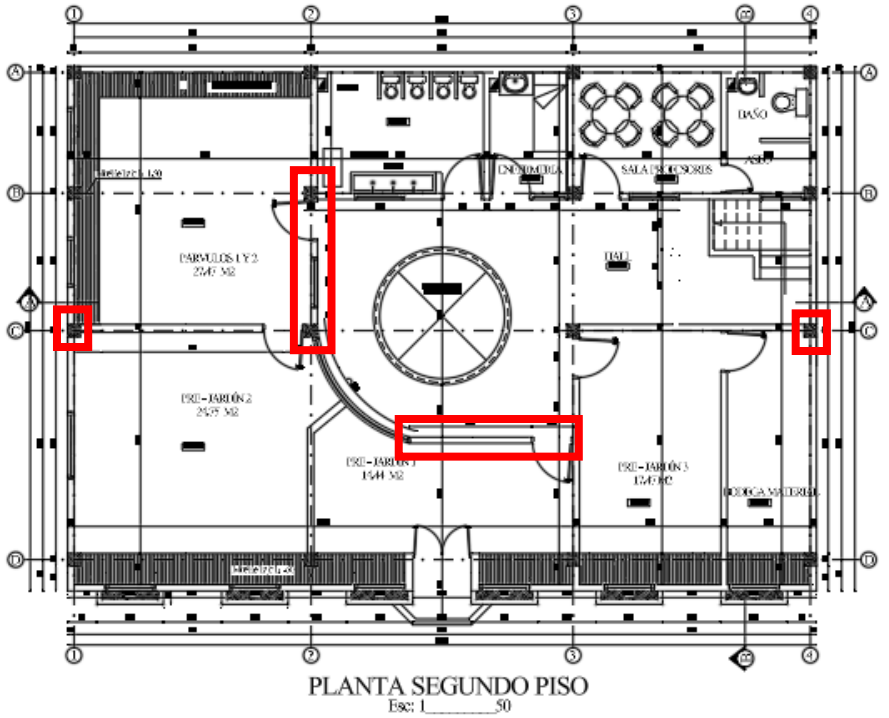


Imagen 4-Localización de Extracción en Segundo Piso

Se resume a continuación el valor de la resistencia obtenida en cada muestra extraída, con la cual se puede concluir que en promedio la mezcla usada en el diseño original no corresponde a la resistencia especificada por el diseñador estructural:

LOCALIZACION	F'c (kg/cm^2)
Columna Primer Piso	243.40
Columna Primer Piso	262.8
Columna Segundo Piso	255.6
Columna Segundo Piso	243.4
Viga Segundo Piso	257.4
Viga Cubierta	215.8
Viga Cubierta	243.6

Tabla 2-Resultados Resistencia a Rotura de los Núcleos

Si bien se aprecia todos los elementos presentan una resistencia media, condición que puede atribuirse a diferentes condiciones tanto de muestreo como de ejecución del ensayo, se debe tener en cuenta que el muestreo de extracción de núcleos de concreto se hace mediante un equipo que puede alterar la muestra por vibración, se considera que para caracterizar la resistencia del concreto del edificio es suficiente con 7 muestras.

En general se aprecia que la tendencia de los resultados apunta a confirmar la resistencia especificada en el diseño, el promedio en general aun con el resultado fuera del rango de lo normal tenemos una resistencia aproximada de **251.3 kg/cm^2** para las Columnas y **238.93 kg/cm^2** para Vigas, de acuerdo con la NSR-10 la resistencia para diseño tuvo que ser de aproximadamente **245 kg/cm^2**, se adjunta a este documento el informe emitido por el respectivo laboratorio.

Con el parámetro de la resistencia a la compresión del concreto obtenida a partir de los ensayos de campo, y de acuerdo con la NSR-10, se calcula el valor del MODULO DE ELASTICIDAD (Ec) con el cual se realizará el Análisis Estructural:

$$\boldsymbol{E_c = 4700 * \sqrt{f'c}}$$

$$\boldsymbol{E_c = 4700 * \sqrt{245} = 273566.637\ MPa}$$

2.2.2. Localización y detección del acero de refuerzo

El ensayo para la detección del acero de refuerzo es una prueba no destructiva, mediante un equipo que realiza un escáner a los elementos estructurales escogidos estratégicamente, este escaneo mide la profundidad a la que se encuentra el refuerzo, detecta su posición, distribución y además permite estimar el diámetro aproximado del refuerzo, para verificación de los planos existentes.

Se requieren los siguientes equipos:

- Un Ferroscan Marca Hilti PS 200
- Una Plantilla de Referencia

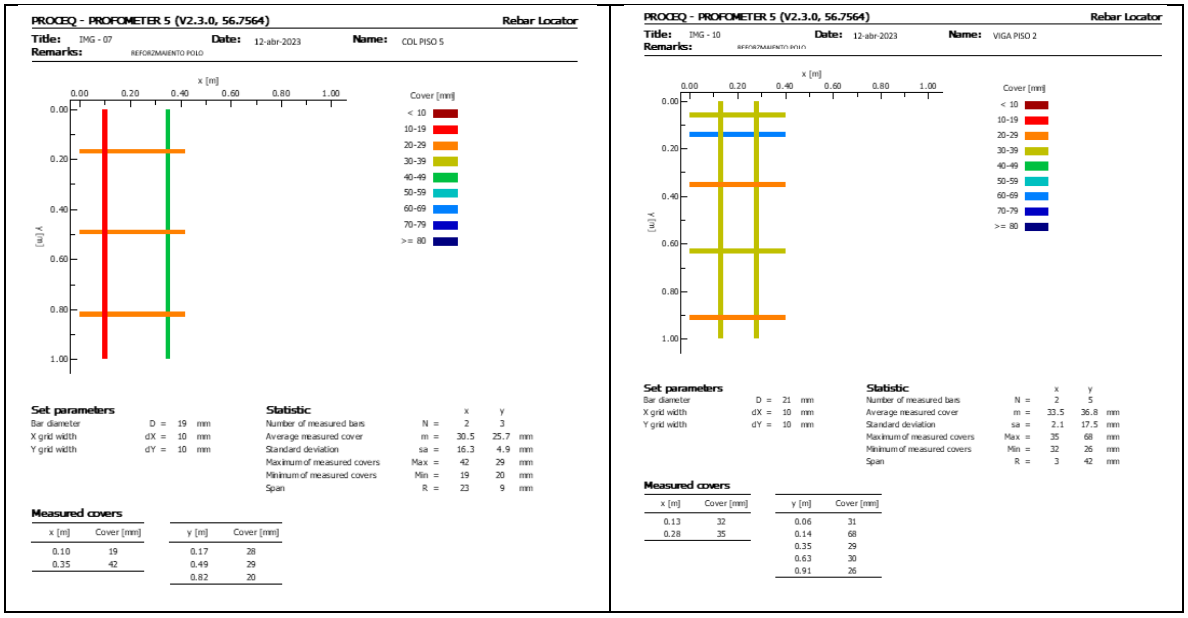


Imagen 5-Verificacion de Refuerzo en Columnas y Vigas

En general el sistema de resistencia sísmica principal del edificio presenta columnas con secciones de 25x25cm, 30x30cm y Vigas de sección de 30X30cm, 25x30cm y 25x25cm. Las columnas reforzadas con acero de 5/8" y las vigas reforzadas con acero de 5/8" aproximados, se hizo la verificación para varias columnas y vigas, se adjunta a este documento el informe generado por el laboratorio.

2.3. CALIDAD DE DISEÑO Y CONSTRUCCION DE LA ESTRUCTURA

Esta calificación se define en los términos de la mejor tecnología existente para la época en que se diseñó y construyó la edificación. Para esto se analizaron los planos de los diseños originales recopilados y se definió el factor Φc que corresponde al factor de calidad de la construcción (numeral A.10.2.2.1 de la NSR-10). Después de inspeccionar la estructura y evaluar los materiales puede decirse que la calidad en la ejecución y conformación de los elementos estructurales es en general **BUENA**, de acuerdo con la Tabla A.10.4-1 de la NSR-10 se emplea un factor de reducción Øc= 1.0.

2.4. ESTADO DE LA ESTRUCTURA

Una vez inspeccionado el estado de la construcción de la estructura, se observan signos de deterioro y defectos constructivos o mecánicos. Puede afirmarse que la edificación se realizó siguiendo metodologías constructivas adecuadas desde el punto de vista de durabilidad y resistencia, pero puede que con el tiempo tuvieran inconvenientes en la cimentación o el estado del suelo.

El sistema de resistencia sísmico libre a vibración en un evento sísmico en general no está en buenas condiciones, aunque carente de un mecanismo de disipación de energía ante un evento sísmico.

La calificación del estado de la estructura existente de acuerdo con la Tabla A.10-4-1 de la NSR-10 es **BUENA**. El factor utilizado es Øe = 1.0

2.5. RESISTENCIA DE LOS ELEMENTOS

A partir de los factores obtenidos de la evaluación al diseño y construcción, y al estado actual de la estructura, se obtiene la resistencia efectiva con la cual se efectuará la vulnerabilidad para cada uno de los elementos que componen el sistema estructural de la edificación objeto de estudio.

$$Nef = Øc \times Øe \times Nex$$
$$Nef = 1.0 \times 1.0 \times Nex = 1.00\ Nex$$

Que indica que la resistencia inherente a los materiales NO debe reducirse debido al buen estado de la estructura o consideraciones del diseño original.

3. ANALISIS ESTRUCTURAL DE LA EDIFICACIÓN

Después de revisada la información referente al levantamiento arquitectónico se procedió a la elaboración de un modelo de análisis que permitiera simular las condiciones actuales de servicio, y considerar los efectos dinámicos del sismo para analizar su incidencia en el comportamiento global de la estructura.

3.1. GEOMETRIA Y PROPIEDADES DE LOS MATERIALES

Los dos parámetros que sirven como base para el desarrollo de un modelo de análisis son la geometría y las propiedades mecánicas del material de la estructura.

De acuerdo con el levantamiento arquitectónico, el estructural y la verificación en sitio de las dimensiones, resistencias y refuerzo se realizó un modelo en el que se reproduce la distribución de vigas y columnas. Los valores utilizados en el análisis de la estructura corresponden a los siguientes:

- Módulo de Elasticidad del concreto, Ec = 21538.106 MPa
- Peso específico concreto, γc = 2.4 t/m3
- Resistencia a compresión del concreto= f'c= 245 kg/cm2 (24.5 MPa)
- Acero de refuerzo:1/4" y mayores fy = 4200 kg/cm2 (420 MPa)

3.2. DESCRIPCION DEL MODELO DE ANALISIS

Dadas las características particulares de este tipo de estructura, y el interés de conocer el comportamiento de la edificación ante las acciones sísmicas a las cuales se verá sometida, para el análisis y diseño estructural se realizó un modelo tridimensional usando el software ETABS. El peso propio de los elementos es considerado directamente por el programa, pesos adicionales de acabados y otros son agregados directamente y llevados a los elementos como carga distribuida sobre las Losas.

Teniendo en cuenta estas cargas y los planos estructurales de la edificación existente se realiza el modelo estructural en el programa Etabs. 20.3.0, se anexan imágenes del modelo analítico.

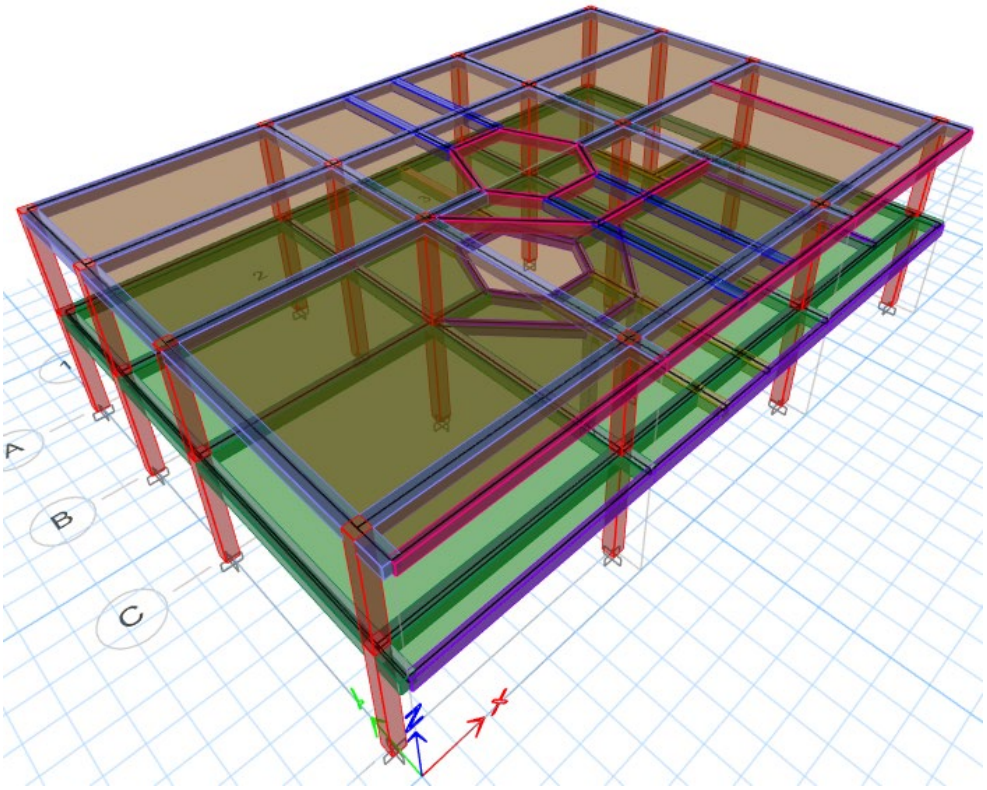


Imagen 6 Modelo en 3D

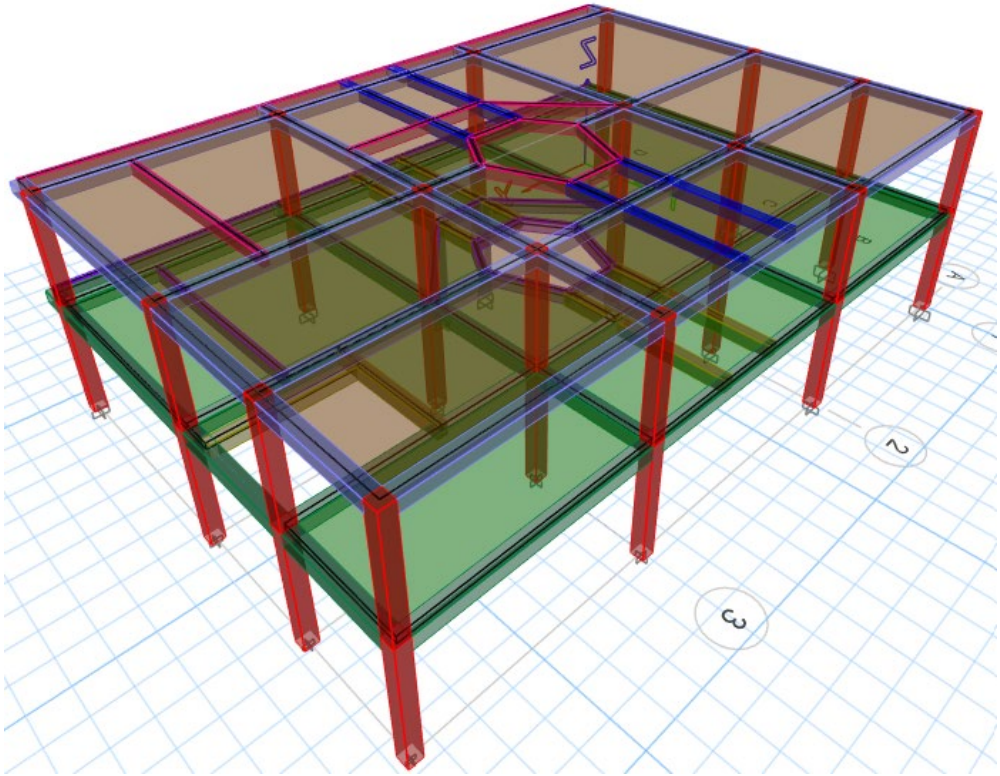


Imagen 7 Modelo en 3D

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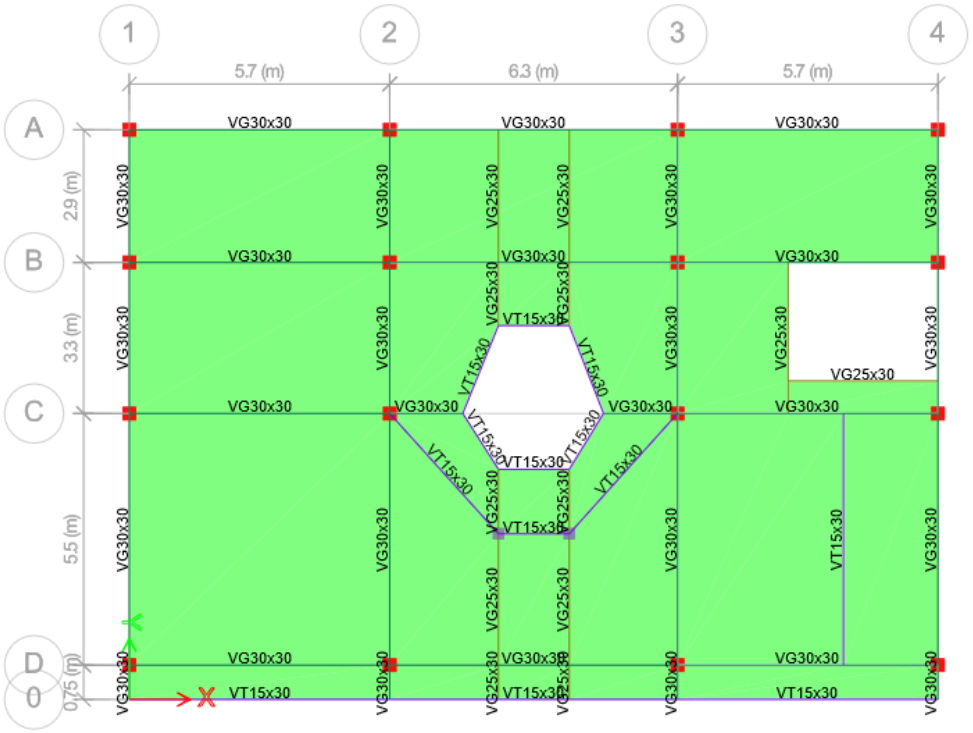


Imagen 8 Segundo piso (N+2.95m)

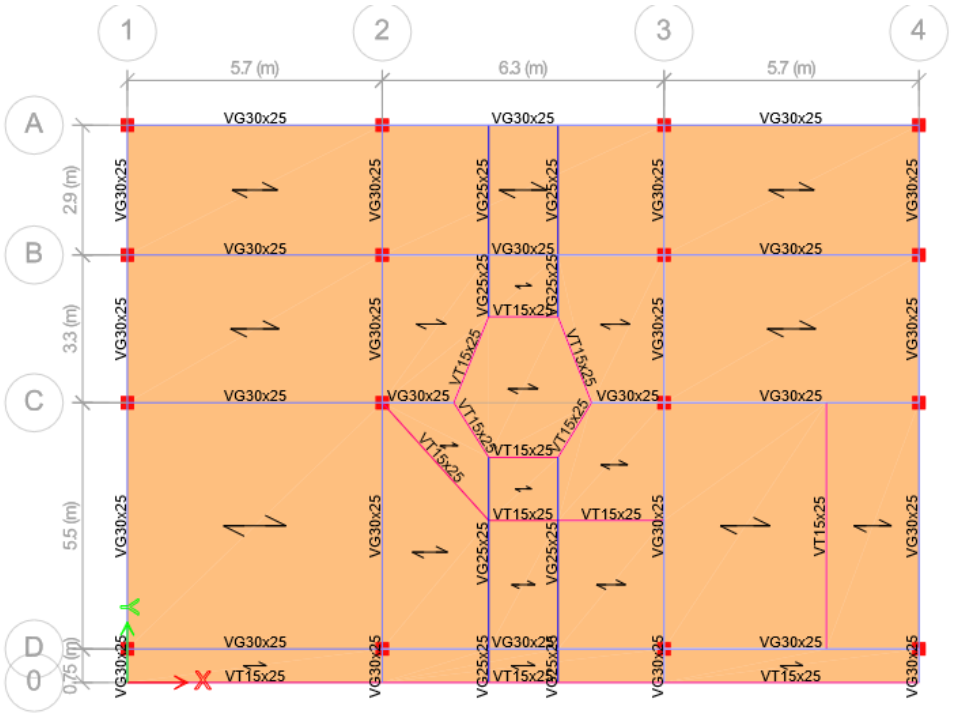


Imagen 9 Cubierta (N+5.65m)

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3.3. ANALISIS DE CARGAS CONSIDERADAS EN EL ANALISIS

3.3.1. Cargas muertas y vivas de diseño

Se realizó un análisis de las cargas muertas y viva que actualmente soporta el edificio de acuerdo con la distribución arquitectónica y el uso en cada piso.

Las cargas muertas utilizadas corresponden al peso propio de las placas de los entrepisos y de cubierta, así como las divisiones y acabados sobre ellas.

A continuación, se hace una descripción de las cargas muertas identificadas sobre impuestas en los diferentes espacios de la edificación:

- ***Entrepisos:***
  - Acabados y afinado sobre entrepiso: 150 kg/m^2
  - Divisiones de muros en mampostería: 200 kg/m^2
  - Casetón: 25 kg/m^2

- ***Cubierta:***
  - Teja: 20 kg/m^2
  - Correas: 15 kg/m^2
  - Cielo Raso e instalaciones: 25 kg/m^2
  - Otros: 20 kg/m^2

- ***Muro Perimetral de Fachada:***
  - Altura muro: 2.50m
  - Peso aproximado (incluida la pega y pañete): 180 kg/m^2
  - Carga lineal distribuida: 180x2.50= 450 kg/m

- ***Muro de Antepecho:***
  - Altura muro: 1.20 m
  - Peso aproximado (incluida la pega y pañete): 180 kg/m^2
  - Carga lineal distribuida: 180x1.20=216 kg/m

Las cargas vivas para el análisis se calcularon con base en la recomendación de la NSR-10. Los valores considerados en el análisis fueron:

- Institucional: 200 kg/m^2
- Cubierta Liviana: 100 kg/m^2
- Escaleras: 500 kg/m^2

3.4. MOVIMIENTO SISMICO DE DISEÑO

De acuerdo con Microzonificación Sísmica Sustitutiva de las secciones A.2.4 y A.2.6 del Decreto Nacional 523 de 2010 de la Alcaldía de Bogotá, el predio se encuentra ubicado la Zona Cerros.

Los parámetros para el cálculo de la fuerza sísmica utilizados, de acuerdo con la Microzonificación Sísmica de Bogotá, son los siguientes:

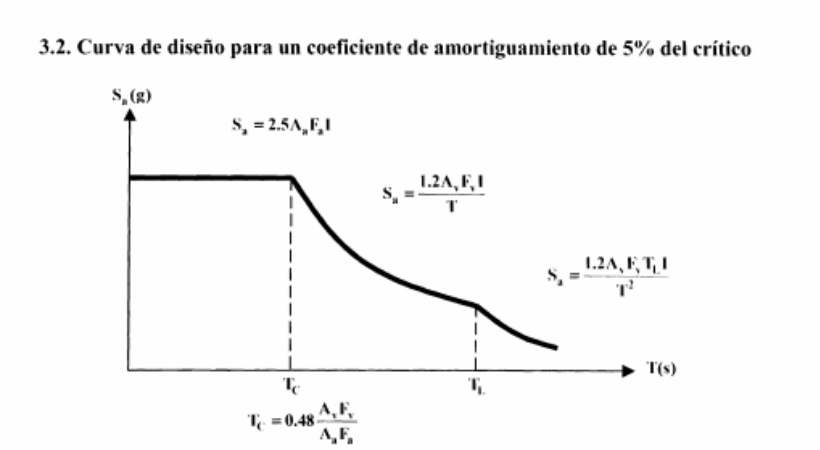


Imagen 10 Espectro de Microzonificación Generalizado

A continuación, se describen los parámetros utilizados en el análisis:

3.4.1. Nivel de Amenaza Sísmica

Según lo establece la Norma NSR-10, el Distrito Capital se encuentra ubicado dentro de una zona de amenaza sísmica **Intermedia**, por lo tanto, para el diseño se toma el espectro correspondiente, que según el sitio oficial de consulta www.sire.gov.co, se encuentra ubicado en la siguiente zona: **Cerros** del mapa de microzonificación de respuesta sísmica del 2010.

3.4.2. Grupo de Uso

Debido a la ocupación y uso del edificio, se trata de una estructura Indispensable perteneciente al **Grupo III**, según lo prescrito en el capítulo A.2.5.2 de la NSR-10, se le asigna por tanto un coeficiente de importancia **I=1.25**

3.4.3. Movimiento Sísmico de Diseño

De acuerdo con la NSR-10, se toma el espectro correspondiente a la zona de amenaza sísmica Intermedia para la Ciudad de Bogotá. Los parámetros de cálculo de la fuerza sísmica para el edificio son los siguientes:

Espectro para el análisis de las Derivas:

- ✓ Zona de Amenaza Sísmica: Intermedia
- ✓ Zona de Microzonificación: Cerros
- ✓ A_a: 0.15
- ✓ A_v: 0.20
- ✓ Perfil del Suelo: E
- ✓ F_a: 1.35
- ✓ F_v: 1.30
- ✓ Coeficiente de Importancia I: 1.00
- ✓ Grupo de Uso: I

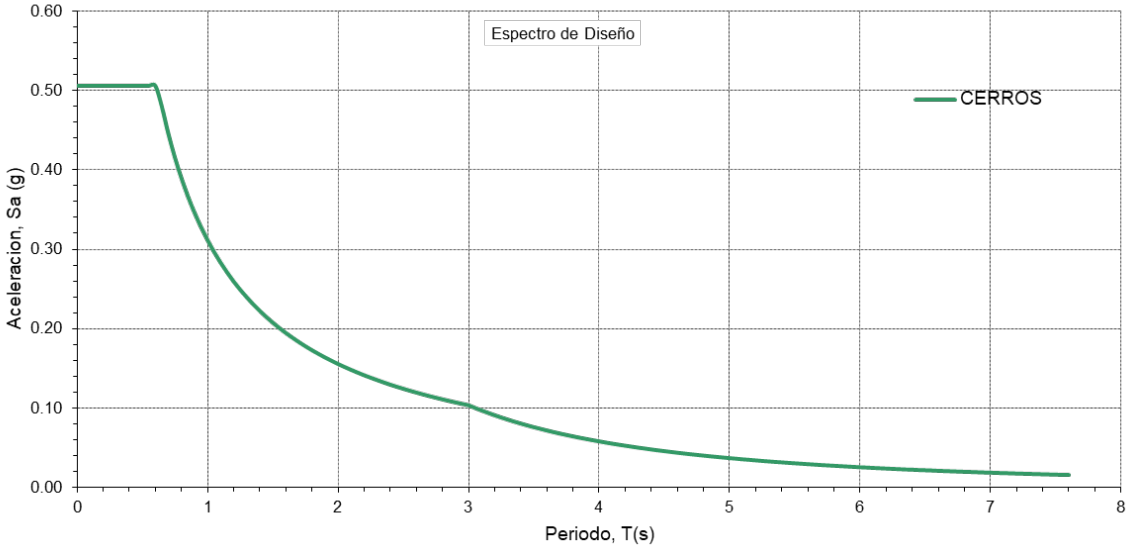


Imagen 11 Espectro Elástico de Respuesta Microzonificación – Derivas

Espectro para el análisis del Umbral de Daño:

- ✓ Zona de Amenaza Sísmica: Intermedia
- ✓ Zona de Microzonificación: Cerros
- ✓ A_a: 0.15
- ✓ A_v: 0.20
- ✓ Perfil del Suelo: E
- ✓ F_a: 1.50
- ✓ F_v: 1.70
- ✓ Coeficiente de Importancia I: 1.25
- ✓ Grupo de Uso: III

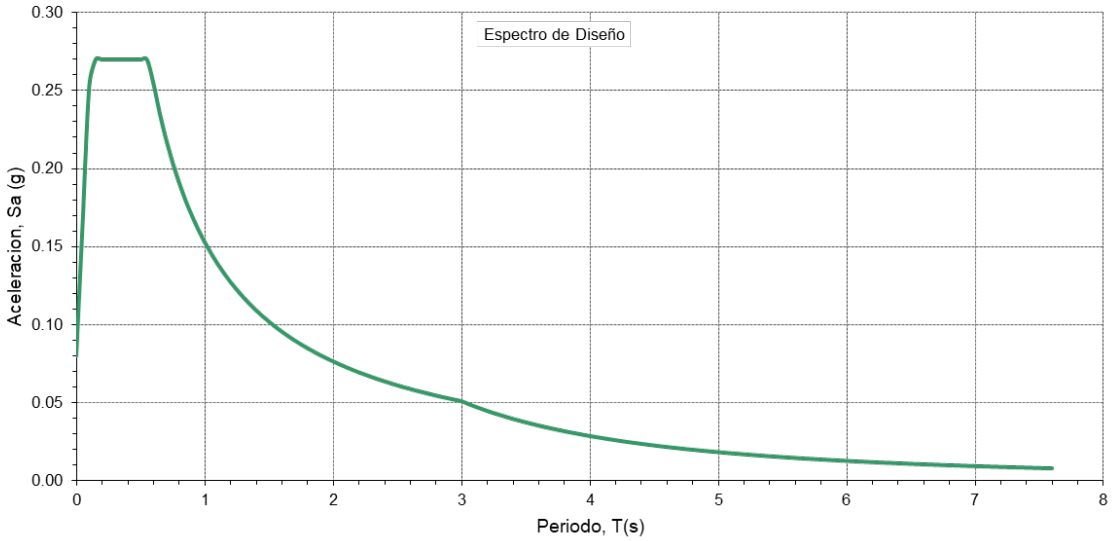


Imagen 12 Espectro Elástico de Respuesta Microzonificación – Umbral de Daño

Espectro para el análisis de Diseño:

- ✓ Zona de Amenaza Sísmica: Intermedia
- ✓ Zona de Microzonificación: Cerros
- ✓ A_a: 0.15
- ✓ A_v: 0.20
- ✓ Perfil del Suelo: E
- ✓ F_a: 1.35
- ✓ F_v: 1.30
- ✓ Coeficiente de Importancia I: 1.25
- ✓ Grupo de Uso: III

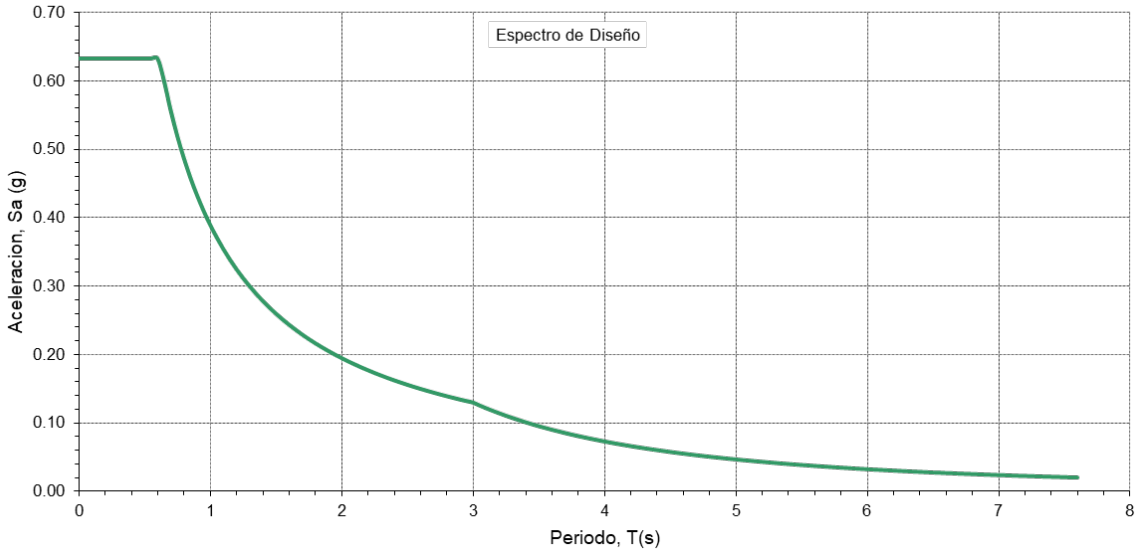


Imagen 13 Espectro Elástico de Respuesta Microzonificación – Diseño Elementos Estructural

3.4.4. Fuerzas Sísmicas

La carga por sismo se calcula a partir del espectro de aceleraciones, calculado a partir del método de la fuerza horizontal equivalente. Para la estructura de concreto están gobernadas por las cargas sísmicas, ya que las cargas de viento resultan muy inferiores a estas y se aplican solamente a la cubierta. La carga por sismo se calcula partir del espectro de aceleraciones calculado de la microzonificación y ajustado al cortante sísmico calculado por el método de la fuerza horizontal equivalente. De acuerdo con lo estipulado en la NSR-10, el cortante sísmico estimado mediante un análisis dinámico elástico para un 5% de amortiguamiento crítico, no puede ser menor que el 80% para estructuras regulares y de 90% para estructuras que presenten algún grado de irregularidad (planta, altura, torsional), del cortante calculado por el método de la Fuerza Horizontal Equivalente. Para efectos de modelación y simulación, el ajuste se hace incrementando el valor de la gravedad por el correspondiente factor, en donde la masa acelerada es directamente calculada por el software utilizado a partir de las cargas muertas y el peso propio de los elementos, lo que implica que las coordenadas o puntos del espectro y las combinaciones de carga no son afectadas.

Las cargas sísmicas son calculadas a partir de la masa de los elementos y de las cargas aplicadas, afectadas por el valor del espectro de aceleraciones definido para este caso zona de amenaza

sísmica intermedia. De acuerdo con la NSR-10 se hace el correspondiente ajuste a los resultados del método de la fuerza horizontal equivalente. En los anexos se presentan los ajustes correspondientes y las consideraciones que se tuvieron en cuenta en lo relacionado con irregularidades y coeficientes de disipación de energía.

4. SISTEMA ESTRUCTURAL DEL EDIFICIO EXISTENTE

4.1. SISTEMA DE RESISTENCIA SISMICA

En base a los hallazgos objeto de la investigación sobre los materiales y planos de acuerdo con la tabla A.3-3 de la NSR-10, el Edificio existente tiene una estructura conformada por **Pórticos resistentes a momento de Concreto Reforzado con capacidad de disipación de energía Moderada (DMO).**

4.2. CAPACIDAD DE DISIPACION DE ENERGIA

De acuerdo con el material de la estructura y las características del sistema de resistencia sísmica descrito, se establece el grado de disipación de energía del edificio existente como Disipación de Energía Moderada (DMO). Se adopta un coeficiente de capacidad de disipación de energía moderado para la edificación el R_0=5.0.

4.3. GRADO DE IRREGULARIDAD

Se analizó la geometría y rigidez de la edificación para determinar sus irregularidades de acuerdo con los parámetros de la Norma. Se realizó el correspondiente chequeo de irregularidades conforme a lo establecido en las tablas A.3-5, A.3-6 y A.3-7 de la NSR-10, a partir de este se obtuvieron los siguientes coeficientes de reducción de la capacidad de disipación de energía:

IRREGULARIDAD EN PLANTA

IRREGULARIDAD	DESCRIPCIÓN	Ø		$Ø_{USADO}$
1aP	Irregularidad Torsional	0.9	SI	0.90
1bP	Irregularidad Torsional Extrema	0.8	NA	1.00
2P	Restrocesos excesivos en las esquinas	0.9	NA	1.00
3P	Discontinuidades en el diafragma	0.9	NA	1.00
4P	desplazamientos en el plano de accion elemetos verticales	0.8	NA	1.00
5P	Sistemas no paralelos	0.9	NA	1.00
			USAR	**0.90**

Tabla 3 Irregularidad en Planta

IRREGULARIDAD EN ALTURA

IRREGULARIDAD	DESCRIPCIÓN	Ø		$Ø_{USADO}$
1aA	Piso Flexible	0.9	NA	1.00
1bA	Piso Flexible Extremo	0.8	NA	1.00

2A	Irregularidad en la distribucion de las masas	0.9	SI	0.90
3A	Irregularidad Geometrica	0.9	NA	1.00
4A	Desplazamientos dentro del plano de acción	0.8	NA	1.00
5aA	Piso Debil.	0.9	NA	1.00
5bA	Piso debil Extremo.	0.8	NA	1.00
			USAR	**0.90**

$Ø_P$	$Ø_A$	$Ø_R$
0.90	0.90	1.00

Rox=	5.00
0.75*Rox=	3.75
R´ox=	3.038
1/R´ox=	0.329
0.3/R´ox=	0.099

Titulo A.10.4.2.4 de la NSR-10

Tabla 4 Irregularidad en Altura

5. ANALISIS DE LA ESTRUCTURA DEL EDIFICIO ACTUAL

De acuerdo con las Normas NSR-10, se realizó un modelo tridimensional de la estructura para someterla a las acciones gravitatorias y dinámicas reglamentarias, y a partir de su análisis determinar las fuerzas internas en cada uno de los elementos estructurales.

El proceso consiste en realizar un modelo de la estructura actual considerando su geometría y características mecánicas de acuerdo con los datos obtenidos del diseño y su verificación en el sitio. Este modelo se somete a las fuerzas sísmicas obtenidas a partir del espectro de las normas vigentes, para evaluar su flexibilidad y los niveles de esfuerzo a los que queda sometido.

Después de comparar contra los límites de flexibilidad (deriva) y resistencia que fija la norma, se comprueba la necesidad de modificar el sistema estructural del edificio actual para alcanzar el grado de rigidez que exige la NSR-10.

5.1. COMBINACIONES DE CARGA

Se evaluó la actual estructura para dos condiciones en primer lugar conocer el estado actual de la edificación ante cargas gravitacionales y una segunda ante un sismo de diseño según lo establecido en el título B de la NSR-10.

Las revisiones de las derivas máximas de la edificación se efectuaron de acuerdo con el capítulo A.6, los cuales exigen que las derivas se verifiquen para las fuerzas sísmicas Fs, sin haber sido divididas por R, se tuvieron en cuenta las siguientes combinaciones de carga básicas:

1) 1.2DL + 1.0LL ±1.0EQX
2) 1.2DL + 1.0LL ±1.0EQY
3) 0.9DL ± 1.0EQX
4) 0.9DL ± 1.0EQY

Para efectos de la revisión del diseño de cada uno de los elementos estructurales, se utilizaron las siguientes combinaciones de carga básicas:

1) 1.4DL
2) 1.2DL + 1.6LL+0.5GL
3) 1.2DL + 1.0LL+1.6GL
4) 1.2D + 1.0LL+1.0WL+0.5GL
5) 1.2DL + 1.0LL ± EQX ± 0.3EQY
6) 1.2DL + 1.0LL ± 0.3EQX ± EQY
7) 0.9DL + 1.0WL
8) 0.9DL ± EQX ± 0.3EQY
9) 0.9DL ± EQZ ± 0.3EQY

5.2. VULNERABILIDAD SISMICA DEL EDIFICIO ACTUAL

Con la envolvente de los valores de carga obtenidos de acuerdo con la metodología descrita en el punto anterior, se revisó el comportamiento estructural de las distintas partes del edificio.

Después de realizar el análisis, se evaluaron los desplazamientos máximos debido al sismo para calcular las derivas en cada nivel. Posteriormente se analizó la demanda de refuerzo en los elementos de la estructura, para su capacidad de disipación actual generados por las combinaciones críticas de carga.

La Vulnerabilidad Sísmica de la edificación se califica con base en dos parámetros principales según la NSR-10: Rigidez y Resistencia. Para calificar la rigidez de la estructura existente, se comparan los desplazamientos obtenidos en el análisis contra los límites impuestos por la norma, calificando el edificio según su ***Índice de Flexibilidad***. En cuanto a la Resistencia, se comprueba si las secciones y refuerzo de los elementos existentes en la construcción están en capacidad de soportar adecuadamente los esfuerzos inducidos por las cargas sísmicas, calificando el edificio según su ***Índice de Sobreesfuerzo***. A continuación, se presentan los resultados obtenidos para cada uno de estos parámetros.

5.2.1. Índice de Flexibilidad del Edificio Existente

5.2.1.1. Índice de Flexibilidad de Piso

Se define como el cociente entre la deflexión máxima o deriva obtenida del análisis de la estructura existente y la permitida por el Reglamento Colombiano de Construcción Sismo Resistente NSR-10, para cada uno de los pisos de la edificación. A continuación, se resume los índices de piso del edificio:

DERIVAS MAXIMAS DE PISO/INDICE FLEXIBILIDAD				
NIVEL	**I.F.x**	**I.F.y**	**VULNERABILIDAD X**	**VULNERABILIDAD Y**
N+5.65	0.369%	0.281%	2.71	3.56
N+2.95	0.527%	0.458%	1.90	2.18

Tabla 5 Índice de Flexibilidad de Piso

De acuerdo con **A.10.9.2.1** de la NSR-10, la edificación debe alcanzar un índice máximo de flexibilidad igual a 1.00%, la estructura No cumple con el índice máximo de flexibilidad.

5.2.1.2. Índice de Flexibilidad de la Estructura

Se define como el mayor valor de los índices de flexibilidad de piso para el edificio. El inverso del índice de flexibilidad general expresa la Vulnerabilidad Sísmica de la edificación como una fracción de la rigidez que tendría una edificación nueva construida de acuerdo con los requisitos del Reglamento Colombiano de Construcción Sismo Resistente NSR-10.

El índice de Flexibilidad del edificio es el siguiente:

- Dirección X: I.F. = 0.527
- Dirección Y: I.F. = 0.458

Al calcular la vulnerabilidad en términos de fracción de rigidez respecto a la exigencia de la norma, el edificio tiene una Vulnerabilidad de:

- Dirección X: Vulnerabilidad = 1.90
- Dirección Y: Vulnerabilidad = 2.18

Estos valores indica que la estructura actual posee el 1.90% en dirección X y 2.18% en dirección Y, de la rigidez que debería tener según el requisito mínimo de la norma, evidenciando que en términos de la amenaza sísmica actualizada cumple con los requisitos de rigidez en las dos direcciones.

5.2.2. Índice de Sobreesfuerzo de los Elementos

Se calcula comparando la cantidad de refuerzo que posee el elemento actual (*resistencia efectiva*) contra el área de acero que requiere para los nuevos esfuerzos que produce la aplicación de la fuerza sísmica bajo los criterios de las normas vigentes, en el caso de concreto reforzado.

En resumen, al dividir el esfuerzo actuante por la resistencia efectiva del elemento, se obtiene un índice que, si supera la unidad, significa que a dicho elemento (columna o viga) le hace falta determinada cantidad de refuerzo para absorber satisfactoriamente las nuevas solicitaciones.

A. *Índice de Sobreesfuerzo Columnas de Concreto*

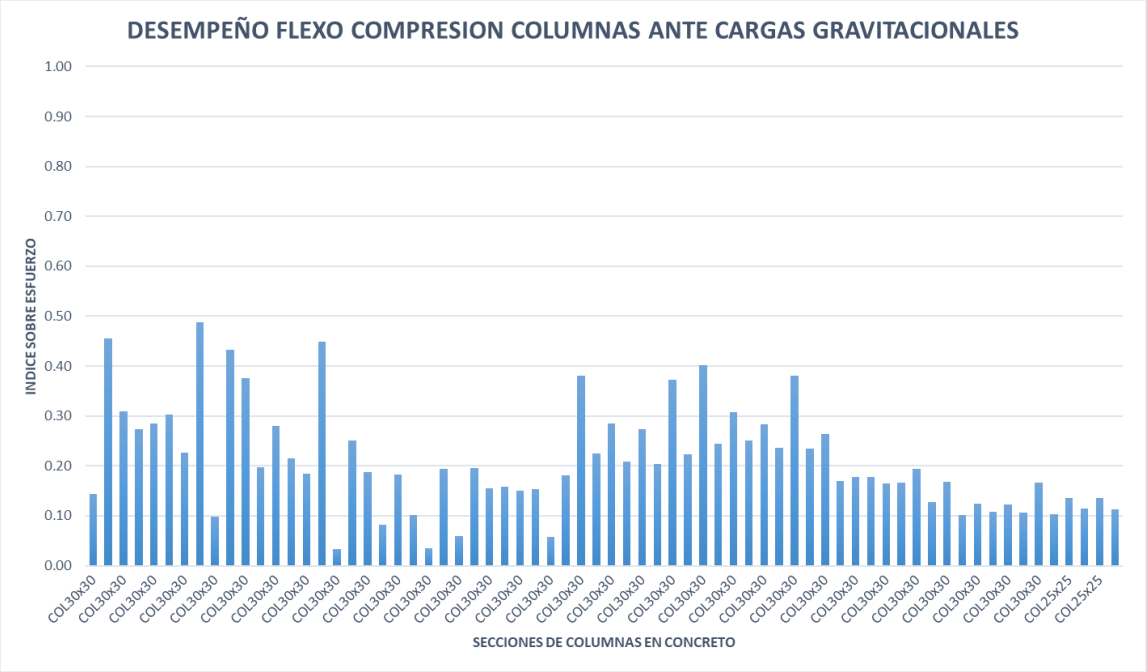


Imagen 14 Índices de Sobre Esfuerzo Columnas Cargas Gravitacionales.

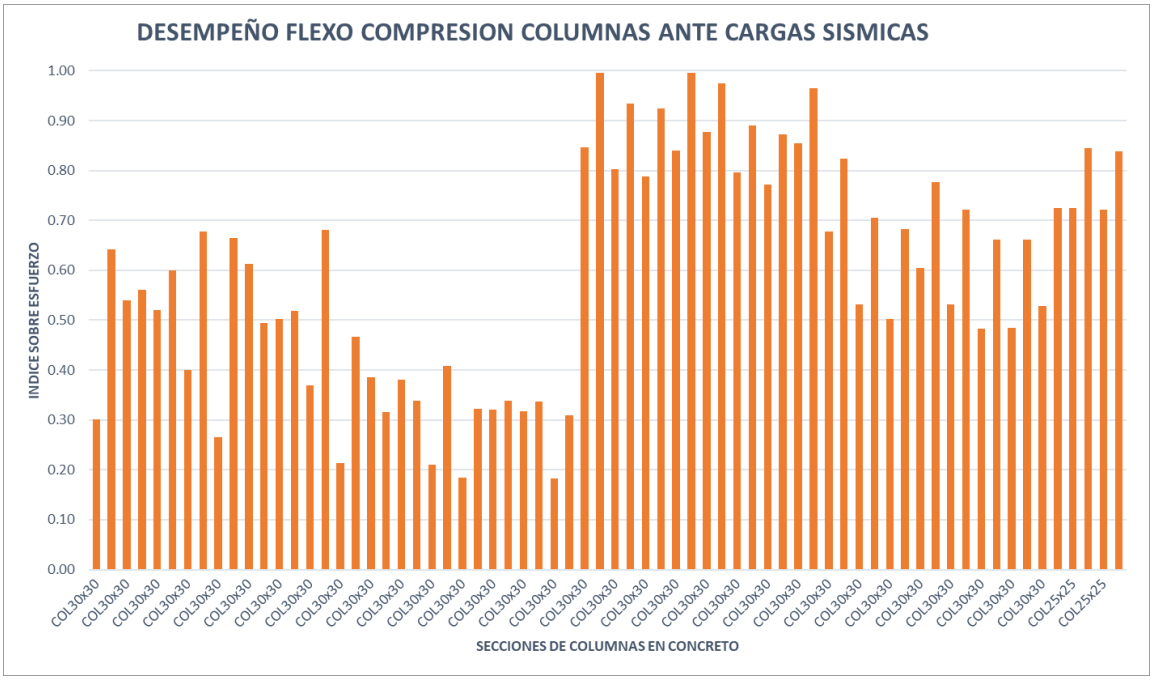


Imagen 15 Índices de Sobre Esfuerzo Columnas Cargas Sísmicas NSR-10

B. Índice de Sobreesfuerzo Vigas

Las vigas en general presentan una sección considerable, se generaliza la sección de 25x30, 30x30, 25x25 y 30x25 con cuantías superiores a la cuantía mínima exigida por la NSR-10 y con zonas de confinamiento en los nudos.

Por la geometría unificada de estas vigas se pudo apreciar en general un refuerzo similar en todas las vigas objeto de investigación, como se puede apreciar en el informe de detección de refuerzo adjunto, el refuerzo suministrado en general obedece a 3 a 5 barras de diámetro 25 mm, aproximadamente.

Al igual que en las columnas, se analizaron estos elementos ante dos tipos de escenarios, el primero en condiciones permanentes (cargas gravitacionales) y un análisis con un sismo fuerte, de baja probabilidad de ocurrencia en un periodo de retorno de 50 años, como es de esperarse el desempeño ante cargas gravitacionales es adecuado, esto es evidente en el edificio.

ELEMENTO	SOLICITACION	MAYOR INDICE DE SOBREESFUERZO
VIGAS	FLEXIÓN	1.074
	CORTANTE	0.222
COLUMNAS	FLEXO COMPRESIÓN	0.996

Tabla 6 Índice de Sobreesfuerzo en Vigas y Columnas

5.2.3. Índice de Sobreesfuerzo de la estructura

Se determina para toda la estructura, evaluando los elementos con un mayor índice de sobreesfuerzo individual y tomando en consideración su importancia dentro de la resistencia general de la estructura como un conjunto. El índice se sobreesfuerzo de la estructura es:

- Índice Sobreesfuerzo columnas concreto: 0.996
- Índice Sobreesfuerzo vigas: 1.074

5.2.4. Vulnerabilidad Sísmica

El siguiente cuadro muestra los resultados obtenidos de estado de vulnerabilidad sísmica del edificio actual:

INDICE SOBREESFUERZO	VULNERABILIDAD POR RESISTENCIA	INDICE DE FLEXIBILIDAD	VULNERABILIDAD POR RIGIDEZ
0.996	1.00%	0.527	1.90%

Tabla 7 Índice Análisis de Vulnerabilidad Sísmica

Al calcular la vulnerabilidad en términos de fracción de resistencia respecto a la exigencia de la norma podríamos concluir que el edificio posee un 1.00% de la resistencia que requiere una estructura de este tipo a la luz de la norma actual (incluida la amenaza sísmica actualizada) y en términos de rigidez la estructura presenta un 1.90% de la rigidez requerida ante los requisitos de la NSR-10 y la amenaza del estudio de microzonificación sísmica de Bogotá D.C.

6. CONCLUSIONES VULNERABILIDAD

- El edificio presenta una rigidez aceptable ante la amenaza sísmica correspondiente al estudio de microzonificación sísmica de la ciudad de Bogotá D.C debido a que se encuentra en un 1.90% de acuerdo con los requisitos por la Norma.
- En la edificación no se observan signos de deterioro defectos constructivos o mecánicos, no se aprecian deflexiones excesivas por flujo plástico, pero presenta fisuras por lo que puede concluirse que el sistema existente presenta un desempeño inadecuado ante cargas gravitacionales, siempre y cuando no ocurra el sismo de diseño contenido en el estudio de vulnerabilidad sísmica de Bogotá D.C.
- Se recomienda en términos generales No realizarle a la edificación una intervención estructural, debido a que el edificio posee el 1.00% de la resistencia que requiere realmente la estructura de acuerdo con los Requisitos de la NSR-10 y que es capaz de resistir los movimientos sísmicos de diseño correspondientes a la amenaza sísmica característica del estudio de Microzonificación.
- El índice de sobre esfuerzo que se presenta que todas las columnas, No superan el 1.00% de sobreesfuerzo al soportar las cargas gravitacionales a las que están sometidas qué es permitido por la NSR-10.

Cordialmente,

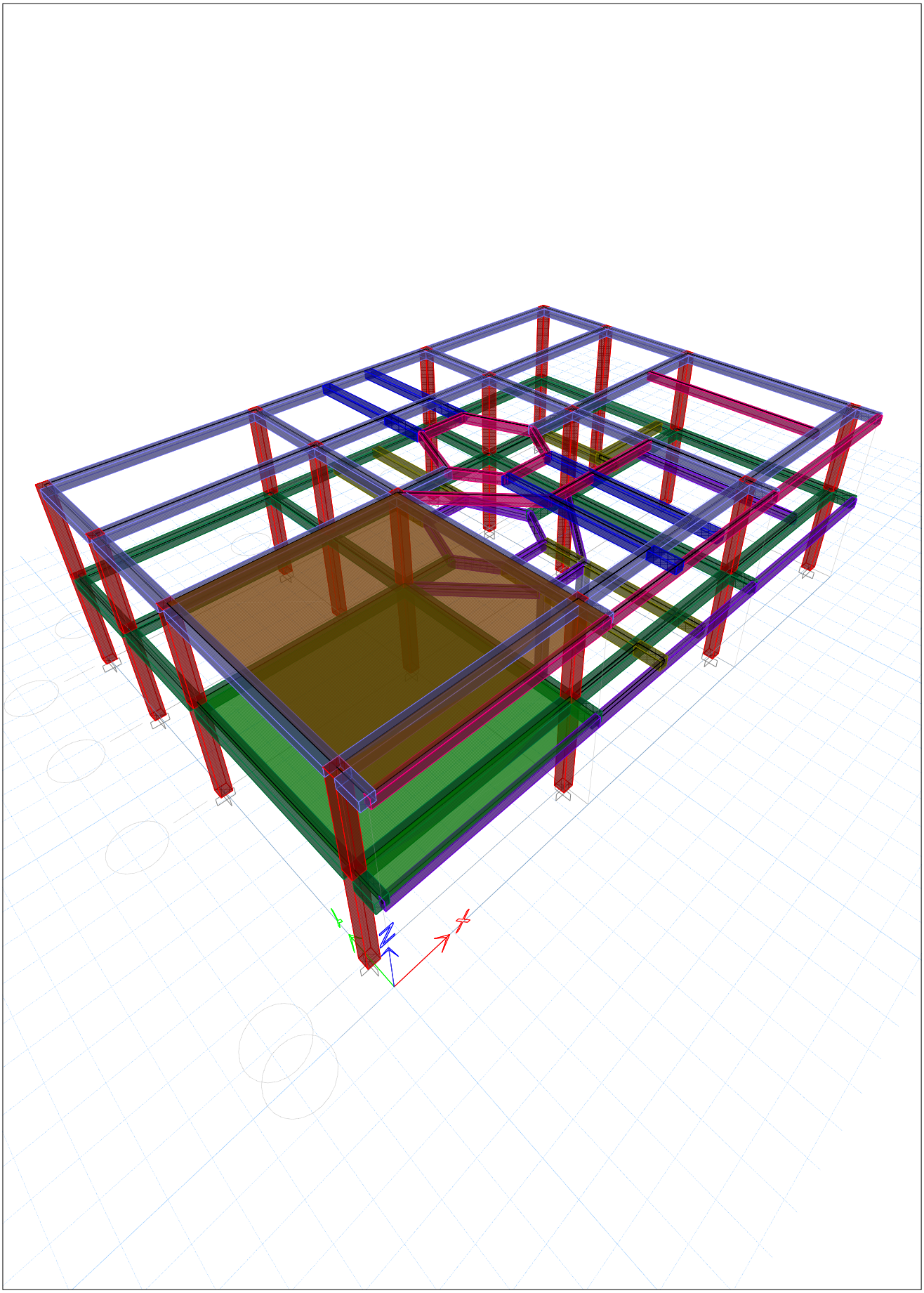


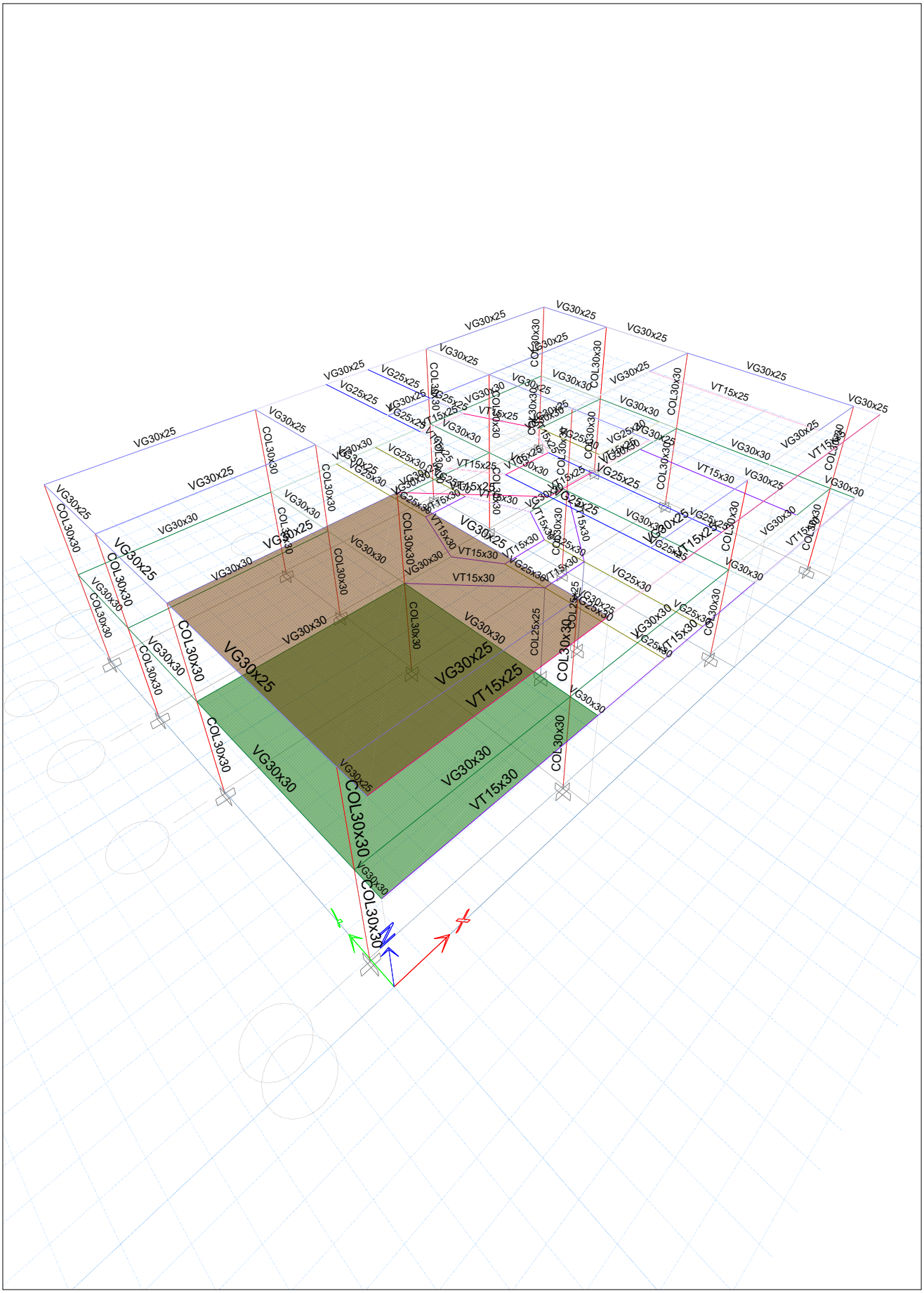
EDWIN ARTURO HERRERA
Ingeniero Civil
Escuela Colombiana de Ingenieros Julio Garavito.
Mat. N°. 25202-287935 CND

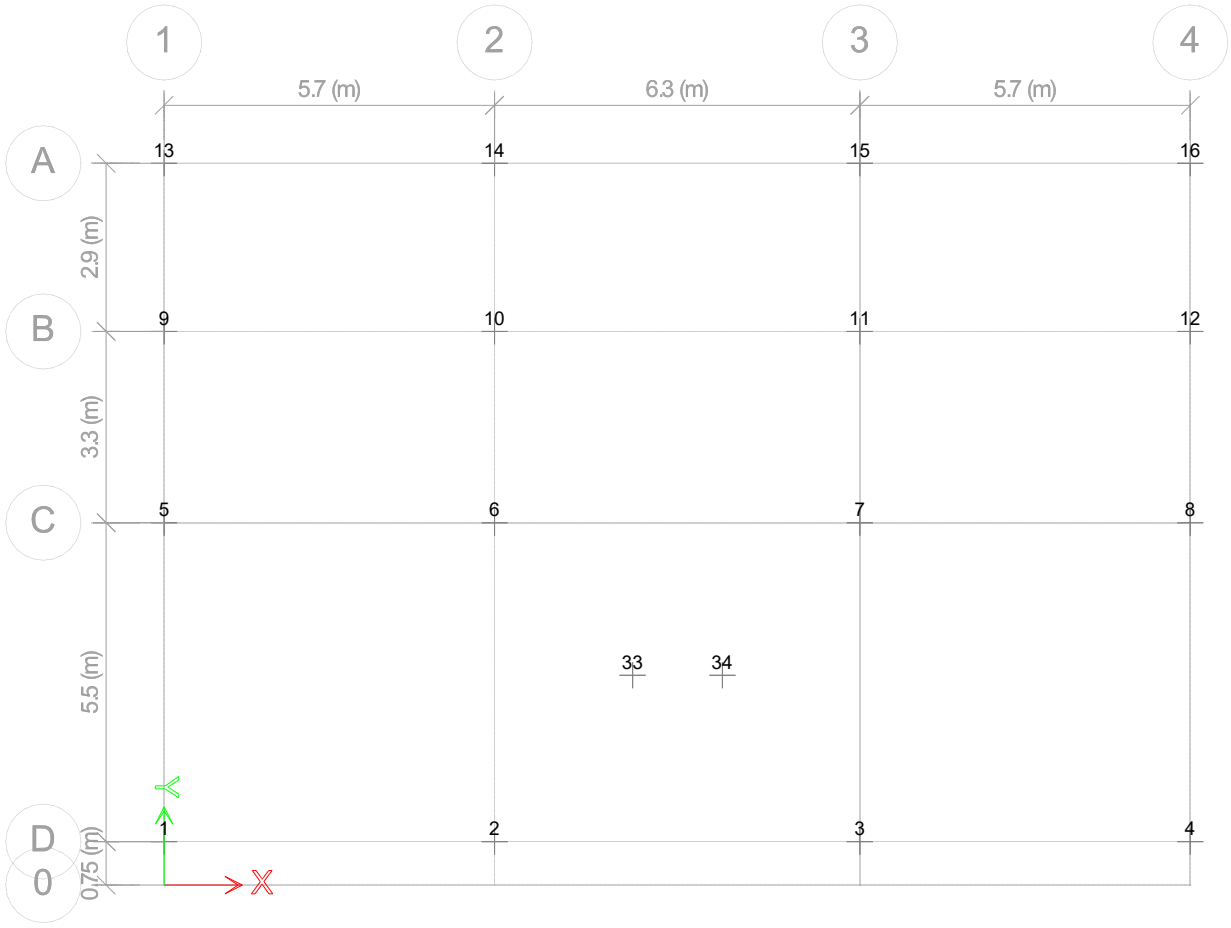


ANEXOS ANALISIS DE VULNERABILIDAD

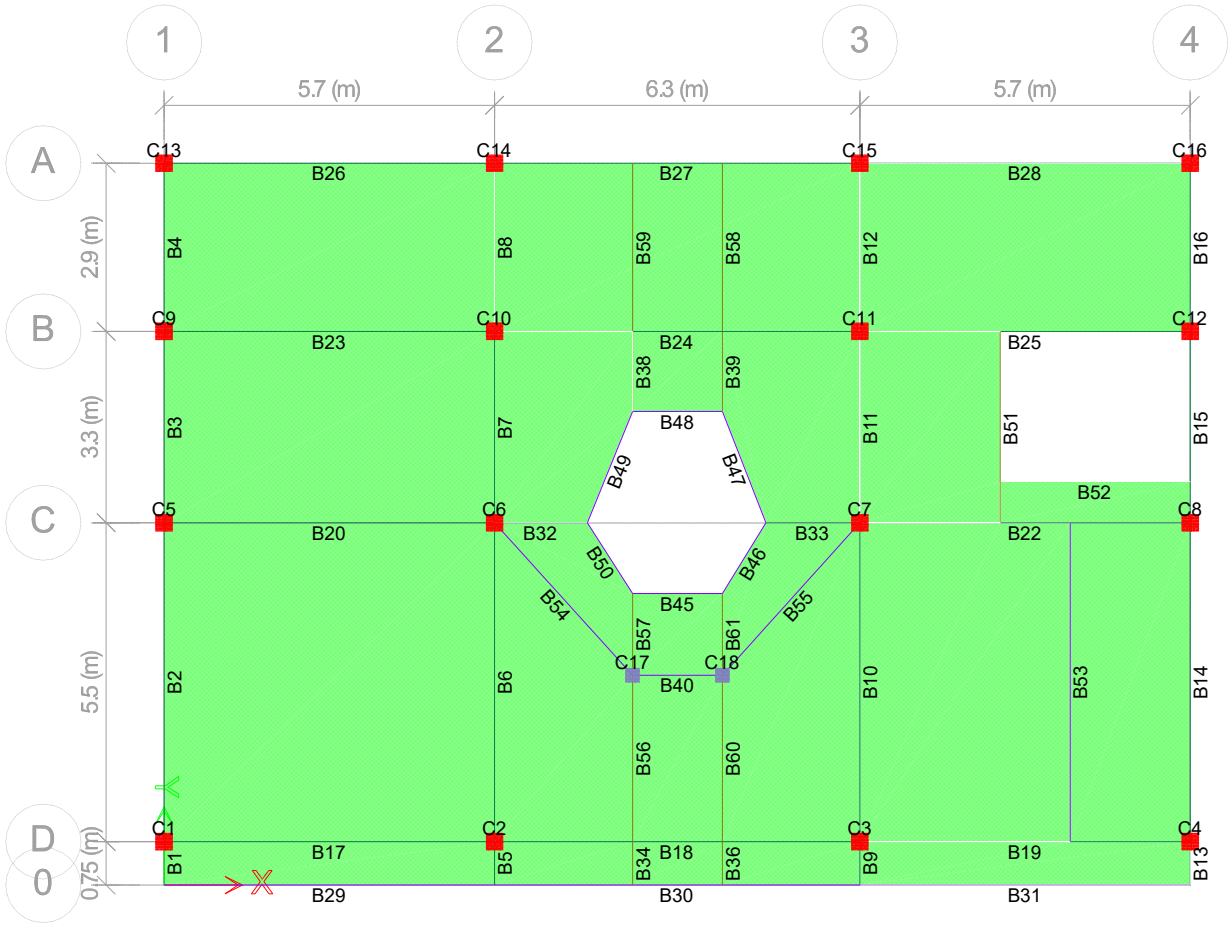
Ing. Edwin Arturo Herrera **Escuela Colombiana de Ingeniería Julio Garavito**	**Cel. 3006062717** **edwin.arturo.herrera@gmail.com**	**Cll. 57G Sur No71C-50, Súrbana Etapa II** **Bogotá, Cundinamarca**



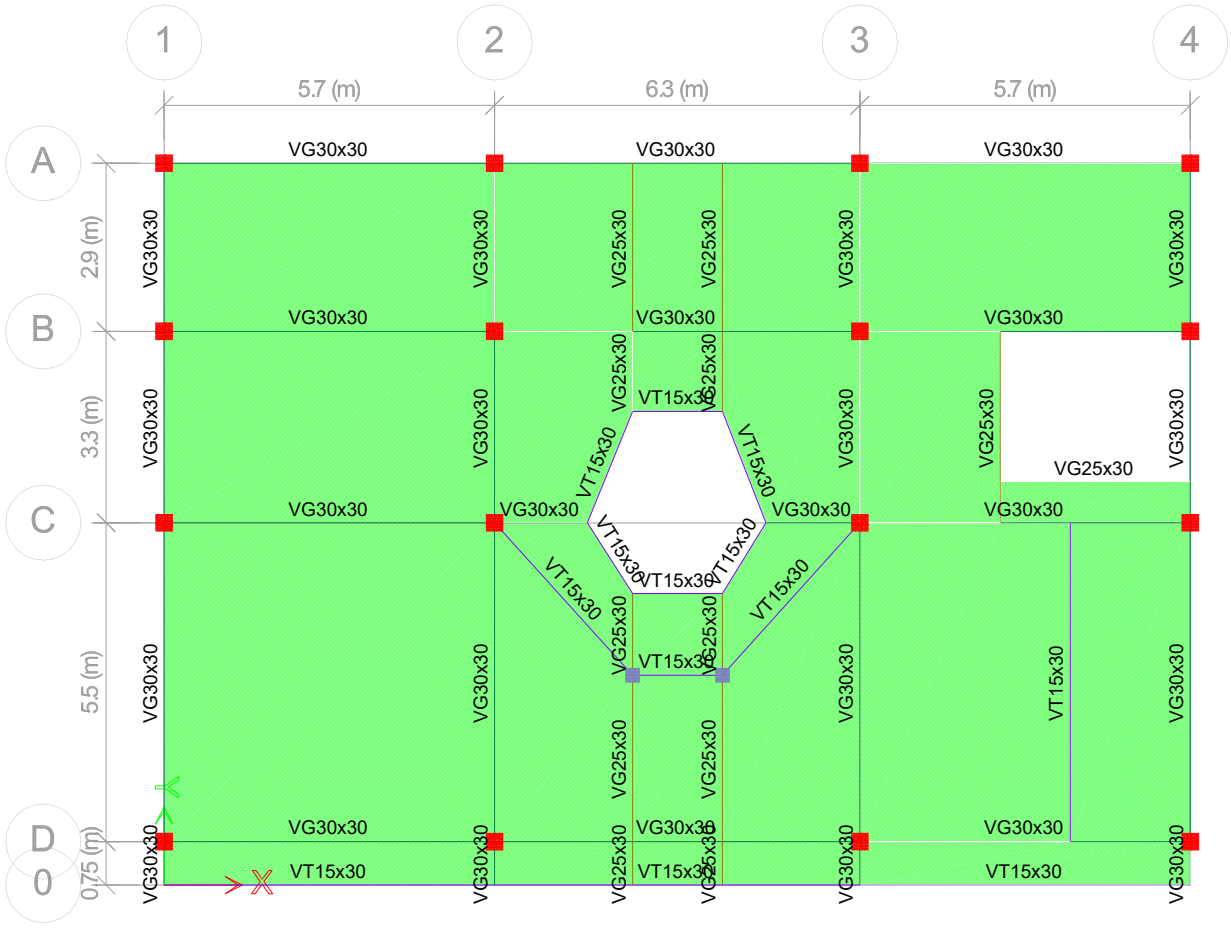

VG30x25
VG30x30
VG25x25
VG25x30
COL30x30
COL25x25
VT15x25
VT15x30
VG30x25
VG30x30
COL30x30
VT15x25
VT15x30



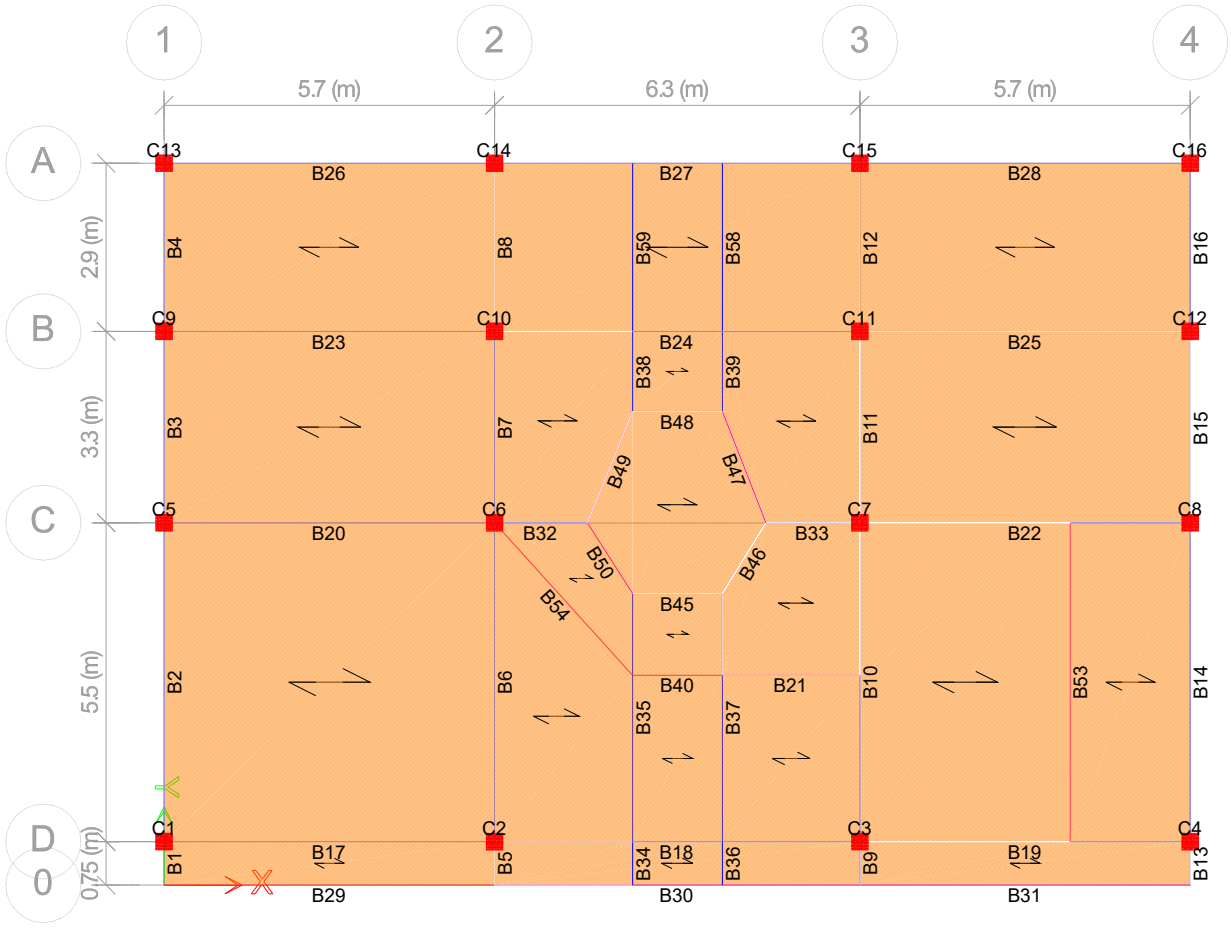
Plan View - Base - Z = 0 (m)



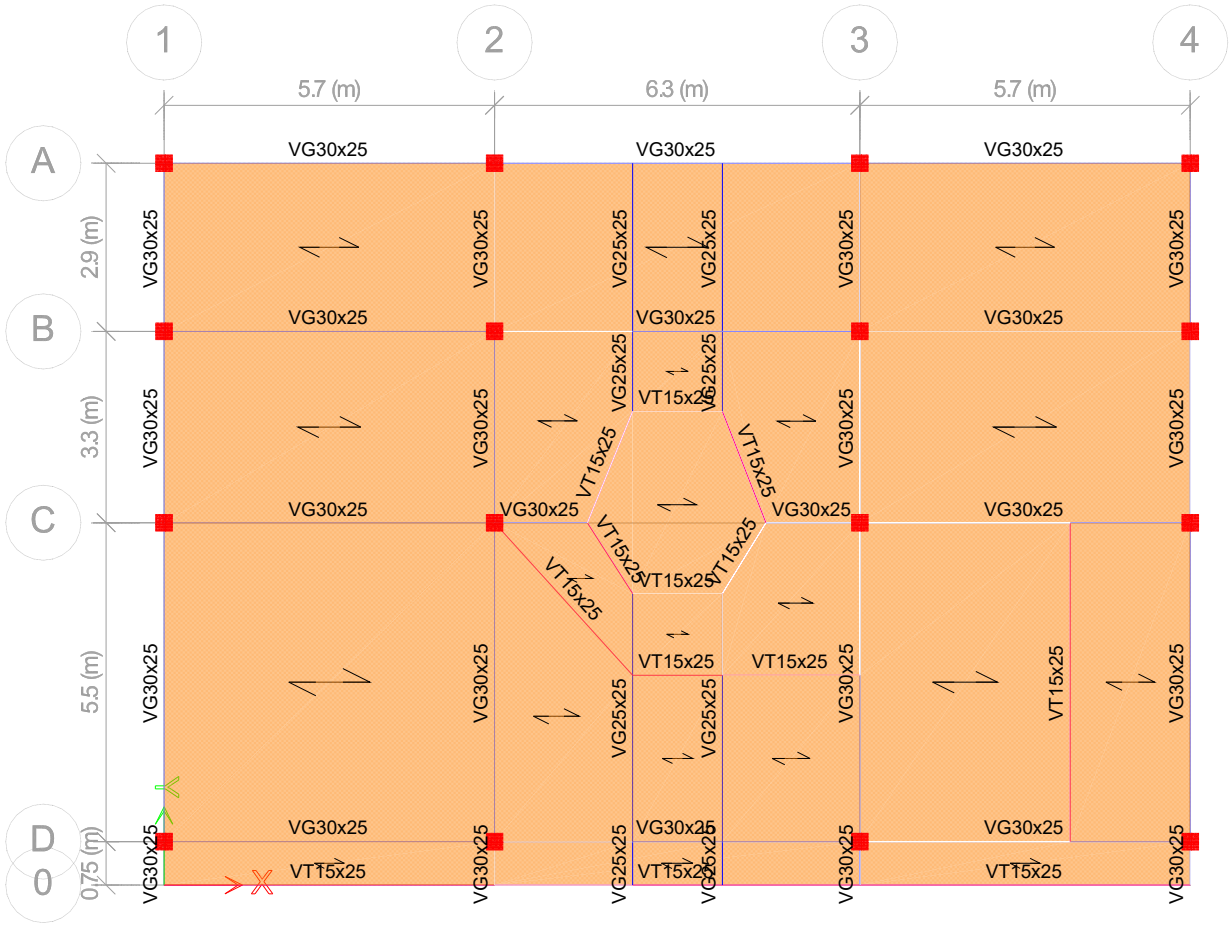
Plan View - N+2.95 - Z = 2.95 (m)



Plan View - N+2.95 - Z = 2.95 (m)



Plan View - N+5.65 - Z = 5.65 (m)



Plan View - N+5.65 - Z = 5.65 (m)



Elevation View - 1



Elevation View - 1



Elevation View - 2



Elevation View - 2



Elevation View - 3



Elevation View - 3



Elevation View - 4



Elevation View - 4

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
1. CONTROL DE DEFLEXIONES (C.9.5 de NSR-10)	

La tabla C.9.5 (a) es apropiada únicamente cuando se utilizan particiones livianas (véase B.3.4 del Titulo B de NSR10).

TABLA CR.9.5 -- Alturas o espesores minimos de vigas no preesforzadas o losas reforzadas en una direccion, que soporten muros divisorios y particiones fragiles susceptibles de dañarse debido a deflexiones grandes, a menos que se calculen deflexiones.

CARACTERISTICAS	
Vigas o Losas nervadas en una direccion	◄

	Espesor mínimo, **h**					
	Apoyo simple	Con un extremo continuo	Ambos extremos continuos	En voladizo		
Elementos	Elementos que soporten o este ligados a divisiones y otro tipo de elementos susceptibles de dañarse debido a deflexiones grandes.					
Límite	L/11	L/12	L/14	L/5		
L	3.00 m	5.40 m	3.00 m	1.55 m		
hmín	0.27 m	0.45 m	0.21 m	0.31 m	0.45 m	***Maximo***

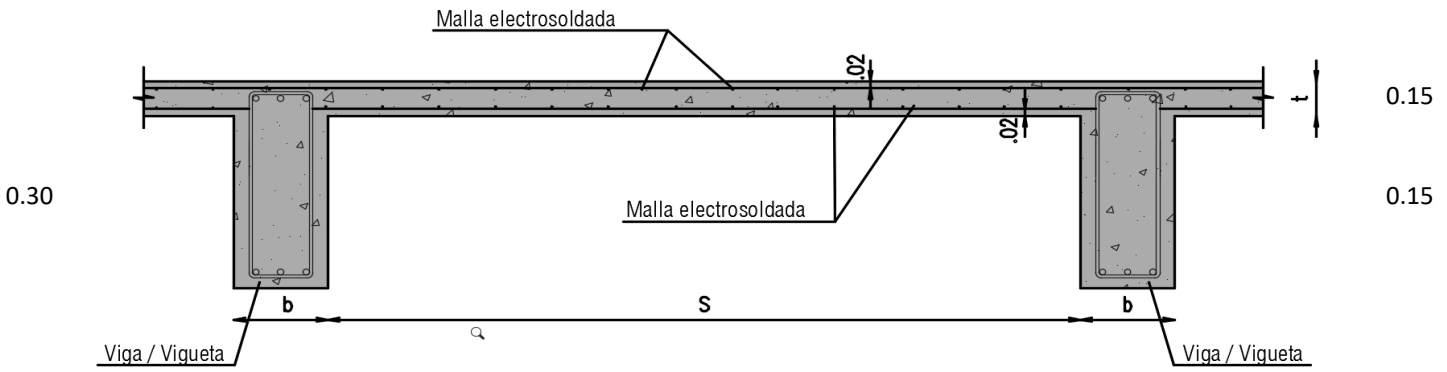
Altura adoptada	**0.30 m**

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
3. AVALUO DE CARGAS DE PLACA MACIZA DE ENTREPISO, h=0.30m (B3.3 NSR-10)	Fecha:

ANÁLISIS DE CARGA PLACA MACIZA CON VIGAS DESCOLGADAS

PROYECTO: JARDIN SALAMANDRA CALCULO: EHF

PISO: PISO 2 - SALONES DE CLASE



CARGAS	[Kg/m²]	[Kg/m²]
* PLACA	360	
* ACABADOS		150
* CIELO RASO E INSTALACIONES		25
* MUROS DIVISORIOS		200

C. MUERTA	**360**	**Kg/m²**	**+**	**375**	**Kg/m²**
C. VIVA	**200**	**Kg/m²**			
C. TOTAL =			**935**	**Kg/m²**	
C. ULTIMA = 1.2 CM + 1.6 CV =			**1202**	**Kg/m⁻**	
Factor de Carga, F.C.=			**1.29**		

Nota: El peso propio de vigas lo calcula automaticamente el programa

DISEÑO DE LA LOSA

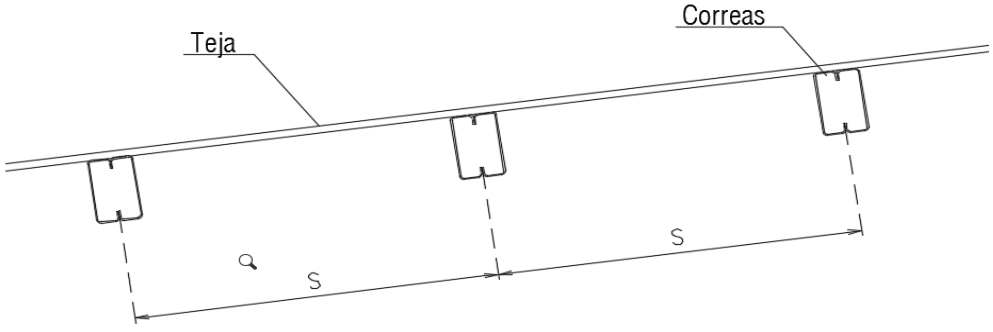
			Materiales	(kg/cm²)		
C. MUERTA =	710	KN/m²				
C. VIVA =	200	KN/m²	f'c =	210.0	b (cm) =	100
C. ULTIMA =	1172	KN/m²	fy =	4200.0	d (cm) =	12

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
3. AVALUO DE CARGAS DE CUBIERTA LIVIANA	Fecha:

ANÁLISIS DE CARGA CUBIERTA LIVIANA INCLINADA

PROYECTO: JARDIN SALAMANDRA CALCULO: EHF

PISO: CUBIERTA



CARGAS	[KN/m^2]
* TEJA	0.40
* CORREAS	0.15
* CIELO RASO E INSTALACIONES	0.20
* OTROS	0.20

C. MUERTA	**0.95**	**KN/m^2**	
C. VIVA	**1.00**	**KN/m^2**	
C. TOTAL =			**1.95 KN/m^2**
C. ULTIMA = 1.2 CM + 1.6 CV =			**2.74 KN/m^2**
Factor de Carga, F.C.=			**1.41**

CARGA A VIGUETAS:

q_u / Vigueta = 2.74 x 1.50 = **4.1** **KN/m**

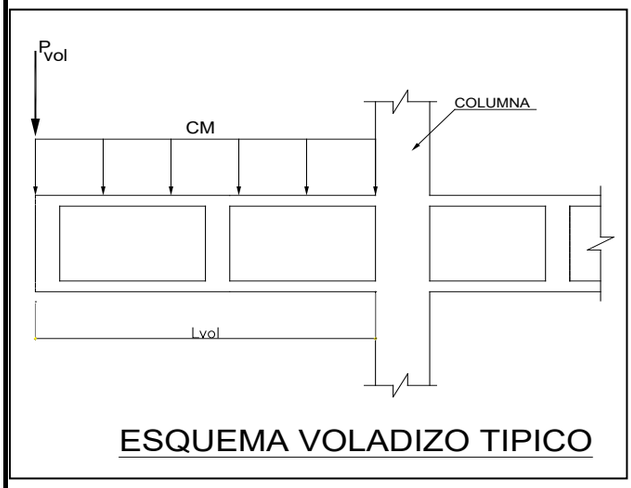
DISEÑO DE LA CORREA

Ver memoria de calculo adjunta correas

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
4. AVALUO DE CARGAS EN VOLADIZOS (NSR-10 A.3.6.13)	

AVALUO DE CARGAS EN VOLADIZO

Para tener en cuenta el efecto de los movimientos sísmicos verticales, en zonas de amenaza sísmica INTERMEDIA, según A.3.6.13, debe aplicarse una fuerza vertical ascendente o descendente en los voladizos igual, al 15 % de la carga muerta en la punta del elemento.



ESQUEMA VOLADIZO TIPICO

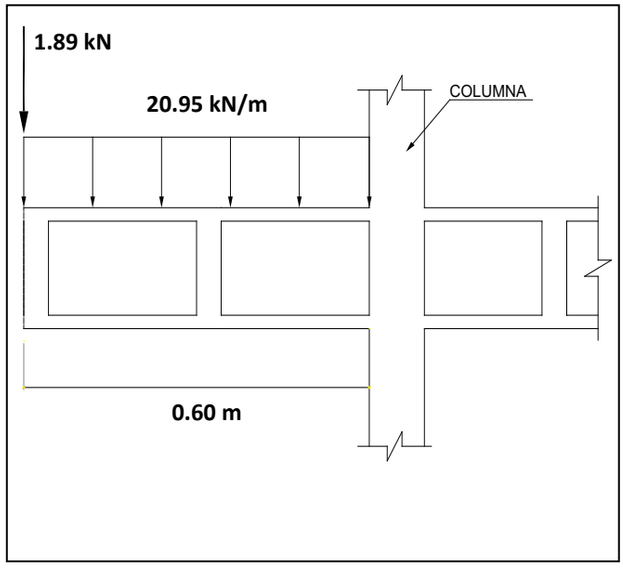
Entrepiso - Extremo Fachada

Datos de Entrada - Voladizo

Lvol:	0.60 m
Aferencia:	2.85 m
A aferente:	1.71 m²
Dead:	7.35 kN/m²
W:	20.95 kN/m
P:	12.57 kN
P vol:	**1.89 kN** A.3.6.13

Zona de amenaza Sismica: **INTERMEDIA**

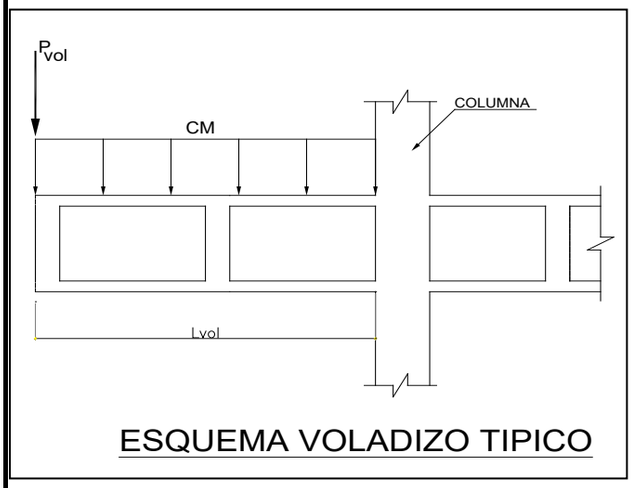
15%



JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
4. AVALUO DE CARGAS EN VOLADIZOS (NSR-10 A.3.6.13)	Fecha:

AVALUO DE CARGAS EN VOLADIZO

Para tener en cuenta el efecto de los movimientos sísmicos verticales, en zonas de amenaza sísmica INTERMEDIA, según A.3.6.13, debe aplicarse una fuerza vertical ascendente o descendente en los voladizos igual, al 15 % de la carga muerta en la punta del elemento.



ESQUEMA VOLADIZO TIPICO

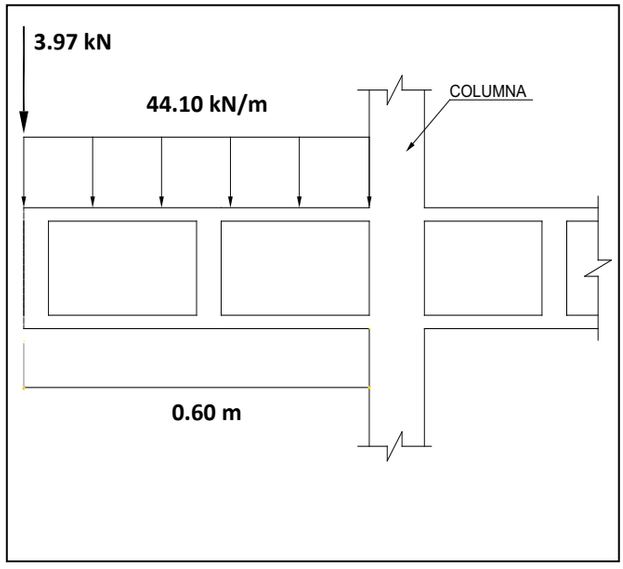
Entrepiso - Intermedio Fachada

Datos de Entrada - Voladizo

Lvol:	0.60 m
Aferencia:	6.00 m
A aferente:	3.60 m²
Dead:	7.35 kN/m²
W:	44.10 kN/m
P:	26.46 kN
P vol:	**3.97 kN** A.3.6.13

Zona de amenaza Sismica: **INTERMEDIA**

15%



JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
5. AVALUO DE CARGAS DE MUROS DIVISORIOS (NSR-10 A.3.6.13)	Fecha:

ANALISIS DE CARGA MUROS DIVISORIOS	
TIPO DE MAMPOSTERIA	BLOQUE N° 4
PESO DE LA MAMPOSTERIA (kg/m2)	69
PESO PAÑETE (3cm) (kg/m2)	66
Volumen de un M2 de muro (m3/m2)	0.09
Densidad equivalente muro (kg/m3)	1500
Area muros (m2)	11.4
altura muros (m2)	2.5
Volumen muros (m3)	28.5
Densidad mamposteria (ton/m3)	1.5
Peso Muros (ton)	42.75
Area aferente (m2)	282
Carga distribuida placa (ton/m2)	**0.152**
Antepechos	1.75
altura antepechos	1.2
Volumen antepechos	2.1
peso antepechos	3.15
Carga distribuidaantepechos	**0.011**
CARGA TOTAL MUROS (kg/m2)	**163**

ANALISIS DE CARGA MUROS DE FACHADA	
Densidad equivalente muro en Mamposteria (kg/m3)	1500
Espesor del Muro (m)	0.15
Altura del Muro (m)	2.5
CARGA TOTAL MUROS (kg/m)	**562.5**

ANALISIS DE CARGA MUROS DE ANTEPECHO	
Densidad equivalente muro en Mamposteria (kg/m3)	1500
Espesor del Muro (m)	0.15
Altura del Muro (m)	1.2
CARGA TOTAL MUROS (kg/m)	**270.0**

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
6.1 METODO DE LA FUERZA HORIZONTAL EQUIVALENTE (A.4 de NSR-10)	

ZONA DE RESPUESTA SÍSMICA = CERROS
GRUPO DE USO= I I= 1.00

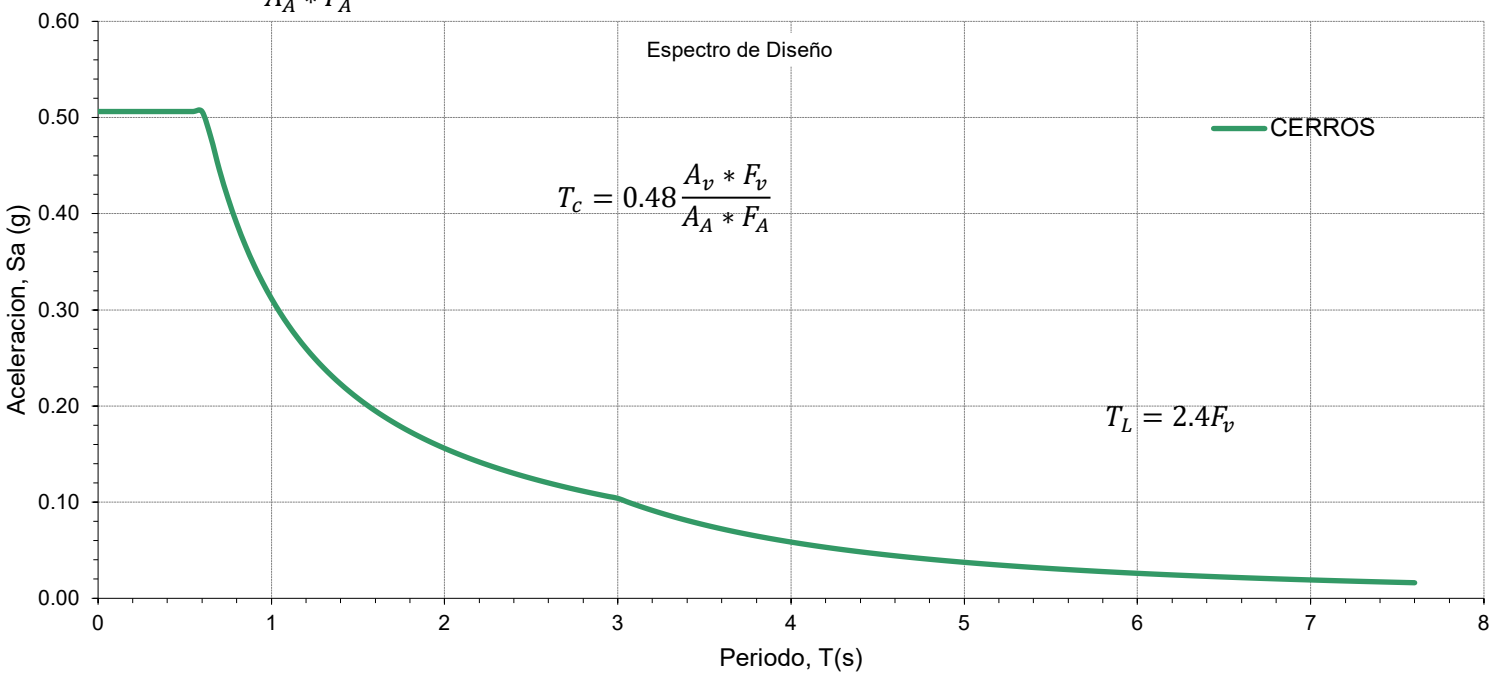
☐ COEFICIENTES Y CURVA DE SEGURIDAD LIMITADA
☐ COEFICIENTES Y CURVA UMBRA DE DAÑO

Aa= 0.15 Av= 0.20
Fa= 1.35 Fv= 1.30 To = 0.128 s

Tc= 0.62 seg
TL= 3.00 seg

$Sa(g)$

$T_o = 0.10\frac{A_v * F_v}{A_A * F_A}$



Parametros de la Estructura

Sistema estructural		Porticos de concreto
h (m) =	5.65	
Ct =	0.047	
α =	0.9	$C_u = 1.75 - 1.2A_vF_v; \quad C_u > 1.20$
Ta (s) =	0.223	$T_a = C_t * h^{\alpha}$
Cu =	1.44	Cu*Ta = 0.321 s Según A.4.2-2, NSR-10
R_0 =	5.0	

1.438

Periodo Modelo Estructural, T= 0.345 seg
Chequeo A.5.4.5, T < Cu*Ta : Usar Ta
T (s)= 0.321
Sa = 0.390

Calculo Masa Estructural

Nivel	Altura Piso (m)	Area (m^2)	CM (kN/m^2)	Ppropio (kN/m^2)	Peso (kN)
N+5.65	2.70	226.80	0.75	1.709	557.783
N+2.95	2.95	219.73	3.75	5.055	1934.733
				Masa Total =	2492.52

$Vs = Sa * g * M$

Vs = 972.081 kN

$Fx = Cvx * Vs$ donde $Cvx = \frac{Mx * h_x^k}{\sum m_i * h_i^k}$

(a) Para T menor o igual a 0.5 segundos, k = 1.0,
(b) Para T entre 0.5 y 2.5 segundos, k = 0.75+0.5T, y
(c) Para T mayor que 2.5 segundos, k = 2.0.

donde k = 1.00

Estructura Regular=	NO
Vdiseño= 0.9x 972.081	**=87.5 ton**

Distribucion de Fuerzas Horizontales

Nivel	hi (m)	wi (kN)	wi hi^k	Cvx	Fx (kN)	Fx (Ton)
N+5.65	5.65	557.783	3151.47	0.36	345.81	34.58
N+2.95	2.95	1934.733	5707.46	0.64	626.27	62.63
	Totales	2492.516	8858.94	1.00	972.08	97.21

Descripcion de Irregularidades de la Estructura

Irregularidad	Descripcion	Tipo	Valor de ϕ
Planta	Irregularidad Torsional	1aP	0.90
Altura	Irregularidad en la Distribucion de las Masas	2A	0.90
Ausencia Redundancia	Cumple A.3.3.8	---	1.00
Uniones Soldadas	No Aplica	---	1.00

Según el numeral A.3.3.3. de la NSR-10 el valor de R es:

R = ΦP Φa Φr Ro

Ro = 5.00

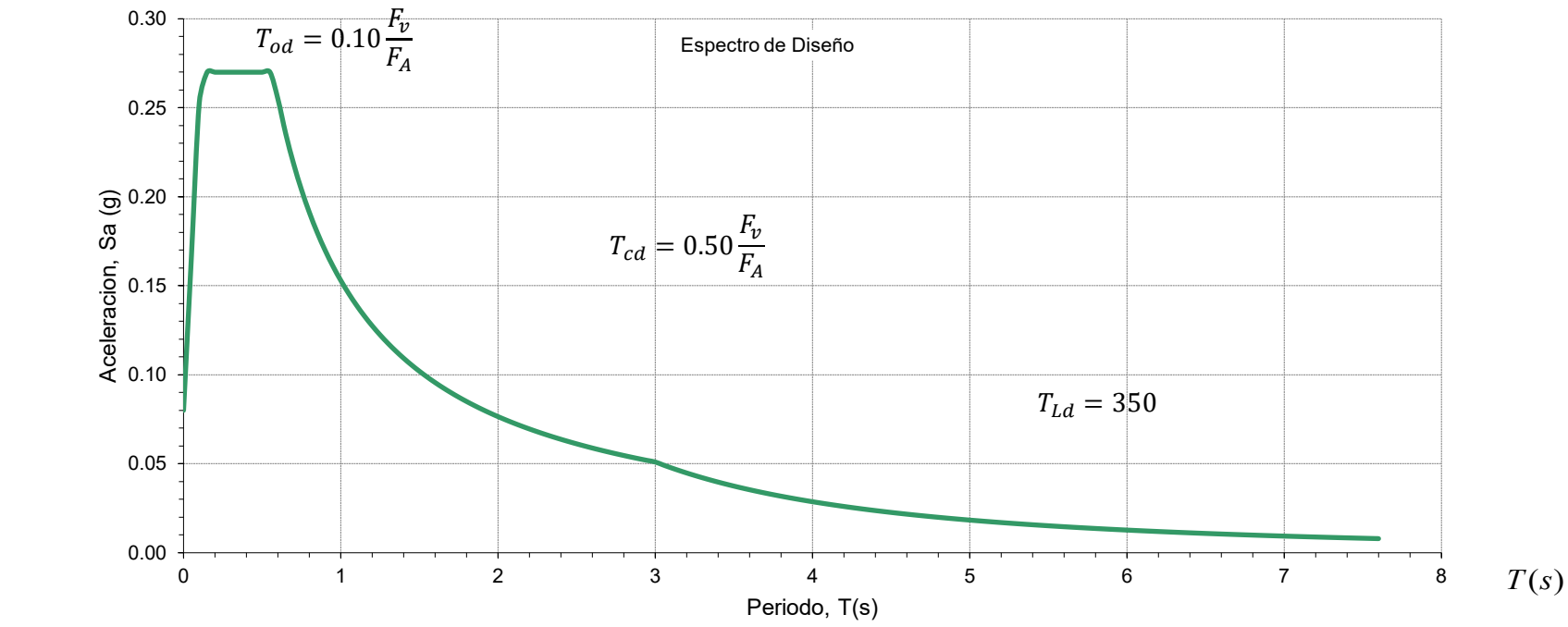
R = **4.05**

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
6.1 METODO DE LA FUERZA HORIZONTAL EQUIVALENTE APLICADA AL UMBRAL DE DAÑO (A.4 de NSR-10)	

ZONA DE RESPUESTA SÍSMICA = CERROS
GRUPO DE USO= III I= 1.25

☐ COEFICIENTES Y CURVA DE SEGURIDAD LIMITADA
☑ COEFICIENTES Y CURVA UMBRA DE DAÑO

Tod= 0.11 seg Aa= 0.15 Av= 0.20 Ad= 0.06
Tcd= 0.57 seg Fa= 1.50 Fv= 1.70 To = 0.151 s
TL= 3.00 seg



Parametros de la Estructura

Sistema estructural	Porticos de concreto
h (m) =	5.65
Ct =	0.047
α =	0.9
Ta (s) =	0.223
Cu =	1.34
R_0 =	5.0

$C_u = 1.75 - 1.2A_vF_v; \quad C_u > 1.20$

$T_a = C_t * h^{\alpha}$

Cu*Ta = 0.300 s Según A.4.2-2, NSR-10

Periodo Modelo Estructural, T= 0.345 seg
Chequeo A.5.4.5, T < Cu*Ta : Usar Ta
T (s)= 0.300
Sad = 0.270

Calculo Masa Estructural

Nivel	Altura Piso (m)	Area (m^2)	CM (kN/m^2)	Ppropio (kN/m^2)	Peso (kN)
N+5.65	2.70	226.8	0.75	1.709	557.783
N+2.95	2.95	219.73	3.75	5.055	1934.733
				Masa Total =	6495.51

$Vs = Sa * g * M$

Vs = 1753.788 kN

$Fx = Cvx * Vs$ donde $Cvx = \frac{Mx * h_x^k}{\sum m_i * h_i^k}$

(a) Para T menor o igual a 0.5 segundos, k = 1.0,
(b) Para T entre 0.5 y 2.5 segundos, k = 0.75 + 0.5T, y
(c) Para T mayor que 2.5 segundos, k = 2.0.

donde k = 1.00

Estructura Regular=	NO

Vdiseño= 0.9x 1753.788 **=157.8 ton**

Distribucion de Fuerzas Horizontales

Nivel	hi (m)	wi (kN)	wi hi^k	Cvx	Fx (kN)	Fx (Ton)
N+5.65	5.65	557.783	3151.47	0.36	623.89	62.39
N+2.95	2.95	1934.733	5707.46	0.64	1129.90	112.99
	Totales	2492.516	8858.94	1.00	1753.79	175.38

Descripcion de Irregularidades de la Estructura

Irregularidad	Descripcion	Tipo	Valor de ϕ
Planta	Irregularidad Torsional	1aP	0.90
Altura	Irregularidad en la Distribucion de las Masas	2A	0.90
Ausencia Redundancia	Cumple A.3.3.8	---	1.00
Uniones Soldadas	No Aplica	---	1.00

Según el numeral A.3.3.3. de la NSR-10 el valor de R es:

R = ΦP Φa Φr Ro

Ro = **5.00**
R = **4.05**

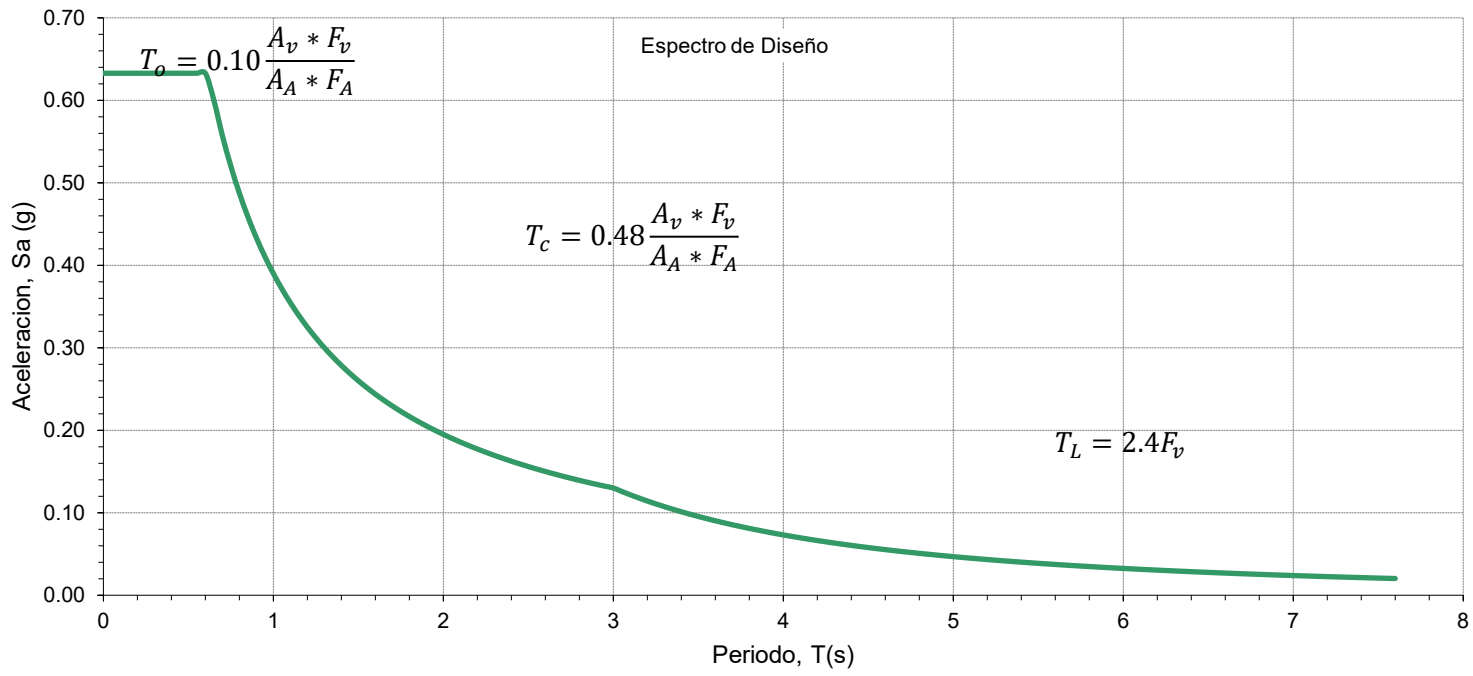
JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
6.1 METODO DE LA FUERZA HORIZONTAL EQUIVALENTE-DISEÑO (A.4 de NSR-10)	

ZONA DE RESPUESTA SÍSMICA = CERROS
GRUPO DE USO= III I= 1.25

☐ COEFICIENTES Y CURVA DE SEGURIDAD LIMITADA
☐ COEFICIENTES Y CURVA UMBRA DE DAÑO

Aa= 0.15 Av= 0.20
Tc= 0.62 seg Fa= 1.35 Fv= 1.30 To = 0.128 s
TL= 3.00 seg

$Sa(g)$



$T(s)$

Parametros de la Estructura

Sistema estructural		Porticos de concreto
h (m) =	5.65	
Ct =	0.047	
α =	0.9	$C_u = 1.75 - 1.2A_vF_v; \quad C_u > 1.20$
Ta (s) =	0.223	$T_a = C_t * h^{\alpha}$
Cu =	1.44	Cu*Ta = 0.321 s Según A.4.2-2, NSR-10
R_0 =	5.0	

1.438

Periodo Modelo Estructural, T= 0.345 seg
Chequeo A.5.4.5, T < Cu*Ta : Usar Ta
T (s)= 0.321
Sa = 0.633

Calculo Masa Estructural

Nivel	Altura Piso (m)	Area (m^2)	CM (kN/m^2)	Ppropio (kN/m^2)	Peso (kN)
N+5.65	2.70	226.8	0.75	1.709	557.783
N+2.95	2.95	219.73	3.75	5.055	1934.733
				Masa Total =	2492.52

$Vs = Sa * g * M$

Vs = 1577.763 kN

$Fx = Cvx * Vs$ donde $Cvx = \frac{Mx * h_x^k}{\sum m_i * h_i^k}$

(a) Para T menor o igual a 0.5 segundos, k = 1.0,
(b) Para T entre 0.5 y 2.5 segundos, k = 0.75+0.5T, y
(c) Para T mayor que 2.5 segundos, k = 2.0.

donde k = 1.00

Estructura Regular=	NO

Vdiseño=	0.9x 1577.763	=142.0 ton

Distribucion de Fuerzas Horizontales

Nivel	hi (m)	wi (kN)	wi hi^k	Cvx	Fx (kN)	Fx (Ton)
N+5.65	5.65	557.783	3151.47	0.36	561.27	56.13
N+2.95	2.95	1934.733	5707.46	0.64	1016.49	101.65
	Totales	2492.516	8858.94	1.00	1577.76	157.78

Descripcion de Irregularidades de la Estructura

Irregularidad	Descripcion	Tipo	Valor de ϕ
Planta	Irregularidad Torsional	1aP	0.90
Altura	Irregularidad en la Distribucion de las Masas	2A	0.90
Ausencia Redundancia	Cumple A.3.3.8	---	1.00
Uniones Soldadas	No Aplica	---	1.00

Según el numeral A.3.3.3. de la NSR-10 el valor de R es:

R = ΦP Φa Φr Ro

Ro = 5.00
R = **4.05**

JARDIN SALAMANdra	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
7. IRREGULARIDAD TORSIONAL 1aP y 1bP (Tabla A.3-6)	Fecha:

VERIFICACIÓN IRREGULARIDAD TORSIONAL

							Irregularidad Torsional	*Irregularidad Torsional Extrema*		
Story	**Point**	**Load**	**UX**	**UY**	**UZ**	Δ_1	**1.2*(Δ_1+Δ_2)/2**	**1.4*(Δ_1+Δ_2)/2**	**I.T.Extrema≥Δ1 >I.T.?**	**Δ1>I.T.Extrema?**
			m	**m**	**m**	**m**				
N+5.65	1	COMDER1	-5E-06	-1.4E-05	-0.00025	0.0000	0.0000	0.0000	NO	NO
N+5.65	1	COMDER2	-5.1E-05	0.000043	-0.00029	0.0000	0.0000	0.0000	NO	NO
N+5.65	1	COMDER5	0.022762	0.01084	-0.00019	0.0097	0.0116	0.0136	NO	NO
N+5.65	1	COMDER5	-0.02283	-0.0108	-0.00033	0.0098	0.0118	0.0137	NO	NO
N+5.65	1	COMDER6	0.006896	0.019765	-0.0002	0.0074	0.0089	0.0104	NO	NO
N+5.65	1	COMDER6	-0.00696	-0.01972	-0.00032	0.0075	0.0090	0.0105	NO	NO
N+5.65	1	COMDER7	0.022792	0.010809	-8.4E-05	0.0097	0.0117	0.0136	NO	NO
N+5.65	1	COMDER7	-0.0228	-0.01083	-0.00023	0.0098	0.0117	0.0137	NO	NO
N+5.65	1	COMDER8	0.006926	0.019734	-9.6E-05	0.0074	0.0089	0.0104	NO	NO
N+5.65	1	COMDER8	-0.00693	-0.01975	-0.00022	0.0075	0.0090	0.0105	NO	NO
N+5.65	1	COMDER3	-3.3E-05	0.000023	-0.00026	0.0000	0.0000	0.0000	NO	NO
N+5.65	1	COMDER4	-3.3E-05	0.000023	-0.00026	0.0000	0.0000	0.0000	NO	NO
N+2.95	1	COMDER1	0.000025	0.000018	-0.00021	0.0000	0.0000	0.0000	NO	NO
N+2.95	1	COMDER2	0.000031	0.000021	-0.00024	0.0000	0.0000	0.0001	NO	NO
N+2.95	1	COMDER5	0.013876	0.007011	-0.00015	0.0155	0.0186	0.0217	NO	NO
N+2.95	1	COMDER5	-0.01382	-0.00697	-0.00028	0.0155	0.0186	0.0217	NO	NO
N+2.95	1	COMDER6	0.004267	0.012809	-0.00016	0.0135	0.0160	0.0187	NO	NO
N+2.95	1	COMDER6	-0.00421	-0.01277	-0.00027	0.0134	0.0160	0.0186	NO	NO
N+2.95	1	COMDER7	0.013865	0.007003	-0.00007	0.0155	0.0186	0.0217	NO	NO
N+2.95	1	COMDER7	-0.01383	-0.00698	-0.00019	0.0155	0.0186	0.0217	NO	NO
N+2.95	1	COMDER8	0.004255	0.012802	-0.00008	0.0135	0.0160	0.0187	NO	NO
N+2.95	1	COMDER8	-0.00422	-0.01278	-0.00018	0.0135	0.0160	0.0187	NO	NO
N+2.95	1	COMDER3	0.000028	0.000019	-0.00021	0.0000	0.0000	0.0000	NO	NO
N+2.95	1	COMDER4	0.000028	0.000019	-0.00021	0.0000	0.0000	0.0000	NO	NO
Base	1	COMDER1	0	0	0					
Base	1	COMDER2	0	0	0					
Base	1	COMDER5	0	0	0					
Base	1	COMDER5	0	0	0					
Base	1	COMDER6	0	0	0					
Base	1	COMDER6	0	0	0					
Base	1	COMDER6	0	0	0					
Base	1	COMDER7	0	0	0					
Base	1	COMDER8	0	0	0					
Base	1	COMDER8	0	0	0					
Base	1	COMDER3	0	0	0					
Base	1	COMDER4	0	0	0					

							Irregularidad Torsional	*Irregularidad Torsional Extrema*		
Story	**Point**	**Load**	**UX**	**UY**	**UZ**	Δ_1	**1.2*(Δ_1+Δ_2)/2**	**1.4*(Δ_1+Δ_2)/2**	**I.T.Extrema≥Δ1 >I.T.?**	**Δ1>I.T.Extrema?**
			m	**m**	**m**	**m**				
N+5.65	4	COMDER1	-5E-06	-3.8E-05	-0.00026	0.0000	0.0000	0.0000	NO	NO
N+5.65	4	COMDER2	-5.1E-05	-2E-06	-0.0003	0.0000	0.0000	0.0000	NO	NO
N+5.65	4	COMDER5	0.022762	0.010808	-0.00019	0.0097	0.0106	0.0124	NO	NO
N+5.65	4	COMDER5	-0.02283	-0.01084	-0.00034	0.0098	0.0108	0.0126	NO	NO
N+5.65	4	COMDER6	0.006896	0.019445	-0.0002	0.0074	0.0088	0.0102	NO	NO
N+5.65	4	COMDER6	-0.00696	-0.01947	-0.00033	0.0075	0.0089	0.0104	NO	NO
N+5.65	4	COMDER7	0.022792	0.010797	-9.1E-05	0.0097	0.0107	0.0125	NO	NO
N+5.65	4	COMDER7	-0.0228	-0.01085	-0.00024	0.0098	0.0107	0.0125	NO	NO
N+5.65	4	COMDER8	0.006926	0.019434	-0.0001	0.0074	0.0088	0.0103	NO	NO
N+5.65	4	COMDER8	-0.00693	-0.01948	-0.00023	0.0075	0.0089	0.0104	NO	NO
N+5.65	4	COMDER3	-3.3E-05	-1.3E-05	-0.00027	0.0000	0.0000	0.0000	NO	NO
N+5.65	4	COMDER4	-3.3E-05	-1.3E-05	-0.00027	0.0000	0.0000	0.0000	NO	NO
N+2.95	4	COMDER1	0.000025	0.000017	-0.00021	0.0000	0.0000	0.0000	NO	NO
N+2.95	4	COMDER2	0.000031	0.00003	-0.00024	0.0000	0.0000	0.0001	NO	NO
N+2.95	4	COMDER5	0.013876	0.00696	-0.00016	0.0155	0.0168	0.0196	NO	NO
N+2.95	4	COMDER5	-0.01382	-0.00691	-0.00028	0.0155	0.0167	0.0195	NO	NO
N+2.95	4	COMDER6	0.004267	0.012535	-0.00017	0.0132	0.0157	0.0183	NO	NO
N+2.95	4	COMDER6	-0.00421	-0.01249	-0.00027	0.0132	0.0156	0.0182	NO	NO
N+2.95	4	COMDER7	0.013865	0.006947	-7.5E-05	0.0155	0.0168	0.0196	NO	NO
N+2.95	4	COMDER7	-0.01383	-0.00693	-0.0002	0.0155	0.0167	0.0195	NO	NO
N+2.95	4	COMDER8	0.004255	0.012522	-8.3E-05	0.0132	0.0157	0.0183	NO	NO
N+2.95	4	COMDER8	-0.00422	-0.0125	-0.00019	0.0132	0.0157	0.0183	NO	NO
N+2.95	4	COMDER3	0.000028	0.000024	-0.00022	0.0000	0.0000	0.0000	NO	NO
N+2.95	4	COMDER4	0.000028	0.000024	-0.00022	0.0000	0.0000	0.0000	NO	NO
Base	4	COMDER1	0	0	0					
Base	4	COMDER2	0	0	0					
Base	4	COMDER5	0	0	0					
Base	4	COMDER5	0	0	0					
Base	4	COMDER6	0	0	0					
Base	4	COMDER6	0	0	0					
Base	4	COMDER7	0	0	0					
Base	4	COMDER7	0	0	0					
Base	4	COMDER8	0	0	0					
Base	4	COMDER8	0	0	0					
Base	4	COMDER3	0	0	0					
Base	4	COMDER4	0	0	0					

Story	Point	Load	UX	UY	UZ	Δ_1	*Irregularidad Torsional* $1.2*(\Delta_1+\Delta_2)/2$	*Irregularidad Torsional Extrema* $1.4*(\Delta_1+\Delta_2)/2$	I.T.Extrema≥Δ1 >I.T.?	Δ1>I.T.Extrema?
			m	m	m	m				
N+5.65	16	COMDER1	0.000011	-3.8E-05	-0.00012	0.0000	0.0000	0.0000	SI	NO
N+5.65	16	COMDER2	-2.1E-05	-2E-06	-0.00014	0.0000	0.0000	0.0000	NO	NO
N+5.65	16	COMDER5	0.017415	0.010808	-1.2E-05	0.0080	0.0096	0.0113	NO	NO
N+5.65	16	COMDER5	-0.01743	-0.01084	-0.00023	0.0081	0.0097	0.0114	NO	NO
N+5.65	16	COMDER6	0.005391	0.019445	0.000022	0.0072	0.0087	0.0102	NO	NO
N+5.65	16	COMDER6	-0.00541	-0.01947	-0.00027	0.0073	0.0088	0.0102	NO	NO
N+5.65	16	COMDER7	0.017432	0.010797	0.000033	0.0081	0.0097	0.0113	NO	NO
N+5.65	16	COMDER7	-0.01742	-0.01085	-0.00019	0.0081	0.0097	0.0113	NO	NO
N+5.65	16	COMDER8	0.005407	0.019434	0.000067	0.0072	0.0087	0.0102	NO	NO
N+5.65	16	COMDER8	-0.00539	-0.01948	-0.00022	0.0073	0.0088	0.0102	NO	NO
N+5.65	16	COMDER3	-0.00001	-1.3E-05	-0.00012	0.0000	0.0000	0.0000	NO	NO
N+5.65	16	COMDER4	-0.00001	-1.3E-05	-0.00012	0.0000	0.0000	0.0000	NO	NO
N+2.95	16	COMDER1	0.000026	0.000017	-9.9E-05	0.0000	0.0000	0.0000	NO	NO
N+2.95	16	COMDER2	0.000025	0.00003	-0.00011	0.0000	0.0000	0.0001	NO	NO
N+2.95	16	COMDER5	0.010352	0.00696	-7E-06	0.0125	0.0150	0.0175	NO	NO
N+2.95	16	COMDER5	-0.0103	-0.00691	-0.00019	0.0124	0.0149	0.0174	NO	NO
N+2.95	16	COMDER6	0.003244	0.012535	0.000021	0.0129	0.0157	0.0183	NO	NO
N+2.95	16	COMDER6	-0.0032	-0.01249	-0.00022	0.0129	0.0156	0.0182	NO	NO
N+2.95	16	COMDER7	0.010344	0.006947	0.000029	0.0125	0.0150	0.0175	NO	NO
N+2.95	16	COMDER7	-0.01031	-0.00693	-0.00016	0.0124	0.0149	0.0174	NO	NO
N+2.95	16	COMDER8	0.003237	0.012522	0.000057	0.0129	0.0157	0.0183	NO	NO
N+2.95	16	COMDER8	-0.0032	-0.0125	-0.00019	0.0129	0.0156	0.0183	NO	NO
N+2.95	16	COMDER3	0.000024	0.000024	-0.0001	0.0000	0.0000	0.0000	NO	NO
N+2.95	16	COMDER4	0.000024	0.000024	-0.0001	0.0000	0.0000	0.0000	NO	NO
Base	16	COMDER1	0	0	0					
Base	16	COMDER2	0	0	0					
Base	16	COMDER5	0	0	0					
Base	16	COMDER5	0	0	0					
Base	16	COMDER6	0	0	0					
Base	16	COMDER6	0	0	0					
Base	16	COMDER7	0	0	0					
Base	16	COMDER7	0	0	0					
Base	16	COMDER8	0	0	0					
Base	16	COMDER8	0	0	0					
Base	16	COMDER3	0	0	0					
Base	16	COMDER4	0	0	0					

Story	Point	Load	UX	UY	UZ	Δ_1	*Irregularidad Torsional* $1.2*(\Delta_1+\Delta_2)/2$	*Irregularidad Torsional Extrema* $1.4*(\Delta_1+\Delta_2)/2$	I.T.Extrema≥Δ1 >I.T.?	Δ1>I.T.Extrema?
			m	m	m	m				
N+5.65	13	COMDER1	0.000011	-1.4E-05	-0.00012	0.0000	0.0000	0.0000	NO	NO
N+5.65	13	COMDER2	-2.1E-05	0.000043	-0.00014	0.0000	0.0000	0.0000	NO	NO
N+5.65	13	COMDER5	0.017415	0.01084	-1.5E-05	0.0080	0.0106	0.0124	NO	NO
N+5.65	13	COMDER5	-0.01743	-0.0108	-0.00023	0.0081	0.0107	0.0125	NO	NO
N+5.65	13	COMDER6	0.005391	0.019765	0.00002	0.0073	0.0088	0.0103	NO	NO
N+5.65	13	COMDER6	-0.00541	-0.01972	-0.00027	0.0073	0.0089	0.0103	NO	NO
N+5.65	13	COMDER7	0.017432	0.010809	0.00003	0.0080	0.0106	0.0124	NO	NO
N+5.65	13	COMDER7	-0.01742	-0.01083	-0.00019	0.0081	0.0107	0.0125	NO	NO
N+5.65	13	COMDER8	0.005407	0.019734	0.000065	0.0073	0.0088	0.0103	NO	NO
N+5.65	13	COMDER8	-0.00539	-0.01975	-0.00022	0.0073	0.0089	0.0104	NO	NO
N+5.65	13	COMDER3	-0.00001	0.000023	-0.00012	0.0000	0.0000	0.0000	SI	NO
N+5.65	13	COMDER4	-0.00001	0.000023	-0.00012	0.0000	0.0000	0.0000	SI	NO
N+2.95	13	COMDER1	0.000026	0.000018	-9.8E-05	0.0000	0.0000	0.0000	NO	NO
N+2.95	13	COMDER2	0.000025	0.000021	-0.00011	0.0000	0.0000	0.0000	NO	NO
N+2.95	13	COMDER5	0.010352	0.007011	-0.00001	0.0125	0.0168	0.0196	NO	NO
N+2.95	13	COMDER5	-0.0103	-0.00697	-0.00019	0.0124	0.0168	0.0195	NO	NO
N+2.95	13	COMDER6	0.003244	0.012809	0.00002	0.0132	0.0160	0.0187	NO	NO
N+2.95	13	COMDER6	-0.0032	-0.01277	-0.00022	0.0132	0.0160	0.0186	NO	NO
N+2.95	13	COMDER7	0.010344	0.007003	0.000026	0.0125	0.0168	0.0196	NO	NO
N+2.95	13	COMDER7	-0.01031	-0.00698	-0.00015	0.0125	0.0168	0.0196	NO	NO
N+2.95	13	COMDER8	0.003237	0.012802	0.000056	0.0132	0.0160	0.0187	NO	NO
N+2.95	13	COMDER8	-0.0032	-0.01278	-0.00018	0.0132	0.0160	0.0186	NO	NO
N+2.95	13	COMDER3	0.000024	0.000019	-9.9E-05	0.0000	0.0000	0.0000	NO	NO
N+2.95	13	COMDER4	0.000024	0.000019	-9.9E-05	0.0000	0.0000	0.0000	NO	NO
Base	13	COMDER1	0	0	0					
Base	13	COMDER2	0	0	0					
Base	13	COMDER5	0	0	0					
Base	13	COMDER5	0	0	0					
Base	13	COMDER6	0	0	0					
Base	13	COMDER6	0	0	0					
Base	13	COMDER7	0	0	0					
Base	13	COMDER7	0	0	0					
Base	13	COMDER8	0	0	0					
Base	13	COMDER8	0	0	0					
Base	13	COMDER3	0	0	0					
Base	13	COMDER4	0	0	0					

Story	Point	Load	UX	UY	UZ	Δ_1	*Irregularidad Torsional* $1.2*(\Delta_1+\Delta_2)/2$	*Irregularidad Torsional Extrema* $1.4*(\Delta_1+\Delta_2)/2$	$\Delta 1>$I.T.?
			m	m	m	m			
N+5.65	1	COMDER1	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0000	NO
N+5.65	1	COMDER2	-0.0001	0.0000	-0.0003	0.0000	0.0000	0.0000	NO
N+5.65	1	COMDER5	0.0228	0.0108	-0.0002	0.0097	0.0116	0.0136	NO
N+5.65	1	COMDER5	-0.0228	-0.0108	-0.0003	0.0098	0.0118	0.0137	NO
N+5.65	1	COMDER6	0.0069	0.0198	-0.0002	0.0074	0.0089	0.0104	NO
N+5.65	1	COMDER6	-0.0070	-0.0197	-0.0003	0.0075	0.0090	0.0105	NO
N+5.65	1	COMDER7	0.0228	0.0108	-0.0001	0.0097	0.0117	0.0136	NO
N+5.65	1	COMDER7	-0.0228	-0.0108	-0.0002	0.0098	0.0117	0.0137	NO
N+5.65	1	COMDER8	0.0069	0.0197	-0.0001	0.0074	0.0089	0.0104	NO
N+5.65	1	COMDER8	-0.0069	-0.0198	-0.0002	0.0075	0.0090	0.0105	NO
N+5.65	1	COMDER3	0.0000	0.0000	-0.0003	0.0000	0.0000	0.0000	NO
N+5.65	1	COMDER4	0.0000	0.0000	-0.0003	0.0000	0.0000	0.0000	NO
N+2.95	1	COMDER1	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0000	NO
N+2.95	1	COMDER2	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0001	NO
N+2.95	1	COMDER5	0.0139	0.0070	-0.0002	0.0155	0.0186	0.0217	NO
N+2.95	1	COMDER5	-0.0138	-0.0070	-0.0003	0.0155	0.0186	0.0217	NO
N+2.95	1	COMDER6	0.0043	0.0128	-0.0002	0.0135	0.0160	0.0187	NO
N+2.95	1	COMDER6	-0.0042	-0.0128	-0.0003	0.0134	0.0160	0.0186	NO
N+2.95	1	COMDER7	0.0139	0.0070	-0.0001	0.0155	0.0186	0.0217	NO
N+2.95	1	COMDER7	-0.0138	-0.0070	-0.0002	0.0155	0.0186	0.0217	NO
N+2.95	1	COMDER8	0.0043	0.0128	-0.0001	0.0135	0.0160	0.0187	NO
N+2.95	1	COMDER8	-0.0042	-0.0128	-0.0002	0.0135	0.0160	0.0187	NO
N+2.95	1	COMDER3	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0000	NO
N+2.95	1	COMDER4	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0000	NO
Base	1	COMDER1	0.0000	0.0000	0.0000				
Base	1	COMDER2	0.0000	0.0000	0.0000				
Base	1	COMDER5	0.0000	0.0000	0.0000				
Base	1	COMDER5	0.0000	0.0000	0.0000				
Base	1	COMDER6	0.0000	0.0000	0.0000				
Base	1	COMDER6	0.0000	0.0000	0.0000				
Base	1	COMDER7	0.0000	0.0000	0.0000				
Base	1	COMDER7	0.0000	0.0000	0.0000				
Base	1	COMDER8	0.0000	0.0000	0.0000				
Base	1	COMDER8	0.0000	0.0000	0.0000				
Base	1	COMDER3	0.0000	0.0000	0.0000				
Base	1	COMDER4	0.0000	0.0000	0.0000				

IRREGULARIDADES EN PLANTA

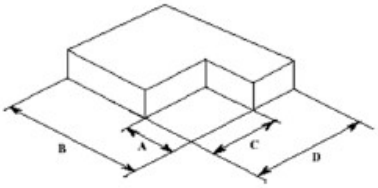
Para estructuras de importancia I y II ubicadas en zonas de amenaza sísmica baja la revisión de irregularidades puede limitarse a las de tipo 1aP,1bP y 5aA, 5bA de acuerdo a la Nsr-10 en A.3.3.6.

Para estructuras de importancia I ubicadas en zonas de amenaza sísmica intermedia la revisión de irregularidades puede limitarse a las de tipo 1aP,1bP 3P, 4P, 4A,5aA y 5bA de acuerdo a la Nsr-10 en A.3.3.7.

Cuando la deriva de cualquier piso es menor de 1.3 veces la deriva del piso siguiente hacia arriba, puede considerarse que no existen irregularidades de los tipos 1aA, 1bA, 2A ó 3A. de acuerdo a la Nsr-10 en A.3.3.5.1, y en este caso se aplica a = 1.0

Retroceso Excesivo en las Esquinas

Irregularidad TIPO 2P : A > 0.15B y C > 0.15D Øp = 0.90



NIVEL	A (m)	B (m)	C (m)	D (m)	A > 0.15B	C > 0.15D	ϕp
N+5.65	0.00	18.00	0.00	12.60	NO	NO	1.00
N+2.95	0.00	18.00	0.00	12.60	NO	NO	1.00

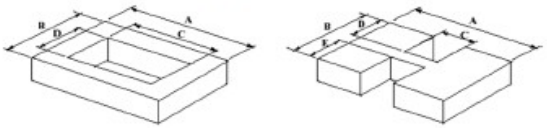
La estructura no posee irregularidad del tipo 2P **ϕp =** 1.00

Irregularida del Diafragma

Irregularidad TIPO 3P : C x D > 0.5A x B ó (C x D + C x E) > 0.5A x B Øp = 0.90

0.75

Revisión de aberturas o entradas en el diafragma con áreas mayores al 50 % del área total del diafragma

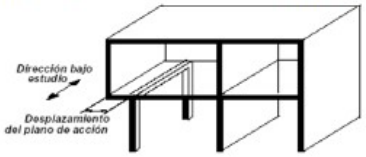


NIVEL	AREAS			Aabert. > 0.5Adiaf.	Aent. > 0.5Adiaf.	ϕp
	Abertura (m²)	Entradas (m²)	Diafragma (m²)			
N+5.65	0.00	0.00	226.80	NO	NO	1.00
N+2.95	7.07	0.00	226.80	NO	NO	1.00

La estructura no posee irregularidad del tipo 3P **ϕp =** 1.00

Dezplazamiento de los Planos de Accion

Irregularidad TIPO 4P : Desplazamiento del plano de acción. Øp = 0.80

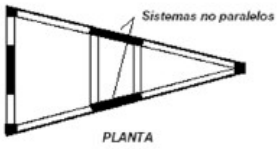


* En esta irregularidad se exceptúa el caso de altillos de un solo piso.

La estructura no posee irregularidad del tipo 4P **ϕp =** 1.00

Sistemas No Paralelos

Irregularidad TIPO 5P : Sistemas no paralelos Øp = 0.90

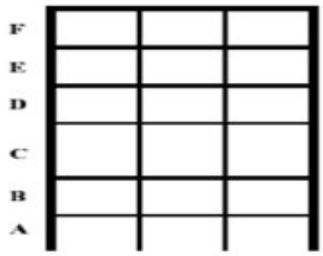


La estructura no posee irregularidad del tipo 5P **ϕp =** 1.00

IRREGULARIDADES EN ALTURA

Irregularidad en Rigidez (Piso Flexible)

Irregularidad TIPO 1aA : $K_C < 0.70K_D$ ó $K_C < 0.80(K_D + K_E + K_F)/3$ Øa = 0.90

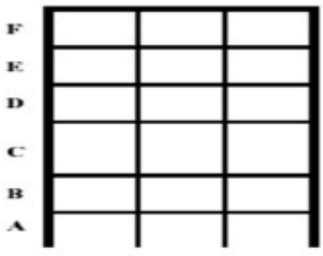


NIVEL	Kx (kN/m)	Ky (kN/m)	Revisión en X		Revisión en Y		ϕa
			Kc < 0.70 KD	Kc < 0.80 (KD+KE+KF)/3	Kc < 0.70 KD	Kc < 0.80 (KD+KE+KF)/3	
N+5.65	17926.33	19805.05	NO	NO	NO	NO	1.00
N+2.95	94110.33	102338.33	NO	NO	NO	NO	1.00

La estructura no posee irregularidad del tipo 1aA **φa =** 1.00

Irregularidad en Rigidez (Piso Flexible Extremo)

Irregularidad TIPO 1bA : $K_C < 0.60K_D$ ó $K_C < 0.70(K_D + K_E + K_F)/3$ Øa = 0.80

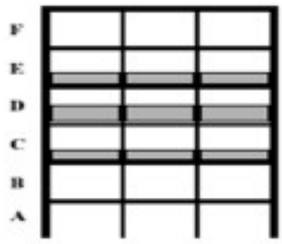


NIVEL	Kx (t/m)	Ky (t/m)	Revisión en X		Revisión en Y		ϕa
			Kc < 0.60 KD	Kc < 0.70 (Ko+KE+KF)/3	Kc < 0.60 KD	Kc < 0.70 (Ko+KE+KF)/3	
N+5.65	17926.33	19805.05	NO	NO	NO	NO	1.00
N+2.95	94110.33	102338.33	NO	NO	NO	NO	1.00

La estructura no posee irregularidad del tipo 1bA **φa =** 1.00

Irregularidad en la Distribucion de Masa

Irregularidad TIPO 2A :



$m_D > 1.50\ m_E$ Ó $m_D > 1.50\ m_C$ Øa = 0.90

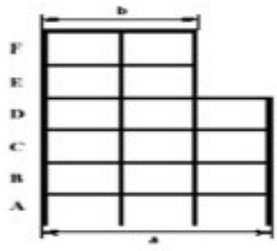
* En esta irregularidad se exceptúa el caso de cubiertas que sean más livianas que el piso inferior.

NIVEL	Masa (kN-s²/m)	mD> 1.50mE	mD> 1.50mC	ϕa
N+5.65	56.86	NO	NO	1.00
N+2.95	197.22	SI	NO	0.90

La estructura si posee irregularidad del tipo 2A **φa =** 0.90

Irregularidad Geometrica

Irregularidad TIPO 3A :



a > 1.30 b Øp = 0.90

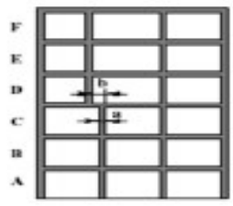
* En esta irregularidad se exceptúa el caso de altillos de un solo piso.

NIVEL	aX (m)	bX (m)	ay (m)	by (m)	Revision en X a>1,30b	Revision en Y a>1,30b	ϕa
N+5.65	18.00	18.00	12.60	12.60	NO	NO	1.00
N+2.95	18.00	18.00	12.00	12.60	NO	NO	1.00

La estructura no posee irregularidad del tipo 3A **φa =** 1.00

Desplazamiento dentro del Plano de Accion

Irregularidad TIPO 4A : b > a Øp = 0.80



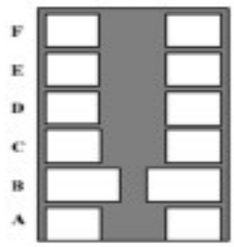
* En esta irregularidad se exceptúa el caso de elementos verticales desplazados que solo sostienen la cubierta sin cargas adicionales.

NIVEL	b (m)	a (m)	b > a	ϕa
N+5.65	0.00	0.30	NO	1.00
N+2.95	0.00	0.30	NO	1.00

La estructura no posee irregularidad del tipo 4A **φa =** 1.00

Discontinuidad en la Resistencia (Piso Debil)

Irregularidad TIPO 5aA : 0.65 Resistencia C =< Resistencia $_B$ < 0.80 Resistencia $_C$ 0.9

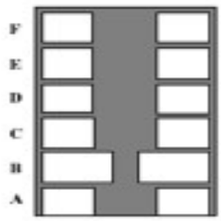


NIVEL	Rx (t/m)	Ry (t/m)	X	Y	ϕa
			RB < 0,8RC	RB < 0,8RC	
N+5.65	0.00	0.00	NO	NO	1.00
N+2.95	0.00	0.00	NO	NO	1.00

La estructura no posee irregularidad del tipo 5aA **φa =** 1.00

Discontinuidad en la Resistencia (Piso Debil Extremo)

Irregularidad TIPO 5bA : Resistencia $_B$ < 0.65 Resistencia $_C$ 0.8



NIVEL	Rx (t/m)	Ry (t/m)	X	Y	ϕa
			RB < 0,65RC	RB < 0,65RC	
N+5.65	0.00	0.00	NO	NO	1.00
N+2.95	0.00	0.00	NO	NO	1.00

La estructura no posee irregularidad del tipo 5bA **φa =** 1.00

RESUMEN DE IRREGULARIDADES

IRREGULARIDADES EN PLANTA

TIPO DE IRREGULARIDAD		ϕp	SI	NO	ϕp ADOPTADO
Irregularidad Torsional……	1aP	0.90	X		0.90
Irregularidad Trosional Extrema……	1bP	0.80		X	1.00
Retrocesos en las Esquinas……	2P	0.90		X	1.00
Irregularidad del Diafragma……	3P	0.90		X	1.00
Desplazamiento de los Planos de Acción……..	4P	0.80		X	1.00
Sistemas no Paralelos……	5P	0.90		X	1.00

ϕp DEFINIDO =	0.90

IRREGULARIDADES EN ALTURA

TIPO DE IRREGULARIDAD		ϕa	SI	NO	ϕa ADOPTADO
Piso Flexibe (Irregularidad en Rigidez)……	1aA	0.90		X	1.00
Piso Flexibe Extremo (Irregularidad en Rigidez)……	1bA	0.80		X	1.00
Distribución de Masa……..	2A	0.90	X		0.90
Irregularidad Geométrica……..	3A	0.90		X	1.00
ah bue	4A	0.80		X	1.00
Piso Débil - Discontinuidad en la Resistencia……..	5aA	0.90		X	1.00
Piso Débil Extremo - Discontinuidad en la Resistencia……..	5bA	0.80		X	1.00

ϕa DEFINIDO =	0.90

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
7.2 AUSENCIA DE REDUNDANCIA EN EL SISTEMA ESTRUCTURAL DE RESISTENCIA SÍSMICA (A.3.3.8 de NSR10)	

La redundancia en el sistema estructural permite la redistribución de fuerzas internas en caso de ocurrir una falla en los elementos principales. Sin la capacidad para la redistribución, el colapso estructural global puede resultar de la insuficiencia de los miembros individuales o conexiones. Debe asignarse un factor de reducción de resistencia por ausencia de redundancia en el sistema estructural de resistencia sísmica, ϕr, en las dos direcciones principales en planta. Para este caso en particular el coficiente viene dado por:

COEFICIENTE DE REDUCCION POR AUSENCIA DE REDUNDANCIA, ϕr =	1.00	EN DIR Y
COEFICIENTE DE REDUCCION POR AUSENCIA DE REDUNDANCIA, ϕr =	1.00	EN DIR X

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
8. EMPLEO DEL COEFICIENTE DE DISIPACION DE ENERGIA, R (A.2.9.4 de NSR-10)	

1. Modificacion del Coeficiente de Capacidad de Disipacion de Energia

Coeficiente de capacidad de disipacion de energia basico, Ro =	5.00	**(Tabla A.3.1. a A.3-5 de NSR-10)**
Coeficiente de reduccion por irregularidad en planta, ∅p =	0.90	**(Tabla A.3-6 de NSR-10)**
Coeficiente de reduccion por irregularidad en altura, ∅a =	0.90	**(Tabla A.3-7 de NSR-10)**
Coeficiente de reduccion por ausencia de redundancia, ∅rx=	1.00	**(Numeral A.3.3.8 de NSR-10)**
Coeficiente de reduccion por ausencia de redundancia, ∅ry=	1.00	

Se calcula el coeficiente de capacidad de disipacion de energia reducido, R:

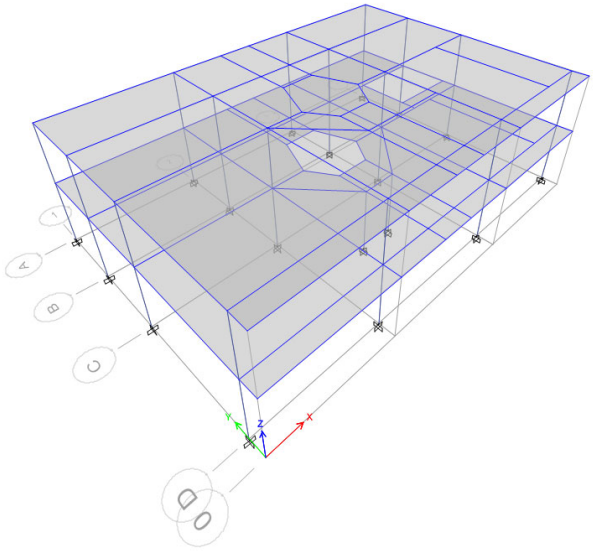
Se tiene en cuenta lo que dice el numeral **Titulo A.10.4.2.4** de la **NSR-10:**	**SI**

c)	Cuando no exista ningún tipo de información, se permite utilizar un valor de R' correspondiente a 3/4 del valor que fija el Capitulo A.3 para el mismo sistema estructural y ek mismo material. El valor asi obtenido no hay necesidad de que sea menor que la unidad.	**0.75**

$Rx = \emptyset_a * \emptyset_p * \emptyset_r * R_O =$ 3.038 **(A.3.3-1 de NSR-10)**

$Ry = \emptyset_a * \emptyset_p * \emptyset_r * R_O =$ 3.038

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PARAMETROS SISMICOS INICIALES

Model File: JARDIN SALAMANDRA, Revision
2/12/2025

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1 Loads

This chapter provides loading information as applied to the model.

1.1 Functions

1.1.1 Response Spectrum Functions

Table 1.1 - Functions - Response Spectrum - From File

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS CERROS	0	0.633	C:\Users\eahfg\OneDrive\Documentos\Diseños Estructurales\2025\112. Proyecto Jardin Salamandra (Bogota-Vulne)\2. MODELOS\DIS CERROS.txt	0	Period vs Value	0.05
DIS CERROS	0.05	0.633				
DIS CERROS	0.1	0.633				
DIS CERROS	0.15	0.633				
DIS CERROS	0.2	0.633				
DIS CERROS	0.25	0.633				
DIS CERROS	0.3	0.633				
DIS CERROS	0.35	0.633				
DIS CERROS	0.4	0.633				
DIS CERROS	0.45	0.633				
DIS CERROS	0.5	0.633				
DIS CERROS	0.55	0.633				
DIS CERROS	0.6	0.633				
DIS CERROS	0.65	0.6				
DIS CERROS	0.7	0.557				
DIS CERROS	0.75	0.52				
DIS CERROS	0.8	0.488				
DIS CERROS	0.85	0.459				
DIS CERROS	0.9	0.433				
DIS CERROS	0.95	0.411				
DIS CERROS	1	0.39				
DIS CERROS	1.05	0.371				
DIS CERROS	1.1	0.355				
DIS CERROS	1.15	0.339				
DIS CERROS	1.2	0.325				
DIS CERROS	1.25	0.312				
DIS CERROS	1.3	0.3				
DIS CERROS	1.35	0.289				
DIS CERROS	1.4	0.279				
DIS CERROS	1.45	0.269				
DIS CERROS	1.5	0.26				
DIS CERROS	1.55	0.252				
DIS CERROS	1.6	0.244				
DIS CERROS	1.65	0.236				
DIS CERROS	1.7	0.229				
DIS CERROS	1.75	0.223				

Table 1.1 - Functions - Response Spectrum - From File (continued)

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS_{CERROS}	1.8	0.217				
DIS_{CERROS}	1.85	0.211				
DIS_{CERROS}	1.9	0.205				
DIS_{CERROS}	1.95	0.2				
DIS_{CERROS}	2	0.195				
DIS_{CERROS}	2.05	0.19				
DIS_{CERROS}	2.1	0.186				
DIS_{CERROS}	2.15	0.181				
DIS_{CERROS}	2.2	0.177				
DIS_{CERROS}	2.25	0.173				
DIS_{CERROS}	2.3	0.17				
DIS_{CERROS}	2.35	0.166				
DIS_{CERROS}	2.4	0.163				
DIS_{CERROS}	2.45	0.159				
DIS_{CERROS}	2.5	0.156				
DIS_{CERROS}	2.55	0.153				
DIS_{CERROS}	2.6	0.15				
DIS_{CERROS}	2.65	0.147				
DIS_{CERROS}	2.7	0.144				
DIS_{CERROS}	2.75	0.142				
DIS_{CERROS}	2.8	0.139				
DIS_{CERROS}	2.85	0.137				
DIS_{CERROS}	2.9	0.134				
DIS_{CERROS}	2.95	0.132				
DIS_{CERROS}	3	0.13				
DIS_{CERROS}	3.05	0.126				
DIS_{CERROS}	3.1	0.122				
DIS_{CERROS}	3.15	0.118				
DIS_{CERROS}	3.2	0.114				
DIS_{CERROS}	3.25	0.111				
DIS_{CERROS}	3.3	0.107				
DIS_{CERROS}	3.35	0.104				
DIS_{CERROS}	3.4	0.101				
DIS_{CERROS}	3.45	0.098				
DIS_{CERROS}	3.5	0.096				
DIS_{CERROS}	3.55	0.093				
DIS_{CERROS}	3.6	0.09				
DIS_{CERROS}	3.65	0.088				
DIS_{CERROS}	3.7	0.085				
DIS_{CERROS}	3.75	0.083				
DIS_{CERROS}	3.8	0.081				
DIS_{CERROS}	3.85	0.079				
DIS_{CERROS}	3.9	0.077				
DIS_{CERROS}	3.95	0.075				

Table 1.1 - Functions - Response Spectrum - From File (continued)

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS_{CERROS}	4	0.073				
DIS_{CERROS}	4.05	0.071				
DIS_{CERROS}	4.1	0.07				
DIS_{CERROS}	4.15	0.068				
DIS_{CERROS}	4.2	0.066				
DIS_{CERROS}	4.25	0.065				
DIS_{CERROS}	4.3	0.063				
DIS_{CERROS}	4.35	0.062				
DIS_{CERROS}	4.4	0.06				
DIS_{CERROS}	4.45	0.059				
DIS_{CERROS}	4.5	0.058				
DIS_{CERROS}	4.55	0.057				
DIS_{CERROS}	4.6	0.055				
DIS_{CERROS}	4.65	0.054				
DIS_{CERROS}	4.7	0.053				
DIS_{CERROS}	4.75	0.052				
DIS_{CERROS}	4.8	0.051				
DIS_{CERROS}	4.85	0.05				
DIS_{CERROS}	4.9	0.049				
DIS_{CERROS}	4.95	0.048				
DIS_{CERROS}	5	0.047				
DIS_{CERROS}	5.05	0.046				
DIS_{CERROS}	5.1	0.045				
DIS_{CERROS}	5.15	0.044				
DIS_{CERROS}	5.2	0.043				
DIS_{CERROS}	5.25	0.042				
DIS_{CERROS}	5.3	0.042				
DIS_{CERROS}	5.35	0.041				
DIS_{CERROS}	5.4	0.04				
DIS_{CERROS}	5.45	0.039				
DIS_{CERROS}	5.5	0.039				
DIS_{CERROS}	5.55	0.038				
DIS_{CERROS}	5.6	0.037				
DIS_{CERROS}	5.65	0.037				
DIS_{CERROS}	5.7	0.036				
DIS_{CERROS}	5.75	0.035				
DIS_{CERROS}	5.8	0.035				
DIS_{CERROS}	5.85	0.034				
DIS_{CERROS}	5.9	0.034				
DIS_{CERROS}	5.95	0.033				
DIS_{CERROS}	6	0.033				
DIS_{CERROS}	6.05	0.032				
DIS_{CERROS}	6.1	0.031				
DIS_{CERROS}	6.15	0.031				

Table 1.1 - Functions - Response Spectrum - From File (continued)

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS_{CERROS}	6.2	0.03				
DIS_{CERROS}	6.25	0.03				
DIS_{CERROS}	6.3	0.029				
DIS_{CERROS}	6.35	0.029				
DIS_{CERROS}	6.4	0.029				
DIS_{CERROS}	6.45	0.028				
DIS_{CERROS}	6.5	0.028				
DIS_{CERROS}	6.55	0.027				
DIS_{CERROS}	6.6	0.027				
DIS_{CERROS}	6.65	0.026				
DIS_{CERROS}	6.7	0.026				
DIS_{CERROS}	6.75	0.026				
DIS_{CERROS}	6.8	0.025				
DIS_{CERROS}	6.85	0.025				
DIS_{CERROS}	6.9	0.025				
DIS_{CERROS}	6.95	0.024				
DIS_{CERROS}	7	0.024				
DIS_{CERROS}	7.05	0.024				
DIS_{CERROS}	7.1	0.023				
DIS_{CERROS}	7.15	0.023				
DIS_{CERROS}	7.2	0.023				
DIS_{CERROS}	7.25	0.022				
DIS_{CERROS}	7.3	0.022				
DIS_{CERROS}	7.35	0.022				
DIS_{CERROS}	7.4	0.021				
DIS_{CERROS}	7.45	0.021				
DIS_{CERROS}	7.5	0.021				
DIS_{CERROS}	7.55	0.021				
DIS_{CERROS}	7.6	0.02				

Table 1.2 - Functions - Response Spectrum - User Defined

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	0	0.506	0.05
DER_{CERROS}	0.05	0.506	
DER_{CERROS}	0.1	0.506	
DER_{CERROS}	0.15	0.506	
DER_{CERROS}	0.2	0.506	
DER_{CERROS}	0.25	0.506	
DER_{CERROS}	0.3	0.506	
DER_{CERROS}	0.35	0.506	
DER_{CERROS}	0.4	0.506	
DER_{CERROS}	0.45	0.506	
DER_{CERROS}	0.5	0.506	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	0.55	0.506	
DER_{CERROS}	0.6	0.506	
DER_{CERROS}	0.65	0.48	
DER_{CERROS}	0.7	0.446	
DER_{CERROS}	0.75	0.416	
DER_{CERROS}	0.8	0.39	
DER_{CERROS}	0.85	0.367	
DER_{CERROS}	0.9	0.347	
DER_{CERROS}	0.95	0.328	
DER_{CERROS}	1	0.312	
DER_{CERROS}	1.05	0.297	
DER_{CERROS}	1.1	0.284	
DER_{CERROS}	1.15	0.271	
DER_{CERROS}	1.2	0.26	
DER_{CERROS}	1.25	0.25	
DER_{CERROS}	1.3	0.24	
DER_{CERROS}	1.35	0.231	
DER_{CERROS}	1.4	0.223	
DER_{CERROS}	1.45	0.215	
DER_{CERROS}	1.5	0.208	
DER_{CERROS}	1.55	0.201	
DER_{CERROS}	1.6	0.195	
DER_{CERROS}	1.65	0.189	
DER_{CERROS}	1.7	0.184	
DER_{CERROS}	1.75	0.178	
DER_{CERROS}	1.8	0.173	
DER_{CERROS}	1.85	0.169	
DER_{CERROS}	1.9	0.164	
DER_{CERROS}	1.95	0.16	
DER_{CERROS}	2	0.156	
DER_{CERROS}	2.05	0.152	
DER_{CERROS}	2.1	0.149	
DER_{CERROS}	2.15	0.145	
DER_{CERROS}	2.2	0.142	
DER_{CERROS}	2.25	0.139	
DER_{CERROS}	2.3	0.136	
DER_{CERROS}	2.35	0.133	
DER_{CERROS}	2.4	0.13	
DER_{CERROS}	2.45	0.127	
DER_{CERROS}	2.5	0.125	
DER_{CERROS}	2.55	0.122	
DER_{CERROS}	2.6	0.12	
DER_{CERROS}	2.65	0.118	
DER_{CERROS}	2.7	0.116	
DER_{CERROS}	2.75	0.113	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	2.8	0.111	
DER_{CERROS}	2.85	0.109	
DER_{CERROS}	2.9	0.108	
DER_{CERROS}	2.95	0.106	
DER_{CERROS}	3	0.104	
DER_{CERROS}	3.05	0.101	
DER_{CERROS}	3.1	0.097	
DER_{CERROS}	3.15	0.094	
DER_{CERROS}	3.2	0.091	
DER_{CERROS}	3.25	0.089	
DER_{CERROS}	3.3	0.086	
DER_{CERROS}	3.35	0.083	
DER_{CERROS}	3.4	0.081	
DER_{CERROS}	3.45	0.079	
DER_{CERROS}	3.5	0.076	
DER_{CERROS}	3.55	0.074	
DER_{CERROS}	3.6	0.072	
DER_{CERROS}	3.65	0.07	
DER_{CERROS}	3.7	0.068	
DER_{CERROS}	3.75	0.067	
DER_{CERROS}	3.8	0.065	
DER_{CERROS}	3.85	0.063	
DER_{CERROS}	3.9	0.062	
DER_{CERROS}	3.95	0.06	
DER_{CERROS}	4	0.059	
DER_{CERROS}	4.05	0.057	
DER_{CERROS}	4.1	0.056	
DER_{CERROS}	4.15	0.054	
DER_{CERROS}	4.2	0.053	
DER_{CERROS}	4.25	0.052	
DER_{CERROS}	4.3	0.051	
DER_{CERROS}	4.35	0.049	
DER_{CERROS}	4.4	0.048	
DER_{CERROS}	4.45	0.047	
DER_{CERROS}	4.5	0.046	
DER_{CERROS}	4.55	0.045	
DER_{CERROS}	4.6	0.044	
DER_{CERROS}	4.65	0.043	
DER_{CERROS}	4.7	0.042	
DER_{CERROS}	4.75	0.041	
DER_{CERROS}	4.8	0.041	
DER_{CERROS}	4.85	0.04	
DER_{CERROS}	4.9	0.039	
DER_{CERROS}	4.95	0.038	
DER_{CERROS}	5	0.037	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	5.05	0.037	
DER_{CERROS}	5.1	0.036	
DER_{CERROS}	5.15	0.035	
DER_{CERROS}	5.2	0.035	
DER_{CERROS}	5.25	0.034	
DER_{CERROS}	5.3	0.033	
DER_{CERROS}	5.35	0.033	
DER_{CERROS}	5.4	0.032	
DER_{CERROS}	5.45	0.032	
DER_{CERROS}	5.5	0.031	
DER_{CERROS}	5.55	0.03	
DER_{CERROS}	5.6	0.03	
DER_{CERROS}	5.65	0.029	
DER_{CERROS}	5.7	0.029	
DER_{CERROS}	5.75	0.028	
DER_{CERROS}	5.8	0.028	
DER_{CERROS}	5.85	0.027	
DER_{CERROS}	5.9	0.027	
DER_{CERROS}	5.95	0.026	
DER_{CERROS}	6	0.026	
DER_{CERROS}	6.05	0.026	
DER_{CERROS}	6.1	0.025	
DER_{CERROS}	6.15	0.025	
DER_{CERROS}	6.2	0.024	
DER_{CERROS}	6.25	0.024	
DER_{CERROS}	6.3	0.024	
DER_{CERROS}	6.35	0.023	
DER_{CERROS}	6.4	0.023	
DER_{CERROS}	6.45	0.022	
DER_{CERROS}	6.5	0.022	
DER_{CERROS}	6.55	0.022	
DER_{CERROS}	6.6	0.021	
DER_{CERROS}	6.65	0.021	
DER_{CERROS}	6.7	0.021	
DER_{CERROS}	6.75	0.021	
DER_{CERROS}	6.8	0.02	
DER_{CERROS}	6.85	0.02	
DER_{CERROS}	6.9	0.02	
DER_{CERROS}	6.95	0.019	
DER_{CERROS}	7	0.019	
DER_{CERROS}	7.05	0.019	
DER_{CERROS}	7.1	0.019	
DER_{CERROS}	7.15	0.018	
DER_{CERROS}	7.2	0.018	
DER_{CERROS}	7.25	0.018	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER CERROS	7.3	0.018	
DER CERROS	7.35	0.017	
DER CERROS	7.4	0.017	
DER CERROS	7.45	0.017	
DER CERROS	7.5	0.017	
DER CERROS	7.55	0.016	
DER CERROS	7.6	0.016	
UMB CERROS	0	0.08	0.05
UMB CERROS	0.05	0.166	
UMB CERROS	0.1	0.253	
UMB CERROS	0.15	0.27	
UMB CERROS	0.2	0.27	
UMB CERROS	0.25	0.27	
UMB CERROS	0.3	0.27	
UMB CERROS	0.35	0.27	
UMB CERROS	0.4	0.27	
UMB CERROS	0.45	0.27	
UMB CERROS	0.5	0.27	
UMB CERROS	0.55	0.27	
UMB CERROS	0.6	0.255	
UMB CERROS	0.65	0.235	
UMB CERROS	0.7	0.219	
UMB CERROS	0.75	0.204	
UMB CERROS	0.8	0.191	
UMB CERROS	0.85	0.18	
UMB CERROS	0.9	0.17	
UMB CERROS	0.95	0.161	
UMB CERROS	1	0.153	
UMB CERROS	1.05	0.146	
UMB CERROS	1.1	0.139	
UMB CERROS	1.15	0.133	
UMB CERROS	1.2	0.128	
UMB CERROS	1.25	0.122	
UMB CERROS	1.3	0.118	
UMB CERROS	1.35	0.113	
UMB CERROS	1.4	0.109	
UMB CERROS	1.45	0.106	
UMB CERROS	1.5	0.102	
UMB CERROS	1.55	0.099	
UMB CERROS	1.6	0.096	
UMB CERROS	1.65	0.093	
UMB CERROS	1.7	0.09	
UMB CERROS	1.75	0.087	
UMB CERROS	1.8	0.085	
UMB CERROS	1.85	0.083	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
UMB CERROS	1.9	0.081	
UMB CERROS	1.95	0.078	
UMB CERROS	2	0.077	
UMB CERROS	2.05	0.075	
UMB CERROS	2.1	0.073	
UMB CERROS	2.15	0.071	
UMB CERROS	2.2	0.07	
UMB CERROS	2.25	0.068	
UMB CERROS	2.3	0.067	
UMB CERROS	2.35	0.065	
UMB CERROS	2.4	0.064	
UMB CERROS	2.45	0.062	
UMB CERROS	2.5	0.061	
UMB CERROS	2.55	0.06	
UMB CERROS	2.6	0.059	
UMB CERROS	2.65	0.058	
UMB CERROS	2.7	0.057	
UMB CERROS	2.75	0.056	
UMB CERROS	2.8	0.055	
UMB CERROS	2.85	0.054	
UMB CERROS	2.9	0.053	
UMB CERROS	2.95	0.052	
UMB CERROS	3	0.051	
UMB CERROS	3.05	0.049	
UMB CERROS	3.1	0.048	
UMB CERROS	3.15	0.046	
UMB CERROS	3.2	0.045	
UMB CERROS	3.25	0.043	
UMB CERROS	3.3	0.042	
UMB CERROS	3.35	0.041	
UMB CERROS	3.4	0.04	
UMB CERROS	3.45	0.039	
UMB CERROS	3.5	0.037	
UMB CERROS	3.55	0.036	
UMB CERROS	3.6	0.035	
UMB CERROS	3.65	0.034	
UMB CERROS	3.7	0.034	
UMB CERROS	3.75	0.033	
UMB CERROS	3.8	0.032	
UMB CERROS	3.85	0.031	
UMB CERROS	3.9	0.03	
UMB CERROS	3.95	0.029	
UMB CERROS	4	0.029	
UMB CERROS	4.05	0.028	
UMB CERROS	4.1	0.027	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
UMB CERROS	4.15	0.027	
UMB CERROS	4.2	0.026	
UMB CERROS	4.25	0.025	
UMB CERROS	4.3	0.025	
UMB CERROS	4.35	0.024	
UMB CERROS	4.4	0.024	
UMB CERROS	4.45	0.023	
UMB CERROS	4.5	0.023	
UMB CERROS	4.55	0.022	
UMB CERROS	4.6	0.022	
UMB CERROS	4.65	0.021	
UMB CERROS	4.7	0.021	
UMB CERROS	4.75	0.02	
UMB CERROS	4.8	0.02	
UMB CERROS	4.85	0.02	
UMB CERROS	4.9	0.019	
UMB CERROS	4.95	0.019	
UMB CERROS	5	0.018	
UMB CERROS	5.05	0.018	
UMB CERROS	5.1	0.018	
UMB CERROS	5.15	0.017	
UMB CERROS	5.2	0.017	
UMB CERROS	5.25	0.017	
UMB CERROS	5.3	0.016	
UMB CERROS	5.35	0.016	
UMB CERROS	5.4	0.016	
UMB CERROS	5.45	0.015	
UMB CERROS	5.5	0.015	
UMB CERROS	5.55	0.015	
UMB CERROS	5.6	0.015	
UMB CERROS	5.65	0.014	
UMB CERROS	5.7	0.014	
UMB CERROS	5.75	0.014	
UMB CERROS	5.8	0.014	
UMB CERROS	5.85	0.013	
UMB CERROS	5.9	0.013	
UMB CERROS	5.95	0.013	
UMB CERROS	6	0.013	
UMB CERROS	6.05	0.013	
UMB CERROS	6.1	0.012	
UMB CERROS	6.15	0.012	
UMB CERROS	6.2	0.012	
UMB CERROS	6.25	0.012	
UMB CERROS	6.3	0.012	
UMB CERROS	6.35	0.011	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
UMB CERROS	6.4	0.011	
UMB CERROS	6.45	0.011	
UMB CERROS	6.5	0.011	
UMB CERROS	6.55	0.011	
UMB CERROS	6.6	0.011	
UMB CERROS	6.65	0.01	
UMB CERROS	6.7	0.01	
UMB CERROS	6.75	0.01	
UMB CERROS	6.8	0.01	
UMB CERROS	6.85	0.01	
UMB CERROS	6.9	0.01	
UMB CERROS	6.95	0.01	
UMB CERROS	7	0.009	
UMB CERROS	7.05	0.009	
UMB CERROS	7.1	0.009	
UMB CERROS	7.15	0.009	
UMB CERROS	7.2	0.009	
UMB CERROS	7.25	0.009	
UMB CERROS	7.3	0.009	
UMB CERROS	7.35	0.008	
UMB CERROS	7.4	0.008	
UMB CERROS	7.45	0.008	
UMB CERROS	7.5	0.008	
UMB CERROS	7.55	0.008	
UMB CERROS	7.6	0.008	

1.1.2 Time History Functions

Table 1.3 - Functions - Time History - User Defined

Name	Time sec	Value
RampTH	0	0
RampTH	1	1
RampTH	4	1
UnifTH	0	1
UnifTH	1	1

1.2 Load Cases

Table 1.4 - Load Case Definitions - Summary

Name	Type	Notes
Modal	Modal - Eigen	
Dead	Linear Static	
Live	Linear Static	
EX	Response Spectrum	
EY	Response Spectrum	

Table 1.4 - Load Case Definitions - Summary (continued)

Name	Type	Notes
FSX	Response Spectrum	
FSY	Response Spectrum	
FSXD	Response Spectrum	
FSYD	Response Spectrum	

2 Analysis Results

This chapter provides analysis results.

2.1 Structure Results

Table 2.1 - Base Reactions (Part 1 of 2)

Output Case	Case Type	Step Type	Step Number	Step Label	FX kN	FY kN	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Dead	LinStatic				0	0	2492.5161	15568.3188	-21898.7622	0
Live	LinStatic				0	0	640.4997	3955.765	-5636.7533	0
EX	LinRespSpec	Max			1422.4248	4.0696	0	17.0622	5361.0595	7701.6634
EY	LinRespSpec	Max			4.0696	1485.975	0	5547.129	15.9117	12981.7261
FSX	LinRespSpec	Max			1137.041	3.2531	0	13.639	4285.4599	6156.464
FSY	LinRespSpec	Max			3.2531	1187.841	0	4434.1979	12.7193	10377.1776
FSXD	LinRespSpec	Max			606.6861	1.7352	0	7.2775	2286.7049	3284.7807
FSYD	LinRespSpec	Max			1.7352	633.7936	0	2366.058	6.7869	5536.9166

Table 2.1 - Base Reactions (Part 2 of 2)

X m	Y m	Z m
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

2.2 Modal Results

Table 2.2 - Modal Periods And Frequencies

Case	Mode	Period sec	Frequency cyc/sec	CircFreq rad/sec	Eigenvalue rad2/sec2
Modal	1	0.345	2.895	18.1912	330.92
Modal	2	0.327	3.057	19.2054	368.8493
Modal	3	0.288	3.477	21.848	477.3365
Modal	4	0.138	7.244	45.5156	2071.6716
Modal	5	0.128	7.816	49.1095	2411.7423
Modal	6	0.11	9.114	57.2668	3279.489

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
9.1 AJUSTE DE LOS RESULTADOS DEL ANÁLISIS DINÁMICO (A.5.4.5 DE NSR10)	Fecha:

El valor del cortante dinámico total en la base, Vt, obtenido después de realizar la combinación modal, para cualquiera de las direcciones de análisis, no puede ser menor que el 80 por ciento para estructuras regulares, o que el 90 por ciento para estructuras irregulares, del cortante sísmico en la base, Vs, calculado por el método de la fuerza horizontal equivalente del Capítulo A.4 de NSR10:

ϕp =	0.90	<	1.00
ϕa =	0.90	<	1.00
ϕr =	1.00	=	1.00

ESTRUCTURA IRREGULAR

Vs(FHE) = 972.08 kN

(90%)Vs(FHE) = 874.87 kN

Vsx = 1,137.04 kN

Vsy = 1,187.84 kN

Fm_{x-x} = 0.90Vs/Vtx = 1.00

Fm_{y-y} = 0.90Vs/Vty = 1.00

Teniendo en cuenta que el espectro elástico utilizado para el análisis estructural esta en función de la gravedad (g), se multiplicará ésta por el factor de modificación (Fm) en cada una de las direcciones principales como se muestra a continuación:

$Fm_{x-x}(g) = Fm_{x-x}\left(9.81\,{}^{m}/_{s^2}\right)$ = **9.81 m/s²**

$Fm_{y-y}(g) = Fm_{y-y}\left(9.81\,{}^{m}/_{s^2}\right)$ = **9.81 m/s²**

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
9.2 AJUSTE DE LOS RESULTADOS DEL ANÁLISIS DINÁMICO PARA EL CÁLCULO DEL DESPLAZAMIENTO HORIZONTAL DEL UMBRAL DE DAÑO	

El valor del cortante dinámico total en la base, Vt, obtenido después de realizar la combinación modal, para cualquiera de las direcciones de análisis, no puede ser menor que el 80 por ciento para estructuras regulares, o que el 90 por ciento para estructuras irregulares, del cortante sísmico en la base, Vs, calculado por el método de la fuerza horizontal equivalente del Capítulo A.4 de NSR10:

ϕp =	0.90	<	1.00
ϕa =	0.90	<	1.00
ϕr =	1.00	=	1.00

ESTRUCTURA IRREGULAR

Vs(FHE) = 673 kN (90%)Vs(FHE) = 606 kN

Vsx = 606.7 kN Vsy = 633.8 kN

$$Fm_{x-x} = 0.90Vs/Vtx = 1.00$$

$$Fm_{y-y} = 0.90Vs/Vty = 1.00$$

Teniendo en cuenta que el espectro elástico utilizado para el análisis estructural esta en función de la gravedad (g), se multiplicará ésta por el factor de modificación (Fm) dividido por el Coeficiente de Importancia en cada una de las direcciones principales como se muestra a continuación:

GRUPO DE USO= I I= 1.00

$$\frac{Fm_{x-x}(g)}{I} = \frac{Fm_{x-x}\left(9.81\,{}^{m}/_{s^2}\right)}{I} =$$ **9.81 m/s²**

$$\frac{Fm_{y-y}(g)}{I} = \frac{Fm_{y-y}\left(9.81\,{}^{m}/_{s^2}\right)}{I} =$$ **9.81 m/s²**

JARDIN SALAMANDRA	Proyecto No: 25-0112
9.3 AJUSTE DE LOS RESULTADOS DEL ANÁLISIS DINÁMICO PARA FACTOR DE DISEÑO (A.5.4.5 DE NSR10)	Archivo: Memorias Vulnerabilidad Fecha:

El valor del cortante dinámico total en la base, Vt, obtenido después de realizar la combinación modal, para cualquiera de las direcciones de análisis, no puede ser menor que el 80 por ciento para estructuras regulares, o que el 90 por ciento para estructuras irregulares, del cortante sísmico en la base, Vs, calculado por el método de la fuerza horizontal equivalente del Capítulo A.4 de NSR10:

Ro =	5.00			
ϕp =	0.90	<	1.00	**ESTRUCTURA IRREGULAR**
ϕa =	0.90	<	1.00	
ϕry =	1.00	=	1.00	
ϕrx =	1.00	=	1.00	

Vs(FHE) = 1,577.76 kN (90%)Vs(FHE) = 1,419.99 kN

Vsx = 1,422.4 kN Vsy = 1,485.98 kN

$$Fm_{x-x} = \text{0.90Vs/Vtx} = 1.00$$

$$Fm_{y-y} = \text{0.90Vs/Vty} = 1.00$$

Teniendo en cuenta que el espectro elástico utilizado para el análisis estructural esta en función de la gravedad (g), se multiplicará ésta por el factor de modificación (Fm) en cada una de las direcciones principales como se muestra a continuación:

Se tiene en cuenta lo que dice el numeral **Titulo A.10.4.2.4** de la **NSR-10:**	**SI**

c)	Cuando no exista ningún tipo de información, se permite utilizar un valor de R' correspondiente a 3/4 del valor que fija el Capitulo A.3 para el mismo sistema estructural y ek mismo material. El valor asi obtenido no hay necesidad de que sea menor que la unidad.	**0.75**

$$E_X = \frac{Fm_{x-x} * (9.81\,{}^{m}/_{s^2})}{R} = \quad \textbf{3.23 m/s²}$$

$$E_Y = \frac{Fm_{y-y} * (9.81\,{}^{m}/_{s^2})}{R} = \quad \textbf{3.23 m/s²}$$

TABLE: Modal Participating Mass Ratios														
Case	Mode	Period	UX	UY	UZ	SumUX	SumUY	SumUZ	RX	RY	RZ	SumRX	SumRY	SumRZ
		sec												
Modal	1	0.345	0.9106	9.42E-06	0	0.9106	9.42E-06	0	4.49E-06	0.0846	0.0375	4.49E-06	0.0846	0.0375
Modal	2	0.327	1.88E-05	0.9613	0	0.9106	0.9613	0	0.0697	3.80E-06	0.0001	0.0697	0.0846	0.0376
Modal	3	0.288	0.0352	0.0001	0	0.9458	0.9614	0	0.0003	0.0056	0.915	0.07	0.0902	0.9526
Modal	4	0.138	0.0514	6.84E-07	0	0.9972	0.9614	0	0	0.869	0.0013	0.07	0.9591	0.9539
Modal	5	0.128	0	0.0386	0	0.9972	1	0	0.9299	5.02E-06	2.76E-06	0.9999	0.9591	0.9539
Modal	6	0.11	0.0028	1.44E-05	0	1	1	0	0.0001	0.0409	0.0461	1	1	1

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
EVALUACION DE LA DERIVA MAXIMA Y LIMITES DE LA DERIVA (A.6.3 de NSR-10 y A.6.4 de NSR-10)	

CHEQUEO DE DERIVAS

Story	Label	Unique Name	Load Case/Combo	Displacement X	Displacement Y	Drift X	Drift Y	$(D1^2+D2^2)^{\wedge 0.5}$
				m	m			
N+5.65	1	2	COMDER1	-0.000005	-0.000014	0.000011	0.000012	0.002%
N+5.65	1	2	COMDER2	-0.000051	0.000043	3.00E-05	8.00E-06	0.003%
N+5.65	1	2	COMDER5	0.022762	0.01084	0.003334	0.00144	0.363%
N+5.65	1	2	COMDER5	-0.022829	-0.010795	0.003379	0.001437	0.367%
N+5.65	1	2	COMDER6	0.006896	0.019765	0.000997	0.002605	0.279%
N+5.65	1	2	COMDER6	-0.006962	-0.01972	0.001042	0.002602	0.280%
N+5.65	1	2	COMDER7	0.022792	0.010809	0.003349	0.001431	0.364%
N+5.65	1	2	COMDER7	-0.022799	-0.010827	0.003364	0.001446	0.366%
N+5.65	1	2	COMDER8	0.006926	0.019734	0.001012	0.002596	0.279%
N+5.65	1	2	COMDER8	-0.006932	-0.019751	0.001027	0.002611	0.281%
N+5.65	1	2	COMDER3	-0.000033	0.000023	0.000023	1.00E-06	0.002%
N+5.65	1	2	COMDER4	-0.000033	0.000023	0.000023	1.00E-06	0.002%
N+5.65	2	5	COMDER1	-0.000005	-0.000021	0.000011	0.000014	0.002%
N+5.65	2	5	COMDER2	-0.000051	0.000029	3.00E-05	0.000002	0.003%
N+5.65	2	5	COMDER5	0.022762	0.007303	0.003334	0.000961	0.347%
N+5.65	2	5	COMDER5	-0.022829	-0.007281	0.003379	0.000968	0.351%
N+5.65	2	5	COMDER6	0.006896	0.018603	0.000997	0.002455	0.265%
N+5.65	2	5	COMDER6	-0.006962	-0.018581	0.001042	0.002462	0.267%
N+5.65	2	5	COMDER7	0.022792	0.007278	0.003349	0.000955	0.348%
N+5.65	2	5	COMDER7	-0.022799	-0.007306	0.003364	0.000974	0.350%
N+5.65	2	5	COMDER8	0.006926	0.018579	0.001012	0.002449	0.265%
N+5.65	2	5	COMDER8	-0.006932	-0.018606	0.001027	0.002467	0.267%
N+5.65	2	5	COMDER3	-0.000033	0.000011	0.000023	0.000004	0.002%
N+5.65	2	5	COMDER4	-0.000033	0.000011	0.000023	0.000004	0.002%
N+5.65	3	8	COMDER1	-0.000005	-0.00003	0.000011	0.000018	0.002%
N+5.65	3	8	COMDER2	-0.000051	0.000013	3.00E-05	0.000005	0.003%
N+5.65	3	8	COMDER5	0.022762	0.007354	0.003334	0.000979	0.347%
N+5.65	3	8	COMDER5	-0.022829	-0.007358	0.003379	0.000997	0.352%
N+5.65	3	8	COMDER6	0.006896	0.018508	0.000997	0.002453	0.265%
N+5.65	3	8	COMDER6	-0.006962	-0.018512	0.001042	0.002471	0.268%
N+5.65	3	8	COMDER7	0.022792	0.007337	0.003349	0.000977	0.349%
N+5.65	3	8	COMDER7	-0.022799	-0.007376	0.003364	0.000999	0.351%
N+5.65	3	8	COMDER8	0.006926	0.018491	0.001012	0.002451	0.265%
N+5.65	3	8	COMDER8	-0.006932	-0.01853	0.001027	0.002473	0.268%
N+5.65	3	8	COMDER3	-0.000033	-0.000002	0.000023	0.000009	0.002%
N+5.65	3	8	COMDER4	-0.000033	-0.000002	0.000023	0.000009	0.002%
N+5.65	4	11	COMDER1	-0.000005	-0.000038	1.10E-05	0.00002	0.002%
N+5.65	4	11	COMDER2	-0.000051	-0.000002	3.00E-05	1.20E-05	0.003%
N+5.65	4	11	COMDER5	0.022762	0.010808	0.003334	0.001446	0.363%
N+5.65	4	11	COMDER5	-0.022829	-0.010835	0.003379	0.001474	0.369%
N+5.65	4	11	COMDER6	0.006896	0.019445	0.000997	0.002587	0.277%
N+5.65	4	11	COMDER6	-0.006962	-0.019472	0.001042	0.002615	0.281%
N+5.65	4	11	COMDER7	0.022792	0.010797	0.003349	0.001447	0.365%
N+5.65	4	11	COMDER7	-0.022799	-0.010846	0.003364	0.001473	0.367%
N+5.65	4	11	COMDER8	0.006926	0.019434	0.001012	0.002588	0.278%
N+5.65	4	11	COMDER8	-0.006932	-0.019483	0.001027	0.002614	0.281%
N+5.65	4	11	COMDER3	-0.000033	-0.000013	2.30E-05	1.40E-05	0.003%
N+5.65	4	11	COMDER4	-0.000033	-0.000013	2.30E-05	1.40E-05	0.003%
N+5.65	5	14	COMDER1	0.000003	-0.000014	9.00E-06	0.000012	0.002%
N+5.65	5	14	COMDER2	-0.000037	0.000043	2.40E-05	0.000008	0.003%
N+5.65	5	14	COMDER5	0.020086	0.01084	0.002989	0.00144	0.332%

N+5.65	5	14	COMDER5	-0.02013	-0.010795	0.003024	0.001437	0.335%
N+5.65	5	14	COMDER6	0.006064	0.019765	0.000895	0.002605	0.275%
N+5.65	5	14	COMDER6	-0.006109	-0.01972	0.000931	0.002602	0.276%
N+5.65	5	14	COMDER7	0.020109	0.010809	0.003001	0.001431	0.332%
N+5.65	5	14	COMDER7	-0.020106	-0.010827	0.003012	0.001446	0.334%
N+5.65	5	14	COMDER8	0.006088	0.019734	0.000908	0.002596	0.275%
N+5.65	5	14	COMDER8	-0.006085	-0.019751	0.000919	0.002611	0.277%
N+5.65	5	14	COMDER3	-0.000022	0.000023	1.80E-05	0.000001	0.002%
N+5.65	5	14	COMDER4	-0.000022	0.000023	1.80E-05	0.000001	0.002%
N+5.65	6	17	COMDER1	0.000003	-0.000021	9.00E-06	0.000014	0.002%
N+5.65	6	17	COMDER2	-0.000037	0.000029	2.40E-05	0.000002	0.002%
N+5.65	6	17	COMDER5	0.020086	0.007303	0.002989	0.000961	0.314%
N+5.65	6	17	COMDER5	-0.02013	-0.007281	0.003024	0.000968	0.318%
N+5.65	6	17	COMDER6	0.006064	0.018603	0.000895	0.002455	0.261%
N+5.65	6	17	COMDER6	-0.006109	-0.018581	0.000931	0.002462	0.263%
N+5.65	6	17	COMDER7	0.020109	0.007278	0.003001	0.000955	0.315%
N+5.65	6	17	COMDER7	-0.020106	-0.007306	0.003012	0.000974	0.317%
N+5.65	6	17	COMDER8	0.006088	0.018579	0.000908	0.002449	0.261%
N+5.65	6	17	COMDER8	-0.006085	-0.018606	0.000919	0.002467	0.263%
N+5.65	6	17	COMDER3	-0.000022	0.000011	1.80E-05	0.000004	0.002%
N+5.65	6	17	COMDER4	-0.000022	0.000011	1.80E-05	0.000004	0.002%
N+5.65	7	20	COMDER1	0.000003	-0.00003	0.000009	0.000018	0.002%
N+5.65	7	20	COMDER2	-0.000037	0.000013	0.000024	5.00E-06	0.002%
N+5.65	7	20	COMDER5	0.020086	0.007354	0.002989	0.000979	0.315%
N+5.65	7	20	COMDER5	-0.02013	-0.007358	0.003024	0.000997	0.318%
N+5.65	7	20	COMDER6	0.006064	0.018508	0.000895	0.002453	0.261%
N+5.65	7	20	COMDER6	-0.006109	-0.018512	0.000931	0.002471	0.264%
N+5.65	7	20	COMDER7	0.020109	0.007337	0.003001	0.000977	0.316%
N+5.65	7	20	COMDER7	-0.020106	-0.007376	0.003012	0.000999	0.317%
N+5.65	7	20	COMDER8	0.006088	0.018491	0.000908	0.002451	0.261%
N+5.65	7	20	COMDER8	-0.006085	-0.01853	0.000919	0.002473	0.264%
N+5.65	7	20	COMDER3	-0.000022	-0.000002	0.000018	9.00E-06	0.002%
N+5.65	7	20	COMDER4	-0.000022	-0.000002	0.000018	9.00E-06	0.002%
N+5.65	8	23	COMDER1	0.000003	-0.000038	0.000009	0.00002	0.002%
N+5.65	8	23	COMDER2	-0.000037	-0.000002	0.000024	0.000012	0.003%
N+5.65	8	23	COMDER5	0.020086	0.010808	0.002989	0.001446	0.332%
N+5.65	8	23	COMDER5	-0.02013	-0.010835	0.003024	0.001474	0.336%
N+5.65	8	23	COMDER6	0.006064	0.019445	0.000895	0.002587	0.274%
N+5.65	8	23	COMDER6	-0.006109	-0.019472	0.000931	0.002615	0.278%
N+5.65	8	23	COMDER7	0.020109	0.010797	0.003001	0.001447	0.333%
N+5.65	8	23	COMDER7	-0.020106	-0.010846	0.003012	0.001473	0.335%
N+5.65	8	23	COMDER8	0.006088	0.019434	0.000908	0.002588	0.274%
N+5.65	8	23	COMDER8	-0.006085	-0.019483	0.000919	0.002614	0.277%
N+5.65	8	23	COMDER3	-0.000022	-0.000013	0.000018	0.000014	0.002%
N+5.65	8	23	COMDER4	-0.000022	-0.000013	0.000018	0.000014	0.002%
N+5.65	9	26	COMDER1	0.000007	-0.000014	0.000007	1.20E-05	0.001%
N+5.65	9	26	COMDER2	-0.000029	0.000043	0.00002	0.000008	0.002%
N+5.65	9	26	COMDER5	0.018616	0.01084	0.002798	0.00144	0.315%
N+5.65	9	26	COMDER5	-0.018647	-0.010795	0.002828	0.001437	0.317%
N+5.65	9	26	COMDER6	0.005688	0.019765	0.000845	0.002605	0.274%
N+5.65	9	26	COMDER6	-0.005719	-0.01972	0.000875	0.002602	0.275%
N+5.65	9	26	COMDER7	0.018636	0.010809	0.002809	0.001431	0.315%
N+5.65	9	26	COMDER7	-0.018627	-0.010827	0.002818	0.001446	0.317%
N+5.65	9	26	COMDER8	0.005708	0.019734	0.000855	0.002596	0.273%
N+5.65	9	26	COMDER8	-0.005699	-0.019751	0.000864	0.002611	0.275%
N+5.65	9	26	COMDER3	-0.000016	0.000023	0.000015	0.000001	0.002%
N+5.65	9	26	COMDER4	-0.000016	0.000023	0.000015	0.000001	0.002%
N+5.65	10	29	COMDER1	0.000007	-0.000021	0.000007	0.000014	0.002%
N+5.65	10	29	COMDER2	-0.000029	0.000029	0.00002	2.00E-06	0.002%
N+5.65	10	29	COMDER5	0.018616	0.007303	0.002798	0.000961	0.296%
N+5.65	10	29	COMDER5	-0.018647	-0.007281	0.002828	0.000968	0.299%
N+5.65	10	29	COMDER6	0.005688	0.018603	0.000845	0.002455	0.260%

N+5.65	10	29	COMDER6	-0.005719	-0.018581	0.000875	0.002462	0.261%
N+5.65	10	29	COMDER7	0.018636	0.007278	0.002809	0.000955	0.297%
N+5.65	10	29	COMDER7	-0.018627	-0.007306	0.002818	0.000974	0.298%
N+5.65	10	29	COMDER8	0.005708	0.018579	0.000855	0.002449	0.259%
N+5.65	10	29	COMDER8	-0.005699	-0.018606	0.000864	0.002467	0.261%
N+5.65	10	29	COMDER3	-0.000016	0.000011	0.000015	4.00E-06	0.002%
N+5.65	10	29	COMDER4	-0.000016	0.000011	0.000015	4.00E-06	0.002%
N+5.65	11	32	COMDER1	0.000007	-0.00003	7.00E-06	0.000018	0.002%
N+5.65	11	32	COMDER2	-0.000029	0.000013	2.00E-05	0.000005	0.002%
N+5.65	11	32	COMDER5	0.018616	0.007354	0.002798	0.000979	0.296%
N+5.65	11	32	COMDER5	-0.018647	-0.007358	0.002828	0.000997	0.300%
N+5.65	11	32	COMDER6	0.005688	0.018508	0.000845	0.002453	0.259%
N+5.65	11	32	COMDER6	-0.005719	-0.018512	0.000875	0.002471	0.262%
N+5.65	11	32	COMDER7	0.018636	0.007337	0.002809	0.000977	0.297%
N+5.65	11	32	COMDER7	-0.018627	-0.007376	2.82E-03	0.000999	0.299%
N+5.65	11	32	COMDER8	0.005708	0.018491	8.55E-04	0.002451	0.260%
N+5.65	11	32	COMDER8	-0.005699	-0.01853	8.64E-04	0.002473	0.262%
N+5.65	11	32	COMDER3	-0.000016	-0.000002	0.000015	0.000009	0.002%
N+5.65	11	32	COMDER4	-0.000016	-0.000002	0.000015	0.000009	0.002%
N+5.65	12	35	COMDER1	0.000007	-0.000038	0.000007	0.00002	0.002%
N+5.65	12	35	COMDER2	-0.000029	-0.000002	0.00002	0.000012	0.002%
N+5.65	12	35	COMDER5	0.018616	0.010808	0.002798	0.001446	0.315%
N+5.65	12	35	COMDER5	-0.018647	-0.010835	2.83E-03	0.001474	0.319%
N+5.65	12	35	COMDER6	0.005688	0.019445	8.45E-04	0.002587	0.272%
N+5.65	12	35	COMDER6	-0.005719	-0.019472	8.75E-04	0.002615	0.276%
N+5.65	12	35	COMDER7	0.018636	0.010797	0.002809	0.001447	0.316%
N+5.65	12	35	COMDER7	-0.018627	-0.010846	0.002818	0.001473	0.318%
N+5.65	12	35	COMDER8	0.005708	0.019434	0.000855	0.002588	0.273%
N+5.65	12	35	COMDER8	-0.005699	-0.019483	0.000864	0.002614	0.275%
N+5.65	12	35	COMDER3	-0.000016	-0.000013	0.000015	0.000014	0.002%
N+5.65	12	35	COMDER4	-0.000016	-0.000013	1.50E-05	0.000014	0.002%
N+5.65	13	38	COMDER1	0.000011	-0.000014	6.00E-06	0.000012	0.001%
N+5.65	13	38	COMDER2	-0.000021	0.000043	0.000017	8.00E-06	0.002%
N+5.65	13	38	COMDER5	0.017415	0.01084	0.002643	0.00144	0.301%
N+5.65	13	38	COMDER5	-0.017434	-0.010795	0.002668	0.001437	0.303%
N+5.65	13	38	COMDER6	0.005391	0.019765	0.000805	0.002605	0.273%
N+5.65	13	38	COMDER6	-0.00541	-0.01972	0.00083	0.002602	0.273%
N+5.65	13	38	COMDER7	0.017432	0.010809	0.002652	0.001431	0.301%
N+5.65	13	38	COMDER7	-0.017417	-0.010827	0.002659	0.001446	0.303%
N+5.65	13	38	COMDER8	0.005407	0.019734	0.000814	0.002596	0.272%
N+5.65	13	38	COMDER8	-0.005393	-0.019751	0.000821	0.002611	0.274%
N+5.65	13	38	COMDER3	-0.00001	0.000023	1.30E-05	1.00E-06	0.001%
N+5.65	13	38	COMDER4	-0.00001	0.000023	1.30E-05	1.00E-06	0.001%
N+5.65	14	41	COMDER1	0.000011	-0.000021	6.00E-06	0.000014	0.002%
N+5.65	14	41	COMDER2	-0.000021	0.000029	0.000017	0.000002	0.002%
N+5.65	14	41	COMDER5	0.017415	0.007303	0.002643	0.000961	0.281%
N+5.65	14	41	COMDER5	-0.017434	-0.007281	0.002668	0.000968	0.284%
N+5.65	14	41	COMDER6	0.005391	0.018603	0.000805	0.002455	0.258%
N+5.65	14	41	COMDER6	-0.00541	-0.018581	0.00083	0.002462	0.260%
N+5.65	14	41	COMDER7	0.017432	0.007278	0.002652	0.000955	0.282%
N+5.65	14	41	COMDER7	-0.017417	-0.007306	0.002659	0.000974	0.283%
N+5.65	14	41	COMDER8	0.005407	0.018579	0.000814	0.002449	0.258%
N+5.65	14	41	COMDER8	-0.005393	-0.018606	0.000821	0.002467	0.260%
N+5.65	14	41	COMDER3	-0.00001	0.000011	1.30E-05	0.000004	0.001%
N+5.65	14	41	COMDER4	-0.00001	0.000011	1.30E-05	0.000004	0.001%
N+5.65	15	44	COMDER1	0.000011	-0.00003	6.00E-06	0.000018	0.002%
N+5.65	15	44	COMDER2	-0.000021	0.000013	0.000017	0.000005	0.002%
N+5.65	15	44	COMDER5	0.017415	0.007354	0.002643	0.000979	0.282%
N+5.65	15	44	COMDER5	-0.017434	-0.007358	0.002668	0.000997	0.285%
N+5.65	15	44	COMDER6	0.005391	0.018508	0.000805	0.002453	0.258%
N+5.65	15	44	COMDER6	-0.00541	-0.018512	0.00083	0.002471	0.261%
N+5.65	15	44	COMDER7	0.017432	0.007337	0.002652	0.000977	0.283%

N+5.65	15	44	COMDER7	-0.017417	-0.007376	0.002659	0.000999	0.284%
N+5.65	15	44	COMDER8	0.005407	0.018491	0.000814	0.002451	0.258%
N+5.65	15	44	COMDER8	-0.005393	-0.01853	0.000821	0.002473	0.261%
N+5.65	15	44	COMDER3	-0.00001	-0.000002	1.30E-05	0.000009	0.002%
N+5.65	15	44	COMDER4	-0.00001	-0.000002	1.30E-05	0.000009	0.002%
N+5.65	16	47	COMDER1	0.000011	-0.000038	6.00E-06	0.00002	0.002%
N+5.65	16	47	COMDER2	-0.000021	-0.000002	0.000017	0.000012	0.002%
N+5.65	16	47	COMDER5	0.017415	0.010808	0.002643	0.001446	0.301%
N+5.65	16	47	COMDER5	-0.017434	-0.010835	0.002668	0.001474	0.305%
N+5.65	16	47	COMDER6	0.005391	0.019445	0.000805	0.002587	0.271%
N+5.65	16	47	COMDER6	-0.00541	-0.019472	0.00083	0.002615	0.274%
N+5.65	16	47	COMDER7	0.017432	0.010797	0.002652	0.001447	0.302%
N+5.65	16	47	COMDER7	-0.017417	-0.010846	0.002659	0.001473	0.304%
N+5.65	16	47	COMDER8	0.005407	0.019434	0.000814	0.002588	0.271%
N+5.65	16	47	COMDER8	-0.005393	-0.019483	0.000821	0.002614	0.274%
N+5.65	16	47	COMDER3	-0.00001	-0.000013	0.000013	1.40E-05	0.002%
N+5.65	16	47	COMDER4	-0.00001	-0.000013	0.000013	1.40E-05	0.002%
N+2.95	1	1	COMDER1	0.000025	0.000018	9.00E-06	0.000006	0.001%
N+2.95	1	1	COMDER2	0.000031	0.000021	0.000011	0.000007	0.001%
N+2.95	1	1	COMDER5	0.013876	0.007011	0.004704	0.002377	0.527%
N+2.95	1	1	COMDER5	-0.013821	-0.006973	0.004685	0.002364	0.525%
N+2.95	1	1	COMDER6	0.004267	0.012809	0.001446	0.004342	0.458%
N+2.95	1	1	COMDER6	-0.004211	-0.012771	0.001428	0.004329	0.456%
N+2.95	1	1	COMDER7	0.013865	0.007003	0.0047	0.002374	0.527%
N+2.95	1	1	COMDER7	-0.013832	-0.00698	0.004689	0.002366	0.525%
N+2.95	1	1	COMDER8	0.004255	0.012802	0.001443	0.00434	0.457%
N+2.95	1	1	COMDER8	-0.004223	-0.012779	0.001431	0.004332	0.456%
N+2.95	1	1	COMDER3	0.000028	0.000019	0.000009	0.000006	0.001%
N+2.95	1	1	COMDER4	0.000028	0.000019	0.000009	0.000006	0.001%
N+2.95	2	4	COMDER1	0.000025	0.000018	9.00E-06	0.000006	0.001%
N+2.95	2	4	COMDER2	0.000031	0.000024	0.000011	0.000008	0.001%
N+2.95	2	4	COMDER5	0.013876	0.004742	0.004704	0.001608	0.497%
N+2.95	2	4	COMDER5	-0.013821	-0.004701	0.004685	0.001593	0.495%
N+2.95	2	4	COMDER6	0.004267	0.012045	0.001446	0.004083	0.433%
N+2.95	2	4	COMDER6	-0.004211	-0.012004	0.001428	0.004069	0.431%
N+2.95	2	4	COMDER7	0.013865	0.004733	0.0047	0.001604	0.497%
N+2.95	2	4	COMDER7	-0.013832	-0.00471	0.004689	0.001597	0.495%
N+2.95	2	4	COMDER8	0.004255	0.012036	0.001443	0.00408	0.433%
N+2.95	2	4	COMDER8	-0.004223	-0.012013	0.001431	0.004072	0.432%
N+2.95	2	4	COMDER3	0.000028	0.000021	0.000009	0.000007	0.001%
N+2.95	2	4	COMDER4	0.000028	0.000021	0.000009	0.000007	0.001%
N+2.95	3	7	COMDER1	0.000025	0.000017	0.000009	0.000006	0.001%
N+2.95	3	7	COMDER2	0.000031	0.000027	0.000011	0.000009	0.001%
N+2.95	3	7	COMDER5	0.013876	0.004744	0.004704	0.001608	0.497%
N+2.95	3	7	COMDER5	-0.013821	-0.004699	0.004685	0.001593	0.495%
N+2.95	3	7	COMDER6	0.004267	0.011954	0.001446	0.004052	0.430%
N+2.95	3	7	COMDER6	-0.004211	-0.011908	0.001428	0.004037	0.428%
N+2.95	3	7	COMDER7	0.013865	0.004732	0.0047	0.001604	0.497%
N+2.95	3	7	COMDER7	-0.013832	-0.00471	0.004689	0.001597	0.495%
N+2.95	3	7	COMDER8	0.004255	0.011942	0.001443	0.004048	0.430%
N+2.95	3	7	COMDER8	-0.004223	-0.01192	0.001431	0.004041	0.429%
N+2.95	3	7	COMDER3	0.000028	0.000023	9.00E-06	8.00E-06	0.001%
N+2.95	3	7	COMDER4	0.000028	0.000023	9.00E-06	8.00E-06	0.001%
N+2.95	4	10	COMDER1	0.000025	1.70E-05	0.000009	0.000006	0.001%
N+2.95	4	10	COMDER2	0.000031	0.00003	0.000011	0.00001	0.001%
N+2.95	4	10	COMDER5	0.013876	0.00696	0.004704	0.002359	0.526%
N+2.95	4	10	COMDER5	-0.013821	-0.006912	0.004685	0.002343	0.524%
N+2.95	4	10	COMDER6	0.004267	0.012535	0.001446	0.004249	0.449%
N+2.95	4	10	COMDER6	-0.004211	-0.012487	0.001428	0.004233	0.447%
N+2.95	4	10	COMDER7	0.013865	0.006947	0.0047	0.002355	0.526%
N+2.95	4	10	COMDER7	-0.013832	-0.006925	0.004689	0.002347	0.524%
N+2.95	4	10	COMDER8	0.004255	0.012522	0.001443	0.004245	0.448%

N+2.95	4	10	COMDER8	-0.004223	-0.0125	0.001431	0.004237	0.447%
N+2.95	4	10	COMDER3	0.000028	0.000024	9.00E-06	0.000008	0.001%
N+2.95	4	10	COMDER4	0.000028	0.000024	9.00E-06	0.000008	0.001%
N+2.95	5	13	COMDER1	0.000026	0.000018	0.000009	6.00E-06	0.001%
N+2.95	5	13	COMDER2	0.000028	0.000021	0.00001	0.000007	0.001%
N+2.95	5	13	COMDER5	0.012105	0.007011	0.004103	0.002377	0.474%
N+2.95	5	13	COMDER5	-0.012053	-0.006973	0.004086	0.002364	0.472%
N+2.95	5	13	COMDER6	0.003676	0.012809	0.001246	0.004342	0.452%
N+2.95	5	13	COMDER6	-0.003624	-0.012771	0.001228	0.004329	0.450%
N+2.95	5	13	COMDER7	0.012095	0.007003	0.0041	0.002374	0.474%
N+2.95	5	13	COMDER7	-0.012062	-0.00698	0.004089	0.002366	0.472%
N+2.95	5	13	COMDER8	0.003666	0.012802	0.001243	0.00434	0.451%
N+2.95	5	13	COMDER8	-0.003633	-0.012779	0.001232	0.004332	0.450%
N+2.95	5	13	COMDER3	0.000026	0.000019	0.000009	0.000006	0.001%
N+2.95	5	13	COMDER4	0.000026	0.000019	0.000009	0.000006	0.001%
N+2.95	6	16	COMDER1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	6	16	COMDER2	0.000028	0.000024	0.00001	0.000008	0.001%
N+2.95	6	16	COMDER5	0.012105	0.004742	0.004103	0.001608	0.441%
N+2.95	6	16	COMDER5	-0.012053	-0.004701	0.004086	0.001593	0.439%
N+2.95	6	16	COMDER6	0.003676	0.012045	0.001246	0.004083	0.427%
N+2.95	6	16	COMDER6	-0.003624	-0.012004	0.001228	0.004069	0.425%
N+2.95	6	16	COMDER7	0.012095	0.004733	0.0041	0.001604	0.440%
N+2.95	6	16	COMDER7	-0.012062	-0.00471	0.004089	0.001597	0.439%
N+2.95	6	16	COMDER8	0.003666	0.012036	0.001243	0.00408	0.427%
N+2.95	6	16	COMDER8	-0.003633	-0.012013	0.001232	0.004072	0.425%
N+2.95	6	16	COMDER3	0.000026	0.000021	0.000009	7.00E-06	0.001%
N+2.95	6	16	COMDER4	0.000026	0.000021	0.000009	7.00E-06	0.001%
N+2.95	7	19	COMDER1	0.000026	1.70E-05	0.000009	0.000006	0.001%
N+2.95	7	19	COMDER2	0.000028	0.000027	0.00001	0.000009	0.001%
N+2.95	7	19	COMDER5	0.012105	0.004744	0.004103	0.001608	0.441%
N+2.95	7	19	COMDER5	-0.012053	-0.004699	0.004086	0.001593	0.439%
N+2.95	7	19	COMDER6	0.003676	0.011954	0.001246	0.004052	0.424%
N+2.95	7	19	COMDER6	-0.003624	-0.011908	0.001228	0.004037	0.422%
N+2.95	7	19	COMDER7	0.012095	0.004732	0.0041	0.001604	0.440%
N+2.95	7	19	COMDER7	-0.012062	-0.00471	0.004089	0.001597	0.439%
N+2.95	7	19	COMDER8	0.003666	0.011942	0.001243	0.004048	0.423%
N+2.95	7	19	COMDER8	-0.003633	-0.01192	0.001232	0.004041	0.422%
N+2.95	7	19	COMDER3	0.000026	0.000023	0.000009	0.000008	0.001%
N+2.95	7	19	COMDER4	0.000026	0.000023	0.000009	0.000008	0.001%
N+2.95	8	22	COMDER1	0.000026	0.000017	0.000009	6.00E-06	0.001%
N+2.95	8	22	COMDER2	0.000028	0.00003	0.00001	0.00001	0.001%
N+2.95	8	22	COMDER5	0.012105	0.00696	0.004103	0.002359	0.473%
N+2.95	8	22	COMDER5	-0.012053	-0.006912	0.004086	0.002343	0.471%
N+2.95	8	22	COMDER6	0.003676	0.012535	0.001246	0.004249	0.443%
N+2.95	8	22	COMDER6	-0.003624	-0.012487	0.001228	0.004233	0.441%
N+2.95	8	22	COMDER7	0.012095	0.006947	0.0041	0.002355	0.473%
N+2.95	8	22	COMDER7	-0.012062	-0.006925	0.004089	0.002347	0.471%
N+2.95	8	22	COMDER8	0.003666	0.012522	0.001243	0.004245	0.442%
N+2.95	8	22	COMDER8	-0.003633	-0.0125	0.001232	0.004237	0.441%
N+2.95	8	22	COMDER3	0.000026	0.000024	0.000009	0.000008	0.001%
N+2.95	8	22	COMDER4	0.000026	0.000024	0.000009	0.000008	0.001%
N+2.95	9	25	COMDER1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	9	25	COMDER2	0.000027	0.000021	0.000009	0.000007	0.001%
N+2.95	9	25	COMDER5	0.011139	0.007011	0.003776	0.002377	0.446%
N+2.95	9	25	COMDER5	-0.011089	-0.006973	0.003759	0.002364	0.444%
N+2.95	9	25	COMDER6	0.003433	0.012809	0.001164	0.004342	0.450%
N+2.95	9	25	COMDER6	-0.003383	-0.012771	0.001147	0.004329	0.448%
N+2.95	9	25	COMDER7	0.011131	0.007003	0.003773	0.002374	0.446%
N+2.95	9	25	COMDER7	-0.011098	-0.00698	0.003762	0.002366	0.444%
N+2.95	9	25	COMDER8	0.003424	0.012802	0.001161	0.00434	0.449%
N+2.95	9	25	COMDER8	-0.003391	-0.012779	0.001149	0.004332	0.448%
N+2.95	9	25	COMDER3	0.000025	0.000019	0.000008	6.00E-06	0.001%

N+2.95	9	25	COMDER4	0.000025	0.000019	0.000008	6.00E-06	0.001%
N+2.95	10	28	COMDER1	0.000026	1.80E-05	0.000009	0.000006	0.001%
N+2.95	10	28	COMDER2	0.000027	0.000024	0.000009	0.000008	0.001%
N+2.95	10	28	COMDER5	0.011139	0.004742	0.003776	0.001608	0.410%
N+2.95	10	28	COMDER5	-0.011089	-0.004701	0.003759	0.001593	0.408%
N+2.95	10	28	COMDER6	0.003433	0.012045	0.001164	0.004083	0.425%
N+2.95	10	28	COMDER6	-0.003383	-0.012004	0.001147	0.004069	0.423%
N+2.95	10	28	COMDER7	0.011131	0.004733	0.003773	0.001604	0.410%
N+2.95	10	28	COMDER7	-0.011098	-0.00471	0.003762	0.001597	0.409%
N+2.95	10	28	COMDER8	0.003424	0.012036	0.001161	0.00408	0.424%
N+2.95	10	28	COMDER8	-0.003391	-0.012013	0.001149	0.004072	0.423%
N+2.95	10	28	COMDER3	0.000025	0.000021	0.000008	0.000007	0.001%
N+2.95	10	28	COMDER4	0.000025	0.000021	0.000008	0.000007	0.001%
N+2.95	11	31	COMDER1	0.000026	0.000017	0.000009	6.00E-06	0.001%
N+2.95	11	31	COMDER2	0.000027	0.000027	0.000009	0.000009	0.001%
N+2.95	11	31	COMDER5	0.011139	0.004744	0.003776	0.001608	0.410%
N+2.95	11	31	COMDER5	-0.011089	-0.004699	0.003759	0.001593	0.408%
N+2.95	11	31	COMDER6	0.003433	0.011954	0.001164	0.004052	0.422%
N+2.95	11	31	COMDER6	-0.003383	-0.011908	0.001147	0.004037	0.420%
N+2.95	11	31	COMDER7	0.011131	0.004732	0.003773	0.001604	0.410%
N+2.95	11	31	COMDER7	-0.011098	-0.00471	0.003762	0.001597	0.409%
N+2.95	11	31	COMDER8	0.003424	0.011942	0.001161	0.004048	0.421%
N+2.95	11	31	COMDER8	-0.003391	-0.01192	0.001149	0.004041	0.420%
N+2.95	11	31	COMDER3	0.000025	0.000023	0.000008	0.000008	0.001%
N+2.95	11	31	COMDER4	0.000025	0.000023	0.000008	0.000008	0.001%
N+2.95	12	34	COMDER1	0.000026	0.000017	9.00E-06	0.000006	0.001%
N+2.95	12	34	COMDER2	0.000027	0.00003	9.00E-06	0.00001	0.001%
N+2.95	12	34	COMDER5	0.011139	0.00696	0.003776	0.002359	0.445%
N+2.95	12	34	COMDER5	-0.011089	-0.006912	0.003759	0.002343	0.443%
N+2.95	12	34	COMDER6	0.003433	0.012535	0.001164	0.004249	0.441%
N+2.95	12	34	COMDER6	-0.003383	-0.012487	0.001147	0.004233	0.439%
N+2.95	12	34	COMDER7	0.011131	0.006947	0.003773	0.002355	0.445%
N+2.95	12	34	COMDER7	-0.011098	-0.006925	0.003762	0.002347	0.443%
N+2.95	12	34	COMDER8	0.003424	0.012522	0.001161	0.004245	0.440%
N+2.95	12	34	COMDER8	-0.003391	-0.0125	0.001149	0.004237	0.439%
N+2.95	12	34	COMDER3	0.000025	0.000024	8.00E-06	8.00E-06	0.001%
N+2.95	12	34	COMDER4	0.000025	0.000024	8.00E-06	8.00E-06	0.001%
N+2.95	13	37	COMDER1	0.000026	1.80E-05	9.00E-06	0.000006	0.001%
N+2.95	13	37	COMDER2	0.000025	0.000021	9.00E-06	0.000007	0.001%
N+2.95	13	37	COMDER5	0.010352	0.007011	0.003509	0.002377	0.424%
N+2.95	13	37	COMDER5	-0.010303	-0.006973	0.003493	0.002364	0.422%
N+2.95	13	37	COMDER6	0.003244	0.012809	0.0011	0.004342	0.448%
N+2.95	13	37	COMDER6	-0.003196	-0.012771	0.001083	0.004329	0.446%
N+2.95	13	37	COMDER7	0.010344	0.007003	0.003507	0.002374	0.423%
N+2.95	13	37	COMDER7	-0.010311	-0.00698	0.003495	0.002366	0.422%
N+2.95	13	37	COMDER8	0.003237	0.012802	0.001097	0.00434	0.448%
N+2.95	13	37	COMDER8	-0.003203	-0.012779	0.001086	0.004332	0.447%
N+2.95	13	37	COMDER3	0.000024	0.000019	8.00E-06	0.000006	0.001%
N+2.95	13	37	COMDER4	0.000024	0.000019	8.00E-06	0.000006	0.001%
N+2.95	14	40	COMDER1	0.000026	0.000018	9.00E-06	6.00E-06	0.001%
N+2.95	14	40	COMDER2	0.000025	0.000024	9.00E-06	0.000008	0.001%
N+2.95	14	40	COMDER5	0.010352	0.004742	0.003509	0.001608	0.386%
N+2.95	14	40	COMDER5	-0.010303	-0.004701	0.003493	0.001593	0.384%
N+2.95	14	40	COMDER6	0.003244	0.012045	0.0011	0.004083	0.423%
N+2.95	14	40	COMDER6	-0.003196	-0.012004	0.001083	0.004069	0.421%
N+2.95	14	40	COMDER7	0.010344	0.004733	0.003507	0.001604	0.386%
N+2.95	14	40	COMDER7	-0.010311	-0.00471	0.003495	0.001597	0.384%
N+2.95	14	40	COMDER8	0.003237	0.012036	0.001097	0.00408	0.422%
N+2.95	14	40	COMDER8	-0.003203	-0.012013	0.001086	0.004072	0.421%
N+2.95	14	40	COMDER3	0.000024	0.000021	8.00E-06	0.000007	0.001%
N+2.95	14	40	COMDER4	0.000024	0.000021	8.00E-06	0.000007	0.001%
N+2.95	15	43	COMDER1	0.000026	0.000017	0.000009	0.000006	0.001%

N+2.95	15	43	COMDER2	0.000025	0.000027	0.000009	0.000009	0.001%
N+2.95	15	43	COMDER5	0.010352	0.004744	0.003509	0.001608	0.386%
N+2.95	15	43	COMDER5	-0.010303	-0.004699	0.003493	0.001593	0.384%
N+2.95	15	43	COMDER6	0.003244	0.011954	0.0011	0.004052	0.420%
N+2.95	15	43	COMDER6	-0.003196	-0.011908	0.001083	0.004037	0.418%
N+2.95	15	43	COMDER7	0.010344	0.004732	0.003507	0.001604	0.386%
N+2.95	15	43	COMDER7	-0.010311	-0.00471	0.003495	0.001597	0.384%
N+2.95	15	43	COMDER8	0.003237	0.011942	0.001097	0.004048	0.419%
N+2.95	15	43	COMDER8	-0.003203	-0.01192	0.001086	0.004041	0.418%
N+2.95	15	43	COMDER3	0.000024	0.000023	0.000008	0.000008	0.001%
N+2.95	15	43	COMDER4	0.000024	0.000023	0.000008	0.000008	0.001%
N+2.95	16	46	COMDER1	0.000026	1.70E-05	0.000009	0.000006	0.001%
N+2.95	16	46	COMDER2	0.000025	0.00003	0.000009	0.00001	0.001%
N+2.95	16	46	COMDER5	0.010352	0.00696	0.003509	0.002359	0.423%
N+2.95	16	46	COMDER5	-0.010303	-0.006912	0.003493	0.002343	0.421%
N+2.95	16	46	COMDER6	0.003244	0.012535	0.0011	0.004249	0.439%
N+2.95	16	46	COMDER6	-0.003196	-0.012487	0.001083	0.004233	0.437%
N+2.95	16	46	COMDER7	0.010344	0.006947	0.003507	0.002355	0.422%
N+2.95	16	46	COMDER7	-0.010311	-0.006925	0.003495	0.002347	0.421%
N+2.95	16	46	COMDER8	0.003237	0.012522	0.001097	0.004245	0.438%
N+2.95	16	46	COMDER8	-0.003203	-0.0125	0.001086	0.004237	0.437%
N+2.95	16	46	COMDER3	0.000024	0.000024	0.000008	0.000008	0.001%
N+2.95	16	46	COMDER4	0.000024	0.000024	0.000008	0.000008	0.001%
N+2.95	33	65	COMDER1	0.000026	0.000017	0.000009	6.00E-06	0.001%
N+2.95	33	65	COMDER2	0.00003	0.000025	0.00001	0.000009	0.001%
N+2.95	33	65	COMDER5	0.012931	0.003796	0.004383	0.001287	0.457%
N+2.95	33	65	COMDER5	-0.012878	-0.003753	0.004365	0.001272	0.455%
N+2.95	33	65	COMDER6	0.003938	0.011727	0.001335	0.003975	0.419%
N+2.95	33	65	COMDER6	-0.003884	-0.011684	0.001317	0.003961	0.417%
N+2.95	33	65	COMDER7	0.012921	0.003786	0.00438	0.001283	0.456%
N+2.95	33	65	COMDER7	-0.012888	-0.003764	0.004369	0.001276	0.455%
N+2.95	33	65	COMDER8	0.003927	0.011716	0.001331	0.003972	0.419%
N+2.95	33	65	COMDER8	-0.003894	-0.011694	0.00132	0.003964	0.418%
N+2.95	33	65	COMDER3	0.000027	0.000021	0.000009	0.000007	0.001%
N+2.95	33	65	COMDER4	0.000027	0.000021	0.000009	0.000007	0.001%
N+2.95	34	66	COMDER1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	34	66	COMDER2	0.00003	0.000026	0.00001	0.000009	0.001%
N+2.95	34	66	COMDER5	0.012931	0.003824	0.004383	0.001296	0.457%
N+2.95	34	66	COMDER5	-0.012878	-0.00378	0.004365	0.001281	0.455%
N+2.95	34	66	COMDER6	0.003938	0.011712	0.001335	0.00397	0.419%
N+2.95	34	66	COMDER6	-0.003884	-0.011668	0.001317	0.003955	0.417%
N+2.95	34	66	COMDER7	0.012921	0.003813	0.00438	0.001292	0.457%
N+2.95	34	66	COMDER7	-0.012888	-0.003791	0.004369	0.001285	0.455%
N+2.95	34	66	COMDER8	0.003927	0.011701	0.001331	0.003967	0.418%
N+2.95	34	66	COMDER8	-0.003894	-0.011679	0.00132	0.003959	0.417%
N+2.95	34	66	COMDER3	0.000027	0.000022	0.000009	0.000007	0.001%
N+2.95	34	66	COMDER4	0.000027	0.000022	0.000009	0.000007	0.001%

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad Fecha:
EVALUACION DE LA DERIVA MAXIMA Y LIMITES DE LA DERIVA PARA EL UMBRAL DE DAÑO (A.6.3 de NSR-10 y A.6.4 de NSR-10)	

CHEQUEO DE DERIVAS

Story	Label	Unique Name	Load Case/Combo	Displacement X	Displacement Y	Drift X	Drift Y	$(D1^2+D2^2)^{\wedge 0.5}$
				mm	mm			
N+5.65	1	2	COMUMB1	-0.000005	-0.000014	0.000011	0.000012	0.002%
N+5.65	1	2	COMUMB2	-0.000051	0.000043	0.00003	0.000008	0.003%
N+5.65	1	2	COMUMB3	-0.000033	0.000023	0.000023	0.000001	0.002%
N+5.65	1	2	COMUMB4	-0.000033	0.000023	0.000023	0.000001	0.002%
N+5.65	1	2	COMUMB5	0.01213	0.005795	0.001768	0.000768	0.193%
N+5.65	1	2	COMUMB5	-0.012197	-0.00575	0.001813	0.000766	0.197%
N+5.65	1	2	COMUMB6	0.003664	0.010557	0.000521	0.00139	0.148%
N+5.65	1	2	COMUMB6	-0.003731	-0.010512	0.000566	0.001387	0.150%
N+5.65	1	2	COMUMB7	0.01216	0.005763	0.001783	0.00076	0.194%
N+5.65	1	2	COMUMB7	-0.012166	-0.005781	0.001798	0.000775	0.196%
N+5.65	1	2	COMUMB8	0.003694	0.010525	0.000536	0.001381	0.148%
N+5.65	1	2	COMUMB8	-0.0037	-0.010543	0.000551	0.001396	0.150%
N+5.65	2	5	COMUMB1	-0.000005	-0.000021	0.000011	0.000014	0.002%
N+5.65	2	5	COMUMB2	-0.000051	0.000029	0.00003	0.000002	0.003%
N+5.65	2	5	COMUMB3	-0.000033	0.000011	0.000023	0.000004	0.002%
N+5.65	2	5	COMUMB4	-0.000033	0.000011	0.000023	0.000004	0.002%
N+5.65	2	5	COMUMB5	0.01213	0.003902	0.001768	0.000511	0.184%
N+5.65	2	5	COMUMB5	-0.012197	-0.00388	0.001813	0.000518	0.189%
N+5.65	2	5	COMUMB6	0.003664	0.009932	0.000521	0.001307	0.141%
N+5.65	2	5	COMUMB6	-0.003731	-0.00991	0.000566	0.001314	0.143%
N+5.65	2	5	COMUMB7	0.01216	0.003877	0.001783	0.000505	0.185%
N+5.65	2	5	COMUMB7	-0.012166	-0.003905	0.001798	0.000524	0.187%
N+5.65	2	5	COMUMB8	0.003694	0.009907	0.000536	0.001302	0.141%
N+5.65	2	5	COMUMB8	-0.0037	-0.009934	0.000551	0.00132	0.143%
N+5.65	3	8	COMUMB1	-0.000005	-0.00003	0.000011	0.000018	0.002%
N+5.65	3	8	COMUMB2	-0.000051	0.000013	0.00003	0.000005	0.003%
N+5.65	3	8	COMUMB3	-0.000033	-0.000002	0.000023	0.000009	0.002%
N+5.65	3	8	COMUMB4	-0.000033	-0.000002	0.000023	0.000009	0.002%
N+5.65	3	8	COMUMB5	0.01213	0.003923	0.001768	0.000518	0.184%
N+5.65	3	8	COMUMB5	-0.012197	-0.003927	0.001813	0.000536	0.189%
N+5.65	3	8	COMUMB6	0.003664	0.009875	0.000521	0.001304	0.140%
N+5.65	3	8	COMUMB6	-0.003731	-0.009878	0.000566	0.001322	0.144%
N+5.65	3	8	COMUMB7	0.01216	0.003906	0.001783	0.000516	0.186%
N+5.65	3	8	COMUMB7	-0.012166	-0.003944	0.001798	0.000538	0.188%
N+5.65	3	8	COMUMB8	0.003694	0.009857	0.000536	0.001302	0.141%
N+5.65	3	8	COMUMB8	-0.0037	-0.009896	0.000551	0.001324	0.143%
N+5.65	4	11	COMUMB1	-0.000005	-0.000038	0.000011	0.00002	0.002%
N+5.65	4	11	COMUMB2	-0.000051	-0.000002	0.00003	0.000012	0.003%
N+5.65	4	11	COMUMB3	-0.000033	-0.000013	0.000023	0.000014	0.003%
N+5.65	4	11	COMUMB4	-0.000033	-0.000013	0.000023	0.000014	0.003%
N+5.65	4	11	COMUMB5	0.01213	0.005761	0.001768	0.000765	0.193%
N+5.65	4	11	COMUMB5	-0.012197	-0.005787	0.001813	0.000793	0.198%
N+5.65	4	11	COMUMB6	0.003664	0.010369	0.000521	0.001373	0.147%
N+5.65	4	11	COMUMB6	-0.003731	-0.010396	0.000566	0.001401	0.151%
N+5.65	4	11	COMUMB7	0.01216	0.00575	0.001783	0.000766	0.194%
N+5.65	4	11	COMUMB7	-0.012166	-0.005798	0.001798	0.000792	0.196%
N+5.65	4	11	COMUMB8	0.003694	0.010358	0.000536	0.001374	0.147%
N+5.65	4	11	COMUMB8	-0.0037	-0.010407	0.000551	0.0014	0.150%
N+5.65	5	14	COMUMB1	0.000003	-0.000014	0.000009	0.000012	0.002%
N+5.65	5	14	COMUMB2	-0.000037	0.000043	0.000024	0.000008	0.003%
N+5.65	5	14	COMUMB3	-0.000022	0.000023	0.000018	0.000001	0.002%

N+5.65	5	14	COMUMB4	-0.000022	0.000023	0.000018	0.000001	0.002%
N+5.65	5	14	COMUMB5	0.010707	0.005795	0.001586	0.000768	0.176%
N+5.65	5	14	COMUMB5	-0.010752	-0.00575	0.001622	0.000766	0.179%
N+5.65	5	14	COMUMB6	0.003225	0.010557	0.000469	0.00139	0.147%
N+5.65	5	14	COMUMB6	-0.00327	-0.010512	0.000505	0.001387	0.148%
N+5.65	5	14	COMUMB7	0.010731	0.005763	0.001598	0.00076	0.177%
N+5.65	5	14	COMUMB7	-0.010728	-0.005781	0.001609	0.000775	0.179%
N+5.65	5	14	COMUMB8	0.003249	0.010525	0.000482	0.001381	0.146%
N+5.65	5	14	COMUMB8	-0.003246	-0.010543	0.000493	0.001396	0.148%
N+5.65	6	17	COMUMB1	0.000003	-0.000021	0.000009	0.000014	0.002%
N+5.65	6	17	COMUMB2	-0.000037	0.000029	0.000024	0.000002	0.002%
N+5.65	6	17	COMUMB3	-0.000022	0.000011	0.000018	0.000004	0.002%
N+5.65	6	17	COMUMB4	-0.000022	0.000011	0.000018	0.000004	0.002%
N+5.65	6	17	COMUMB5	0.010707	0.003902	0.001586	0.000511	0.167%
N+5.65	6	17	COMUMB5	-0.010752	-0.00388	0.001622	0.000518	0.170%
N+5.65	6	17	COMUMB6	0.003225	0.009932	0.000469	0.001307	0.139%
N+5.65	6	17	COMUMB6	-0.00327	-0.00991	0.000505	0.001314	0.141%
N+5.65	6	17	COMUMB7	0.010731	0.003877	0.001598	0.000505	0.168%
N+5.65	6	17	COMUMB7	-0.010728	-0.003905	0.001609	0.000524	0.169%
N+5.65	6	17	COMUMB8	0.003249	0.009907	0.000482	0.001302	0.139%
N+5.65	6	17	COMUMB8	-0.003246	-0.009934	0.000493	0.00132	0.141%
N+5.65	7	20	COMUMB1	0.000003	-0.00003	0.000009	0.000018	0.002%
N+5.65	7	20	COMUMB2	-0.000037	0.000013	0.000024	0.000005	0.002%
N+5.65	7	20	COMUMB3	-0.000022	-0.000002	0.000018	0.000009	0.002%
N+5.65	7	20	COMUMB4	-0.000022	-0.000002	0.000018	0.000009	0.002%
N+5.65	7	20	COMUMB5	0.010707	0.003923	0.001586	0.000518	0.167%
N+5.65	7	20	COMUMB5	-0.010752	-0.003927	0.001622	0.000536	0.171%
N+5.65	7	20	COMUMB6	0.003225	0.009875	0.000469	0.001304	0.139%
N+5.65	7	20	COMUMB6	-0.00327	-0.009878	0.000505	0.001322	0.142%
N+5.65	7	20	COMUMB7	0.010731	0.003906	0.001598	0.000516	0.168%
N+5.65	7	20	COMUMB7	-0.010728	-0.003944	0.001609	0.000538	0.170%
N+5.65	7	20	COMUMB8	0.003249	0.009857	0.000482	0.001302	0.139%
N+5.65	7	20	COMUMB8	-0.003246	-0.009896	0.000493	0.001324	0.141%
N+5.65	8	23	COMUMB1	0.000003	-0.000038	0.000009	0.00002	0.002%
N+5.65	8	23	COMUMB2	-0.000037	-0.000002	0.000024	0.000012	0.003%
N+5.65	8	23	COMUMB3	-0.000022	-0.000013	0.000018	0.000014	0.002%
N+5.65	8	23	COMUMB4	-0.000022	-0.000013	0.000018	0.000014	0.002%
N+5.65	8	23	COMUMB5	0.010707	0.005761	0.001586	0.000765	0.176%
N+5.65	8	23	COMUMB5	-0.010752	-0.005787	0.001622	0.000793	0.181%
N+5.65	8	23	COMUMB6	0.003225	0.010369	0.000469	0.001373	0.145%
N+5.65	8	23	COMUMB6	-0.00327	-0.010396	0.000505	0.001401	0.149%
N+5.65	8	23	COMUMB7	0.010731	0.00575	0.001598	0.000766	0.177%
N+5.65	8	23	COMUMB7	-0.010728	-0.005798	0.001609	0.000792	0.179%
N+5.65	8	23	COMUMB8	0.003249	0.010358	0.000482	0.001374	0.146%
N+5.65	8	23	COMUMB8	-0.003246	-0.010407	0.000493	0.0014	0.148%
N+5.65	9	26	COMUMB1	0.000007	-0.000014	0.000007	0.000012	0.001%
N+5.65	9	26	COMUMB2	-0.000029	0.000043	0.00002	0.000008	0.002%
N+5.65	9	26	COMUMB3	-0.000016	0.000023	0.000015	0.000001	0.002%
N+5.65	9	26	COMUMB4	-0.000016	0.000023	0.000015	0.000001	0.002%
N+5.65	9	26	COMUMB5	0.009926	0.005795	0.001486	0.000768	0.167%
N+5.65	9	26	COMUMB5	-0.009957	-0.00575	0.001516	0.000766	0.170%
N+5.65	9	26	COMUMB6	0.003028	0.010557	0.000443	0.00139	0.146%
N+5.65	9	26	COMUMB6	-0.003059	-0.010512	0.000474	0.001387	0.147%
N+5.65	9	26	COMUMB7	0.009946	0.005763	0.001496	0.00076	0.168%
N+5.65	9	26	COMUMB7	-0.009937	-0.005781	0.001505	0.000775	0.169%
N+5.65	9	26	COMUMB8	0.003048	0.010525	0.000454	0.001381	0.145%
N+5.65	9	26	COMUMB8	-0.003039	-0.010543	0.000463	0.001396	0.147%
N+5.65	10	29	COMUMB1	0.000007	-0.000021	0.000007	0.000014	0.002%
N+5.65	10	29	COMUMB2	-0.000029	0.000029	0.00002	0.000002	0.002%
N+5.65	10	29	COMUMB3	-0.000016	0.000011	0.000015	0.000004	0.002%
N+5.65	10	29	COMUMB4	-0.000016	0.000011	0.000015	0.000004	0.002%
N+5.65	10	29	COMUMB5	0.009926	0.003902	0.001486	0.000511	0.157%

N+5.65	10	29	COMUMB5	-0.009957	-0.00388	0.001516	0.000518	0.160%
N+5.65	10	29	COMUMB6	0.003028	0.009932	0.000443	0.001307	0.138%
N+5.65	10	29	COMUMB6	-0.003059	-0.00991	0.000474	0.001314	0.140%
N+5.65	10	29	COMUMB7	0.009946	0.003877	0.001496	0.000505	0.158%
N+5.65	10	29	COMUMB7	-0.009937	-0.003905	0.001505	0.000524	0.159%
N+5.65	10	29	COMUMB8	0.003048	0.009907	0.000454	0.001302	0.138%
N+5.65	10	29	COMUMB8	-0.003039	-0.009934	0.000463	0.00132	0.140%
N+5.65	11	32	COMUMB1	0.000007	-0.00003	0.000007	0.000018	0.002%
N+5.65	11	32	COMUMB2	-0.000029	0.000013	0.00002	0.000005	0.002%
N+5.65	11	32	COMUMB3	-0.000016	-0.000002	0.000015	0.000009	0.002%
N+5.65	11	32	COMUMB4	-0.000016	-0.000002	0.000015	0.000009	0.002%
N+5.65	11	32	COMUMB5	0.009926	0.003923	0.001486	0.000518	0.157%
N+5.65	11	32	COMUMB5	-0.009957	-0.003927	0.001516	0.000536	0.161%
N+5.65	11	32	COMUMB6	0.003028	0.009875	0.000443	0.001304	0.138%
N+5.65	11	32	COMUMB6	-0.003059	-0.009878	0.000474	0.001322	0.140%
N+5.65	11	32	COMUMB7	0.009946	0.003906	0.001496	0.000516	0.158%
N+5.65	11	32	COMUMB7	-0.009937	-0.003944	0.001505	0.000538	0.160%
N+5.65	11	32	COMUMB8	0.003048	0.009857	0.000454	0.001302	0.138%
N+5.65	11	32	COMUMB8	-0.003039	-0.009896	0.000463	0.001324	0.140%
N+5.65	12	35	COMUMB1	0.000007	-0.000038	0.000007	0.00002	0.002%
N+5.65	12	35	COMUMB2	-0.000029	-0.000002	0.00002	0.000012	0.002%
N+5.65	12	35	COMUMB3	-0.000016	-0.000013	0.000015	0.000014	0.002%
N+5.65	12	35	COMUMB4	-0.000016	-0.000013	0.000015	0.000014	0.002%
N+5.65	12	35	COMUMB5	0.009926	0.005761	0.001486	0.000765	0.167%
N+5.65	12	35	COMUMB5	-0.009957	-0.005787	0.001516	0.000793	0.171%
N+5.65	12	35	COMUMB6	0.003028	0.010369	0.000443	0.001373	0.144%
N+5.65	12	35	COMUMB6	-0.003059	-0.010396	0.000474	0.001401	0.148%
N+5.65	12	35	COMUMB7	0.009946	0.00575	0.001496	0.000766	0.168%
N+5.65	12	35	COMUMB7	-0.009937	-0.005798	0.001505	0.000792	0.170%
N+5.65	12	35	COMUMB8	0.003048	0.010358	0.000454	0.001374	0.145%
N+5.65	12	35	COMUMB8	-0.003039	-0.010407	0.000463	0.0014	0.147%
N+5.65	13	38	COMUMB1	0.000011	-0.000014	0.000006	0.000012	0.001%
N+5.65	13	38	COMUMB2	-0.000021	0.000043	0.000017	0.000008	0.002%
N+5.65	13	38	COMUMB3	-0.00001	0.000023	0.000013	0.000001	0.001%
N+5.65	13	38	COMUMB4	-0.00001	0.000023	0.000013	0.000001	0.001%
N+5.65	13	38	COMUMB5	0.009288	0.005795	0.001404	0.000768	0.160%
N+5.65	13	38	COMUMB5	-0.009307	-0.00575	0.001429	0.000766	0.162%
N+5.65	13	38	COMUMB6	0.002872	0.010557	0.000423	0.00139	0.145%
N+5.65	13	38	COMUMB6	-0.002891	-0.010512	0.000448	0.001387	0.146%
N+5.65	13	38	COMUMB7	0.009305	0.005763	0.001413	0.00076	0.160%
N+5.65	13	38	COMUMB7	-0.00929	-0.005781	0.00142	0.000775	0.162%
N+5.65	13	38	COMUMB8	0.002889	0.010525	0.000432	0.001381	0.145%
N+5.65	13	38	COMUMB8	-0.002874	-0.010543	0.000439	0.001396	0.146%
N+5.65	14	41	COMUMB1	0.000011	-0.000021	0.000006	0.000014	0.002%
N+5.65	14	41	COMUMB2	-0.000021	0.000029	0.000017	0.000002	0.002%
N+5.65	14	41	COMUMB3	-0.00001	0.000011	0.000013	0.000004	0.001%
N+5.65	14	41	COMUMB4	-0.00001	0.000011	0.000013	0.000004	0.001%
N+5.65	14	41	COMUMB5	0.009288	0.003902	0.001404	0.000511	0.149%
N+5.65	14	41	COMUMB5	-0.009307	-0.00388	0.001429	0.000518	0.152%
N+5.65	14	41	COMUMB6	0.002872	0.009932	0.000423	0.001307	0.137%
N+5.65	14	41	COMUMB6	-0.002891	-0.00991	0.000448	0.001314	0.139%
N+5.65	14	41	COMUMB7	0.009305	0.003877	0.001413	0.000505	0.150%
N+5.65	14	41	COMUMB7	-0.00929	-0.003905	0.00142	0.000524	0.151%
N+5.65	14	41	COMUMB8	0.002889	0.009907	0.000432	0.001302	0.137%
N+5.65	14	41	COMUMB8	-0.002874	-0.009934	0.000439	0.00132	0.139%
N+5.65	15	44	COMUMB1	0.000011	-0.00003	0.000006	0.000018	0.002%
N+5.65	15	44	COMUMB2	-0.000021	0.000013	0.000017	0.000005	0.002%
N+5.65	15	44	COMUMB3	-0.00001	-0.000002	0.000013	0.000009	0.002%
N+5.65	15	44	COMUMB4	-0.00001	-0.000002	0.000013	0.000009	0.002%
N+5.65	15	44	COMUMB5	0.009288	0.003923	0.001404	0.000518	0.150%
N+5.65	15	44	COMUMB5	-0.009307	-0.003927	0.001429	0.000536	0.153%
N+5.65	15	44	COMUMB6	0.002872	0.009875	0.000423	0.001304	0.137%

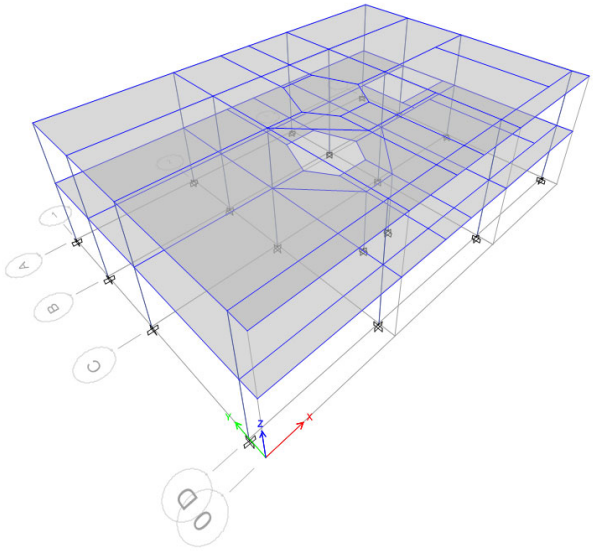
N+5.65	15	44	COMUMB6	-0.002891	-0.009878	0.000448	0.001322	0.140%
N+5.65	15	44	COMUMB7	0.009305	0.003906	0.001413	0.000516	0.150%
N+5.65	15	44	COMUMB7	-0.00929	-0.003944	0.00142	0.000538	0.152%
N+5.65	15	44	COMUMB8	0.002889	0.009857	0.000432	0.001302	0.137%
N+5.65	15	44	COMUMB8	-0.002874	-0.009896	0.000439	0.001324	0.139%
N+5.65	16	47	COMUMB1	0.000011	-0.000038	0.000006	0.00002	0.002%
N+5.65	16	47	COMUMB2	-0.000021	-0.000002	0.000017	0.000012	0.002%
N+5.65	16	47	COMUMB3	-0.00001	-0.000013	0.000013	0.000014	0.002%
N+5.65	16	47	COMUMB4	-0.00001	-0.000013	0.000013	0.000014	0.002%
N+5.65	16	47	COMUMB5	0.009288	0.005761	0.001404	0.000765	0.160%
N+5.65	16	47	COMUMB5	-0.009307	-0.005787	0.001429	0.000793	0.163%
N+5.65	16	47	COMUMB6	0.002872	0.010369	0.000423	0.001373	0.144%
N+5.65	16	47	COMUMB6	-0.002891	-0.010396	0.000448	0.001401	0.147%
N+5.65	16	47	COMUMB7	0.009305	0.00575	0.001413	0.000766	0.161%
N+5.65	16	47	COMUMB7	-0.00929	-0.005798	0.00142	0.000792	0.163%
N+5.65	16	47	COMUMB8	0.002889	0.010358	0.000432	0.001374	0.144%
N+5.65	16	47	COMUMB8	-0.002874	-0.010407	0.000439	0.0014	0.147%
N+2.95	1	1	COMUMB1	0.000025	0.000018	0.000009	0.000006	0.001%
N+2.95	1	1	COMUMB2	0.000031	0.000021	0.000011	0.000007	0.001%
N+2.95	1	1	COMUMB3	0.000028	0.000019	0.000009	0.000006	0.001%
N+2.95	1	1	COMUMB4	0.000028	0.000019	0.000009	0.000006	0.001%
N+2.95	1	1	COMUMB5	0.007417	0.00375	0.002514	0.001271	0.282%
N+2.95	1	1	COMUMB5	-0.007362	-0.003712	0.002495	0.001258	0.279%
N+2.95	1	1	COMUMB6	0.00229	0.006844	0.000776	0.00232	0.245%
N+2.95	1	1	COMUMB6	-0.002234	-0.006806	0.000757	0.002307	0.243%
N+2.95	1	1	COMUMB7	0.007406	0.003742	0.00251	0.001269	0.281%
N+2.95	1	1	COMUMB7	-0.007373	-0.003719	0.002499	0.001261	0.280%
N+2.95	1	1	COMUMB8	0.002278	0.006836	0.000772	0.002317	0.244%
N+2.95	1	1	COMUMB8	-0.002246	-0.006813	0.000761	0.00231	0.243%
N+2.95	2	4	COMUMB1	0.000025	0.000018	0.000009	0.000006	0.001%
N+2.95	2	4	COMUMB2	0.000031	0.000024	0.000011	0.000008	0.001%
N+2.95	2	4	COMUMB3	0.000028	0.000021	0.000009	0.000007	0.001%
N+2.95	2	4	COMUMB4	0.000028	0.000021	0.000009	0.000007	0.001%
N+2.95	2	4	COMUMB5	0.007417	0.00254	0.002514	0.000861	0.266%
N+2.95	2	4	COMUMB5	-0.007362	-0.002499	0.002495	0.000847	0.263%
N+2.95	2	4	COMUMB6	0.00229	0.006437	0.000776	0.002182	0.232%
N+2.95	2	4	COMUMB6	-0.002234	-0.006395	0.000757	0.002168	0.230%
N+2.95	2	4	COMUMB7	0.007406	0.002531	0.00251	0.000858	0.265%
N+2.95	2	4	COMUMB7	-0.007373	-0.002508	0.002499	0.00085	0.264%
N+2.95	2	4	COMUMB8	0.002278	0.006427	0.000772	0.002179	0.231%
N+2.95	2	4	COMUMB8	-0.002246	-0.006405	0.000761	0.002171	0.230%
N+2.95	3	7	COMUMB1	0.000025	0.000017	0.000009	0.000006	0.001%
N+2.95	3	7	COMUMB2	0.000031	0.000027	0.000011	0.000009	0.001%
N+2.95	3	7	COMUMB3	0.000028	0.000023	0.000009	0.000008	0.001%
N+2.95	3	7	COMUMB4	0.000028	0.000023	0.000009	0.000008	0.001%
N+2.95	3	7	COMUMB5	0.007417	0.002542	0.002514	0.000862	0.266%
N+2.95	3	7	COMUMB5	-0.007362	-0.002497	0.002495	0.000846	0.263%
N+2.95	3	7	COMUMB6	0.00229	0.006389	0.000776	0.002166	0.230%
N+2.95	3	7	COMUMB6	-0.002234	-0.006344	0.000757	0.00215	0.228%
N+2.95	3	7	COMUMB7	0.007406	0.00253	0.00251	0.000858	0.265%
N+2.95	3	7	COMUMB7	-0.007373	-0.002508	0.002499	0.00085	0.264%
N+2.95	3	7	COMUMB8	0.002278	0.006377	0.000772	0.002162	0.230%
N+2.95	3	7	COMUMB8	-0.002246	-0.006355	0.000761	0.002154	0.228%
N+2.95	4	10	COMUMB1	0.000025	0.000017	0.000009	0.000006	0.001%
N+2.95	4	10	COMUMB2	0.000031	0.00003	0.000011	0.00001	0.001%
N+2.95	4	10	COMUMB3	0.000028	0.000024	0.000009	0.000008	0.001%
N+2.95	4	10	COMUMB4	0.000028	0.000024	0.000009	0.000008	0.001%
N+2.95	4	10	COMUMB5	0.007417	0.003725	0.002514	0.001263	0.281%
N+2.95	4	10	COMUMB5	-0.007362	-0.003676	0.002495	0.001246	0.279%
N+2.95	4	10	COMUMB6	0.00229	0.0067	0.000776	0.002271	0.240%
N+2.95	4	10	COMUMB6	-0.002234	-0.006651	0.000757	0.002255	0.238%
N+2.95	4	10	COMUMB7	0.007406	0.003712	0.00251	0.001258	0.281%

N+2.95	4	10	COMUMB7	-0.007373	-0.00369	0.002499	0.001251	0.279%
N+2.95	4	10	COMUMB8	0.002278	0.006687	0.000772	0.002267	0.239%
N+2.95	4	10	COMUMB8	-0.002246	-0.006665	0.000761	0.002259	0.238%
N+2.95	5	13	COMUMB1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	5	13	COMUMB2	0.000028	0.000021	0.00001	0.000007	0.001%
N+2.95	5	13	COMUMB3	0.000026	0.000019	0.000009	0.000006	0.001%
N+2.95	5	13	COMUMB4	0.000026	0.000019	0.000009	0.000006	0.001%
N+2.95	5	13	COMUMB5	0.006471	0.00375	0.002194	0.001271	0.254%
N+2.95	5	13	COMUMB5	-0.006419	-0.003712	0.002176	0.001258	0.251%
N+2.95	5	13	COMUMB6	0.001974	0.006844	0.000669	0.00232	0.241%
N+2.95	5	13	COMUMB6	-0.001922	-0.006806	0.000651	0.002307	0.240%
N+2.95	5	13	COMUMB7	0.006462	0.003742	0.00219	0.001269	0.253%
N+2.95	5	13	COMUMB7	-0.006429	-0.003719	0.002179	0.001261	0.252%
N+2.95	5	13	COMUMB8	0.001964	0.006836	0.000666	0.002317	0.241%
N+2.95	5	13	COMUMB8	-0.001931	-0.006813	0.000655	0.00231	0.240%
N+2.95	6	16	COMUMB1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	6	16	COMUMB2	0.000028	0.000024	0.00001	0.000008	0.001%
N+2.95	6	16	COMUMB3	0.000026	0.000021	0.000009	0.000007	0.001%
N+2.95	6	16	COMUMB4	0.000026	0.000021	0.000009	0.000007	0.001%
N+2.95	6	16	COMUMB5	0.006471	0.00254	0.002194	0.000861	0.236%
N+2.95	6	16	COMUMB5	-0.006419	-0.002499	0.002176	0.000847	0.234%
N+2.95	6	16	COMUMB6	0.001974	0.006437	0.000669	0.002182	0.228%
N+2.95	6	16	COMUMB6	-0.001922	-0.006395	0.000651	0.002168	0.226%
N+2.95	6	16	COMUMB7	0.006462	0.002531	0.00219	0.000858	0.235%
N+2.95	6	16	COMUMB7	-0.006429	-0.002508	0.002179	0.00085	0.234%
N+2.95	6	16	COMUMB8	0.001964	0.006427	0.000666	0.002179	0.228%
N+2.95	6	16	COMUMB8	-0.001931	-0.006405	0.000655	0.002171	0.227%
N+2.95	7	19	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	7	19	COMUMB2	0.000028	0.000027	0.00001	0.000009	0.001%
N+2.95	7	19	COMUMB3	0.000026	0.000023	0.000009	0.000008	0.001%
N+2.95	7	19	COMUMB4	0.000026	0.000023	0.000009	0.000008	0.001%
N+2.95	7	19	COMUMB5	0.006471	0.002542	0.002194	0.000862	0.236%
N+2.95	7	19	COMUMB5	-0.006419	-0.002497	0.002176	0.000846	0.233%
N+2.95	7	19	COMUMB6	0.001974	0.006389	0.000669	0.002166	0.227%
N+2.95	7	19	COMUMB6	-0.001922	-0.006344	0.000651	0.00215	0.225%
N+2.95	7	19	COMUMB7	0.006462	0.00253	0.00219	0.000858	0.235%
N+2.95	7	19	COMUMB7	-0.006429	-0.002508	0.002179	0.00085	0.234%
N+2.95	7	19	COMUMB8	0.001964	0.006377	0.000666	0.002162	0.226%
N+2.95	7	19	COMUMB8	-0.001931	-0.006355	0.000655	0.002154	0.225%
N+2.95	8	22	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	8	22	COMUMB2	0.000028	0.00003	0.00001	0.00001	0.001%
N+2.95	8	22	COMUMB3	0.000026	0.000024	0.000009	0.000008	0.001%
N+2.95	8	22	COMUMB4	0.000026	0.000024	0.000009	0.000008	0.001%
N+2.95	8	22	COMUMB5	0.006471	0.003725	0.002194	0.001263	0.253%
N+2.95	8	22	COMUMB5	-0.006419	-0.003676	0.002176	0.001246	0.251%
N+2.95	8	22	COMUMB6	0.001974	0.0067	0.000669	0.002271	0.237%
N+2.95	8	22	COMUMB6	-0.001922	-0.006651	0.000651	0.002255	0.235%
N+2.95	8	22	COMUMB7	0.006462	0.003712	0.00219	0.001258	0.253%
N+2.95	8	22	COMUMB7	-0.006429	-0.00369	0.002179	0.001251	0.251%
N+2.95	8	22	COMUMB8	0.001964	0.006687	0.000666	0.002267	0.236%
N+2.95	8	22	COMUMB8	-0.001931	-0.006665	0.000655	0.002259	0.235%
N+2.95	9	25	COMUMB1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	9	25	COMUMB2	0.000027	0.000021	0.000009	0.000007	0.001%
N+2.95	9	25	COMUMB3	0.000025	0.000019	0.000008	0.000006	0.001%
N+2.95	9	25	COMUMB4	0.000025	0.000019	0.000008	0.000006	0.001%
N+2.95	9	25	COMUMB5	0.005955	0.00375	0.002019	0.001271	0.239%
N+2.95	9	25	COMUMB5	-0.005906	-0.003712	0.002002	0.001258	0.236%
N+2.95	9	25	COMUMB6	0.001843	0.006844	0.000625	0.00232	0.240%
N+2.95	9	25	COMUMB6	-0.001793	-0.006806	0.000608	0.002307	0.239%
N+2.95	9	25	COMUMB7	0.005947	0.003742	0.002016	0.001269	0.238%
N+2.95	9	25	COMUMB7	-0.005914	-0.003719	0.002005	0.001261	0.237%
N+2.95	9	25	COMUMB8	0.001835	0.006836	0.000622	0.002317	0.240%

N+2.95	9	25	COMUMB8	-0.001802	-0.006813	0.000611	0.00231	0.239%
N+2.95	10	28	COMUMB1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	10	28	COMUMB2	0.000027	0.000024	0.000009	0.000008	0.001%
N+2.95	10	28	COMUMB3	0.000025	0.000021	0.000008	0.000007	0.001%
N+2.95	10	28	COMUMB4	0.000025	0.000021	0.000008	0.000007	0.001%
N+2.95	10	28	COMUMB5	0.005955	0.00254	0.002019	0.000861	0.219%
N+2.95	10	28	COMUMB5	-0.005906	-0.002499	0.002002	0.000847	0.217%
N+2.95	10	28	COMUMB6	0.001843	0.006437	0.000625	0.002182	0.227%
N+2.95	10	28	COMUMB6	-0.001793	-0.006395	0.000608	0.002168	0.225%
N+2.95	10	28	COMUMB7	0.005947	0.002531	0.002016	0.000858	0.219%
N+2.95	10	28	COMUMB7	-0.005914	-0.002508	0.002005	0.00085	0.218%
N+2.95	10	28	COMUMB8	0.001835	0.006427	0.000622	0.002179	0.227%
N+2.95	10	28	COMUMB8	-0.001802	-0.006405	0.000611	0.002171	0.226%
N+2.95	11	31	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	11	31	COMUMB2	0.000027	0.000027	0.000009	0.000009	0.001%
N+2.95	11	31	COMUMB3	0.000025	0.000023	0.000008	0.000008	0.001%
N+2.95	11	31	COMUMB4	0.000025	0.000023	0.000008	0.000008	0.001%
N+2.95	11	31	COMUMB5	0.005955	0.002542	0.002019	0.000862	0.220%
N+2.95	11	31	COMUMB5	-0.005906	-0.002497	0.002002	0.000846	0.217%
N+2.95	11	31	COMUMB6	0.001843	0.006389	0.000625	0.002166	0.225%
N+2.95	11	31	COMUMB6	-0.001793	-0.006344	0.000608	0.00215	0.223%
N+2.95	11	31	COMUMB7	0.005947	0.00253	0.002016	0.000858	0.219%
N+2.95	11	31	COMUMB7	-0.005914	-0.002508	0.002005	0.00085	0.218%
N+2.95	11	31	COMUMB8	0.001835	0.006377	0.000622	0.002162	0.225%
N+2.95	11	31	COMUMB8	-0.001802	-0.006355	0.000611	0.002154	0.224%
N+2.95	12	34	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	12	34	COMUMB2	0.000027	0.00003	0.000009	0.00001	0.001%
N+2.95	12	34	COMUMB3	0.000025	0.000024	0.000008	0.000008	0.001%
N+2.95	12	34	COMUMB4	0.000025	0.000024	0.000008	0.000008	0.001%
N+2.95	12	34	COMUMB5	0.005955	0.003725	0.002019	0.001263	0.238%
N+2.95	12	34	COMUMB5	-0.005906	-0.003676	0.002002	0.001246	0.236%
N+2.95	12	34	COMUMB6	0.001843	0.0067	0.000625	0.002271	0.236%
N+2.95	12	34	COMUMB6	-0.001793	-0.006651	0.000608	0.002255	0.234%
N+2.95	12	34	COMUMB7	0.005947	0.003712	0.002016	0.001258	0.238%
N+2.95	12	34	COMUMB7	-0.005914	-0.00369	0.002005	0.001251	0.236%
N+2.95	12	34	COMUMB8	0.001835	0.006687	0.000622	0.002267	0.235%
N+2.95	12	34	COMUMB8	-0.001802	-0.006665	0.000611	0.002259	0.234%
N+2.95	13	37	COMUMB1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	13	37	COMUMB2	0.000025	0.000021	0.000009	0.000007	0.001%
N+2.95	13	37	COMUMB3	0.000024	0.000019	0.000008	0.000006	0.001%
N+2.95	13	37	COMUMB4	0.000024	0.000019	0.000008	0.000006	0.001%
N+2.95	13	37	COMUMB5	0.005535	0.00375	0.001876	0.001271	0.227%
N+2.95	13	37	COMUMB5	-0.005487	-0.003712	0.00186	0.001258	0.225%
N+2.95	13	37	COMUMB6	0.001742	0.006844	0.000591	0.00232	0.239%
N+2.95	13	37	COMUMB6	-0.001694	-0.006806	0.000574	0.002307	0.238%
N+2.95	13	37	COMUMB7	0.005527	0.003742	0.001874	0.001269	0.226%
N+2.95	13	37	COMUMB7	-0.005494	-0.003719	0.001862	0.001261	0.225%
N+2.95	13	37	COMUMB8	0.001735	0.006836	0.000588	0.002317	0.239%
N+2.95	13	37	COMUMB8	-0.001701	-0.006813	0.000577	0.00231	0.238%
N+2.95	14	40	COMUMB1	0.000026	0.000018	0.000009	0.000006	0.001%
N+2.95	14	40	COMUMB2	0.000025	0.000024	0.000009	0.000008	0.001%
N+2.95	14	40	COMUMB3	0.000024	0.000021	0.000008	0.000007	0.001%
N+2.95	14	40	COMUMB4	0.000024	0.000021	0.000008	0.000007	0.001%
N+2.95	14	40	COMUMB5	0.005535	0.00254	0.001876	0.000861	0.206%
N+2.95	14	40	COMUMB5	-0.005487	-0.002499	0.00186	0.000847	0.204%
N+2.95	14	40	COMUMB6	0.001742	0.006437	0.000591	0.002182	0.226%
N+2.95	14	40	COMUMB6	-0.001694	-0.006395	0.000574	0.002168	0.224%
N+2.95	14	40	COMUMB7	0.005527	0.002531	0.001874	0.000858	0.206%
N+2.95	14	40	COMUMB7	-0.005494	-0.002508	0.001862	0.00085	0.205%
N+2.95	14	40	COMUMB8	0.001735	0.006427	0.000588	0.002179	0.226%
N+2.95	14	40	COMUMB8	-0.001701	-0.006405	0.000577	0.002171	0.225%
N+2.95	15	43	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%

N+2.95	15	43	COMUMB2	0.000025	0.000027	0.000009	0.000009	0.001%
N+2.95	15	43	COMUMB3	0.000024	0.000023	0.000008	0.000008	0.001%
N+2.95	15	43	COMUMB4	0.000024	0.000023	0.000008	0.000008	0.001%
N+2.95	15	43	COMUMB5	0.005535	0.002542	0.001876	0.000862	0.206%
N+2.95	15	43	COMUMB5	-0.005487	-0.002497	0.00186	0.000846	0.204%
N+2.95	15	43	COMUMB6	0.001742	0.006389	0.000591	0.002166	0.225%
N+2.95	15	43	COMUMB6	-0.001694	-0.006344	0.000574	0.00215	0.223%
N+2.95	15	43	COMUMB7	0.005527	0.00253	0.001874	0.000858	0.206%
N+2.95	15	43	COMUMB7	-0.005494	-0.002508	0.001862	0.00085	0.205%
N+2.95	15	43	COMUMB8	0.001735	0.006377	0.000588	0.002162	0.224%
N+2.95	15	43	COMUMB8	-0.001701	-0.006355	0.000577	0.002154	0.223%
N+2.95	16	46	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	16	46	COMUMB2	0.000025	0.00003	0.000009	0.00001	0.001%
N+2.95	16	46	COMUMB3	0.000024	0.000024	0.000008	0.000008	0.001%
N+2.95	16	46	COMUMB4	0.000024	0.000024	0.000008	0.000008	0.001%
N+2.95	16	46	COMUMB5	0.005535	0.003725	0.001876	0.001263	0.226%
N+2.95	16	46	COMUMB5	-0.005487	-0.003676	0.00186	0.001246	0.224%
N+2.95	16	46	COMUMB6	0.001742	0.0067	0.000591	0.002271	0.235%
N+2.95	16	46	COMUMB6	-0.001694	-0.006651	0.000574	0.002255	0.233%
N+2.95	16	46	COMUMB7	0.005527	0.003712	0.001874	0.001258	0.226%
N+2.95	16	46	COMUMB7	-0.005494	-0.00369	0.001862	0.001251	0.224%
N+2.95	16	46	COMUMB8	0.001735	0.006687	0.000588	0.002267	0.234%
N+2.95	16	46	COMUMB8	-0.001701	-0.006665	0.000577	0.002259	0.233%
N+2.95	33	65	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	33	65	COMUMB2	0.00003	0.000025	0.00001	0.000009	0.001%
N+2.95	33	65	COMUMB3	0.000027	0.000021	0.000009	0.000007	0.001%
N+2.95	33	65	COMUMB4	0.000027	0.000021	0.000009	0.000007	0.001%
N+2.95	33	65	COMUMB5	0.006912	0.002036	0.002343	0.00069	0.244%
N+2.95	33	65	COMUMB5	-0.006859	-0.001993	0.002325	0.000676	0.242%
N+2.95	33	65	COMUMB6	0.002113	0.006267	0.000716	0.002124	0.224%
N+2.95	33	65	COMUMB6	-0.00206	-0.006224	0.000698	0.00211	0.222%
N+2.95	33	65	COMUMB7	0.006902	0.002025	0.00234	0.000687	0.244%
N+2.95	33	65	COMUMB7	-0.006869	-0.002003	0.002329	0.000679	0.243%
N+2.95	33	65	COMUMB8	0.002103	0.006257	0.000713	0.002121	0.224%
N+2.95	33	65	COMUMB8	-0.00207	-0.006234	0.000702	0.002113	0.223%
N+2.95	34	66	COMUMB1	0.000026	0.000017	0.000009	0.000006	0.001%
N+2.95	34	66	COMUMB2	0.00003	0.000026	0.00001	0.000009	0.001%
N+2.95	34	66	COMUMB3	0.000027	0.000022	0.000009	0.000007	0.001%
N+2.95	34	66	COMUMB4	0.000027	0.000022	0.000009	0.000007	0.001%
N+2.95	34	66	COMUMB5	0.006912	0.00205	0.002343	0.000695	0.244%
N+2.95	34	66	COMUMB5	-0.006859	-0.002007	0.002325	0.00068	0.242%
N+2.95	34	66	COMUMB6	0.002113	0.00626	0.000716	0.002122	0.224%
N+2.95	34	66	COMUMB6	-0.00206	-0.006216	0.000698	0.002107	0.222%
N+2.95	34	66	COMUMB7	0.006902	0.00204	0.00234	0.000691	0.244%
N+2.95	34	66	COMUMB7	-0.006869	-0.002017	0.002329	0.000684	0.243%
N+2.95	34	66	COMUMB8	0.002103	0.006249	0.000713	0.002118	0.223%
N+2.95	34	66	COMUMB8	-0.00207	-0.006227	0.000702	0.002111	0.222%

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REACCIONES

Model File: JARDIN SALAMANDRA, Revision
3/12/2025

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Table 1.1 Joint Reactions 4

1 Analysis Results

This chapter provides analysis results.

1.1 Point Results

Table 1.1 - Joint Reactions (Part 1 of 2)

Story	Label	Unique Name	Output Case	Case Type	Step Type	Step Number	Step Label	FX kN	FY kN
Base	1	3	D+L	Combination				14.1941	8.3808
Base	1	3	D	Combination				11.2986	6.8969
Base	1	3	D+0.75L	Combination				13.4703	8.0098
Base	1	3	D+0.7(EQX+0.3EQY)	Combination	Max			32.1816	17.0271
Base	1	3	D+0.7(EQX+0.3EQY)	Combination	Min			-9.5844	-3.2332
Base	1	3	D+0.7(0.3EQX+EQY)	Combination	Max			17.6808	25.7336
Base	1	3	D+0.7(0.3EQX+EQY)	Combination	Min			4.9164	-11.9397
Base	1	3	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			29.1326	15.6199
Base	1	3	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-2.1921	0.3998
Base	1	3	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			18.2718	22.1408
Base	1	3	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			8.6687	-6.1212
Base	2	6	D+L	Combination				-7.9239	7.822
Base	2	6	D	Combination				-6.0417	6.3541
Base	2	6	D+0.75L	Combination				-7.4534	7.455
Base	2	6	D+0.7(EQX+0.3EQY)	Combination	Max			18.9865	13.6357
Base	2	6	D+0.7(EQX+0.3EQY)	Combination	Min			-31.07	-0.9274
Base	2	6	D+0.7(0.3EQX+EQY)	Combination	Max			1.8615	25.8148
Base	2	6	D+0.7(0.3EQX+EQY)	Combination	Min			-13.945	-13.1065
Base	2	6	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			11.3182	12.9298
Base	2	6	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-26.2249	1.9803
Base	2	6	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			-1.5082	22.0517
Base	2	6	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-13.3986	-7.1416
Base	3	9	D+L	Combination				7.2337	7.3989
Base	3	9	D	Combination				5.6721	6.0546
Base	3	9	D+0.75L	Combination				6.8433	7.0628
Base	3	9	D+0.7(EQX+0.3EQY)	Combination	Max			30.7779	13.3492
Base	3	9	D+0.7(EQX+0.3EQY)	Combination	Min			-19.4338	-1.2399
Base	3	9	D+0.7(0.3EQX+EQY)	Combination	Max			13.8816	25.4132
Base	3	9	D+0.7(0.3EQX+EQY)	Combination	Min			-2.5375	-13.304
Base	3	9	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			25.6732	12.5472
Base	3	9	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-11.9866	1.5785
Base	3	9	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			13.0182	21.583
Base	3	9	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			0.6684	-7.4573
Base	4	12	D+L	Combination				-14.0791	8.0677
Base	4	12	D	Combination				-11.435	6.7032
Base	4	12	D+0.75L	Combination				-13.4181	7.7266
Base	4	12	D+0.7(EQX+0.3EQY)	Combination	Max			9.5392	16.8225
Base	4	12	D+0.7(EQX+0.3EQY)	Combination	Min			-32.4092	-3.416
Base	4	12	D+0.7(0.3EQX+EQY)	Combination	Max			-4.7665	25.2414
Base	4	12	D+0.7(0.3EQX+EQY)	Combination	Min			-18.1036	-11.8349
Base	4	12	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			2.3128	15.3282

Table 1.1 - Joint Reactions (Part 1 of 2, continued)

Story	Label	Unique Name	Output Case	Case Type	Step Type	Step Number	Step Label	FX kN	FY kN
Base	4	12	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-29.149	0.1249
Base	4	12	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			-8.4018	21.6338
Base	4	12	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-18.4344	-6.1806
Base	5	15	D+L	Combination				18.0184	-5.0052
Base	5	15	D	Combination				14.2025	-4.1593
Base	5	15	D+0.75L	Combination				17.0644	-4.7937
Base	5	15	D+0.7(EQX+0.3EQY)	Combination	Max			32.3879	8.2681
Base	5	15	D+0.7(EQX+0.3EQY)	Combination	Min			-3.9829	-16.5866
Base	5	15	D+0.7(0.3EQX+EQY)	Combination	Max			19.7049	18.4762
Base	5	15	D+0.7(0.3EQX+EQY)	Combination	Min			8.7001	-26.7948
Base	5	15	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			30.7035	4.5416
Base	5	15	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			3.4254	-14.1291
Base	5	15	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			21.2042	12.1873
Base	5	15	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			12.9246	-21.7748
Base	6	18	D+L	Combination				-10.9472	-4.1079
Base	6	18	D	Combination				-8.3018	-3.3637
Base	6	18	D+0.75L	Combination				-10.2859	-3.9218
Base	6	18	D+0.7(EQX+0.3EQY)	Combination	Max			13.5553	5.886
Base	6	18	D+0.7(EQX+0.3EQY)	Combination	Min			-30.1589	-12.6133
Base	6	18	D+0.7(0.3EQX+EQY)	Combination	Max			-1.3713	19.2813
Base	6	18	D+0.7(0.3EQX+EQY)	Combination	Min			-15.2323	-26.0086
Base	6	18	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			6.1072	3.0311
Base	6	18	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-26.679	-10.8747
Base	6	18	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			-5.0725	13.0639
Base	6	18	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-15.4993	-20.9075
Base	7	21	D+L	Combination				9.4333	-4.2324
Base	7	21	D	Combination				7.3203	-3.4446
Base	7	21	D+0.75L	Combination				8.9051	-4.0355
Base	7	21	D+0.7(EQX+0.3EQY)	Combination	Max			29.2062	5.8073
Base	7	21	D+0.7(EQX+0.3EQY)	Combination	Min			-14.5657	-12.6964
Base	7	21	D+0.7(0.3EQX+EQY)	Combination	Max			14.3047	19.0211
Base	7	21	D+0.7(0.3EQX+EQY)	Combination	Min			0.3359	-25.9103
Base	7	21	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			25.3199	2.9189
Base	7	21	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-7.5097	-10.9898
Base	7	21	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			14.1589	12.8158
Base	7	21	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			3.6513	-20.8867
Base	8	24	D+L	Combination				-16.7406	-5.0098
Base	8	24	D	Combination				-13.3747	-4.3245
Base	8	24	D+0.75L	Combination				-15.8991	-4.8385
Base	8	24	D+0.7(EQX+0.3EQY)	Combination	Max			5.1518	7.7597
Base	8	24	D+0.7(EQX+0.3EQY)	Combination	Min			-31.9011	-16.4086
Base	8	24	D+0.7(0.3EQX+EQY)	Combination	Max			-7.7601	17.3856
Base	8	24	D+0.7(0.3EQX+EQY)	Combination	Min			-18.9893	-26.0345
Base	8	24	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			-2.0042	4.2388
Base	8	24	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-29.794	-13.9158

Table 1.1 - Joint Reactions (Part 1 of 2, continued)

Story	Label	Unique Name	Output Case	Case Type	Step Type	Step Number	Step Label	FX kN	FY kN
Base	8	24	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			-11.6749	11.4485
Base	8	24	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-20.1233	-21.1254
Base	9	27	D+L	Combination				12.8874	0.0804
Base	9	27	D	Combination				10.1633	0.0826
Base	9	27	D+0.75L	Combination				12.2064	0.081
Base	9	27	D+0.7(EQX+0.3EQY)	Combination	Max			26.4685	12.9685
Base	9	27	D+0.7(EQX+0.3EQY)	Combination	Min			-6.1418	-12.8033
Base	9	27	D+0.7(0.3EQX+EQY)	Combination	Max			15.2752	23.696
Base	9	27	D+0.7(0.3EQX+EQY)	Combination	Min			5.0514	-23.5308
Base	9	27	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			24.4354	9.7609
Base	9	27	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-0.0227	-9.5989
Base	9	27	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			16.0519	17.7956
Base	9	27	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			8.3609	-17.6336
Base	10	30	D+L	Combination				-2.3875	0.0086
Base	10	30	D	Combination				-1.4776	0.0538
Base	10	30	D+0.75L	Combination				-2.16	0.0199
Base	10	30	D+0.7(EQX+0.3EQY)	Combination	Max			17.7582	9.0516
Base	10	30	D+0.7(EQX+0.3EQY)	Combination	Min			-20.7134	-8.9441
Base	10	30	D+0.7(0.3EQX+EQY)	Combination	Max			4.3753	23.1253
Base	10	30	D+0.7(0.3EQX+EQY)	Combination	Min			-7.3306	-23.0178
Base	10	30	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			12.2669	6.7843
Base	10	30	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-16.5869	-6.7445
Base	10	30	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			2.2434	17.3252
Base	10	30	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-6.5635	-17.2854
Base	11	33	D+L	Combination				0.4544	0.1097
Base	11	33	D	Combination				0.0391	0.1332
Base	11	33	D+0.75L	Combination				0.3506	0.1156
Base	11	33	D+0.7(EQX+0.3EQY)	Combination	Max			19.2745	9.1205
Base	11	33	D+0.7(EQX+0.3EQY)	Combination	Min			-19.1962	-8.8541
Base	11	33	D+0.7(0.3EQX+EQY)	Combination	Max			6.0531	23.0084
Base	11	33	D+0.7(0.3EQX+EQY)	Combination	Min			-5.9749	-22.742
Base	11	33	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			14.7773	6.8719
Base	11	33	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-14.0761	-6.6407
Base	11	33	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			4.8747	17.2737
Base	11	33	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-4.1736	-17.0425
Base	12	36	D+L	Combination				-9.4975	1.2339
Base	12	36	D	Combination				-7.5535	1.0919
Base	12	36	D+0.75L	Combination				-9.0115	1.1984
Base	12	36	D+0.7(EQX+0.3EQY)	Combination	Max			7.9174	13.4543
Base	12	36	D+0.7(EQX+0.3EQY)	Combination	Min			-23.0244	-11.2705
Base	12	36	D+0.7(0.3EQX+EQY)	Combination	Max			-2.7724	23.5931
Base	12	36	D+0.7(0.3EQX+EQY)	Combination	Min			-12.3346	-21.4093
Base	12	36	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			2.5918	10.4849
Base	12	36	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-20.6148	-8.0881
Base	12	36	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			-5.4147	18.0787

Table 1.1 - Joint Reactions (Part 1 of 2, continued)

Story	Label	Unique Name	Output Case	Case Type	Step Type	Step Number	Step Label	FX kN	FY kN
Base	12	36	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-12.6084	-15.6819
Base	13	39	D+L	Combination				7.6087	-2.0839
Base	13	39	D	Combination				6.0548	-1.7615
Base	13	39	D+0.75L	Combination				7.2202	-2.0033
Base	13	39	D+0.7(EQX+0.3EQY)	Combination	Max			20.1988	9.5345
Base	13	39	D+0.7(EQX+0.3EQY)	Combination	Min			-8.0892	-13.0575
Base	13	39	D+0.7(0.3EQX+EQY)	Combination	Max			10.4618	18.7515
Base	13	39	D+0.7(0.3EQX+EQY)	Combination	Min			1.6478	-22.2746
Base	13	39	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			17.8284	6.4821
Base	13	39	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-3.3879	-10.4887
Base	13	39	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			10.5356	13.3855
Base	13	39	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			3.9049	-17.3922
Base	14	42	D+L	Combination				-0.044	-4.1277
Base	14	42	D	Combination				0.2589	-3.3983
Base	14	42	D+0.75L	Combination				0.0317	-3.9453
Base	14	42	D+0.7(EQX+0.3EQY)	Combination	Max			16.9225	4.5779
Base	14	42	D+0.7(EQX+0.3EQY)	Combination	Min			-16.4046	-11.3744
Base	14	42	D+0.7(0.3EQX+EQY)	Combination	Max			5.5362	16.9804
Base	14	42	D+0.7(0.3EQX+EQY)	Combination	Min			-5.0183	-23.777
Base	14	42	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			12.5296	2.0509
Base	14	42	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-12.4661	-9.9416
Base	14	42	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			4.0015	11.3401
Base	14	42	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-3.938	-19.2308
Base	15	45	D+L	Combination				-0.662	-3.9958
Base	15	45	D	Combination				-0.8011	-3.2798
Base	15	45	D+0.75L	Combination				-0.6967	-3.8168
Base	15	45	D+0.7(EQX+0.3EQY)	Combination	Max			15.7975	4.685
Base	15	45	D+0.7(EQX+0.3EQY)	Combination	Min			-17.3997	-11.2445
Base	15	45	D+0.7(0.3EQX+EQY)	Combination	Max			4.333	16.9301
Base	15	45	D+0.7(0.3EQX+EQY)	Combination	Min			-5.9353	-23.4897
Base	15	45	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			11.7523	2.1708
Base	15	45	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-13.1458	-9.8043
Base	15	45	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			3.1657	11.3421
Base	15	45	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-4.5592	-18.9757
Base	16	48	D+L	Combination				-7.4352	-2.246
Base	16	48	D	Combination				-5.9246	-1.8564
Base	16	48	D+0.75L	Combination				-7.0576	-2.1486
Base	16	48	D+0.7(EQX+0.3EQY)	Combination	Max			8.3121	9.3987
Base	16	48	D+0.7(EQX+0.3EQY)	Combination	Min			-20.1613	-13.1114
Base	16	48	D+0.7(0.3EQX+EQY)	Combination	Max			-1.1796	18.2473
Base	16	48	D+0.7(0.3EQX+EQY)	Combination	Min			-10.6696	-21.96
Base	16	48	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			3.6203	6.3058
Base	16	48	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-17.7355	-10.603
Base	16	48	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			-3.4888	12.9332
Base	16	48	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-10.6264	-17.2304

Table 1.1 - Joint Reactions (Part 1 of 2, continued)

Story	Label	Unique Name	Output Case	Case Type	Step Type	Step Number	Step Label	FX kN	FY kN
Base	33	100	D+L	Combination				-2.4075	-1.1653
Base	33	100	D	Combination				-1.932	-0.9043
Base	33	100	D+0.75L	Combination				-2.2886	-1.1
Base	33	100	D+0.7(EQX+0.3EQY)	Combination	Max			11.2277	2.9278
Base	33	100	D+0.7(EQX+0.3EQY)	Combination	Min			-15.0917	-4.7363
Base	33	100	D+0.7(0.3EQX+EQY)	Combination	Max			2.0895	10.566
Base	33	100	D+0.7(0.3EQX+EQY)	Combination	Min			-5.9536	-12.3745
Base	33	100	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			7.5812	1.7821
Base	33	100	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-12.1585	-3.9822
Base	33	100	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			0.7369	7.503
Base	33	100	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-5.3141	-9.7031
Base	34	101	D+L	Combination				2.2944	-1.1281
Base	34	101	D	Combination				1.8326	-0.8783
Base	34	101	D+0.75L	Combination				2.179	-1.0656
Base	34	101	D+0.7(EQX+0.3EQY)	Combination	Max			14.9853	2.9763
Base	34	101	D+0.7(EQX+0.3EQY)	Combination	Min			-11.3202	-4.7329
Base	34	101	D+0.7(0.3EQX+EQY)	Combination	Max			5.8084	10.5832
Base	34	101	D+0.7(0.3EQX+EQY)	Combination	Min			-2.1432	-12.3398
Base	34	101	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Max			12.0435	1.8334
Base	34	101	D+0.75L+0.75(0.7(EQX+0.3EQY))	Combination	Min			-7.6856	-3.9646
Base	34	101	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Max			5.1702	7.5308
Base	34	101	D+0.75L+0.75(0.7(0.3EQX+EQY))	Combination	Min			-0.8123	-9.662

Table 1.1 - Joint Reactions (Part 2 of 2)

Story	Label	Unique Name	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Base	1	3	142.4932	-8.0551	13.6575	-0.0012
Base	1	3	114.6282	-6.6319	10.875	0.0002
Base	1	3	135.527	-7.6993	12.9619	-0.0009
Base	1	3	128.1698	10.9557	46.4766	0.4613
Base	1	3	101.0866	-24.2195	-24.7266	-0.4609
Base	1	3	126.0322	25.8401	21.6767	0.1583
Base	1	3	103.2242	-39.1039	0.0733	-0.158
Base	1	3	145.6889	5.5127	39.6632	0.3449
Base	1	3	125.365	-20.9114	-13.7394	-0.3467
Base	1	3	144.0879	16.6609	21.0886	0.1181
Base	1	3	126.966	-32.0595	4.8352	-0.1199
Base	2	6	264.1103	-7.507	-7.7686	-0.0012
Base	2	6	209.3241	-6.107	-5.9228	0.0002
Base	2	6	250.4137	-7.157	-7.3071	-0.0009
Base	2	6	216.4799	6.1877	33.6756	0.4613
Base	2	6	202.1683	-18.4016	-45.5213	-0.4609
Base	2	6	225.1756	26.1161	6.2811	0.1583
Base	2	6	193.4725	-38.33	-18.1267	-0.158
Base	2	6	255.7913	2.0864	22.392	0.3449

Table 1.1 - Joint Reactions (Part 2 of 2, continued)

Story	Label	Unique Name	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Base	2	6	245.0361	-16.4003	-37.0062	-0.3467
Base	2	6	262.3043	17.0124	1.874	0.1181
Base	2	6	238.5232	-31.3264	-16.4882	-0.1199
Base	3	9	267.525	-7.0895	6.9148	-0.0012
Base	3	9	212.4221	-5.8178	5.4245	0.0002
Base	3	9	253.7493	-6.7716	6.5423	-0.0009
Base	3	9	219.5432	6.4892	45.1454	0.4613
Base	3	9	205.3009	-18.1248	-34.2964	-0.4609
Base	3	9	228.3445	26.2025	18.0828	0.1583
Base	3	9	196.4996	-37.8381	-7.2338	-0.158
Base	3	9	259.101	2.4809	36.3335	0.3449
Base	3	9	248.3976	-16.0241	-23.249	-0.3467
Base	3	9	265.693	17.2457	16.0642	0.1181
Base	3	9	241.8056	-30.7889	-2.9797	-0.1199
Base	4	12	146.5563	-7.7305	-13.7312	-0.0012
Base	4	12	118.5443	-6.447	-11.1474	0.0002
Base	4	12	139.5533	-7.4097	-13.0852	-0.0009
Base	4	12	132.0503	11.0681	24.5692	0.4613
Base	4	12	105.0383	-23.9621	-46.864	-0.4609
Base	4	12	130.3683	25.4254	0.0204	0.1583
Base	4	12	106.7203	-38.3194	-22.3152	-0.158
Base	4	12	149.6889	5.7476	13.7026	0.3449
Base	4	12	129.4177	-20.5669	-39.873	-0.3467
Base	4	12	148.4291	16.5009	-4.684	0.1181
Base	4	12	130.6775	-31.3202	-21.4865	-0.1199
Base	5	15	180.9399	4.9121	17.3687	-0.0012
Base	5	15	142.8602	4.0784	13.6872	0.0002
Base	5	15	171.42	4.7036	16.4483	-0.0009
Base	5	15	154.8038	23.8935	44.7362	0.4613
Base	5	15	130.9167	-15.7368	-17.3619	-0.4609
Base	5	15	152.789	40.2325	23.0758	0.1583
Base	5	15	132.9315	-32.0757	4.2985	-0.158
Base	5	15	180.3827	19.5887	39.7352	0.3449
Base	5	15	162.4574	-10.1814	-6.8386	-0.3467
Base	5	15	178.8736	31.8263	23.5119	0.1181
Base	5	15	163.9664	-22.419	9.3847	-0.1199
Base	6	18	314.5967	4.0496	-10.6907	-0.0012
Base	6	18	243.0593	3.3068	-8.113	0.0002
Base	6	18	296.7123	3.8639	-10.0463	-0.0009
Base	6	18	244.7597	17.5126	26.4831	0.4613
Base	6	18	241.3589	-10.899	-42.7091	-0.4609
Base	6	18	246.2354	38.6168	2.6192	0.1583
Base	6	18	239.8832	-32.0032	-18.8453	-0.158
Base	6	18	297.9897	14.5426	15.9011	0.3449
Base	6	18	295.4349	-6.8148	-35.9936	-0.3467

Table 1.1 - Joint Reactions (Part 2 of 2, continued)

Story	Label	Unique Name	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Base	6	18	299.095	30.3493	-1.9724	0.1181
Base	6	18	294.3297	-22.6214	-18.1201	-0.1199
Base	7	21	306.7059	4.1779	9.0522	-0.0012
Base	7	21	238.1958	3.3842	7.0203	0.0002
Base	7	21	289.5784	3.9795	8.5443	-0.0009
Base	7	21	239.6724	17.5917	41.6523	0.4613
Base	7	21	236.7191	-10.8233	-27.6117	-0.4609
Base	7	21	241.3621	38.4166	17.8311	0.1583
Base	7	21	235.0294	-31.6482	-3.7906	-0.158
Base	7	21	290.688	14.6593	34.5186	0.3449
Base	7	21	288.4688	-6.7003	-17.4301	-0.3467
Base	7	21	291.9535	30.2567	16.677	0.1181
Base	7	21	287.2032	-22.2977	0.4115	-0.1199
Base	8	24	190.161	4.9378	-16.3028	-0.0012
Base	8	24	147.726	4.2357	-13.0272	0.0002
Base	8	24	179.5522	4.7623	-15.4839	-0.0009
Base	8	24	160.0464	23.656	18.3523	0.4613
Base	8	24	135.4057	-15.1847	-44.4066	-0.4609
Base	8	24	155.3965	39.1825	-3.5311	0.1583
Base	8	24	140.0555	-30.7112	-22.5233	-0.158
Base	8	24	188.7956	19.3504	8.0508	0.3449
Base	8	24	170.3088	-9.8259	-39.0185	-0.3467
Base	8	24	185.313	30.9794	-8.3394	0.1181
Base	8	24	173.7915	-21.4549	-22.6284	-0.1199
Base	9	27	120.3379	-0.0145	12.4022	-0.0012
Base	9	27	96.3916	-0.0308	9.7738	0.0002
Base	9	27	114.3513	-0.0186	11.7451	-0.0009
Base	9	27	107.2172	20.2289	37.9278	0.4613
Base	9	27	85.5661	-20.2905	-18.3801	-0.4609
Base	9	27	106.1494	37.071	18.512	0.1583
Base	9	27	86.6339	-37.1326	1.0357	-0.158
Base	9	27	122.4756	15.2006	32.8608	0.3449
Base	9	27	106.227	-15.2377	-9.3706	-0.3467
Base	9	27	121.6759	27.8149	18.3188	0.1181
Base	9	27	107.0268	-27.8521	5.1715	-0.1199
Base	10	30	259.5213	0.0619	-2.3948	-0.0012
Base	10	30	204.8703	-0.0037	-1.5029	0.0002
Base	10	30	245.8585	0.0455	-2.1718	-0.0009
Base	10	30	212.3615	13.9645	29.4797	0.4613
Base	10	30	197.379	-13.972	-32.4855	-0.4609
Base	10	30	214.603	35.7216	7.9121	0.1583
Base	10	30	195.1375	-35.729	-10.9179	-0.158
Base	10	30	251.4828	10.5465	21.0652	0.3449
Base	10	30	240.2342	-10.4554	-25.4089	-0.3467
Base	10	30	253.1617	26.8421	4.9115	0.1181

Table 1.1 - Joint Reactions (Part 2 of 2, continued)

Story	Label	Unique Name	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Base	10	30	238.5554	-26.751	-9.2552	-0.1199
Base	11	33	248.5244	-0.0284	0.3582	-0.0012
Base	11	33	196.5556	-0.0816	-0.0336	0.0002
Base	11	33	235.5322	-0.0417	0.2602	-0.0009
Base	11	33	203.4396	13.8762	30.9611	0.4613
Base	11	33	189.6716	-14.0395	-31.0283	-0.4609
Base	11	33	205.9684	35.3495	9.5793	0.1583
Base	11	33	187.1427	-35.5128	-9.6464	-0.158
Base	11	33	240.701	10.4512	23.5065	0.3449
Base	11	33	230.3634	-10.5346	-22.986	-0.3467
Base	11	33	242.595	26.5343	7.4919	0.1181
Base	11	33	228.4694	-26.6177	-6.9715	-0.1199
Base	12	36	90.2009	-1.1106	-9.2824	-0.0012
Base	12	36	72.3809	-1.0113	-7.3887	0.0002
Base	12	36	85.7459	-1.0858	-8.8089	-0.0009
Base	12	36	82.0404	18.6787	19.9245	0.4613
Base	12	36	62.7214	-20.7012	-34.7019	-0.4609
Base	12	36	83.8255	34.7022	0.9237	0.1583
Base	12	36	60.9362	-36.7247	-15.7011	-0.158
Base	12	36	92.9972	13.7051	11.676	0.3449
Base	12	36	78.4945	-15.8766	-29.2939	-0.3467
Base	12	36	94.3342	25.7064	-2.5552	0.1181
Base	12	36	77.1575	-27.8779	-15.0627	-0.1199
Base	13	39	67.4408	2.0822	7.2922	-0.0012
Base	13	39	56.1373	1.7557	5.7934	0.0002
Base	13	39	64.6149	2.0005	6.9175	-0.0009
Base	13	39	75.636	20.4737	30.9343	0.4613
Base	13	39	36.6385	-16.9623	-19.3475	-0.4609
Base	13	39	82.1122	35.8527	13.4956	0.1583
Base	13	39	30.1623	-32.3413	-1.9088	-0.158
Base	13	39	79.2547	16.0614	25.7733	0.3449
Base	13	39	49.9751	-12.0603	-11.9383	-0.3467
Base	13	39	84.1053	27.5799	12.7121	0.1181
Base	13	39	45.1245	-23.5789	1.1229	-0.1199
Base	14	42	140.2064	4.0689	-0.1211	-0.0012
Base	14	42	114.4414	3.3403	0.1789	0.0002
Base	14	42	133.7651	3.8867	-0.0461	-0.0009
Base	14	42	123.9968	16.3185	27.8066	0.4613
Base	14	42	104.886	-9.6379	-27.4488	-0.4609
Base	14	42	140.1356	36.4562	8.8708	0.1583
Base	14	42	88.7472	-29.7756	-8.513	-0.158
Base	14	42	140.9496	13.6433	20.675	0.3449
Base	14	42	126.5807	-5.8699	-20.7672	-0.3467
Base	14	42	153.0373	28.726	6.4925	0.1181
Base	14	42	114.493	-20.9526	-6.5847	-0.1199

Table 1.1 - Joint Reactions (Part 2 of 2, continued)

Story	Label	Unique Name	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Base	15	45	139.4608	3.9486	-0.7197	-0.0012
Base	15	45	113.8626	3.2246	-0.848	0.0002
Base	15	45	133.0612	3.7676	-0.7518	-0.0009
Base	15	45	123.4529	16.1915	26.7167	0.4613
Base	15	45	104.2722	-9.7424	-28.4127	-0.4609
Base	15	45	139.417	36.0729	7.7048	0.1583
Base	15	45	88.3081	-29.6238	-9.4008	-0.158
Base	15	45	140.2718	13.5156	19.9219	0.3449
Base	15	45	125.8506	-5.9804	-21.4255	-0.3467
Base	15	45	152.2286	28.4064	5.6824	0.1181
Base	15	45	113.8939	-20.8711	-7.186	-0.1199
Base	16	48	68.004	2.2605	-7.2811	-0.0012
Base	16	48	56.7805	1.8448	-5.8112	0.0002
Base	16	48	65.1981	2.1565	-6.9136	-0.0009
Base	16	48	76.9769	20.4607	19.4614	0.4613
Base	16	48	36.5841	-16.7711	-31.0838	-0.4609
Base	16	48	83.2406	35.2345	2.358	0.1583
Base	16	48	30.3204	-31.545	-13.9804	-0.158
Base	16	48	80.3614	16.1403	12.0413	0.3449
Base	16	48	50.0348	-11.8272	-25.8685	-0.3467
Base	16	48	85.0528	27.2056	-0.7688	0.1181
Base	16	48	45.3434	-22.8925	-13.0584	-0.1199
Base	33	100	92.3389	1.1693	-2.3858	-0.0006
Base	33	100	76.7322	0.9031	-1.9142	0.0001
Base	33	100	88.4372	1.1028	-2.2679	-0.0004
Base	33	100	79.3979	6.6546	17.8146	0.2224
Base	33	100	74.0665	-4.8483	-21.6431	-0.2223
Base	33	100	78.6191	18.3441	4.0959	0.0764
Base	33	100	74.8453	-16.5378	-7.9244	-0.0762
Base	33	100	90.4374	5.4287	12.5288	0.1663
Base	33	100	86.4371	-3.2232	-17.0646	-0.1672
Base	33	100	89.8541	14.1839	2.2538	0.0569
Base	33	100	87.0204	-11.9784	-6.7896	-0.0578
Base	34	101	93.8923	1.134	2.1899	-0.0006
Base	34	101	77.6039	0.8777	1.7494	0.0001
Base	34	101	89.8202	1.0699	2.0798	-0.0004
Base	34	101	80.1419	6.6656	21.4696	0.2224
Base	34	101	75.066	-4.9101	-17.9709	-0.2223
Base	34	101	79.3977	18.3022	7.709	0.0764
Base	34	101	75.8102	-16.5467	-4.2103	-0.0762
Base	34	101	91.7245	5.4231	16.87	0.1663
Base	34	101	87.9159	-3.2833	-12.7105	-0.1672
Base	34	101	91.1671	14.1387	6.5636	0.0569
Base	34	101	88.4733	-11.9989	-2.404	-0.0578

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

CARGAS DE CIMENTACION

Story	Point	Load	FX	FY	FZ	MX	MY	MZ
Base	1	D+L	14.1941	8.3808	142.4932	-8.0551	13.6575	-1.20E-03
Base	2	D+L	-7.9239	7.822	264.1103	-7.507	-7.7686	-1.20E-03
Base	3	D+L	7.2337	7.3989	267.525	-7.0895	6.9148	-0.0012
Base	4	D+L	-14.0791	8.0677	146.5563	-7.7305	-13.7312	-1.20E-03
Base	5	D+L	18.0184	-5.0052	180.9399	4.9121	17.3687	-1.20E-03
Base	6	D+L	-10.9472	-4.1079	314.5967	4.0496	-10.6907	-1.20E-03
Base	7	D+L	9.4333	-4.2324	306.7059	4.1779	9.0522	-1.20E-03
Base	8	D+L	-16.7406	-5.0098	190.161	4.9378	-16.3028	-1.20E-03
Base	9	D+L	12.8874	0.0804	120.3379	-0.0145	12.4022	-1.20E-03
Base	10	D+L	-2.3875	0.0086	259.5213	0.0619	-2.3948	-1.20E-03
Base	11	D+L	0.4544	0.1097	248.5244	-0.0284	0.3582	-1.20E-03
Base	12	D+L	-9.4975	1.2339	90.2009	-1.1106	-9.2824	-0.0012
Base	13	D+L	7.6087	-2.0839	67.4408	2.0822	7.2922	-0.0012
Base	14	D+L	-0.044	-4.1277	140.2064	4.0689	-0.1211	-0.0012
Base	15	D+L	-0.662	-3.9958	139.4608	3.9486	-0.7197	-0.0012
Base	16	D+L	-7.4352	-2.246	68.004	2.2605	-7.2811	-0.0012
Base	33	D+L	-2.4075	-1.1653	92.3389	1.1693	-2.3858	-0.0006
Base	34	D+L	2.2944	-1.1281	93.8923	1.134	2.1899	-0.0006

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

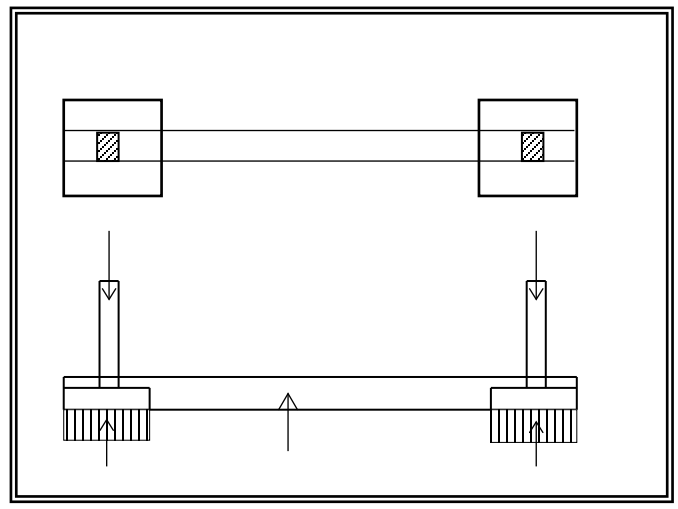
DISEÑO VIGA DE AMARRE

Datos de entrada

Luz Viga, L =	**6.79 m**	b =	**0.30 m**	f'c =	**24.50 Mpa**
h_{min} =	**0.30 m**	$h_{adoptado}$ =	**0.35 m** **OK**	fy =	**420 Mpa**

Refuerzo a Traccion y Compresion

De acuerdo con el numeral A.3.6.4.2 de la Norma NSR-10 tenemos:



Aa = **0.15** **Paxial = 0,25*Aa*Pmax**
Pmax = **314.60 kN** **Paxial =** **11.80 kN**

Refuerzo a Traccion

$As_{traccion}$ = (1,7xPaxial)/(0,9x420)
$As_{traccion}$ = 0.53 cm²

Seccion a Compresion

$A_{requeria}$ = Paxial/(0,65x420)
$A_{requeria}$ = 0.43 cm²
$A_{requeria}$ = 1050 cm² **Ok**

Chequeo a Flexion

Asentamiento Diferencial Maximo = **0.01 m**

Δ (m)	E (kg/cm²)	I (m^4)	M (kN-m)	V (kN)	F.Carga
0.01 m	234787.14	0.000535938	16.4	4.8	**1.3**

Refuerzo Requerido

Mu (kN-m)	d (cm)	R (kN/cm²)	k	r_{req}	As (cm^2)	
21.32	28	0.08633	0.06	0.0023	3.23	*Ref. minimo*

Vu (kN)	ϕVc (kN)	# fleje	Nº ramas	Av (cm^2)	s (cm)
6.24	42.336	3	2	0.76	-37.1

Resumen

As = 3.23 cm²
Refuerzo : 6 #4 7.74 cm² OK

Estribos Sencillos #3 c/ 0.07m en la zona confinada

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA ESQUINERA

ZAPATA TIPO 1 (EJES A1,A4,D1,D4)

Datos de entrada

Ancho Columna, b =	**30 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1148 Mpa**
Largo Columna, l =	**30 cm**	fy =	**420 Mpa**		

Predimensionamiento de la Zapata

Cargas

Pu =	**146.56 kN**
Pp (10%) =	**14.66 kN**
ΣP =	**161.21 kN**

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 1.40 m²

$$\sqrt[2]{Area\ necesaria} = b$$ **b = 1.19 m**

Medidas para zapata Excentrica

l =	1.25 m
b =	1.25 m
L =	**2.90 m**
d =	1.10 m
e =	0.48 m
L - e =	2.43 m
L - d =	1.80 m

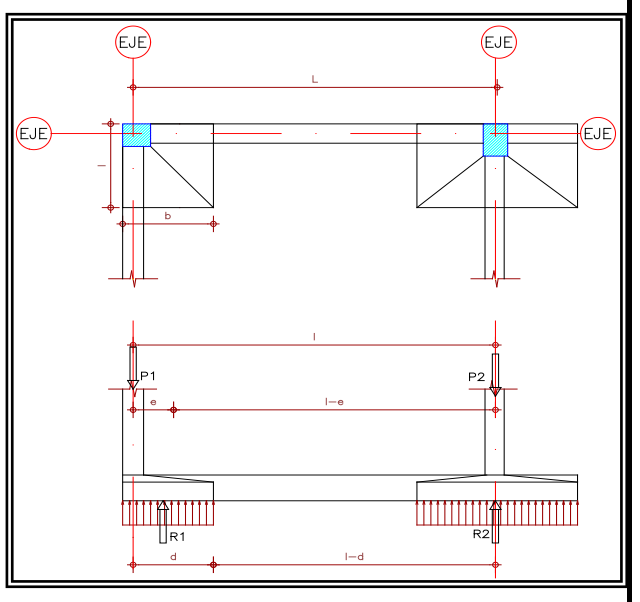
Asumimos dimensiones

b =	**1.25 m**
l =	**1.25 m**

Valor de ΔR

$$\Delta R = \frac{\sum p * e}{L - e} =$$ 31.58 kN

$$\sigma_{neta} = \frac{Pu + \Delta r}{c * b} =$$ 0.1140 Mpa ***OK***



Diseño de viga de contrapeso

Flexion Donde el cortante es cero (0), el momento es máximo

$M_d = \Delta R * (L - d) =$	56.84 kN-m	**h =**	**0.35 m**	**ρ =**	0.00942		
$\emptyset\ M_n = 1{,}7 * M_d =$	96.63 kN-m	**bv =**	**0.30 m**	**As =**	8.48 cm²		
		d =	**0.30 m**	**As (min) =**	2.97 cm²		**As ref.**
				Refuerzo =		3 #5	8.55 cm² OK
					2da. Fila	2 #4	
						3 #4	3.87 cm² OK

Cortante

Carga Longitudinal bajo la zapata exterior = 142.51 kN/m

Ai =	21.38 kN	**V borde de la Columna =**	103.80 kN
Ad =	125.18 kN	**V (d) =**	-31.58 kN

Estribos Sencillos #3 c/ 0.075m en la zona confinada

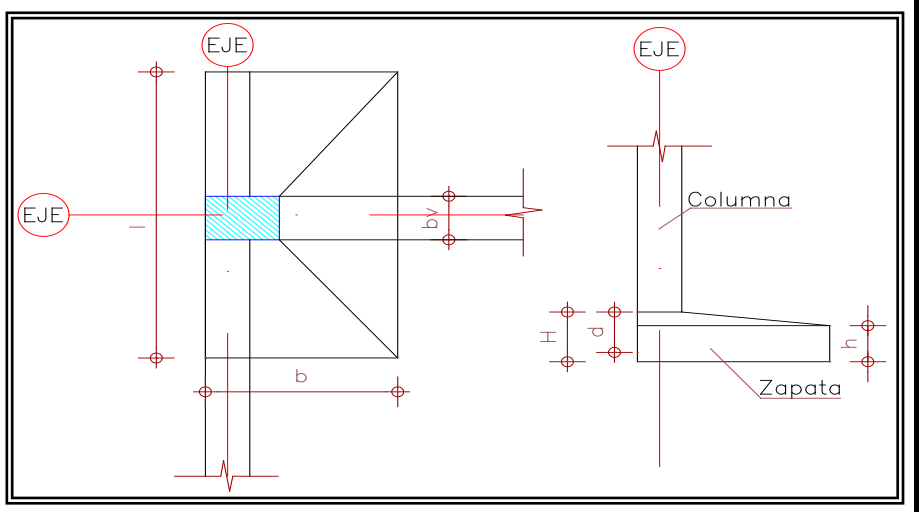
Diseño de Zapata Excentrica

Flexion

Se considera como voladizos en el sentido más largo, soportados en la viga de contrapeso:

σneta =	0.11 Mpa	**H =**	**0.30 m**
M =	16.08 kN-m	**d =**	**0.23 m**
ϕMn =	27.33 kN-m	**b =**	1.25 m
		h=	**0.30 m**

ρ = 0.0025
As = 7.19 cm²
Armadura = 7#4L= 1.55m c./0.20 Ref. Transversal
7#4L= 1.55m c./0.20 Ref. Longitudinal



Chequeo por Cortante

V borde viga = 32.15 kN
Vu = 54.66 kN

$$v_u = \frac{V_u}{B * d} =$$ 0.190 Mpa

ϕ vc = 0.619 Mpa **OK**

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA EXCENTRICA

ZAPATA TIPO 2 (EJESD2,D3)

Datos de entrada

Ancho Columna, b =	**30 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1046 Mpa**
Largo Columna, l =	**30 cm**	fy =	**420 Mpa**		

Predimensionamiento de la Zapata

Cargas

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 2.81 m²

Pu =	**267.53 kN**
Pp (10%) =	**26.75 kN**
ΣP =	**294.28 kN**

$$Area\ Necesaria\ = c * b \qquad c = 2 * b$$

$$Area\ Necesaria\ = 2b * b \qquad \frac{Area\ Necesaria}{2} = b^2$$

$$\sqrt[2]{\frac{Area\ Necesaria}{2}} = b$$

b = **1.19 m**

Medidas para zapata Excentrica

Asumimos dimensiones

c =	2.35 m	**b =**	**1.20 m**
b =	1.20 m	**c =**	**2.35 m**
L =	**5.50 m**		
d =	1.05 m		
e =	0.45 m		
L - e =	5.05 m		
L - d =	4.45 m		

Valor de ΔR

$$\Delta R = \frac{\sum p * e}{L - e} =$$ 26.22 kN

$$c = \frac{\sum p + \Delta r}{\sigma_{adm} * b} =$$ 2.55 m

$$\sigma_{neta} = \frac{Pu + \Delta r}{c * b} =$$ 0.1042 Mpa ***OK***

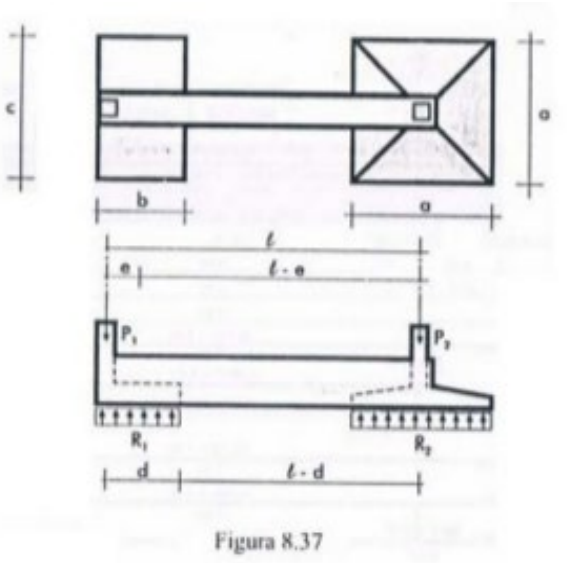


Figura 8.37

Diseño de viga de contrapeso

Flexion Donde el cortante es cero (0), el momento es máximo

$M_d = \Delta R * (L - d) =$	116.69 kN-m	**h =**	**0.40 m**	**ρ =**	0.01453		
$\emptyset M_n = 1{,}7 * M_d =$	198.38 kN-m	**bv =**	**0.35 m**	**As =**	16.78 cm²		
		d =	**0.33 m**	**As (min) =**	3.81 cm²		
				Refuerzo =	4 #6	**As ref.** 17.33 cm²	OK
				+	3 #5		**Segunda Fila**
					4 #4	5.16 cm²	OK

Cortante

Carga Longitudinal bajo la zapata exterior = 244.79 kN/m

Ai =	36.72 kN	**V borde de la Columna =**	194.09 kN
Ad =	230.81 kN	**V (d) =**	-26.22 kN

Estribos Sencillos #3 c/ 0.08m en la zona confinada

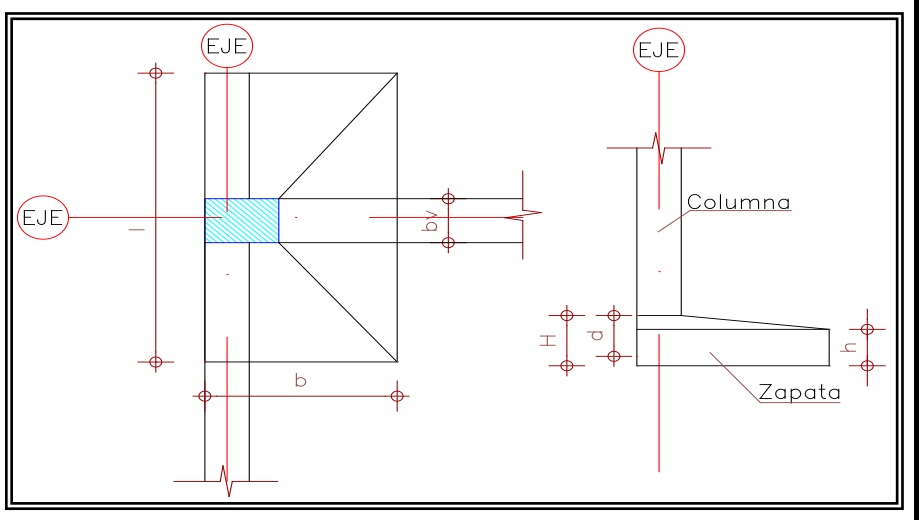
Diseño de Zapata Excentrica

Flexion

Se considera como voladizos en el sentido más largo, soportados en la viga de contrapeso:

σneta =	0.10 Mpa	**H =**	**0.40 m**
M =	65.66 kN-m	**d =**	**0.33 m**
ϕMn =	111.63 kN-m	**b =**	1.20 m
		h=	**0.40 m**

ρ = 0.0025
As = 9.90 cm²
Armadura = 12#4L= 1.5m c./0.20 Ref. Transversal
7#5L= 2.75m c./0.20 Ref. Longitudinal



Chequeo por Cortante

V borde viga = 131.33 kN
Vu = 223.26 kN

$v_u = \frac{V_u}{B * d} =$ 0.564 Mpa

ϕ vc = 0.619 Mpa **OK**

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA EXCENTRICA

ZAPATA TIPO 3 (EJES A2,A3,C1,C4)

Datos de entrada

Ancho Columna, b =	**30 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1070 Mpa**
Largo Columna, l =	**30 cm**	fy =	**420 Mpa**		

Predimensionamiento de la Zapata

Cargas

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 1.95 m²

Pu =	**190.16 kN**
Pp (10%) =	**19.02 kN**
ΣP =	**209.18 kN**

$$Area\ Necesaria\ = c * b \qquad Area\ Necesaria\ = 2b * b$$

$$c = 2 * b \qquad \frac{Area\ Necesaria}{2} = b^2$$

$$\sqrt[2]{\frac{Area\ Necesaria}{2}} = b$$

b = **0.99 m**

Medidas para zapata Excentrica

Asumimos dimensiones

c =	2.10 m	**b =**	**1.05 m**
b =	1.05 m	**c =**	**2.10 m**
L =	**2.90 m**		
d =	0.90 m		
e =	0.38 m		
L - e =	2.53 m		
L - d =	2.00 m		

Valor de ΔR

$$\Delta R = \frac{\sum p * e}{L - e} =$$ 31.07 kN

$$c = \frac{\sum p + \Delta r}{\sigma_{adm} * b} =$$ 2.14 m

$$\sigma_{neta} = \frac{Pu + \Delta r}{c * b} =$$ 0.1003 Mpa ***OK***

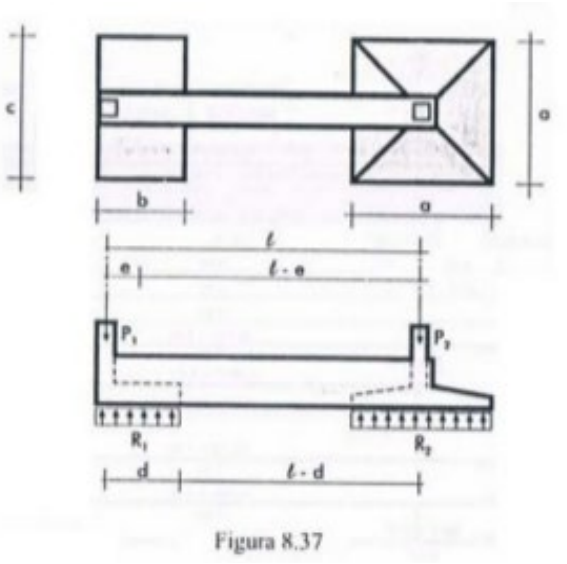


Figura 8.37

Diseño de viga de contrapeso

Flexion Donde el cortante es cero (0), el momento es máximo

$M_d = \Delta R * (L - d) =$	62.13 kN-m	**h =**	**0.35 m**	**ρ =**	0.01220		
$\emptyset M_n = 1{,}7 * M_d =$	105.62 kN-m	**bv =**	**0.30 m**	**As =**	10.25 cm²		
		d =	**0.28 m**	**As (min) =**	2.77 cm²		
				Refuerzo =		**As ref.**	
					4 #5	10.54 cm²	OK
				+	2 #4		**Segunda Fila**
					4 #4	5.16 cm²	OK

Cortante

Carga Longitudinal bajo la zapata exterior = 210.69 kN/m

Ai =	31.60 kN	**V borde de la Columna =**	126.95 kN
Ad =	158.56 kN	**V (d) =**	-31.07 kN

Estribos Sencillos #3 c/ 0.07m en la zona confinada

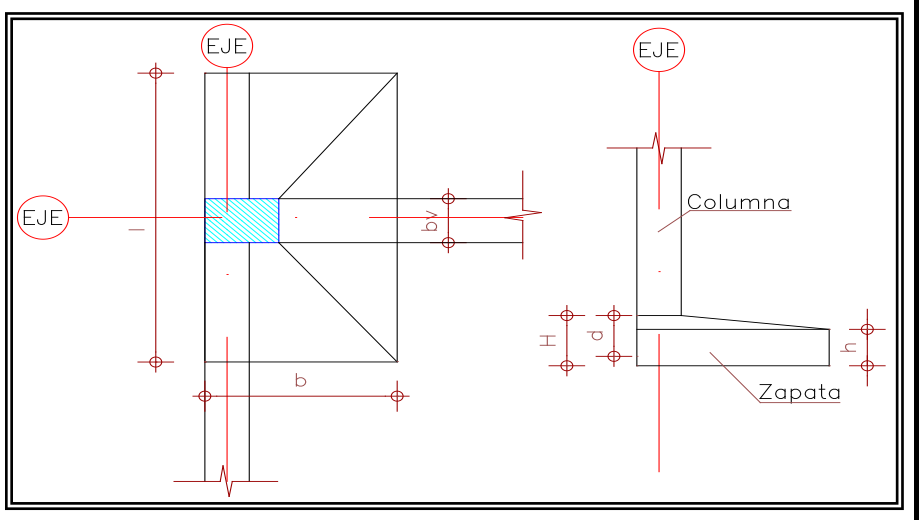
Diseño de Zapata Excentrica

Flexion

Se considera como voladizos en el sentido más largo, soportados en la viga de contrapeso:

σneta =	0.10 Mpa	**H =**	**0.30 m**
M =	42.67 kN-m	**d =**	**0.23 m**
ϕMn =	72.53 kN-m	**b =**	1.05 m
		h=	**0.30 m**

ρ = 0.0032
As = 7.76 cm²
Armadura = 11#4L= 1.35m c./0.20 Ref. Transversal
6#5L= 2.5m c./0.20 Ref. Longitudinal



Chequeo por Cortante

V borde viga = 85.33 kN
Vu = 145.06 kN

$v_u = \frac{V_u}{B * d} =$ 0.601 Mpa

ϕ vc = 0.619 Mpa **OK**

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA EXCENTRICA

ZAPATA TIPO 4 (EJES B1,B4)

Datos de entrada

Ancho Columna, b =	**30 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1070 Mpa**
Largo Columna, l =	**30 cm**	fy =	**420 Mpa**		

Predimensionamiento de la Zapata

Cargas

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 1.24 m²

Pu =	**120.34 kN**
Pp (10%) =	**12.03 kN**
ΣP =	**132.37 kN**

$$Area\ Necesaria\ = c * b \qquad c = 2 * b$$

$$Area\ Necesaria\ = 2b * b \qquad \frac{Area\ Necesaria}{2} = b^2$$

$$\sqrt[2]{\frac{Area\ Necesaria}{2}} = b$$

b = **0.79 m**

Medidas para zapata Excentrica

Asumimos dimensiones

c =	2.00 m	**b =**	**1.00 m**
b =	1.00 m	**c =**	**2.00 m**
L =	**5.70 m**		
d =	0.85 m		
e =	0.35 m		
L - e =	5.35 m		
L - d =	4.85 m		

Valor de ΔR

$$\Delta R = \frac{\sum p * e}{L - e} =$$ 8.66 kN

$$c = \frac{\sum p + \Delta r}{\sigma_{adm} * b} =$$ 1.32 m

$$\sigma_{neta} = \frac{Pu + \Delta r}{c * b} =$$ 0.0645 Mpa ***OK***

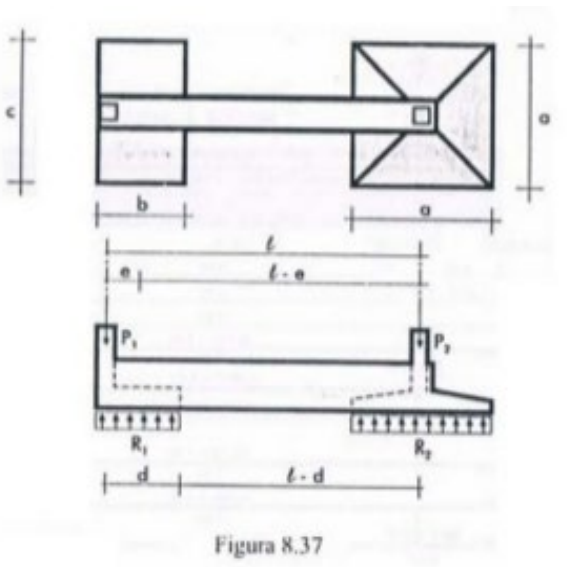


Figura 8.37

Diseño de viga de contrapeso

Flexion Donde el cortante es cero (0), el momento es máximo

$M_d = \Delta R * (L - d) =$	42.00 kN-m	**h =**	**0.35 m**	**ρ =**	0.00785
$\emptyset M_n = 1{,}7 * M_d =$	71.40 kN-m	**bv =**	**0.30 m**	**As =**	6.60 cm²
		d =	**0.28 m**	**As (min) =**	2.77 cm²

Refuerzo =			**As ref.**	
	3 #4	7.74 cm²	OK	
+	3 #4		**Segunda Fila**	
	3 #4	3.87 cm²	OK	

Cortante

Carga Longitudinal bajo la zapata exterior = 129.00 kN/m

Ai =	19.35 kN	**V borde de la Columna =**	81.64 kN
Ad =	100.99 kN	**V (d) =**	-8.66 kN

Estribos Sencillos #3 c/ 0.07m en la zona confinada

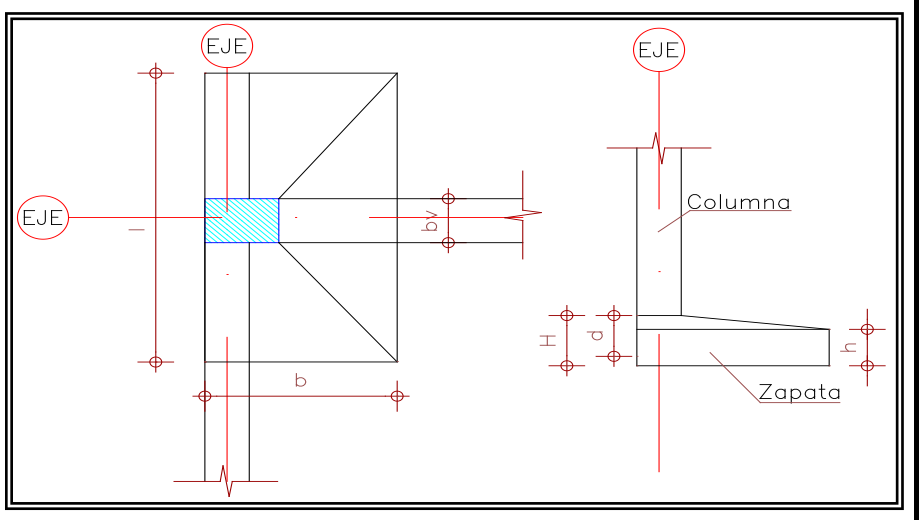
Diseño de Zapata Excentrica

Flexion

Se considera como voladizos en el sentido más largo, soportados en la viga de contrapeso:

σneta =	0.06 Mpa	**H =**	**0.30 m**
M =	23.30 kN-m	**d =**	**0.23 m**
ϕMn =	39.61 kN-m	**b =**	1.00 m
		h=	**0.30 m**

ρ = 0.0025
As = 5.75 cm²
Armadura = 11#4L= 1.3m c./0.20 Ref. Transversal
6#4L= 2.3m c./0.20 Ref. Longitudinal



Chequeo por Cortante

V borde viga = 46.60 kN
Vu = 79.22 kN

$v_u = \frac{V_u}{B * d} =$ 0.344 Mpa

ϕ vc = 0.619 Mpa **OK**

PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA CONCENTRICA

ZAPATA TIPO 5 (COLUMNA C2,C3)

Datos de entrada

Ancho Columna, b =	**30 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1003 Mpa**
Largo Columna, l =	**30 cm**	fy =	**420 Mpa**		

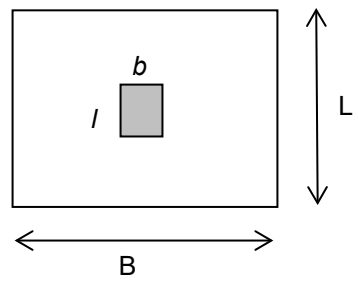
Predimensionamiento de la Zapata

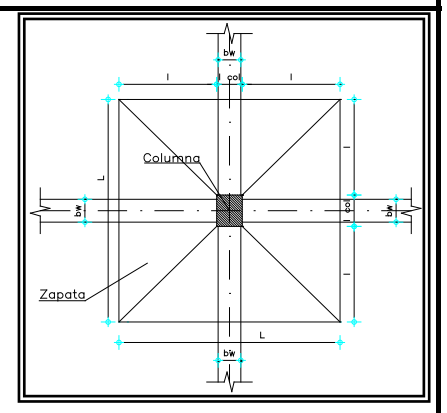
Cargas

Mu =	**9.05 kN-m**
Pu =	**314.60 kN**
Pp (10%) =	**31.46 kN**
ΣP =	**346.06 kN**

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 3.45 m²

Excentricidad, e=	0.03 m
Lado de la Zapata, L =	1.86 m
Aproximamos, L =	**1.95 m**
Lado de la Zapata, B =	1.86 m
Aproximamos, B =	**1.95 m**





$$Carga\ de\ Diseño = \frac{Pu}{A_{real}} =$$ **0.08 Mpa**

Esfuerzos		
σmáx=	0.099 MPa	OK
σmin=	0.083 MPa	OK

Diseño de Zapata Concentrica

Flexion

M borde columna = **54.90 kN-m** ϕMn =1,70*M borde Col = **93.34 kN-m**

Con el criterio de calcular el refuerzo por metro lineal utilizamos una altura efectiva igual a:

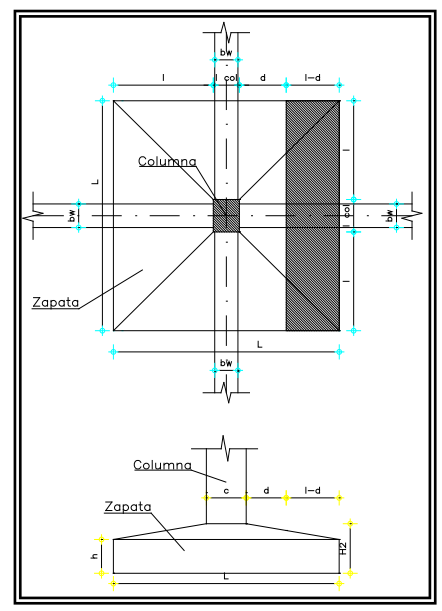
d =	0.22 m
ρ =	0.0048
As =	10.62 cm²/m
Armadura =	10#4L= 2.25m c./0.20 Ref. Transversal
	10#4L= 2.25m c./0.20 Ref. Longitudinal

Cortante

a. En un Direccion (d)

L =	1.95 m	**H =**	0.30 m
l =	0.83 m	**h =**	0.30 m
l - d =	0.61 m	**H - h =**	0.00 m

V (d) =	97.61 kN			
Vu (d) = 1,70 x V(d)		$v_u = \frac{V_u}{B * h'} =$	0.387 Mpa	
Vu (d) =	165.93 kN			
h' =	0.22 m	**ϕ vc =**	0.6187 Mpa	**OK**



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b. En dos Direccion (d/2)

L =	1.95 m	**H =**	0.30 m
d =	0.11 m	**h =**	0.30 m
l - d/2 =	0.72 m	**H - h =**	0.00 m

V (d/2) = 44.96 kN

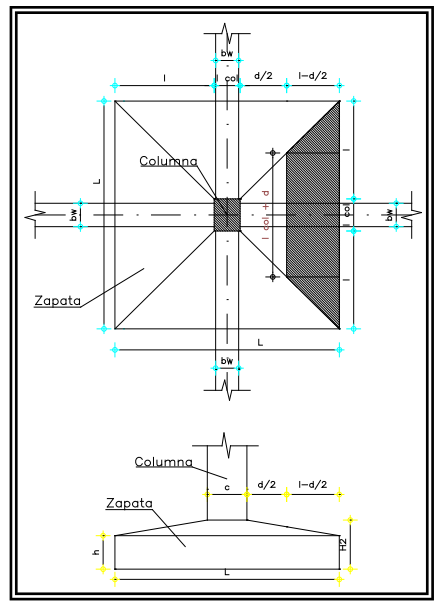
Vu (d/2) = 1,70 x V(d/2)

$$v_u = \frac{V_u}{(d+b)*h'} = \quad 0.668 \text{ Mpa}$$

Vu (d/2) = 76.43 kN

d1 = 0.22 m

ϕ vc = 1.237 Mpa **OK**



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PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA CONCENTRICA

ZAPATA TIPO 6 (COLUMNA B2,B3)

Datos de entrada

Ancho Columna, b =	**30 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1003 Mpa**
Largo Columna, l =	**30 cm**	fy =	**420 Mpa**		

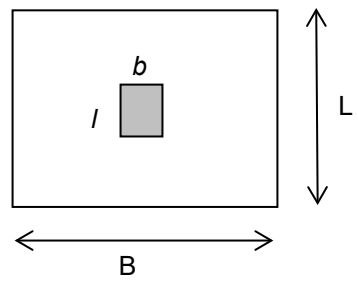
Predimensionamiento de la Zapata

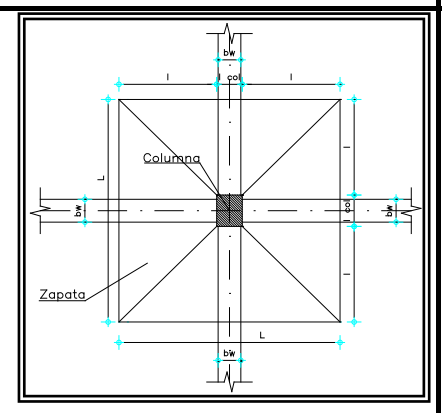
Cargas

Mu =	**0.36 kN-m**
Pu =	**259.52 kN**
Pp (10%) =	**25.95 kN**
ΣP =	**285.47 kN**

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 2.85 m²

Excentricidad, e=	0.00 m
Lado de la Zapata, L =	1.69 m
Aproximamos, L =	**1.75 m**
Lado de la Zapata, B =	1.69 m
Aproximamos, B =	**1.75 m**





$$Carga\ de\ Diseño = \frac{Pu}{A_{real}} =$$ **0.08 Mpa**

Esfuerzos		
σmáx=	0.094 MPa	OK
σmin=	0.093 MPa	OK

Diseño de Zapata Concentrica

Flexion

M borde columna = **38.97 kN-m** ϕMn =1,70*M borde Col = **66.26 kN-m**

Con el criterio de calcular el refuerzo por metro lineal utilizamos una altura efectiva igual a:

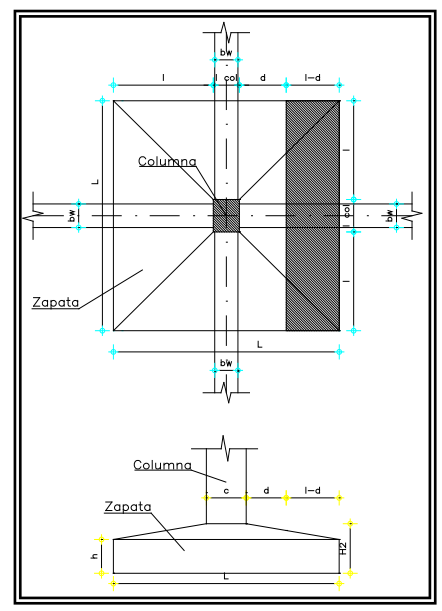
d =	0.22 m
ρ =	0.0034
As =	7.42 cm²/m
Armadura =	9#4L= 2.05m c./0.20 Ref. Transversal
	9#4L= 2.05m c./0.20 Ref. Longitudinal

Cortante

a. En un Direccion (d)

L =	1.75 m	**H =**	0.30 m
l =	0.73 m	**h =**	0.30 m
l - d =	0.51 m	**H - h =**	0.00 m

V (d) =	74.89 kN			
Vu (d) = 1,70 x V(d)		$v_u = \frac{V_u}{B * h'} =$	0.331 Mpa	
Vu (d) =	127.31 kN			
h' =	0.22 m	**ϕ vc =**	0.6187 Mpa	**OK**



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b. En dos Direccion (d/2)

L =	1.75 m	**H =**	0.30 m
d =	0.11 m	**h =**	0.30 m
l - d/2 =	0.62 m	**H - h =**	0.00 m

V (d/2) = 42.32 kN

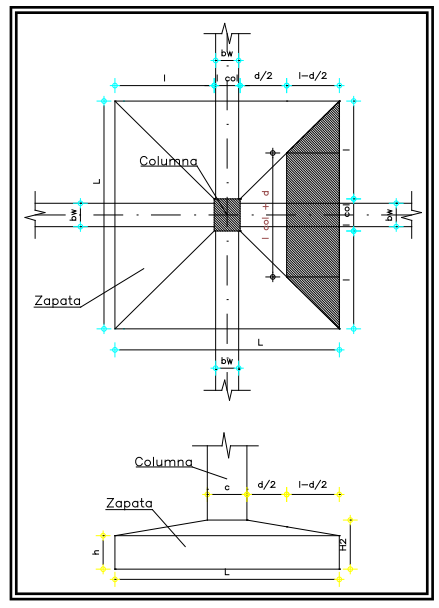
Vu (d/2) = 1,70 x V(d/2)

$$v_u = \frac{V_u}{(d+b)*h'} =$$ 0.629 Mpa

Vu (d/2) = 71.94 kN

d1 = 0.22 m

ϕ vc = 1.237 Mpa **OK**



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PROYECTO: JARDIN SALAMANDRA
Calle 75a Bis Sur #27-22, Bogota D.C. - Cundinamarca

DISEÑO DE ZAPATA CONCENTRICA

ZAPATA TIPO 7 (COLUMNA ENTRE C-D Y 2-3)

Datos de entrada

Ancho Columna, b =	**25 cm**	f'c =	**24.50 Mpa**	**σadm =**	**0.1003 Mpa**
Largo Columna, l =	**25 cm**	fy =	**420 Mpa**		

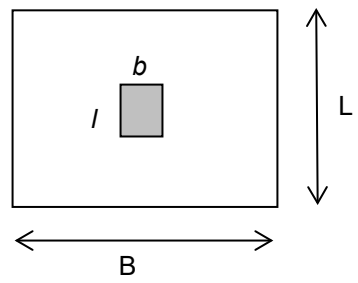
Predimensionamiento de la Zapata

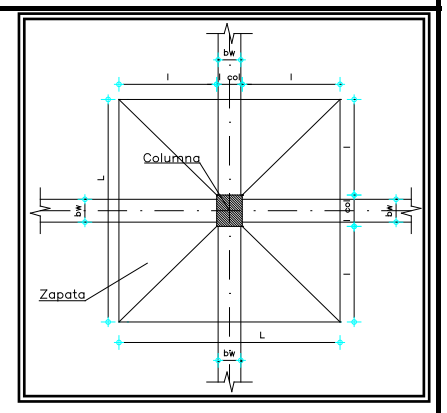
Cargas

Mu =	**1.17 kN-m**
Pu =	**93.89 kN**
Pp (10%) =	**9.39 kN**
ΣP =	**103.28 kN**

$$Area\ Necesaria\ Cimiento = \frac{\sum P}{\sigma_{adm}} =$$ 1.03 m²

Excentricidad, e=	0.01 m
Lado de la Zapata, L =	1.01 m
Aproximamos, L =	**1.10 m**
Lado de la Zapata, B =	1.01 m
Aproximamos, B =	**1.10 m**





$$Carga\ de\ Diseño = \frac{Pu}{A_{real}} =$$ **0.08 Mpa**

Esfuerzos		
σmáx=	0.091 MPa	OK
σmin=	0.080 MPa	OK

Diseño de Zapata Concentrica

Flexion

M borde columna = **7.71 kN-m** ϕMn =1,70*M borde Col = **13.10 kN-m**

Con el criterio de calcular el refuerzo por metro lineal utilizamos una altura efectiva igual a:

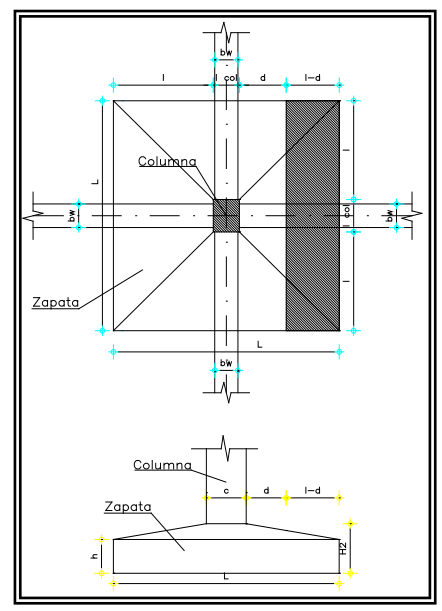
d =	0.22 m
ρ =	0.0025
As =	5.50 cm²/m
Armadura =	6#4L= 1.4m c./0.20 Ref. Transversal
	6#4L= 1.4m c./0.20 Ref. Longitudinal

Cortante

a. En un Direccion (d)

L =	1.10 m	**H =**	0.30 m
l =	0.43 m	**h =**	0.30 m
l - d =	0.21 m	**H - h =**	0.00 m

V (d) =	17.50 kN			
Vu (d) = 1,70 x V(d)		$v_u = \frac{V_u}{B * h'} =$	0.123 Mpa	
Vu (d) =	29.75 kN			
h' =	0.22 m	**ϕ vc =**	0.6187 Mpa	**OK**



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b. En dos Direccion (d/2)

L =	1.10 m	**H =**	0.30 m
d =	0.11 m	**h =**	0.30 m
l - d/2 =	0.32 m	**H - h =**	0.00 m

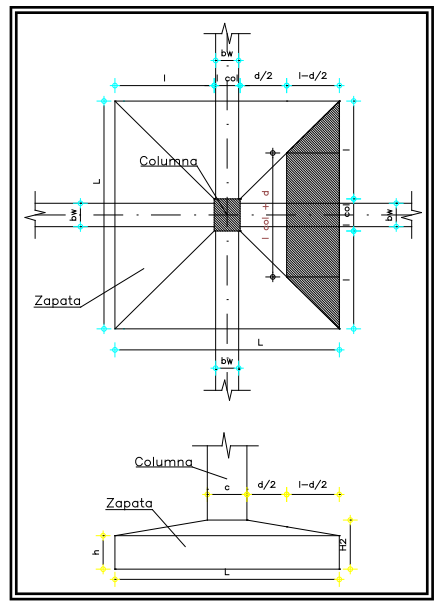
V (d/2) = 26.80 kN

Vu (d/2) = 1,70 x V(d/2)

$$v_u = \frac{V_u}{(d+b)*h'} =$$ 0.441 Mpa

Vu (d/2) = 45.56 kN

d1 = 0.22 m **ϕ vc =** 1.237 Mpa **OK**



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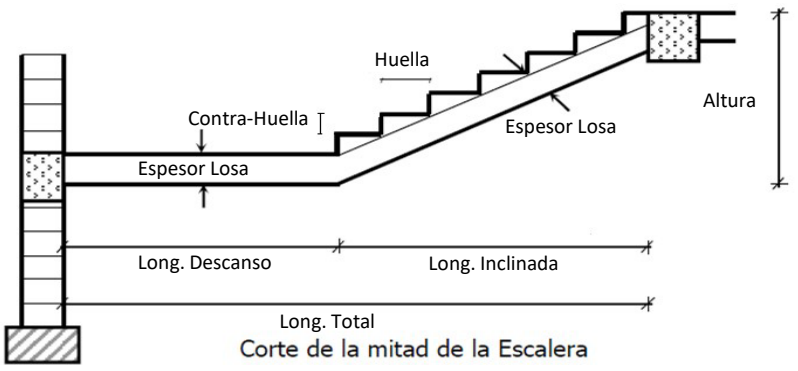
JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
12. DISEÑO DE ESCALERA	Fecha:

DISEÑO DE ESCALERA TIPO E1

El diseño se realiza para el tramo inclinado de la Escalera mas larga. Piso 1 a 2

Geometria de la Escalera

Ancho =	1.20 m	Long. Inclinada =	2.80 m
Altura =	2.95 m	Long. Descanso =	1.20 m
Long. Total =	4.00 m	Huella =	0.28 m
Espesor Losa =	0.15 m	Contra-Huella =	0.180 m
No Pasos =	16		
Pendiente =	32.74		



Corte de la mitad de la Escalera

Analisis de Carga

Peso Propio Losa	3.60	kN/m^2
Peso Propio Peldaños	2.16	kN/m^2
Acabados de Peldaños	1.45	kN/m^2
Afinado Inferior	0.52	kN/m^2
Carga Muerta	**7.73**	**kN/m^2**
Carga Viva	**5.00**	**kN/m^2** Según Tabla B.4.2.1-2, NSR-10
Carga Total	**12.73**	**kN/m^2**

$Carga\ Ultima = 1{,}2 * CM + 1{,}6 * CV$

Carga Ultima = **17.27 kN/m^2**

Analisis y Resultados

Mto (max):	34.55	kN-m

Concreto:	**245**	**kg/cm²**
Acero:	**4200**	**kg/cm²**

b (cm):	100	cm
h (cm):	15	cm
d' (cm):	3	cm
d (cm):	12	cm

ρ (min):	0.0018
ρ (calculo):	0.0068
ρ (diseño):	0.0068

Refuerzo de la Escalera

As (flex):	8.18		cm²
As (trans.):	2.16		cm²
Refuerzo (flex):	#5	c/.	0.24 m
Refuerzo (distr):	#3	c/.	0.25 m

JARDIN SALAMANDRA	Proyecto No: 25-0112 Archivo: Memorias Vulnerabilidad
13. DISEÑO DE PLACA MACIZA	Fecha:

DISEÑO DE PLACA MACIZA - PISO 2

El diseño de la placa maciza se realiza de acuerdo con lo establecido en C.13.9 de las NSR - 10

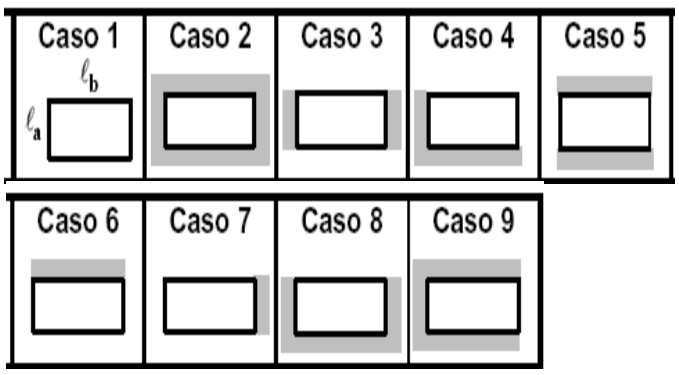
Geometria de la Placa Maciza

La =	3.40 m	f'c =	245 kg/cm²	Espesor Placa =	0.15 m
Lb =	5.20 m	fy =	4200 kg/cm²	d =	0.12 m
Relacion, m =	0.65				

Analisis de Carga

Carga Muerta =	7.35	kN/m²	1,20xCM =	8.82	kN/m²
Carga Viva =	2.00	kN/m²	1,60xCV =	3.20	kN/m²
Carga Total =	9.35	kN/m²	Carga Ultima =	12.02	kN/m²

Momentos y Cortantes Ultimos Actuantes



Placa Caso # = 2

Ca neg	0.0770
Cb neg	0.0140
Ca P cv	0.0530
Cb P cv	0.0100
Ca P cm	0.0320
Cb P cm	0.0060
Wa	0.8500
Wb	0.1500

Ma neg= Ca neg x CTu x La^2 =	10.70	kN-m	
Mb neg= Cb neg x CTu x Lb^2 =	4.55	kN-m	
Ma pos = (Ca P cv x 1.6xCV + Ca P cm x 1.2xCM) x La^2 =	5.22	kN-m	
Mb pos = (Cb P cv x 1.6xCV + Cb P cm x 1.2xCM) x Lb^2 =	2.30	kN-m	
Va = Wa /2 x CTu / La =	17.37	kN/m	
Vb = Wb /2 x CTu / Lb =	4.69	kN/m	
$V_{concreto}$ = ϕ0.17 x f'c0.5 x d =	75.73	kN/m	CUMPLE

					REF. ADIC.	
Cuantia Ma neg=	0.0271	As Ma neg =	32.48	cm2/mL	-1.79	cm2/mL
Cuantia Mb neg=	0.0092	As Mb neg =	11.06	cm2/mL	-23.20	cm2/mL
Cuantia Ma pos=	0.0108	As Ma pos =	12.92	cm2/mL	-21.34	cm2/mL
Cuantia Mb pos=	0.0044	As Mb pos =	5.30	cm2/mL	-28.97	cm2/mL

REF. BASE (cm²)		
# barra	Sep (cm)	As (cm²)
M-257	15	34.27

Cuantia minima= 0.0018
Area de acero min= 2.16 cm2/mL
Refuerzo =

JARDIN SALAMANDRA	Proyecto No:25-0112 Archivo: Memorias Vulnerabilidad Fecha:
15. DISEÑO DE ELEMENTOS NO ESTRUCTURALES	

DISEÑO DE ELEMENTOS NO ESTRUCTURALES

1. Fuerzas Horizontales en cada nivel

STORY DATA			
Story	**Height**	**Elevation**	**Similar To**
N+5.65	2.70	5.65	None
N+2.95	2.95	2.95	None

Aa= 0.15 I=1.25 W (T)=249.25
Fa= 1.35 Sa=0.633 Vs (T)=157.78

Nivel	hi (m)	wi (kN)	wi hik	Cvx	Fx (kN)	Fx (Ton)
N+5.65	5.65	557.783	3151.47	0.36	345.81	34.58
N+2.95	2.95	1934.733	5707.46	0.64	626.27	62.63
	Totales	2492.516	8858.94	1.00	972.08	97.21

2. Materiales - Muros Fachadas y Muros de Antepecho

Tipo de muro	b (m)	γ (t/m^3)	w_{muro} (t/m^2)
1.Bloque perf. Hzntal	0.15	1.4	0.21
2.Bloque perf. Vtcal	0.15	1.6	0.24
3.Tolete macizo	0.12	1.85	0.222
4.Bloque de concreto	0.14	2.15	0.301
5.Concreto Arq.	0.12	2.4	0.288
6.Otro			0

Columnetas f'c = 210 kg/cm^2
Refuerzo, fy = 4200 kg/cm^2

3. Analisis de carga - Muros Fachadas y Muros de Antepechos

ANALISIS DE CARGA MUROS DE FACHADA

Espesor de muros:	0.15	m
Espesor de pañete en una cara:	0	m
Densidad de mamposteria:	1.3	t/m^3
Densidad mortero de pañete:	2.1	T/m^3
Altura Fachada:	2.65	m
Altura Requerida:	1.99	m
Carga:	0.51675	T/m
Grado de desempeño:	Superior	
Descripción:	mamposteria reforzada, separada lateralmente de la estructura, apoyada arriba y abajo	

ap: 1.0
Rp: 6

ANALISIS DE CARGA MUROS DE ANTEPECHO

Espesor de muros:	0.12	m
Espesor de pañete en una cara:	0	m
Densidad de mamposteria:	1.3	t/m^3
Densidad mortero de pañete:	2.1	T/m^3
Altura Fachada:	1.50	m
Carga:	0.234	T/m
Grado de desempeño:	Superior	
Descripción:	mamposteria reforzada, separada lateralmente de la estructura, apoyada solo abajo	

ap: 2.5
Rp: 6

4. Diseño de muros - Muros Fachadas y Muros de Antepechos

A-) Muros de Fachada

Seccion de Columnetas => b (cm) = **15** L (cm) = **25**
Separacion Columnetas=> S (m)= **2.00** As = 0.633
Tipo de Muro => 3.Tolete macizo

$$F_p = \frac{a_x a_p}{R_p} g M_p \geq \frac{A_a I}{2} g M_p \qquad a_x = \frac{C_{vx} V_s}{m_x g} \leq 2 S_a \qquad C_{vx} = \frac{m_x h_x^k}{\sum_{i=1}^{n} (m_i h_i^k)}$$

$$V_s = S_a g M$$

NIVEL	ALTURA (m)	ax	ap	Rp	w_{muro} (t/m^2)	Fp (t/m^2)	H (m)	M (t m)	V (t)	ρ	As (cm^2)	Conector
N+5.65	2.70	0.860	1.0	6	0.51675	0.074	2.45	0.13	0.20	0.00058	0.183	1#5
N+2.95	2.95	0.940	1.0	6	0.51675	0.081	2.65	0.142	0.21	0.00064	0.200	1#5

B-) Muros de Antepecho

Seccion de Columnetas => b (cm) = **15** L (cm) = **20**
Separacion Columnetas=> S (m)= **1.50** As = 0.633
Tipo de Muro => 3.Tolete macizo

$$F_p = \frac{a_x a_p}{R_p} g M_p \geq \frac{A_a I}{2} g M_p \qquad a_x = \frac{C_{vx} V_s}{m_x g} \leq 2 S_a \qquad C_{vx} = \frac{m_x h_x^k}{\sum_{i=1}^{n} (m_i h_i^k)}$$

$$V_s = S_a g M$$

NIVEL	ALTURA (m)	ax	ap	Rp	w_{muro} (t/m^2)	Fp (t/m^2)	H (m)	M (t m)	V (t)	ρ	As (cm^2)	Conector
N+5.65	2.70	0.860	2.5	6	0.234	0.084	2.45	0.035	0.09	0.00027	0.065	1#4
N+2.95	2.95	0.940	2.5	6	0.234	0.092	2.65	0.039	0.10	0.00030	0.072	1#4
		k=	0.010									

C-) Muros Divisorios

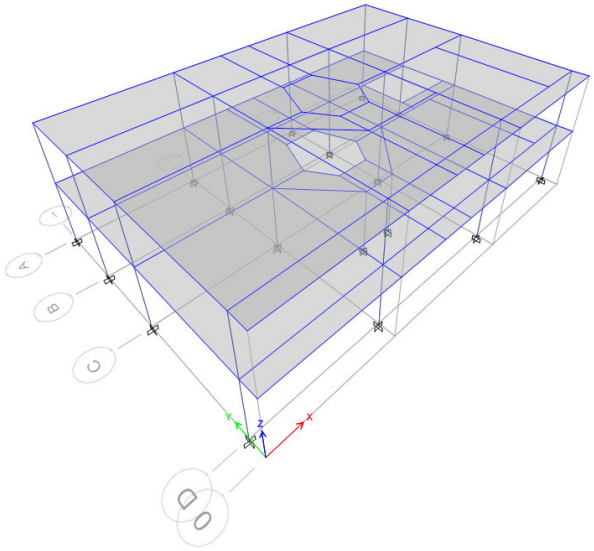
Seccion de Columnetas => b (cm) = **15** L (cm) = **25**
Separacion Columnetas=> S (m)= **2.00** As = 0.633
Tipo de Muro => 3.Tolete macizo

$$F_p = \frac{a_x a_p}{R_p} g M_p \geq \frac{A_a I}{2} g M_p \qquad a_x = \frac{C_{vx} V_s}{m_x g} \leq 2 S_a \qquad C_{vx} = \frac{m_x h_x^k}{\sum_{i=1}^{n} (m_i h_i^k)}$$

$$V_s = S_a g M$$

NIVEL	ALTURA (m)	ax	ap	Rp	w_{muro} (t/m^2)	Fp (t/m^2)	H (m)	M (t m)	V (t)	ρ	As (cm^2)	Conector
N+5.65	2.70	0.860	1.0	6	0.51675	0.074	2.45	0.13	0.20	0.00101	0.317	1#5
N+2.95	2.95	0.940	1.0	6	0.51675	0.081	2.65	0.142	0.21	0.00110	0.347	1#5

ETABS®



DATOS DE ENTRADA

Model File: JARDIN SALAMANDRA, Revision
3/12/2025

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1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Definitions

Tower	Name	Height m	Master Story	Similar To	Splice Story	Color
T1	N+5.65	2.7	No	None	No	Gray8Dark
T1	N+2.95	2.95	No	None	No	Blue

1.2 Grid Data

Table 1.2 - Grid Definitions - General

Tower	Name	Type	Ux m	Uy m	Rz deg	Story Range	Bubble Size m	Color
T1	G1	Cartesian	0	0	0	Default	1.25	Gray6

Table 1.3 - Grid Definitions - Grid Lines

Name	Grid Line Type	ID	Ordinate m	Bubble Location	Visible
G1	X (Cartesian)	1	0	End	Yes
G1	X (Cartesian)	2	5.7	End	Yes
G1	X (Cartesian)	3	12	End	Yes
G1	X (Cartesian)	4	17.7	End	Yes
G1	Y (Cartesian)	0	0	Start	Yes
G1	Y (Cartesian)	D	0.75	Start	Yes
G1	Y (Cartesian)	C	6.25	Start	Yes
G1	Y (Cartesian)	B	9.55	Start	Yes
G1	Y (Cartesian)	A	12.45	Start	Yes

1.3 Point Coordinates

Table 1.4 - Point Bays

Label	Is Auto Point	X m	Y m	DZBelow m
1	No	0	0.75	0
2	No	5.7	0.75	0
3	No	12	0.75	0
4	No	17.7	0.75	0
5	No	0	6.25	0
6	No	5.7	6.25	0
7	No	12	6.25	0
8	No	17.7	6.25	0
9	No	0	9.55	0
10	No	5.7	9.55	0
11	No	12	9.55	0
12	No	17.7	9.55	0

Table 1.4 - Point Bays (continued)

Label	Is Auto Point	X m	Y m	DZBelow m
13	No	0	12.45	0
14	No	5.7	12.45	0
15	No	12	12.45	0
16	No	17.7	12.45	0
17	No	0	0	0
18	No	5.7	0	0
19	No	12	0	0
20	No	17.7	0	0
21	No	7.3	6.25	0
22	No	10.38	6.25	0
23	No	8.08	0	0
24	No	8.08	0.75	0
25	No	8.08	5.03	0
26	No	9.63	0	0
27	No	9.63	0.75	0
28	No	9.63	5.03	0
29	No	8.08	8.17	0
30	No	8.08	9.55	0
31	No	9.63	8.17	0
32	No	9.63	9.55	0
33	No	8.08	3.62	0
34	No	9.63	3.62	0
35	No	11.05	5.03	0
36	No	6.65	5.03	0
37	No	12	3.62	0
38	No	14.42	6.25	0
39	No	14.42	9.55	0
40	No	14.42	6.96	0
41	No	17.7	6.96	0
42	No	15.63	0.75	0
43	No	15.63	6.25	0
44	Yes	8.9112	6.3089	0
45	Yes	8.7506	6.2098	0
47	No	9.63	12.45	0
48	No	8.08	12.45	0

1.4 Line Connectivity

Table 1.5 - Column Bays

Label	PointBayI	PointBayJ	IEndStory
C1	1	1	Below
C2	2	2	Below
C3	3	3	Below
C4	4	4	Below
C5	5	5	Below
C6	6	6	Below

Table 1.5 - Column Bays (continued)

Label	PointBayI	PointBayJ	IEndStory
C7	7	7	Below
C8	8	8	Below
C9	9	9	Below
C10	10	10	Below
C11	11	11	Below
C12	12	12	Below
C13	13	13	Below
C14	14	14	Below
C15	15	15	Below
C16	16	16	Below
C17	33	33	Below
C18	34	34	Below

Table 1.6 - Beam Bays

Label	PointBayI	PointBayJ
B1	17	1
B2	1	5
B3	5	9
B4	9	13
B5	18	2
B6	2	6
B7	6	10
B8	10	14
B9	19	3
B10	3	7
B11	7	11
B12	11	15
B13	20	4
B14	4	8
B15	8	12
B16	12	16
B17	1	2
B18	2	3
B19	3	4
B20	5	6
B21	34	37
B22	7	8
B23	9	10
B24	10	11
B25	11	12
B26	13	14
B27	14	15
B28	15	16
B29	17	18
B30	18	19
B31	19	20

Table 1.6 - Beam Bays (continued)

Label	PointBayI	PointBayJ
B32	6	21
B33	22	7
B34	23	24
B35	24	25
B36	26	27
B37	27	28
B38	29	30
B39	31	32
B40	33	34
B45	25	28
B46	28	22
B47	31	22
B48	29	31
B49	21	29
B50	21	25
B51	38	39
B52	40	41
B53	42	43
B54	6	33
B55	34	7
B56	24	33
B57	33	25
B58	32	47
B59	30	48
B60	27	34
B61	34	28

1.5 Area Connectivity

Table 1.7 - Floor Bays

Label	NumPoints	PointNumber	PointBay
F1	4	1	17
F1		2	18
F1		3	2
F1		4	1
F2	4	1	18
F2		2	23
F2		3	24
F2		4	2
F3	4	1	26
F3		2	19
F3		3	3
F3		4	27
F4	5	1	19
F4		2	20
F4		3	4

Table 1.7 - Floor Bays (continued)

Label	NumPoints	PointNumber	PointBay
F4		4	42
F4		5	3
F5	4	1	1
F5		2	2
F5		3	6
F5		4	5
F6	4	1	5
F6		2	6
F6		3	10
F6		4	9
F7	4	1	9
F7		2	10
F7		3	14
F7		4	13
F10	5	1	3
F10		2	42
F10		3	43
F10		4	38
F10		5	7
F11	4	1	42
F11		2	4
F11		3	8
F11		4	43
F12	6	1	10
F12		2	30
F12		3	32
F12		4	11
F12		5	15
F12		6	14
F13	5	1	11
F13		2	39
F13		3	12
F13		4	16
F13		5	15
F14	4	1	23
F14		2	26
F14		3	27
F14		4	24
F15	4	1	24
F15		2	27
F15		3	34
F15		4	33
F17	4	1	33
F17		2	34
F17		3	28
F17		4	25

Table 1.7 - Floor Bays (continued)

Label	NumPoints	PointNumber	PointBay
F19	5	1	6
F19		2	21
F19		3	29
F19		4	30
F19		5	10
F20	4	1	29
F20		2	31
F20		3	32
F20		4	30
F21	5	1	22
F21		2	7
F21		3	11
F21		4	32
F21		5	31
F22	5	1	7
F22		2	38
F22		3	40
F22		4	39
F22		5	11
F23	5	1	38
F23		2	43
F23		3	8
F23		4	41
F23		5	40
F24	8	1	18
F24		2	23
F24		3	26
F24		4	19
F24		5	3
F24		6	27
F24		7	24
F24		8	2
F25	4	1	27
F25		2	3
F25		3	37
F25		4	34
F26	5	1	3
F26		2	42
F26		3	43
F26		4	7
F26		5	37
F27	5	1	34
F27		2	37
F27		3	7
F27		4	22
F27		5	28

Table 1.7 - Floor Bays (continued)

Label	NumPoints	PointNumber	PointBay
F28	5	1	7
F28		2	43
F28		3	8
F28		4	12
F28		5	11
F29	4	1	11
F29		2	12
F29		3	16
F29		4	15
F30	6	1	25
F30		2	28
F30		3	22
F30		4	31
F30		5	29
F30		6	21
F31	4	1	2
F31		2	24
F31		3	33
F31		4	6
F32	4	1	27
F32		2	3
F32		3	7
F32		4	34
F33	4	1	6
F33		2	33
F33		3	25
F33		4	21
F34	4	1	34
F34		2	7
F34		3	22
F34		4	28

1.6 Mass

Table 1.8 - Mass Source Definition

Name	Is Default	Include Lateral Mass?	Include Vertical Mass?	Lump Mass?	Source Self Mass?	Source Added Mass?	Source Load Patterns?	Move Mass Centroid?	Load Pattern	Multiplier
MsSrc1	Yes	Yes	No	Yes	No	No	Yes	No	Dead	1

Table 1.9 - Centers Of Mass And Rigidity

Story	Diaphragm	Mass X ton	Mass Y ton	XCM m	YCM m	Cum Mass X ton	Cum Mass Y ton	XCCM m	YCCM m	XCR m	YCR m
N+5.65	D1	52.2124	52.2124	8.9112	6.3089	52.2124	52.2124	8.9112	6.3089		
N+2.95	D1	196.4134	196.4134	8.7506	6.2098	248.6258	248.6258	8.7843	6.2306		

Table 1.10 - Mass Summary by Diaphragm

Story	Diaphragm	Mass X ton	Mass Y ton	Mass Moment of Inertia ton-m2	X Mass Center m	Y Mass Center m
N+5.65	D1	52.2124	52.2124	2569.183	8.9112	6.3089
N+2.95	D1	196.4134	196.4134	8449.1488	8.7506	6.2098

Table 1.11 - Mass Summary by Story

Story	UX ton	UY ton	UZ ton
N+5.65	52.2124	52.2124	0
N+2.95	196.4134	196.4134	0
Base	5.5401	5.5401	0

Table 1.12 - Mass Summary by Group

Group	Self Mass ton	Self Weight kN	Mass X ton	Mass Y ton	Mass Z ton
All	0	1499.0138	254.1659	254.1659	0

1.7 Groups

Table 1.13 - Group Definitions

Name	Color	Steel Design?	Concrete Design?	Composite Design?
All	Yellow	No	No	No

2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
21 Mpa	Concrete	Isotropic	Unknown	Cyan	
24,5 Mpa	Concrete	Isotropic	Unknown	Cyan	
28 Mpa	Concrete	Isotropic	Unknown	Magenta	
4000Psi	Concrete	Isotropic	Unknown	Gray8Dark	
A416Gr270	Tendon	Uniaxial	Unknown	Cyan	
A500GrC	Steel	Isotropic	Grade C, Fy 35 (HSS Rect.)	Yellow	
A615Gr60	Rebar	Uniaxial	Unknown	Blue	
A992Fy50	Steel	Isotropic	Unknown	Yellow	
CONC00	Concrete	Isotropic	Unknown	Cyan	

2.2 Frame Sections

Table 2.2 - Frame Section Property Definitions - Summary (Part 1 of 3)

Name	Material	Shape	Color	Area m2	J m4	I33 m4	I22 m4	As2 m2	As3 m2	S33Pos m3
COL25x25	24,5 Mpa	Concrete Rectangular	12615808	0.0625	0.00055	0.000326	0.000326	0.0521	0.0521	0.002604
COL30x30	24,5 Mpa	Concrete Rectangular	Red	0.09	0.001141	0.000675	0.000675	0.075	0.075	0.0045
VG25x25	24,5 Mpa	Concrete Rectangular	Blue	0.0625	0.00055	0.000326	0.000326	0.0521	0.0521	0.002604
VG25x30	24,5 Mpa	Concrete Rectangular	DarkYellow	0.075	0.000775	0.000563	0.000391	0.0625	0.0625	0.00375
VG30x25	24,5 Mpa	Concrete Rectangular	16744576	0.075	0.000775	0.000391	0.000563	0.0625	0.0625	0.003125
VG30x30	24,5 Mpa	Concrete Rectangular	4227072	0.09	0.001141	0.000675	0.000675	0.075	0.075	0.0045
VT15x25	24,5 Mpa	Concrete Rectangular	8388863	0.0375	0.000176	0.000195	7E-05	0.0312	0.0312	0.001563
VT15x30	24,5 Mpa	Concrete Rectangular	16711808	0.045	0.000232	0.000338	8.4E-05	0.0375	0.0375	0.00225

Table 2.2 - Frame Section Property Definitions - Summary (Part 2 of 3)

Name	S33Neg m3	S22Pos m3	S22Neg m3	Z33 m3	Z22 m3	R33 m	R22 m	CG Offset 3 m	CG Offset 2 m	PNA Offset 3 m	PNA Offset 2 m	Area Modifier
COL25x25	0.002604	0.002604	0.002604	0.003906	0.003906	0.07217	0.07217	0	0	0	0	1
COL30x30	0.0045	0.0045	0.0045	0.00675	0.00675	0.0866	0.0866	0	0	0	0	1
VG25x25	0.002604	0.002604	0.002604	0.003906	0.003906	0.07217	0.07217	0	0	0	0	1
VG25x30	0.00375	0.003125	0.003125	0.005625	0.004688	0.0866	0.07217	0	0	0	0	1
VG30x25	0.003125	0.00375	0.00375	0.004688	0.005625	0.07217	0.0866	0	0	0	0	1
VG30x30	0.0045	0.0045	0.0045	0.00675	0.00675	0.0866	0.0866	0	0	0	0	1
VT15x25	0.001563	0.000938	0.000938	0.002344	0.001406	0.07217	0.0433	0	0	0	0	1
VT15x30	0.00225	0.001125	0.001125	0.003375	0.001688	0.0866	0.0433	0	0	0	0	1

Table 2.2 - Frame Section Property Definitions - Summary (Part 3 of 3)

Name	As3 Modifier	J Modifier	I33 Modifier	I22 Modifier	Mass Modifier	Weight Modifier
COL25x25	1	1	1	1	1	1
COL30x30	1	1	1	1	1	1
VG25x25	1	1	1	1	1	1
VG25x30	1	1	1	1	1	1
VG30x25	1	1	1	1	1	1
VG30x30	1	1	1	1	1	1
VT15x25	1	1	1	1	1	1
VT15x30	1	1	1	1	1	1

2.3 Shell Sections

Table 2.3 - Area Section Property Definitions - Summary

Name	Type	Element Type	Material	Total Thickness m	Deck Material	Deck Depth m
CUBIERTA LIVIANA	Slab	Membrane	CONC00	0.001		
MC-01	Wall	Shell-Thin	24,5 Mpa	0.15		
PASILLO	Slab	Shell-Thick	24,5 Mpa	0.15		
SALONES	Slab	Shell-Thick	24,5 Mpa	0.15		
STEEL DECK	Deck	Membrane	24,5 Mpa	0.1	A992Fy50	0.05

2.4 Reinforcement Sizes

Table 2.4 - Reinforcing Bar Sizes

Name	Diameter m	Area m2
#2	0.00635	3.226E-05
#3	0.00953	0.0001
#4	0.0127	0.0001
#5	0.01588	0.0002
#6	0.01905	0.0003
#7	0.02223	0.0004
#8	0.0254	0.0005
#9	0.02865	0.0006
#10	0.03226	0.0008
#11	0.03581	0.001
#14	0.043	0.0015
#18	0.05733	0.0026

2.5 Links

Table 2.5 - Link Property Definitions - Summary

Name	Type	Degrees of Freedom	Mass ton	Weight kN	Defined Length m	Defined Area m2
Link1	Linear	U1	0	0	0.001	0

2.6 Tendon Sections

Table 2.6 - Tendon Section Properties

Name	Material	StrandArea m2	Color	Notes
Tendon1	A416Gr270	0.0001	Magenta	

3 Assignments

This chapter provides a listing of the assignments applied to the model.

3.1 Joint Assignments

Table 3.1 - Joint Assignments - Summary

Story	Label	UniqueName	Diaphragm	Restraints
N+5.65	1	2	From Area	
N+5.65	2	5	From Area	
N+5.65	3	8	From Area	
N+5.65	4	11	From Area	
N+5.65	5	14	From Area	
N+5.65	6	17	From Area	
N+5.65	7	20	From Area	
N+5.65	8	23	From Area	
N+5.65	9	26	From Area	
N+5.65	10	29	From Area	
N+5.65	11	32	From Area	
N+5.65	12	35	From Area	
N+5.65	13	38	From Area	
N+5.65	14	41	From Area	
N+5.65	15	44	From Area	
N+5.65	16	47	From Area	
N+5.65	17	69	From Area	
N+5.65	18	70	From Area	
N+5.65	19	71	From Area	
N+5.65	20	72	From Area	
N+5.65	21	73	From Area	
N+5.65	22	74	From Area	
N+5.65	23	75	From Area	
N+5.65	24	76	From Area	
N+5.65	25	77	From Area	
N+5.65	26	78	From Area	
N+5.65	27	79	From Area	
N+5.65	28	80	From Area	
N+5.65	29	81	From Area	
N+5.65	30	82	From Area	
N+5.65	31	83	From Area	
N+5.65	32	84	From Area	
N+5.65	33	85	From Area	
N+5.65	34	86	From Area	
N+5.65	35	87	From Area	
N+5.65	36	88	From Area	
N+5.65	37	90	From Area	
N+5.65	42	97	From Area	
N+5.65	43	98	From Area	
N+5.65	47	104	From Area	
N+5.65	48	105	From Area	
N+5.65	44	67	D1	

Table 3.1 - Joint Assignments - Summary (continued)

Story	Label	UniqueName	Diaphragm	Restraints
N+2.95	1	1	From Area	
N+2.95	2	4	From Area	
N+2.95	3	7	From Area	
N+2.95	4	10	From Area	
N+2.95	5	13	From Area	
N+2.95	6	16	From Area	
N+2.95	7	19	From Area	
N+2.95	8	22	From Area	
N+2.95	9	25	From Area	
N+2.95	10	28	From Area	
N+2.95	11	31	From Area	
N+2.95	12	34	From Area	
N+2.95	13	37	From Area	
N+2.95	14	40	From Area	
N+2.95	15	43	From Area	
N+2.95	16	46	From Area	
N+2.95	17	49	From Area	
N+2.95	18	50	From Area	
N+2.95	19	51	From Area	
N+2.95	20	52	From Area	
N+2.95	21	53	From Area	
N+2.95	22	54	From Area	
N+2.95	23	55	From Area	
N+2.95	24	56	From Area	
N+2.95	25	57	From Area	
N+2.95	26	58	From Area	
N+2.95	27	59	From Area	
N+2.95	28	60	From Area	
N+2.95	29	61	From Area	
N+2.95	30	62	From Area	
N+2.95	31	63	From Area	
N+2.95	32	64	From Area	
N+2.95	33	65	From Area	
N+2.95	34	66	From Area	
N+2.95	38	91	From Area	
N+2.95	39	92	From Area	
N+2.95	40	93	From Area	
N+2.95	41	94	From Area	
N+2.95	42	95	From Area	
N+2.95	43	96	From Area	
N+2.95	47	102	From Area	
N+2.95	48	103	From Area	
N+2.95	45	68	D1	
Base	1	3	From Area	UX; UY; UZ; RX; RY; RZ
Base	2	6	From Area	UX; UY; UZ; RX; RY; RZ
Base	3	9	From Area	UX; UY; UZ; RX; RY; RZ

Table 3.1 - Joint Assignments - Summary (continued)

Story	Label	UniqueName	Diaphragm	Restraints
Base	4	12	From Area	UX; UY; UZ; RX; RY; RZ
Base	5	15	From Area	UX; UY; UZ; RX; RY; RZ
Base	6	18	From Area	UX; UY; UZ; RX; RY; RZ
Base	7	21	From Area	UX; UY; UZ; RX; RY; RZ
Base	8	24	From Area	UX; UY; UZ; RX; RY; RZ
Base	9	27	From Area	UX; UY; UZ; RX; RY; RZ
Base	10	30	From Area	UX; UY; UZ; RX; RY; RZ
Base	11	33	From Area	UX; UY; UZ; RX; RY; RZ
Base	12	36	From Area	UX; UY; UZ; RX; RY; RZ
Base	13	39	From Area	UX; UY; UZ; RX; RY; RZ
Base	14	42	From Area	UX; UY; UZ; RX; RY; RZ
Base	15	45	From Area	UX; UY; UZ; RX; RY; RZ
Base	16	48	From Area	UX; UY; UZ; RX; RY; RZ
Base	33	100	From Area	UX; UY; UZ; RX; RY; RZ
Base	34	101	From Area	UX; UY; UZ; RX; RY; RZ

3.2 Frame Assignments

Table 3.2 - Frame Assignments - Summary

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations
N+5.65	B1	53	Beam	0.75	VG30x25	VG30x25	0.5	
N+5.65	B2	80	Beam	5.5	VG30x25	VG30x25	0.5	
N+5.65	B3	81	Beam	3.3	VG30x25	VG30x25	0.5	
N+5.65	B4	82	Beam	2.9	VG30x25	VG30x25	0.5	
N+5.65	B5	86	Beam	0.75	VG30x25	VG30x25	0.5	
N+5.65	B6	87	Beam	5.5	VG30x25	VG30x25	0.5	
N+5.65	B7	88	Beam	3.3	VG30x25	VG30x25	0.5	
N+5.65	B8	89	Beam	2.9	VG30x25	VG30x25	0.5	
N+5.65	B9	90	Beam	0.75	VG30x25	VG30x25	0.5	
N+5.65	B10	91	Beam	5.5	VG30x25	VG30x25	0.5	
N+5.65	B11	92	Beam	3.3	VG30x25	VG30x25	0.5	
N+5.65	B12	93	Beam	2.9	VG30x25	VG30x25	0.5	
N+5.65	B13	94	Beam	0.75	VG30x25	VG30x25	0.5	
N+5.65	B14	95	Beam	5.5	VG30x25	VG30x25	0.5	
N+5.65	B15	96	Beam	3.3	VG30x25	VG30x25	0.5	
N+5.65	B16	97	Beam	2.9	VG30x25	VG30x25	0.5	
N+5.65	B17	98	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B18	99	Beam	6.3	VG30x25	VG30x25	0.5	
N+5.65	B19	100	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B20	101	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B22	102	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B23	103	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B24	104	Beam	6.3	VG30x25	VG30x25	0.5	
N+5.65	B25	105	Beam	5.7	VG30x25	VG30x25	0.5	

Table 3.2 - Frame Assignments - Summary (continued)

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations
N+5.65	B26	106	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B27	107	Beam	6.3	VG30x25	VG30x25	0.5	
N+5.65	B28	108	Beam	5.7	VG30x25	VG30x25	0.5	
N+5.65	B29	109	Beam	5.7	VT15x25	VT15x25	0.5	
N+5.65	B30	110	Beam	6.3	VT15x25	VT15x25	0.5	
N+5.65	B31	111	Beam	5.7	VT15x25	VT15x25	0.5	
N+5.65	B32	112	Beam	1.6	VG30x25	VG30x25	0.5	
N+5.65	B33	113	Beam	1.62	VG30x25	VG30x25	0.5	
N+5.65	B34	114	Beam	0.75	VG25x25	VG25x25	0.5	
N+5.65	B35	115	Beam	4.28	VG25x25	VG25x25	0.5	
N+5.65	B36	116	Beam	0.75	VG25x25	VG25x25	0.5	
N+5.65	B37	117	Beam	4.28	VG25x25	VG25x25	0.5	
N+5.65	B38	118	Beam	1.38	VG25x25	VG25x25	0.5	
N+5.65	B39	119	Beam	1.38	VG25x25	VG25x25	0.5	
N+5.65	B40	120	Beam	1.55	VT15x25	VT15x25	0.5	
N+5.65	B45	125	Beam	1.55	VT15x25	VT15x25	0.5	
N+5.65	B46	126	Beam	1.4321	VT15x25	VT15x25	0.5	
N+5.65	B47	127	Beam	2.0613	VT15x25	VT15x25	0.5	
N+5.65	B48	130	Beam	1.55	VT15x25	VT15x25	0.5	
N+5.65	B49	129	Beam	2.0724	VT15x25	VT15x25	0.5	
N+5.65	B50	128	Beam	1.448	VT15x25	VT15x25	0.5	
N+5.65	B21	132	Beam	2.37	VT15x25	VT15x25	0.5	
N+5.65	B53	136	Beam	5.5	VT15x25	VT15x25	0.5	
N+5.65	B58	142	Beam	2.9	VG25x25	VG25x25	0.5	
N+5.65	B59	143	Beam	2.9	VG25x25	VG25x25	0.5	
N+5.65	B54	123	Beam	3.547	VT15x25	VT15x25	0.5	
N+5.65	C1	1	Column	2.7	COL30x30	COL30x30		3
N+5.65	C2	3	Column	2.7	COL30x30	COL30x30		3
N+5.65	C3	5	Column	2.7	COL30x30	COL30x30		3
N+5.65	C4	7	Column	2.7	COL30x30	COL30x30		3
N+5.65	C5	9	Column	2.7	COL30x30	COL30x30		3
N+5.65	C6	11	Column	2.7	COL30x30	COL30x30		3
N+5.65	C7	13	Column	2.7	COL30x30	COL30x30		3
N+5.65	C8	15	Column	2.7	COL30x30	COL30x30		3
N+5.65	C9	17	Column	2.7	COL30x30	COL30x30		3
N+5.65	C10	19	Column	2.7	COL30x30	COL30x30		3
N+5.65	C11	21	Column	2.7	COL30x30	COL30x30		3
N+5.65	C12	23	Column	2.7	COL30x30	COL30x30		3
N+5.65	C13	25	Column	2.7	COL30x30	COL30x30		3
N+5.65	C14	27	Column	2.7	COL30x30	COL30x30		3
N+5.65	C15	29	Column	2.7	COL30x30	COL30x30		3
N+5.65	C16	31	Column	2.7	COL30x30	COL30x30		3
N+2.95	B1	33	Beam	0.75	VG30x30	VG30x30	0.5	
N+2.95	B2	34	Beam	5.5	VG30x30	VG30x30	0.5	

Table 3.2 - Frame Assignments - Summary (continued)

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations
N+2.95	B3	35	Beam	3.3	VG30x30	VG30x30	0.5	
N+2.95	B4	36	Beam	2.9	VG30x30	VG30x30	0.5	
N+2.95	B5	37	Beam	0.75	VG30x30	VG30x30	0.5	
N+2.95	B6	38	Beam	5.5	VG30x30	VG30x30	0.5	
N+2.95	B7	39	Beam	3.3	VG30x30	VG30x30	0.5	
N+2.95	B8	40	Beam	2.9	VG30x30	VG30x30	0.5	
N+2.95	B9	41	Beam	0.75	VG30x30	VG30x30	0.5	
N+2.95	B10	42	Beam	5.5	VG30x30	VG30x30	0.5	
N+2.95	B11	43	Beam	3.3	VG30x30	VG30x30	0.5	
N+2.95	B12	44	Beam	2.9	VG30x30	VG30x30	0.5	
N+2.95	B13	45	Beam	0.75	VG30x30	VG30x30	0.5	
N+2.95	B14	46	Beam	5.5	VG30x30	VG30x30	0.5	
N+2.95	B15	47	Beam	3.3	VG30x30	VG30x30	0.5	
N+2.95	B16	48	Beam	2.9	VG30x30	VG30x30	0.5	
N+2.95	B17	49	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B18	50	Beam	6.3	VG30x30	VG30x30	0.5	
N+2.95	B19	51	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B20	52	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B22	54	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B23	55	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B24	56	Beam	6.3	VG30x30	VG30x30	0.5	
N+2.95	B25	57	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B26	58	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B27	59	Beam	6.3	VG30x30	VG30x30	0.5	
N+2.95	B28	60	Beam	5.7	VG30x30	VG30x30	0.5	
N+2.95	B29	61	Beam	5.7	VT15x30	VT15x30	0.5	
N+2.95	B30	62	Beam	6.3	VT15x30	VT15x30	0.5	
N+2.95	B31	63	Beam	5.7	VT15x30	VT15x30	0.5	
N+2.95	B32	64	Beam	1.6	VG30x30	VG30x30	0.5	
N+2.95	B33	65	Beam	1.62	VG30x30	VG30x30	0.5	
N+2.95	B34	66	Beam	0.75	VG25x30	VG25x30	0.5	
N+2.95	B36	68	Beam	0.75	VG25x30	VG25x30	0.5	
N+2.95	B38	70	Beam	1.38	VG25x30	VG25x30	0.5	
N+2.95	B39	71	Beam	1.38	VG25x30	VG25x30	0.5	
N+2.95	B40	72	Beam	1.55	VT15x30	VT15x30	0.5	
N+2.95	B45	77	Beam	1.55	VT15x30	VT15x30	0.5	
N+2.95	B46	78	Beam	1.4321	VT15x30	VT15x30	0.5	
N+2.95	B47	79	Beam	2.0613	VT15x30	VT15x30	0.5	
N+2.95	B48	85	Beam	1.55	VT15x30	VT15x30	0.5	
N+2.95	B49	84	Beam	2.0724	VT15x30	VT15x30	0.5	
N+2.95	B50	83	Beam	1.448	VT15x30	VT15x30	0.5	
N+2.95	B51	133	Beam	3.3	VG25x30	VG25x30	0.5	
N+2.95	B52	137	Beam	3.28	VG25x30	VG25x30	0.5	
N+2.95	B53	135	Beam	5.5	VT15x30	VT15x30	0.5	

Table 3.2 - Frame Assignments - Summary (continued)

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations
N+2.95	B58	140	Beam	2.9	VG25x30	VG25x30	0.5	
N+2.95	B59	141	Beam	2.9	VG25x30	VG25x30	0.5	
N+2.95	B54	75	Beam	3.547	VT15x30	VT15x30	0.5	
N+2.95	B55	73	Beam	3.5403	VT15x30	VT15x30	0.5	
N+2.95	B56	74	Beam	2.87	VG25x30	VG25x30	0.5	
N+2.95	B57	76	Beam	1.41	VG25x30	VG25x30	0.5	
N+2.95	B60	124	Beam	2.87	VG25x30	VG25x30	0.5	
N+2.95	B61	131	Beam	1.41	VG25x30	VG25x30	0.5	
N+2.95	C1	2	Column	2.95	COL30x30	COL30x30		3
N+2.95	C2	4	Column	2.95	COL30x30	COL30x30		3
N+2.95	C3	6	Column	2.95	COL30x30	COL30x30		3
N+2.95	C4	8	Column	2.95	COL30x30	COL30x30		3
N+2.95	C5	10	Column	2.95	COL30x30	COL30x30		3
N+2.95	C6	12	Column	2.95	COL30x30	COL30x30		3
N+2.95	C7	14	Column	2.95	COL30x30	COL30x30		3
N+2.95	C8	16	Column	2.95	COL30x30	COL30x30		3
N+2.95	C9	18	Column	2.95	COL30x30	COL30x30		3
N+2.95	C10	20	Column	2.95	COL30x30	COL30x30		3
N+2.95	C11	22	Column	2.95	COL30x30	COL30x30		3
N+2.95	C12	24	Column	2.95	COL30x30	COL30x30		3
N+2.95	C13	26	Column	2.95	COL30x30	COL30x30		3
N+2.95	C14	28	Column	2.95	COL30x30	COL30x30		3
N+2.95	C15	30	Column	2.95	COL30x30	COL30x30		3
N+2.95	C16	32	Column	2.95	COL30x30	COL30x30		3
N+2.95	C17	121	Column	2.95	COL25x25	COL25x25		3
N+2.95	C18	122	Column	2.95	COL25x25	COL25x25		3

3.3 Shell Assignments

Table 3.3 - Area Assignments - Summary

Story	Label	UniqueName	Section Property	Property Type	Diaphragm
N+5.65	F1	26	CUBIERTA LIVIANA	Slab	D1
N+5.65	F4	29	CUBIERTA LIVIANA	Slab	D1
N+5.65	F5	30	CUBIERTA LIVIANA	Slab	D1
N+5.65	F6	39	CUBIERTA LIVIANA	Slab	D1
N+5.65	F7	44	CUBIERTA LIVIANA	Slab	D1
N+5.65	F11	35	CUBIERTA LIVIANA	Slab	D1
N+5.65	F12	45	CUBIERTA LIVIANA	Slab	D1
N+5.65	F15	32	CUBIERTA LIVIANA	Slab	D1
N+5.65	F17	37	CUBIERTA LIVIANA	Slab	D1
N+5.65	F19	40	CUBIERTA LIVIANA	Slab	D1
N+5.65	F20	41	CUBIERTA LIVIANA	Slab	D1
N+5.65	F21	42	CUBIERTA LIVIANA	Slab	D1

Table 3.3 - Area Assignments - Summary (continued)

Story	Label	UniqueName	Section Property	Property Type	Diaphragm
N+5.65	F24	28	CUBIERTA LIVIANA	Slab	D1
N+5.65	F25	33	CUBIERTA LIVIANA	Slab	D1
N+5.65	F26	34	CUBIERTA LIVIANA	Slab	D1
N+5.65	F27	38	CUBIERTA LIVIANA	Slab	D1
N+5.65	F28	43	CUBIERTA LIVIANA	Slab	D1
N+5.65	F29	46	CUBIERTA LIVIANA	Slab	D1
N+5.65	F30	14	CUBIERTA LIVIANA	Slab	D1
N+5.65	F31	31	CUBIERTA LIVIANA	Slab	D1
N+5.65	F33	36	CUBIERTA LIVIANA	Slab	D1
N+2.95	F1	1	SALONES	Slab	D1
N+2.95	F2	2	SALONES	Slab	D1
N+2.95	F3	3	SALONES	Slab	D1
N+2.95	F4	4	SALONES	Slab	D1
N+2.95	F5	5	SALONES	Slab	D1
N+2.95	F6	6	SALONES	Slab	D1
N+2.95	F7	7	SALONES	Slab	D1
N+2.95	F10	10	SALONES	Slab	D1
N+2.95	F11	11	SALONES	Slab	D1
N+2.95	F12	12	SALONES	Slab	D1
N+2.95	F13	13	SALONES	Slab	D1
N+2.95	F14	16	SALONES	Slab	D1
N+2.95	F15	17	SALONES	Slab	D1
N+2.95	F17	19	SALONES	Slab	D1
N+2.95	F19	21	SALONES	Slab	D1
N+2.95	F20	22	SALONES	Slab	D1
N+2.95	F21	23	SALONES	Slab	D1
N+2.95	F22	24	SALONES	Slab	D1
N+2.95	F23	25	SALONES	Slab	D1
N+2.95	F31	8	SALONES	Slab	D1
N+2.95	F32	9	SALONES	Slab	D1
N+2.95	F33	18	SALONES	Slab	D1
N+2.95	F34	20	SALONES	Slab	D1

4 Loads

This chapter provides loading information as applied to the model.

4.1 Load Patterns

Table 4.1 - Load Pattern Definitions

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
~LLRF	Yes	Other	0	
Dead	No	Dead	1	
EX	No	Seismic	0	None
EY	No	Seismic	0	None
FSX	No	Seismic	0	None
FSXD	No	Seismic	0	None
FSY	No	Seismic	0	None
FSYD	No	Seismic	0	None
Live	No	Live	0	

4.2 Applied Loads

4.2.1 Point Loads

Table 4.2 - Joint Loads Assignments - Force

Story	Label	UniqueName	Load Pattern	FX kN	FY kN	FZ kN	MX kN-m	MY kN-m	MZ kN-m	X Dimension m	Y Dimension m
N+2.95	17	49	Dead	0	0	0	0	0	0	0	0
N+2.95	18	50	Dead	0	0	0	0	0	0	0	0
N+2.95	19	51	Dead	0	0	0	0	0	0	0	0
N+2.95	20	52	Dead	0	0	0	0	0	0	0	0

4.2.2 Line Loads

Table 4.3 - Frame Loads Assignments - Distributed (Part 1 of 2)

UniqueName	Load Pattern	Story	Label	Load Type	Direction	Distance Type	Relative Distance A	Relative Distance B	Absolute Distance A m	Absolute Distance B m
137	Dead	N+2.95	B52	Force	Gravity	Relative	0.6667	1	2.1867	3.28
137	Live	N+2.95	B52	Force	Gravity	Relative	0.6667	1	2.1867	3.28

Table 4.3 - Frame Loads Assignments - Distributed (Part 2 of 2)

UniqueName	Load Pattern	Force A kN/m	Force B kN/m
137	Dead	15.46	15.46
137	Live	10	10

4.2.3 Area Loads

Table 4.4 - Area Load Assignments - Uniform

Story	Label	UniqueName	Load Pattern	Direction	Load kN/m2
N+5.65	F1	26	Dead	Gravity	0.95
N+5.65	F4	29	Dead	Gravity	0.95
N+5.65	F5	30	Dead	Gravity	0.95
N+5.65	F6	39	Dead	Gravity	0.95
N+5.65	F7	44	Dead	Gravity	0.95
N+5.65	F11	35	Dead	Gravity	0.95
N+5.65	F12	45	Dead	Gravity	0.95
N+5.65	F15	32	Dead	Gravity	0.95
N+5.65	F17	37	Dead	Gravity	0.95
N+5.65	F19	40	Dead	Gravity	0.95
N+5.65	F20	41	Dead	Gravity	0.95
N+5.65	F21	42	Dead	Gravity	0.95
N+5.65	F24	28	Dead	Gravity	0.95
N+5.65	F25	33	Dead	Gravity	0.95
N+5.65	F26	34	Dead	Gravity	0.95
N+5.65	F27	38	Dead	Gravity	0.95
N+5.65	F28	43	Dead	Gravity	0.95
N+5.65	F29	46	Dead	Gravity	0.95
N+5.65	F30	14	Dead	Gravity	0.95
N+5.65	F31	31	Dead	Gravity	0.95
N+5.65	F33	36	Dead	Gravity	0.95
N+2.95	F1	1	Dead	Gravity	3.75
N+2.95	F2	2	Dead	Gravity	3.75
N+2.95	F3	3	Dead	Gravity	3.75
N+2.95	F4	4	Dead	Gravity	3.75
N+2.95	F5	5	Dead	Gravity	3.75
N+2.95	F6	6	Dead	Gravity	3.75
N+2.95	F7	7	Dead	Gravity	3.75
N+2.95	F10	10	Dead	Gravity	3.75
N+2.95	F11	11	Dead	Gravity	3.75
N+2.95	F12	12	Dead	Gravity	3.75
N+2.95	F13	13	Dead	Gravity	3.75
N+2.95	F14	16	Dead	Gravity	3.75
N+2.95	F15	17	Dead	Gravity	3.75
N+2.95	F17	19	Dead	Gravity	3.75
N+2.95	F19	21	Dead	Gravity	3.75
N+2.95	F20	22	Dead	Gravity	3.75
N+2.95	F21	23	Dead	Gravity	3.75
N+2.95	F22	24	Dead	Gravity	3.75
N+2.95	F23	25	Dead	Gravity	3.75
N+2.95	F31	8	Dead	Gravity	3.75
N+2.95	F32	9	Dead	Gravity	3.75
N+2.95	F33	18	Dead	Gravity	3.75
N+2.95	F34	20	Dead	Gravity	3.75

Table 4.4 - Area Load Assignments - Uniform (continued)

Story	Label	UniqueName	Load Pattern	Direction	Load kN/m2
N+5.65	F1	26	Live	Gravity	1
N+5.65	F4	29	Live	Gravity	1
N+5.65	F5	30	Live	Gravity	1
N+5.65	F6	39	Live	Gravity	1
N+5.65	F7	44	Live	Gravity	1
N+5.65	F11	35	Live	Gravity	1
N+5.65	F12	45	Live	Gravity	1
N+5.65	F15	32	Live	Gravity	1
N+5.65	F17	37	Live	Gravity	1
N+5.65	F19	40	Live	Gravity	1
N+5.65	F20	41	Live	Gravity	1
N+5.65	F21	42	Live	Gravity	1
N+5.65	F24	28	Live	Gravity	1
N+5.65	F25	33	Live	Gravity	1
N+5.65	F26	34	Live	Gravity	1
N+5.65	F27	38	Live	Gravity	1
N+5.65	F28	43	Live	Gravity	1
N+5.65	F29	46	Live	Gravity	1
N+5.65	F30	14	Live	Gravity	1
N+5.65	F31	31	Live	Gravity	1
N+5.65	F33	36	Live	Gravity	1
N+2.95	F1	1	Live	Gravity	2
N+2.95	F2	2	Live	Gravity	2
N+2.95	F3	3	Live	Gravity	2
N+2.95	F4	4	Live	Gravity	2
N+2.95	F5	5	Live	Gravity	2
N+2.95	F6	6	Live	Gravity	2
N+2.95	F7	7	Live	Gravity	2
N+2.95	F10	10	Live	Gravity	2
N+2.95	F11	11	Live	Gravity	2
N+2.95	F12	12	Live	Gravity	2
N+2.95	F13	13	Live	Gravity	2
N+2.95	F14	16	Live	Gravity	2
N+2.95	F15	17	Live	Gravity	2
N+2.95	F17	19	Live	Gravity	2
N+2.95	F19	21	Live	Gravity	2
N+2.95	F20	22	Live	Gravity	2
N+2.95	F21	23	Live	Gravity	2
N+2.95	F22	24	Live	Gravity	2
N+2.95	F23	25	Live	Gravity	2
N+2.95	F31	8	Live	Gravity	2
N+2.95	F32	9	Live	Gravity	2
N+2.95	F33	18	Live	Gravity	2
N+2.95	F34	20	Live	Gravity	2

4.3 Load Cases

Table 4.5 - Load Case Definitions - Summary

Name	Type
Modal	Modal - Eigen
Dead	Linear Static
Live	Linear Static
EX	Response Spectrum
EY	Response Spectrum
FSX	Response Spectrum
FSY	Response Spectrum
FSXD	Response Spectrum
FSYD	Response Spectrum

Table 4.6 - Load Case Definitions - Linear Static

Name	Exclude Group	Mass Source	Stiffness Type	Load Type	Load Name	Load SF	Design Type	Notes
Dead	None	MsSrc1	P-Delta	Load	Dead	1	Program Determined	
Live	None	MsSrc1	P-Delta	Load	Live	1	Program Determined	

Table 4.7 - Modal Case Definitions - Eigen

Name	Exclude Group	Mass Source	Stiffness Type	Max Modes	Min Modes	Freq Shift cyc/sec	Cutoff Freq cyc/sec	Convergence Tol	Auto Shift?	Design Type	Notes
Modal	None	MsSrc1	P-Delta	6	1	0	0	0	Yes	Program Determined	

Table 4.8 - Load Case Definitions - Response Spectrum (Part 1 of 2)

Name	Design Type	Mass Source	Load Name	Function	Trans Accel SF m/sec2	Coordinate System	Angle deg	Modal Case
EX	Program Determined	Previous (MsSrc1)	U1	DIS CERROS	3.23	Global	0	Modal
EY	Program Determined	Previous (MsSrc1)	U2	DIS CERROS	3.23	Global	0	Modal
FSX	Program Determined	Previous (MsSrc1)	U1	DER CERROS	9.81	Global	0	Modal
FSXD	Program Determined	Previous (MsSrc1)	U1	UMB CERROS	9.81	Global	0	Modal
FSY	Program Determined	Previous (MsSrc1)	U2	DER CERROS	9.81	Global	0	Modal
FSYD	Program Determined	Previous (MsSrc1)	U2	UMB CERROS	9.81	Global	0	Modal

Table 4.8 - Load Case Definitions - Response Spectrum (Part 2 of 2)

Name	Design Type	Modal Combo Method	Rigid Response?	Directional Combo Type	Eccentricity Ratio	Notes
EX	Program Determined	CQC	No	SRSS	0	
EY	Program Determined	CQC	No	SRSS	0	
FSX	Program Determined	CQC	No	SRSS	0	
FSXD	Program Determined	CQC	No	SRSS	0	
FSY	Program Determined	CQC	No	SRSS	0	
FSYD	Program Determined	CQC	No	SRSS	0	

4.4 Load Combinations

Table 4.9 - Load Combination Definitions

Name	Type	Is Auto	Load Name	SF	Notes
0.9D-0.3EX+EY	Linear Add	No	Dead	0.9	
0.9D-0.3EX+EY			EX	-0.3	
0.9D-0.3EX+EY			EY	1	
0.9D-0.3EX-EY	Linear Add	No	Dead	0.9	
0.9D-0.3EX-EY			EX	-0.3	
0.9D-0.3EX-EY			EY	-1	
0.9D+0.3EX+EY	Linear Add	No	Dead	0.9	
0.9D+0.3EX+EY			EX	0.3	
0.9D+0.3EX+EY			EY	1	
0.9D+0.3EX-EY	Linear Add	No	Dead	0.9	
0.9D+0.3EX-EY			EX	0.3	
0.9D+0.3EX-EY			EY	-1	
0.9D+EX-0.3EY	Linear Add	No	Dead	0.9	
0.9D+EX-0.3EY			EX	1	
0.9D+EX-0.3EY			EY	-0.3	
0.9D+EX+0.3EY	Linear Add	No	Dead	0.9	
0.9D+EX+0.3EY			EX	1	
0.9D+EX+0.3EY			EY	0.3	
0.9D-EX-0.3EY	Linear Add	No	Dead	0.9	
0.9D-EX-0.3EY			EX	-1	
0.9D-EX-0.3EY			EY	-0.3	
0.9D-EX+0.3EY	Linear Add	No	Dead	0.9	
0.9D-EX+0.3EY			EX	-1	
0.9D-EX+0.3EY			EY	0.3	
1.2D+1.6L	Linear Add	No	Dead	1.2	
1.2D+1.6L			Live	1.6	
1.2D+L	Linear Add	No	Dead	1.2	
1.2D+L			Live	1	
1.2D+L-0.3EX+EY	Linear Add	No	Dead	1.2	
1.2D+L-0.3EX+EY			Live	1	
1.2D+L-0.3EX+EY			EX	-0.3	
1.2D+L-0.3EX+EY			EY	1	
1.2D+L-0.3EX-EY	Linear Add	No	Dead	1.2	
1.2D+L-0.3EX-EY			Live	1	
1.2D+L-0.3EX-EY			EX	-0.3	
1.2D+L-0.3EX-EY			EY	-1	
1.2D+L+0.3EX+EY	Linear Add	No	Dead	1.2	
1.2D+L+0.3EX+EY			Live	1	
1.2D+L+0.3EX+EY			EX	0.3	
1.2D+L+0.3EX+EY			EY	1	
1.2D+L+0.3EX-EY	Linear Add	No	Dead	1.2	
1.2D+L+0.3EX-EY			Live	1	
1.2D+L+0.3EX-EY			EX	0.3	
1.2D+L+0.3EX-EY			EY	-1	
1.2D+L+EX-0.3EY	Linear Add	No	Dead	1.2	

Table 4.9 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
1.2D+L+EX-0.3EY			Live	1	
1.2D+L+EX-0.3EY			EX	1	
1.2D+L+EX-0.3EY			EY	-0.3	
1.2D+L+EX+0.3EY	Linear Add	No	Dead	1.2	
1.2D+L+EX+0.3EY			Live	1	
1.2D+L+EX+0.3EY			EX	1	
1.2D+L+EX+0.3EY			EY	0.3	
1.2D+L-EX-0.3EY	Linear Add	No	Dead	1.2	
1.2D+L-EX-0.3EY			Live	1	
1.2D+L-EX-0.3EY			EX	-1	
1.2D+L-EX-0.3EY			EY	-0.3	
1.2D+L-EX+0.3EY	Linear Add	No	Dead	1.2	
1.2D+L-EX+0.3EY			Live	1	
1.2D+L-EX+0.3EY			EX	-1	
1.2D+L-EX+0.3EY			EY	0.3	
1.4D	Linear Add	No	Dead	1.4	
COMDER1	Linear Add	No	Dead	1.4	
COMDER2	Linear Add	No	Dead	1.2	
COMDER2			Live	1.6	
COMDER3	Linear Add	No	Dead	1.2	
COMDER3			Live	1	
COMDER4	Linear Add	No	Dead	1.2	
COMDER4			Live	1	
COMDER5	Linear Add	No	Dead	1.2	
COMDER5			Live	1	
COMDER5			FSX	1	
COMDER5			FSY	0.3	
COMDER6	Linear Add	No	Dead	1.2	
COMDER6			Live	1	
COMDER6			FSX	0.3	
COMDER6			FSY	1	
COMDER7	Linear Add	No	Dead	0.9	
COMDER7			FSX	1	
COMDER7			FSY	0.3	
COMDER8	Linear Add	No	Dead	0.9	
COMDER8			FSY	1	
COMDER8			FSX	0.3	
COMUMB1	Linear Add	No	Dead	1.4	
COMUMB2	Linear Add	No	Dead	1.2	
COMUMB2			Live	1.6	
COMUMB3	Linear Add	No	Dead	1.2	
COMUMB3			Live	1	
COMUMB4	Linear Add	No	Dead	1.2	
COMUMB4			Live	1	
COMUMB5	Linear Add	No	Dead	1.2	
COMUMB5			Live	1	

Table 4.9 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
COMUMB5			FSXD	1	
COMUMB5			FSYD	0.3	
COMUMB6	Linear Add	No	Dead	1.2	
COMUMB6			Live	1	
COMUMB6			FSXD	0.3	
COMUMB6			FSYD	1	
COMUMB7	Linear Add	No	Dead	0.9	
COMUMB7			FSXD	1	
COMUMB7			FSYD	0.3	
COMUMB8	Linear Add	No	Dead	0.9	
COMUMB8			FSXD	0.3	
COMUMB8			FSYD	1	
D	Linear Add	No	Dead	1	
D+0.7(0.3EQX+EQY)	Linear Add	No	Dead	1	
D+0.7(0.3EQX+EQY)			EX	0.21	
D+0.7(0.3EQX+EQY)			EY	0.7	
D+0.7(EQX+0.3EQY)	Linear Add	No	Dead	1	
D+0.7(EQX+0.3EQY)			EX	0.7	
D+0.7(EQX+0.3EQY)			EY	0.21	
D+0.75L	Linear Add	No	Dead	1	
D+0.75L			Live	0.75	
D+0.75L+0.75(0.7(0.3EQX+EQY))	Linear Add	No	Dead	1	
D+0.75L+0.75(0.7(0.3EQX+EQY))			Live	0.75	
D+0.75L+0.75(0.7(0.3EQX+EQY))			EX	0.158	
D+0.75L+0.75(0.7(0.3EQX+EQY))			EY	0.525	
D+0.75L+0.75(0.7(EQX+0.3EQY))	Linear Add	No	Dead	1	
D+0.75L+0.75(0.7(EQX+0.3EQY))			Live	0.75	
D+0.75L+0.75(0.7(EQX+0.3EQY))			EX	0.525	
D+0.75L+0.75(0.7(EQX+0.3EQY))			EY	0.158	
D+L	Linear Add	No	Dead	1	
D+L			Live	1	
DIS1-Vcol	Linear Add	No	Dead	1.2	
DIS1-Vcol			Live	1	
DIS1-Vcol			EX	-3	
DIS1-Vcol			EY	0.9	
DIS1-Vvigas	Linear Add	No	Dead	1.2	
DIS1-Vvigas			Live	1	
DIS1-Vvigas			EX	-2	
DIS1-Vvigas			EY	0.6	
DIS2-Vcol	Linear Add	No	Dead	1.2	
DIS2-Vcol			Live	1	
DIS2-Vcol			EX	-3	
DIS2-Vcol			EY	-0.9	
DIS2-Vvigas	Linear Add	No	Dead	1.2	
DIS2-Vvigas			Live	1	
DIS2-Vvigas			EX	-2	

Table 4.9 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
DIS2-Vvigas			EY	-0.6	
DIS3-Vcol	Linear Add	No	Dead	1.2	
DIS3-Vcol			Live	1	
DIS3-Vcol			EX	3	
DIS3-Vcol			EY	0.9	
DIS3-Vvigas	Linear Add	No	Dead	1.2	
DIS3-Vvigas			Live	1	
DIS3-Vvigas			EX	2	
DIS3-Vvigas			EY	0.6	
DIS4-Vcol	Linear Add	No	Dead	1.2	
DIS4-Vcol			Live	1	
DIS4-Vcol			EX	3	
DIS4-Vcol			EY	-0.9	
DIS4-Vvigas	Linear Add	No	Dead	1.2	
DIS4-Vvigas			Live	1	
DIS4-Vvigas			EX	2	
DIS4-Vvigas			EY	-0.6	
DIS5-Vcol	Linear Add	No	Dead	1.2	
DIS5-Vcol			Live	1	
DIS5-Vcol			EX	0.9	
DIS5-Vcol			EY	-3	
DIS5-Vvigas	Linear Add	No	Dead	1.2	
DIS5-Vvigas			Live	1	
DIS5-Vvigas			EX	0.6	
DIS5-Vvigas			EY	-2	
DIS6-Vcol	Linear Add	No	Dead	1.2	
DIS6-Vcol			Live	1	
DIS6-Vcol			EX	0.9	
DIS6-Vcol			EY	3	
DIS6-Vvigas	Linear Add	No	Dead	1.2	
DIS6-Vvigas			Live	1	
DIS6-Vvigas			EX	0.6	
DIS6-Vvigas			EY	2	
DIS7-Vcol	Linear Add	No	Dead	1.2	
DIS7-Vcol			Live	1	
DIS7-Vcol			EX	-0.9	
DIS7-Vcol			EY	-3	
DIS7-Vvigas	Linear Add	No	Dead	1.2	
DIS7-Vvigas			Live	1	
DIS7-Vvigas			EX	-0.6	
DIS7-Vvigas			EY	-2	
DIS8-Vcol	Linear Add	No	Dead	1.2	
DIS8-Vcol			Live	1	
DIS8-Vcol			EX	-0.9	
DIS8-Vcol			EY	3	
DIS8-Vvigas	Linear Add	No	Dead	1.2	

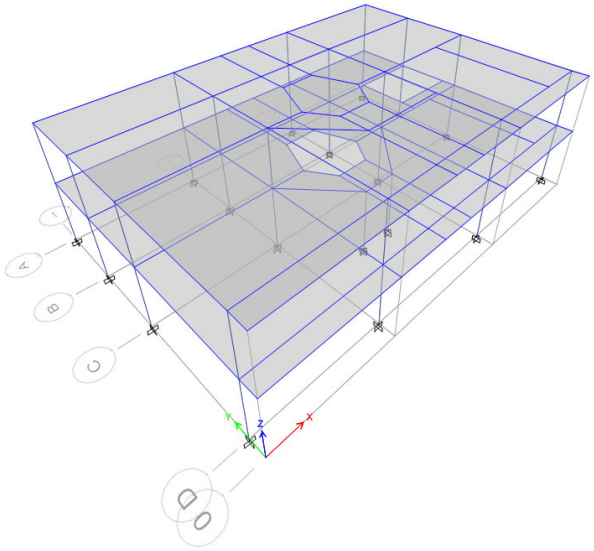
Table 4.9 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
DIS8-Vvigas			Live	1	
DIS8-Vvigas			EX	-0.6	
DIS8-Vvigas			EY	2	
DIS9-Vcol	Linear Add	No	Dead	0.9	
DIS9-Vcol			EX	-3	
DIS9-Vcol			EY	0.9	
DIS9-Vvigas	Linear Add	No	Dead	0.9	
DIS9-Vvigas			EX	-2	
DIS9-Vvigas			EY	0.6	
DIS10-Vcol	Linear Add	No	Dead	0.9	
DIS10-Vcol			EX	-3	
DIS10-Vcol			EY	-0.9	
DIS10-Vvigas	Linear Add	No	Dead	0.9	
DIS10-Vvigas			EX	-2	
DIS10-Vvigas			EY	-0.6	
DIS11-Vcol	Linear Add	No	Dead	0.9	
DIS11-Vcol			EX	3	
DIS11-Vcol			EY	0.9	
DIS11-Vvigas	Linear Add	No	Dead	0.9	
DIS11-Vvigas			EX	2	
DIS11-Vvigas			EY	0.6	
DIS12-Vcol	Linear Add	No	Dead	0.9	
DIS12-Vcol			EX	3	
DIS12-Vcol			EY	-0.9	
DIS12-Vvigas	Linear Add	No	Dead	0.9	
DIS12-Vvigas			EX	2	
DIS12-Vvigas			EY	-0.6	
DIS13-Vcol	Linear Add	No	Dead	0.9	
DIS13-Vcol			EX	0.9	
DIS13-Vcol			EY	-3	
DIS13-Vvigas	Linear Add	No	Dead	0.9	
DIS13-Vvigas			EX	0.6	
DIS13-Vvigas			EY	-2	
DIS14-Vcol	Linear Add	No	Dead	0.9	
DIS14-Vcol			EX	0.9	
DIS14-Vcol			EY	3	
DIS14-Vvigas	Linear Add	No	Dead	0.9	
DIS14-Vvigas			EX	0.6	
DIS14-Vvigas			EY	2	
DIS15-Vcol	Linear Add	No	Dead	0.9	
DIS15-Vcol			EX	-0.9	
DIS15-Vcol			EY	-3	
DIS15-Vvigas	Linear Add	No	Dead	0.9	
DIS15-Vvigas			EX	-0.6	
DIS15-Vvigas			EY	-2	
DIS16-Vcol	Linear Add	No	Dead	0.9	

Table 4.9 - Load Combination Definitions (continued)

Name	Type	Is Auto	Load Name	SF	Notes
DIS16-Vcol			EX	-0.9	
DIS16-Vcol			EY	3	
DIS16-Vvigas	Linear Add	No	Dead	0.9	
DIS16-Vvigas			EX	-0.6	
DIS16-Vvigas			EY	2	
Envol CIM	Envelope	No	D	1	
Envol CIM			D+0.75L	1	
Envol CIM			D+0.7(EQX+0.3EQY)	1	
Envol CIM			D+0.75L+0.75(0.7(EQX+0.3EQY))	1	
Envol CIM			D+0.75L+0.75(0.7(EQX+0.3EQY))	1	
Envol CIM			D+0.75L+0.75(0.7(0.3EQX+EQY))	1	
Envol CIM			D+L	1	
Envol Diseño	Envelope	No	1.4D	1	
Envol Diseño			1.2D+1.6L	1	
Envol Diseño			1.2D+L+EX+0.3EY	1	
Envol Diseño			1.2D+L-EX+0.3EY	1	
Envol Diseño			1.2D+L-EX-0.3EY	1	
Envol Diseño			1.2D+L+EX-0.3EY	1	
Envol Diseño			1.2D+L+0.3EX+EY	1	
Envol Diseño			1.2D+L-0.3EX+EY	1	
Envol Diseño			1.2D+L-0.3EX-EY	1	
Envol Diseño			1.2D+L+0.3EX-EY	1	
Envol Diseño			0.9D+EX+0.3EY	1	
Envol Diseño			0.9D-EX+0.3EY	1	
Envol Diseño			0.9D-EX-0.3EY	1	
Envol Diseño			0.9D+EX-0.3EY	1	
Envol Diseño			0.9D+0.3EX+EY	1	
Envol Diseño			0.9D-0.3EX+EY	1	
Envol Diseño			0.9D-0.3EX-EY	1	
Envol Diseño			0.9D+0.3EX-EY	1	
Envol Diseño			1.2D+L	1	

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PARAMETROS SISMICOS

Model File: JARDIN SALAMANDRA, Revision
3/12/2025

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1 Loads

This chapter provides loading information as applied to the model.

1.1 Functions

1.1.1 Response Spectrum Functions

Table 1.1 - Functions - Response Spectrum - From File

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS CERROS	0	0.633	C:\Users\eahfg\OneDrive\Documentos\Diseños Estructurales\2025\112. Proyecto Jardin Salamandra (Bogota-Vulne)\2. MODELOS\DIS CERROS.txt	0	Period vs Value	0.05
DIS CERROS	0.05	0.633				
DIS CERROS	0.1	0.633				
DIS CERROS	0.15	0.633				
DIS CERROS	0.2	0.633				
DIS CERROS	0.25	0.633				
DIS CERROS	0.3	0.633				
DIS CERROS	0.35	0.633				
DIS CERROS	0.4	0.633				
DIS CERROS	0.45	0.633				
DIS CERROS	0.5	0.633				
DIS CERROS	0.55	0.633				
DIS CERROS	0.6	0.633				
DIS CERROS	0.65	0.6				
DIS CERROS	0.7	0.557				
DIS CERROS	0.75	0.52				
DIS CERROS	0.8	0.488				
DIS CERROS	0.85	0.459				
DIS CERROS	0.9	0.433				
DIS CERROS	0.95	0.411				
DIS CERROS	1	0.39				
DIS CERROS	1.05	0.371				
DIS CERROS	1.1	0.355				
DIS CERROS	1.15	0.339				
DIS CERROS	1.2	0.325				
DIS CERROS	1.25	0.312				
DIS CERROS	1.3	0.3				
DIS CERROS	1.35	0.289				
DIS CERROS	1.4	0.279				
DIS CERROS	1.45	0.269				
DIS CERROS	1.5	0.26				
DIS CERROS	1.55	0.252				
DIS CERROS	1.6	0.244				
DIS CERROS	1.65	0.236				
DIS CERROS	1.7	0.229				
DIS CERROS	1.75	0.223				

Table 1.1 - Functions - Response Spectrum - From File (continued)

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS_{CERROS}	1.8	0.217				
DIS_{CERROS}	1.85	0.211				
DIS_{CERROS}	1.9	0.205				
DIS_{CERROS}	1.95	0.2				
DIS_{CERROS}	2	0.195				
DIS_{CERROS}	2.05	0.19				
DIS_{CERROS}	2.1	0.186				
DIS_{CERROS}	2.15	0.181				
DIS_{CERROS}	2.2	0.177				
DIS_{CERROS}	2.25	0.173				
DIS_{CERROS}	2.3	0.17				
DIS_{CERROS}	2.35	0.166				
DIS_{CERROS}	2.4	0.163				
DIS_{CERROS}	2.45	0.159				
DIS_{CERROS}	2.5	0.156				
DIS_{CERROS}	2.55	0.153				
DIS_{CERROS}	2.6	0.15				
DIS_{CERROS}	2.65	0.147				
DIS_{CERROS}	2.7	0.144				
DIS_{CERROS}	2.75	0.142				
DIS_{CERROS}	2.8	0.139				
DIS_{CERROS}	2.85	0.137				
DIS_{CERROS}	2.9	0.134				
DIS_{CERROS}	2.95	0.132				
DIS_{CERROS}	3	0.13				
DIS_{CERROS}	3.05	0.126				
DIS_{CERROS}	3.1	0.122				
DIS_{CERROS}	3.15	0.118				
DIS_{CERROS}	3.2	0.114				
DIS_{CERROS}	3.25	0.111				
DIS_{CERROS}	3.3	0.107				
DIS_{CERROS}	3.35	0.104				
DIS_{CERROS}	3.4	0.101				
DIS_{CERROS}	3.45	0.098				
DIS_{CERROS}	3.5	0.096				
DIS_{CERROS}	3.55	0.093				
DIS_{CERROS}	3.6	0.09				
DIS_{CERROS}	3.65	0.088				
DIS_{CERROS}	3.7	0.085				
DIS_{CERROS}	3.75	0.083				
DIS_{CERROS}	3.8	0.081				
DIS_{CERROS}	3.85	0.079				
DIS_{CERROS}	3.9	0.077				
DIS_{CERROS}	3.95	0.075				

Table 1.1 - Functions - Response Spectrum - From File (continued)

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS_{CERROS}	4	0.073				
DIS_{CERROS}	4.05	0.071				
DIS_{CERROS}	4.1	0.07				
DIS_{CERROS}	4.15	0.068				
DIS_{CERROS}	4.2	0.066				
DIS_{CERROS}	4.25	0.065				
DIS_{CERROS}	4.3	0.063				
DIS_{CERROS}	4.35	0.062				
DIS_{CERROS}	4.4	0.06				
DIS_{CERROS}	4.45	0.059				
DIS_{CERROS}	4.5	0.058				
DIS_{CERROS}	4.55	0.057				
DIS_{CERROS}	4.6	0.055				
DIS_{CERROS}	4.65	0.054				
DIS_{CERROS}	4.7	0.053				
DIS_{CERROS}	4.75	0.052				
DIS_{CERROS}	4.8	0.051				
DIS_{CERROS}	4.85	0.05				
DIS_{CERROS}	4.9	0.049				
DIS_{CERROS}	4.95	0.048				
DIS_{CERROS}	5	0.047				
DIS_{CERROS}	5.05	0.046				
DIS_{CERROS}	5.1	0.045				
DIS_{CERROS}	5.15	0.044				
DIS_{CERROS}	5.2	0.043				
DIS_{CERROS}	5.25	0.042				
DIS_{CERROS}	5.3	0.042				
DIS_{CERROS}	5.35	0.041				
DIS_{CERROS}	5.4	0.04				
DIS_{CERROS}	5.45	0.039				
DIS_{CERROS}	5.5	0.039				
DIS_{CERROS}	5.55	0.038				
DIS_{CERROS}	5.6	0.037				
DIS_{CERROS}	5.65	0.037				
DIS_{CERROS}	5.7	0.036				
DIS_{CERROS}	5.75	0.035				
DIS_{CERROS}	5.8	0.035				
DIS_{CERROS}	5.85	0.034				
DIS_{CERROS}	5.9	0.034				
DIS_{CERROS}	5.95	0.033				
DIS_{CERROS}	6	0.033				
DIS_{CERROS}	6.05	0.032				
DIS_{CERROS}	6.1	0.031				
DIS_{CERROS}	6.15	0.031				

Table 1.1 - Functions - Response Spectrum - From File (continued)

Name	Period sec	Value	Filename	Header Lines to Skip	Value Type	Damping Ratio
DIS_{CERROS}	6.2	0.03				
DIS_{CERROS}	6.25	0.03				
DIS_{CERROS}	6.3	0.029				
DIS_{CERROS}	6.35	0.029				
DIS_{CERROS}	6.4	0.029				
DIS_{CERROS}	6.45	0.028				
DIS_{CERROS}	6.5	0.028				
DIS_{CERROS}	6.55	0.027				
DIS_{CERROS}	6.6	0.027				
DIS_{CERROS}	6.65	0.026				
DIS_{CERROS}	6.7	0.026				
DIS_{CERROS}	6.75	0.026				
DIS_{CERROS}	6.8	0.025				
DIS_{CERROS}	6.85	0.025				
DIS_{CERROS}	6.9	0.025				
DIS_{CERROS}	6.95	0.024				
DIS_{CERROS}	7	0.024				
DIS_{CERROS}	7.05	0.024				
DIS_{CERROS}	7.1	0.023				
DIS_{CERROS}	7.15	0.023				
DIS_{CERROS}	7.2	0.023				
DIS_{CERROS}	7.25	0.022				
DIS_{CERROS}	7.3	0.022				
DIS_{CERROS}	7.35	0.022				
DIS_{CERROS}	7.4	0.021				
DIS_{CERROS}	7.45	0.021				
DIS_{CERROS}	7.5	0.021				
DIS_{CERROS}	7.55	0.021				
DIS_{CERROS}	7.6	0.02				

Table 1.2 - Functions - Response Spectrum - User Defined

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	0	0.506	0.05
DER_{CERROS}	0.05	0.506	
DER_{CERROS}	0.1	0.506	
DER_{CERROS}	0.15	0.506	
DER_{CERROS}	0.2	0.506	
DER_{CERROS}	0.25	0.506	
DER_{CERROS}	0.3	0.506	
DER_{CERROS}	0.35	0.506	
DER_{CERROS}	0.4	0.506	
DER_{CERROS}	0.45	0.506	
DER_{CERROS}	0.5	0.506	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	0.55	0.506	
DER_{CERROS}	0.6	0.506	
DER_{CERROS}	0.65	0.48	
DER_{CERROS}	0.7	0.446	
DER_{CERROS}	0.75	0.416	
DER_{CERROS}	0.8	0.39	
DER_{CERROS}	0.85	0.367	
DER_{CERROS}	0.9	0.347	
DER_{CERROS}	0.95	0.328	
DER_{CERROS}	1	0.312	
DER_{CERROS}	1.05	0.297	
DER_{CERROS}	1.1	0.284	
DER_{CERROS}	1.15	0.271	
DER_{CERROS}	1.2	0.26	
DER_{CERROS}	1.25	0.25	
DER_{CERROS}	1.3	0.24	
DER_{CERROS}	1.35	0.231	
DER_{CERROS}	1.4	0.223	
DER_{CERROS}	1.45	0.215	
DER_{CERROS}	1.5	0.208	
DER_{CERROS}	1.55	0.201	
DER_{CERROS}	1.6	0.195	
DER_{CERROS}	1.65	0.189	
DER_{CERROS}	1.7	0.184	
DER_{CERROS}	1.75	0.178	
DER_{CERROS}	1.8	0.173	
DER_{CERROS}	1.85	0.169	
DER_{CERROS}	1.9	0.164	
DER_{CERROS}	1.95	0.16	
DER_{CERROS}	2	0.156	
DER_{CERROS}	2.05	0.152	
DER_{CERROS}	2.1	0.149	
DER_{CERROS}	2.15	0.145	
DER_{CERROS}	2.2	0.142	
DER_{CERROS}	2.25	0.139	
DER_{CERROS}	2.3	0.136	
DER_{CERROS}	2.35	0.133	
DER_{CERROS}	2.4	0.13	
DER_{CERROS}	2.45	0.127	
DER_{CERROS}	2.5	0.125	
DER_{CERROS}	2.55	0.122	
DER_{CERROS}	2.6	0.12	
DER_{CERROS}	2.65	0.118	
DER_{CERROS}	2.7	0.116	
DER_{CERROS}	2.75	0.113	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	2.8	0.111	
DER_{CERROS}	2.85	0.109	
DER_{CERROS}	2.9	0.108	
DER_{CERROS}	2.95	0.106	
DER_{CERROS}	3	0.104	
DER_{CERROS}	3.05	0.101	
DER_{CERROS}	3.1	0.097	
DER_{CERROS}	3.15	0.094	
DER_{CERROS}	3.2	0.091	
DER_{CERROS}	3.25	0.089	
DER_{CERROS}	3.3	0.086	
DER_{CERROS}	3.35	0.083	
DER_{CERROS}	3.4	0.081	
DER_{CERROS}	3.45	0.079	
DER_{CERROS}	3.5	0.076	
DER_{CERROS}	3.55	0.074	
DER_{CERROS}	3.6	0.072	
DER_{CERROS}	3.65	0.07	
DER_{CERROS}	3.7	0.068	
DER_{CERROS}	3.75	0.067	
DER_{CERROS}	3.8	0.065	
DER_{CERROS}	3.85	0.063	
DER_{CERROS}	3.9	0.062	
DER_{CERROS}	3.95	0.06	
DER_{CERROS}	4	0.059	
DER_{CERROS}	4.05	0.057	
DER_{CERROS}	4.1	0.056	
DER_{CERROS}	4.15	0.054	
DER_{CERROS}	4.2	0.053	
DER_{CERROS}	4.25	0.052	
DER_{CERROS}	4.3	0.051	
DER_{CERROS}	4.35	0.049	
DER_{CERROS}	4.4	0.048	
DER_{CERROS}	4.45	0.047	
DER_{CERROS}	4.5	0.046	
DER_{CERROS}	4.55	0.045	
DER_{CERROS}	4.6	0.044	
DER_{CERROS}	4.65	0.043	
DER_{CERROS}	4.7	0.042	
DER_{CERROS}	4.75	0.041	
DER_{CERROS}	4.8	0.041	
DER_{CERROS}	4.85	0.04	
DER_{CERROS}	4.9	0.039	
DER_{CERROS}	4.95	0.038	
DER_{CERROS}	5	0.037	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER_{CERROS}	5.05	0.037	
DER_{CERROS}	5.1	0.036	
DER_{CERROS}	5.15	0.035	
DER_{CERROS}	5.2	0.035	
DER_{CERROS}	5.25	0.034	
DER_{CERROS}	5.3	0.033	
DER_{CERROS}	5.35	0.033	
DER_{CERROS}	5.4	0.032	
DER_{CERROS}	5.45	0.032	
DER_{CERROS}	5.5	0.031	
DER_{CERROS}	5.55	0.03	
DER_{CERROS}	5.6	0.03	
DER_{CERROS}	5.65	0.029	
DER_{CERROS}	5.7	0.029	
DER_{CERROS}	5.75	0.028	
DER_{CERROS}	5.8	0.028	
DER_{CERROS}	5.85	0.027	
DER_{CERROS}	5.9	0.027	
DER_{CERROS}	5.95	0.026	
DER_{CERROS}	6	0.026	
DER_{CERROS}	6.05	0.026	
DER_{CERROS}	6.1	0.025	
DER_{CERROS}	6.15	0.025	
DER_{CERROS}	6.2	0.024	
DER_{CERROS}	6.25	0.024	
DER_{CERROS}	6.3	0.024	
DER_{CERROS}	6.35	0.023	
DER_{CERROS}	6.4	0.023	
DER_{CERROS}	6.45	0.022	
DER_{CERROS}	6.5	0.022	
DER_{CERROS}	6.55	0.022	
DER_{CERROS}	6.6	0.021	
DER_{CERROS}	6.65	0.021	
DER_{CERROS}	6.7	0.021	
DER_{CERROS}	6.75	0.021	
DER_{CERROS}	6.8	0.02	
DER_{CERROS}	6.85	0.02	
DER_{CERROS}	6.9	0.02	
DER_{CERROS}	6.95	0.019	
DER_{CERROS}	7	0.019	
DER_{CERROS}	7.05	0.019	
DER_{CERROS}	7.1	0.019	
DER_{CERROS}	7.15	0.018	
DER_{CERROS}	7.2	0.018	
DER_{CERROS}	7.25	0.018	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
DER CERROS	7.3	0.018	
DER CERROS	7.35	0.017	
DER CERROS	7.4	0.017	
DER CERROS	7.45	0.017	
DER CERROS	7.5	0.017	
DER CERROS	7.55	0.016	
DER CERROS	7.6	0.016	
UMB CERROS	0	0.08	0.05
UMB CERROS	0.05	0.166	
UMB CERROS	0.1	0.253	
UMB CERROS	0.15	0.27	
UMB CERROS	0.2	0.27	
UMB CERROS	0.25	0.27	
UMB CERROS	0.3	0.27	
UMB CERROS	0.35	0.27	
UMB CERROS	0.4	0.27	
UMB CERROS	0.45	0.27	
UMB CERROS	0.5	0.27	
UMB CERROS	0.55	0.27	
UMB CERROS	0.6	0.255	
UMB CERROS	0.65	0.235	
UMB CERROS	0.7	0.219	
UMB CERROS	0.75	0.204	
UMB CERROS	0.8	0.191	
UMB CERROS	0.85	0.18	
UMB CERROS	0.9	0.17	
UMB CERROS	0.95	0.161	
UMB CERROS	1	0.153	
UMB CERROS	1.05	0.146	
UMB CERROS	1.1	0.139	
UMB CERROS	1.15	0.133	
UMB CERROS	1.2	0.128	
UMB CERROS	1.25	0.122	
UMB CERROS	1.3	0.118	
UMB CERROS	1.35	0.113	
UMB CERROS	1.4	0.109	
UMB CERROS	1.45	0.106	
UMB CERROS	1.5	0.102	
UMB CERROS	1.55	0.099	
UMB CERROS	1.6	0.096	
UMB CERROS	1.65	0.093	
UMB CERROS	1.7	0.09	
UMB CERROS	1.75	0.087	
UMB CERROS	1.8	0.085	
UMB CERROS	1.85	0.083	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
UMB CERROS	1.9	0.081	
UMB CERROS	1.95	0.078	
UMB CERROS	2	0.077	
UMB CERROS	2.05	0.075	
UMB CERROS	2.1	0.073	
UMB CERROS	2.15	0.071	
UMB CERROS	2.2	0.07	
UMB CERROS	2.25	0.068	
UMB CERROS	2.3	0.067	
UMB CERROS	2.35	0.065	
UMB CERROS	2.4	0.064	
UMB CERROS	2.45	0.062	
UMB CERROS	2.5	0.061	
UMB CERROS	2.55	0.06	
UMB CERROS	2.6	0.059	
UMB CERROS	2.65	0.058	
UMB CERROS	2.7	0.057	
UMB CERROS	2.75	0.056	
UMB CERROS	2.8	0.055	
UMB CERROS	2.85	0.054	
UMB CERROS	2.9	0.053	
UMB CERROS	2.95	0.052	
UMB CERROS	3	0.051	
UMB CERROS	3.05	0.049	
UMB CERROS	3.1	0.048	
UMB CERROS	3.15	0.046	
UMB CERROS	3.2	0.045	
UMB CERROS	3.25	0.043	
UMB CERROS	3.3	0.042	
UMB CERROS	3.35	0.041	
UMB CERROS	3.4	0.04	
UMB CERROS	3.45	0.039	
UMB CERROS	3.5	0.037	
UMB CERROS	3.55	0.036	
UMB CERROS	3.6	0.035	
UMB CERROS	3.65	0.034	
UMB CERROS	3.7	0.034	
UMB CERROS	3.75	0.033	
UMB CERROS	3.8	0.032	
UMB CERROS	3.85	0.031	
UMB CERROS	3.9	0.03	
UMB CERROS	3.95	0.029	
UMB CERROS	4	0.029	
UMB CERROS	4.05	0.028	
UMB CERROS	4.1	0.027	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
UMB CERROS	4.15	0.027	
UMB CERROS	4.2	0.026	
UMB CERROS	4.25	0.025	
UMB CERROS	4.3	0.025	
UMB CERROS	4.35	0.024	
UMB CERROS	4.4	0.024	
UMB CERROS	4.45	0.023	
UMB CERROS	4.5	0.023	
UMB CERROS	4.55	0.022	
UMB CERROS	4.6	0.022	
UMB CERROS	4.65	0.021	
UMB CERROS	4.7	0.021	
UMB CERROS	4.75	0.02	
UMB CERROS	4.8	0.02	
UMB CERROS	4.85	0.02	
UMB CERROS	4.9	0.019	
UMB CERROS	4.95	0.019	
UMB CERROS	5	0.018	
UMB CERROS	5.05	0.018	
UMB CERROS	5.1	0.018	
UMB CERROS	5.15	0.017	
UMB CERROS	5.2	0.017	
UMB CERROS	5.25	0.017	
UMB CERROS	5.3	0.016	
UMB CERROS	5.35	0.016	
UMB CERROS	5.4	0.016	
UMB CERROS	5.45	0.015	
UMB CERROS	5.5	0.015	
UMB CERROS	5.55	0.015	
UMB CERROS	5.6	0.015	
UMB CERROS	5.65	0.014	
UMB CERROS	5.7	0.014	
UMB CERROS	5.75	0.014	
UMB CERROS	5.8	0.014	
UMB CERROS	5.85	0.013	
UMB CERROS	5.9	0.013	
UMB CERROS	5.95	0.013	
UMB CERROS	6	0.013	
UMB CERROS	6.05	0.013	
UMB CERROS	6.1	0.012	
UMB CERROS	6.15	0.012	
UMB CERROS	6.2	0.012	
UMB CERROS	6.25	0.012	
UMB CERROS	6.3	0.012	
UMB CERROS	6.35	0.011	

Table 1.2 - Functions - Response Spectrum - User Defined (continued)

Name	Period sec	Value	Damping Ratio
UMB CERROS	6.4	0.011	
UMB CERROS	6.45	0.011	
UMB CERROS	6.5	0.011	
UMB CERROS	6.55	0.011	
UMB CERROS	6.6	0.011	
UMB CERROS	6.65	0.01	
UMB CERROS	6.7	0.01	
UMB CERROS	6.75	0.01	
UMB CERROS	6.8	0.01	
UMB CERROS	6.85	0.01	
UMB CERROS	6.9	0.01	
UMB CERROS	6.95	0.01	
UMB CERROS	7	0.009	
UMB CERROS	7.05	0.009	
UMB CERROS	7.1	0.009	
UMB CERROS	7.15	0.009	
UMB CERROS	7.2	0.009	
UMB CERROS	7.25	0.009	
UMB CERROS	7.3	0.009	
UMB CERROS	7.35	0.008	
UMB CERROS	7.4	0.008	
UMB CERROS	7.45	0.008	
UMB CERROS	7.5	0.008	
UMB CERROS	7.55	0.008	
UMB CERROS	7.6	0.008	

1.1.2 Time History Functions

Table 1.3 - Functions - Time History - User Defined

Name	Time sec	Value
RampTH	0	0
RampTH	1	1
RampTH	4	1
UnifTH	0	1
UnifTH	1	1

1.2 Load Cases

Table 1.4 - Load Case Definitions - Summary

Name	Type
Modal	Modal - Eigen
Dead	Linear Static
Live	Linear Static
EX	Response Spectrum
EY	Response Spectrum

Table 1.4 - Load Case Definitions - Summary (continued)

Name	Type
FSX	Response Spectrum
FSY	Response Spectrum
FSXD	Response Spectrum
FSYD	Response Spectrum

2 Analysis Results

This chapter provides analysis results.

2.1 Structure Results

Table 2.1 - Base Reactions

Output Case	Case Type	Step Type	FX kN	FY kN	FZ kN	MX kN-m	MY kN-m	MZ kN-m	X m	Y m	Z m
Dead	LinStatic		0	0	2492.5161	15568.3188	-21898.7622	0	0	0	0
Live	LinStatic		0	0	640.4997	3955.765	-5636.7533	0	0	0	0
EX	LinRespSpec	Max	468.3634	1.2417	0	5.2957	1764.6942	2534.735	0	0	0
EY	LinRespSpec	Max	1.2417	489.4227	0	1826.579	4.8608	4277.1033	0	0	0
FSX	LinRespSpec	Max	1137.0936	3.0145	0	12.857	4284.3284	6153.8351	0	0	0
FSY	LinRespSpec	Max	3.0145	1188.2216	0	4434.5723	11.801	10383.9605	0	0	0
FSXD	LinRespSpec	Max	606.7276	1.6079	0	6.8603	2286.1022	3283.4594	0	0	0
FSYD	LinRespSpec	Max	1.6079	634.0037	0	2366.2607	6.2969	5540.599	0	0	0

2.2 Modal Results

Table 2.2 - Modal Periods And Frequencies

Case	Mode	Period sec	Frequency cyc/sec	CircFreq rad/sec	Eigenvalue rad2/sec2
Modal	1	0.356	2.809	17.6513	311.5699
Modal	2	0.337	2.963	18.62	346.7042
Modal	3	0.297	3.371	21.1808	448.6276
Modal	4	0.143	7.01	44.046	1940.053
Modal	5	0.132	7.563	47.5213	2258.2724
Modal	6	0.113	8.818	55.4083	3070.0742

Table 2.3 - Modal Participating Mass Ratios (Part 1 of 2)

Case	Mode	Period sec	UX	UY	UZ	SumUX	SumUY	SumUZ	RX	RY	RZ
Modal	1	0.356	0.9105	8.244E-06	0	0.9105	8.244E-06	0	4.88E-06	0.0839	0.0382
Modal	2	0.337	1.642E-05	0.9616	0	0.9105	0.9617	0	0.0693	3.433E-06	0.0001
Modal	3	0.297	0.0358	0.0001	0	0.9463	0.9617	0	0.0003	0.0056	0.9146
Modal	4	0.143	0.0509	7.36E-07	0	0.9972	0.9617	0	0	0.8695	0.0013
Modal	5	0.132	0	0.0383	0	0.9972	1	0	0.9303	4.523E-06	3.056E-06
Modal	6	0.113	0.0028	1.437E-05	0	1	1	0	0.0001	0.0409	0.0458

Table 2.3 - Modal Participating Mass Ratios (Part 2 of 2)

Case	Mode	SumRX	SumRY	SumRZ
Modal	1	4.88E-06	0.0839	0.0382
Modal	2	0.0693	0.0839	0.0383
Modal	3	0.0696	0.0895	0.9529
Modal	4	0.0696	0.9591	0.9542
Modal	5	0.9999	0.9591	0.9542
Modal	6	1	1	1

Table 2.4 - Modal Participation Factors

Case	Mode	Period sec	UX kN-m	UY kN-m	UZ kN-m	RX kN-m	RY kN-m	RZ kN-m	ModalMass kN-m-s2	ModalStiff kN-m
Modal	1	0.356	1.5E-05	-4.527E-08	0	-3.8E-05	0.005035	0.020522	1E-06	0.00031
Modal	2	0.337	-6.39E-08	-1.5E-05	0	0.004577	-3.2E-05	0.000822	1E-06	0.00035
Modal	3	0.297	-3E-06	1.127E-07	0	-0.000282	-0.001303	0.100394	1E-06	0.00045
Modal	4	0.143	4E-06	1.353E-08	0	6E-06	-0.016209	0.003835	1E-06	0.00194
Modal	5	0.132	1.018E-08	3E-06	0	0.016766	-3.7E-05	0.000184	1E-06	0.00226
Modal	6	0.113	-1E-06	5.978E-08	0	0.000196	0.003517	0.022458	1E-06	0.00307

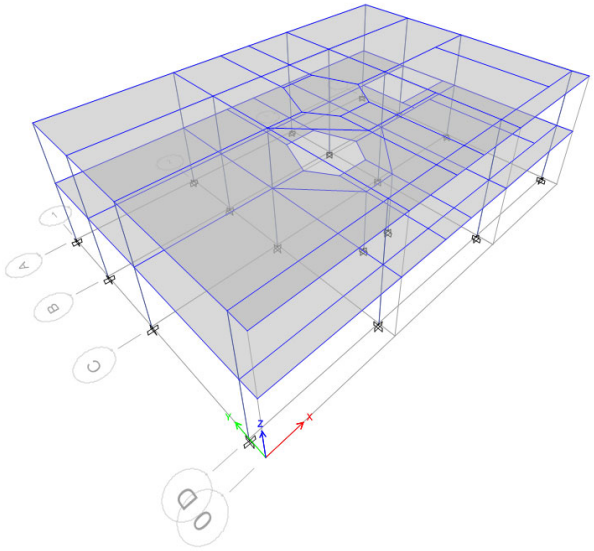
Table 2.5 - Modal Load Participation Ratios

Case	ItemType	Item	Static %	Dynamic %
Modal	Acceleration	UX	100	100
Modal	Acceleration	UY	100	100
Modal	Acceleration	UZ	0	0

Table 2.6 - Modal Direction Factors

Case	Mode	Period sec	UX	UY	UZ	RZ
Modal	1	0.356	0.961	0	0	0.039
Modal	2	0.337	0	1	0	0
Modal	3	0.297	0.04	0	0	0.96
Modal	4	0.143	0.954	0	0	0.046
Modal	5	0.132	0	1	0	0
Modal	6	0.113	0.045	0	0	0.954

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Model File: JARDIN SALAMANDRA, Revision
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1 Design Data

This chapter provides design data and results.

1.1 Concrete Frame Design

Table 1.1 - Concrete Frame Design Preferences - ACI 318-11

Item	Value
Multi-Response Design	Step-by-Step - All
# Interaction Curves	24
# Interaction Points	11
Minimum Eccentricity?	Yes
Design for BCCR?	Yes
Ignore Beneficial Pu for Beam Design?	No
Seismic Design Category	E
Design System Omega0	3
Design System Rho	5
Design System Sds	0.5
Phi (Tension)	0.9
Phi (Compression Tied)	0.65
Phi (Compression Spiral)	0.75
Phi (Shear and Torsion)	0.75
Phi (Shear Seismic)	0.6
Phi (Shear Joint)	0.85
Pattern Live Load Factor	0.75
Utlization Factor Limit	1

Table 1.2 - Concrete Column Overwrites - ACI 318-11 (Part 1 of 2)

Story	Label	Unique Name	Design Type	Design Section	Frame Type	LLRF	Unbraced Length Ratio (Major)	Unbraced Length Ratio (Minor)	Effective Length Factor (K Major)
N+5.65	C1	1	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C2	3	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C3	5	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C4	7	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C5	9	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C6	11	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C7	13	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C8	15	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C9	17	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C10	19	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C11	21	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C12	23	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C13	25	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C14	27	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C15	29	Column	Program Determined	Program Determined	0	0	0	0
N+5.65	C16	31	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C1	2	Column	Program Determined	Program Determined	0	0	0	0

Table 1.2 - Concrete Column Overwrites - ACI 318-11 (Part 1 of 2, continued)

Story	Label	Unique Name	Design Type	Design Section	Frame Type	LLRF	Unbraced Length Ratio (Major)	Unbraced Length Ratio (Minor)	Effective Length Factor (K Major)
N+2.95	C2	4	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C3	6	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C4	8	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C5	10	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C6	12	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C7	14	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C8	16	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C9	18	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C10	20	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C11	22	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C12	24	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C13	26	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C14	28	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C15	30	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C16	32	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C17	121	Column	Program Determined	Program Determined	0	0	0	0
N+2.95	C18	122	Column	Program Determined	Program Determined	0	0	0	0

Table 1.2 - Concrete Column Overwrites - ACI 318-11 (Part 2 of 2)

Effective Length Factor (K Minor)	Moment Coefficient (Cm Major)	Moment Coefficient (Cm Minor)	Non Sway Moment Factor (Dns Major)	Non Sway Moment Factor (Dns Minor)	Sway Moment Factor (Ds Major)	Sway Moment Factor (Ds Minor)	Consider Minimum Eccentricity?
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined

Table 1.2 - Concrete Column Overwrites - ACI 318-11 (Part 2 of 2, continued)

Effective Length Factor (K Minor)	Moment Coefficient (Cm Major)	Moment Coefficient (Cm Minor)	Non Sway Moment Factor (Dns Major)	Non Sway Moment Factor (Dns Minor)	Sway Moment Factor (Ds Major)	Sway Moment Factor (Ds Minor)	Consider Minimum Eccentricity?
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined
0	0	0	0	0	0	0	Program Determined

Table 1.3 - Concrete Beam Overwrites - ACI 318-11 (Part 1 of 2)

Story	Label	Unique Name	Design Type	Design Section	Frame Type	LLRF	Unbraced Length Ratio (Major)	Unbraced Length Ratio (Minor)
N+5.65	B1	53	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B2	80	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B3	81	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B4	82	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B5	86	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B6	87	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B7	88	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B8	89	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B9	90	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B10	91	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B11	92	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B12	93	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B13	94	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B14	95	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B15	96	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B16	97	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B17	98	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B18	99	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B19	100	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B20	101	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B22	102	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B23	103	Beam	Program Determined	Program Determined	0	0	0

Table 1.3 - Concrete Beam Overwrites - ACI 318-11 (Part 1 of 2, continued)

Story	Label	Unique Name	Design Type	Design Section	Frame Type	LLRF	Unbraced Length Ratio (Major)	Unbraced Length Ratio (Minor)
N+5.65	B24	104	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B25	105	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B26	106	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B27	107	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B28	108	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B29	109	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B30	110	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B31	111	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B32	112	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B33	113	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B34	114	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B35	115	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B36	116	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B37	117	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B38	118	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B39	119	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B40	120	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B45	125	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B46	126	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B47	127	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B48	130	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B49	129	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B50	128	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B21	132	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B53	136	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B58	142	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B59	143	Beam	Program Determined	Program Determined	0	0	0
N+5.65	B54	123	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B1	33	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B2	34	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B3	35	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B4	36	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B5	37	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B6	38	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B7	39	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B8	40	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B9	41	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B10	42	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B11	43	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B12	44	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B13	45	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B14	46	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B15	47	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B16	48	Beam	Program Determined	Program Determined	0	0	0

Table 1.3 - Concrete Beam Overwrites - ACI 318-11 (Part 1 of 2, continued)

Story	Label	Unique Name	Design Type	Design Section	Frame Type	LLRF	Unbraced Length Ratio (Major)	Unbraced Length Ratio (Minor)
N+2.95	B17	49	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B18	50	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B19	51	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B20	52	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B22	54	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B23	55	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B24	56	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B25	57	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B26	58	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B27	59	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B28	60	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B29	61	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B30	62	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B31	63	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B32	64	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B33	65	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B34	66	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B36	68	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B38	70	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B39	71	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B40	72	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B45	77	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B46	78	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B47	79	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B48	85	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B49	84	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B50	83	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B51	133	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B52	137	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B53	135	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B58	140	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B59	141	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B54	75	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B55	73	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B56	74	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B57	76	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B60	124	Beam	Program Determined	Program Determined	0	0	0
N+2.95	B61	131	Beam	Program Determined	Program Determined	0	0	0

Table 1.3 - Concrete Beam Overwrites - ACI 318-11 (Part 2 of 2)

Consider Torsion?	Ignore Beneficial Pu for Beam Design?
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined

Table 1.3 - Concrete Beam Overwrites - ACI 318-11 (Part 2 of 2, continued)

Consider Torsion?	Ignore Beneficial Pu for Beam Design?
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined
Program Determined	Program Determined

Table 1.4 - Concrete Column PMM Envelope - ACI 318-11

Story	Label	UniqueName	Section	Location	P kN	M Major kN-m	M Minor kN-m	PMM Combo	PMM Ratio or Rebar %
N+5.65	C1	1	COL30x30	Top	40.1409	13.9943	16.6057	1.2D+L+EX-0.3EY	0.301
N+5.65	C1	1	COL30x30	Bottom	46.3685	-40.009	-25.9004	1.2D+L+EX-0.3EY	0.642
N+5.65	C2	3	COL30x30	Top	79.9371	34.3101	20.5723	1.2D+L+EX-0.3EY	0.539
N+5.65	C2	3	COL30x30	Bottom	86.1647	27.9758	-28.8773	1.2D+L+EX-0.3EY	0.56
N+5.65	C3	5	COL30x30	Top	84.0028	-29.7679	23.1426	1.2D+L+EX-0.3EY	0.521
N+5.65	C3	5	COL30x30	Bottom	90.2304	-31.2889	-29.5864	1.2D+L+EX-0.3EY	0.6
N+5.65	C4	7	COL30x30	Top	42.2046	-24.3958	16.4603	1.2D+L+EX-0.3EY	0.4
N+5.65	C4	7	COL30x30	Bottom	48.4322	44.0776	-25.6458	1.2D+L+EX-0.3EY	0.678
N+5.65	C5	9	COL30x30	Top	44.8714	4.3826	-22.1497	1.2D+L+0.3EX-EY	0.265
N+5.65	C5	9	COL30x30	Bottom	51.0991	-39.1731	28.8682	1.2D+L+0.3EX-EY	0.664
N+5.65	C6	11	COL30x30	Top	92.5072	40.1967	-22.1929	1.2D+L+EX-0.3EY	0.613
N+5.65	C6	11	COL30x30	Bottom	98.7348	25.0868	24.7992	1.2D+L+EX-0.3EY	0.494
N+5.65	C7	13	COL30x30	Top	89.5175	-30.9964	-19.9468	1.2D+L+EX-0.3EY	0.503
N+5.65	C7	13	COL30x30	Bottom	95.7451	-28.5848	23.8511	1.2D+L+EX-0.3EY	0.518
N+5.65	C8	15	COL30x30	Top	46.985	-15.9153	-21.6632	1.2D+L+0.3EX-EY	0.369
N+5.65	C8	15	COL30x30	Bottom	53.3491	48.1064	21.7705	1.2D+L+EX-0.3EY	0.681
N+5.65	C9	17	COL30x30	Top	32.379	4.9838	-16.4918	1.2D+L+0.3EX-EY	0.213
N+5.65	C9	17	COL30x30	Bottom	38.6067	-29.4974	-18.3503	1.2D+L+0.3EX-EY	0.467
N+5.65	C10	19	COL30x30	Top	64.7045	22.4374	-16.7474	1.2D+L+0.3EX-EY	0.386
N+5.65	C10	19	COL30x30	Bottom	70.9321	-11.856	-19.8809	1.2D+L+0.3EX-EY	0.315
N+5.65	C11	21	COL30x30	Top	65.6074	-21.7553	-16.8857	1.2D+L+0.3EX-EY	0.381

Table 1.4 - Concrete Column PMM Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	P kN	M Major kN-m	M Minor kN-m	PMM Combo	PMM Ratio or Rebar %
N+5.65	C11	21	COL30x30	Bottom	71.835	13.8744	-20.3094	1.2D+L+0.3EX-EY	0.339
N+5.65	C12	23	COL30x30	Top	32.7621	-5.1363	16.053	1.2D+L+0.3EX-EY	0.21
N+5.65	C12	23	COL30x30	Bottom	38.9897	21.6466	-19.9816	1.2D+L+0.3EX-EY	0.408
N+5.65	C13	25	COL30x30	Top	23.4408	9.4064	-9.4474	1.2D+L+EX-0.3EY	0.185
N+5.65	C13	25	COL30x30	Bottom	31.4726	-19.273	13.6286	1.2D+L+0.3EX-EY	0.322
N+5.65	C14	27	COL30x30	Top	39.4173	21.5365	-11.2234	1.2D+L+EX-0.3EY	0.321
N+5.65	C14	27	COL30x30	Bottom	45.6449	-18.6403	15.8365	1.2D+L+EX-0.3EY	0.339
N+5.65	C15	29	COL30x30	Top	39.3582	-21.1805	-11.1258	1.2D+L+EX-0.3EY	0.317
N+5.65	C15	29	COL30x30	Bottom	45.5859	18.6208	15.5346	1.2D+L+EX-0.3EY	0.336
N+5.65	C16	31	COL30x30	Top	22.8645	-9.5665	-9.0687	1.2D+L+EX-0.3EY	0.183
N+5.65	C16	31	COL30x30	Bottom	30.8504	17.7887	13.7531	1.2D+L+0.3EX-EY	0.309
N+2.95	C1	2	COL30x30	Top	177.9184	55.8126	29.5692	1.2D+L+EX-0.3EY	0.846
N+2.95	C1	2	COL30x30	Bottom	184.6544	-66.4135	-34.4055	1.2D+L+EX-0.3EY	0.996
N+2.95	C2	4	COL30x30	Top	309.4562	-53.4213	25.2493	1.2D+L+EX-0.3EY	0.803
N+2.95	C2	4	COL30x30	Bottom	316.1922	65.3476	-26.1732	1.2D+L+EX-0.3EY	0.934
N+2.95	C3	6	COL30x30	Top	313.4572	52.4875	24.5146	1.2D+L+EX-0.3EY	0.788
N+2.95	C3	6	COL30x30	Bottom	320.1931	-64.5851	-25.7424	1.2D+L+EX-0.3EY	0.924
N+2.95	C4	8	COL30x30	Top	182.7211	-55.6018	29.112	1.2D+L+EX-0.3EY	0.84
N+2.95	C4	8	COL30x30	Bottom	189.4571	66.7	-33.9799	1.2D+L+EX-0.3EY	0.996
N+2.95	C5	10	COL30x30	Top	219.8286	59.3309	-28.3976	1.2D+L+EX-0.3EY	0.877
N+2.95	C5	10	COL30x30	Bottom	226.5646	-64.0997	33.9678	1.2D+L+EX-0.3EY	0.975
N+2.95	C6	12	COL30x30	Top	358.999	-54.2512	-22.5143	1.2D+L+EX-0.3EY	0.796
N+2.95	C6	12	COL30x30	Bottom	365.735	61.4665	24.8744	1.2D+L+EX-0.3EY	0.891
N+2.95	C7	14	COL30x30	Top	349.8739	51.7153	-22.7789	1.2D+L+EX-0.3EY	0.771
N+2.95	C7	14	COL30x30	Bottom	356.6099	-59.712	25.0426	1.2D+L+EX-0.3EY	0.873
N+2.95	C8	16	COL30x30	Top	230.4629	-57.5553	-27.7373	1.2D+L+EX-0.3EY	0.855
N+2.95	C8	16	COL30x30	Bottom	237.1989	63.3857	33.491	1.2D+L+EX-0.3EY	0.965
N+2.95	C9	18	COL30x30	Top	146.6467	31.7546	36.6405	1.2D+L+0.3EX-EY	0.678
N+2.95	C9	18	COL30x30	Bottom	154.9521	-54.3035	-28.9795	1.2D+L+EX-0.3EY	0.823
N+2.95	C10	20	COL30x30	Top	307.9827	-13.2723	36.4873	1.2D+L+0.3EX-EY	0.531
N+2.95	C10	20	COL30x30	Bottom	314.7187	16.1167	51.0196	1.2D+L+0.3EX-EY	0.705
N+2.95	C11	22	COL30x30	Top	294.7856	10.0551	36.3818	1.2D+L+0.3EX-EY	0.503
N+2.95	C11	22	COL30x30	Bottom	301.5216	-14.1074	-50.6059	1.2D+L+0.3EX-EY	0.683
N+2.95	C12	24	COL30x30	Top	114.3286	-24.5169	36.6761	1.2D+L+0.3EX-EY	0.605
N+2.95	C12	24	COL30x30	Bottom	118.3613	49.5289	-29.4442	1.2D+L+EX-0.3EY	0.777
N+2.95	C13	26	COL30x30	Top	108.929	20.6276	-32.9784	1.2D+L+0.3EX-EY	0.531
N+2.95	C13	26	COL30x30	Bottom	106.4443	-44.1663	29.1608	1.2D+L+EX-0.3EY	0.721
N+2.95	C14	28	COL30x30	Top	193.0968	7.6002	-37.9048	1.2D+L+0.3EX-EY	0.483
N+2.95	C14	28	COL30x30	Bottom	199.8328	12.4738	51.9646	1.2D+L+0.3EX-EY	0.662
N+2.95	C15	30	COL30x30	Top	192.0575	-8.423	-37.3933	1.2D+L+0.3EX-EY	0.484
N+2.95	C15	30	COL30x30	Bottom	198.7935	12.9805	51.4591	1.2D+L+0.3EX-EY	0.661
N+2.95	C16	32	COL30x30	Top	110.406	-20.5962	-32.7616	1.2D+L+0.3EX-EY	0.529
N+2.95	C16	32	COL30x30	Bottom	108.2114	44.3418	29.2366	1.2D+L+EX-0.3EY	0.724

Table 1.4 - Concrete Column PMM Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	P kN	M Major kN-m	M Minor kN-m	PMM Combo	PMM Ratio or Rebar %
N+2.95	C17	121	COL25x25	Top	106.9674	-26.1648	-8.4697	1.2D+L+EX-0.3EY	0.725
N+2.95	C17	121	COL25x25	Bottom	111.6452	30.8088	9.5264	1.2D+L+EX-0.3EY	0.844
N+2.95	C18	122	COL25x25	Top	108.5168	26.0353	-8.4389	1.2D+L+EX-0.3EY	0.722
N+2.95	C18	122	COL25x25	Bottom	113.1945	-30.575	9.5437	1.2D+L+EX-0.3EY	0.839

Table 1.5 - Concrete Column Shear Envelope - ACI 318-11

Story	Label	UniqueName	Section	Location	V Major kN	V Major Combo	At Major cm2/m	V Minor kN	V Minor Combo	At Minor cm2/m
N+5.65	C1	1	COL30x30	Top	16.1931	0.9D+0.3EX-EY	2.5	25.9893	0.9D+0.3EX-EY	3.48
N+5.65	C1	1	COL30x30	Bottom	16.1931	0.9D+0.3EX-EY	2.5	25.9893	0.9D+0.3EX-EY	3.48
N+5.65	C2	3	COL30x30	Top	45.3473	0.9D+0.3EX-EY	6.06	32.6361	0.9D+0.3EX-EY	4.36
N+5.65	C2	3	COL30x30	Bottom	45.3473	0.9D+0.3EX-EY	6.06	32.6361	0.9D+0.3EX-EY	4.36
N+5.65	C3	5	COL30x30	Top	49.5331	0.9D+0.3EX-EY	6.62	32.6152	0.9D+0.3EX-EY	4.36
N+5.65	C3	5	COL30x30	Bottom	49.5331	0.9D+0.3EX-EY	6.62	32.6152	0.9D+0.3EX-EY	4.36
N+5.65	C4	7	COL30x30	Top	25.1685	0.9D+0.3EX-EY	3.37	18.3697	0.9D+0.3EX-EY	2.5
N+5.65	C4	7	COL30x30	Bottom	25.1685	0.9D+0.3EX-EY	3.37	18.3697	0.9D+0.3EX-EY	2.5
N+5.65	C5	9	COL30x30	Top	16.1931	0.9D+0.3EX-EY	2.5	34.3086	0.9D+0.3EX-EY	4.59
N+5.65	C5	9	COL30x30	Bottom	16.1931	0.9D+0.3EX-EY	2.5	34.3086	0.9D+0.3EX-EY	4.59
N+5.65	C6	11	COL30x30	Top	63.4852	0.9D+0.3EX-EY	8.49	52.3141	0.9D+0.3EX-EY	7
N+5.65	C6	11	COL30x30	Bottom	63.4852	0.9D+0.3EX-EY	8.49	52.3141	0.9D+0.3EX-EY	7
N+5.65	C7	13	COL30x30	Top	57.8217	0.9D+0.3EX-EY	7.73	42.3455	0.9D+0.3EX-EY	5.66
N+5.65	C7	13	COL30x30	Bottom	57.8217	0.9D+0.3EX-EY	7.73	42.3455	0.9D+0.3EX-EY	5.66
N+5.65	C8	15	COL30x30	Top	25.3966	0.9D+0.3EX-EY	3.4	26.7893	0.9D+0.3EX-EY	3.58
N+5.65	C8	15	COL30x30	Bottom	25.3966	0.9D+0.3EX-EY	3.4	26.7893	0.9D+0.3EX-EY	3.58
N+5.65	C9	17	COL30x30	Top	16.1931	0.9D+0.3EX-EY	2.5	25.755	0.9D+0.3EX-EY	3.44
N+5.65	C9	17	COL30x30	Bottom	16.1931	0.9D+0.3EX-EY	2.5	25.755	0.9D+0.3EX-EY	3.44
N+5.65	C10	19	COL30x30	Top	45.9133	0.9D+0.3EX-EY	6.14	25.9578	0.9D+0.3EX-EY	3.47
N+5.65	C10	19	COL30x30	Bottom	45.9133	0.9D+0.3EX-EY	6.14	25.9578	0.9D+0.3EX-EY	3.47
N+5.65	C11	21	COL30x30	Top	46.4851	0.9D+0.3EX-EY	6.22	26.1524	0.9D+0.3EX-EY	3.5
N+5.65	C11	21	COL30x30	Bottom	46.4851	0.9D+0.3EX-EY	6.22	26.1524	0.9D+0.3EX-EY	3.5
N+5.65	C12	23	COL30x30	Top	15.8066	0.9D+0.3EX-EY	2.5	25.9063	0.9D+0.3EX-EY	3.46
N+5.65	C12	23	COL30x30	Bottom	15.8066	0.9D+0.3EX-EY	2.5	25.9063	0.9D+0.3EX-EY	3.46
N+5.65	C13	25	COL30x30	Top	16.1931	0.9D+0.3EX-EY	2.5	16.1931	0.9D+0.3EX-EY	2.5
N+5.65	C13	25	COL30x30	Bottom	16.1931	0.9D+0.3EX-EY	2.5	16.1931	0.9D+0.3EX-EY	2.5
N+5.65	C14	27	COL30x30	Top	32.5985	0.9D+0.3EX-EY	4.36	16.1099	1.2D+L+0.3EX-EY	2.69
N+5.65	C14	27	COL30x30	Bottom	32.5985	0.9D+0.3EX-EY	4.36	16.1099	1.2D+L+0.3EX-EY	2.69
N+5.65	C15	29	COL30x30	Top	32.7135	0.9D+0.3EX-EY	4.38	15.8854	1.2D+L+0.3EX-EY	2.66
N+5.65	C15	29	COL30x30	Bottom	32.7135	0.9D+0.3EX-EY	4.38	15.8854	1.2D+L+0.3EX-EY	2.66
N+5.65	C16	31	COL30x30	Top	15.7845	0.9D+0.3EX-EY	2.5	16.1931	0.9D+0.3EX-EY	2.5
N+5.65	C16	31	COL30x30	Bottom	15.7845	0.9D+0.3EX-EY	2.5	16.1931	0.9D+0.3EX-EY	2.5
N+2.95	C1	2	COL30x30	Top	39.9054	0.9D+EX-0.3EY	6.67	33.066	0.9D+0.3EX-EY	5.53
N+2.95	C1	2	COL30x30	Bottom	39.9054	0.9D+EX-0.3EY	6.67	33.066	0.9D+0.3EX-EY	5.53
N+2.95	C2	4	COL30x30	Top	35.2494	0.9D+0.3EX-EY	2.5	33.5078	0.9D+0.3EX-EY	2.5

Table 1.5 - Concrete Column Shear Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	V Major kN	V Major Combo	At Major cm2/m	V Minor kN	V Minor Combo	At Minor cm2/m
N+2.95	C2	4	COL30x30	Bottom	35.2494	0.9D+0.3EX-EY	2.5	33.5078	0.9D+0.3EX-EY	2.5
N+2.95	C3	6	COL30x30	Top	35.3554	0.9D+0.3EX-EY	2.5	33.1115	0.9D+0.3EX-EY	2.5
N+2.95	C3	6	COL30x30	Bottom	35.3554	0.9D+0.3EX-EY	2.5	33.1115	0.9D+0.3EX-EY	2.5
N+2.95	C4	8	COL30x30	Top	40.1514	0.9D+EX-0.3EY	6.71	32.4989	0.9D+0.3EX-EY	5.43
N+2.95	C4	8	COL30x30	Bottom	40.1514	0.9D+EX-0.3EY	6.71	32.4989	0.9D+0.3EX-EY	5.43
N+2.95	C5	10	COL30x30	Top	38.6203	0.9D+EX-0.3EY	6.46	36.0095	0.9D+0.3EX-EY	6.02
N+2.95	C5	10	COL30x30	Bottom	20.4554	0.9D+0.3EX-EY	2.5	36.0095	0.9D+0.3EX-EY	2.5
N+2.95	C6	12	COL30x30	Top	40.7771	0.9D+0.3EX-EY	2.5	39.195	0.9D+0.3EX-EY	2.5
N+2.95	C6	12	COL30x30	Bottom	40.7771	0.9D+0.3EX-EY	2.5	39.195	0.9D+0.3EX-EY	2.5
N+2.95	C7	14	COL30x30	Top	39.7103	0.9D+0.3EX-EY	2.5	38.4632	0.9D+0.3EX-EY	2.5
N+2.95	C7	14	COL30x30	Bottom	39.7103	0.9D+0.3EX-EY	2.5	38.4632	0.9D+0.3EX-EY	2.5
N+2.95	C8	16	COL30x30	Top	38.3519	0.9D+EX-0.3EY	6.41	32.8852	0.9D+EX-0.3EY	4.4
N+2.95	C8	16	COL30x30	Bottom	19.901	0.9D+0.3EX-EY	2.5	34.8542	0.9D+0.3EX-EY	2.5
N+2.95	C9	18	COL30x30	Top	32.3469	0.9D+EX-0.3EY	5.41	33.771	0.9D+0.3EX-EY	5.65
N+2.95	C9	18	COL30x30	Bottom	32.3469	0.9D+EX-0.3EY	5.41	33.771	0.9D+0.3EX-EY	5.65
N+2.95	C10	20	COL30x30	Top	38.2148	0.9D+0.3EX-EY	2.5	33.0052	0.9D+0.3EX-EY	2.5
N+2.95	C10	20	COL30x30	Bottom	38.2148	0.9D+0.3EX-EY	2.5	33.0052	0.9D+0.3EX-EY	2.5
N+2.95	C11	22	COL30x30	Top	35.9862	0.9D+0.3EX-EY	2.5	32.8076	0.9D+0.3EX-EY	2.5
N+2.95	C11	22	COL30x30	Bottom	35.9862	0.9D+0.3EX-EY	2.5	32.8076	0.9D+0.3EX-EY	2.5
N+2.95	C12	24	COL30x30	Top	32.9668	1.2D+L+EX-0.3EY	5.51	33.5481	1.2D+L+0.3EX-EY	5.61
N+2.95	C12	24	COL30x30	Bottom	32.9668	1.2D+L+EX-0.3EY	5.51	33.5481	1.2D+L+0.3EX-EY	5.61
N+2.95	C13	26	COL30x30	Top	28.9307	1.2D+L+EX-0.3EY	4.84	31.6967	1.2D+L+0.3EX-EY	5.3
N+2.95	C13	26	COL30x30	Bottom	28.9307	1.2D+L+EX-0.3EY	4.84	31.6967	1.2D+L+0.3EX-EY	5.3
N+2.95	C14	28	COL30x30	Top	34.8301	0.9D+0.3EX-EY	4.66	32.1787	0.9D+0.3EX-EY	5.38
N+2.95	C14	28	COL30x30	Bottom	34.8301	0.9D+0.3EX-EY	4.66	32.1787	0.9D+0.3EX-EY	5.38
N+2.95	C15	30	COL30x30	Top	34.6459	0.9D+0.3EX-EY	4.63	31.8428	0.9D+0.3EX-EY	5.32
N+2.95	C15	30	COL30x30	Bottom	34.6459	0.9D+0.3EX-EY	4.63	31.8428	0.9D+0.3EX-EY	5.32
N+2.95	C16	32	COL30x30	Top	28.8615	1.2D+L+EX-0.3EY	4.83	31.3281	1.2D+L+0.3EX-EY	5.24
N+2.95	C16	32	COL30x30	Bottom	28.8615	1.2D+L+EX-0.3EY	4.83	31.3281	1.2D+L+0.3EX-EY	5.24
N+2.95	C17	121	COL25x25	Top	20.4552	0.9D+EX-0.3EY	4.28	36.4138	0.9D+0.3EX-EY	6.1
N+2.95	C17	121	COL25x25	Bottom	20.4552	0.9D+EX-0.3EY	4.28	36.4138	0.9D+0.3EX-EY	6.1
N+2.95	C18	122	COL25x25	Top	20.3599	0.9D+EX-0.3EY	4.26	36.9889	0.9D+0.3EX-EY	6.19
N+2.95	C18	122	COL25x25	Bottom	20.3599	0.9D+EX-0.3EY	4.26	36.9889	0.9D+0.3EX-EY	6.19

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+5.65	B1	53	VG30x25	End-I	-0.0156	0.9D+EX-0.3EY	0.00266	0.0739	1.2D+L+EX-0.3EY	0.01
N+5.65	B1	53	VG30x25	Middle	-1.3142	1.2D+L+EX-0.3EY	0.22	0	1.2D+L+EX-0.3EY	0.15
N+5.65	B1	53	VG30x25	End-J	-3.4061	1.2D+L+EX-0.3EY	0.58	0	1.2D+L+EX-0.3EY	0.29
N+5.65	B2	80	VG30x25	End-I	-23.299	1.2D+L+0.3EX-EY	3.13	0	1.2D+L+0.3EX-EY	2.04
N+5.65	B2	80	VG30x25	Middle	0	1.2D+L+0.3EX-EY	1.01	18.3733	1.2D+1.6L	2.44
N+5.65	B2	80	VG30x25	End-J	-22.9494	1.2D+L+0.3EX-EY	3.09	0	1.2D+L+0.3EX-EY	2
N+5.65	B3	81	VG30x25	End-I	-16.2207	1.2D+L+0.3EX-EY	2.15	1.3193	1.2D+L+0.3EX-EY	1.41
N+5.65	B3	81	VG30x25	Middle	-0.0459	1.2D+L+0.3EX-EY	0.7	6.0307	1.2D+1.6L	1.04

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+5.65	B3	81	VG30x25	End-J	-13.0541	1.2D+L+0.3EX-EY	2.1	3.5786	1.2D+L+0.3EX-EY	1.13
N+5.65	B4	82	VG30x25	End-I	-13.6595	1.2D+L+0.3EX-EY	2.1	7.0392	0.9D+0.3EX-EY	1.22
N+5.65	B4	82	VG30x25	Middle	-1.2175	1.2D+L+0.3EX-EY	0.59	6.2851	1.2D+L+0.3EX-EY	1.09
N+5.65	B4	82	VG30x25	End-J	-13.5205	1.2D+L+0.3EX-EY	2.1	8.6344	0.9D+0.3EX-EY	1.5
N+5.65	B5	86	VG30x25	End-I	0	1.2D+L	0	1.8341	1.2D+L+0.3EX-EY	0.31
N+5.65	B5	86	VG30x25	Middle	-2.3928	1.2D+L+0.3EX-EY	0.41	0	1.2D+1.6L	0.3
N+5.65	B5	86	VG30x25	End-J	-7.0794	1.2D+1.6L	1.23	0	1.2D+1.6L	0.61
N+5.65	B6	87	VG30x25	End-I	-27.4545	1.2D+L+0.3EX-EY	3.73	0	1.2D+L+0.3EX-EY	2.1
N+5.65	B6	87	VG30x25	Middle	0	1.2D+L+0.3EX-EY	1.19	24.6862	1.2D+1.6L	3.33
N+5.65	B6	87	VG30x25	End-J	-24.7905	1.2D+L+0.3EX-EY	3.35	0	1.2D+L+0.3EX-EY	2.1
N+5.65	B7	88	VG30x25	End-I	-21.3116	1.2D+L+0.3EX-EY	2.85	0	1.2D+L+0.3EX-EY	1.86
N+5.65	B7	88	VG30x25	Middle	-0.7096	1.2D+L+0.3EX-EY	0.92	7.4705	1.2D+1.6L	1.29
N+5.65	B7	88	VG30x25	End-J	-12.102	1.2D+L+0.3EX-EY	2.1	3.5024	1.2D+L+0.3EX-EY	1.04
N+5.65	B8	89	VG30x25	End-I	-14.3801	1.2D+L+0.3EX-EY	2.1	3.195	1.2D+L+0.3EX-EY	1.24
N+5.65	B8	89	VG30x25	Middle	-0.1485	1.2D+L+0.3EX-EY	0.62	7.0444	1.2D+L+0.3EX-EY	1.22
N+5.65	B8	89	VG30x25	End-J	-13.947	1.2D+L+0.3EX-EY	2.1	7.6628	0.9D+0.3EX-EY	1.33
N+5.65	B9	90	VG30x25	End-I	0	1.2D+L	0	1.6595	1.2D+L+0.3EX-EY	0.28
N+5.65	B9	90	VG30x25	Middle	-2.6877	1.2D+L+0.3EX-EY	0.46	0	1.2D+1.6L	0.33
N+5.65	B9	90	VG30x25	End-J	-7.6304	1.2D+1.6L	1.32	0	1.2D+1.6L	0.66
N+5.65	B10	91	VG30x25	End-I	-27.0574	1.2D+L+0.3EX-EY	3.67	0	1.2D+L+0.3EX-EY	2.1
N+5.65	B10	91	VG30x25	Middle	0	1.2D+L+0.3EX-EY	1.22	28.0307	1.2D+1.6L	3.81
N+5.65	B10	91	VG30x25	End-J	-28.0911	1.2D+L+0.3EX-EY	3.82	0	1.2D+L+0.3EX-EY	2.1
N+5.65	B11	92	VG30x25	End-I	-20.5759	1.2D+L+0.3EX-EY	2.75	0	1.2D+L+0.3EX-EY	1.79
N+5.65	B11	92	VG30x25	Middle	-0.6829	1.2D+L+0.3EX-EY	0.89	7.5865	1.2D+1.6L	1.31
N+5.65	B11	92	VG30x25	End-J	-12.4896	1.2D+L+0.3EX-EY	2.1	3.2779	1.2D+L+0.3EX-EY	1.08
N+5.65	B12	93	VG30x25	End-I	-14.6697	1.2D+L+0.3EX-EY	2.1	2.9239	1.2D+L+0.3EX-EY	1.27
N+5.65	B12	93	VG30x25	Middle	-0.1267	1.2D+L+0.3EX-EY	0.63	7.1142	1.2D+L+0.3EX-EY	1.23
N+5.65	B12	93	VG30x25	End-J	-13.7668	1.2D+L+0.3EX-EY	2.1	7.8127	0.9D+0.3EX-EY	1.35
N+5.65	B13	94	VG30x25	End-I	0	1.2D+L	0	0.1103	1.2D+L+EX-0.3EY	0.02
N+5.65	B13	94	VG30x25	Middle	-1.1829	1.2D+L+EX-0.3EY	0.2	0	1.2D+L+EX-0.3EY	0.14
N+5.65	B13	94	VG30x25	End-J	-3.1804	1.2D+L+EX-0.3EY	0.55	0	1.2D+L+EX-0.3EY	0.27
N+5.65	B14	95	VG30x25	End-I	-15.0201	1.2D+L+0.3EX-EY	2.1	0	1.2D+L+0.3EX-EY	1.3
N+5.65	B14	95	VG30x25	Middle	0	1.2D+L+0.3EX-EY	0.65	8.5488	1.2D+1.6L	1.48
N+5.65	B14	95	VG30x25	End-J	-14.3942	1.2D+L+0.3EX-EY	2.1	0	1.2D+L+0.3EX-EY	1.25
N+5.65	B15	96	VG30x25	End-I	-15.6187	1.2D+L+0.3EX-EY	2.1	1.2473	1.2D+L+0.3EX-EY	1.35
N+5.65	B15	96	VG30x25	Middle	0	1.2D+L+0.3EX-EY	0.67	6.1177	1.2D+1.6L	1.06
N+5.65	B15	96	VG30x25	End-J	-12.7354	1.2D+L+0.3EX-EY	2.1	3.4239	1.2D+L+0.3EX-EY	1.1
N+5.65	B16	97	VG30x25	End-I	-14.3035	1.2D+L+0.3EX-EY	2.1	3.9569	1.2D+L+0.3EX-EY	1.24
N+5.65	B16	97	VG30x25	Middle	-1.2331	1.2D+L+0.3EX-EY	0.61	6.3983	1.2D+L+0.3EX-EY	1.11
N+5.65	B16	97	VG30x25	End-J	-13.0855	1.2D+L+0.3EX-EY	2.1	8.8934	0.9D+0.3EX-EY	1.54
N+5.65	B17	98	VG30x25	End-I	-12.3003	0.9D+EX-0.3EY	2.1	3.9994	1.2D+L+EX-0.3EY	1.17
N+5.65	B17	98	VG30x25	Middle	-6.2532	1.2D+L+EX-0.3EY	1.08	1.135	1.2D+L+EX-0.3EY	0.8
N+5.65	B17	98	VG30x25	End-J	-18.5171	1.2D+L+EX-0.3EY	2.46	0	1.2D+L+EX-0.3EY	1.61
N+5.65	B18	99	VG30x25	End-I	-32.5091	1.2D+L+EX-0.3EY	4.47	0	1.2D+L+EX-0.3EY	2.15
N+5.65	B18	99	VG30x25	Middle	0	1.2D+L+EX-0.3EY	1.43	30.903	1.2D+1.6L	4.24

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+5.65	B18	99	VG30x25	End-J	-33.0454	1.2D+L+EX-0.3EY	4.55	0	1.2D+L+EX-0.3EY	2.19
N+5.65	B19	100	VG30x25	End-I	-27.5877	1.2D+L+EX-0.3EY	3.75	0	1.2D+L+EX-0.3EY	2.1
N+5.65	B19	100	VG30x25	Middle	0	1.2D+L+EX-0.3EY	1.19	20.7751	1.2D+1.6L	2.78
N+5.65	B19	100	VG30x25	End-J	-24.8096	1.2D+L+EX-0.3EY	3.35	0	1.2D+L+EX-0.3EY	2.1
N+5.65	B20	101	VG30x25	End-I	-12.2232	0.9D+EX-0.3EY	2.1	4.2158	1.2D+L+EX-0.3EY	1.14
N+5.65	B20	101	VG30x25	Middle	-8.4091	1.2D+L+EX-0.3EY	1.46	0	1.2D+L+EX-0.3EY	0.93
N+5.65	B20	101	VG30x25	End-J	-21.5635	1.2D+L+EX-0.3EY	2.89	0	1.2D+L+EX-0.3EY	1.88
N+5.65	B22	102	VG30x25	End-I	-29.5665	1.2D+L+EX-0.3EY	4.04	0	1.2D+L+EX-0.3EY	2.1
N+5.65	B22	102	VG30x25	Middle	0	1.2D+L+EX-0.3EY	1.28	20.502	1.2D+1.6L	2.74
N+5.65	B22	102	VG30x25	End-J	-25.0381	1.2D+L+EX-0.3EY	3.38	0	1.2D+L+EX-0.3EY	2.1
N+5.65	B23	103	VG30x25	End-I	-13.0556	1.2D+L+EX-0.3EY	2.1	2.9216	1.2D+L+EX-0.3EY	1.13
N+5.65	B23	103	VG30x25	Middle	-5.4468	1.2D+L+EX-0.3EY	0.94	1.3503	1.2D+L+EX-0.3EY	0.73
N+5.65	B23	103	VG30x25	End-J	-17.0046	1.2D+L+EX-0.3EY	2.26	0	1.2D+L+EX-0.3EY	1.48
N+5.65	B24	104	VG30x25	End-I	-34.11	1.2D+L+EX-0.3EY	4.71	0	1.2D+L+EX-0.3EY	2.26
N+5.65	B24	104	VG30x25	Middle	0	1.2D+L+EX-0.3EY	1.5	33.7631	1.2D+1.6L	4.66
N+5.65	B24	104	VG30x25	End-J	-34.5772	1.2D+L+EX-0.3EY	4.78	0	1.2D+L+EX-0.3EY	2.29
N+5.65	B25	105	VG30x25	End-I	-17.1724	1.2D+L+EX-0.3EY	2.28	0	1.2D+L+EX-0.3EY	1.49
N+5.65	B25	105	VG30x25	Middle	-5.3229	1.2D+L+EX-0.3EY	0.92	4.2299	1.2D+L+EX-0.3EY	0.74
N+5.65	B25	105	VG30x25	End-J	-11.7168	1.2D+L+EX-0.3EY	2.05	3.8256	1.2D+L+EX-0.3EY	1.01
N+5.65	B26	106	VG30x25	End-I	-12.1266	1.2D+L+EX-0.3EY	2.1	2.3287	1.2D+L+EX-0.3EY	1.05
N+5.65	B26	106	VG30x25	Middle	-3.4388	1.2D+L+EX-0.3EY	0.6	4.0479	0.9D+EX-0.3EY	0.7
N+5.65	B26	106	VG30x25	End-J	-14.0191	1.2D+L+EX-0.3EY	2.1	0	1.2D+L+EX-0.3EY	1.21
N+5.65	B27	107	VG30x25	End-I	-22.7175	1.2D+L+EX-0.3EY	3.05	0	1.2D+L+EX-0.3EY	1.98
N+5.65	B27	107	VG30x25	Middle	0	1.2D+L+EX-0.3EY	0.98	18.2602	1.2D+1.6L	2.43
N+5.65	B27	107	VG30x25	End-J	-22.711	1.2D+L+EX-0.3EY	3.05	0	1.2D+L+EX-0.3EY	1.98
N+5.65	B28	108	VG30x25	End-I	-14.1998	1.2D+L+EX-0.3EY	2.1	0	1.2D+L+EX-0.3EY	1.23
N+5.65	B28	108	VG30x25	Middle	-2.5044	1.2D+L+EX-0.3EY	0.61	4.2429	1.2D+L+EX-0.3EY	0.73
N+5.65	B28	108	VG30x25	End-J	-11.7001	1.2D+L+EX-0.3EY	2.04	2.7166	1.2D+L+EX-0.3EY	1.01
N+5.65	B29	109	VT15x25	End-I	-4.9765	1.2D+L+EX-0.3EY	0.83	1.0654	1.2D+L+EX-0.3EY	0.41
N+5.65	B29	109	VT15x25	Middle	-3.0987	1.2D+L+EX-0.3EY	0.51	0	1.2D+L+EX-0.3EY	0.36
N+5.65	B29	109	VT15x25	End-J	-8.7879	1.2D+L+EX-0.3EY	1.11	0	1.2D+L+EX-0.3EY	0.73
N+5.65	B30	110	VT15x25	End-I	-6.6708	1.2D+L	1.1	0	1.2D+L+EX-0.3EY	0.69
N+5.65	B30	110	VT15x25	Middle	0	1.2D+L+EX-0.3EY	0.37	9.8577	1.2D+1.6L	1.25
N+5.65	B30	110	VT15x25	End-J	-9.0563	1.2D+L+EX-0.3EY	1.15	0	1.2D+L+EX-0.3EY	0.75
N+5.65	B31	111	VT15x25	End-I	-9.0742	1.2D+L+EX-0.3EY	1.15	0	1.2D+L+EX-0.3EY	0.75
N+5.65	B31	111	VT15x25	Middle	-2.9805	1.2D+L+EX-0.3EY	0.49	2.7578	1.2D+L+EX-0.3EY	0.45
N+5.65	B31	111	VT15x25	End-J	-3.9065	0.9D+EX-0.3EY	0.65	2.8758	1.2D+L+EX-0.3EY	0.47
N+5.65	B32	112	VG30x25	End-I	-37.1448	1.2D+L+EX-0.3EY	5.17	0	1.2D+L+EX-0.3EY	2.47
N+5.65	B32	112	VG30x25	Middle	-24.3251	1.2D+L+EX-0.3EY	3.28	0	1.2D+L+EX-0.3EY	1.61
N+5.65	B32	112	VG30x25	End-J	-1.4146	0.9D+EX-0.3EY	0.24	5.0114	1.2D+L+EX-0.3EY	0.86
N+5.65	B33	113	VG30x25	End-I	-1.8228	0.9D+EX-0.3EY	0.31	4.1373	1.2D+L+EX-0.3EY	0.71
N+5.65	B33	113	VG30x25	Middle	-27.3043	1.2D+L+EX-0.3EY	3.71	0	1.2D+1.6L	1.81
N+5.65	B33	113	VG30x25	End-J	-41.5175	1.2D+1.6L	5.85	0	1.2D+1.6L	2.78
N+5.65	B34	114	VG25x25	End-I	-2.0082	1.2D+L+0.3EX-EY	0.34	0	1.2D+L+0.3EX-EY	0.17
N+5.65	B34	114	VG25x25	Middle	-1.4583	1.2D+L+0.3EX-EY	0.25	0	1.2D+L+0.3EX-EY	0.09

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+5.65	B34	114	VG25x25	End-J	-1.9261	1.2D+L+EX-0.3EY	0.33	0	1.2D+L+EX-0.3EY	0.16
N+5.65	B35	115	VG25x25	End-I	-10.3214	1.2D+L+0.3EX-EY	1.75	6.3793	1.2D+L+0.3EX-EY	1.11
N+5.65	B35	115	VG25x25	Middle	0	1.2D+L+0.3EX-EY	0.44	17.9499	1.2D+1.6L	2.41
N+5.65	B35	115	VG25x25	End-J	0	1.2D+L+0.3EX-EY	0.44	8.5475	1.2D+1.6L	1.49
N+5.65	B36	116	VG25x25	End-I	-1.6702	1.2D+L+0.3EX-EY	0.29	0	1.2D+L+0.3EX-EY	0.14
N+5.65	B36	116	VG25x25	Middle	-1.0153	1.2D+L+0.3EX-EY	0.17	0	1.2D+L+0.3EX-EY	0.07
N+5.65	B36	116	VG25x25	End-J	-1.4143	1.2D+L+EX-0.3EY	0.24	0.1505	1.2D+L+EX-0.3EY	0.12
N+5.65	B37	117	VG25x25	End-I	-7.6397	1.2D+L+0.3EX-EY	1.33	6.1514	1.2D+L+0.3EX-EY	1.07
N+5.65	B37	117	VG25x25	Middle	0	1.2D+L+0.3EX-EY	0.33	10.8473	1.2D+1.6L	1.75
N+5.65	B37	117	VG25x25	End-J	0	1.2D+L+0.3EX-EY	0.33	10.1765	1.2D+1.6L	1.75
N+5.65	B38	118	VG25x25	End-I	0	1.2D+L	0	4.114	1.2D+1.6L	0.71
N+5.65	B38	118	VG25x25	Middle	-1.8181	1.2D+L+0.3EX-EY	0.31	2.2882	1.2D+L+0.3EX-EY	0.39
N+5.65	B38	118	VG25x25	End-J	-6.3983	1.2D+1.6L	1.11	0	1.2D+1.6L	0.55
N+5.65	B39	119	VG25x25	End-I	0	1.2D+L	0	4.2239	1.2D+1.6L	0.73
N+5.65	B39	119	VG25x25	Middle	-1.6187	1.2D+L+0.3EX-EY	0.28	2.4302	1.2D+L+0.3EX-EY	0.42
N+5.65	B39	119	VG25x25	End-J	-6.107	1.2D+1.6L	1.06	0	1.2D+1.6L	0.52
N+5.65	B40	120	VT15x25	End-I	0	1.2D+L	0	10.4747	1.2D+1.6L	1.33
N+5.65	B40	120	VT15x25	Middle	0	1.2D+1.6L	0.43	10.6403	1.2D+1.6L	1.35
N+5.65	B40	120	VT15x25	End-J	0	1.2D+L	0	10.1698	1.2D+1.6L	1.29
N+5.65	B45	125	VT15x25	End-I	0	1.2D+L	0	8.9888	1.2D+1.6L	1.14
N+5.65	B45	125	VT15x25	Middle	0	1.2D+1.6L	0.43	10.2954	1.2D+1.6L	1.31
N+5.65	B45	125	VT15x25	End-J	0	1.2D+L	0	10.4129	1.2D+1.6L	1.32
N+5.65	B46	126	VT15x25	End-I	0	0.9D+EX-0.3EY	0	11.1798	1.2D+1.6L	1.43
N+5.65	B46	126	VT15x25	Middle	0	1.2D+1.6L	0.46	6.6101	1.2D+L+0.3EX-EY	1.1
N+5.65	B46	126	VT15x25	End-J	-7.2017	1.2D+L+EX-0.3EY	1.1	0	1.2D+L+EX-0.3EY	0.59
N+5.65	B47	127	VT15x25	End-I	0	1.2D+1.6L	0.24	5.9446	1.2D+1.6L	0.99
N+5.65	B47	127	VT15x25	Middle	0	1.2D+1.6L	0.24	5.0148	1.2D+1.6L	0.83
N+5.65	B47	127	VT15x25	End-J	-5.6186	1.2D+L+EX-0.3EY	0.93	0	1.2D+L+EX-0.3EY	0.46
N+5.65	B48	130	VT15x25	End-I	0	1.2D+L	0	6.6314	1.2D+L	1.1
N+5.65	B48	130	VT15x25	Middle	0	1.2D+1.6L	0.32	6.7162	1.2D+L	1.1
N+5.65	B48	130	VT15x25	End-J	0	1.2D+L	0	6.7146	1.2D+L+0.3EX-EY	1.1
N+5.65	B49	129	VT15x25	End-I	-5.1034	1.2D+L+EX-0.3EY	0.85	0	1.2D+L+EX-0.3EY	0.42
N+5.65	B49	129	VT15x25	Middle	0	1.2D+1.6L	0.23	5.1859	1.2D+1.6L	0.86
N+5.65	B49	129	VT15x25	End-J	0	1.2D+1.6L	0.23	5.9465	1.2D+1.6L	0.99
N+5.65	B50	128	VT15x25	End-I	-5.864	1.2D+L+EX-0.3EY	0.98	0	1.2D+L+EX-0.3EY	0.48
N+5.65	B50	128	VT15x25	Middle	0	1.2D+1.6L	0.43	6.6667	1.2D+L+0.3EX-EY	1.1
N+5.65	B50	128	VT15x25	End-J	0	1.2D+L+EX-0.3EY	0	10.5571	1.2D+1.6L	1.34
N+5.65	B21	132	VT15x25	End-I	0	1.2D+1.6L	0.47	11.4773	1.2D+1.6L	1.47
N+5.65	B21	132	VT15x25	Middle	-0.1491	1.2D+1.6L	0.47	5.076	1.2D+L+EX-0.3EY	0.84
N+5.65	B21	132	VT15x25	End-J	-9.644	1.2D+L+EX-0.3EY	1.22	0	1.2D+L+EX-0.3EY	0.8
N+5.65	B53	136	VT15x25	End-I	-16.4499	1.2D+1.6L	2.15	9.2342	1.2D+1.6L	1.17
N+5.65	B53	136	VT15x25	Middle	0	1.2D+1.6L	0.7	20.8035	1.2D+1.6L	2.77
N+5.65	B53	136	VT15x25	End-J	-17.0292	1.2D+1.6L	2.23	9.181	1.2D+1.6L	1.16
N+5.65	B58	142	VG25x25	End-I	-3.5787	1.2D+1.6L	0.62	0	1.2D+1.6L	0.31
N+5.65	B58	142	VG25x25	Middle	0	1.2D+L+0.3EX-EY	0.19	4.6647	1.2D+1.6L	0.8

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+5.65	B58	142	VG25x25	End-J	-4.3997	1.2D+L+0.3EX-EY	0.76	0	1.2D+L+0.3EX-EY	0.38
N+5.65	B59	143	VG25x25	End-I	-3.5838	1.2D+1.6L	0.62	0	1.2D+1.6L	0.31
N+5.65	B59	143	VG25x25	Middle	0	1.2D+L+0.3EX-EY	0.19	4.6554	1.2D+1.6L	0.8
N+5.65	B59	143	VG25x25	End-J	-4.4583	1.2D+L+0.3EX-EY	0.77	0	1.2D+L+0.3EX-EY	0.38
N+5.65	B54	123	VT15x25	End-I	-17.0425	1.2D+1.6L	2.23	0	1.2D+L	1.1
N+5.65	B54	123	VT15x25	Middle	-5.3079	1.2D+L+EX-0.3EY	0.88	9.2865	1.2D+1.6L	1.18
N+5.65	B54	123	VT15x25	End-J	0	1.2D+1.6L	0.7	14.194	1.2D+1.6L	1.83
N+2.95	B1	33	VG30x30	End-I	0	1.2D+L	0	6.7219	1.2D+L+0.3EX-EY	0.93
N+2.95	B1	33	VG30x30	Middle	-1.6952	0.9D+0.3EX-EY	0.23	3.3605	1.2D+L+0.3EX-EY	0.46
N+2.95	B1	33	VG30x30	End-J	-4.4463	1.2D+L+0.3EX-EY	0.62	0	1.2D+L+0.3EX-EY	0.31
N+2.95	B2	34	VG30x30	End-I	-42.3518	1.2D+L+0.3EX-EY	4.65	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B2	34	VG30x30	Middle	0	1.2D+L+0.3EX-EY	1.61	29.7266	1.2D+1.6L	3.2
N+2.95	B2	34	VG30x30	End-J	-46.1131	1.2D+L+0.3EX-EY	5.09	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B3	35	VG30x30	End-I	-35.4821	1.2D+L+0.3EX-EY	3.85	0.3186	1.2D+L+0.3EX-EY	2.5
N+2.95	B3	35	VG30x30	Middle	-9.2357	0.9D+0.3EX-EY	1.29	14.3185	1.2D+L+0.3EX-EY	2.01
N+2.95	B3	35	VG30x30	End-J	-20.1204	0.9D+0.3EX-EY	2.6	12.94	0.9D+0.3EX-EY	1.81
N+2.95	B4	36	VG30x30	End-I	-27.8325	1.2D+L+0.3EX-EY	2.99	15.708	0.9D+0.3EX-EY	2.21
N+2.95	B4	36	VG30x30	Middle	-10.5845	0.9D+0.3EX-EY	1.48	19.8494	1.2D+L+0.3EX-EY	2.6
N+2.95	B4	36	VG30x30	End-J	-28.5595	1.2D+L+0.3EX-EY	3.07	23.3666	0.9D+0.3EX-EY	2.6
N+2.95	B5	37	VG30x30	End-I	-2.1304	0.9D+0.3EX-EY	0.29	4.3149	1.2D+L+0.3EX-EY	0.6
N+2.95	B5	37	VG30x30	Middle	-6.1262	1.2D+L+0.3EX-EY	0.85	0	1.2D+L+0.3EX-EY	0.38
N+2.95	B5	37	VG30x30	End-J	-11.0567	1.2D+L+0.3EX-EY	1.55	0	1.2D+L+0.3EX-EY	0.77
N+2.95	B6	38	VG30x30	End-I	-42.3673	1.2D+L+0.3EX-EY	4.65	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B6	38	VG30x30	Middle	0	1.2D+L+0.3EX-EY	1.57	29.7434	1.2D+1.6L	3.2
N+2.95	B6	38	VG30x30	End-J	-44.9864	1.2D+L+0.3EX-EY	4.96	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B7	39	VG30x30	End-I	-34.6647	1.2D+L+0.3EX-EY	3.76	0	1.2D+L+0.3EX-EY	2.44
N+2.95	B7	39	VG30x30	Middle	-9.0955	1.2D+L+0.3EX-EY	1.27	13.7942	1.2D+1.6L	1.94
N+2.95	B7	39	VG30x30	End-J	-25.6163	1.2D+L+0.3EX-EY	2.74	0	1.2D+L+0.3EX-EY	1.79
N+2.95	B8	40	VG30x30	End-I	-28.1248	1.2D+L+0.3EX-EY	3.02	2.6679	1.2D+L+0.3EX-EY	1.97
N+2.95	B8	40	VG30x30	Middle	-3.4398	1.2D+L+0.3EX-EY	0.98	19.9984	1.2D+L+0.3EX-EY	2.6
N+2.95	B8	40	VG30x30	End-J	-22.4701	0.9D+0.3EX-EY	2.6	17.9351	1.2D+L+0.3EX-EY	2.53
N+2.95	B9	41	VG30x30	End-I	-2.2054	0.9D+0.3EX-EY	0.3	4.2597	1.2D+L+0.3EX-EY	0.59
N+2.95	B9	41	VG30x30	Middle	-6.1976	1.2D+L+0.3EX-EY	0.86	0	1.2D+L+0.3EX-EY	0.38
N+2.95	B9	41	VG30x30	End-J	-11.076	1.2D+L+0.3EX-EY	1.55	0	1.2D+L+0.3EX-EY	0.77
N+2.95	B10	42	VG30x30	End-I	-41.9999	1.2D+L+0.3EX-EY	4.61	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B10	42	VG30x30	Middle	0	1.2D+L+0.3EX-EY	1.52	28.89	1.2D+1.6L	3.11
N+2.95	B10	42	VG30x30	End-J	-43.4747	1.2D+L+0.3EX-EY	4.78	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B11	43	VG30x30	End-I	-35.5509	1.2D+L+0.3EX-EY	3.86	0	1.2D+L+0.3EX-EY	2.51
N+2.95	B11	43	VG30x30	Middle	-9.2594	1.2D+L+0.3EX-EY	1.29	12.8232	1.2D+1.6L	1.8
N+2.95	B11	43	VG30x30	End-J	-26.1002	1.2D+L+0.3EX-EY	2.8	0	1.2D+L+0.3EX-EY	1.83
N+2.95	B12	44	VG30x30	End-I	-27.5106	1.2D+L+0.3EX-EY	2.95	3.1173	1.2D+L+0.3EX-EY	1.93
N+2.95	B12	44	VG30x30	Middle	-3.3665	1.2D+L+0.3EX-EY	0.96	20.0498	1.2D+L+0.3EX-EY	2.6
N+2.95	B12	44	VG30x30	End-J	-22.4233	0.9D+0.3EX-EY	2.6	17.834	1.2D+L+0.3EX-EY	2.52
N+2.95	B13	45	VG30x30	End-I	0	1.2D+L	0	7.0958	1.2D+L+0.3EX-EY	0.99
N+2.95	B13	45	VG30x30	Middle	-1.905	0.9D+0.3EX-EY	0.26	3.5511	1.2D+L+0.3EX-EY	0.49

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+2.95	B13	45	VG30x30	End-J	-4.8387	1.2D+L+0.3EX-EY	0.67	0	1.2D+L+0.3EX-EY	0.33
N+2.95	B14	46	VG30x30	End-I	-41.6224	1.2D+L+0.3EX-EY	4.57	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B14	46	VG30x30	Middle	0	1.2D+L+0.3EX-EY	1.58	28.6836	1.2D+1.6L	3.08
N+2.95	B14	46	VG30x30	End-J	-45.297	1.2D+L+0.3EX-EY	5	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B15	47	VG30x30	End-I	-34.0751	1.2D+L+0.3EX-EY	3.69	2.3846	1.2D+L+0.3EX-EY	2.4
N+2.95	B15	47	VG30x30	Middle	-8.6903	0.9D+0.3EX-EY	1.21	5.2093	1.2D+L+0.3EX-EY	1.19
N+2.95	B15	47	VG30x30	End-J	-21.9544	0.9D+0.3EX-EY	2.6	18.1571	0.9D+0.3EX-EY	2.56
N+2.95	B16	48	VG30x30	End-I	-27.1022	1.2D+L+0.3EX-EY	2.91	18.2305	0.9D+0.3EX-EY	2.57
N+2.95	B16	48	VG30x30	Middle	-9.824	0.9D+0.3EX-EY	1.37	19.6022	1.2D+L+0.3EX-EY	2.6
N+2.95	B16	48	VG30x30	End-J	-29.0827	1.2D+L+0.3EX-EY	3.13	23.0985	0.9D+0.3EX-EY	2.6
N+2.95	B17	49	VG30x30	End-I	-42.0525	1.2D+L+EX-0.3EY	4.62	21.6659	1.2D+L+EX-0.3EY	2.6
N+2.95	B17	49	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.7	33.8495	1.2D+1.6L	3.67
N+2.95	B17	49	VG30x30	End-J	-48.4602	1.2D+L+EX-0.3EY	5.37	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B18	50	VG30x30	End-I	-43.5067	1.2D+L+EX-0.3EY	4.79	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B18	50	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.52	15.3957	1.2D+1.6L	2.17
N+2.95	B18	50	VG30x30	End-J	-43.0401	1.2D+L+EX-0.3EY	4.73	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B19	51	VG30x30	End-I	-48.6847	1.2D+L+EX-0.3EY	5.4	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B19	51	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.7	33.6464	1.2D+1.6L	3.64
N+2.95	B19	51	VG30x30	End-J	-44.841	1.2D+L+EX-0.3EY	4.94	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B20	52	VG30x30	End-I	-46.0853	1.2D+L+EX-0.3EY	5.09	19.596	1.2D+L	2.6
N+2.95	B20	52	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.83	42.7688	1.2D+1.6L	4.7
N+2.95	B20	52	VG30x30	End-J	-52.1893	1.2D+L+EX-0.3EY	5.82	0	1.2D+L+EX-0.3EY	2.8
N+2.95	B22	54	VG30x30	End-I	-50.3319	1.2D+L+EX-0.3EY	5.6	0	1.2D+L+EX-0.3EY	2.69
N+2.95	B22	54	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.76	39.8501	1.2D+1.6L	4.36
N+2.95	B22	54	VG30x30	End-J	-45.5707	1.2D+L+EX-0.3EY	5.03	25.919	1.2D+1.6L	2.78
N+2.95	B23	55	VG30x30	End-I	-38.6527	1.2D+L+EX-0.3EY	4.22	20.6553	1.2D+L+EX-0.3EY	2.6
N+2.95	B23	55	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.85	33.5161	1.2D+1.6L	3.63
N+2.95	B23	55	VG30x30	End-J	-52.8083	1.2D+L+EX-0.3EY	5.9	0	1.2D+L+EX-0.3EY	2.83
N+2.95	B24	56	VG30x30	End-I	-52.4724	1.2D+L+EX-0.3EY	5.86	0	1.2D+L+EX-0.3EY	2.81
N+2.95	B24	56	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.84	29.9502	1.2D+1.6L	3.23
N+2.95	B24	56	VG30x30	End-J	-50.022	1.2D+L+EX-0.3EY	5.56	0	1.2D+L+EX-0.3EY	2.67
N+2.95	B25	57	VG30x30	End-I	-48.6301	1.2D+L+EX-0.3EY	5.39	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B25	57	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.7	29.4864	1.2D+1.6L	3.17
N+2.95	B25	57	VG30x30	End-J	-38.496	1.2D+L+EX-0.3EY	4.2	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B26	58	VG30x30	End-I	-35.5273	1.2D+L+EX-0.3EY	3.86	0	1.2D+L+EX-0.3EY	2.51
N+2.95	B26	58	VG30x30	Middle	-2.447	1.2D+L+EX-0.3EY	1.6	18.9323	1.2D+1.6L	2.6
N+2.95	B26	58	VG30x30	End-J	-45.7383	1.2D+L+EX-0.3EY	5.05	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B27	59	VG30x30	End-I	-47.5725	1.2D+L+EX-0.3EY	5.27	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B27	59	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.66	24.9745	1.2D+1.6L	2.67
N+2.95	B27	59	VG30x30	End-J	-47.1829	1.2D+L+EX-0.3EY	5.22	0	1.2D+L+0.3EX-EY	2.6
N+2.95	B28	60	VG30x30	End-I	-44.7352	1.2D+L+EX-0.3EY	4.93	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B28	60	VG30x30	Middle	0	1.2D+L+EX-0.3EY	1.56	20.292	1.2D+L+EX-0.3EY	2.6
N+2.95	B28	60	VG30x30	End-J	-35.1466	1.2D+L+EX-0.3EY	3.82	18.155	1.2D+L+EX-0.3EY	2.56
N+2.95	B29	61	VT15x30	End-I	-13.9983	1.2D+L+EX-0.3EY	1.44	11.1656	1.2D+L+EX-0.3EY	1.35
N+2.95	B29	61	VT15x30	Middle	-0.6073	1.2D+L+EX-0.3EY	0.68	13.9681	1.2D+1.6L	1.44

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+2.95	B29	61	VT15x30	End-J	-20.2383	1.2D+L+EX-0.3EY	2.12	0	1.2D+L+EX-0.3EY	1.35
N+2.95	B30	62	VT15x30	End-I	-18.841	1.2D+L+EX-0.3EY	1.97	0	1.2D+L+EX-0.3EY	1.28
N+2.95	B30	62	VT15x30	Middle	-2.5311	1.2D+L+EX-0.3EY	0.63	9.0706	1.2D+1.6L	1.23
N+2.95	B30	62	VT15x30	End-J	-18.6677	1.2D+L+EX-0.3EY	1.95	0	1.2D+L+EX-0.3EY	1.27
N+2.95	B31	63	VT15x30	End-I	-20.7024	1.2D+L+EX-0.3EY	2.18	0	1.2D+L+EX-0.3EY	1.35
N+2.95	B31	63	VT15x30	Middle	0	1.2D+L+EX-0.3EY	0.7	13.8729	1.2D+L+EX-0.3EY	1.43
N+2.95	B31	63	VT15x30	End-J	-13.9923	1.2D+L+EX-0.3EY	1.44	10.2702	1.2D+L+EX-0.3EY	1.35
N+2.95	B32	64	VG30x30	End-I	-42.6978	1.2D+L+EX-0.3EY	4.69	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B32	64	VG30x30	Middle	-19.5925	1.2D+L+EX-0.3EY	2.6	0	1.2D+L+EX-0.3EY	1.49
N+2.95	B32	64	VG30x30	End-J	-3.2096	1.2D+L+EX-0.3EY	0.44	2.3994	0.9D+EX-0.3EY	0.33
N+2.95	B33	65	VG30x30	End-I	-6.2149	1.2D+L+EX-0.3EY	1.44	0.048	1.2D+L+EX-0.3EY	1.44
N+2.95	B33	65	VG30x30	Middle	-18.1484	1.2D+L+EX-0.3EY	2.56	0	1.2D+L+EX-0.3EY	1.44
N+2.95	B33	65	VG30x30	End-J	-41.2978	1.2D+L+EX-0.3EY	4.53	0	1.2D+L+EX-0.3EY	2.6
N+2.95	B34	66	VG25x30	End-I	-0.4257	0.9D+0.3EX-EY	0.06	3.1691	1.2D+L+0.3EX-EY	0.44
N+2.95	B34	66	VG25x30	Middle	-0.2937	1.2D+L+0.3EX-EY	0.11	2.4785	1.2D+L+0.3EX-EY	0.34
N+2.95	B34	66	VG25x30	End-J	-1.1642	0.9D+0.3EX-EY	0.16	1.49	1.2D+L+0.3EX-EY	0.21
N+2.95	B36	68	VG25x30	End-I	-0.4321	0.9D+0.3EX-EY	0.06	3.145	1.2D+L+0.3EX-EY	0.44
N+2.95	B36	68	VG25x30	Middle	-0.3082	1.2D+L+0.3EX-EY	0.11	2.4562	1.2D+L+0.3EX-EY	0.34
N+2.95	B36	68	VG25x30	End-J	-1.1711	0.9D+0.3EX-EY	0.16	1.4695	1.2D+L+0.3EX-EY	0.2
N+2.95	B38	70	VG25x30	End-I	0	1.2D+L	0	3.1098	1.2D+L+EX-0.3EY	0.43
N+2.95	B38	70	VG25x30	Middle	0	1.2D+L+EX-0.3EY	0.11	4.9626	1.2D+L+0.3EX-EY	0.69
N+2.95	B38	70	VG25x30	End-J	0	1.2D+L	0	2.8093	1.2D+L+0.3EX-EY	0.39
N+2.95	B39	71	VG25x30	End-I	0	1.2D+L	0	3.0142	1.2D+L+EX-0.3EY	0.42
N+2.95	B39	71	VG25x30	Middle	0	1.2D+L+EX-0.3EY	0.1	4.8766	1.2D+L+0.3EX-EY	0.68
N+2.95	B39	71	VG25x30	End-J	0	1.2D+L	0	2.8251	1.2D+L+0.3EX-EY	0.39
N+2.95	B40	72	VT15x30	End-I	-11.1381	1.2D+L+EX-0.3EY	1.35	0	1.2D+L+EX-0.3EY	0.75
N+2.95	B40	72	VT15x30	Middle	-8.6723	1.2D+L+EX-0.3EY	1.18	0	1.2D+L+EX-0.3EY	0.38
N+2.95	B40	72	VT15x30	End-J	-11.3006	1.2D+L+EX-0.3EY	1.35	0	1.2D+L+EX-0.3EY	0.76
N+2.95	B45	77	VT15x30	End-I	-6.0722	1.2D+L+EX-0.3EY	0.82	0	1.2D+L+EX-0.3EY	0.41
N+2.95	B45	77	VT15x30	Middle	-4.7134	1.2D+L+0.3EX-EY	0.63	0	1.2D+L+EX-0.3EY	0.2
N+2.95	B45	77	VT15x30	End-J	-5.8044	1.2D+L+EX-0.3EY	0.78	0	1.2D+L+EX-0.3EY	0.39
N+2.95	B46	78	VT15x30	End-I	-1.1793	0.9D+0.3EX-EY	0.16	2.5146	1.2D+L+0.3EX-EY	0.34
N+2.95	B46	78	VT15x30	Middle	-0.4389	1.2D+L+EX-0.3EY	0.15	2.9188	1.2D+L+EX-0.3EY	0.39
N+2.95	B46	78	VT15x30	End-J	-2.6179	0.9D+EX-0.3EY	0.35	4.3698	1.2D+L+EX-0.3EY	0.59
N+2.95	B47	79	VT15x30	End-I	0	1.2D+L+0.3EX-EY	0.45	5.5779	1.2D+L+0.3EX-EY	0.75
N+2.95	B47	79	VT15x30	Middle	-5.2404	1.2D+L+EX-0.3EY	0.7	0	1.2D+L+0.3EX-EY	0.45
N+2.95	B47	79	VT15x30	End-J	-13.3154	1.2D+L+0.3EX-EY	1.37	0	1.2D+L+0.3EX-EY	0.9
N+2.95	B48	85	VT15x30	End-I	0	1.2D+L	0	8.8387	1.2D+L+EX-0.3EY	1.2
N+2.95	B48	85	VT15x30	Middle	0	1.2D+L+EX-0.3EY	0.31	9.6022	1.2D+1.6L	1.3
N+2.95	B48	85	VT15x30	End-J	0	1.2D+L	0	9.1535	1.2D+L+EX-0.3EY	1.24
N+2.95	B49	84	VT15x30	End-I	-13.4906	1.2D+L+0.3EX-EY	1.39	0	1.2D+L+0.3EX-EY	0.91
N+2.95	B49	84	VT15x30	Middle	-5.7538	1.2D+L+EX-0.3EY	0.77	0.492	1.2D+L+0.3EX-EY	0.45
N+2.95	B49	84	VT15x30	End-J	0	1.2D+L+0.3EX-EY	0.45	5.561	1.2D+L+0.3EX-EY	0.75
N+2.95	B50	83	VT15x30	End-I	-2.9489	1.2D+L+EX-0.3EY	0.39	3.914	0.9D+EX-0.3EY	0.52
N+2.95	B50	83	VT15x30	Middle	0	0.9D+EX-0.3EY	0.13	2.6594	1.2D+L+EX-0.3EY	0.36

Table 1.6 - Concrete Beam Flexure Envelope - ACI 318-11 (continued)

Story	Label	UniqueName	Section	Location	(-) Moment kN-m	(-) Combo	As Top cm2	(+) Moment kN-m	(+) Combo	As Bot cm2
N+2.95	B50	83	VT15x30	End-J	-1.133	0.9D+EX-0.3EY	0.15	2.7503	1.2D+L+EX-0.3EY	0.37
N+2.95	B51	133	VG25x30	End-I	-7.7752	1.2D+L+0.3EX-EY	1.08	0	1.2D+L+0.3EX-EY	0.54
N+2.95	B51	133	VG25x30	Middle	-4.9818	1.2D+L+0.3EX-EY	0.69	0	1.2D+L+0.3EX-EY	0.31
N+2.95	B51	133	VG25x30	End-J	-9.0803	1.2D+L+0.3EX-EY	1.27	0	1.2D+L+0.3EX-EY	0.63
N+2.95	B52	137	VG25x30	End-I	0	1.2D+L+EX-0.3EY	0.87	23.2925	1.2D+L+EX-0.3EY	2.5
N+2.95	B52	137	VG25x30	Middle	0	1.2D+L+EX-0.3EY	0.87	24.0398	1.2D+L+EX-0.3EY	2.59
N+2.95	B52	137	VG25x30	End-J	-25.0868	1.2D+L+EX-0.3EY	2.7	0	1.2D+L+EX-0.3EY	1.76
N+2.95	B53	135	VT15x30	End-I	-8.7982	1.2D+L+0.3EX-EY	1.19	7.99	1.2D+L+0.3EX-EY	1.08
N+2.95	B53	135	VT15x30	Middle	0	1.2D+L+0.3EX-EY	0.33	10.4245	1.2D+1.6L	1.35
N+2.95	B53	135	VT15x30	End-J	-9.8032	1.2D+L+0.3EX-EY	1.33	5.9161	1.2D+1.6L	0.8
N+2.95	B58	140	VG25x30	End-I	0	1.2D+L+0.3EX-EY	0.11	4.736	1.2D+L+0.3EX-EY	0.66
N+2.95	B58	140	VG25x30	Middle	0	1.2D+L+0.3EX-EY	0.11	9.1216	1.2D+L+0.3EX-EY	1.28
N+2.95	B58	140	VG25x30	End-J	-3.1426	1.2D+L+0.3EX-EY	0.44	3.2379	1.2D+L+0.3EX-EY	0.45
N+2.95	B59	141	VG25x30	End-I	0	1.2D+L+0.3EX-EY	0.11	4.7156	1.2D+L+0.3EX-EY	0.65
N+2.95	B59	141	VG25x30	Middle	0	1.2D+L+0.3EX-EY	0.11	9.1724	1.2D+L+0.3EX-EY	1.28
N+2.95	B59	141	VG25x30	End-J	-3.0626	1.2D+L+0.3EX-EY	0.42	3.3225	1.2D+L+0.3EX-EY	0.46
N+2.95	B54	75	VT15x30	End-I	-17.402	1.2D+L+0.3EX-EY	1.81	0	1.2D+L+0.3EX-EY	1.18
N+2.95	B54	75	VT15x30	Middle	-0.9891	1.2D+L+0.3EX-EY	0.58	9.4477	1.2D+1.6L	1.28
N+2.95	B54	75	VT15x30	End-J	-10.0208	1.2D+L+EX-0.3EY	1.35	0	1.2D+L+EX-0.3EY	0.67
N+2.95	B55	73	VT15x30	End-I	-10.0221	1.2D+L+0.3EX-EY	1.35	0	1.2D+L+EX-0.3EY	0.68
N+2.95	B55	73	VT15x30	Middle	-0.6046	1.2D+L+0.3EX-EY	0.55	9.6628	1.2D+1.6L	1.31
N+2.95	B55	73	VT15x30	End-J	-16.5391	1.2D+L+0.3EX-EY	1.72	0	1.2D+L+0.3EX-EY	1.12
N+2.95	B56	74	VG25x30	End-I	0	1.2D+L+0.3EX-EY	0.62	8.4796	1.2D+L+0.3EX-EY	1.18
N+2.95	B56	74	VG25x30	Middle	0	1.2D+L+0.3EX-EY	0.62	11.1214	1.2D+L+0.3EX-EY	1.56
N+2.95	B56	74	VG25x30	End-J	-17.7855	1.2D+L+0.3EX-EY	2.17	0	1.2D+L+0.3EX-EY	1.24
N+2.95	B57	76	VG25x30	End-I	-13.152	1.2D+L+0.3EX-EY	1.85	0	1.2D+L+0.3EX-EY	0.92
N+2.95	B57	76	VG25x30	Middle	-5.4959	1.2D+L+0.3EX-EY	0.76	1.0307	1.2D+L+0.3EX-EY	0.46
N+2.95	B57	76	VG25x30	End-J	-1.8215	1.2D+L+0.3EX-EY	0.46	1.5699	1.2D+L+0.3EX-EY	0.46
N+2.95	B60	124	VG25x30	End-I	0	1.2D+L+0.3EX-EY	0.62	8.4136	1.2D+L+0.3EX-EY	1.17
N+2.95	B60	124	VG25x30	Middle	0	1.2D+L+0.3EX-EY	0.62	11.1016	1.2D+L+0.3EX-EY	1.56
N+2.95	B60	124	VG25x30	End-J	-17.8907	1.2D+L+0.3EX-EY	2.17	0	1.2D+L+0.3EX-EY	1.25
N+2.95	B61	131	VG25x30	End-I	-13.5569	1.2D+L+0.3EX-EY	1.91	0	1.2D+L+0.3EX-EY	0.94
N+2.95	B61	131	VG25x30	Middle	-5.8598	1.2D+L+0.3EX-EY	0.81	0.8282	1.2D+L+0.3EX-EY	0.47
N+2.95	B61	131	VG25x30	End-J	-2.0616	1.2D+L+0.3EX-EY	0.47	1.4742	1.2D+L+0.3EX-EY	0.47

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+5.65	B1	53	End-I	VG30x25	13.1571	1.2D+L+0.3EX-EY	2.02	1.9556	1.2D+L+EX-0.3EY
N+5.65	B1	53	Middle	VG30x25	10.6919	0.9D+0.3EX-EY	1.64	1.9556	1.2D+L+EX-0.3EY
N+5.65	B1	53	End-J	VG30x25	13.1571	1.2D+L+0.3EX-EY	2.02	1.9556	1.2D+L+EX-0.3EY
N+5.65	B2	80	End-I	VG30x25	13.5656	1.2D+L	0	0.3226	1.2D+L
N+5.65	B2	80	Middle	VG30x25	9.7415	1.2D+L	0	0.3226	1.2D+L
N+5.65	B2	80	End-J	VG30x25	21.3951	1.2D+L	0	0.3226	1.2D+L
N+5.65	B3	81	End-I	VG30x25	18.275	0.9D+0.3EX-EY	2.8	0.5972	1.2D+L

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+5.65	B3	81	Middle	VG30x25	14.2496	0.9D+0.3EX-EY	2.19	0.5972	1.2D+L
N+5.65	B3	81	End-J	VG30x25	18.275	0.9D+0.3EX-EY	2.8	0.5972	1.2D+L
N+5.65	B4	82	End-I	VG30x25	25.1662	1.2D+L+0.3EX-EY	3.86	0.627	1.2D+L
N+5.65	B4	82	Middle	VG30x25	18.0446	1.2D+L+0.3EX-EY	2.77	0.627	1.2D+L
N+5.65	B4	82	End-J	VG30x25	25.1662	1.2D+L+0.3EX-EY	3.86	0.627	1.2D+L
N+5.65	B5	86	End-I	VG30x25	30.5117	1.2D+L+0.3EX-EY	4.68	0.5266	1.2D+L+EX-0.3EY
N+5.65	B5	86	Middle	VG30x25	27.2825	0.9D+0.3EX-EY	4.19	0.5266	1.2D+L+EX-0.3EY
N+5.65	B5	86	End-J	VG30x25	30.5117	1.2D+L+0.3EX-EY	4.68	0.5266	1.2D+L+EX-0.3EY
N+5.65	B6	87	End-I	VG30x25	38.9349	1.2D+L+0.3EX-EY	2.5	0.847	1.2D+L
N+5.65	B6	87	Middle	VG30x25	12.2705	1.2D+L	0	0.847	1.2D+L
N+5.65	B6	87	End-J	VG30x25	25.1038	1.2D+L	0	0.847	1.2D+L
N+5.65	B7	88	End-I	VG30x25	21.1118	0.9D+0.3EX-EY	3.24	1.7291	1.2D+1.6L
N+5.65	B7	88	Middle	VG30x25	17.1417	0.9D+0.3EX-EY	2.63	1.7291	1.2D+1.6L
N+5.65	B7	88	End-J	VG30x25	21.2769	0.9D+0.3EX-EY	3.27	1.7291	1.2D+1.6L
N+5.65	B8	89	End-I	VG30x25	20.3635	0.9D+0.3EX-EY	3.13	1.3358	1.2D+L+EX-0.3EY
N+5.65	B8	89	Middle	VG30x25	15.993	0.9D+0.3EX-EY	2.45	1.3358	1.2D+L+EX-0.3EY
N+5.65	B8	89	End-J	VG30x25	20.3635	0.9D+0.3EX-EY	3.13	1.3358	1.2D+L+EX-0.3EY
N+5.65	B9	90	End-I	VG30x25	31.6376	1.2D+L+0.3EX-EY	4.86	0.9286	1.2D+L+EX-0.3EY
N+5.65	B9	90	Middle	VG30x25	28.4117	0.9D+0.3EX-EY	4.36	0.9286	1.2D+L+EX-0.3EY
N+5.65	B9	90	End-J	VG30x25	31.6376	1.2D+L+0.3EX-EY	4.86	0.9286	1.2D+L+EX-0.3EY
N+5.65	B10	91	End-I	VG30x25	18.2294	1.2D+L	0	4.2634	1.2D+L+EX-0.3EY
N+5.65	B10	91	Middle	VG30x25	13.9856	1.2D+L	0	4.2634	1.2D+L+EX-0.3EY
N+5.65	B10	91	End-J	VG30x25	26.758	1.2D+L	0	3.5898	1.2D+L+EX-0.3EY
N+5.65	B11	92	End-I	VG30x25	20.8936	0.9D+0.3EX-EY	3.21	0.8457	1.2D+L
N+5.65	B11	92	Middle	VG30x25	16.9206	0.9D+0.3EX-EY	2.6	0.8457	1.2D+L
N+5.65	B11	92	End-J	VG30x25	21.0523	0.9D+0.3EX-EY	3.23	0.8457	1.2D+L
N+5.65	B12	93	End-I	VG30x25	20.4624	0.9D+0.3EX-EY	3.14	1.1852	1.2D+L
N+5.65	B12	93	Middle	VG30x25	16.0956	0.9D+0.3EX-EY	2.47	1.1852	1.2D+L
N+5.65	B12	93	End-J	VG30x25	20.4624	0.9D+0.3EX-EY	3.14	1.1852	1.2D+L
N+5.65	B13	94	End-I	VG30x25	12.5791	1.2D+L+0.3EX-EY	1.93	0.5979	0.9D+EX-0.3EY
N+5.65	B13	94	Middle	VG30x25	10.1139	0.9D+0.3EX-EY	1.55	0.5979	0.9D+EX-0.3EY
N+5.65	B13	94	End-J	VG30x25	12.5791	1.2D+L+0.3EX-EY	1.93	0.5979	0.9D+EX-0.3EY
N+5.65	B14	95	End-I	VG30x25	13.282	0.9D+0.3EX-EY	2.04	0.2323	1.2D+L
N+5.65	B14	95	Middle	VG30x25	9.774	0.9D+0.3EX-EY	1.5	0.2323	1.2D+L
N+5.65	B14	95	End-J	VG30x25	13.282	0.9D+0.3EX-EY	2.04	0.2323	1.2D+L
N+5.65	B15	96	End-I	VG30x25	18.0933	0.9D+0.3EX-EY	2.78	0.4547	1.2D+L
N+5.65	B15	96	Middle	VG30x25	14.0679	0.9D+0.3EX-EY	2.16	0.4547	1.2D+L
N+5.65	B15	96	End-J	VG30x25	18.0933	0.9D+0.3EX-EY	2.78	0.4547	1.2D+L
N+5.65	B16	97	End-I	VG30x25	25.3461	1.2D+L+0.3EX-EY	3.89	0.2308	1.2D+L
N+5.65	B16	97	Middle	VG30x25	18.2245	1.2D+L+0.3EX-EY	2.8	0.2308	1.2D+L
N+5.65	B16	97	End-J	VG30x25	25.3461	1.2D+L+0.3EX-EY	3.89	0.2308	1.2D+L
N+5.65	B17	98	End-I	VG30x25	12.9015	1.2D+L+0.3EX-EY	1.98	0.3806	1.2D+L
N+5.65	B17	98	Middle	VG30x25	9.7819	1.2D+L+0.3EX-EY	1.5	0.3806	1.2D+L
N+5.65	B17	98	End-J	VG30x25	12.9015	1.2D+L+0.3EX-EY	1.98	0.3806	1.2D+L
N+5.65	B18	99	End-I	VG30x25		O/S		6.5414	1.2D+L+0.3EX-EY

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+5.65	B18	99	Middle	VG30x25		O/S		6.5414	1.2D+L+0.3EX-EY
N+5.65	B18	99	End-J	VG30x25		O/S		5.7857	1.2D+L+0.3EX-EY
N+5.65	B19	100	End-I	VG30x25	18.4743	0.9D+0.3EX-EY	2.84	4.2445	1.2D+1.6L
N+5.65	B19	100	Middle	VG30x25		O/S		9.0887	1.2D+1.6L
N+5.65	B19	100	End-J	VG30x25		O/S		9.0887	1.2D+1.6L
N+5.65	B20	101	End-I	VG30x25	13.4315	1.2D+L+0.3EX-EY	2.06	0.5447	1.2D+L
N+5.65	B20	101	Middle	VG30x25	10.3119	1.2D+L+0.3EX-EY	1.58	0.5447	1.2D+L
N+5.65	B20	101	End-J	VG30x25	13.4315	1.2D+L+0.3EX-EY	2.06	0.5447	1.2D+L
N+5.65	B22	102	End-I	VG30x25	18.979	0.9D+0.3EX-EY	2.91	4.5476	1.2D+1.6L
N+5.65	B22	102	Middle	VG30x25		O/S		9.1791	1.2D+1.6L
N+5.65	B22	102	End-J	VG30x25		O/S		9.1791	1.2D+1.6L
N+5.65	B23	103	End-I	VG30x25	12.6487	1.2D+L+0.3EX-EY	1.94	0.0228	1.2D+L
N+5.65	B23	103	Middle	VG30x25	9.5291	1.2D+L+0.3EX-EY	1.46	0.0228	1.2D+L
N+5.65	B23	103	End-J	VG30x25	12.6487	1.2D+L+0.3EX-EY	1.94	0.0228	1.2D+L
N+5.65	B24	104	End-I	VG30x25	23.8806	0.9D+EX-0.3EY	0.74	2.2388	1.2D+L+0.3EX-EY
N+5.65	B24	104	Middle	VG30x25	22.4635	0.9D+EX-0.3EY	0.74	2.2388	1.2D+L+0.3EX-EY
N+5.65	B24	104	End-J	VG30x25	22.2556	1.4D	0.71	2.1508	1.2D+L+0.3EX-EY
N+5.65	B25	105	End-I	VG30x25	12.5802	1.2D+L+0.3EX-EY	1.93	0.0169	1.2D+L
N+5.65	B25	105	Middle	VG30x25	9.4606	1.2D+L+0.3EX-EY	1.45	0.0169	1.2D+L
N+5.65	B25	105	End-J	VG30x25	12.5802	1.2D+L+0.3EX-EY	1.93	0.0169	1.2D+L
N+5.65	B26	106	End-I	VG30x25	12.148	1.2D+L+0.3EX-EY	1.86	0.1148	1.2D+L
N+5.65	B26	106	Middle	VG30x25	9.0284	1.2D+L+0.3EX-EY	1.39	0.1148	1.2D+L
N+5.65	B26	106	End-J	VG30x25	12.148	1.2D+L+0.3EX-EY	1.86	0.1148	1.2D+L
N+5.65	B27	107	End-I	VG30x25	15.6975	0.9D+EX-0.3EY	0.07	3.1215	1.2D+L+0.3EX-EY
N+5.65	B27	107	Middle	VG30x25	14.2804	0.9D+EX-0.3EY	0.07	3.1215	1.2D+L+0.3EX-EY
N+5.65	B27	107	End-J	VG30x25	17.8193	0.9D+EX-0.3EY	0.06	3.1051	1.2D+L+0.3EX-EY
N+5.65	B28	108	End-I	VG30x25	12.0762	1.2D+L+0.3EX-EY	1.85	0.1267	1.2D+L
N+5.65	B28	108	Middle	VG30x25	8.9567	1.2D+L+0.3EX-EY	1.37	0.1267	1.2D+L
N+5.65	B28	108	End-J	VG30x25	12.0762	1.2D+L+0.3EX-EY	1.85	0.1267	1.2D+L
N+5.65	B29	109	End-I	VT15x25	5.2718	0.9D+0.3EX-EY	0.77	0.0465	1.2D+L
N+5.65	B29	109	Middle	VT15x25	4.1399	0.9D+0.3EX-EY	0.61	0.0465	1.2D+L
N+5.65	B29	109	End-J	VT15x25	5.2718	0.9D+0.3EX-EY	0.77	0.0465	1.2D+L
N+5.65	B30	110	End-I	VT15x25		O/S		1.5931	1.2D+L+0.3EX-EY
N+5.65	B30	110	Middle	VT15x25		O/S		1.5931	1.2D+L+0.3EX-EY
N+5.65	B30	110	End-J	VT15x25		O/S		1.4706	1.2D+L+0.3EX-EY
N+5.65	B31	111	End-I	VT15x25	5.2294	0.9D+0.3EX-EY	0.77	0.0836	1.2D+L
N+5.65	B31	111	Middle	VT15x25	4.0975	0.9D+0.3EX-EY	0.6	0.0836	1.2D+L
N+5.65	B31	111	End-J	VT15x25	5.2294	0.9D+0.3EX-EY	0.77	0.0836	1.2D+L
N+5.65	B32	112	End-I	VG30x25	42.6815	1.2D+L+0.3EX-EY	6.55	0.8461	1.2D+L+0.3EX-EY
N+5.65	B32	112	Middle	VG30x25	41.6577	1.2D+L+0.3EX-EY	6.39	0.8461	1.2D+L+0.3EX-EY
N+5.65	B32	112	End-J	VG30x25	42.6815	1.2D+L+0.3EX-EY	6.55	0.8461	1.2D+L+0.3EX-EY
N+5.65	B33	113	End-I	VG30x25	44.9698	1.2D+L+0.3EX-EY	6.9	1.259	1.2D+L+0.3EX-EY
N+5.65	B33	113	Middle	VG30x25	43.9319	1.2D+L+0.3EX-EY	6.74	1.259	1.2D+L+0.3EX-EY
N+5.65	B33	113	End-J	VG30x25	44.9698	1.2D+L+0.3EX-EY	6.9	1.259	1.2D+L+0.3EX-EY
N+5.65	B34	114	End-I	VG25x25	9.5552	1.2D+L+0.3EX-EY	1.47	2.153	1.2D+L+EX-0.3EY

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+5.65	B34	114	Middle	VG25x25	7.3164	0.9D+0.3EX-EY	1.12	2.153	1.2D+L+EX-0.3EY
N+5.65	B34	114	End-J	VG25x25	9.5552	1.2D+L+0.3EX-EY	1.47	2.153	1.2D+L+EX-0.3EY
N+5.65	B35	115	End-I	VG25x25	13.9807	0.9D+0.3EX-EY	2.15	0.5853	1.2D+L
N+5.65	B35	115	Middle	VG25x25	9.67	0.9D+0.3EX-EY	1.48	0.2211	1.2D+L
N+5.65	B35	115	End-J	VG25x25	10.9049	0.9D+0.3EX-EY	1.67	0.2211	1.2D+L
N+5.65	B36	116	End-I	VG25x25	8.0916	1.2D+L+0.3EX-EY	1.24	2.4468	1.2D+L+0.3EX-EY
N+5.65	B36	116	Middle	VG25x25	5.8568	0.9D+0.3EX-EY	0.9	2.4468	1.2D+L+0.3EX-EY
N+5.65	B36	116	End-J	VG25x25	8.0916	1.2D+L+0.3EX-EY	1.24	2.4468	1.2D+L+0.3EX-EY
N+5.65	B37	117	End-I	VG25x25	12.1583	0.9D+0.3EX-EY	1.87	0.1607	1.2D+L
N+5.65	B37	117	Middle	VG25x25	9.3661	0.9D+0.3EX-EY	1.44	0.9637	1.2D+L+EX-0.3EY
N+5.65	B37	117	End-J	VG25x25	11.1673	0.9D+0.3EX-EY	1.71	0.9637	1.2D+L+EX-0.3EY
N+5.65	B38	118	End-I	VG25x25	18.0973	1.2D+L+0.3EX-EY	2.78	2.4077	1.2D+L+EX-0.3EY
N+5.65	B38	118	Middle	VG25x25	15.351	1.2D+L+0.3EX-EY	2.36	2.4077	1.2D+L+EX-0.3EY
N+5.65	B38	118	End-J	VG25x25	18.0973	1.2D+L+0.3EX-EY	2.78	2.4077	1.2D+L+EX-0.3EY
N+5.65	B39	119	End-I	VG25x25	17.8527	1.2D+L+0.3EX-EY	2.74	2.203	1.2D+L+EX-0.3EY
N+5.65	B39	119	Middle	VG25x25	15.1113	1.2D+L+0.3EX-EY	2.32	2.203	1.2D+L+EX-0.3EY
N+5.65	B39	119	End-J	VG25x25	17.8527	1.2D+L+0.3EX-EY	2.74	2.203	1.2D+L+EX-0.3EY
N+5.65	B40	120	End-I	VT15x25	10.1087	1.2D+L+0.3EX-EY	1.48	0.4666	1.2D+L+EX-0.3EY
N+5.65	B40	120	Middle	VT15x25	9.6983	1.2D+L+0.3EX-EY	1.42	0.4666	1.2D+L+EX-0.3EY
N+5.65	B40	120	End-J	VT15x25	10.1087	1.2D+L+0.3EX-EY	1.48	0.4666	1.2D+L+EX-0.3EY
N+5.65	B45	125	End-I	VT15x25	10.0545	1.2D+L+0.3EX-EY	1.47	0.0789	1.2D+L
N+5.65	B45	125	Middle	VT15x25	9.6441	1.2D+L+0.3EX-EY	1.41	0.0789	1.2D+L
N+5.65	B45	125	End-J	VT15x25	10.0545	1.2D+L+0.3EX-EY	1.47	0.0789	1.2D+L
N+5.65	B46	126	End-I	VT15x25		O/S		3.4335	1.2D+1.6L
N+5.65	B46	126	Middle	VT15x25		O/S		3.4335	1.2D+1.6L
N+5.65	B46	126	End-J	VT15x25		O/S		3.4335	1.2D+1.6L
N+5.65	B47	127	End-I	VT15x25		O/S		2.6162	1.2D+1.6L
N+5.65	B47	127	Middle	VT15x25		O/S		2.6162	1.2D+1.6L
N+5.65	B47	127	End-J	VT15x25		O/S		2.6162	1.2D+1.6L
N+5.65	B48	130	End-I	VT15x25	8.5602	1.2D+L+0.3EX-EY	1.25	0.0505	1.2D+L
N+5.65	B48	130	Middle	VT15x25	8.1498	1.2D+L+0.3EX-EY	1.19	0.0505	1.2D+L
N+5.65	B48	130	End-J	VT15x25	8.5602	1.2D+L+0.3EX-EY	1.25	0.0505	1.2D+L
N+5.65	B49	129	End-I	VT15x25		O/S		2.6241	1.2D+1.6L
N+5.65	B49	129	Middle	VT15x25		O/S		2.6241	1.2D+1.6L
N+5.65	B49	129	End-J	VT15x25		O/S		2.6241	1.2D+1.6L
N+5.65	B50	128	End-I	VT15x25		O/S		3.6123	1.2D+1.6L
N+5.65	B50	128	Middle	VT15x25		O/S		3.6123	1.2D+1.6L
N+5.65	B50	128	End-J	VT15x25		O/S		3.6123	1.2D+1.6L
N+5.65	B21	132	End-I	VT15x25	13.5012	1.2D+L+0.3EX-EY	1.98	0.2809	1.2D+L
N+5.65	B21	132	Middle	VT15x25	12.4972	1.2D+L+0.3EX-EY	1.83	0.2809	1.2D+L
N+5.65	B21	132	End-J	VT15x25	13.5012	1.2D+L+0.3EX-EY	1.98	0.2809	1.2D+L
N+5.65	B53	136	End-I	VT15x25	22.5099	1.2D+L+0.3EX-EY	1.25	0.0335	1.2D+L
N+5.65	B53	136	Middle	VT15x25	9.0192	1.2D+L	0	0.0335	1.2D+L
N+5.65	B53	136	End-J	VT15x25	26.0889	1.2D+L+0.3EX-EY	1.25	0.0335	1.2D+L
N+5.65	B58	142	End-I	VG25x25	9.6894	1.2D+L+0.3EX-EY	0.21	1.1597	1.2D+1.6L

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+5.65	B58	142	Middle	VG25x25	6.8089	1.2D+L+0.3EX-EY	0.21	1.1597	1.2D+1.6L
N+5.65	B58	142	End-J	VG25x25	12.5698	1.2D+L+0.3EX-EY	0.21	1.1597	1.2D+1.6L
N+5.65	B59	143	End-I	VG25x25	9.7382	1.2D+L+0.3EX-EY	0.32	1.084	1.2D+1.6L
N+5.65	B59	143	Middle	VG25x25	6.8526	1.2D+L+0.3EX-EY	0.32	1.084	1.2D+1.6L
N+5.65	B59	143	End-J	VG25x25	12.6239	1.2D+L+0.3EX-EY	0.32	1.084	1.2D+1.6L
N+5.65	B54	123	End-I	VT15x25	17.2084	1.2D+L+0.3EX-EY	2.52	0.0573	1.2D+L+EX-0.3EY
N+5.65	B54	123	Middle	VT15x25	14.7165	1.2D+L+0.3EX-EY	2.16	0.0573	1.2D+L+EX-0.3EY
N+5.65	B54	123	End-J	VT15x25	17.5055	1.2D+L+0.3EX-EY	2.56	0.0573	1.2D+L+EX-0.3EY
N+2.95	B1	33	End-I	VG30x30	35.0536	1.2D+L+0.3EX-EY	4.35	1.7234	1.2D+L+EX-0.3EY
N+2.95	B1	33	Middle	VG30x30	34.291	0.9D+0.3EX-EY	4.25	1.7234	1.2D+L+EX-0.3EY
N+2.95	B1	33	End-J	VG30x30	35.0536	1.2D+L+0.3EX-EY	4.35	1.7234	1.2D+L+EX-0.3EY
N+2.95	B2	34	End-I	VG30x30		O/S		8.3754	1.2D+L+EX-0.3EY
N+2.95	B2	34	Middle	VG30x30	19.4913	1.2D+1.6L	0.73	3.4348	1.2D+L+EX-0.3EY
N+2.95	B2	34	End-J	VG30x30		O/S		7.0002	1.2D+L+EX-0.3EY
N+2.95	B3	35	End-I	VG30x30	42.508	1.2D+L+0.3EX-EY	5.27	2.5017	1.2D+L+EX-0.3EY
N+2.95	B3	35	Middle	VG30x30		O/S		6.2944	1.2D+L+EX-0.3EY
N+2.95	B3	35	End-J	VG30x30		O/S		6.2944	1.2D+L+EX-0.3EY
N+2.95	B4	36	End-I	VG30x30	43.2951	1.2D+L+0.3EX-EY	5.37	1.7652	1.2D+L+EX-0.3EY
N+2.95	B4	36	Middle	VG30x30		O/S		6.1269	1.2D+L+EX-0.3EY
N+2.95	B4	36	End-J	VG30x30		O/S		6.1269	1.2D+L+EX-0.3EY
N+2.95	B5	37	End-I	VG30x30	47.8138	1.2D+L+0.3EX-EY	5.93	3.2954	1.2D+L+EX-0.3EY
N+2.95	B5	37	Middle	VG30x30	47.0513	0.9D+0.3EX-EY	5.83	3.2954	1.2D+L+EX-0.3EY
N+2.95	B5	37	End-J	VG30x30	47.8138	1.2D+L+0.3EX-EY	5.93	3.2954	1.2D+L+EX-0.3EY
N+2.95	B6	38	End-I	VG30x30	54.1656	1.2D+L+0.3EX-EY	0.75	4.857	1.2D+L+EX-0.3EY
N+2.95	B6	38	Middle	VG30x30	25.7802	0.9D+0.3EX-EY	2.5	3.1466	1.2D+L+EX-0.3EY
N+2.95	B6	38	End-J	VG30x30	26.6159	0.9D+0.3EX-EY	2.5	4.2081	1.2D+L+EX-0.3EY
N+2.95	B7	39	End-I	VG30x30	38.6018	0.9D+0.3EX-EY	4.79	3.1392	1.2D+L+EX-0.3EY
N+2.95	B7	39	Middle	VG30x30	37.0577	0.9D+0.3EX-EY	4.59	3.1392	1.2D+L+EX-0.3EY
N+2.95	B7	39	End-J	VG30x30	39.7041	0.9D+0.3EX-EY	4.92	2.8661	1.2D+L+EX-0.3EY
N+2.95	B8	40	End-I	VG30x30	48.037	1.2D+L+0.3EX-EY	5.95	1.4655	1.2D+L+EX-0.3EY
N+2.95	B8	40	Middle	VG30x30	45.9611	1.2D+L+0.3EX-EY	5.7	0.2732	1.2D+L+EX-0.3EY
N+2.95	B8	40	End-J	VG30x30	46.7378	1.2D+L+0.3EX-EY	5.79	0.2732	1.2D+L+EX-0.3EY
N+2.95	B9	41	End-I	VG30x30	47.7032	1.2D+L+0.3EX-EY	5.91	3.0385	1.2D+L+EX-0.3EY
N+2.95	B9	41	Middle	VG30x30	46.9406	0.9D+0.3EX-EY	5.82	3.0385	1.2D+L+EX-0.3EY
N+2.95	B9	41	End-J	VG30x30	47.7032	1.2D+L+0.3EX-EY	5.91	3.0385	1.2D+L+EX-0.3EY
N+2.95	B10	42	End-I	VG30x30	52.9154	1.2D+L+0.3EX-EY	0.6	4.6318	1.2D+L+EX-0.3EY
N+2.95	B10	42	Middle	VG30x30	25.0581	0.9D+0.3EX-EY	2.5	2.9122	1.2D+L+EX-0.3EY
N+2.95	B10	42	End-J	VG30x30	25.8937	0.9D+0.3EX-EY	2.5	4.2698	1.2D+L+EX-0.3EY
N+2.95	B11	43	End-I	VG30x30	41.1266	0.9D+0.3EX-EY	5.1	3.5461	1.2D+L+EX-0.3EY
N+2.95	B11	43	Middle	VG30x30	29.3596	0.9D+0.3EX-EY	3.64	3.4306	1.2D+L+EX-0.3EY
N+2.95	B11	43	End-J	VG30x30	40.3966	0.9D+0.3EX-EY	5.01	2.791	1.2D+L+EX-0.3EY
N+2.95	B12	44	End-I	VG30x30	46.7285	1.2D+L+0.3EX-EY	5.79	1.0853	1.2D+L+EX-0.3EY
N+2.95	B12	44	Middle	VG30x30	44.6526	1.2D+L+0.3EX-EY	5.54	0.3411	1.2D+L+EX-0.3EY
N+2.95	B12	44	End-J	VG30x30	46.2609	1.2D+L+0.3EX-EY	5.73	0.3411	1.2D+L+EX-0.3EY
N+2.95	B13	45	End-I	VG30x30	37.3943	1.2D+L+0.3EX-EY	4.64	2.3677	1.2D+L+EX-0.3EY

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+2.95	B13	45	Middle	VG30x30	36.6318	0.9D+0.3EX-EY	4.54	2.3677	1.2D+L+EX-0.3EY
N+2.95	B13	45	End-J	VG30x30	37.3943	1.2D+L+0.3EX-EY	4.64	2.3677	1.2D+L+EX-0.3EY
N+2.95	B14	46	End-I	VG30x30		O/S		8.1855	1.2D+L+EX-0.3EY
N+2.95	B14	46	Middle	VG30x30	16.6261	1.2D+L	0.69	2.9893	1.2D+L+EX-0.3EY
N+2.95	B14	46	End-J	VG30x30		O/S		6.9936	1.2D+L+EX-0.3EY
N+2.95	B15	47	End-I	VG30x30	43.5607	0.9D+0.3EX-EY	5.4	4.5323	1.2D+L+EX-0.3EY
N+2.95	B15	47	Middle	VG30x30	29.5788	0.9D+0.3EX-EY	3.67	4.5326	1.2D+L+EX-0.3EY
N+2.95	B15	47	End-J	VG30x30	31.4395	0.9D+0.3EX-EY	3.9	4.5326	1.2D+L+EX-0.3EY
N+2.95	B16	48	End-I	VG30x30	43.3403	1.2D+L+0.3EX-EY	5.37	3.3637	1.2D+L+EX-0.3EY
N+2.95	B16	48	Middle	VG30x30		O/S		5.0043	1.2D+L+EX-0.3EY
N+2.95	B16	48	End-J	VG30x30		O/S		5.0043	1.2D+L+EX-0.3EY
N+2.95	B17	49	End-I	VG30x30		O/S		6.3731	1.2D+L+0.3EX-EY
N+2.95	B17	49	Middle	VG30x30	18.4095	1.2D+L	0	3.9542	1.2D+L+0.3EX-EY
N+2.95	B17	49	End-J	VG30x30	52.6781	1.2D+L+0.3EX-EY	0.57	6.2719	1.2D+L+0.3EX-EY
N+2.95	B18	50	End-I	VG30x30	30.7901	0.9D+0.3EX-EY	3.82	3.2036	1.2D+L+0.3EX-EY
N+2.95	B18	50	Middle	VG30x30	18.4219	0.9D+0.3EX-EY	2.5	3.2036	1.2D+L+0.3EX-EY
N+2.95	B18	50	End-J	VG30x30	30.7583	0.9D+0.3EX-EY	3.81	3.0846	1.2D+L+0.3EX-EY
N+2.95	B19	51	End-I	VG30x30	52.7858	1.2D+L+0.3EX-EY	0.58	5.9479	1.2D+L+0.3EX-EY
N+2.95	B19	51	Middle	VG30x30	26.9935	0.9D+EX-0.3EY	0.03	3.8997	1.2D+L+0.3EX-EY
N+2.95	B19	51	End-J	VG30x30		O/S		6.4023	1.2D+L+0.3EX-EY
N+2.95	B20	52	End-I	VG30x30	31.7098	0.9D+EX-0.3EY	2.5	3.3499	1.2D+L+0.3EX-EY
N+2.95	B20	52	Middle	VG30x30	31.7014	0.9D+EX-0.3EY	2.5	1.8619	1.2D+L+0.3EX-EY
N+2.95	B20	52	End-J	VG30x30	32.4259	0.9D+EX-0.3EY	2.5	3.9288	1.2D+L+0.3EX-EY
N+2.95	B22	54	End-I	VG30x30	57.5272	1.2D+L+0.3EX-EY	1.17	3.1408	1.2D+L+0.3EX-EY
N+2.95	B22	54	Middle	VG30x30	22.5237	1.2D+L+0.3EX-EY	0.58	3.712	1.2D+L+0.3EX-EY
N+2.95	B22	54	End-J	VG30x30	59.0847	1.2D+L+0.3EX-EY	1.36	4.3434	1.2D+L+0.3EX-EY
N+2.95	B23	55	End-I	VG30x30	30.5139	0.9D+EX-0.3EY	2.5	1.6392	1.2D+L+0.3EX-EY
N+2.95	B23	55	Middle	VG30x30	29.9779	0.9D+EX-0.3EY	2.5	0.9694	1.2D+L+0.3EX-EY
N+2.95	B23	55	End-J	VG30x30	38.0726	1.2D+L	2.5	1.6936	1.2D+L+0.3EX-EY
N+2.95	B24	56	End-I	VG30x30	29.1414	0.9D+EX-0.3EY	2.5	1.7407	1.2D+L+0.3EX-EY
N+2.95	B24	56	Middle	VG30x30	28.4314	0.9D+EX-0.3EY	2.5	1.6007	1.2D+L+0.3EX-EY
N+2.95	B24	56	End-J	VG30x30	36.341	1.2D+L	2.5	1.6311	1.2D+L+0.3EX-EY
N+2.95	B25	57	End-I	VG30x30	27.3216	0.9D+EX-0.3EY	2.5	0.9733	1.2D+L+0.3EX-EY
N+2.95	B25	57	Middle	VG30x30	25.0148	0.9D+EX-0.3EY	2.5	2.3004	1.2D+L+0.3EX-EY
N+2.95	B25	57	End-J	VG30x30	25.8031	1.2D+L	2.5	0.9953	1.2D+L+0.3EX-EY
N+2.95	B26	58	End-I	VG30x30	26.6531	0.9D+EX-0.3EY	2.5	3.7792	1.2D+L+0.3EX-EY
N+2.95	B26	58	Middle	VG30x30	26.627	0.9D+EX-0.3EY	2.5	0.8263	1.2D+L+0.3EX-EY
N+2.95	B26	58	End-J	VG30x30	30.595	1.2D+L	2.5	1.8033	1.2D+L+0.3EX-EY
N+2.95	B27	59	End-I	VG30x30	27.7546	0.9D+EX-0.3EY	2.5	0.4978	1.2D+L+0.3EX-EY
N+2.95	B27	59	Middle	VG30x30	26.9835	0.9D+EX-0.3EY	2.5	0.3112	1.2D+L+0.3EX-EY
N+2.95	B27	59	End-J	VG30x30	31.673	1.2D+L	2.5	0.7543	1.2D+L+0.3EX-EY
N+2.95	B28	60	End-I	VG30x30	34.3065	0.9D+0.3EX-EY	4.25	1.2467	1.2D+L+0.3EX-EY
N+2.95	B28	60	Middle	VG30x30	25.349	0.9D+0.3EX-EY	3.14	0.5384	1.2D+L+0.3EX-EY
N+2.95	B28	60	End-J	VG30x30	33.7998	0.9D+0.3EX-EY	4.19	3.072	1.2D+L+0.3EX-EY
N+2.95	B29	61	End-I	VT15x30		O/S		1.3739	1.2D+L+0.3EX-EY

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+2.95	B29	61	Middle	VT15x30		O/S		1.3739	1.2D+L+0.3EX-EY
N+2.95	B29	61	End-J	VT15x30		O/S		1.0899	1.2D+L+EX-0.3EY
N+2.95	B30	62	End-I	VT15x30	13.2847	0.9D+0.3EX-EY	1.59	0.4695	1.2D+L+EX-0.3EY
N+2.95	B30	62	Middle	VT15x30	9.3318	0.9D+EX-0.3EY	1.25	0.2355	1.2D+L+0.3EX-EY
N+2.95	B30	62	End-J	VT15x30	13.2623	0.9D+0.3EX-EY	1.58	0.4286	1.2D+L+EX-0.3EY
N+2.95	B31	63	End-I	VT15x30		O/S		1.0635	1.2D+L+EX-0.3EY
N+2.95	B31	63	Middle	VT15x30		O/S		1.4536	1.2D+L+0.3EX-EY
N+2.95	B31	63	End-J	VT15x30		O/S		1.4536	1.2D+L+0.3EX-EY
N+2.95	B32	64	End-I	VG30x30	53.6972	1.2D+L+0.3EX-EY	6.66	4.7193	1.2D+L+0.3EX-EY
N+2.95	B32	64	Middle	VG30x30	54.1523	1.2D+L+0.3EX-EY	6.71	5.8686	1.2D+L+0.3EX-EY
N+2.95	B32	64	End-J	VG30x30	53.4288	1.2D+L+0.3EX-EY	6.62	5.8686	1.2D+L+0.3EX-EY
N+2.95	B33	65	End-I	VG30x30	51.3676	1.2D+L+0.3EX-EY	6.37	5.9316	1.2D+L+0.3EX-EY
N+2.95	B33	65	Middle	VG30x30	52.7657	1.2D+L+0.3EX-EY	6.54	5.9316	1.2D+L+0.3EX-EY
N+2.95	B33	65	End-J	VG30x30	52.5429	1.2D+L+0.3EX-EY	6.51	5.0348	1.2D+L+0.3EX-EY
N+2.95	B34	66	End-I	VG25x30	11.464	1.2D+L+0.3EX-EY	1.42	1.6494	1.2D+L+0.3EX-EY
N+2.95	B34	66	Middle	VG25x30	10.6696	0.9D+0.3EX-EY	1.32	1.6494	1.2D+L+0.3EX-EY
N+2.95	B34	66	End-J	VG25x30	11.464	1.2D+L+0.3EX-EY	1.42	1.6494	1.2D+L+0.3EX-EY
N+2.95	B36	68	End-I	VG25x30	11.4219	1.2D+L+0.3EX-EY	1.42	1.5793	1.2D+L+0.3EX-EY
N+2.95	B36	68	Middle	VG25x30	10.6276	0.9D+0.3EX-EY	1.32	1.5793	1.2D+L+0.3EX-EY
N+2.95	B36	68	End-J	VG25x30	11.4219	1.2D+L+0.3EX-EY	1.42	1.5793	1.2D+L+0.3EX-EY
N+2.95	B38	70	End-I	VG25x30	5.6831	0.9D+0.3EX-EY	2.08	0.8175	1.2D+L
N+2.95	B38	70	Middle	VG25x30	5.0441	0.9D+0.3EX-EY	2.08	1.1468	1.2D+L
N+2.95	B38	70	End-J	VG25x30	5.5922	0.9D+0.3EX-EY	2.08	1.1468	1.2D+L
N+2.95	B39	71	End-I	VG25x30	5.5449	0.9D+0.3EX-EY	2.08	0.8601	1.2D+L
N+2.95	B39	71	Middle	VG25x30	4.9518	0.9D+0.3EX-EY	2.08	1.2299	1.2D+L
N+2.95	B39	71	End-J	VG25x30	5.4999	0.9D+0.3EX-EY	2.08	1.2299	1.2D+L
N+2.95	B40	72	End-I	VT15x30	26.5008	1.2D+L+0.3EX-EY	3.16	0.0558	1.2D+L
N+2.95	B40	72	Middle	VT15x30	26.0878	1.2D+L+0.3EX-EY	3.11	0.0789	1.2D+L
N+2.95	B40	72	End-J	VT15x30	26.3866	1.2D+L+0.3EX-EY	3.15	0.0789	1.2D+L
N+2.95	B45	77	End-I	VT15x30	12.4417	1.2D+L+0.3EX-EY	1.49	0.1045	1.2D+L
N+2.95	B45	77	Middle	VT15x30	12.0976	1.2D+L+0.3EX-EY	1.44	0.0102	1.2D+L
N+2.95	B45	77	End-J	VT15x30	12.59	1.2D+L+0.3EX-EY	1.5	0.0102	1.2D+L
N+2.95	B46	78	End-I	VT15x30		O/S		1.2334	1.2D+L+EX-0.3EY
N+2.95	B46	78	Middle	VT15x30		O/S		1.2334	1.2D+L+EX-0.3EY
N+2.95	B46	78	End-J	VT15x30		O/S		1.2334	1.2D+L+EX-0.3EY
N+2.95	B47	79	End-I	VT15x30	15.9656	1.2D+L+0.3EX-EY	1.91	0.1595	1.2D+L+EX-0.3EY
N+2.95	B47	79	Middle	VT15x30	16.7656	1.2D+L+0.3EX-EY	2	0.1595	1.2D+L+EX-0.3EY
N+2.95	B47	79	End-J	VT15x30	17.6388	1.2D+L+0.3EX-EY	2.11	0.5754	1.2D+L
N+2.95	B48	85	End-I	VT15x30	13.2428	1.2D+L+0.3EX-EY	1.58	0.0318	1.2D+L
N+2.95	B48	85	Middle	VT15x30	12.843	1.2D+L+0.3EX-EY	1.53	0.0031	1.2D+L
N+2.95	B48	85	End-J	VT15x30	13.3355	1.2D+L+0.3EX-EY	1.59	0.0031	1.2D+L
N+2.95	B49	84	End-I	VT15x30	17.261	1.2D+L+0.3EX-EY	2.06	0.5989	1.2D+L+EX-0.3EY
N+2.95	B49	84	Middle	VT15x30	16.383	1.2D+L+0.3EX-EY	1.96	0.5989	1.2D+L+EX-0.3EY
N+2.95	B49	84	End-J	VT15x30	16.089	1.2D+L+0.3EX-EY	1.92	0.0612	1.2D+L
N+2.95	B50	83	End-I	VT15x30		O/S		1.1345	1.2D+L+EX-0.3EY

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 1 of 2, continued)

Story	Label	UniqueName	Location	Section	V kN	V Combo	At cm2/m	T for At kN-m	T for At Combo
N+2.95	B50	83	Middle	VT15x30		O/S		1.1345	1.2D+L+EX-0.3EY
N+2.95	B50	83	End-J	VT15x30		O/S		1.1345	1.2D+L+EX-0.3EY
N+2.95	B51	133	End-I	VG25x30	8.1674	0.9D+0.3EX-EY	2.08	2.0568	1.2D+L+EX-0.3EY
N+2.95	B51	133	Middle	VG25x30	9.6112	0.9D+0.3EX-EY	2.08	2.4523	1.2D+1.6L
N+2.95	B51	133	End-J	VG25x30	12.498	0.9D+0.3EX-EY	1.55	2.4523	1.2D+1.6L
N+2.95	B52	137	End-I	VG25x30	27.5178	0.9D+0.3EX-EY	3.41	0.0926	1.2D+L
N+2.95	B52	137	Middle	VG25x30	25.5955	0.9D+0.3EX-EY	3.17	4.443	1.2D+L+EX-0.3EY
N+2.95	B52	137	End-J	VG25x30	35.7713	0.9D+0.3EX-EY	4.43	0.519	1.2D+L+EX-0.3EY
N+2.95	B53	135	End-I	VT15x30	14.8956	1.2D+L+0.3EX-EY	1.25	0.1724	1.2D+L
N+2.95	B53	135	Middle	VT15x30	5.9073	1.2D+L	0	0.4043	1.2D+L
N+2.95	B53	135	End-J	VT15x30	15.6943	1.2D+L+0.3EX-EY	1.25	0.1479	1.2D+L
N+2.95	B58	140	End-I	VG25x30	1.8807	0.9D+0.3EX-EY	2.08	0.4258	1.2D+L
N+2.95	B58	140	Middle	VG25x30	1.139	0.9D+0.3EX-EY	2.08	0.0064	1.2D+L
N+2.95	B58	140	End-J	VG25x30	2.6747	0.9D+0.3EX-EY	2.08	0.0064	1.2D+L
N+2.95	B59	141	End-I	VG25x30	1.934	0.9D+0.3EX-EY	2.08	0.4068	1.2D+L
N+2.95	B59	141	Middle	VG25x30	1.1183	0.9D+0.3EX-EY	2.08	0.0385	1.2D+L
N+2.95	B59	141	End-J	VG25x30	2.6541	0.9D+0.3EX-EY	2.08	0.0385	1.2D+L
N+2.95	B54	75	End-I	VT15x30	18.8818	0.9D+0.3EX-EY	2.25	0.0054	1.2D+L
N+2.95	B54	75	Middle	VT15x30	17.8883	0.9D+0.3EX-EY	2.14	0.8136	1.2D+L+0.3EX-EY
N+2.95	B54	75	End-J	VT15x30	17.6553	0.9D+0.3EX-EY	2.11	0.7953	1.2D+L+0.3EX-EY
N+2.95	B55	73	End-I	VT15x30	17.385	0.9D+0.3EX-EY	2.08	0.6836	1.2D+L+0.3EX-EY
N+2.95	B55	73	Middle	VT15x30	17.4592	0.9D+0.3EX-EY	2.08	0.7165	1.2D+L+0.3EX-EY
N+2.95	B55	73	End-J	VT15x30	18.4696	0.9D+0.3EX-EY	2.2	0.0453	1.2D+L
N+2.95	B56	74	End-I	VG25x30	25.4752	1.2D+L+0.3EX-EY	3.16	3.0656	1.2D+L+0.3EX-EY
N+2.95	B56	74	Middle	VG25x30	26.6918	1.2D+L+0.3EX-EY	3.31	3.0482	1.2D+L+EX-0.3EY
N+2.95	B56	74	End-J	VG25x30	28.4535	1.2D+L+0.3EX-EY	3.53	1.149	1.2D+L+EX-0.3EY
N+2.95	B57	76	End-I	VG25x30	27.1125	1.2D+L+0.3EX-EY	3.36	0.9415	1.2D+L+EX-0.3EY
N+2.95	B57	76	Middle	VG25x30	27.436	1.2D+L+0.3EX-EY	3.4	0.9415	1.2D+L+EX-0.3EY
N+2.95	B57	76	End-J	VG25x30	25.9794	1.2D+L+0.3EX-EY	3.22	1.3632	1.2D+L+EX-0.3EY
N+2.95	B60	124	End-I	VG25x30	25.421	1.2D+L+0.3EX-EY	3.15	3.0151	1.2D+L+0.3EX-EY
N+2.95	B60	124	Middle	VG25x30	26.7056	1.2D+L+0.3EX-EY	3.31	3.0586	1.2D+L+EX-0.3EY
N+2.95	B60	124	End-J	VG25x30	28.4672	1.2D+L+0.3EX-EY	3.53	1.219	1.2D+L+EX-0.3EY
N+2.95	B61	131	End-I	VG25x30	27.8113	1.2D+L+0.3EX-EY	3.45	0.8426	1.2D+L+EX-0.3EY
N+2.95	B61	131	Middle	VG25x30	28.6806	1.2D+L+0.3EX-EY	3.56	0.8426	1.2D+L+EX-0.3EY
N+2.95	B61	131	End-J	VG25x30	26.5122	1.2D+L+0.3EX-EY	3.29	1.1928	1.2D+L+EX-0.3EY

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+5.65	B1	53	End-I	2.77	1.9556	1.2D+L+EX-0.3EY	2.8
N+5.65	B1	53	Middle	2.77	1.9556	1.2D+L+EX-0.3EY	2.8
N+5.65	B1	53	End-J	2.77	1.9556	1.2D+L+EX-0.3EY	2.8
N+5.65	B2	80	End-I	0	0.3226	1.2D+L	0
N+5.65	B2	80	Middle	0	0.3226	1.2D+L	0
N+5.65	B2	80	End-J	0	0.3226	1.2D+L	0

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+5.65	B3	81	End-I	0	0.5972	1.2D+L	0
N+5.65	B3	81	Middle	0	0.5972	1.2D+L	0
N+5.65	B3	81	End-J	0	0.5972	1.2D+L	0
N+5.65	B4	82	End-I	0	0.627	1.2D+L	0
N+5.65	B4	82	Middle	0	0.627	1.2D+L	0
N+5.65	B4	82	End-J	0	0.627	1.2D+L	0
N+5.65	B5	86	End-I	2.65	0.5266	1.2D+L+EX-0.3EY	2.8
N+5.65	B5	86	Middle	2.65	0.5266	1.2D+L+EX-0.3EY	2.8
N+5.65	B5	86	End-J	2.65	0.5266	1.2D+L+EX-0.3EY	2.8
N+5.65	B6	87	End-I	0	0.847	1.2D+L	0
N+5.65	B6	87	Middle	0	0.847	1.2D+L	0
N+5.65	B6	87	End-J	0	0.847	1.2D+L	0
N+5.65	B7	88	End-I	1.13	1.7291	1.2D+1.6L	2.8
N+5.65	B7	88	Middle	1.13	1.7291	1.2D+1.6L	2.8
N+5.65	B7	88	End-J	1.13	1.7291	1.2D+1.6L	2.8
N+5.65	B8	89	End-I	0.9	1.3358	1.2D+L+EX-0.3EY	2.8
N+5.65	B8	89	Middle	0.9	1.3358	1.2D+L+EX-0.3EY	2.8
N+5.65	B8	89	End-J	0.9	1.3358	1.2D+L+EX-0.3EY	2.8
N+5.65	B9	90	End-I	2.84	0.9286	1.2D+L+EX-0.3EY	2.8
N+5.65	B9	90	Middle	2.84	0.9286	1.2D+L+EX-0.3EY	2.8
N+5.65	B9	90	End-J	2.84	0.9286	1.2D+L+EX-0.3EY	2.8
N+5.65	B10	91	End-I	2.83	4.2634	1.2D+L+EX-0.3EY	2.65
N+5.65	B10	91	Middle	2.83	3.5898	1.2D+L+EX-0.3EY	2.74
N+5.65	B10	91	End-J	2.57	3.5898	1.2D+L+EX-0.3EY	2.74
N+5.65	B11	92	End-I	0	0.8457	1.2D+L	0
N+5.65	B11	92	Middle	0	0.8457	1.2D+L	0
N+5.65	B11	92	End-J	0	0.8457	1.2D+L	0
N+5.65	B12	93	End-I	0	1.1852	1.2D+L	0
N+5.65	B12	93	Middle	0	1.1852	1.2D+L	0
N+5.65	B12	93	End-J	0	1.1852	1.2D+L	0
N+5.65	B13	94	End-I	2.18	0.5979	0.9D+EX-0.3EY	2.8
N+5.65	B13	94	Middle	2.18	0.5979	0.9D+EX-0.3EY	2.8
N+5.65	B13	94	End-J	2.18	0.5979	0.9D+EX-0.3EY	2.8
N+5.65	B14	95	End-I	0	0.2323	1.2D+L	0
N+5.65	B14	95	Middle	0	0.2323	1.2D+L	0
N+5.65	B14	95	End-J	0	0.2323	1.2D+L	0
N+5.65	B15	96	End-I	0	0.4547	1.2D+L	0
N+5.65	B15	96	Middle	0	0.4547	1.2D+L	0
N+5.65	B15	96	End-J	0	0.4547	1.2D+L	0
N+5.65	B16	97	End-I	0	0.2308	1.2D+L	0
N+5.65	B16	97	Middle	0	0.2308	1.2D+L	0
N+5.65	B16	97	End-J	0	0.2308	1.2D+L	0
N+5.65	B17	98	End-I	0	0.3806	1.2D+L	0
N+5.65	B17	98	Middle	0	0.3806	1.2D+L	0
N+5.65	B17	98	End-J	0	0.3806	1.2D+L	0

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+5.65	B18	99	End-I	4.47	6.5414	1.2D+L+0.3EX-EY	3.33
N+5.65	B18	99	Middle	4.47	6.5414	1.2D+L+0.3EX-EY	3.33
N+5.65	B18	99	End-J	4	5.7857	1.2D+L+0.3EX-EY	2.98
N+5.65	B19	100	End-I	2.92	4.2445	1.2D+1.6L	2.8
N+5.65	B19	100	Middle	6.25	9.0887	1.2D+1.6L	4.65
N+5.65	B19	100	End-J	6.25	9.0887	1.2D+1.6L	4.65
N+5.65	B20	101	End-I	0	0.5447	1.2D+L	0
N+5.65	B20	101	Middle	0	0.5447	1.2D+L	0
N+5.65	B20	101	End-J	0	0.5447	1.2D+L	0
N+5.65	B22	102	End-I	3.16	4.5476	1.2D+1.6L	2.8
N+5.65	B22	102	Middle	6.34	9.1791	1.2D+1.6L	4.72
N+5.65	B22	102	End-J	6.34	9.1791	1.2D+1.6L	4.72
N+5.65	B23	103	End-I	0	0.0228	1.2D+L	0
N+5.65	B23	103	Middle	0	0.0228	1.2D+L	0
N+5.65	B23	103	End-J	0	0.0228	1.2D+L	0
N+5.65	B24	104	End-I	2.01	2.2388	1.2D+L+0.3EX-EY	2.8
N+5.65	B24	104	Middle	2.01	2.1508	1.2D+L+0.3EX-EY	2.8
N+5.65	B24	104	End-J	1.96	2.1508	1.2D+L+0.3EX-EY	2.8
N+5.65	B25	105	End-I	0	0.0169	1.2D+L	0
N+5.65	B25	105	Middle	0	0.0169	1.2D+L	0
N+5.65	B25	105	End-J	0	0.0169	1.2D+L	0
N+5.65	B26	106	End-I	0	0.1148	1.2D+L	0
N+5.65	B26	106	Middle	0	0.1148	1.2D+L	0
N+5.65	B26	106	End-J	0	0.1148	1.2D+L	0
N+5.65	B27	107	End-I	2.49	3.1215	1.2D+L+0.3EX-EY	2.8
N+5.65	B27	107	Middle	2.49	3.1051	1.2D+L+0.3EX-EY	2.8
N+5.65	B27	107	End-J	2.49	3.1051	1.2D+L+0.3EX-EY	2.8
N+5.65	B28	108	End-I	0	0.1267	1.2D+L	0
N+5.65	B28	108	Middle	0	0.1267	1.2D+L	0
N+5.65	B28	108	End-J	0	0.1267	1.2D+L	0
N+5.65	B29	109	End-I	0	0.0465	1.2D+L	0
N+5.65	B29	109	Middle	0	0.0465	1.2D+L	0
N+5.65	B29	109	End-J	0	0.0465	1.2D+L	0
N+5.65	B30	110	End-I	3.63	1.5931	1.2D+L+0.3EX-EY	1.61
N+5.65	B30	110	Middle	3.63	1.5931	1.2D+L+0.3EX-EY	1.61
N+5.65	B30	110	End-J	3.36	1.4706	1.2D+L+0.3EX-EY	1.49
N+5.65	B31	111	End-I	0	0.0836	1.2D+L	0
N+5.65	B31	111	Middle	0	0.0836	1.2D+L	0
N+5.65	B31	111	End-J	0	0.0836	1.2D+L	0
N+5.65	B32	112	End-I	1.43	0.8461	1.2D+L+0.3EX-EY	2.8
N+5.65	B32	112	Middle	1.43	0.8461	1.2D+L+0.3EX-EY	2.8
N+5.65	B32	112	End-J	1.43	0.8461	1.2D+L+0.3EX-EY	2.8
N+5.65	B33	113	End-I	1.76	1.259	1.2D+L+0.3EX-EY	2.8
N+5.65	B33	113	Middle	1.76	1.259	1.2D+L+0.3EX-EY	2.8
N+5.65	B33	113	End-J	1.76	1.259	1.2D+L+0.3EX-EY	2.8

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+5.65	B34	114	End-I	1.91	2.153	1.2D+L+EX-0.3EY	2.35
N+5.65	B34	114	Middle	1.91	2.153	1.2D+L+EX-0.3EY	2.35
N+5.65	B34	114	End-J	1.91	2.153	1.2D+L+EX-0.3EY	2.35
N+5.65	B35	115	End-I	0	0.5853	1.2D+L	0
N+5.65	B35	115	Middle	0	0.2211	1.2D+L	0
N+5.65	B35	115	End-J	0	0.2211	1.2D+L	0
N+5.65	B36	116	End-I	2.14	2.4468	1.2D+L+0.3EX-EY	2.28
N+5.65	B36	116	Middle	2.14	2.4468	1.2D+L+0.3EX-EY	2.28
N+5.65	B36	116	End-J	2.14	2.4468	1.2D+L+0.3EX-EY	2.28
N+5.65	B37	117	End-I	0	0.1607	1.2D+L	0
N+5.65	B37	117	Middle	1.12	0.9637	1.2D+L+EX-0.3EY	2.38
N+5.65	B37	117	End-J	1.12	0.9637	1.2D+L+EX-0.3EY	2.38
N+5.65	B38	118	End-I	2.05	2.4077	1.2D+L+EX-0.3EY	2.41
N+5.65	B38	118	Middle	2.05	2.4077	1.2D+L+EX-0.3EY	2.41
N+5.65	B38	118	End-J	2.05	2.4077	1.2D+L+EX-0.3EY	2.41
N+5.65	B39	119	End-I	1.91	2.203	1.2D+L+EX-0.3EY	2.43
N+5.65	B39	119	Middle	1.91	2.203	1.2D+L+EX-0.3EY	2.43
N+5.65	B39	119	End-J	1.91	2.203	1.2D+L+EX-0.3EY	2.43
N+5.65	B40	120	End-I	1.07	0.4666	1.2D+L+EX-0.3EY	1.39
N+5.65	B40	120	Middle	1.07	0.4666	1.2D+L+EX-0.3EY	1.39
N+5.65	B40	120	End-J	1.07	0.4666	1.2D+L+EX-0.3EY	1.39
N+5.65	B45	125	End-I	0	0.0789	1.2D+L	0
N+5.65	B45	125	Middle	0	0.0789	1.2D+L	0
N+5.65	B45	125	End-J	0	0.0789	1.2D+L	0
N+5.65	B46	126	End-I	7.84	3.4335	1.2D+1.6L	3.49
N+5.65	B46	126	Middle	7.84	3.4335	1.2D+1.6L	3.49
N+5.65	B46	126	End-J	7.84	3.4335	1.2D+1.6L	3.49
N+5.65	B47	127	End-I	5.97	2.6162	1.2D+1.6L	2.65
N+5.65	B47	127	Middle	5.97	2.6162	1.2D+1.6L	2.65
N+5.65	B47	127	End-J	5.97	2.6162	1.2D+1.6L	2.65
N+5.65	B48	130	End-I	0	0.0505	1.2D+L	0
N+5.65	B48	130	Middle	0	0.0505	1.2D+L	0
N+5.65	B48	130	End-J	0	0.0505	1.2D+L	0
N+5.65	B49	129	End-I	5.97	2.6241	1.2D+1.6L	2.65
N+5.65	B49	129	Middle	5.97	2.6241	1.2D+1.6L	2.65
N+5.65	B49	129	End-J	5.97	2.6241	1.2D+1.6L	2.65
N+5.65	B50	128	End-I	8.21	3.6123	1.2D+1.6L	3.65
N+5.65	B50	128	Middle	8.21	3.6123	1.2D+1.6L	3.65
N+5.65	B50	128	End-J	8.21	3.6123	1.2D+1.6L	3.65
N+5.65	B21	132	End-I	0	0.2809	1.2D+L	0
N+5.65	B21	132	Middle	0	0.2809	1.2D+L	0
N+5.65	B21	132	End-J	0	0.2809	1.2D+L	0
N+5.65	B53	136	End-I	0	0.0335	1.2D+L	0
N+5.65	B53	136	Middle	0	0.0335	1.2D+L	0
N+5.65	B53	136	End-J	0	0.0335	1.2D+L	0

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+5.65	B58	142	End-I	1.02	1.1597	1.2D+1.6L	2.43
N+5.65	B58	142	Middle	1.02	1.1597	1.2D+1.6L	2.43
N+5.65	B58	142	End-J	1.02	1.1597	1.2D+1.6L	2.43
N+5.65	B59	143	End-I	0.96	1.084	1.2D+1.6L	2.43
N+5.65	B59	143	Middle	0.96	1.084	1.2D+1.6L	2.43
N+5.65	B59	143	End-J	0.96	1.084	1.2D+1.6L	2.43
N+5.65	B54	123	End-I	1.05	0.0573	1.2D+L+EX-0.3EY	1.4
N+5.65	B54	123	Middle	1.05	0.0573	1.2D+L+EX-0.3EY	1.4
N+5.65	B54	123	End-J	1.05	0.0573	1.2D+L+EX-0.3EY	1.4
N+2.95	B1	33	End-I	2.95	1.7234	1.2D+L+EX-0.3EY	2.84
N+2.95	B1	33	Middle	2.95	1.7234	1.2D+L+EX-0.3EY	2.84
N+2.95	B1	33	End-J	2.95	1.7234	1.2D+L+EX-0.3EY	2.84
N+2.95	B2	34	End-I	5.52	8.3754	1.2D+L+EX-0.3EY	4.66
N+2.95	B2	34	Middle	2.87	1.8326	1.2D+L+EX-0.3EY	3.42
N+2.95	B2	34	End-J	4.96	7.0002	1.2D+L+EX-0.3EY	4.19
N+2.95	B3	35	End-I	2.29	2.5017	1.2D+L+EX-0.3EY	3.42
N+2.95	B3	35	Middle	3.99	1.6721	1.2D+L+0.3EX-EY	3.42
N+2.95	B3	35	End-J	3.99	6.2944	1.2D+L+EX-0.3EY	3.37
N+2.95	B4	36	End-I	1.78	1.7652	1.2D+L+EX-0.3EY	3.42
N+2.95	B4	36	Middle	4.16	6.1269	1.2D+L+EX-0.3EY	3.51
N+2.95	B4	36	End-J	4.16	6.1269	1.2D+L+EX-0.3EY	3.51
N+2.95	B5	37	End-I	3.05	3.2954	1.2D+L+EX-0.3EY	3.33
N+2.95	B5	37	Middle	3.05	3.2954	1.2D+L+EX-0.3EY	3.33
N+2.95	B5	37	End-J	3.05	3.2954	1.2D+L+EX-0.3EY	3.33
N+2.95	B6	38	End-I	3.19	3.1466	1.2D+L+EX-0.3EY	3.42
N+2.95	B6	38	Middle	2.02	1.2456	1.2D+L+EX-0.3EY	3.42
N+2.95	B6	38	End-J	2.84	1.7997	1.2D+L+EX-0.3EY	3.42
N+2.95	B7	39	End-I	1.7	3.1392	1.2D+L+EX-0.3EY	3.42
N+2.95	B7	39	Middle	1.7	2.9756	1.2D+L+EX-0.3EY	3.42
N+2.95	B7	39	End-J	1.67	2.8661	1.2D+L+EX-0.3EY	3.42
N+2.95	B8	40	End-I	1.52	1.4655	1.2D+L+EX-0.3EY	3.42
N+2.95	B8	40	Middle	1.56	1.4655	1.2D+L+EX-0.3EY	3.42
N+2.95	B8	40	End-J	1.56	0.2732	1.2D+L+EX-0.3EY	3.21
N+2.95	B9	41	End-I	2.9	3.0385	1.2D+L+EX-0.3EY	3.4
N+2.95	B9	41	Middle	2.9	3.0385	1.2D+L+EX-0.3EY	3.4
N+2.95	B9	41	End-J	2.9	3.0385	1.2D+L+EX-0.3EY	3.4
N+2.95	B10	42	End-I	3.09	2.9122	1.2D+L+EX-0.3EY	3.42
N+2.95	B10	42	Middle	1.91	1.4073	1.2D+L+EX-0.3EY	3.42
N+2.95	B10	42	End-J	2.85	1.9165	1.2D+L+EX-0.3EY	3.42
N+2.95	B11	43	End-I	1.83	3.4306	1.2D+L+EX-0.3EY	3.42
N+2.95	B11	43	Middle	1.67	3.1231	1.2D+L+EX-0.3EY	3.42
N+2.95	B11	43	End-J	1.71	2.791	1.2D+L+EX-0.3EY	3.42
N+2.95	B12	44	End-I	1.33	1.0853	1.2D+L+EX-0.3EY	3.42
N+2.95	B12	44	Middle	1.57	1.0853	1.2D+L+EX-0.3EY	3.42
N+2.95	B12	44	End-J	1.57	0.3411	1.2D+L+EX-0.3EY	3.18

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+2.95	B13	45	End-I	3.29	2.3677	1.2D+L+EX-0.3EY	3.42
N+2.95	B13	45	Middle	3.29	2.3677	1.2D+L+EX-0.3EY	3.42
N+2.95	B13	45	End-J	3.29	2.3677	1.2D+L+EX-0.3EY	3.42
N+2.95	B14	46	End-I	5.45	8.1855	1.2D+L+EX-0.3EY	4.61
N+2.95	B14	46	Middle	2.67	2.1219	1.2D+L+EX-0.3EY	3.42
N+2.95	B14	46	End-J	4.87	6.9936	1.2D+L+EX-0.3EY	4.12
N+2.95	B15	47	End-I	3.64	4.5326	1.2D+L+EX-0.3EY	3.25
N+2.95	B15	47	Middle	2.61	4.5326	1.2D+L+EX-0.3EY	3.25
N+2.95	B15	47	End-J	2.61	4.5326	1.2D+L+EX-0.3EY	3.25
N+2.95	B16	48	End-I	2.85	3.3637	1.2D+L+EX-0.3EY	3.31
N+2.95	B16	48	Middle	3.62	0.8423	1.2D+L+0.3EX-EY	3.42
N+2.95	B16	48	End-J	3.62	5.0043	1.2D+L+EX-0.3EY	3.06
N+2.95	B17	49	End-I	4.27	6.3731	1.2D+L+0.3EX-EY	3.61
N+2.95	B17	49	Middle	2.24	3.305	1.2D+L+0.3EX-EY	3.38
N+2.95	B17	49	End-J	3.53	3.9542	1.2D+L+0.3EX-EY	3.36
N+2.95	B18	50	End-I	2.61	2.8423	1.2D+L+0.3EX-EY	3.42
N+2.95	B18	50	Middle	2.61	1.288	1.2D+L+EX-0.3EY	3.42
N+2.95	B18	50	End-J	2.55	2.6631	1.2D+L+0.3EX-EY	3.42
N+2.95	B19	51	End-I	3.43	3.6154	1.2D+L+0.3EX-EY	3.42
N+2.95	B19	51	Middle	2.72	3.6154	1.2D+L+0.3EX-EY	3.42
N+2.95	B19	51	End-J	4.48	6.4023	1.2D+L+0.3EX-EY	3.78
N+2.95	B20	52	End-I	3.45	1.5371	1.2D+L+0.3EX-EY	3.42
N+2.95	B20	52	Middle	1.58	1.8619	1.2D+L+0.3EX-EY	3.42
N+2.95	B20	52	End-J	2.9	1.8619	1.2D+L+0.3EX-EY	3.42
N+2.95	B22	54	End-I	2.6	2.9193	1.2D+L+0.3EX-EY	3.42
N+2.95	B22	54	Middle	2.62	1.6588	1.2D+L+0.3EX-EY	3.42
N+2.95	B22	54	End-J	4	4.3434	1.2D+L+0.3EX-EY	3.38
N+2.95	B23	55	End-I	2.51	1.18	1.2D+L+0.3EX-EY	3.42
N+2.95	B23	55	Middle	1.13	0.9694	1.2D+L+0.3EX-EY	3.42
N+2.95	B23	55	End-J	1.9	1.6936	1.2D+L+0.3EX-EY	3.42
N+2.95	B24	56	End-I	1.81	1.6007	1.2D+L+0.3EX-EY	3.42
N+2.95	B24	56	Middle	1.64	1.5374	1.2D+L+0.3EX-EY	3.42
N+2.95	B24	56	End-J	1.77	1.6311	1.2D+L+0.3EX-EY	3.42
N+2.95	B25	57	End-I	1.65	1.1289	1.2D+L+0.3EX-EY	3.42
N+2.95	B25	57	Middle	1.83	2.3004	1.2D+L+0.3EX-EY	3.42
N+2.95	B25	57	End-J	2.21	0.9953	1.2D+L+0.3EX-EY	3.42
N+2.95	B26	58	End-I	3.92	0.8796	1.2D+L+0.3EX-EY	3.42
N+2.95	B26	58	Middle	1.23	0.8263	1.2D+L+0.3EX-EY	3.42
N+2.95	B26	58	End-J	2.34	1.8033	1.2D+L+0.3EX-EY	3.42
N+2.95	B27	59	End-I	1.98	0.26	1.2D+L+0.3EX-EY	3.42
N+2.95	B27	59	Middle	1.24	0.3112	1.2D+L+0.3EX-EY	3.42
N+2.95	B27	59	End-J	2.08	0.7543	1.2D+L+0.3EX-EY	3.42
N+2.95	B28	60	End-I	2.06	0.2903	1.2D+L+0.3EX-EY	3.42
N+2.95	B28	60	Middle	1.04	0.5384	1.2D+L+0.3EX-EY	3.42
N+2.95	B28	60	End-J	3.63	3.072	1.2D+L+0.3EX-EY	3.42

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+2.95	B29	61	End-I	2.84	0.1669	1.2D+L+EX-0.3EY	1.65
N+2.95	B29	61	Middle	2.84	1.3739	1.2D+L+0.3EX-EY	1.54
N+2.95	B29	61	End-J	2.18	0.9919	1.2D+L+EX-0.3EY	1.62
N+2.95	B30	62	End-I	1.38	0.2355	1.2D+L+0.3EX-EY	1.64
N+2.95	B30	62	Middle	1.19	0.2131	1.2D+L+0.3EX-EY	1.66
N+2.95	B30	62	End-J	1.3	0.2131	1.2D+L+0.3EX-EY	1.66
N+2.95	B31	63	End-I	2.14	0.9535	1.2D+L+EX-0.3EY	1.67
N+2.95	B31	63	Middle	3.01	1.4536	1.2D+L+0.3EX-EY	1.64
N+2.95	B31	63	End-J	3.01	0.0856	1.2D+L+EX-0.3EY	1.67
N+2.95	B32	64	End-I	3.64	4.7193	1.2D+L+0.3EX-EY	3.07
N+2.95	B32	64	Middle	3.78	5.8686	1.2D+L+0.3EX-EY	3.19
N+2.95	B32	64	End-J	3.78	5.8686	1.2D+L+0.3EX-EY	3.19
N+2.95	B33	65	End-I	3.79	5.9316	1.2D+L+0.3EX-EY	3.2
N+2.95	B33	65	Middle	3.79	5.9316	1.2D+L+0.3EX-EY	3.2
N+2.95	B33	65	End-J	3.77	5.0348	1.2D+L+0.3EX-EY	3.18
N+2.95	B34	66	End-I	1.51	1.6494	1.2D+L+0.3EX-EY	2.95
N+2.95	B34	66	Middle	1.51	1.6494	1.2D+L+0.3EX-EY	2.95
N+2.95	B34	66	End-J	1.51	1.6494	1.2D+L+0.3EX-EY	2.95
N+2.95	B36	68	End-I	1.46	1.5793	1.2D+L+0.3EX-EY	2.95
N+2.95	B36	68	Middle	1.46	1.5793	1.2D+L+0.3EX-EY	2.95
N+2.95	B36	68	End-J	1.46	1.5793	1.2D+L+0.3EX-EY	2.95
N+2.95	B38	70	End-I	0	0.8175	1.2D+L	0
N+2.95	B38	70	Middle	0	1.1468	1.2D+L	0
N+2.95	B38	70	End-J	0	1.1468	1.2D+L	0
N+2.95	B39	71	End-I	0	0.8601	1.2D+L	0
N+2.95	B39	71	Middle	0	1.2299	1.2D+L	0
N+2.95	B39	71	End-J	0	1.2299	1.2D+L	0
N+2.95	B40	72	End-I	0	0.0558	1.2D+L	0
N+2.95	B40	72	Middle	0	0.0789	1.2D+L	0
N+2.95	B40	72	End-J	0	0.0789	1.2D+L	0
N+2.95	B45	77	End-I	0	0.1045	1.2D+L	0
N+2.95	B45	77	Middle	0	0.0102	1.2D+L	0
N+2.95	B45	77	End-J	0	0.0102	1.2D+L	0
N+2.95	B46	78	End-I	2.1	1.2334	1.2D+L+EX-0.3EY	1.55
N+2.95	B46	78	Middle	2.1	1.2334	1.2D+L+EX-0.3EY	1.55
N+2.95	B46	78	End-J	2.1	1.2334	1.2D+L+EX-0.3EY	1.55
N+2.95	B47	79	End-I	1.04	0.1595	1.2D+L+EX-0.3EY	1.67
N+2.95	B47	79	Middle	1.04	0.1595	1.2D+L+EX-0.3EY	1.67
N+2.95	B47	79	End-J	0	0.5754	1.2D+L	0
N+2.95	B48	85	End-I	0	0.0318	1.2D+L	0
N+2.95	B48	85	Middle	0	0.0031	1.2D+L	0
N+2.95	B48	85	End-J	0	0.0031	1.2D+L	0
N+2.95	B49	84	End-I	1.04	0.5989	1.2D+L+EX-0.3EY	1.67
N+2.95	B49	84	Middle	1.04	0.5989	1.2D+L+EX-0.3EY	1.67
N+2.95	B49	84	End-J	0	0.0612	1.2D+L	0

Table 1.7 - Concrete Beam Shear Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	Location	At Torsion cm2/m	T for As kN-m	T for As Combo	As Torsion cm2
N+2.95	B50	83	End-I	1.96	1.1345	1.2D+L+EX-0.3EY	1.59
N+2.95	B50	83	Middle	1.96	1.1345	1.2D+L+EX-0.3EY	1.59
N+2.95	B50	83	End-J	1.96	1.1345	1.2D+L+EX-0.3EY	1.59
N+2.95	B51	133	End-I	1.42	2.0568	1.2D+L+EX-0.3EY	2.95
N+2.95	B51	133	Middle	1.5	2.4523	1.2D+1.6L	2.95
N+2.95	B51	133	End-J	1.5	2.4523	1.2D+1.6L	2.95
N+2.95	B52	137	End-I	0	0.0926	1.2D+L	0
N+2.95	B52	137	Middle	3.32	0.519	1.2D+L+EX-0.3EY	2.93
N+2.95	B52	137	End-J	1.25	0.519	1.2D+L+EX-0.3EY	2.93
N+2.95	B53	135	End-I	0	0.1724	1.2D+L	0
N+2.95	B53	135	Middle	0	0.4043	1.2D+L	0
N+2.95	B53	135	End-J	0	0.1479	1.2D+L	0
N+2.95	B58	140	End-I	0	0.4258	1.2D+L	0
N+2.95	B58	140	Middle	0	0.0064	1.2D+L	0
N+2.95	B58	140	End-J	0	0.0064	1.2D+L	0
N+2.95	B59	141	End-I	0	0.4068	1.2D+L	0
N+2.95	B59	141	Middle	0	0.0385	1.2D+L	0
N+2.95	B59	141	End-J	0	0.0385	1.2D+L	0
N+2.95	B54	75	End-I	0	0.0054	1.2D+L	0
N+2.95	B54	75	Middle	1.55	0.7033	1.2D+L+0.3EX-EY	1.67
N+2.95	B54	75	End-J	1.51	0.7953	1.2D+L+0.3EX-EY	1.67
N+2.95	B55	73	End-I	1.26	0.6836	1.2D+L+0.3EX-EY	1.62
N+2.95	B55	73	Middle	1.34	0.7165	1.2D+L+0.3EX-EY	1.66
N+2.95	B55	73	End-J	0	0.0453	1.2D+L	0
N+2.95	B56	74	End-I	1.96	3.0656	1.2D+L+0.3EX-EY	2.74
N+2.95	B56	74	Middle	2.7	3.0656	1.2D+L+0.3EX-EY	2.74
N+2.95	B56	74	End-J	1.66	1.149	1.2D+L+EX-0.3EY	2.73
N+2.95	B57	76	End-I	1.86	0.9415	1.2D+L+EX-0.3EY	2.92
N+2.95	B57	76	Middle	1.86	1.3632	1.2D+L+EX-0.3EY	2.95
N+2.95	B57	76	End-J	1.73	1.3632	1.2D+L+EX-0.3EY	2.95
N+2.95	B60	124	End-I	1.93	3.0151	1.2D+L+0.3EX-EY	2.75
N+2.95	B60	124	Middle	2.69	3.0151	1.2D+L+0.3EX-EY	2.75
N+2.95	B60	124	End-J	1.69	1.219	1.2D+L+EX-0.3EY	2.72
N+2.95	B61	131	End-I	1.79	0.8426	1.2D+L+EX-0.3EY	2.94
N+2.95	B61	131	Middle	1.79	1.1928	1.2D+L+EX-0.3EY	2.95
N+2.95	B61	131	End-J	1.62	1.1928	1.2D+L+EX-0.3EY	2.95

Table 1.8 - Concrete Joint Envelope - ACI 318-11 (Part 1 of 2)

Story	Label	UniqueName	Section	B/C Major Combo	B/C Major Ratio	B/C Minor Combo	B/C Minor Ratio	JS Major Combo
N+5.65	C1	1	COL30x30	0.9D+EX+0.3EY	0.194	0.9D+EX+0.3EY	0.313	1.2D+L+EX+0.3EY
N+5.65	C2	3	COL30x30	0.9D+0.3EX+EY	0.542	0.9D+0.3EX+EY	0.389	1.2D+L+EX+0.3EY
N+5.65	C3	5	COL30x30	0.9D+0.3EX+EY	0.591	0.9D+0.3EX+EY	0.388	1.2D+L+EX+0.3EY
N+5.65	C4	7	COL30x30	0.9D+EX+0.3EY	0.304	0.9D+EX+0.3EY	0.22	1.2D+L+EX+0.3EY

Table 1.8 - Concrete Joint Envelope - ACI 318-11 (Part 1 of 2, continued)

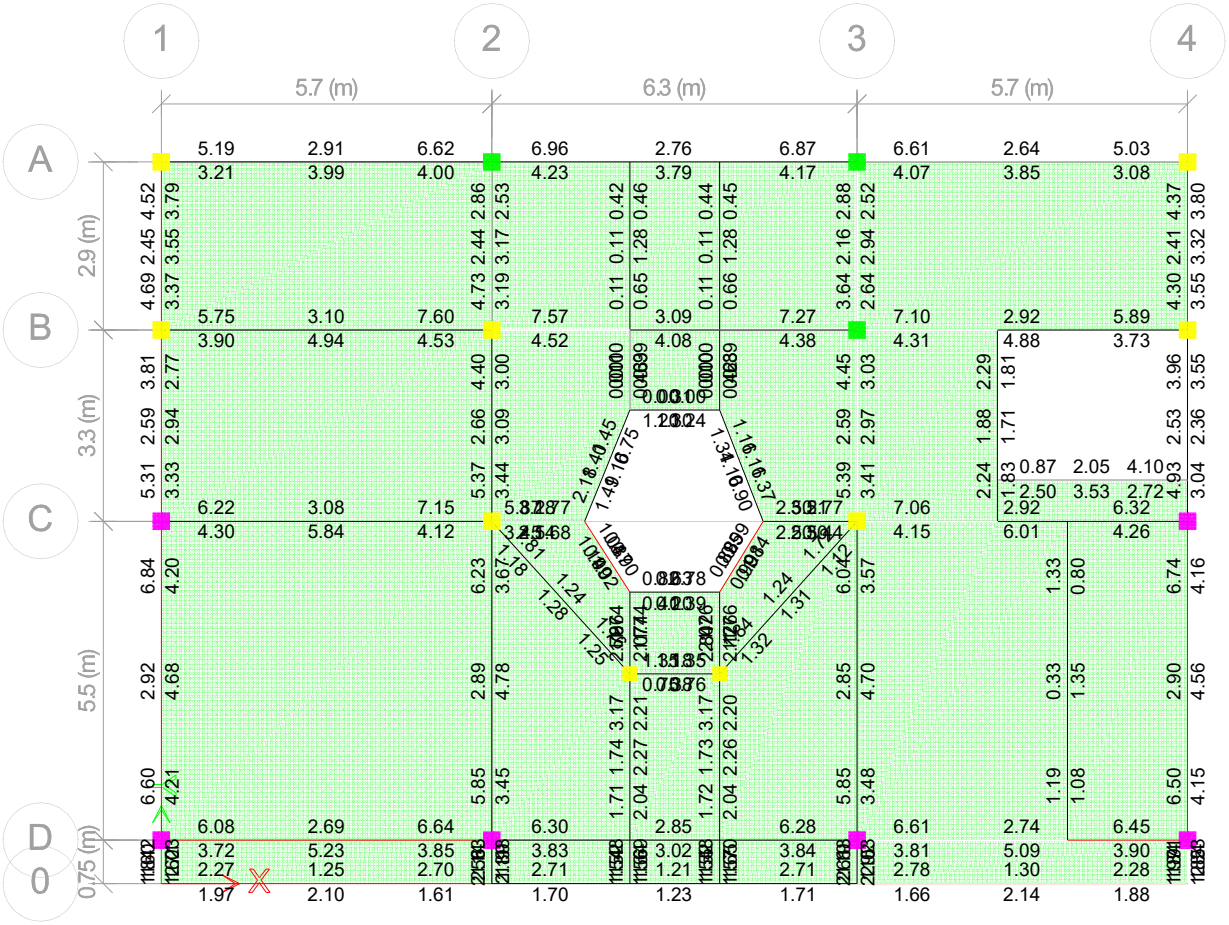
Story	Label	UniqueName	Section	B/C Major Combo	B/C Major Ratio	B/C Minor Combo	B/C Minor Ratio	JS Major Combo
N+5.65	C5	9	COL30x30	0.9D+0.3EX+EY	0.194	0.9D+0.3EX+EY	0.412	1.2D+L+EX+0.3EY
N+5.65	C6	11	COL30x30	0.9D+0.3EX+EY	0.758	0.9D+0.3EX+EY	0.622	1.2D+L+EX+0.3EY
N+5.65	C7	13	COL30x30	0.9D+0.3EX+EY	0.693	0.9D+0.3EX+EY	0.504	1.2D+L+EX+0.3EY
N+5.65	C8	15	COL30x30	0.9D+EX+0.3EY	0.306	0.9D+EX+0.3EY	0.321	1.2D+L+EX+0.3EY
N+5.65	C9	17	COL30x30	0.9D+EX+0.3EY	0.195	0.9D+EX+0.3EY	0.309	1.2D+L+EX+0.3EY
N+5.65	C10	19	COL30x30	0.9D+0.3EX+EY	0.551	0.9D+0.3EX+EY	0.309	1.2D+L+EX+0.3EY
N+5.65	C11	21	COL30x30	0.9D+0.3EX+EY	0.558	0.9D+0.3EX+EY	0.311	1.2D+L+EX+0.3EY
N+5.65	C12	23	COL30x30	0.9D+EX+0.3EY	0.19	0.9D+EX+0.3EY	0.311	1.2D+L+EX+0.3EY
N+5.65	C13	25	COL30x30	0.9D+0.3EX+EY	0.196	0.9D+0.3EX+EY	0.196	1.2D+L+EX+0.3EY
N+5.65	C14	27	COL30x30	0.9D+0.3EX+EY	0.393	0.9D+0.3EX+EY	0.195	1.2D+L+EX+0.3EY
N+5.65	C15	29	COL30x30	0.9D+0.3EX+EY	0.394	0.9D+0.3EX+EY	0.195	1.2D+L+EX+0.3EY
N+5.65	C16	31	COL30x30	0.9D+0.3EX+EY	0.191	0.9D+0.3EX+EY	0.196	1.2D+L+EX+0.3EY
N+2.95	C1	2	COL30x30	0.9D+EX+0.3EY	0.253	0.9D+EX+0.3EY	0.273	1.2D+L+EX+0.3EY
N+2.95	C2	4	COL30x30	0.9D+0.3EX+EY	0.427	0.9D+0.3EX+EY	0.291	1.2D+L+EX+0.3EY
N+2.95	C3	6	COL30x30	0.9D+0.3EX+EY	0.427	0.9D+0.3EX+EY	0.289	1.2D+L+EX+0.3EY
N+2.95	C4	8	COL30x30	0.9D+EX+0.3EY	0.27	0.9D+EX+0.3EY	0.27	1.2D+L+EX+0.3EY
N+2.95	C5	10	COL30x30	0.9D+EX+0.3EY	0.275	0.9D+EX+0.3EY	0.415	1.2D+L+EX+0.3EY
N+2.95	C6	12	COL30x30	0.9D+0.3EX+EY	0.487	0.9D+0.3EX+EY	0.467	1.2D+L+EX+0.3EY
N+2.95	C7	14	COL30x30	0.9D+0.3EX+EY	0.475	0.9D+0.3EX+EY	0.459	1.2D+L+EX+0.3EY
N+2.95	C8	16	COL30x30	0.9D+EX+0.3EY	0.272	0.9D+EX+0.3EY	0.405	1.2D+L+EX+0.3EY
N+2.95	C9	18	COL30x30	0.9D+EX+0.3EY	0.233	0.9D+EX+0.3EY	0.273	1.2D+L+EX+0.3EY
N+2.95	C10	20	COL30x30	0.9D+0.3EX+EY	0.464	0.9D+0.3EX+EY	0.265	1.2D+L+EX+0.3EY
N+2.95	C11	22	COL30x30	0.9D+0.3EX+EY	0.437	0.9D+0.3EX+EY	0.263	1.2D+L+EX+0.3EY
N+2.95	C12	24	COL30x30	0.9D+0.3EX+EY	0.234	0.9D+0.3EX+EY	0.31	1.2D+L+EX+0.3EY
N+2.95	C13	26	COL30x30	0.9D+0.3EX+EY	0.218	0.9D+0.3EX+EY	0.176	1.2D+L+EX+0.3EY
N+2.95	C14	28	COL30x30	0.9D+0.3EX+EY	0.435	0.9D+0.3EX+EY	0.147	1.2D+L+EX+0.3EY
N+2.95	C15	30	COL30x30	0.9D+0.3EX+EY	0.433	0.9D+0.3EX+EY	0.147	1.2D+L+EX+0.3EY
N+2.95	C16	32	COL30x30	0.9D+0.3EX+EY	0.216	0.9D+0.3EX+EY	0.179	1.2D+L+EX+0.3EY
N+2.95	C17	121	COL25x25	0.9D+EX+0.3EY	0.431	0.9D+EX+0.3EY	0.955	1.2D+L+EX+0.3EY
N+2.95	C18	122	COL25x25	0.9D+EX+0.3EY	0.432	0.9D+EX+0.3EY	0.97	1.2D+L+EX+0.3EY

Table 1.8 - Concrete Joint Envelope - ACI 318-11 (Part 2 of 2)

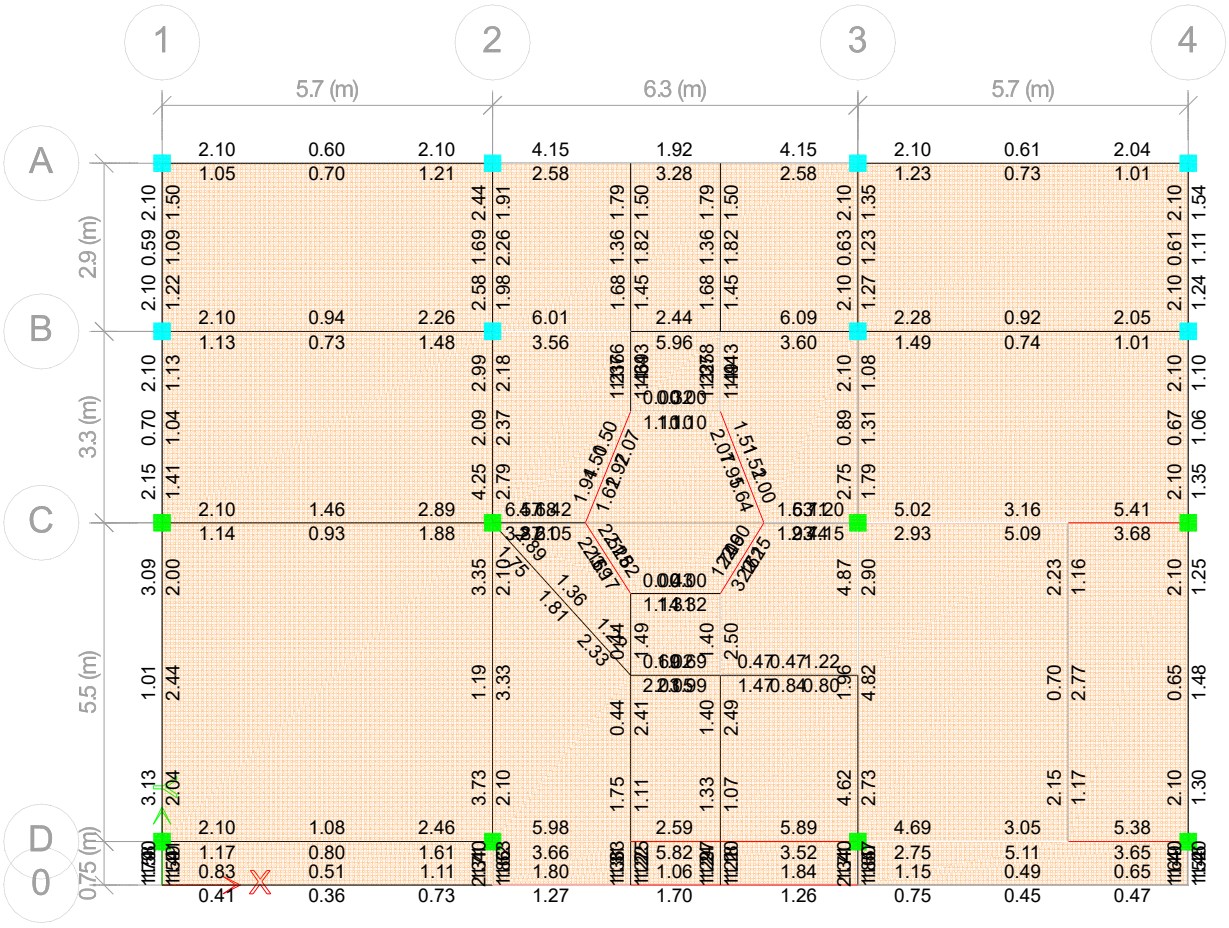
Story	Label	UniqueName	JS Major Ratio	JS Minor Combo	JS Minor Ratio
N+5.65	C1	1	0.23	1.2D+L+EX+0.3EY	0.376
N+5.65	C2	3	0.5	1.2D+L+EX+0.3EY	0.357
N+5.65	C3	5	0.547	1.2D+L+EX+0.3EY	0.356
N+5.65	C4	7	0.367	1.2D+L+EX+0.3EY	0.26
N+5.65	C5	9	0.23	1.2D+L+EX+0.3EY	0.492
N+5.65	C6	11	0.703	1.2D+L+EX+0.3EY	0.564
N+5.65	C7	13	0.654	1.2D+L+EX+0.3EY	0.462
N+5.65	C8	15	0.371	1.2D+L+EX+0.3EY	0.379
N+5.65	C9	17	0.23	1.2D+L+EX+0.3EY	0.364
N+5.65	C10	19	0.509	1.2D+L+EX+0.3EY	0.275
N+5.65	C11	21	0.516	1.2D+L+EX+0.3EY	0.277

Table 1.8 - Concrete Joint Envelope - ACI 318-11 (Part 2 of 2, continued)

Story	Label	UniqueName	JS Major Ratio	JS Minor Combo	JS Minor Ratio
N+5.65	C12	23	0.225	1.2D+L+EX+0.3EY	0.366
N+5.65	C13	25	0.288	1.2D+L+EX+0.3EY	0.288
N+5.65	C14	27	0.468	1.2D+L+EX+0.3EY	0.23
N+5.65	C15	29	0.469	1.2D+L+EX+0.3EY	0.23
N+5.65	C16	31	0.28	1.2D+L+EX+0.3EY	0.288
N+2.95	C1	2	0.463	1.2D+L+EX+0.3EY	0.497
N+2.95	C2	4	0.6	1.2D+L+EX+0.3EY	0.407
N+2.95	C3	6	0.602	1.2D+L+EX+0.3EY	0.404
N+2.95	C4	8	0.496	1.2D+L+EX+0.3EY	0.491
N+2.95	C5	10	0.511	1.2D+L+EX+0.3EY	0.762
N+2.95	C6	12	0.693	1.2D+L+EX+0.3EY	0.657
N+2.95	C7	14	0.673	1.2D+L+EX+0.3EY	0.643
N+2.95	C8	16	0.505	1.2D+L+EX+0.3EY	0.742
N+2.95	C9	18	0.423	1.2D+L+EX+0.3EY	0.481
N+2.95	C10	20	0.655	1.2D+L+EX+0.3EY	0.361
N+2.95	C11	22	0.614	1.2D+L+EX+0.3EY	0.359
N+2.95	C12	24	0.421	1.2D+L+EX+0.3EY	0.547
N+2.95	C13	26	0.483	1.2D+L+EX+0.3EY	0.384
N+2.95	C14	28	0.789	1.2D+L+EX+0.3EY	0.26
N+2.95	C15	30	0.784	1.2D+L+EX+0.3EY	0.26
N+2.95	C16	32	0.478	1.2D+L+EX+0.3EY	0.391
N+2.95	C17	121	0.356	1.2D+L+EX+0.3EY	0.646
N+2.95	C18	122	0.356	1.2D+L+EX+0.3EY	0.657



Plan View - N+2.95 - Z = 2.95 (m) Longitudinal Reinforcing (ACI 318-11)



Plan View - N+5.65 - Z = 5.65 (m) Longitudinal Reinforcing (ACI 318-11)



Elevation View - 1 Column P-M-M Interaction Ratios (ACI 318-11)



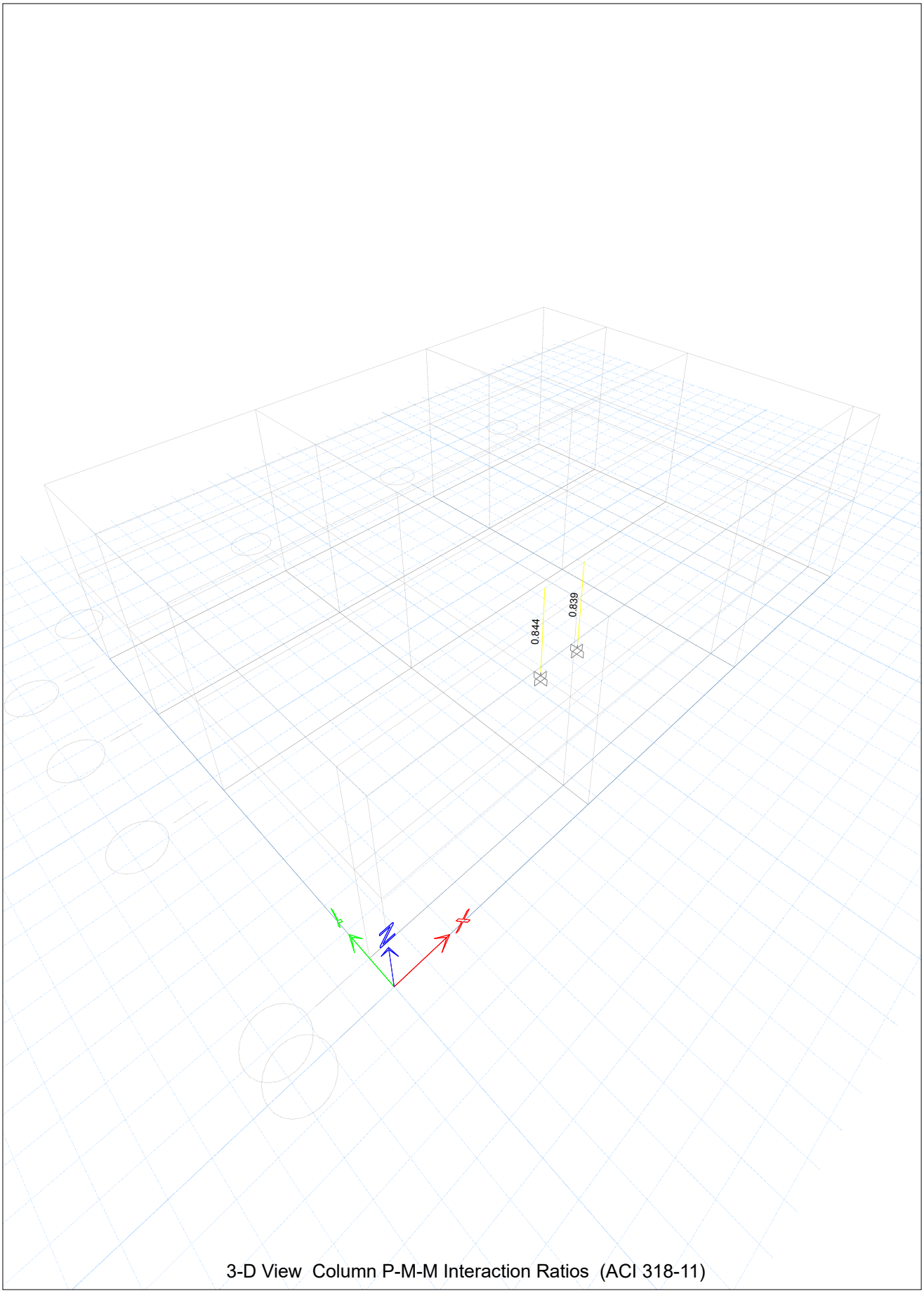
Elevation View - 2 Column P-M-M Interaction Ratios (ACI 318-11)



Elevation View - 3 Column P-M-M Interaction Ratios (ACI 318-11)



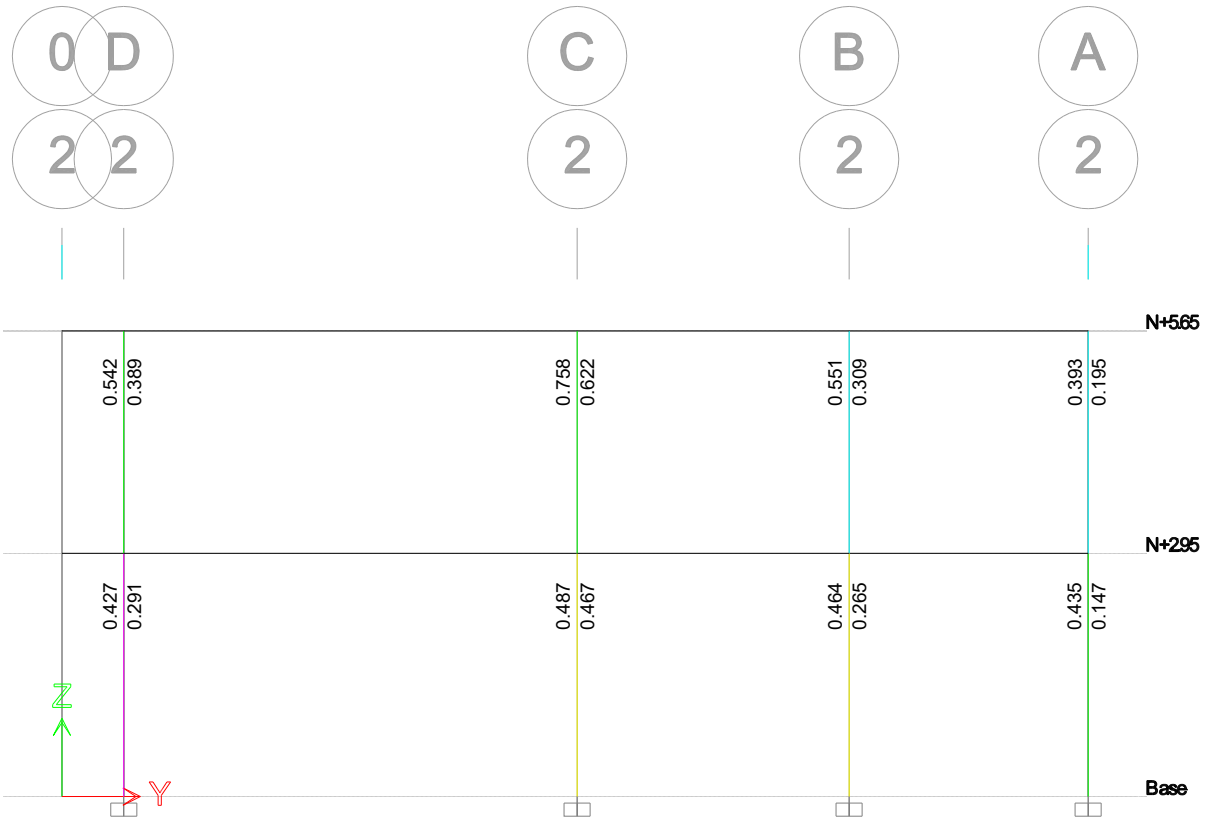
Elevation View - 4 Column P-M-M Interaction Ratios (ACI 318-11)



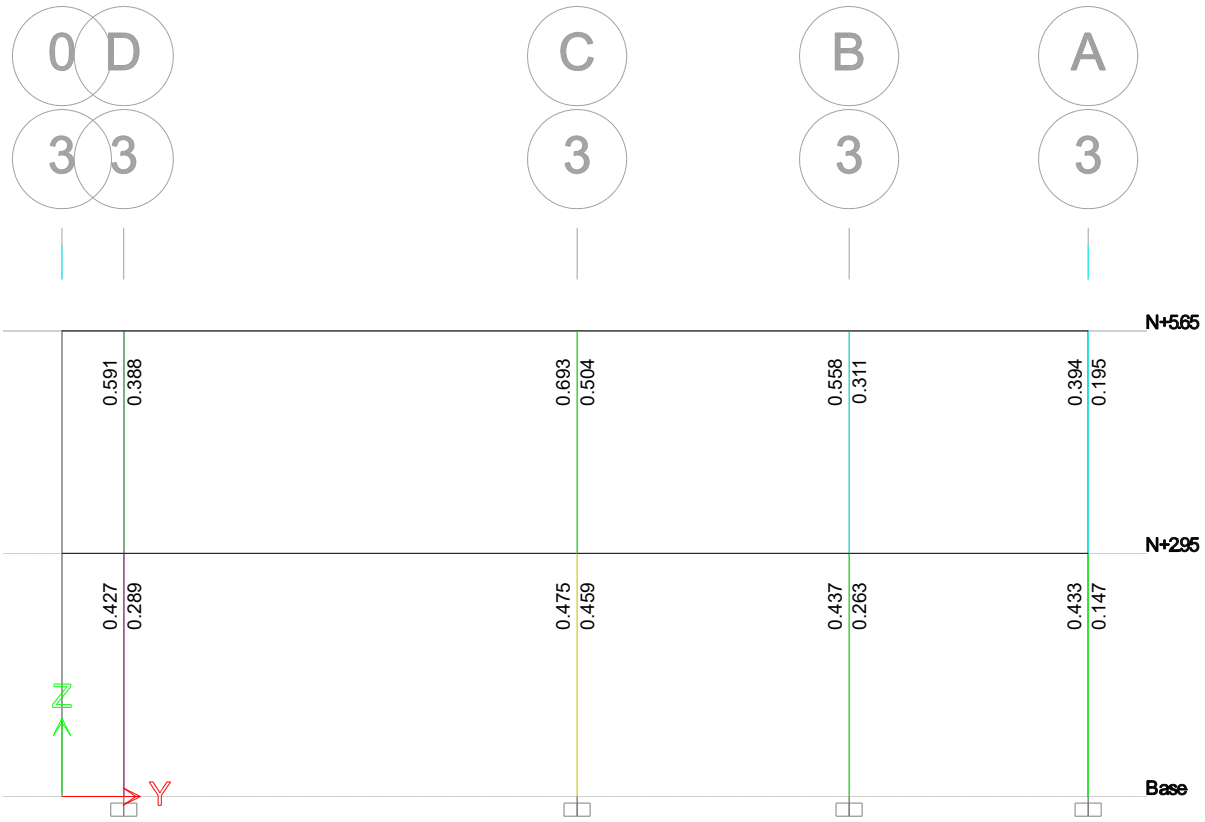
3-D View Column P-M-M Interaction Ratios (ACI 318-11)



Elevation View - 1 (6/5) Beam/Column Capacity Ratios (ACI 318-11)



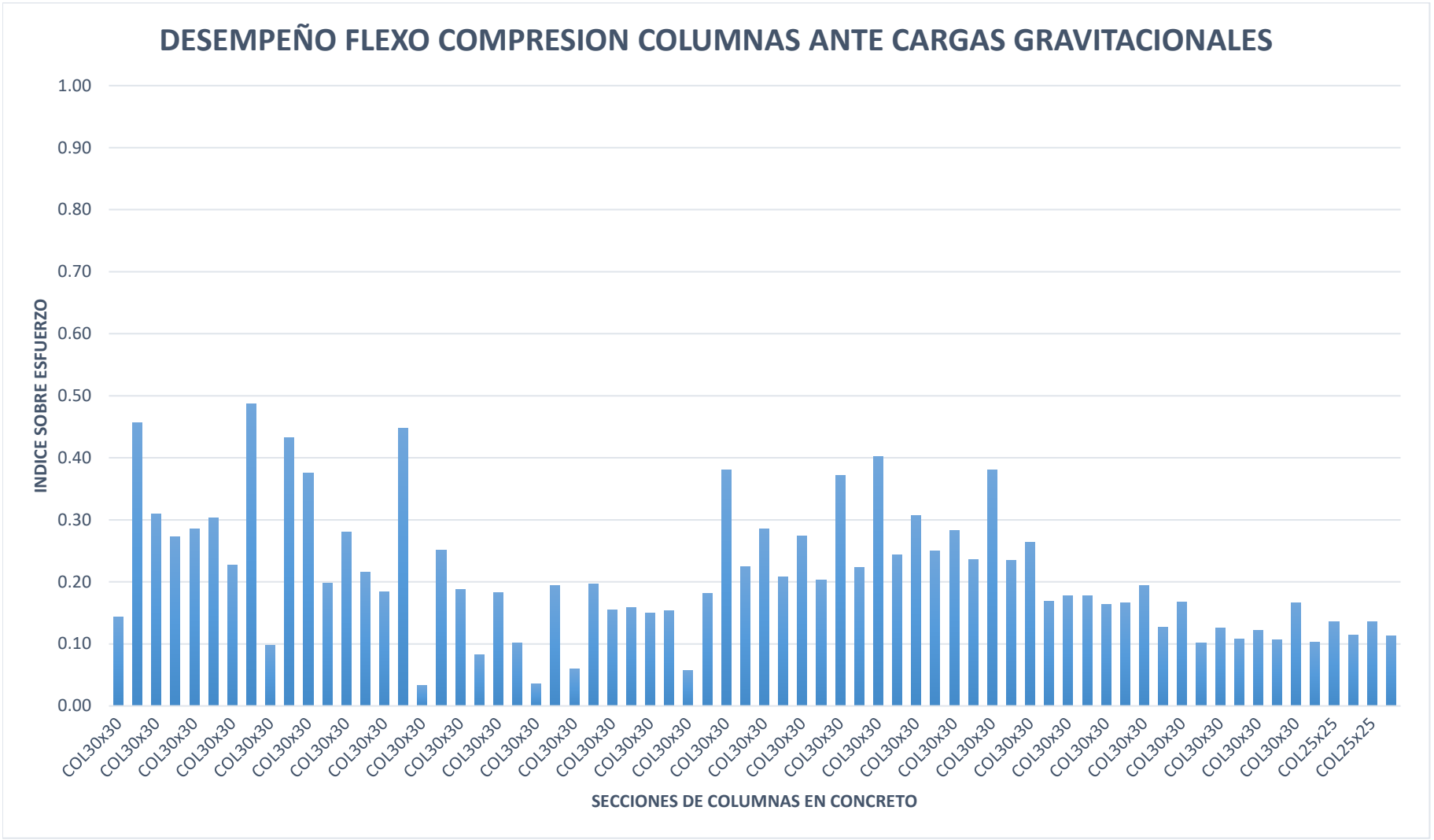
Elevation View - 2 (6/5) Beam/Column Capacity Ratios (ACI 318-11)



Elevation View - 3 (6/5) Beam/Column Capacity Ratios (ACI 318-11)



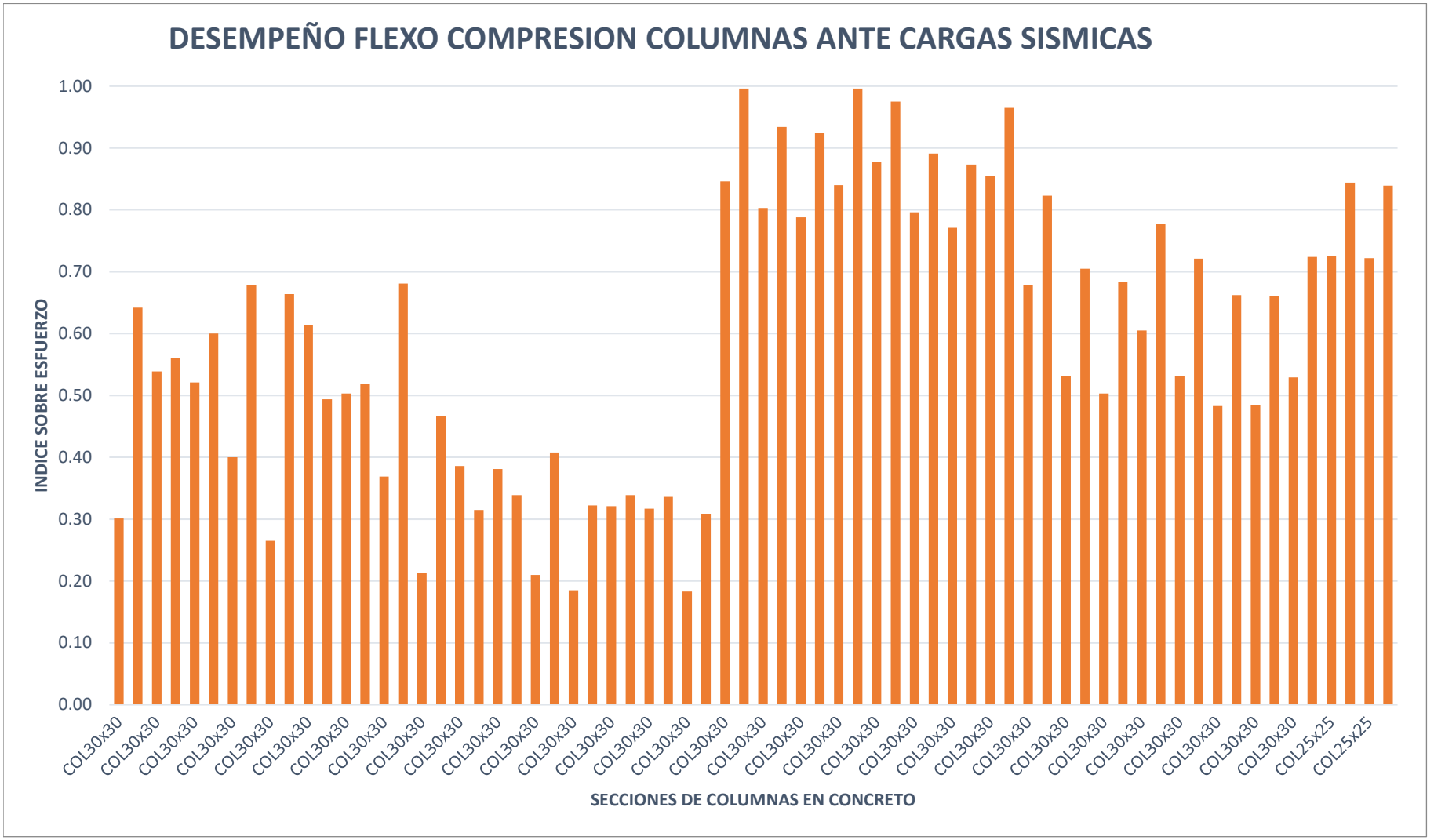
Elevation View - 4 (6/5) Beam/Column Capacity Ratios (ACI 318-11)


DESEMPEÑO FLEXO COMPRESION COLUMNAS ANTE CARGAS GRAVITACIONALES
INDICE SOBRE ESFUERZO
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
COL30x30
COL25x25
SECCIONES DE COLUMNAS EN CONCRETO

ANALISIS DE INDICES SOBRE ESFUERZO DE COLUMNAS PARA CARGAS (D+L)

Story	Label	Section	Location	P	M Major	M Minor	PMM Combo	PMM Ratio or Rebar %
				tonf	tonf-m	tonf-m		
N+5.65	C1	COL30x30	Top	31.3543	2.9643	11.2851	D+L	0.14
N+5.65	C1	COL30x30	Bottom	36.544	-26.1671	-20.5201	D+L	0.46
N+5.65	C2	COL30x30	Top	68.2787	14.9991	16.2008	D+L	0.31
N+5.65	C2	COL30x30	Bottom	73.4684	4.1205	-22.4436	D+L	0.27
N+5.65	C3	COL30x30	Top	71.8839	-10.4626	18.1701	D+L	0.29
N+5.65	C3	COL30x30	Bottom	77.0736	-6.9773	-22.9936	D+L	0.30
N+5.65	C4	COL30x30	Top	33.1244	-12.3596	10.7212	D+L	0.23
N+5.65	C4	COL30x30	Bottom	38.3141	29.8311	-20.0627	D+L	0.49
N+5.65	C5	COL30x30	Top	36.4211	1.5826	-7.7604	D+L	0.10
N+5.65	C5	COL30x30	Bottom	41.6107	-31.6087	12.5763	D+L	0.43
N+5.65	C6	COL30x30	Top	80.5669	23.6651	-14.1896	D+L	0.38
N+5.65	C6	COL30x30	Bottom	85.7566	4.3232	14.5379	D+L	0.20
N+5.65	C7	COL30x30	Top	77.6844	-15.6627	-12.3659	D+L	0.28
N+5.65	C7	COL30x30	Bottom	82.874	-7.581	13.6204	D+L	0.22
N+5.65	C8	COL30x30	Top	38.6395	-11.561	-6.978	D+L	0.18
N+5.65	C8	COL30x30	Bottom	43.8292	33.943	11.8343	D+L	0.45
N+5.65	C9	COL30x30	Top	26.3233	2.2435	-0.6381	D+L	0.03
N+5.65	C9	COL30x30	Bottom	31.513	-23.3811	-0.7639	D+L	0.25
N+5.65	C10	COL30x30	Top	55.2084	16.5904	-1.3383	D+L	0.19
N+5.65	C10	COL30x30	Bottom	60.3981	-5.8454	1.464	D+L	0.08
N+5.65	C11	COL30x30	Top	56.0842	-15.9805	-1.3595	D+L	0.18
N+5.65	C11	COL30x30	Bottom	61.2739	7.5988	-1.4853	D+L	0.10
N+5.65	C12	COL30x30	Top	26.582	-2.4707	0.6443	D+L	0.04
N+5.65	C12	COL30x30	Bottom	31.7717	16.7815	-2.668	D+L	0.19
N+5.65	C13	COL30x30	Top	14.91	2.4657	-3.5347	D+L	0.06
N+5.65	C13	COL30x30	Bottom	20.0997	-14.6858	5.3171	D+L	0.20
N+5.65	C14	COL30x30	Top	31.883	9.1728	-6.516	D+L	0.16
N+5.65	C14	COL30x30	Bottom	37.0727	-5.5339	10.3535	D+L	0.16
N+5.65	C15	COL30x30	Top	31.7854	-8.8296	-6.3318	D+L	0.15
N+5.65	C15	COL30x30	Bottom	36.9751	5.5335	9.9067	D+L	0.15
N+5.65	C16	COL30x30	Top	14.3834	-2.5462	-3.1383	D+L	0.06
N+5.65	C16	COL30x30	Bottom	19.5731	13.4592	5.0295	D+L	0.18
N+2.95	C1	COL30x30	Top	136.7698	23.6489	13.9324	D+L	0.38
N+2.95	C1	COL30x30	Bottom	142.3831	-13.4823	-7.929	D+L	0.23
N+2.95	C2	COL30x30	Top	258.3933	-13.0977	12.9846	D+L	0.29
N+2.95	C2	COL30x30	Bottom	264.0067	7.6901	-7.3718	D+L	0.21
N+2.95	C3	COL30x30	Top	261.8174	12.1439	12.3131	D+L	0.27
N+2.95	C3	COL30x30	Bottom	267.4307	-6.8534	-6.9727	D+L	0.20
N+2.95	C4	COL30x30	Top	140.8366	-23.2708	13.472	D+L	0.37
N+2.95	C4	COL30x30	Bottom	146.4499	13.5515	-7.6293	D+L	0.22
N+2.95	C5	COL30x30	Top	175.2396	29.9145	-8.2104	D+L	0.40
N+2.95	C5	COL30x30	Bottom	180.8529	-17.1031	4.8291	D+L	0.24

N+2.95	C6	COL30x30	Top	309.1509	-18.0464	-7.4938	D+L	0.31
N+2.95	C6	COL30x30	Bottom	314.7642	10.5307	7.6299	D+L	0.25
N+2.95	C7	COL30x30	Top	301.2643	15.7514	-7.3026	D+L	0.28
N+2.95	C7	COL30x30	Bottom	306.8776	-8.9427	7.4387	D+L	0.24
N+2.95	C8	COL30x30	Top	184.4036	-27.6921	-8.2354	D+L	0.38
N+2.95	C8	COL30x30	Bottom	190.017	16.0883	4.8779	D+L	0.24
N+2.95	C9	COL30x30	Top	114.5452	21.4516	2.7766	D+L	0.26
N+2.95	C9	COL30x30	Bottom	120.1586	-12.2334	-2.9126	D+L	0.17
N+2.95	C10	COL30x30	Top	254.0974	-3.9517	6.1593	D+L	0.18
N+2.95	C10	COL30x30	Bottom	259.7108	2.4033	6.2954	D+L	0.18
N+2.95	C11	COL30x30	Top	243.0327	0.9467	5.8911	D+L	0.16
N+2.95	C11	COL30x30	Bottom	248.646	-0.419	-6.0272	D+L	0.17
N+2.95	C12	COL30x30	Top	84.469	-15.7109	2.1379	D+L	0.19
N+2.95	C12	COL30x30	Bottom	90.0823	9.1786	-2.1836	D+L	0.13
N+2.95	C13	COL30x30	Top	61.7677	12.7635	-3.3808	D+L	0.17
N+2.95	C13	COL30x30	Bottom	67.3811	-7.2332	2.0464	D+L	0.10
N+2.95	C14	COL30x30	Top	134.5586	-3.2617	-6.8078	D+L	0.13
N+2.95	C14	COL30x30	Bottom	140.1719	3.3978	4.032	D+L	0.11
N+2.95	C15	COL30x30	Top	133.8128	-3.2436	-6.5829	D+L	0.12
N+2.95	C15	COL30x30	Bottom	139.4261	3.3797	3.9147	D+L	0.11
N+2.95	C16	COL30x30	Top	62.345	-12.3235	-3.6401	D+L	0.17
N+2.95	C16	COL30x30	Bottom	67.9583	7.2213	2.2302	D+L	0.10
N+2.95	C17	COL25x25	Top	88.6701	-3.9519	-2.0164	D+L	0.14
N+2.95	C17	COL25x25	Bottom	92.5682	2.3602	2.105	D+L	0.11
N+2.95	C18	COL25x25	Top	90.2323	3.8504	-2.0519	D+L	0.14
N+2.95	C18	COL25x25	Bottom	94.1304	-2.1679	2.1405	D+L	0.11


DESEMPEÑO FLEXO COMPRESION COLUMNAS ANTE CARGAS SISMICAS
INDICE SOBRE ESFUERZO
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
COL30x30
COL25x25
SECCIONES DE COLUMNAS EN CONCRETO

ANALISIS DE INDICES SOBRE ESFUERZO DE COLUMNAS PARA CARGAS DE SERVICIO Y SISMO

Story	Label	Section	Location	P	M Major	M Minor	PMM Combo	PMM Ratio or Rebar %
				kN	kN-m	kN-m		
N+5.65	C1	COL30x30	Top	40.1409	13.9943	16.6057	1.2D+L+EX-0.3EY	0.30
N+5.65	C1	COL30x30	Bottom	46.3685	-40.009	-25.9004	1.2D+L+EX-0.3EY	0.64
N+5.65	C2	COL30x30	Top	79.9371	34.3101	20.5723	1.2D+L+EX-0.3EY	0.54
N+5.65	C2	COL30x30	Bottom	86.1647	27.9758	-28.8773	1.2D+L+EX-0.3EY	0.56
N+5.65	C3	COL30x30	Top	84.0028	-29.7679	23.1426	1.2D+L+EX-0.3EY	0.52
N+5.65	C3	COL30x30	Bottom	90.2304	-31.2889	-29.5864	1.2D+L+EX-0.3EY	0.60
N+5.65	C4	COL30x30	Top	42.2046	-24.3958	16.4603	1.2D+L+EX-0.3EY	0.40
N+5.65	C4	COL30x30	Bottom	48.4322	44.0776	-25.6458	1.2D+L+EX-0.3EY	0.68
N+5.65	C5	COL30x30	Top	44.8714	4.3826	-22.1497	1.2D+L+0.3EX-EY	0.27
N+5.65	C5	COL30x30	Bottom	51.0991	-39.1731	28.8682	1.2D+L+0.3EX-EY	0.66
N+5.65	C6	COL30x30	Top	92.5072	40.1967	-22.1929	1.2D+L+EX-0.3EY	0.61
N+5.65	C6	COL30x30	Bottom	98.7348	25.0868	24.7992	1.2D+L+EX-0.3EY	0.49
N+5.65	C7	COL30x30	Top	89.5175	-30.9964	-19.9468	1.2D+L+EX-0.3EY	0.50
N+5.65	C7	COL30x30	Bottom	95.7451	-28.5848	23.8511	1.2D+L+EX-0.3EY	0.52
N+5.65	C8	COL30x30	Top	46.985	-15.9153	-21.6632	1.2D+L+0.3EX-EY	0.37
N+5.65	C8	COL30x30	Bottom	53.3491	48.1064	21.7705	1.2D+L+EX-0.3EY	0.68
N+5.65	C9	COL30x30	Top	32.379	4.9838	-16.4918	1.2D+L+0.3EX-EY	0.21
N+5.65	C9	COL30x30	Bottom	38.6067	-29.4974	-18.3503	1.2D+L+0.3EX-EY	0.47
N+5.65	C10	COL30x30	Top	64.7045	22.4374	-16.7474	1.2D+L+0.3EX-EY	0.39
N+5.65	C10	COL30x30	Bottom	70.9321	-11.856	-19.8809	1.2D+L+0.3EX-EY	0.32
N+5.65	C11	COL30x30	Top	65.6074	-21.7553	-16.8857	1.2D+L+0.3EX-EY	0.38
N+5.65	C11	COL30x30	Bottom	71.835	13.8744	-20.3094	1.2D+L+0.3EX-EY	0.34
N+5.65	C12	COL30x30	Top	32.7621	-5.1363	16.053	1.2D+L+0.3EX-EY	0.21
N+5.65	C12	COL30x30	Bottom	38.9897	21.6466	-19.9816	1.2D+L+0.3EX-EY	0.41
N+5.65	C13	COL30x30	Top	23.4408	9.4064	-9.4474	1.2D+L+EX-0.3EY	0.19
N+5.65	C13	COL30x30	Bottom	31.4726	-19.273	13.6286	1.2D+L+0.3EX-EY	0.32
N+5.65	C14	COL30x30	Top	39.4173	21.5365	-11.2234	1.2D+L+EX-0.3EY	0.32
N+5.65	C14	COL30x30	Bottom	45.6449	-18.6403	15.8365	1.2D+L+EX-0.3EY	0.34
N+5.65	C15	COL30x30	Top	39.3582	-21.1805	-11.1258	1.2D+L+EX-0.3EY	0.32
N+5.65	C15	COL30x30	Bottom	45.5859	18.6208	15.5346	1.2D+L+EX-0.3EY	0.34
N+5.65	C16	COL30x30	Top	22.8645	-9.5665	-9.0687	1.2D+L+EX-0.3EY	0.18
N+5.65	C16	COL30x30	Bottom	30.8504	17.7887	13.7531	1.2D+L+0.3EX-EY	0.31
N+2.95	C1	COL30x30	Top	177.9184	55.8126	29.5692	1.2D+L+EX-0.3EY	0.85
N+2.95	C1	COL30x30	Bottom	184.6544	-66.4135	-34.4055	1.2D+L+EX-0.3EY	1.00
N+2.95	C2	COL30x30	Top	309.4562	-53.4213	25.2493	1.2D+L+EX-0.3EY	0.80
N+2.95	C2	COL30x30	Bottom	316.1922	65.3476	-26.1732	1.2D+L+EX-0.3EY	0.93
N+2.95	C3	COL30x30	Top	313.4572	52.4875	24.5146	1.2D+L+EX-0.3EY	0.79
N+2.95	C3	COL30x30	Bottom	320.1931	-64.5851	-25.7424	1.2D+L+EX-0.3EY	0.92
N+2.95	C4	COL30x30	Top	182.7211	-55.6018	29.112	1.2D+L+EX-0.3EY	0.84
N+2.95	C4	COL30x30	Bottom	189.4571	66.7	-33.9799	1.2D+L+EX-0.3EY	1.00

N+2.95	C5	COL30x30	Top	219.8286	59.3309	-28.3976	1.2D+L+EX-0.3EY	0.88
N+2.95	C5	COL30x30	Bottom	226.5646	-64.0997	33.9678	1.2D+L+EX-0.3EY	0.98
N+2.95	C6	COL30x30	Top	358.999	-54.2512	-22.5143	1.2D+L+EX-0.3EY	0.80
N+2.95	C6	COL30x30	Bottom	365.735	61.4665	24.8744	1.2D+L+EX-0.3EY	0.89
N+2.95	C7	COL30x30	Top	349.8739	51.7153	-22.7789	1.2D+L+EX-0.3EY	0.77
N+2.95	C7	COL30x30	Bottom	356.6099	-59.712	25.0426	1.2D+L+EX-0.3EY	0.87
N+2.95	C8	COL30x30	Top	230.4629	-57.5553	-27.7373	1.2D+L+EX-0.3EY	0.86
N+2.95	C8	COL30x30	Bottom	237.1989	63.3857	33.491	1.2D+L+EX-0.3EY	0.97
N+2.95	C9	COL30x30	Top	146.6467	31.7546	36.6405	1.2D+L+0.3EX-EY	0.68
N+2.95	C9	COL30x30	Bottom	154.9521	-54.3035	-28.9795	1.2D+L+EX-0.3EY	0.82
N+2.95	C10	COL30x30	Top	307.9827	-13.2723	36.4873	1.2D+L+0.3EX-EY	0.53
N+2.95	C10	COL30x30	Bottom	314.7187	16.1167	51.0196	1.2D+L+0.3EX-EY	0.71
N+2.95	C11	COL30x30	Top	294.7856	10.0551	36.3818	1.2D+L+0.3EX-EY	0.50
N+2.95	C11	COL30x30	Bottom	301.5216	-14.1074	-50.6059	1.2D+L+0.3EX-EY	0.68
N+2.95	C12	COL30x30	Top	114.3286	-24.5169	36.6761	1.2D+L+0.3EX-EY	0.61
N+2.95	C12	COL30x30	Bottom	118.3613	49.5289	-29.4442	1.2D+L+EX-0.3EY	0.78
N+2.95	C13	COL30x30	Top	108.929	20.6276	-32.9784	1.2D+L+0.3EX-EY	0.53
N+2.95	C13	COL30x30	Bottom	106.4443	-44.1663	29.1608	1.2D+L+EX-0.3EY	0.72
N+2.95	C14	COL30x30	Top	193.0968	7.6002	-37.9048	1.2D+L+0.3EX-EY	0.48
N+2.95	C14	COL30x30	Bottom	199.8328	12.4738	51.9646	1.2D+L+0.3EX-EY	0.66
N+2.95	C15	COL30x30	Top	192.0575	-8.423	-37.3933	1.2D+L+0.3EX-EY	0.48
N+2.95	C15	COL30x30	Bottom	198.7935	12.9805	51.4591	1.2D+L+0.3EX-EY	0.66
N+2.95	C16	COL30x30	Top	110.406	-20.5962	-32.7616	1.2D+L+0.3EX-EY	0.53
N+2.95	C16	COL30x30	Bottom	108.2114	44.3418	29.2366	1.2D+L+EX-0.3EY	0.72
N+2.95	C17	COL25x25	Top	106.9674	-26.1648	-8.4697	1.2D+L+EX-0.3EY	0.73
N+2.95	C17	COL25x25	Bottom	111.6452	30.8088	9.5264	1.2D+L+EX-0.3EY	0.84
N+2.95	C18	COL25x25	Top	108.5168	26.0353	-8.4389	1.2D+L+EX-0.3EY	0.72
N+2.95	C18	COL25x25	Bottom	113.1945	-30.575	9.5437	1.2D+L+EX-0.3EY	0.84

ANALISIS DE INDICES SOBRE ESFUERZO A CORTANTE DE VIGAS PARA CARGAS (MUERTA Y VIVA)						
Story	**Label**	**Section**	**Location**	**V**	**V Combo**	**Indice**
				kN		Cortante
N+5.65	B1	VG30x25	End-I	1.8762	D+L	0.00452
N+5.65	B1	VG30x25	Middle	4.073	D+L	0.01789
N+5.65	B1	VG30x25	End-J	6.2698	D+L	0.01509
N+5.65	B2	VG30x25	End-I	12.0641	D+L	0.02904
N+5.65	B2	VG30x25	Middle	8.7058	D+L	0.03825
N+5.65	B2	VG30x25	End-J	19.0907	D+L	0.04595
N+5.65	B3	VG30x25	End-I	8.1452	D+L	0.01960
N+5.65	B3	VG30x25	Middle	2.8388	D+L	0.01247
N+5.65	B3	VG30x25	End-J	10.1615	D+L	0.02446
N+5.65	B4	VG30x25	End-I	6.7302	D+L	0.01620
N+5.65	B4	VG30x25	Middle	2.7893	D+L	0.01225
N+5.65	B4	VG30x25	End-J	9.1357	D+L	0.02199
N+5.65	B5	VG30x25	End-I	8.6124	D+L	0.02073
N+5.65	B5	VG30x25	Middle	11.5054	D+L	0.05055
N+5.65	B5	VG30x25	End-J	14.3983	D+L	0.03465
N+5.65	B6	VG30x25	End-I	15.827	D+L	0.03809
N+5.65	B6	VG30x25	Middle	11.0272	D+L	0.04844
N+5.65	B6	VG30x25	End-J	22.4871	D+L	0.05412
N+5.65	B7	VG30x25	End-I	12.6318	D+L	0.03040
N+5.65	B7	VG30x25	Middle	3.7743	D+L	0.01658
N+5.65	B7	VG30x25	End-J	11.6817	D+L	0.02812
N+5.65	B8	VG30x25	End-I	8.8701	D+L	0.02135
N+5.65	B8	VG30x25	Middle	3.6661	D+L	0.01611
N+5.65	B8	VG30x25	End-J	12.0235	D+L	0.02894
N+5.65	B9	VG30x25	End-I	9.0716	D+L	0.02183
N+5.65	B9	VG30x25	Middle	11.9616	D+L	0.05255
N+5.65	B9	VG30x25	End-J	14.8517	D+L	0.03574
N+5.65	B10	VG30x25	End-I	16.1504	D+L	0.03887
N+5.65	B10	VG30x25	Middle	12.4129	D+L	0.05453
N+5.65	B10	VG30x25	End-J	23.7972	D+L	0.05727
N+5.65	B11	VG30x25	End-I	12.2577	D+L	0.02950
N+5.65	B11	VG30x25	Middle	4.1448	D+L	0.01821
N+5.65	B11	VG30x25	End-J	12.0443	D+L	0.02899
N+5.65	B12	VG30x25	End-I	9.0334	D+L	0.02174
N+5.65	B12	VG30x25	Middle	3.4901	D+L	0.01533
N+5.65	B12	VG30x25	End-J	11.8391	D+L	0.02849
N+5.65	B13	VG30x25	End-I	1.6065	D+L	0.00387
N+5.65	B13	VG30x25	Middle	3.8033	D+L	0.01671

N+5.65	B13	VG30x25	End-J	6.0001	D+L	0.01444
N+5.65	B14	VG30x25	End-I	6.2543	D+L	0.01505
N+5.65	B14	VG30x25	Middle	4.477	D+L	0.01967
N+5.65	B14	VG30x25	End-J	9.8426	D+L	0.02369
N+5.65	B15	VG30x25	End-I	8.0817	D+L	0.01945
N+5.65	B15	VG30x25	Middle	2.9024	D+L	0.01275
N+5.65	B15	VG30x25	End-J	10.2251	D+L	0.02461
N+5.65	B16	VG30x25	End-I	7.1524	D+L	0.01721
N+5.65	B16	VG30x25	Middle	2.3671	D+L	0.01040
N+5.65	B16	VG30x25	End-J	8.7134	D+L	0.02097
N+5.65	B17	VG30x25	End-I	2.1672	D+L	0.00522
N+5.65	B17	VG30x25	Middle	3.0321	D+L	0.01332
N+5.65	B17	VG30x25	End-J	5.6317	D+L	0.01355
N+5.65	B18	VG30x25	End-I	18.0496	D+L	0.04344
N+5.65	B18	VG30x25	Middle	16.7088	D+L	0.07340
N+5.65	B18	VG30x25	End-J	19.8438	D+L	0.04776
N+5.65	B19	VG30x25	End-I	9.7912	D+L	0.02357
N+5.65	B19	VG30x25	Middle		O/S	0.00000
N+5.65	B19	VG30x25	End-J		O/S	0.00000
N+5.65	B20	VG30x25	End-I	1.5939	D+L	0.00384
N+5.65	B20	VG30x25	Middle	3.6054	D+L	0.01584
N+5.65	B20	VG30x25	End-J	6.205	D+L	0.01493
N+5.65	B22	VG30x25	End-I	10.1683	D+L	0.02447
N+5.65	B22	VG30x25	Middle		O/S	0.00000
N+5.65	B22	VG30x25	End-J		O/S	0.00000
N+5.65	B23	VG30x25	End-I	2.3285	D+L	0.00560
N+5.65	B23	VG30x25	Middle	2.8708	D+L	0.01261
N+5.65	B23	VG30x25	End-J	5.4704	D+L	0.01317
N+5.65	B24	VG30x25	End-I	19.7526	D+L	0.04754
N+5.65	B24	VG30x25	Middle	19.1095	D+L	0.08395
N+5.65	B24	VG30x25	End-J	22.2444	D+L	0.05354
N+5.65	B25	VG30x25	End-I	3.9644	D+L	0.00954
N+5.65	B25	VG30x25	Middle	1.2349	D+L	0.00543
N+5.65	B25	VG30x25	End-J	3.8345	D+L	0.00923
N+5.65	B26	VG30x25	End-I	2.6781	D+L	0.00645
N+5.65	B26	VG30x25	Middle	2.5212	D+L	0.01108
N+5.65	B26	VG30x25	End-J	5.1209	D+L	0.01232
N+5.65	B27	VG30x25	End-I	10.6655	D+L	0.02567
N+5.65	B27	VG30x25	Middle	9.8763	D+L	0.04339
N+5.65	B27	VG30x25	End-J	13.0113	D+L	0.03132
N+5.65	B28	VG30x25	End-I	3.4922	D+L	0.00840
N+5.65	B28	VG30x25	Middle	1.7071	D+L	0.00750

N+5.65	B28	VG30x25	End-J	4.3068	D+L	0.01037
N+5.65	B29	VT15x25	End-I	1.0377	D+L	0.00250
N+5.65	B29	VT15x25	Middle	1.8969	D+L	0.00872
N+5.65	B29	VT15x25	End-J	3.1546	D+L	0.00761
N+5.65	B30	VT15x25	End-I		O/S	0.00000
N+5.65	B30	VT15x25	Middle		O/S	0.00000
N+5.65	B30	VT15x25	End-J		O/S	0.00000
N+5.65	B31	VT15x25	End-I	2.5859	D+L	0.00624
N+5.65	B31	VT15x25	Middle	0.3487	D+L	0.00160
N+5.65	B31	VT15x25	End-J	1.6065	D+L	0.00388
N+5.65	B32	VG30x25	End-I	21.627	D+L	0.05205
N+5.65	B32	VG30x25	Middle	19.9207	D+L	0.08752
N+5.65	B32	VG30x25	End-J	19.0675	D+L	0.04589
N+5.65	B33	VG30x25	End-I	20.7305	D+L	0.04989
N+5.65	B33	VG30x25	Middle	22.4604	D+L	0.09867
N+5.65	B33	VG30x25	End-J	23.3253	D+L	0.05614
N+5.65	B34	VG25x25	End-I	2.6682	D+L	0.01207
N+5.65	B34	VG25x25	Middle	0.6796	D+L	0.00535
N+5.65	B34	VG25x25	End-J	1.3089	D+L	0.00592
N+5.65	B35	VG25x25	End-I	9.7454	D+L	0.04410
N+5.65	B35	VG25x25	Middle	1.5956	D+L	0.01256
N+5.65	B35	VG25x25	End-J	3.4864	D+L	0.01578
N+5.65	B36	VG25x25	End-I	2.8765	D+L	0.01302
N+5.65	B36	VG25x25	Middle	0.8916	D+L	0.00702
N+5.65	B36	VG25x25	End-J	1.0932	D+L	0.00495
N+5.65	B37	VG25x25	End-I	7.38	D+L	0.03339
N+5.65	B37	VG25x25	Middle	1.9308	D+L	0.01520
N+5.65	B37	VG25x25	End-J	5.5324	D+L	0.02503
N+5.65	B38	VG25x25	End-I	1.9766	D+L	0.00894
N+5.65	B38	VG25x25	Middle	6.8551	D+L	0.05395
N+5.65	B38	VG25x25	End-J	9.2944	D+L	0.04206
N+5.65	B39	VG25x25	End-I	1.8888	D+L	0.00855
N+5.65	B39	VG25x25	Middle	6.7584	D+L	0.05319
N+5.65	B39	VG25x25	End-J	9.1931	D+L	0.04160
N+5.65	B40	VT15x25	End-I	0.5417	D+L	0.00131
N+5.65	B40	VT15x25	Middle	0.4843	D+L	0.00223
N+5.65	B40	VT15x25	End-J	0.8263	D+L	0.00199
N+5.65	B45	VT15x25	End-I	1.3594	D+L	0.00328
N+5.65	B45	VT15x25	Middle	0.3334	D+L	0.00153
N+5.65	B45	VT15x25	End-J	0.0086	D+L	0.00002
N+5.65	B46	VT15x25	End-I		O/S	0.00000
N+5.65	B46	VT15x25	Middle		O/S	0.00000

N+5.65	B46	VT15x25	End-J		O/S	0.00000
N+5.65	B47	VT15x25	End-I		O/S	0.00000
N+5.65	B47	VT15x25	Middle		O/S	0.00000
N+5.65	B47	VT15x25	End-J		O/S	0.00000
N+5.65	B48	VT15x25	End-I	0.568	D+L	0.00137
N+5.65	B48	VT15x25	Middle	0.458	D+L	0.00210
N+5.65	B48	VT15x25	End-J	0.8	D+L	0.00193
N+5.65	B49	VT15x25	End-I		O/S	0.00000
N+5.65	B49	VT15x25	Middle		O/S	0.00000
N+5.65	B49	VT15x25	End-J		O/S	0.00000
N+5.65	B50	VT15x25	End-I		O/S	0.00000
N+5.65	B50	VT15x25	Middle		O/S	0.00000
N+5.65	B50	VT15x25	End-J		O/S	0.00000
N+5.65	B21	VT15x25	End-I	5.9227	D+L	0.01429
N+5.65	B21	VT15x25	Middle	6.7594	D+L	0.03106
N+5.65	B21	VT15x25	End-J	7.5961	D+L	0.01833
N+5.65	B53	VT15x25	End-I	11.2012	D+L	0.02703
N+5.65	B53	VT15x25	Middle	8.1191	D+L	0.03731
N+5.65	B53	VT15x25	End-J	17.7793	D+L	0.04290
N+5.65	B58	VG25x25	End-I	5.0845	D+L	0.02301
N+5.65	B58	VG25x25	Middle	2.5903	D+L	0.02039
N+5.65	B58	VG25x25	End-J	7.7069	D+L	0.03487
N+5.65	B59	VG25x25	End-I	5.0744	D+L	0.02296
N+5.65	B59	VG25x25	Middle	2.6146	D+L	0.02058
N+5.65	B59	VG25x25	End-J	7.7406	D+L	0.03503
N+5.65	B54	VT15x25	End-I	9.9428	D+L	0.02399
N+5.65	B54	VT15x25	Middle	5.0645	D+L	0.02327
N+5.65	B54	VT15x25	End-J	2.5379	D+L	0.00612
N+2.95	B1	VG30x30	End-I	8.8773	D+L	0.02032
N+2.95	B1	VG30x30	Middle	9.5127	D+L	0.03914
N+2.95	B1	VG30x30	End-J	10.1482	D+L	0.02323
N+2.95	B2	VG30x30	End-I	13.1123	D+L	0.03001
N+2.95	B2	VG30x30	Middle	15.2624	D+L	0.06279
N+2.95	B2	VG30x30	End-J	30.152	D+L	0.06902
N+2.95	B3	VG30x30	End-I	18.1844	D+L	0.04162
N+2.95	B3	VG30x30	Middle	17.1782	D+L	0.07068
N+2.95	B3	VG30x30	End-J	11.0207	D+L	0.02523
N+2.95	B4	VG30x30	End-I	13.9909	D+L	0.03202
N+2.95	B4	VG30x30	Middle	8.5273	D+L	0.03508
N+2.95	B4	VG30x30	End-J	10.2572	D+L	0.02348
N+2.95	B5	VG30x30	End-I	13.458	D+L	0.03080
N+2.95	B5	VG30x30	Middle	14.0934	D+L	0.05798

N+2.95	B5	VG30x30	End-J	14.7289	D+L	0.03371
N+2.95	B6	VG30x30	End-I	13.2344	D+L	0.03029
N+2.95	B6	VG30x30	Middle	11.5116	D+L	0.04736
N+2.95	B6	VG30x30	End-J	32.7367	D+L	0.07493
N+2.95	B7	VG30x30	End-I	22.0847	D+L	0.05055
N+2.95	B7	VG30x30	Middle	8.4078	D+L	0.03459
N+2.95	B7	VG30x30	End-J	19.5309	D+L	0.04470
N+2.95	B8	VG30x30	End-I	20.0137	D+L	0.04581
N+2.95	B8	VG30x30	Middle	12.5211	D+L	0.05152
N+2.95	B8	VG30x30	End-J	14.251	D+L	0.03262
N+2.95	B9	VG30x30	End-I	13.308	D+L	0.03046
N+2.95	B9	VG30x30	Middle	13.9435	D+L	0.05737
N+2.95	B9	VG30x30	End-J	14.579	D+L	0.03337
N+2.95	B10	VG30x30	End-I	12.968	D+L	0.02968
N+2.95	B10	VG30x30	Middle	11.2452	D+L	0.04627
N+2.95	B10	VG30x30	End-J	31.5324	D+L	0.07218
N+2.95	B11	VG30x30	End-I	6.7474	D+L	0.01544
N+2.95	B11	VG30x30	Middle	4.5445	D+L	0.01870
N+2.95	B11	VG30x30	End-J	19.5591	D+L	0.04477
N+2.95	B12	VG30x30	End-I	19.053	D+L	0.04361
N+2.95	B12	VG30x30	Middle	12.7295	D+L	0.05237
N+2.95	B12	VG30x30	End-J	14.4594	D+L	0.03310
N+2.95	B13	VG30x30	End-I	9.3716	D+L	0.02145
N+2.95	B13	VG30x30	Middle	10.0071	D+L	0.04117
N+2.95	B13	VG30x30	End-J	10.6426	D+L	0.02436
N+2.95	B14	VG30x30	End-I	12.7178	D+L	0.02911
N+2.95	B14	VG30x30	Middle	10.3877	D+L	0.04274
N+2.95	B14	VG30x30	End-J	28.7459	D+L	0.06580
N+2.95	B15	VG30x30	End-I	2.0307	D+L	0.00465
N+2.95	B15	VG30x30	Middle	1.0704	D+L	0.00440
N+2.95	B15	VG30x30	End-J	3.1378	D+L	0.00718
N+2.95	B16	VG30x30	End-I	12.7491	D+L	0.02918
N+2.95	B16	VG30x30	Middle	11.8842	D+L	0.04890
N+2.95	B16	VG30x30	End-J	11.1029	D+L	0.02541
N+2.95	B17	VG30x30	End-I	12.3164	D+L	0.02819
N+2.95	B17	VG30x30	Middle	9.9016	D+L	0.04074
N+2.95	B17	VG30x30	End-J	30.9789	D+L	0.07091
N+2.95	B18	VG30x30	End-I	18.4529	D+L	0.04224
N+2.95	B18	VG30x30	Middle	5.9893	D+L	0.02464
N+2.95	B18	VG30x30	End-J	20.4338	D+L	0.04677
N+2.95	B19	VG30x30	End-I	15.7417	D+L	0.03603
N+2.95	B19	VG30x30	Middle	13.7811	D+L	0.05670

N+2.95	B19	VG30x30	End-J	28.4256	D+L	0.06506
N+2.95	B20	VG30x30	End-I	30.5332	D+L	0.06989
N+2.95	B20	VG30x30	Middle	18.7519	D+L	0.07715
N+2.95	B20	VG30x30	End-J	36.9879	D+L	0.08466
N+2.95	B22	VG30x30	End-I	16.7495	D+L	0.03834
N+2.95	B22	VG30x30	Middle	14.1864	D+L	0.05837
N+2.95	B22	VG30x30	End-J	33.1912	D+L	0.07597
N+2.95	B23	VG30x30	End-I	24.2965	D+L	0.05561
N+2.95	B23	VG30x30	Middle	17.085	D+L	0.07029
N+2.95	B23	VG30x30	End-J	32.7659	D+L	0.07500
N+2.95	B24	VG30x30	End-I	30.7986	D+L	0.07050
N+2.95	B24	VG30x30	Middle	14.1382	D+L	0.05817
N+2.95	B24	VG30x30	End-J	31.2155	D+L	0.07145
N+2.95	B25	VG30x30	End-I	27.3072	D+L	0.06250
N+2.95	B25	VG30x30	Middle	10.592	D+L	0.04358
N+2.95	B25	VG30x30	End-J	22.1644	D+L	0.05073
N+2.95	B26	VG30x30	End-I	10.2354	D+L	0.02343
N+2.95	B26	VG30x30	Middle	14.3449	D+L	0.05902
N+2.95	B26	VG30x30	End-J	26.2916	D+L	0.06018
N+2.95	B27	VG30x30	End-I	25.1205	D+L	0.05750
N+2.95	B27	VG30x30	Middle	14.1861	D+L	0.05837
N+2.95	B27	VG30x30	End-J	27.167	D+L	0.06218
N+2.95	B28	VG30x30	End-I	24.2891	D+L	0.05560
N+2.95	B28	VG30x30	Middle	9.2139	D+L	0.03791
N+2.95	B28	VG30x30	End-J	20.4416	D+L	0.04679
N+2.95	B29	VT15x30	End-I	5.677	D+L	0.01326
N+2.95	B29	VT15x30	Middle	7.24	D+L	0.03192
N+2.95	B29	VT15x30	End-J	13.0818	D+L	0.03056
N+2.95	B30	VT15x30	End-I	3.747	D+L	0.00875
N+2.95	B30	VT15x30	Middle	3.2813	D+L	0.01446
N+2.95	B30	VT15x30	End-J	8.5845	D+L	0.02005
N+2.95	B31	VT15x30	End-I	7.3093	D+L	0.01707
N+2.95	B31	VT15x30	Middle	6.0715	D+L	0.02677
N+2.95	B31	VT15x30	End-J	11.6557	D+L	0.02722
N+2.95	B32	VG30x30	End-I	27.4455	D+L	0.06282
N+2.95	B32	VG30x30	Middle	11.5663	D+L	0.04759
N+2.95	B32	VG30x30	End-J	10.5157	D+L	0.02407
N+2.95	B33	VG30x30	End-I	11.0118	D+L	0.02521
N+2.95	B33	VG30x30	Middle	26.2972	D+L	0.10819
N+2.95	B33	VG30x30	End-J	27.6952	D+L	0.06339
N+2.95	B34	VG25x30	End-I	0.9901	D+L	0.00231
N+2.95	B34	VG25x30	Middle	1.652	D+L	0.00703

N+2.95	B34	VG25x30	End-J	2.314	D+L	0.00540
N+2.95	B36	VG25x30	End-I	0.9879	D+L	0.00230
N+2.95	B36	VG25x30	Middle	1.6498	D+L	0.00702
N+2.95	B36	VG25x30	End-J	2.3118	D+L	0.00539
N+2.95	B38	VG25x30	End-I	1.7567	D+L	0.00410
N+2.95	B38	VG25x30	Middle	1.4675	D+L	0.00625
N+2.95	B38	VG25x30	End-J	2.0765	D+L	0.00484
N+2.95	B39	VG25x30	End-I	1.8027	D+L	0.00421
N+2.95	B39	VG25x30	Middle	1.4487	D+L	0.00617
N+2.95	B39	VG25x30	End-J	2.0577	D+L	0.00480
N+2.95	B40	VT15x30	End-I	3.8473	D+L	0.00899
N+2.95	B40	VT15x30	Middle	3.6574	D+L	0.01612
N+2.95	B40	VT15x30	End-J	4.0016	D+L	0.00935
N+2.95	B45	VT15x30	End-I	1.7186	D+L	0.00401
N+2.95	B45	VT15x30	Middle	1.0922	D+L	0.00481
N+2.95	B45	VT15x30	End-J	1.5026	D+L	0.00351
N+2.95	B46	VT15x30	End-I	0.8531	D+L	0.00199
N+2.95	B46	VT15x30	Middle	0.158	D+L	0.00070
N+2.95	B46	VT15x30	End-J	0.6636	D+L	0.00155
N+2.95	B47	VT15x30	End-I	4.9152	D+L	0.01148
N+2.95	B47	VT15x30	Middle	8.8536	D+L	0.03903
N+2.95	B47	VT15x30	End-J	9.5813	D+L	0.02238
N+2.95	B48	VT15x30	End-I	2.2869	D+L	0.00534
N+2.95	B48	VT15x30	Middle	1.6152	D+L	0.00712
N+2.95	B48	VT15x30	End-J	2.0256	D+L	0.00473
N+2.95	B49	VT15x30	End-I	8.9365	D+L	0.02087
N+2.95	B49	VT15x30	Middle	5.2737	D+L	0.02325
N+2.95	B49	VT15x30	End-J	4.5421	D+L	0.01061
N+2.95	B50	VT15x30	End-I	1.1137	D+L	0.00260
N+2.95	B50	VT15x30	Middle	0.0913	D+L	0.00040
N+2.95	B50	VT15x30	End-J	0.4199	D+L	0.00098
N+2.95	B51	VG25x30	End-I	1.3441	D+L	0.00314
N+2.95	B51	VG25x30	Middle	0.3178	D+L	0.00135
N+2.95	B51	VG25x30	End-J	7.2302	D+L	0.01687
N+2.95	B52	VG25x30	End-I	0.8711	D+L	0.00203
N+2.95	B52	VG25x30	Middle	6.6874	D+L	0.02848
N+2.95	B52	VG25x30	End-J	34.8655	D+L	0.08133
N+2.95	B53	VT15x30	End-I	5.0389	D+L	0.01177
N+2.95	B53	VT15x30	Middle	5.087	D+L	0.02243
N+2.95	B53	VT15x30	End-J	9.7677	D+L	0.02281
N+2.95	B58	VG25x30	End-I	6.1131	D+L	0.01426
N+2.95	B58	VG25x30	Middle	5.2305	D+L	0.02227

N+2.95	B58	VG25x30	End-J	6.9369	D+L	0.01618
N+2.95	B59	VG25x30	End-I	6.2239	D+L	0.01452
N+2.95	B59	VG25x30	Middle	5.2071	D+L	0.02217
N+2.95	B59	VG25x30	End-J	6.9135	D+L	0.01613
N+2.95	B54	VT15x30	End-I	12.7187	D+L	0.02971
N+2.95	B54	VT15x30	Middle	7.478	D+L	0.03297
N+2.95	B54	VT15x30	End-J	8.3526	D+L	0.01951
N+2.95	B55	VT15x30	End-I	8.0678	D+L	0.01884
N+2.95	B55	VT15x30	Middle	11.421	D+L	0.05035
N+2.95	B55	VT15x30	End-J	12.5436	D+L	0.02930
N+2.95	B56	VG25x30	End-I	2.2665	D+L	0.00529
N+2.95	B56	VG25x30	Middle	14.9232	D+L	0.06354
N+2.95	B56	VG25x30	End-J	16.3912	D+L	0.03824
N+2.95	B57	VG25x30	End-I	10.1665	D+L	0.02372
N+2.95	B57	VG25x30	Middle	3.5744	D+L	0.01522
N+2.95	B57	VG25x30	End-J	2.6069	D+L	0.00608
N+2.95	B60	VG25x30	End-I	2.196	D+L	0.00512
N+2.95	B60	VG25x30	Middle	15.0028	D+L	0.06388
N+2.95	B60	VG25x30	End-J	16.4709	D+L	0.03842
N+2.95	B61	VG25x30	End-I	10.6522	D+L	0.02485
N+2.95	B61	VG25x30	Middle	3.9328	D+L	0.01675
N+2.95	B61	VG25x30	End-J	2.913	D+L	0.00680

ANALISIS DE INDICES SOBRE ESFUERZO A CORTANTE DE VIGAS PARA CARGAS DE SERVICIO Y SISMO						
Story	**Label**	**Section**	**Location**	**V**	**V Combo**	**Indice**
				kN		Cortante
N+5.65	B1	VG30x25	End-I	13.1571	1.2D+L+0.3EX-EY	0.03167
N+5.65	B1	VG30x25	Middle	10.6919	0.9D+0.3EX-EY	0.04697
N+5.65	B1	VG30x25	End-J	13.1571	1.2D+L+0.3EX-EY	0.03167
N+5.65	B2	VG30x25	End-I	13.5656	1.2D+L	0.03265
N+5.65	B2	VG30x25	Middle	9.7415	1.2D+L	0.04280
N+5.65	B2	VG30x25	End-J	21.3951	1.2D+L	0.05149
N+5.65	B3	VG30x25	End-I	18.275	0.9D+0.3EX-EY	0.04398
N+5.65	B3	VG30x25	Middle	14.2496	0.9D+0.3EX-EY	0.06260
N+5.65	B3	VG30x25	End-J	18.275	0.9D+0.3EX-EY	0.04398
N+5.65	B4	VG30x25	End-I	25.1662	1.2D+L+0.3EX-EY	0.06057
N+5.65	B4	VG30x25	Middle	18.0446	1.2D+L+0.3EX-EY	0.07927
N+5.65	B4	VG30x25	End-J	25.1662	1.2D+L+0.3EX-EY	0.06057
N+5.65	B5	VG30x25	End-I	30.5117	1.2D+L+0.3EX-EY	0.07344
N+5.65	B5	VG30x25	Middle	27.2825	0.9D+0.3EX-EY	0.11986
N+5.65	B5	VG30x25	End-J	30.5117	1.2D+L+0.3EX-EY	0.07344
N+5.65	B6	VG30x25	End-I	38.9349	1.2D+L+0.3EX-EY	0.09371
N+5.65	B6	VG30x25	Middle	12.2705	1.2D+L	0.05391
N+5.65	B6	VG30x25	End-J	25.1038	1.2D+L	0.06042
N+5.65	B7	VG30x25	End-I	21.1118	0.9D+0.3EX-EY	0.05081
N+5.65	B7	VG30x25	Middle	17.1417	0.9D+0.3EX-EY	0.07531
N+5.65	B7	VG30x25	End-J	21.2769	0.9D+0.3EX-EY	0.05121
N+5.65	B8	VG30x25	End-I	20.3635	0.9D+0.3EX-EY	0.04901
N+5.65	B8	VG30x25	Middle	15.993	0.9D+0.3EX-EY	0.07026
N+5.65	B8	VG30x25	End-J	20.3635	0.9D+0.3EX-EY	0.04901
N+5.65	B9	VG30x25	End-I	31.6376	1.2D+L+0.3EX-EY	0.07615
N+5.65	B9	VG30x25	Middle	28.4117	0.9D+0.3EX-EY	0.12482
N+5.65	B9	VG30x25	End-J	31.6376	1.2D+L+0.3EX-EY	0.07615
N+5.65	B10	VG30x25	End-I	18.2294	1.2D+L	0.04387
N+5.65	B10	VG30x25	Middle	13.9856	1.2D+L	0.06144
N+5.65	B10	VG30x25	End-J	26.758	1.2D+L	0.06440
N+5.65	B11	VG30x25	End-I	20.8936	0.9D+0.3EX-EY	0.05029
N+5.65	B11	VG30x25	Middle	16.9206	0.9D+0.3EX-EY	0.07434
N+5.65	B11	VG30x25	End-J	21.0523	0.9D+0.3EX-EY	0.05067
N+5.65	B12	VG30x25	End-I	20.4624	0.9D+0.3EX-EY	0.04925
N+5.65	B12	VG30x25	Middle	16.0956	0.9D+0.3EX-EY	0.07071
N+5.65	B12	VG30x25	End-J	20.4624	0.9D+0.3EX-EY	0.04925
N+5.65	B13	VG30x25	End-I	12.5791	1.2D+L+0.3EX-EY	0.03028
N+5.65	B13	VG30x25	Middle	10.1139	0.9D+0.3EX-EY	0.04443

N+5.65	B13	VG30x25	End-J	12.5791	1.2D+L+0.3EX-EY	0.03028
N+5.65	B14	VG30x25	End-I	13.282	0.9D+0.3EX-EY	0.03197
N+5.65	B14	VG30x25	Middle	9.774	0.9D+0.3EX-EY	0.04294
N+5.65	B14	VG30x25	End-J	13.282	0.9D+0.3EX-EY	0.03197
N+5.65	B15	VG30x25	End-I	18.0933	0.9D+0.3EX-EY	0.04355
N+5.65	B15	VG30x25	Middle	14.0679	0.9D+0.3EX-EY	0.06180
N+5.65	B15	VG30x25	End-J	18.0933	0.9D+0.3EX-EY	0.04355
N+5.65	B16	VG30x25	End-I	25.3461	1.2D+L+0.3EX-EY	0.06100
N+5.65	B16	VG30x25	Middle	18.2245	1.2D+L+0.3EX-EY	0.08006
N+5.65	B16	VG30x25	End-J	25.3461	1.2D+L+0.3EX-EY	0.06100
N+5.65	B17	VG30x25	End-I	12.9015	1.2D+L+0.3EX-EY	0.03105
N+5.65	B17	VG30x25	Middle	9.7819	1.2D+L+0.3EX-EY	0.04297
N+5.65	B17	VG30x25	End-J	12.9015	1.2D+L+0.3EX-EY	0.03105
N+5.65	B19	VG30x25	End-I	18.4743	0.9D+0.3EX-EY	0.04446
N+5.65	B20	VG30x25	End-I	13.4315	1.2D+L+0.3EX-EY	0.03233
N+5.65	B20	VG30x25	Middle	10.3119	1.2D+L+0.3EX-EY	0.04530
N+5.65	B20	VG30x25	End-J	13.4315	1.2D+L+0.3EX-EY	0.03233
N+5.65	B22	VG30x25	End-I	18.979	0.9D+0.3EX-EY	0.04568
N+5.65	B23	VG30x25	End-I	12.6487	1.2D+L+0.3EX-EY	0.03044
N+5.65	B23	VG30x25	Middle	9.5291	1.2D+L+0.3EX-EY	0.04186
N+5.65	B23	VG30x25	End-J	12.6487	1.2D+L+0.3EX-EY	0.03044
N+5.65	B24	VG30x25	End-I	23.8806	0.9D+EX-0.3EY	0.05748
N+5.65	B24	VG30x25	Middle	22.4635	0.9D+EX-0.3EY	0.09869
N+5.65	B24	VG30x25	End-J	22.2556	1.4D	0.05356
N+5.65	B25	VG30x25	End-I	12.5802	1.2D+L+0.3EX-EY	0.03028
N+5.65	B25	VG30x25	Middle	9.4606	1.2D+L+0.3EX-EY	0.04156
N+5.65	B25	VG30x25	End-J	12.5802	1.2D+L+0.3EX-EY	0.03028
N+5.65	B26	VG30x25	End-I	12.148	1.2D+L+0.3EX-EY	0.02924
N+5.65	B26	VG30x25	Middle	9.0284	1.2D+L+0.3EX-EY	0.03966
N+5.65	B26	VG30x25	End-J	12.148	1.2D+L+0.3EX-EY	0.02924
N+5.65	B27	VG30x25	End-I	15.6975	0.9D+EX-0.3EY	0.03778
N+5.65	B27	VG30x25	Middle	14.2804	0.9D+EX-0.3EY	0.06274
N+5.65	B27	VG30x25	End-J	17.8193	0.9D+EX-0.3EY	0.04289
N+5.65	B28	VG30x25	End-I	12.0762	1.2D+L+0.3EX-EY	0.02906
N+5.65	B28	VG30x25	Middle	8.9567	1.2D+L+0.3EX-EY	0.03935
N+5.65	B28	VG30x25	End-J	12.0762	1.2D+L+0.3EX-EY	0.02906
N+5.65	B29	VT15x25	End-I	5.2718	0.9D+0.3EX-EY	0.01272
N+5.65	B29	VT15x25	Middle	4.1399	0.9D+0.3EX-EY	0.01902
N+5.65	B29	VT15x25	End-J	5.2718	0.9D+0.3EX-EY	0.01272
N+5.65	B31	VT15x25	End-I	5.2294	0.9D+0.3EX-EY	0.01262
N+5.65	B31	VT15x25	Middle	4.0975	0.9D+0.3EX-EY	0.01883
N+5.65	B31	VT15x25	End-J	5.2294	0.9D+0.3EX-EY	0.01262

N+5.65	B32	VG30x25	End-I	42.6815	1.2D+L+0.3EX-EY	0.10273
N+5.65	B32	VG30x25	Middle	41.6577	1.2D+L+0.3EX-EY	0.18301
N+5.65	B32	VG30x25	End-J	42.6815	1.2D+L+0.3EX-EY	0.10273
N+5.65	B33	VG30x25	End-I	44.9698	1.2D+L+0.3EX-EY	0.10823
N+5.65	B33	VG30x25	Middle	43.9319	1.2D+L+0.3EX-EY	0.19300
N+5.65	B33	VG30x25	End-J	44.9698	1.2D+L+0.3EX-EY	0.10823
N+5.65	B34	VG25x25	End-I	9.5552	1.2D+L+0.3EX-EY	0.04324
N+5.65	B34	VG25x25	Middle	7.3164	0.9D+0.3EX-EY	0.05758
N+5.65	B34	VG25x25	End-J	9.5552	1.2D+L+0.3EX-EY	0.04324
N+5.65	B35	VG25x25	End-I	13.9807	0.9D+0.3EX-EY	0.06326
N+5.65	B35	VG25x25	Middle	9.67	0.9D+0.3EX-EY	0.07610
N+5.65	B35	VG25x25	End-J	10.9049	0.9D+0.3EX-EY	0.04934
N+5.65	B36	VG25x25	End-I	8.0916	1.2D+L+0.3EX-EY	0.03661
N+5.65	B36	VG25x25	Middle	5.8568	0.9D+0.3EX-EY	0.04609
N+5.65	B36	VG25x25	End-J	8.0916	1.2D+L+0.3EX-EY	0.03661
N+5.65	B37	VG25x25	End-I	12.1583	0.9D+0.3EX-EY	0.05502
N+5.65	B37	VG25x25	Middle	9.3661	0.9D+0.3EX-EY	0.07371
N+5.65	B37	VG25x25	End-J	11.1673	0.9D+0.3EX-EY	0.05053
N+5.65	B38	VG25x25	End-I	18.0973	1.2D+L+0.3EX-EY	0.08189
N+5.65	B38	VG25x25	Middle	15.351	1.2D+L+0.3EX-EY	0.12081
N+5.65	B38	VG25x25	End-J	18.0973	1.2D+L+0.3EX-EY	0.08189
N+5.65	B39	VG25x25	End-I	17.8527	1.2D+L+0.3EX-EY	0.08078
N+5.65	B39	VG25x25	Middle	15.1113	1.2D+L+0.3EX-EY	0.11893
N+5.65	B39	VG25x25	End-J	17.8527	1.2D+L+0.3EX-EY	0.08078
N+5.65	B40	VT15x25	End-I	10.1087	1.2D+L+0.3EX-EY	0.02439
N+5.65	B40	VT15x25	Middle	9.6983	1.2D+L+0.3EX-EY	0.04456
N+5.65	B40	VT15x25	End-J	10.1087	1.2D+L+0.3EX-EY	0.02439
N+5.65	B45	VT15x25	End-I	10.0545	1.2D+L+0.3EX-EY	0.02426
N+5.65	B45	VT15x25	Middle	9.6441	1.2D+L+0.3EX-EY	0.04431
N+5.65	B45	VT15x25	End-J	10.0545	1.2D+L+0.3EX-EY	0.02426
N+5.65	B48	VT15x25	End-I	8.5602	1.2D+L+0.3EX-EY	0.02065
N+5.65	B48	VT15x25	Middle	8.1498	1.2D+L+0.3EX-EY	0.03745
N+5.65	B48	VT15x25	End-J	8.5602	1.2D+L+0.3EX-EY	0.02065
N+5.65	B21	VT15x25	End-I	13.5012	1.2D+L+0.3EX-EY	0.03258
N+5.65	B21	VT15x25	Middle	12.4972	1.2D+L+0.3EX-EY	0.05742
N+5.65	B21	VT15x25	End-J	13.5012	1.2D+L+0.3EX-EY	0.03258
N+5.65	B53	VT15x25	End-I	22.5099	1.2D+L+0.3EX-EY	0.05431
N+5.65	B53	VT15x25	Middle	9.0192	1.2D+L	0.04144
N+5.65	B53	VT15x25	End-J	26.0889	1.2D+L+0.3EX-EY	0.06295
N+5.65	B58	VG25x25	End-I	9.6894	1.2D+L+0.3EX-EY	0.04384
N+5.65	B58	VG25x25	Middle	6.8089	1.2D+L+0.3EX-EY	0.05359
N+5.65	B58	VG25x25	End-J	12.5698	1.2D+L+0.3EX-EY	0.05688

N+5.65	B59	VG25x25	End-I	9.7382	1.2D+L+0.3EX-EY	0.04406
N+5.65	B59	VG25x25	Middle	6.8526	1.2D+L+0.3EX-EY	0.05393
N+5.65	B59	VG25x25	End-J	12.6239	1.2D+L+0.3EX-EY	0.05712
N+5.65	B54	VT15x25	End-I	17.2084	1.2D+L+0.3EX-EY	0.04152
N+5.65	B54	VT15x25	Middle	14.7165	1.2D+L+0.3EX-EY	0.06762
N+5.65	B54	VT15x25	End-J	17.5055	1.2D+L+0.3EX-EY	0.04224
N+2.95	B1	VG30x30	End-I	35.0536	1.2D+L+0.3EX-EY	0.08024
N+2.95	B1	VG30x30	Middle	34.291	0.9D+0.3EX-EY	0.14108
N+2.95	B1	VG30x30	End-J	35.0536	1.2D+L+0.3EX-EY	0.08024
N+2.95	B2	VG30x30	Middle	19.4913	1.2D+1.6L	0.08019
N+2.95	B3	VG30x30	End-I	42.508	1.2D+L+0.3EX-EY	0.09730
N+2.95	B4	VG30x30	End-I	43.2951	1.2D+L+0.3EX-EY	0.09910
N+2.95	B5	VG30x30	End-I	47.8138	1.2D+L+0.3EX-EY	0.10944
N+2.95	B5	VG30x30	Middle	47.0513	0.9D+0.3EX-EY	0.19358
N+2.95	B5	VG30x30	End-J	47.8138	1.2D+L+0.3EX-EY	0.10944
N+2.95	B6	VG30x30	End-I	54.1656	1.2D+L+0.3EX-EY	0.12398
N+2.95	B6	VG30x30	Middle	25.7802	0.9D+0.3EX-EY	0.10607
N+2.95	B6	VG30x30	End-J	26.6159	0.9D+0.3EX-EY	0.06092
N+2.95	B7	VG30x30	End-I	38.6018	0.9D+0.3EX-EY	0.08836
N+2.95	B7	VG30x30	Middle	37.0577	0.9D+0.3EX-EY	0.15247
N+2.95	B7	VG30x30	End-J	39.7041	0.9D+0.3EX-EY	0.09088
N+2.95	B8	VG30x30	End-I	48.037	1.2D+L+0.3EX-EY	0.10995
N+2.95	B8	VG30x30	Middle	45.9611	1.2D+L+0.3EX-EY	0.18910
N+2.95	B8	VG30x30	End-J	46.7378	1.2D+L+0.3EX-EY	0.10698
N+2.95	B9	VG30x30	End-I	47.7032	1.2D+L+0.3EX-EY	0.10919
N+2.95	B9	VG30x30	Middle	46.9406	0.9D+0.3EX-EY	0.19313
N+2.95	B9	VG30x30	End-J	47.7032	1.2D+L+0.3EX-EY	0.10919
N+2.95	B10	VG30x30	End-I	52.9154	1.2D+L+0.3EX-EY	0.12112
N+2.95	B10	VG30x30	Middle	25.0581	0.9D+0.3EX-EY	0.10310
N+2.95	B10	VG30x30	End-J	25.8937	0.9D+0.3EX-EY	0.05927
N+2.95	B11	VG30x30	End-I	41.1266	0.9D+0.3EX-EY	0.09414
N+2.95	B11	VG30x30	Middle	29.3596	0.9D+0.3EX-EY	0.12079
N+2.95	B11	VG30x30	End-J	40.3966	0.9D+0.3EX-EY	0.09247
N+2.95	B12	VG30x30	End-I	46.7285	1.2D+L+0.3EX-EY	0.10696
N+2.95	B12	VG30x30	Middle	44.6526	1.2D+L+0.3EX-EY	0.18371
N+2.95	B12	VG30x30	End-J	46.2609	1.2D+L+0.3EX-EY	0.10589
N+2.95	B13	VG30x30	End-I	37.3943	1.2D+L+0.3EX-EY	0.08559
N+2.95	B13	VG30x30	Middle	36.6318	0.9D+0.3EX-EY	0.15071
N+2.95	B13	VG30x30	End-J	37.3943	1.2D+L+0.3EX-EY	0.08559
N+2.95	B14	VG30x30	Middle	16.6261	1.2D+L	0.06840
N+2.95	B15	VG30x30	End-I	43.5607	0.9D+0.3EX-EY	0.09971
N+2.95	B15	VG30x30	Middle	29.5788	0.9D+0.3EX-EY	0.12170

N+2.95	B15	VG30x30	End-J	31.4395	0.9D+0.3EX-EY	0.07196
N+2.95	B16	VG30x30	End-I	43.3403	1.2D+L+0.3EX-EY	0.09920
N+2.95	B17	VG30x30	Middle	18.4095	1.2D+L	0.07574
N+2.95	B17	VG30x30	End-J	52.6781	1.2D+L+0.3EX-EY	0.12058
N+2.95	B18	VG30x30	End-I	30.7901	0.9D+0.3EX-EY	0.07048
N+2.95	B18	VG30x30	Middle	18.4219	0.9D+0.3EX-EY	0.07579
N+2.95	B18	VG30x30	End-J	30.7583	0.9D+0.3EX-EY	0.07040
N+2.95	B19	VG30x30	End-I	52.7858	1.2D+L+0.3EX-EY	0.12082
N+2.95	B19	VG30x30	Middle	26.9935	0.9D+EX-0.3EY	0.11106
N+2.95	B20	VG30x30	End-I	31.7098	0.9D+EX-0.3EY	0.07258
N+2.95	B20	VG30x30	Middle	31.7014	0.9D+EX-0.3EY	0.13043
N+2.95	B20	VG30x30	End-J	32.4259	0.9D+EX-0.3EY	0.07422
N+2.95	B22	VG30x30	End-I	57.5272	1.2D+L+0.3EX-EY	0.13168
N+2.95	B22	VG30x30	Middle	22.5237	1.2D+L+0.3EX-EY	0.09267
N+2.95	B22	VG30x30	End-J	59.0847	1.2D+L+0.3EX-EY	0.13524
N+2.95	B23	VG30x30	End-I	30.5139	0.9D+EX-0.3EY	0.06984
N+2.95	B23	VG30x30	Middle	29.9779	0.9D+EX-0.3EY	0.12334
N+2.95	B23	VG30x30	End-J	38.0726	1.2D+L	0.08715
N+2.95	B24	VG30x30	End-I	29.1414	0.9D+EX-0.3EY	0.06670
N+2.95	B24	VG30x30	Middle	28.4314	0.9D+EX-0.3EY	0.11698
N+2.95	B24	VG30x30	End-J	36.341	1.2D+L	0.08318
N+2.95	B25	VG30x30	End-I	27.3216	0.9D+EX-0.3EY	0.06254
N+2.95	B25	VG30x30	Middle	25.0148	0.9D+EX-0.3EY	0.10292
N+2.95	B25	VG30x30	End-J	25.8031	1.2D+L	0.05906
N+2.95	B26	VG30x30	End-I	26.6531	0.9D+EX-0.3EY	0.06101
N+2.95	B26	VG30x30	Middle	26.627	0.9D+EX-0.3EY	0.10955
N+2.95	B26	VG30x30	End-J	30.595	1.2D+L	0.07003
N+2.95	B27	VG30x30	End-I	27.7546	0.9D+EX-0.3EY	0.06353
N+2.95	B27	VG30x30	Middle	26.9835	0.9D+EX-0.3EY	0.11102
N+2.95	B27	VG30x30	End-J	31.673	1.2D+L	0.07250
N+2.95	B28	VG30x30	End-I	34.3065	0.9D+0.3EX-EY	0.07853
N+2.95	B28	VG30x30	Middle	25.349	0.9D+0.3EX-EY	0.10429
N+2.95	B28	VG30x30	End-J	33.7998	0.9D+0.3EX-EY	0.07737
N+2.95	B30	VT15x30	End-I	13.2847	0.9D+0.3EX-EY	0.03103
N+2.95	B30	VT15x30	Middle	9.3318	0.9D+EX-0.3EY	0.04114
N+2.95	B30	VT15x30	End-J	13.2623	0.9D+0.3EX-EY	0.03098
N+2.95	B32	VG30x30	End-I	53.6972	1.2D+L+0.3EX-EY	0.12291
N+2.95	B32	VG30x30	Middle	54.1523	1.2D+L+0.3EX-EY	0.22280
N+2.95	B32	VG30x30	End-J	53.4288	1.2D+L+0.3EX-EY	0.12229
N+2.95	B33	VG30x30	End-I	51.3676	1.2D+L+0.3EX-EY	0.11758
N+2.95	B33	VG30x30	Middle	52.7657	1.2D+L+0.3EX-EY	0.21709
N+2.95	B33	VG30x30	End-J	52.5429	1.2D+L+0.3EX-EY	0.12027

N+2.95	B34	VG25x30	End-I	11.464	1.2D+L+0.3EX-EY	0.02674
N+2.95	B34	VG25x30	Middle	10.6696	0.9D+0.3EX-EY	0.04543
N+2.95	B34	VG25x30	End-J	11.464	1.2D+L+0.3EX-EY	0.02674
N+2.95	B36	VG25x30	End-I	11.4219	1.2D+L+0.3EX-EY	0.02664
N+2.95	B36	VG25x30	Middle	10.6276	0.9D+0.3EX-EY	0.04525
N+2.95	B36	VG25x30	End-J	11.4219	1.2D+L+0.3EX-EY	0.02664
N+2.95	B38	VG25x30	End-I	5.6831	0.9D+0.3EX-EY	0.01326
N+2.95	B38	VG25x30	Middle	5.0441	0.9D+0.3EX-EY	0.02148
N+2.95	B38	VG25x30	End-J	5.5922	0.9D+0.3EX-EY	0.01305
N+2.95	B39	VG25x30	End-I	5.5449	0.9D+0.3EX-EY	0.01293
N+2.95	B39	VG25x30	Middle	4.9518	0.9D+0.3EX-EY	0.02108
N+2.95	B39	VG25x30	End-J	5.4999	0.9D+0.3EX-EY	0.01283
N+2.95	B40	VT15x30	End-I	26.5008	1.2D+L+0.3EX-EY	0.06190
N+2.95	B40	VT15x30	Middle	26.0878	1.2D+L+0.3EX-EY	0.11500
N+2.95	B40	VT15x30	End-J	26.3866	1.2D+L+0.3EX-EY	0.06163
N+2.95	B45	VT15x30	End-I	12.4417	1.2D+L+0.3EX-EY	0.02906
N+2.95	B45	VT15x30	Middle	12.0976	1.2D+L+0.3EX-EY	0.05333
N+2.95	B45	VT15x30	End-J	12.59	1.2D+L+0.3EX-EY	0.02941
N+2.95	B47	VT15x30	End-I	15.9656	1.2D+L+0.3EX-EY	0.03729
N+2.95	B47	VT15x30	Middle	16.7656	1.2D+L+0.3EX-EY	0.07391
N+2.95	B47	VT15x30	End-J	17.6388	1.2D+L+0.3EX-EY	0.04120
N+2.95	B48	VT15x30	End-I	13.2428	1.2D+L+0.3EX-EY	0.03093
N+2.95	B48	VT15x30	Middle	12.843	1.2D+L+0.3EX-EY	0.05662
N+2.95	B48	VT15x30	End-J	13.3355	1.2D+L+0.3EX-EY	0.03115
N+2.95	B49	VT15x30	End-I	17.261	1.2D+L+0.3EX-EY	0.04032
N+2.95	B49	VT15x30	Middle	16.383	1.2D+L+0.3EX-EY	0.07222
N+2.95	B49	VT15x30	End-J	16.089	1.2D+L+0.3EX-EY	0.03758
N+2.95	B51	VG25x30	End-I	8.1674	0.9D+0.3EX-EY	0.01905
N+2.95	B51	VG25x30	Middle	9.6112	0.9D+0.3EX-EY	0.04092
N+2.95	B51	VG25x30	End-J	12.498	0.9D+0.3EX-EY	0.02915
N+2.95	B52	VG25x30	End-I	27.5178	0.9D+0.3EX-EY	0.06419
N+2.95	B52	VG25x30	Middle	25.5955	0.9D+0.3EX-EY	0.10899
N+2.95	B52	VG25x30	End-J	35.7713	0.9D+0.3EX-EY	0.08345
N+2.95	B53	VT15x30	End-I	14.8956	1.2D+L+0.3EX-EY	0.03479
N+2.95	B53	VT15x30	Middle	5.9073	1.2D+L	0.02604
N+2.95	B53	VT15x30	End-J	15.6943	1.2D+L+0.3EX-EY	0.03666
N+2.95	B58	VG25x30	End-I	1.8807	0.9D+0.3EX-EY	0.00439
N+2.95	B58	VG25x30	Middle	1.139	0.9D+0.3EX-EY	0.00485
N+2.95	B58	VG25x30	End-J	2.6747	0.9D+0.3EX-EY	0.00624
N+2.95	B59	VG25x30	End-I	1.934	0.9D+0.3EX-EY	0.00451
N+2.95	B59	VG25x30	Middle	1.1183	0.9D+0.3EX-EY	0.00476
N+2.95	B59	VG25x30	End-J	2.6541	0.9D+0.3EX-EY	0.00619

N+2.95	B54	VT15x30	End-I	18.8818	0.9D+0.3EX-EY	0.04410
N+2.95	B54	VT15x30	Middle	17.8883	0.9D+0.3EX-EY	0.07886
N+2.95	B54	VT15x30	End-J	17.6553	0.9D+0.3EX-EY	0.04124
N+2.95	B55	VT15x30	End-I	17.385	0.9D+0.3EX-EY	0.04061
N+2.95	B55	VT15x30	Middle	17.4592	0.9D+0.3EX-EY	0.07697
N+2.95	B55	VT15x30	End-J	18.4696	0.9D+0.3EX-EY	0.04314
N+2.95	B56	VG25x30	End-I	25.4752	1.2D+L+0.3EX-EY	0.05943
N+2.95	B56	VG25x30	Middle	26.6918	1.2D+L+0.3EX-EY	0.11365
N+2.95	B56	VG25x30	End-J	28.4535	1.2D+L+0.3EX-EY	0.06637
N+2.95	B57	VG25x30	End-I	27.1125	1.2D+L+0.3EX-EY	0.06325
N+2.95	B57	VG25x30	Middle	27.436	1.2D+L+0.3EX-EY	0.11682
N+2.95	B57	VG25x30	End-J	25.9794	1.2D+L+0.3EX-EY	0.06060
N+2.95	B60	VG25x30	End-I	25.421	1.2D+L+0.3EX-EY	0.05930
N+2.95	B60	VG25x30	Middle	26.7056	1.2D+L+0.3EX-EY	0.11371
N+2.95	B60	VG25x30	End-J	28.4672	1.2D+L+0.3EX-EY	0.06641
N+2.95	B61	VG25x30	End-I	27.8113	1.2D+L+0.3EX-EY	0.06488
N+2.95	B61	VG25x30	Middle	28.6806	1.2D+L+0.3EX-EY	0.12212
N+2.95	B61	VG25x30	End-J	26.5122	1.2D+L+0.3EX-EY	0.06185

ANALISIS DE INDICES SOBRE ESFUERZO A FLEXION DE VIGAS PARA CARGAS (MUERTA Y VIVA)											
Story	Label	Section	Location	(-) Moment	(-) Combo	As Top	(+) Moment	(+) Combo	As Bot	Indice	Indice
				kN-m		mm²	kN-m		mm²	M Negativo	M Positivo
N+5.65	B1	VG30x25	End-I	0	D+L	0	0.0439	D+L	0.75	0.00000	0.00094
N+5.65	B1	VG30x25	Middle	-0.8485	D+L	14.49	0	D+L	10.24	0.01820	0.01286
N+5.65	B1	VG30x25	End-J	-2.3999	D+L	41.13	0	D+L	20.51	0.05167	0.02577
N+5.65	B2	VG30x25	End-I	-14.6786	D+L	210	0	D+L	127.07	0.26382	0.15964
N+5.65	B2	VG30x25	Middle	0	D+L	64.21	12.9227	D+L	210	0.08067	0.26382
N+5.65	B2	VG30x25	End-J	-14.9472	D+L	210	0	D+L	129.43	0.26382	0.16260
N+5.65	B3	VG30x25	End-I	-6.6855	D+L	115.59	0	D+L	57.39	0.14521	0.07210
N+5.65	B3	VG30x25	Middle	0	D+L	28.6	4.224	D+L	72.66	0.03593	0.09128
N+5.65	B3	VG30x25	End-J	-4.218	D+L	72.55	0	D+L	36.12	0.09114	0.04538
N+5.65	B4	VG30x25	End-I	-3.8979	D+L	67	0	D+L	33.37	0.08417	0.04192
N+5.65	B4	VG30x25	Middle	0	D+L	16.65	3.4454	D+L	59.17	0.02092	0.07433
N+5.65	B4	VG30x25	End-J	-2.8999	D+L	49.75	0	D+L	24.8	0.06250	0.03116
N+5.65	B5	VG30x25	End-I	0	D+L	0	1.3552	D+L	23.17	0.00000	0.02911
N+5.65	B5	VG30x25	Middle	-1.6625	D+L	28.45	0	D+L	23.72	0.03574	0.02980
N+5.65	B5	VG30x25	End-J	-5.548	D+L	95.69	0	D+L	47.57	0.12021	0.05976
N+5.65	B6	VG30x25	End-I	-18.6938	D+L	248.86	0	D+L	162.52	0.31264	0.20417
N+5.65	B6	VG30x25	Middle	0	D+L	80.46	17.317	D+L	229.81	0.10108	0.28871
N+5.65	B6	VG30x25	End-J	-17.1168	D+L	227.05	0	D+L	148.56	0.28524	0.18663
N+5.65	B7	VG30x25	End-I	-11.8612	D+L	207.36	0	D+L	102.38	0.26050	0.12862
N+5.65	B7	VG30x25	Middle	0	D+L	50.87	5.1452	D+L	88.67	0.06391	0.11139
N+5.65	B7	VG30x25	End-J	-3.878	D+L	66.66	1.7603	D+L	50.87	0.08374	0.06391
N+5.65	B8	VG30x25	End-I	-5.0197	D+L	86.49	0	D+L	43.02	0.10866	0.05405
N+5.65	B8	VG30x25	Middle	0	D+L	21.45	4.6823	D+L	80.62	0.02695	0.10128
N+5.65	B8	VG30x25	End-J	-3.6868	D+L	63.35	0	D+L	31.55	0.07959	0.03964
N+5.65	B9	VG30x25	End-I	0	D+L	0	1.217	D+L	20.8	0.00000	0.02613
N+5.65	B9	VG30x25	Middle	-1.938	D+L	33.18	0	D+L	25.49	0.04168	0.03202
N+5.65	B9	VG30x25	End-J	-5.96	D+L	102.89	0	D+L	51.13	0.12926	0.06423
N+5.65	B10	VG30x25	End-I	-18.2027	D+L	242.05	0	D+L	158.17	0.30408	0.19871
N+5.65	B10	VG30x25	Middle	0	D+L	84.99	20.1581	D+L	269.25	0.10677	0.33825
N+5.65	B10	VG30x25	End-J	-19.7343	D+L	263.33	0	D+L	171.75	0.33082	0.21577
N+5.65	B11	VG30x25	End-I	-11.0168	D+L	192.24	0	D+L	95	0.24151	0.11935
N+5.65	B11	VG30x25	Middle	0	D+L	47.23	5.2425	D+L	90.37	0.05933	0.11353
N+5.65	B11	VG30x25	End-J	-4.151	D+L	71.39	1.6812	D+L	47.23	0.08969	0.05933
N+5.65	B12	VG30x25	End-I	-5.2696	D+L	90.84	0	D+L	45.17	0.11412	0.05675
N+5.65	B12	VG30x25	Middle	0	D+L	22.53	4.6596	D+L	80.22	0.02830	0.10078
N+5.65	B12	VG30x25	End-J	-3.4901	D+L	59.94	0	D+L	29.86	0.07530	0.03751
N+5.65	B13	VG30x25	End-I	0	D+L	0	0.0769	D+L	1.31	0.00000	0.00165
N+5.65	B13	VG30x25	Middle	-0.7345	D+L	12.54	0	D+L	9.41	0.01575	0.01182
N+5.65	B13	VG30x25	End-J	-2.205	D+L	37.77	0	D+L	18.84	0.04745	0.02367
N+5.65	B14	VG30x25	End-I	-7.368	D+L	127.57	0	D+L	63.3	0.16026	0.07952
N+5.65	B14	VG30x25	Middle	0	D+L	31.66	6.2566	D+L	108.08	0.03977	0.13578
N+5.65	B14	VG30x25	End-J	-7.3973	D+L	128.09	0	D+L	63.55	0.16092	0.07984
N+5.65	B15	VG30x25	End-I	-6.4312	D+L	111.13	0	D+L	55.2	0.13961	0.06935
N+5.65	B15	VG30x25	Middle	0	D+L	27.51	4.2965	D+L	73.92	0.03456	0.09286
N+5.65	B15	VG30x25	End-J	-4.1543	D+L	71.45	0	D+L	35.57	0.08976	0.04469
N+5.65	B16	VG30x25	End-I	-4.5834	D+L	78.9	0	D+L	39.26	0.09912	0.04932
N+5.65	B16	VG30x25	Middle	0	D+L	19.59	3.3361	D+L	57.28	0.02461	0.07196
N+5.65	B16	VG30x25	End-J	-2.4876	D+L	42.64	1.3202	D+L	22.57	0.05357	0.02835
N+5.65	B17	VG30x25	End-I	-4.01	D+L	68.95	0	D+L	37.19	0.08662	0.04672
N+5.65	B17	VG30x25	Middle	-2.3051	D+L	39.49	0	D+L	37.19	0.04961	0.04672
N+5.65	B17	VG30x25	End-J	-8.6848	D+L	150.79	0	D+L	74.71	0.18943	0.09386
N+5.65	B18	VG30x25	End-I	-21.3283	D+L	285.65	0	D+L	185.95	0.35886	0.23361
N+5.65	B18	VG30x25	Middle	0	D+L	94.29	22.7887	D+L	306.25	0.11845	0.38474
N+5.65	B18	VG30x25	End-J	-21.8696	D+L	293.27	0	D+L	190.78	0.36843	0.23967
N+5.65	B19	VG30x25	End-I	-16.898	D+L	224.04	0	D+L	146.62	0.28146	0.18420
N+5.65	B19	VG30x25	Middle	0	D+L	72.67	14.9044	D+L	210	0.09129	0.26382
N+5.65	B19	VG30x25	End-J	-14.1257	D+L	210	0	D+L	122.21	0.26382	0.15353
N+5.65	B20	VG30x25	End-I	-3.6729	D+L	63.11	0	D+L	49.07	0.07928	0.06165
N+5.65	B20	VG30x25	Middle	-4.2196	D+L	72.58	0	D+L	49.07	0.09118	0.06165
N+5.65	B20	VG30x25	End-J	-11.4436	D+L	199.87	0	D+L	98.73	0.25109	0.12403

N+5.65	B22	VG30x25	End-I	-18.6135	D+L	247.74	0	D+L	161.81	0.31123	0.20328
N+5.65	B22	VG30x25	Middle	0	D+L	80.11	14.6142	D+L	210	0.10064	0.26382
N+5.65	B22	VG30x25	End-J	-14.1303	D+L	210	0	D+L	122.25	0.26382	0.15358
N+5.65	B23	VG30x25	End-I	-4.2227	D+L	72.63	0	D+L	36.16	0.09124	0.04543
N+5.65	B23	VG30x25	Middle	-1.8843	D+L	34.36	0	D+L	34.36	0.04317	0.04317
N+5.65	B23	VG30x25	End-J	-8.0264	D+L	139.17	0	D+L	69	0.17484	0.08668
N+5.65	B24	VG30x25	End-I	-24.0701	D+L	324.45	0	D+L	210	0.40760	0.26382
N+5.65	B24	VG30x25	Middle	0	D+L	105.69	24.5985	D+L	331.99	0.13278	0.41707
N+5.65	B24	VG30x25	End-J	-24.4805	D+L	330.3	0	D+L	210	0.41495	0.26382
N+5.65	B25	VG30x25	End-I	-8.2574	D+L	143.24	0	D+L	71	0.17995	0.08920
N+5.65	B25	VG30x25	Middle	0	D+L	35.35	0.5057	D+L	35.35	0.04441	0.04441
N+5.65	B25	VG30x25	End-J	-3.2272	D+L	55.4	0	D+L	35.35	0.06960	0.04441
N+5.65	B26	VG30x25	End-I	-4.0997	D+L	70.5	0	D+L	35.1	0.08857	0.04410
N+5.65	B26	VG30x25	Middle	-0.3886	D+L	25.73	1.7707	D+L	30.3	0.03232	0.03807
N+5.65	B26	VG30x25	End-J	-6.0159	D+L	103.87	0	D+L	51.61	0.13049	0.06484
N+5.65	B27	VG30x25	End-I	-14.32	D+L	210	0	D+L	123.92	0.26382	0.15568
N+5.65	B27	VG30x25	Middle	0	D+L	61.5	12.0663	D+L	210	0.07726	0.26382
N+5.65	B27	VG30x25	End-J	-14.2875	D+L	210	0	D+L	123.63	0.26382	0.15531
N+5.65	B28	VG30x25	End-I	-6.2114	D+L	107.29	0	D+L	53.3	0.13479	0.06696
N+5.65	B28	VG30x25	Middle	0	D+L	26.56	0.6969	D+L	26.56	0.03337	0.03337
N+5.65	B28	VG30x25	End-J	-3.7316	D+L	64.12	0	D+L	31.94	0.08055	0.04013
N+5.65	B29	VT15x25	End-I	-1.6201	D+L	26.53	0	D+L	21.53	0.10283	0.08345
N+5.65	B29	VT15x25	Middle	-1.6644	D+L	27.26	0	D+L	21.53	0.10566	0.08345
N+5.65	B29	VT15x25	End-J	-5.2636	D+L	87.41	0	D+L	43.26	0.33880	0.16767
N+5.65	B30	VT15x25	End-I	-5.7557	D+L	95.76	0	D+L	47.35	0.37116	0.18353
N+5.65	B30	VT15x25	Middle	0	D+L	26.31	7.1722	D+L	110	0.10198	0.42636
N+5.65	B30	VT15x25	End-J	-6.4262	D+L	107.2	0	D+L	52.94	0.41550	0.20519
N+5.65	B31	VT15x25	End-I	-5.5764	D+L	92.71	0	D+L	45.86	0.35934	0.17775
N+5.65	B31	VT15x25	Middle	-1.5928	D+L	26.08	0.9977	D+L	22.81	0.10109	0.08841
N+5.65	B31	VT15x25	End-J	0	D+L	22.81	0.2681	D+L	22.81	0.08841	0.08841
N+5.65	B32	VG30x25	End-I	-27.3666	D+L	371.81	0	D+L	210	0.46710	0.26382
N+5.65	B32	VG30x25	Middle	-17.1197	D+L	227.09	0	D+L	118.33	0.28529	0.14866
N+5.65	B32	VG30x25	End-J	0	D+L	0	2.1369	D+L	36.6	0.00000	0.04598
N+5.65	B33	VG30x25	End-I	0	D+L	0	1.3934	D+L	23.83	0.00000	0.02994
N+5.65	B33	VG30x25	Middle	-19.7701	D+L	263.83	0	D+L	134.24	0.33144	0.16864
N+5.65	B33	VG30x25	End-J	-30.9876	D+L	424.78	0	D+L	210	0.53364	0.26382
N+5.65	B34	VG25x25	End-I	-1.4797	D+L	25.33	0	D+L	12.64	0.02963	0.02117
N+5.65	B34	VG25x25	Middle	-0.852	D+L	14.56	0	D+L	6.31	0.01703	0.01057
N+5.65	B34	VG25x25	End-J	-0.97	D+L	16.58	0	D+L	8.28	0.01939	0.01387
N+5.65	B35	VG25x25	End-I	-7.2518	D+L	125.92	4.4979	D+L	77.56	0.14727	0.12992
N+5.65	B35	VG25x25	Middle	0	D+L	31.05	13.4378	D+L	177.85	0.03632	0.29791
N+5.65	B35	VG25x25	End-J	0	D+L	31.05	6.4056	D+L	110.98	0.03632	0.18590
N+5.65	B36	VG25x25	End-I	-1.2132	D+L	20.75	0	D+L	10.36	0.02427	0.01735
N+5.65	B36	VG25x25	Middle	-0.5067	D+L	8.65	0	D+L	5.18	0.01012	0.00868
N+5.65	B36	VG25x25	End-J	-0.5445	D+L	9.3	0	D+L	4.65	0.01088	0.00779
N+5.65	B37	VG25x25	End-I	-5.1313	D+L	88.62	4.351	D+L	75	0.10365	0.12563
N+5.65	B37	VG25x25	Middle	0	D+L	23.84	9.4916	D+L	165.76	0.02788	0.27765
N+5.65	B37	VG25x25	End-J	0	D+L	23.84	8.4357	D+L	146.92	0.02788	0.24610
N+5.65	B38	VG25x25	End-I	0	D+L	0	3.0735	D+L	52.81	0.00000	0.08846
N+5.65	B38	VG25x25	Middle	-0.9891	D+L	20.11	1.6032	D+L	27.45	0.02352	0.04598
N+5.65	B38	VG25x25	End-J	-4.7035	D+L	81.14	0	D+L	40.34	0.09490	0.06757
N+5.65	B39	VG25x25	End-I	0	D+L	0	3.1573	D+L	54.26	0.00000	0.09089
N+5.65	B39	VG25x25	Middle	-0.8203	D+L	19.19	1.7285	D+L	29.6	0.02244	0.04958
N+5.65	B39	VG25x25	End-J	-4.4892	D+L	77.41	0	D+L	38.49	0.09054	0.06447
N+5.65	B40	VT15x25	End-I	0	D+L	0	7.869	D+L	110	0.00000	0.42636
N+5.65	B40	VT15x25	Middle	0	D+L	32.26	7.9023	D+L	110	0.12504	0.42636
N+5.65	B40	VT15x25	End-J	0	D+L	0	7.6484	D+L	110	0.00000	0.42636
N+5.65	B45	VT15x25	End-I	0	D+L	0	6.7429	D+L	110	0.00000	0.42636
N+5.65	B45	VT15x25	Middle	0	D+L	31.93	7.7268	D+L	110	0.12376	0.42636
N+5.65	B45	VT15x25	End-J	0	D+L	0	7.7897	D+L	110	0.00000	0.42636
N+5.65	B46	VT15x25	End-I	0	D+L	0	8.3315	D+L	110	0.00000	0.42636
N+5.65	B46	VT15x25	Middle	0	D+L	34.17	5.2066	D+L	86.44	0.13244	0.33504
N+5.65	B46	VT15x25	End-J	-4.0691	D+L	67.26	0	D+L	33.37	0.26070	0.12934
N+5.65	B47	VT15x25	End-I	0	D+L	17.74	4.4092	D+L	72.98	0.06876	0.28287

N+5.65	B47	VT15x25	Middle	0	D+L	17.74	3.6974	D+L	61.03	0.06876	0.23655
N+5.65	B47	VT15x25	End-J	-3.3536	D+L	55.28	0	D+L	27.47	0.21426	0.10647
N+5.65	B48	VT15x25	End-I	0	D+L	0	5.852	D+L	97.4	0.00000	0.37752
N+5.65	B48	VT15x25	Middle	0	D+L	23.94	6.0272	D+L	100.39	0.09279	0.38911
N+5.65	B48	VT15x25	End-J	0	D+L	0	5.6722	D+L	94.34	0.00000	0.36566
N+5.65	B49	VT15x25	End-I	-2.873	D+L	47.27	0	D+L	23.51	0.18322	0.09112
N+5.65	B49	VT15x25	Middle	0	D+L	17.2	3.825	D+L	63.16	0.06667	0.24481
N+5.65	B49	VT15x25	End-J	0	D+L	17.2	4.4105	D+L	73	0.06667	0.28295
N+5.65	B50	VT15x25	End-I	-3.0041	D+L	49.45	0	D+L	24.59	0.19167	0.09531
N+5.65	B50	VT15x25	Middle	0	D+L	32.4	5.1722	D+L	85.86	0.12558	0.33279
N+5.65	B50	VT15x25	End-J	0	D+L	0	7.9041	D+L	110	0.00000	0.42636
N+5.65	B21	VT15x25	End-I	0	D+L	35.43	8.6363	D+L	110	0.13733	0.42636
N+5.65	B21	VT15x25	Middle	-0.0833	D+L	35.43	3.0215	D+L	49.74	0.13733	0.19279
N+5.65	B21	VT15x25	End-J	-6.8878	D+L	110	0	D+L	56.79	0.42636	0.22012
N+5.65	B53	VT15x25	End-I	-11.9768	D+L	153.29	6.092	D+L	101.49	0.59415	0.39337
N+5.65	B53	VT15x25	Middle	0	D+L	50.87	14.6644	D+L	189.88	0.19717	0.73597
N+5.65	B53	VT15x25	End-J	-12.3563	D+L	158.4	0	D+L	102.96	0.61395	0.39907
N+5.65	B58	VG25x25	End-I	-2.6338	D+L	45.2	0	D+L	22.53	0.05287	0.03774
N+5.65	B58	VG25x25	Middle	0	D+L	11.64	3.3721	D+L	57.98	0.01361	0.09712
N+5.65	B58	VG25x25	End-J	-2.7267	D+L	46.81	0	D+L	23.33	0.05475	0.03908
N+5.65	B59	VG25x25	End-I	-2.6362	D+L	45.25	0	D+L	22.55	0.05292	0.03777
N+5.65	B59	VG25x25	Middle	0	D+L	11.9	3.3631	D+L	57.83	0.01392	0.09687
N+5.65	B59	VG25x25	End-J	-2.7858	D+L	47.83	0	D+L	23.83	0.05594	0.03992
N+5.65	B54	VT15x25	End-I	-12.8191	D+L	164.66	0	D+L	106.92	0.63822	0.41442
N+5.65	B54	VT15x25	Middle	0	D+L	52.8	6.9418	D+L	110	0.20465	0.42636
N+5.65	B54	VT15x25	End-J	0	D+L	52.8	10.6311	D+L	135.3	0.20465	0.52442
N+2.95	B1	VG30x30	End-I	0	D+L	0	3.7344	D+L	51.69	0.00000	0.06494
N+2.95	B1	VG30x30	Middle	0	D+L	12.87	0.9759	D+L	13.46	0.01617	0.01691
N+2.95	B1	VG30x30	End-J	-1.9733	D+L	27.25	0	D+L	13.61	0.03423	0.01710
N+2.95	B2	VG30x30	End-I	-21.045	D+L	260	0	D+L	147	0.32663	0.18467
N+2.95	B2	VG30x30	Middle	0	D+L	92	20.9947	D+L	260	0.11558	0.32663
N+2.95	B2	VG30x30	End-J	-26.482	D+L	283.83	0	D+L	185.67	0.35657	0.23325
N+2.95	B3	VG30x30	End-I	-15.0969	D+L	212.24	0	D+L	105.02	0.26663	0.13193
N+2.95	B3	VG30x30	Middle	0	D+L	52.25	5.4365	D+L	75.42	0.06564	0.09475
N+2.95	B3	VG30x30	End-J	-5.0012	D+L	69.34	0.9627	D+L	52.25	0.08711	0.06564
N+2.95	B4	VG30x30	End-I	-6.3691	D+L	88.47	0	D+L	44.05	0.11114	0.05534
N+2.95	B4	VG30x30	Middle	0	D+L	21.98	5.5941	D+L	77.63	0.02761	0.09753
N+2.95	B4	VG30x30	End-J	-2.8256	D+L	39.06	1.7268	D+L	23.84	0.04907	0.02995
N+2.95	B5	VG30x30	End-I	0	D+L	0	1.2807	D+L	17.67	0.00000	0.02220
N+2.95	B5	VG30x30	Middle	-2.852	D+L	39.43	0	D+L	24.77	0.04954	0.03112
N+2.95	B5	VG30x30	End-J	-7.1753	D+L	99.78	0	D+L	49.65	0.12535	0.06237
N+2.95	B6	VG30x30	End-I	-23.658	D+L	260	0	D+L	165.55	0.32663	0.20798
N+2.95	B6	VG30x30	Middle	0	D+L	97.76	20.0544	D+L	260	0.12281	0.32663
N+2.95	B6	VG30x30	End-J	-28.126	D+L	302.18	0	D+L	197.42	0.37962	0.24802
N+2.95	B7	VG30x30	End-I	-18.3149	D+L	258.65	0	D+L	127.69	0.32494	0.16041
N+2.95	B7	VG30x30	Middle	0	D+L	63.45	10.392	D+L	145.15	0.07971	0.18235
N+2.95	B7	VG30x30	End-J	-11.2128	D+L	156.79	0	D+L	77.8	0.19697	0.09774
N+2.95	B8	VG30x30	End-I	-10.9468	D+L	153.02	0	D+L	75.94	0.19224	0.09540
N+2.95	B8	VG30x30	Middle	0	D+L	37.83	11.2542	D+L	157.38	0.04753	0.19771
N+2.95	B8	VG30x30	End-J	-3.8289	D+L	53.01	2.6033	D+L	37.83	0.06660	0.04753
N+2.95	B9	VG30x30	End-I	0	D+L	0	1.2005	D+L	16.56	0.00000	0.02080
N+2.95	B9	VG30x30	Middle	-2.8872	D+L	39.92	0	D+L	24.73	0.05015	0.03107
N+2.95	B9	VG30x30	End-J	-7.1656	D+L	99.65	0	D+L	49.58	0.12519	0.06229
N+2.95	B10	VG30x30	End-I	-23.4488	D+L	260	0	D+L	164.06	0.32663	0.20611
N+2.95	B10	VG30x30	Middle	0	D+L	93.69	19.2605	D+L	260	0.11770	0.32663
N+2.95	B10	VG30x30	End-J	-26.9634	D+L	289.19	0	D+L	189.11	0.36330	0.23758
N+2.95	B11	VG30x30	End-I	-18.6846	D+L	260	0	D+L	130.3	0.32663	0.16369
N+2.95	B11	VG30x30	Middle	0	D+L	64.74	9.6363	D+L	134.45	0.08133	0.16891
N+2.95	B11	VG30x30	End-J	-11.4135	D+L	159.64	7.242	D+L	100.72	0.20055	0.12653
N+2.95	B12	VG30x30	End-I	-10.4826	D+L	146.43	0	D+L	72.7	0.18396	0.09133
N+2.95	B12	VG30x30	Middle	0	D+L	36.22	10.8735	D+L	151.98	0.04550	0.19093
N+2.95	B12	VG30x30	End-J	-3.9431	D+L	54.6	2.5784	D+L	36.22	0.06859	0.04550
N+2.95	B13	VG30x30	End-I	0	D+L	0	3.865	D+L	53.51	0.00000	0.06722
N+2.95	B13	VG30x30	Middle	0	D+L	13.33	0.9582	D+L	13.33	0.01675	0.01675

N+2.95	B13	VG30x30	End-J	-2.1392	D+L	29.55	0	D+L	14.75	0.03712	0.01853
N+2.95	B14	VG30x30	End-I	-20.5042	D+L	260	0	D+L	143.17	0.32663	0.17986
N+2.95	B14	VG30x30	Middle	0	D+L	88.34	20.205	D+L	260	0.11098	0.32663
N+2.95	B14	VG30x30	End-J	-25.4383	D+L	272.22	0	D+L	178.22	0.34198	0.22389
N+2.95	B15	VG30x30	End-I	-13.6663	D+L	191.75	0	D+L	94.98	0.24089	0.11932
N+2.95	B15	VG30x30	Middle	-0.9525	D+L	47.27	0.2331	D+L	47.27	0.05938	0.05938
N+2.95	B15	VG30x30	End-J	-1.727	D+L	47.27	0	D+L	47.27	0.05938	0.05938
N+2.95	B16	VG30x30	End-I	-4.6758	D+L	64.8	0	D+L	32.3	0.08141	0.04058
N+2.95	B16	VG30x30	Middle	0	D+L	16.13	6.0753	D+L	84.36	0.02026	0.10598
N+2.95	B16	VG30x30	End-J	-3.2334	D+L	44.73	1.6674	D+L	23.02	0.05619	0.02892
N+2.95	B17	VG30x30	End-I	-19.8451	D+L	260	13.6818	D+L	191.97	0.32663	0.24117
N+2.95	B17	VG30x30	Middle	0	D+L	97.54	25.9307	D+L	277.69	0.12254	0.34886
N+2.95	B17	VG30x30	End-J	-28.0636	D+L	301.48	0	D+L	196.98	0.37874	0.24746
N+2.95	B18	VG30x30	End-I	-25.7643	D+L	275.84	0	D+L	180.55	0.34653	0.22682
N+2.95	B18	VG30x30	Middle	0	D+L	89.48	11.3407	D+L	158.61	0.11241	0.19926
N+2.95	B18	VG30x30	End-J	-25.2884	D+L	270.56	0	D+L	177.16	0.33990	0.22256
N+2.95	B19	VG30x30	End-I	-28.3576	D+L	304.77	0	D+L	199.08	0.38288	0.25010
N+2.95	B19	VG30x30	Middle	0	D+L	98.58	25.7804	D+L	276.02	0.12384	0.34676
N+2.95	B19	VG30x30	End-J	-21.8862	D+L	260	16.6464	D+L	234.54	0.32663	0.29465
N+2.95	B20	VG30x30	End-I	-25.0946	D+L	268.41	17.365	D+L	244.91	0.33720	0.30768
N+2.95	B20	VG30x30	Middle	0	D+L	118.56	32.6863	D+L	353.58	0.14894	0.44420
N+2.95	B20	VG30x30	End-J	-34.0414	D+L	369	0	D+L	239.94	0.46357	0.30143
N+2.95	B22	VG30x30	End-I	-32.5124	D+L	351.61	0	D+L	228.91	0.44172	0.28758
N+2.95	B22	VG30x30	Middle	0	D+L	113.18	30.4582	D+L	328.37	0.14219	0.41253
N+2.95	B22	VG30x30	End-J	-24.5739	D+L	262.64	19.442	D+L	260	0.32995	0.32663
N+2.95	B23	VG30x30	End-I	-19.3874	D+L	260	13.194	D+L	185	0.32663	0.23241
N+2.95	B23	VG30x30	Middle	0	D+L	117.62	25.5314	D+L	273.26	0.14776	0.34329
N+2.95	B23	VG30x30	End-J	-33.7729	D+L	365.94	0	D+L	238	0.45972	0.29899
N+2.95	B24	VG30x30	End-I	-35.8871	D+L	390.1	0	D+L	253.28	0.49008	0.31819
N+2.95	B24	VG30x30	Middle	0	D+L	125.07	20.8861	D+L	260	0.15712	0.32663
N+2.95	B24	VG30x30	End-J	-33.7456	D+L	365.63	0	D+L	237.8	0.45933	0.29874
N+2.95	B25	VG30x30	End-I	-30.4363	D+L	328.13	0	D+L	213.98	0.41222	0.26882
N+2.95	B25	VG30x30	Middle	0	D+L	105.88	19.3648	D+L	260	0.13302	0.32663
N+2.95	B25	VG30x30	End-J	-17.724	D+L	250.1	11.7988	D+L	165.12	0.31420	0.20744
N+2.95	B26	VG30x30	End-I	-15.5375	D+L	218.57	0	D+L	108.12	0.27459	0.13583
N+2.95	B26	VG30x30	Middle	0	D+L	90.82	16.5847	D+L	233.65	0.11410	0.29353
N+2.95	B26	VG30x30	End-J	-26.1455	D+L	280.08	0	D+L	183.27	0.35186	0.23024
N+2.95	B27	VG30x30	End-I	-29.8973	D+L	322.06	0	D+L	210.12	0.40460	0.26397
N+2.95	B27	VG30x30	Middle	0	D+L	103.98	19.4608	D+L	260	0.13063	0.32663
N+2.95	B27	VG30x30	End-J	-29.4964	D+L	317.55	0	D+L	207.24	0.39893	0.26035
N+2.95	B28	VG30x30	End-I	-25.4591	D+L	272.45	0	D+L	178.37	0.34227	0.22408
N+2.95	B28	VG30x30	Middle	0	D+L	88.41	17.0089	D+L	239.77	0.11107	0.30122
N+2.95	B28	VG30x30	End-J	-15.0099	D+L	210.99	10.44	D+L	145.83	0.26506	0.18320
N+2.95	B29	VT15x30	End-I	-6.4526	D+L	86.98	6.6243	D+L	89.33	0.33713	0.34624
N+2.95	B29	VT15x30	Middle	0	D+L	43.42	10.2889	D+L	135	0.16829	0.52326
N+2.95	B29	VT15x30	End-J	-12.9907	D+L	135	0	D+L	87.56	0.52326	0.33938
N+2.95	B30	VT15x30	End-I	-12.6937	D+L	135	0	D+L	85.53	0.52326	0.33151
N+2.95	B30	VT15x30	Middle	0	D+L	42.42	6.7994	D+L	91.73	0.16442	0.35554
N+2.95	B30	VT15x30	End-J	-12.5034	D+L	135	0	D+L	84.23	0.52326	0.32647
N+2.95	B31	VT15x30	End-I	-13.3279	D+L	137.2	0	D+L	89.87	0.53178	0.34833
N+2.95	B31	VT15x30	Middle	0	D+L	44.56	10.4799	D+L	135	0.17271	0.52326
N+2.95	B31	VT15x30	End-J	-6.5476	D+L	88.28	5.7937	D+L	77.96	0.34217	0.30217
N+2.95	B32	VG30x30	End-I	-28.3831	D+L	305.06	0	D+L	199.26	0.38324	0.25033
N+2.95	B32	VG30x30	Middle	-10.5435	D+L	147.3	0	D+L	98.67	0.18505	0.12396
N+2.95	B32	VG30x30	End-J	-0.5066	D+L	6.98	0	D+L	3.49	0.00877	0.00438
N+2.95	B33	VG30x30	End-I	-2.6611	D+L	94.44	0	D+L	94.44	0.11864	0.11864
N+2.95	B33	VG30x30	Middle	-9.3619	D+L	130.58	0	D+L	94.44	0.16405	0.11864
N+2.95	B33	VG30x30	End-J	-27.1794	D+L	291.6	0	D+L	190.65	0.36633	0.23951
N+2.95	B34	VG25x30	End-I	0	D+L	0	1.4316	D+L	19.76	0.00000	0.03310
N+2.95	B34	VG25x30	Middle	0	D+L	4.93	0.9362	D+L	12.91	0.00826	0.02162
N+2.95	B34	VG25x30	End-J	0	D+L	0	0.1926	D+L	2.65	0.00000	0.00444
N+2.95	B36	VG25x30	End-I	0	D+L	0	1.4147	D+L	19.53	0.00000	0.03271
N+2.95	B36	VG25x30	Middle	0	D+L	4.87	0.9201	D+L	12.69	0.00816	0.02126
N+2.95	B36	VG25x30	End-J	0	D+L	0	0.1774	D+L	2.44	0.00000	0.00409

N+2.95	B38	VG25x30	End-I	0	D+L	0	2.1991	D+L	30.4	0.00000	0.05092
N+2.95	B38	VG25x30	Middle	0	D+L	7.58	2.9911	D+L	41.39	0.01270	0.06933
N+2.95	B38	VG25x30	End-J	0	D+L	0	1.8865	D+L	26.06	0.00000	0.04365
N+2.95	B39	VG25x30	End-I	0	D+L	0	2.0966	D+L	28.97	0.00000	0.04853
N+2.95	B39	VG25x30	Middle	0	D+L	7.23	2.9202	D+L	40.41	0.01211	0.06769
N+2.95	B39	VG25x30	End-J	0	D+L	0	1.8981	D+L	26.22	0.00000	0.04392
N+2.95	B40	VT15x30	End-I	-5.4494	D+L	73.27	0	D+L	36.38	0.28399	0.14101
N+2.95	B40	VT15x30	Middle	-4.3695	D+L	58.59	0	D+L	18.68	0.22709	0.07240
N+2.95	B40	VT15x30	End-J	-5.6141	D+L	75.51	0	D+L	37.49	0.29267	0.14531
N+2.95	B45	VT15x30	End-I	-3.3964	D+L	45.43	0	D+L	22.62	0.17609	0.08767
N+2.95	B45	VT15x30	Middle	-2.8099	D+L	37.53	0	D+L	11.29	0.14547	0.04376
N+2.95	B45	VT15x30	End-J	-3.128	D+L	41.81	0	D+L	20.82	0.16205	0.08070
N+2.95	B46	VT15x30	End-I	0	D+L	0	0.7126	D+L	9.47	0.00000	0.03671
N+2.95	B46	VT15x30	Middle	0	D+L	2.81	1.0444	D+L	13.89	0.01089	0.05384
N+2.95	B46	VT15x30	End-J	0	D+L	0	0.8483	D+L	11.28	0.00000	0.04372
N+2.95	B47	VT15x30	End-I	0	D+L	30	4.0922	D+L	54.83	0.11628	0.21252
N+2.95	B47	VT15x30	Middle	-2.6638	D+L	35.56	0	D+L	30	0.13783	0.11628
N+2.95	B47	VT15x30	End-J	-8.9971	D+L	122.07	0	D+L	60.34	0.47314	0.23388
N+2.95	B48	VT15x30	End-I	0	D+L	0	6.0708	D+L	81.75	0.00000	0.31686
N+2.95	B48	VT15x30	Middle	0	D+L	21.09	7.5888	D+L	102.59	0.08174	0.39764
N+2.95	B48	VT15x30	End-J	0	D+L	0	6.337	D+L	85.39	0.00000	0.33097
N+2.95	B49	VT15x30	End-I	-9.2607	D+L	125.74	0	D+L	62.13	0.48736	0.24081
N+2.95	B49	VT15x30	Middle	-3.0874	D+L	41.26	0	D+L	30.88	0.15992	0.11969
N+2.95	B49	VT15x30	End-J	0	D+L	30.88	4.0531	D+L	54.3	0.11969	0.21047
N+2.95	B50	VT15x30	End-I	0	D+L	0	0.372	D+L	4.94	0.00000	0.01915
N+2.95	B50	VT15x30	Middle	0	D+L	2.9	0.9536	D+L	12.68	0.01124	0.04915
N+2.95	B50	VT15x30	End-J	0	D+L	0	0.8743	D+L	11.62	0.00000	0.04504
N+2.95	B51	VG25x30	End-I	-5.6722	D+L	78.84	0	D+L	39.24	0.13206	0.06573
N+2.95	B51	VG25x30	Middle	-3.6273	D+L	50.25	0	D+L	21.03	0.08417	0.03523
N+2.95	B51	VG25x30	End-J	-6.0931	D+L	84.75	0	D+L	42.17	0.14196	0.07064
N+2.95	B52	VG25x30	End-I	0	D+L	62.25	17.8208	D+L	216.67	0.10427	0.36293
N+2.95	B52	VG25x30	Middle	0	D+L	62.25	17.3259	D+L	216.67	0.10427	0.36293
N+2.95	B52	VG25x30	End-J	-13.684	D+L	192.74	0	D+L	95.28	0.32285	0.15960
N+2.95	B53	VT15x30	End-I	-4.6731	D+L	62.71	5.8072	D+L	78.15	0.24306	0.30291
N+2.95	B53	VT15x30	Middle	0	D+L	21.43	9.405	D+L	127.75	0.08306	0.49516
N+2.95	B53	VT15x30	End-J	-6.4365	D+L	86.76	4.4379	D+L	59.51	0.33628	0.23066
N+2.95	B58	VG25x30	End-I	0	D+L	3.6	3.2436	D+L	44.91	0.00603	0.07523
N+2.95	B58	VG25x30	Middle	0	D+L	3.6	5.9921	D+L	83.33	0.00603	0.13958
N+2.95	B58	VG25x30	End-J	-1.0444	D+L	14.41	2.1023	D+L	29.05	0.02414	0.04866
N+2.95	B59	VG25x30	End-I	0	D+L	3.32	3.2136	D+L	44.49	0.00556	0.07452
N+2.95	B59	VG25x30	Middle	0	D+L	3.32	6.0156	D+L	83.66	0.00556	0.14013
N+2.95	B59	VG25x30	End-J	-0.9638	D+L	13.3	2.1794	D+L	30.12	0.02228	0.05045
N+2.95	B54	VT15x30	End-I	-10.3721	D+L	135	0	D+L	69.68	0.52326	0.27008
N+2.95	B54	VT15x30	Middle	0	D+L	34.61	7.1988	D+L	97.22	0.13415	0.37682
N+2.95	B54	VT15x30	End-J	-5.3667	D+L	72.14	0	D+L	35.83	0.27961	0.13888
N+2.95	B55	VT15x30	End-I	-5.4765	D+L	73.64	0	D+L	36.57	0.28543	0.14174
N+2.95	B55	VT15x30	Middle	0	D+L	32.22	7.3802	D+L	99.72	0.12488	0.38651
N+2.95	B55	VT15x30	End-J	-9.6604	D+L	131.3	0	D+L	64.84	0.50891	0.25132
N+2.95	B56	VG25x30	End-I	0	D+L	37.06	5.2901	D+L	73.48	0.06208	0.12308
N+2.95	B56	VG25x30	Middle	0	D+L	37.06	7.5526	D+L	105.3	0.06208	0.17638
N+2.95	B56	VG25x30	End-J	-10.7171	D+L	150.2	0	D+L	74.44	0.25159	0.12469
N+2.95	B57	VG25x30	End-I	-7.2213	D+L	100.62	0	D+L	50.02	0.16854	0.08379
N+2.95	B57	VG25x30	Middle	-2.2749	D+L	31.45	0	D+L	24.94	0.05268	0.04178
N+2.95	B57	VG25x30	End-J	-0.0948	D+L	24.94	0	D+L	24.94	0.04178	0.04178
N+2.95	B60	VG25x30	End-I	0	D+L	37.53	5.2469	D+L	72.88	0.06286	0.12208
N+2.95	B60	VG25x30	Middle	0	D+L	37.53	7.5413	D+L	105.14	0.06286	0.17611
N+2.95	B60	VG25x30	End-J	-10.8521	D+L	152.13	0	D+L	75.39	0.25482	0.12628
N+2.95	B61	VG25x30	End-I	-7.6486	D+L	106.65	0	D+L	53	0.17864	0.08878
N+2.95	B61	VG25x30	Middle	-2.5402	D+L	35.13	0	D+L	26.42	0.05884	0.04425
N+2.95	B61	VG25x30	End-J	-0.2415	D+L	26.42	0	D+L	26.42	0.04425	0.04425

ANALISIS DE INDICES SOBRE ESFUERZO A FLEXION DE VIGAS PARA CARGAS DE SERVICIO Y SISMO											
Story	Label	Section	Location	(-) Moment	(-) Combo	As Top	(+) Moment	(+) Combo	As Bot	Indice	Indice
				kN-m		mm²	kN-m		mm²	M Negativo	M Positivo
N+5.65	B1	VG30x25	End-I	-0.0156	0.9D+EX-0.3EY	0.27	0.0739	1.2D+L+EX-0.3EY	1.26	0.00034	0.00158
N+5.65	B1	VG30x25	Middle	-1.3142	1.2D+L+EX-0.3EY	22.47	0	1.2D+L+EX-0.3EY	14.55	0.02823	0.01828
N+5.65	B1	VG30x25	End-J	-3.4061	1.2D+L+EX-0.3EY	58.49	0	1.2D+L+EX-0.3EY	29.14	0.07348	0.03661
N+5.65	B2	VG30x25	End-I	-23.299	1.2D+L+0.3EX-EY	313.49	0	1.2D+L+0.3EX-EY	203.56	0.39383	0.25573
N+5.65	B2	VG30x25	Middle	0	1.2D+L+0.3EX-EY	100.53	18.3733	1.2D+1.6L	244.41	0.12629	0.30705
N+5.65	B2	VG30x25	End-J	-22.9494	1.2D+L+0.3EX-EY	308.53	0	1.2D+L+0.3EX-EY	200.43	0.38760	0.25180
N+5.65	B3	VG30x25	End-I	-16.2207	1.2D+L+0.3EX-EY	214.73	1.3193	1.2D+L+0.3EX-EY	140.65	0.26976	0.17670
N+5.65	B3	VG30x25	Middle	-0.0459	1.2D+L+0.3EX-EY	69.73	6.0307	1.2D+1.6L	104.12	0.08760	0.13080
N+5.65	B3	VG30x25	End-J	-13.0541	1.2D+L+0.3EX-EY	210	3.5786	1.2D+L+0.3EX-EY	112.81	0.26382	0.14172
N+5.65	B4	VG30x25	End-I	-13.6595	1.2D+L+0.3EX-EY	210	7.0392	0.9D+0.3EX-EY	121.8	0.26382	0.15302
N+5.65	B4	VG30x25	Middle	-1.2175	1.2D+L+0.3EX-EY	58.64	6.2851	1.2D+L+0.3EX-EY	108.57	0.07367	0.13639
N+5.65	B4	VG30x25	End-J	-13.5205	1.2D+L+0.3EX-EY	210	8.6344	0.9D+0.3EX-EY	149.9	0.26382	0.18832
N+5.65	B5	VG30x25	End-I	0	1.2D+L	0	1.8341	1.2D+L+0.3EX-EY	31.39	0.00000	0.03943
N+5.65	B5	VG30x25	Middle	-2.3928	1.2D+L+0.3EX-EY	41	0	1.2D+1.6L	30.29	0.05151	0.03805
N+5.65	B5	VG30x25	End-J	-7.0794	1.2D+1.6L	122.5	0	1.2D+1.6L	60.8	0.15389	0.07638
N+5.65	B6	VG30x25	End-I	-27.4545	1.2D+L+0.3EX-EY	373.09	0	1.2D+L+0.3EX-EY	210	0.46871	0.26382
N+5.65	B6	VG30x25	Middle	0	1.2D+L+0.3EX-EY	118.71	24.6862	1.2D+1.6L	333.24	0.14913	0.41864
N+5.65	B6	VG30x25	End-J	-24.7905	1.2D+L+0.3EX-EY	334.73	0	1.2D+L+0.3EX-EY	210	0.42052	0.26382
N+5.65	B7	VG30x25	End-I	-21.3116	1.2D+L+0.3EX-EY	285.42	0	1.2D+L+0.3EX-EY	185.8	0.35857	0.23342
N+5.65	B7	VG30x25	Middle	-0.7096	1.2D+L+0.3EX-EY	91.86	7.4705	1.2D+1.6L	129.38	0.11540	0.16254
N+5.65	B7	VG30x25	End-J	-12.102	1.2D+L+0.3EX-EY	210	3.5024	1.2D+L+0.3EX-EY	104.48	0.26382	0.13126
N+5.65	B8	VG30x25	End-I	-14.3801	1.2D+L+0.3EX-EY	210	3.195	1.2D+L+0.3EX-EY	124.44	0.26382	0.15633
N+5.65	B8	VG30x25	Middle	-0.1485	1.2D+L+0.3EX-EY	61.76	7.0444	1.2D+L+0.3EX-EY	121.89	0.07759	0.15313
N+5.65	B8	VG30x25	End-J	-13.947	1.2D+L+0.3EX-EY	210	7.6628	0.9D+0.3EX-EY	132.76	0.26382	0.16678
N+5.65	B9	VG30x25	End-I	0	1.2D+L	0	1.6595	1.2D+L+0.3EX-EY	28.4	0.00000	0.03568
N+5.65	B9	VG30x25	Middle	-2.6877	1.2D+L+0.3EX-EY	46.08	0	1.2D+1.6L	32.66	0.05789	0.04103
N+5.65	B9	VG30x25	End-J	-7.6304	1.2D+1.6L	132.19	0	1.2D+1.6L	65.57	0.16607	0.08237
N+5.65	B10	VG30x25	End-I	-27.0574	1.2D+L+0.3EX-EY	367.34	0	1.2D+L+0.3EX-EY	210	0.46148	0.26382
N+5.65	B10	VG30x25	Middle	0	1.2D+L+0.3EX-EY	121.51	28.0307	1.2D+1.6L	381.45	0.15265	0.47921
N+5.65	B10	VG30x25	End-J	-28.0911	1.2D+L+0.3EX-EY	382.33	0	1.2D+L+0.3EX-EY	210	0.48031	0.26382
N+5.65	B11	VG30x25	End-I	-20.5759	1.2D+L+0.3EX-EY	275.1	0	1.2D+L+0.3EX-EY	179.24	0.34560	0.22518
N+5.65	B11	VG30x25	Middle	-0.6829	1.2D+L+0.3EX-EY	88.65	7.5865	1.2D+1.6L	131.42	0.11137	0.16510
N+5.65	B11	VG30x25	End-J	-12.4896	1.2D+L+0.3EX-EY	210	3.2779	1.2D+L+0.3EX-EY	107.87	0.26382	0.13552
N+5.65	B12	VG30x25	End-I	-14.6697	1.2D+L+0.3EX-EY	210	2.9239	1.2D+L+0.3EX-EY	126.99	0.26382	0.15954
N+5.65	B12	VG30x25	Middle	-0.1267	1.2D+L+0.3EX-EY	63.01	7.1142	1.2D+L+0.3EX-EY	123.11	0.07916	0.15466
N+5.65	B12	VG30x25	End-J	-13.7668	1.2D+L+0.3EX-EY	210	7.8127	0.9D+0.3EX-EY	135.4	0.26382	0.17010
N+5.65	B13	VG30x25	End-I	0	1.2D+L	0	0.1103	1.2D+L+EX-0.3EY	1.88	0.00000	0.00236
N+5.65	B13	VG30x25	Middle	-1.1829	1.2D+L+EX-0.3EY	20.22	0	1.2D+L+EX-0.3EY	13.58	0.02540	0.01706
N+5.65	B13	VG30x25	End-J	-3.1804	1.2D+L+EX-0.3EY	54.59	0	1.2D+L+EX-0.3EY	27.21	0.06858	0.03418
N+5.65	B14	VG30x25	End-I	-15.0201	1.2D+L+0.3EX-EY	210	0	1.2D+L+0.3EX-EY	130.07	0.26382	0.16340
N+5.65	B14	VG30x25	Middle	0	1.2D+L+0.3EX-EY	64.53	8.5488	1.2D+1.6L	148.39	0.08107	0.18642
N+5.65	B14	VG30x25	End-J	-14.3942	1.2D+L+0.3EX-EY	210	0	1.2D+L+0.3EX-EY	124.57	0.26382	0.15649
N+5.65	B15	VG30x25	End-I	-15.6187	1.2D+L+0.3EX-EY	210	1.2473	1.2D+L+0.3EX-EY	135.34	0.26382	0.17003
N+5.65	B15	VG30x25	Middle	0	1.2D+L+0.3EX-EY	67.12	6.1177	1.2D+1.6L	105.65	0.08432	0.13273
N+5.65	B15	VG30x25	End-J	-12.7354	1.2D+L+0.3EX-EY	210	3.4239	1.2D+L+0.3EX-EY	110.02	0.26382	0.13822
N+5.65	B16	VG30x25	End-I	-14.3035	1.2D+L+0.3EX-EY	210	3.9569	1.2D+L+0.3EX-EY	123.77	0.26382	0.15549
N+5.65	B16	VG30x25	Middle	-1.2331	1.2D+L+0.3EX-EY	61.43	6.3983	1.2D+L+0.3EX-EY	110.56	0.07717	0.13889
N+5.65	B16	VG30x25	End-J	-13.0855	1.2D+L+0.3EX-EY	210	8.8934	0.9D+0.3EX-EY	154.48	0.26382	0.19407
N+5.65	B17	VG30x25	End-I	-12.3003	0.9D+EX-0.3EY	210	3.9994	1.2D+L+EX-0.3EY	117.42	0.26382	0.14751
N+5.65	B17	VG30x25	Middle	-6.2532	1.2D+L+EX-0.3EY	108.02	1.135	1.2D+L+EX-0.3EY	79.7	0.13570	0.10013
N+5.65	B17	VG30x25	End-J	-18.5171	1.2D+L+EX-0.3EY	246.4	0	1.2D+L+EX-0.3EY	160.95	0.30955	0.20220
N+5.65	B18	VG30x25	End-I	-32.5091	1.2D+L+EX-0.3EY	447.34	0	1.2D+L+EX-0.3EY	215.2	0.56198	0.27035
N+5.65	B18	VG30x25	Middle	0	1.2D+L+EX-0.3EY	143.31	30.903	1.2D+1.6L	423.53	0.18004	0.53207
N+5.65	B18	VG30x25	End-J	-33.0454	1.2D+L+EX-0.3EY	455.34	0	1.2D+L+EX-0.3EY	218.88	0.57204	0.27497
N+5.65	B19	VG30x25	End-I	-27.5877	1.2D+L+EX-0.3EY	375.02	0	1.2D+L+EX-0.3EY	210	0.47113	0.26382
N+5.65	B19	VG30x25	Middle	0	1.2D+L+EX-0.3EY	119.3	20.7751	1.2D+1.6L	277.89	0.14987	0.34911
N+5.65	B19	VG30x25	End-J	-24.8096	1.2D+L+EX-0.3EY	335.01	0	1.2D+L+EX-0.3EY	210	0.42087	0.26382
N+5.65	B20	VG30x25	End-I	-12.2232	0.9D+EX-0.3EY	210	4.2158	1.2D+L+EX-0.3EY	113.55	0.26382	0.14265
N+5.65	B20	VG30x25	Middle	-8.4091	1.2D+L+EX-0.3EY	145.92	0	1.2D+L+EX-0.3EY	92.95	0.18332	0.11677
N+5.65	B20	VG30x25	End-J	-21.5635	1.2D+L+EX-0.3EY	288.96	0	1.2D+L+EX-0.3EY	188.04	0.36302	0.23623
N+5.65	B22	VG30x25	End-I	-29.5665	1.2D+L+EX-0.3EY	403.87	0	1.2D+L+EX-0.3EY	210	0.50737	0.26382
N+5.65	B22	VG30x25	Middle	0	1.2D+L+EX-0.3EY	127.99	20.502	1.2D+1.6L	274.06	0.16079	0.34430
N+5.65	B22	VG30x25	End-J	-25.0381	1.2D+L+EX-0.3EY	338.28	0	1.2D+L+EX-0.3EY	210	0.42497	0.26382
N+5.65	B23	VG30x25	End-I	-13.0556	1.2D+L+EX-0.3EY	210	2.9216	1.2D+L+EX-0.3EY	112.83	0.26382	0.14175
N+5.65	B23	VG30x25	Middle	-5.4468	1.2D+L+EX-0.3EY	93.93	1.3503	1.2D+L+EX-0.3EY	73.13	0.11800	0.09187
N+5.65	B23	VG30x25	End-J	-17.0046	1.2D+L+EX-0.3EY	225.5	0	1.2D+L+EX-0.3EY	147.57	0.28329	0.18539
N+5.65	B24	VG30x25	End-I	-34.11	1.2D+L+EX-0.3EY	471.28	0	1.2D+L+EX-0.3EY	226.2	0.59206	0.28417

N+5.65	B24	VG30x25	Middle	0	1.2D+L+EX-0.3EY	150.08	33.7631	1.2D+1.6L	466.07	0.18854	0.58552
N+5.65	B24	VG30x25	End-J	-34.5772	1.2D+L+EX-0.3EY	478.31	0	1.2D+L+EX-0.3EY	229.42	0.60089	0.28822
N+5.65	B25	VG30x25	End-I	-17.1724	1.2D+L+EX-0.3EY	227.82	0	1.2D+L+EX-0.3EY	149.05	0.28621	0.18725
N+5.65	B25	VG30x25	Middle	-5.3229	1.2D+L+EX-0.3EY	91.77	4.2299	1.2D+L+EX-0.3EY	73.86	0.11529	0.09279
N+5.65	B25	VG30x25	End-J	-11.7168	1.2D+L+EX-0.3EY	204.77	3.8256	1.2D+L+EX-0.3EY	101.11	0.25725	0.12702
N+5.65	B26	VG30x25	End-I	-12.1266	1.2D+L+EX-0.3EY	210	2.3287	1.2D+L+EX-0.3EY	104.69	0.26382	0.13152
N+5.65	B26	VG30x25	Middle	-3.4388	1.2D+L+EX-0.3EY	60.2	4.0479	0.9D+EX-0.3EY	69.6	0.07563	0.08744
N+5.65	B26	VG30x25	End-J	-14.0191	1.2D+L+EX-0.3EY	210	0	1.2D+L+EX-0.3EY	121.27	0.26382	0.15235
N+5.65	B27	VG30x25	End-I	-22.7175	1.2D+L+EX-0.3EY	305.24	0	1.2D+L+EX-0.3EY	198.36	0.38347	0.24920
N+5.65	B27	VG30x25	Middle	0	1.2D+L+EX-0.3EY	97.99	18.2602	1.2D+1.6L	242.84	0.12310	0.30508
N+5.65	B27	VG30x25	End-J	-22.711	1.2D+L+EX-0.3EY	305.15	0	1.2D+L+EX-0.3EY	198.3	0.38335	0.24912
N+5.65	B28	VG30x25	End-I	-14.1998	1.2D+L+EX-0.3EY	210	0	1.2D+L+EX-0.3EY	122.86	0.26382	0.15435
N+5.65	B28	VG30x25	Middle	-2.5044	1.2D+L+EX-0.3EY	60.98	4.2429	1.2D+L+EX-0.3EY	72.98	0.07661	0.09168
N+5.65	B28	VG30x25	End-J	-11.7001	1.2D+L+EX-0.3EY	204.47	2.7166	1.2D+L+EX-0.3EY	100.97	0.25687	0.12685
N+5.65	B29	VT15x25	End-I	-4.9765	1.2D+L+EX-0.3EY	82.55	1.0654	1.2D+L+EX-0.3EY	40.88	0.31996	0.15845
N+5.65	B29	VT15x25	Middle	-3.0987	1.2D+L+EX-0.3EY	51.03	0	1.2D+L+EX-0.3EY	36.06	0.19779	0.13977
N+5.65	B29	VT15x25	End-J	-8.7879	1.2D+L+EX-0.3EY	111	0	1.2D+L+EX-0.3EY	72.72	0.43023	0.28186
N+5.65	B30	VT15x25	End-I	-6.6708	1.2D+L	110	0	1.2D+L+EX-0.3EY	68.8	0.42636	0.26667
N+5.65	B30	VT15x25	Middle	0	1.2D+L+EX-0.3EY	37.17	9.8577	1.2D+1.6L	125.05	0.14407	0.48469
N+5.65	B30	VT15x25	End-J	-9.0563	1.2D+L+EX-0.3EY	114.51	0	1.2D+L+EX-0.3EY	74.98	0.44384	0.29062
N+5.65	B31	VT15x25	End-I	-9.0742	1.2D+L+EX-0.3EY	114.75	0	1.2D+L+EX-0.3EY	75.13	0.44477	0.29120
N+5.65	B31	VT15x25	Middle	-2.9805	1.2D+L+EX-0.3EY	49.06	2.7578	1.2D+L+EX-0.3EY	45.36	0.19016	0.17581
N+5.65	B31	VT15x25	End-J	-3.9065	0.9D+EX-0.3EY	64.53	2.8758	1.2D+L+EX-0.3EY	47.32	0.25012	0.18341
N+5.65	B32	VG30x25	End-I	-37.1448	1.2D+L+EX-0.3EY	517.26	0	1.2D+L+EX-0.3EY	247.17	0.64982	0.31052
N+5.65	B32	VG30x25	Middle	-24.3251	1.2D+L+EX-0.3EY	328.09	0	1.2D+L+EX-0.3EY	161.44	0.41217	0.20281
N+5.65	B32	VG30x25	End-J	-1.4146	0.9D+EX-0.3EY	24.19	5.0114	1.2D+L+EX-0.3EY	86.34	0.03039	0.10847
N+5.65	B33	VG30x25	End-I	-1.8228	0.9D+EX-0.3EY	31.2	4.1373	1.2D+L+EX-0.3EY	71.15	0.03920	0.08938
N+5.65	B33	VG30x25	Middle	-27.3043	1.2D+L+EX-0.3EY	370.91	0	1.2D+1.6L	180.87	0.46597	0.22722
N+5.65	B33	VG30x25	End-J	-41.5175	1.2D+1.6L	584.95	0	1.2D+1.6L	277.66	0.73486	0.34882
N+5.65	B34	VG25x25	End-I	-2.0082	1.2D+L+0.3EX-EY	34.41	0	1.2D+L+0.3EX-EY	17.16	0.04025	0.02874
N+5.65	B34	VG25x25	Middle	-1.4583	1.2D+L+0.3EX-EY	24.96	0	1.2D+L+0.3EX-EY	8.57	0.02919	0.01436
N+5.65	B34	VG25x25	End-J	-1.9261	1.2D+L+EX-0.3EY	33	0	1.2D+L+EX-0.3EY	16.46	0.03860	0.02757
N+5.65	B35	VG25x25	End-I	-10.3214	1.2D+L+0.3EX-EY	175	6.3793	1.2D+L+0.3EX-EY	110.52	0.20468	0.18513
N+5.65	B35	VG25x25	Middle	0	1.2D+L+0.3EX-EY	44.28	17.9499	1.2D+1.6L	240.52	0.05179	0.40288
N+5.65	B35	VG25x25	End-J	0	1.2D+L+0.3EX-EY	44.28	8.5475	1.2D+1.6L	148.91	0.05179	0.24943
N+5.65	B36	VG25x25	End-I	-1.6702	1.2D+L+0.3EX-EY	28.6	0	1.2D+L+0.3EX-EY	14.27	0.03345	0.02390
N+5.65	B36	VG25x25	Middle	-1.0153	1.2D+L+0.3EX-EY	17.36	0	1.2D+L+0.3EX-EY	7.13	0.02030	0.01194
N+5.65	B36	VG25x25	End-J	-1.4143	1.2D+L+EX-0.3EY	24.2	0.1505	1.2D+L+EX-0.3EY	12.08	0.02830	0.02023
N+5.65	B37	VG25x25	End-I	-7.6397	1.2D+L+0.3EX-EY	132.78	6.1514	1.2D+L+0.3EX-EY	106.51	0.15530	0.17841
N+5.65	B37	VG25x25	Middle	0	1.2D+L+0.3EX-EY	32.72	10.8473	1.2D+1.6L	175	0.03827	0.29313
N+5.65	B37	VG25x25	End-J	0	1.2D+L+0.3EX-EY	32.72	10.1765	1.2D+1.6L	175	0.03827	0.29313
N+5.65	B38	VG25x25	End-I	0	1.2D+L	0	4.114	1.2D+1.6L	70.87	0.00000	0.11871
N+5.65	B38	VG25x25	Middle	-1.8181	1.2D+L+0.3EX-EY	31.14	2.2882	1.2D+L+0.3EX-EY	39.24	0.03642	0.06573
N+5.65	B38	VG25x25	End-J	-6.3983	1.2D+1.6L	110.86	0	1.2D+1.6L	54.98	0.12966	0.09209
N+5.65	B39	VG25x25	End-I	0	1.2D+L	0	4.2239	1.2D+1.6L	72.78	0.00000	0.12191
N+5.65	B39	VG25x25	Middle	-1.6187	1.2D+L+0.3EX-EY	27.71	2.4302	1.2D+L+0.3EX-EY	41.69	0.03241	0.06983
N+5.65	B39	VG25x25	End-J	-6.107	1.2D+1.6L	105.73	0	1.2D+1.6L	52.46	0.12366	0.08787
N+5.65	B40	VT15x25	End-I	0	1.2D+L	0	10.4747	1.2D+1.6L	133.22	0.00000	0.51636
N+5.65	B40	VT15x25	Middle	0	1.2D+1.6L	43.05	10.6403	1.2D+1.6L	135.42	0.16686	0.52488
N+5.65	B40	VT15x25	End-J	0	1.2D+L	0	10.1698	1.2D+1.6L	129.18	0.00000	0.50070
N+5.65	B45	VT15x25	End-I	0	1.2D+L	0	8.9888	1.2D+1.6L	113.63	0.00000	0.44043
N+5.65	B45	VT15x25	Middle	0	1.2D+1.6L	42.79	10.2954	1.2D+1.6L	130.84	0.16585	0.50713
N+5.65	B45	VT15x25	End-J	0	1.2D+L	0	10.4129	1.2D+1.6L	132.4	0.00000	0.51318
N+5.65	B46	VT15x25	End-I	0	0.9D+EX-0.3EY	0	11.1798	1.2D+1.6L	142.61	0.00000	0.55275
N+5.65	B46	VT15x25	Middle	0	1.2D+1.6L	45.97	6.6101	1.2D+L+0.3EX-EY	110	0.17818	0.42636
N+5.65	B46	VT15x25	End-J	-7.2017	1.2D+L+EX-0.3EY	110	0	1.2D+L+EX-0.3EY	59.41	0.42636	0.23027
N+5.65	B47	VT15x25	End-I	0	1.2D+1.6L	23.77	5.9446	1.2D+1.6L	98.98	0.09213	0.38364
N+5.65	B47	VT15x25	Middle	0	1.2D+1.6L	23.77	5.0148	1.2D+1.6L	83.19	0.09213	0.32244
N+5.65	B47	VT15x25	End-J	-5.6186	1.2D+L+EX-0.3EY	93.43	0	1.2D+L+EX-0.3EY	46.21	0.36213	0.17911
N+5.65	B48	VT15x25	End-I	0	1.2D+L	0	6.6314	1.2D+L	110	0.00000	0.42636
N+5.65	B48	VT15x25	Middle	0	1.2D+1.6L	31.99	6.7162	1.2D+L	110	0.12399	0.42636
N+5.65	B48	VT15x25	End-J	0	1.2D+L	0	6.7146	1.2D+L+0.3EX-EY	110	0.00000	0.42636
N+5.65	B49	VT15x25	End-I	-5.1034	1.2D+L+EX-0.3EY	84.69	0	1.2D+L+EX-0.3EY	41.93	0.32826	0.16252
N+5.65	B49	VT15x25	Middle	0	1.2D+1.6L	23.05	5.1859	1.2D+1.6L	86.09	0.08934	0.33368
N+5.65	B49	VT15x25	End-J	0	1.2D+1.6L	23.05	5.9465	1.2D+1.6L	99.01	0.08934	0.38376
N+5.65	B50	VT15x25	End-I	-5.864	1.2D+L+EX-0.3EY	97.6	0	1.2D+L+EX-0.3EY	48.25	0.37829	0.18702
N+5.65	B50	VT15x25	Middle	0	1.2D+1.6L	43.39	6.6667	1.2D+L+0.3EX-EY	110	0.16818	0.42636
N+5.65	B50	VT15x25	End-J	0	1.2D+L+EX-0.3EY	0	10.5571	1.2D+1.6L	134.32	0.00000	0.52062
N+5.65	B21	VT15x25	End-I	0	1.2D+1.6L	47.21	11.4773	1.2D+1.6L	146.59	0.18298	0.56818
N+5.65	B21	VT15x25	Middle	-0.1491	1.2D+1.6L	47.21	5.076	1.2D+L+EX-0.3EY	84.23	0.18298	0.32647
N+5.65	B21	VT15x25	End-J	-9.644	1.2D+L+EX-0.3EY	122.24	0	1.2D+L+EX-0.3EY	79.94	0.47380	0.30984

N+5.65	B53	VT15x25	End-I	-16.4499	1.2D+1.6L	214.7	9.2342	1.2D+1.6L	116.85	0.83217	0.45291
N+5.65	B53	VT15x25	Middle	0	1.2D+1.6L	70.42	20.8035	1.2D+1.6L	277.09	0.27295	1.07399

N+5.65	B53	VT15x25	End-J	-17.0292	1.2D+1.6L	222.85	9.181	1.2D+1.6L	116.15	0.86376	0.45019
N+5.65	B58	VG25x25	End-I	-3.5787	1.2D+1.6L	61.57	0	1.2D+1.6L	30.65	0.07201	0.05134
N+5.65	B58	VG25x25	Middle	0	1.2D+L+0.3EX-EY	18.81	4.6647	1.2D+1.6L	80.47	0.02200	0.13479
N+5.65	B58	VG25x25	End-J	-4.3997	1.2D+L+0.3EX-EY	75.84	0	1.2D+L+0.3EX-EY	37.72	0.08870	0.06318
N+5.65	B59	VG25x25	End-I	-3.5838	1.2D+1.6L	61.66	0	1.2D+1.6L	30.69	0.07212	0.05141
N+5.65	B59	VG25x25	Middle	0	1.2D+L+0.3EX-EY	19.06	4.6554	1.2D+1.6L	80.3	0.02229	0.13451
N+5.65	B59	VG25x25	End-J	-4.4583	1.2D+L+0.3EX-EY	76.87	0	1.2D+L+0.3EX-EY	38.22	0.08991	0.06402
N+5.65	B54	VT15x25	End-I	-17.0425	1.2D+1.6L	223.04	0	1.2D+L	110	0.86450	0.42636
N+5.65	B54	VT15x25	Middle	-5.3079	1.2D+L+EX-0.3EY	88.16	9.2865	1.2D+1.6L	117.53	0.34171	0.45554
N+5.65	B54	VT15x25	End-J	0	1.2D+1.6L	70.48	14.194	1.2D+1.6L	183.41	0.27318	0.71089
N+2.95	B1	VG30x30	End-I	0	1.2D+L	0	6.7219	1.2D+L+0.3EX-EY	93.42	0.00000	0.11736
N+2.95	B1	VG30x30	Middle	-1.6952	0.9D+0.3EX-EY	23.4	3.3605	1.2D+L+0.3EX-EY	46.49	0.02940	0.05840
N+2.95	B1	VG30x30	End-J	-4.4463	1.2D+L+0.3EX-EY	61.6	0	1.2D+L+0.3EX-EY	30.71	0.07739	0.03858
N+2.95	B2	VG30x30	End-I	-42.3518	1.2D+L+0.3EX-EY	465.05	0	1.2D+L+0.3EX-EY	260	0.58423	0.32663
N+2.95	B2	VG30x30	Middle	0	1.2D+L+0.3EX-EY	161.27	29.7266	1.2D+1.6L	320.14	0.20260	0.40219
N+2.95	B2	VG30x30	End-J	-46.1131	1.2D+L+0.3EX-EY	509.41	0	1.2D+L+0.3EX-EY	260	0.63996	0.32663
N+2.95	B3	VG30x30	End-I	-35.4821	1.2D+L+0.3EX-EY	385.46	0.3186	1.2D+L+0.3EX-EY	250.35	0.48425	0.31451
N+2.95	B3	VG30x30	Middle	-9.2357	0.9D+0.3EX-EY	128.79	14.3185	1.2D+L+0.3EX-EY	201.08	0.16180	0.25261
N+2.95	B3	VG30x30	End-J	-20.1204	0.9D+0.3EX-EY	260	12.94	0.9D+0.3EX-EY	181.37	0.32663	0.22785
N+2.95	B4	VG30x30	End-I	-27.8325	1.2D+L+0.3EX-EY	298.9	15.708	0.9D+0.3EX-EY	221.02	0.37550	0.27766
N+2.95	B4	VG30x30	Middle	-10.5845	0.9D+0.3EX-EY	147.88	19.8494	1.2D+L+0.3EX-EY	260	0.18578	0.32663
N+2.95	B4	VG30x30	End-J	-28.5595	1.2D+L+0.3EX-EY	307.03	23.3666	0.9D+0.3EX-EY	260	0.38572	0.32663
N+2.95	B5	VG30x30	End-I	-2.1304	0.9D+0.3EX-EY	29.43	4.3149	1.2D+L+0.3EX-EY	59.77	0.03697	0.07509
N+2.95	B5	VG30x30	Middle	-6.1262	1.2D+L+0.3EX-EY	85.07	0	1.2D+L+0.3EX-EY	38.21	0.10687	0.04800
N+2.95	B5	VG30x30	End-J	-11.0567	1.2D+L+0.3EX-EY	154.57	0	1.2D+L+0.3EX-EY	76.71	0.19418	0.09637
N+2.95	B6	VG30x30	End-I	-42.3673	1.2D+L+0.3EX-EY	465.23	0	1.2D+L+0.3EX-EY	260	0.58446	0.32663
N+2.95	B6	VG30x30	Middle	0	1.2D+L+0.3EX-EY	157.27	29.7434	1.2D+1.6L	320.32	0.19758	0.40241
N+2.95	B6	VG30x30	End-J	-44.9864	1.2D+L+0.3EX-EY	496.06	0	1.2D+L+0.3EX-EY	260	0.62319	0.32663
N+2.95	B7	VG30x30	End-I	-34.6647	1.2D+L+0.3EX-EY	376.11	0	1.2D+L+0.3EX-EY	244.44	0.47250	0.30709
N+2.95	B7	VG30x30	Middle	-9.0955	1.2D+L+0.3EX-EY	126.82	13.7942	1.2D+1.6L	193.58	0.15932	0.24319
N+2.95	B7	VG30x30	End-J	-25.6163	1.2D+L+0.3EX-EY	274.2	0	1.2D+L+0.3EX-EY	179.49	0.34447	0.22549
N+2.95	B8	VG30x30	End-I	-28.1248	1.2D+L+0.3EX-EY	302.16	2.6679	1.2D+L+0.3EX-EY	197.41	0.37960	0.24800
N+2.95	B8	VG30x30	Middle	-3.4398	1.2D+L+0.3EX-EY	97.76	19.9984	1.2D+L+0.3EX-EY	260	0.12281	0.32663
N+2.95	B8	VG30x30	End-J	-22.4701	0.9D+0.3EX-EY	260	17.9351	1.2D+L+0.3EX-EY	253.15	0.32663	0.31803
N+2.95	B9	VG30x30	End-I	-2.2054	0.9D+0.3EX-EY	30.47	4.2597	1.2D+L+0.3EX-EY	59.01	0.03828	0.07413
N+2.95	B9	VG30x30	Middle	-6.1976	1.2D+L+0.3EX-EY	86.07	0	1.2D+L+0.3EX-EY	38.28	0.10813	0.04809
N+2.95	B9	VG30x30	End-J	-11.076	1.2D+L+0.3EX-EY	154.85	0	1.2D+L+0.3EX-EY	76.84	0.19454	0.09653
N+2.95	B10	VG30x30	End-I	-41.9999	1.2D+L+0.3EX-EY	460.93	0	1.2D+L+0.3EX-EY	260	0.57906	0.32663
N+2.95	B10	VG30x30	Middle	0	1.2D+L+0.3EX-EY	151.91	28.89	1.2D+1.6L	310.74	0.19084	0.39038
N+2.95	B10	VG30x30	End-J	-43.4747	1.2D+L+0.3EX-EY	478.23	0	1.2D+L+0.3EX-EY	260	0.60079	0.32663
N+2.95	B11	VG30x30	End-I	-35.5509	1.2D+L+0.3EX-EY	386.25	0	1.2D+L+0.3EX-EY	250.84	0.48524	0.31513
N+2.95	B11	VG30x30	Middle	-9.2594	1.2D+L+0.3EX-EY	129.13	12.8232	1.2D+1.6L	179.71	0.16222	0.22577
N+2.95	B11	VG30x30	End-J	-26.1002	1.2D+L+0.3EX-EY	279.58	0	1.2D+L+0.3EX-EY	182.95	0.35123	0.22984
N+2.95	B12	VG30x30	End-I	-27.5106	1.2D+L+0.3EX-EY	295.3	3.1173	1.2D+L+0.3EX-EY	193.02	0.37098	0.24249
N+2.95	B12	VG30x30	Middle	-3.3665	1.2D+L+0.3EX-EY	95.6	20.0498	1.2D+L+0.3EX-EY	260	0.12010	0.32663
N+2.95	B12	VG30x30	End-J	-22.4233	0.9D+0.3EX-EY	260	17.834	1.2D+L+0.3EX-EY	251.69	0.32663	0.31619
N+2.95	B13	VG30x30	End-I	0	1.2D+L	0	7.0958	1.2D+L+0.3EX-EY	98.67	0.00000	0.12396
N+2.95	B13	VG30x30	Middle	-1.905	0.9D+0.3EX-EY	26.31	3.5511	1.2D+L+0.3EX-EY	49.14	0.03305	0.06173
N+2.95	B13	VG30x30	End-J	-4.8387	1.2D+L+0.3EX-EY	67.08	0	1.2D+L+0.3EX-EY	33.43	0.08427	0.04200
N+2.95	B14	VG30x30	End-I	-41.6224	1.2D+L+0.3EX-EY	456.51	0	1.2D+L+0.3EX-EY	260	0.57351	0.32663
N+2.95	B14	VG30x30	Middle	0	1.2D+L+0.3EX-EY	158.37	28.6836	1.2D+1.6L	308.42	0.19896	0.38746
N+2.95	B14	VG30x30	End-J	-45.297	1.2D+L+0.3EX-EY	499.73	0	1.2D+L+0.3EX-EY	260	0.62780	0.32663
N+2.95	B15	VG30x30	End-I	-34.0751	1.2D+L+0.3EX-EY	369.38	2.3846	1.2D+L+0.3EX-EY	240.18	0.46405	0.30173
N+2.95	B15	VG30x30	Middle	-8.6903	0.9D+0.3EX-EY	121.1	5.2093	1.2D+L+0.3EX-EY	118.68	0.15214	0.14910
N+2.95	B15	VG30x30	End-J	-21.9544	0.9D+0.3EX-EY	260	18.1571	0.9D+0.3EX-EY	256.37	0.32663	0.32207
N+2.95	B16	VG30x30	End-I	-27.1022	1.2D+L+0.3EX-EY	290.74	18.2305	0.9D+0.3EX-EY	257.43	0.36525	0.32340
N+2.95	B16	VG30x30	Middle	-9.824	0.9D+0.3EX-EY	137.11	19.6022	1.2D+L+0.3EX-EY	260	0.17225	0.32663
N+2.95	B16	VG30x30	End-J	-29.0827	1.2D+L+0.3EX-EY	312.9	23.0985	0.9D+0.3EX-EY	260	0.39309	0.32663
N+2.95	B17	VG30x30	End-I	-42.0525	1.2D+L+EX-0.3EY	461.54	21.6659	1.2D+L+EX-0.3EY	260	0.57982	0.32663
N+2.95	B17	VG30x30	Middle	0	1.2D+L+EX-0.3EY	169.62	33.8495	1.2D+1.6L	366.81	0.21309	0.46082
N+2.95	B17	VG30x30	End-J	-48.4602	1.2D+L+EX-0.3EY	537.38	0	1.2D+L+0.3EX-EY	260	0.67510	0.32663
N+2.95	B18	VG30x30	End-I	-43.5067	1.2D+L+EX-0.3EY	478.61	0	1.2D+L+0.3EX-EY	260	0.60127	0.32663
N+2.95	B18	VG30x30	Middle	0	1.2D+L+EX-0.3EY	152.02	15.3957	1.2D+1.6L	216.53	0.19098	0.27202
N+2.95	B18	VG30x30	End-J	-43.0401	1.2D+L+EX-0.3EY	473.12	0	1.2D+L+EX-0.3EY	260	0.59437	0.32663
N+2.95	B19	VG30x30	End-I	-48.6847	1.2D+L+EX-0.3EY	540.07	0	1.2D+L+EX-0.3EY	260.08	0.67848	0.32673
N+2.95	B19	VG30x30	Middle	0	1.2D+L+EX-0.3EY	170.42	33.6464	1.2D+1.6L	364.5	0.21410	0.45791
N+2.95	B19	VG30x30	End-J	-44.841	1.2D+L+EX-0.3EY	494.34	0	1.2D+L+EX-0.3EY	260	0.62103	0.32663
N+2.95	B20	VG30x30	End-I	-46.0853	1.2D+L+EX-0.3EY	509.08	19.596	1.2D+L	260	0.63955	0.32663
N+2.95	B20	VG30x30	Middle	0	1.2D+L+EX-0.3EY	182.91	42.7688	1.2D+1.6L	469.94	0.22979	0.59038
N+2.95	B20	VG30x30	End-J	-52.1893	1.2D+L+EX-0.3EY	582.31	0	1.2D+L+EX-0.3EY	279.52	0.73155	0.35116
N+2.95	B22	VG30x30	End-I	-50.3319	1.2D+L+EX-0.3EY	559.86	0	1.2D+L+EX-0.3EY	269.2	0.70334	0.33819

N+2.95	B22	VG30x30	Middle	0	1.2D+L+EX-0.3EY	176.28	39.8501	1.2D+1.6L	435.86	0.22146	0.54756
N+2.95	B22	VG30x30	End-J	-45.5707	1.2D+L+EX-0.3EY	502.97	25.919	1.2D+1.6L	277.56	0.63187	0.34869
N+2.95	B23	VG30x30	End-I	-38.6527	1.2D+L+EX-0.3EY	421.97	20.6553	1.2D+L+EX-0.3EY	260	0.53011	0.32663
N+2.95	B23	VG30x30	Middle	0	1.2D+L+EX-0.3EY	185.11	33.5161	1.2D+1.6L	363.01	0.23255	0.45604
N+2.95	B23	VG30x30	End-J	-52.8083	1.2D+L+EX-0.3EY	589.83	0	1.2D+L+EX-0.3EY	282.96	0.74099	0.35548
N+2.95	B24	VG30x30	End-I	-52.4724	1.2D+L+EX-0.3EY	585.75	0	1.2D+L+EX-0.3EY	281.09	0.73587	0.35313
N+2.95	B24	VG30x30	Middle	0	1.2D+L+EX-0.3EY	183.92	29.9502	1.2D+1.6L	322.65	0.23106	0.40534
N+2.95	B24	VG30x30	End-J	-50.022	1.2D+L+EX-0.3EY	556.13	0	1.2D+L+EX-0.3EY	267.48	0.69866	0.33603
N+2.95	B25	VG30x30	End-I	-48.6301	1.2D+L+EX-0.3EY	539.42	0	1.2D+L+0.3EX-EY	260	0.67766	0.32663
N+2.95	B25	VG30x30	Middle	0	1.2D+L+EX-0.3EY	170.22	29.4864	1.2D+1.6L	317.44	0.21384	0.39879
N+2.95	B25	VG30x30	End-J	-38.496	1.2D+L+EX-0.3EY	420.16	0	1.2D+L+EX-0.3EY	260	0.52784	0.32663
N+2.95	B26	VG30x30	End-I	-35.5273	1.2D+L+EX-0.3EY	385.98	0	1.2D+L+EX-0.3EY	250.67	0.48490	0.31491
N+2.95	B26	VG30x30	Middle	-2.447	1.2D+L+EX-0.3EY	159.94	18.9323	1.2D+1.6L	260	0.20093	0.32663
N+2.95	B26	VG30x30	End-J	-45.7383	1.2D+L+EX-0.3EY	504.96	0	1.2D+L+EX-0.3EY	260	0.63437	0.32663
N+2.95	B27	VG30x30	End-I	-47.5725	1.2D+L+EX-0.3EY	526.78	0	1.2D+L+0.3EX-EY	260	0.66178	0.32663
N+2.95	B27	VG30x30	Middle	0	1.2D+L+EX-0.3EY	166.46	24.9745	1.2D+1.6L	267.08	0.20912	0.33553
N+2.95	B27	VG30x30	End-J	-47.1829	1.2D+L+EX-0.3EY	522.13	0	1.2D+L+0.3EX-EY	260	0.65594	0.32663
N+2.95	B28	VG30x30	End-I	-44.7352	1.2D+L+EX-0.3EY	493.09	0	1.2D+L+EX-0.3EY	260	0.61946	0.32663
N+2.95	B28	VG30x30	Middle	0	1.2D+L+EX-0.3EY	156.38	20.292	1.2D+L+EX-0.3EY	260	0.19646	0.32663
N+2.95	B28	VG30x30	End-J	-35.1466	1.2D+L+EX-0.3EY	381.62	18.155	1.2D+L+EX-0.3EY	256.34	0.47942	0.32204
N+2.95	B29	VT15x30	End-I	-13.9983	1.2D+L+EX-0.3EY	144.36	11.1656	1.2D+L+EX-0.3EY	135	0.55953	0.52326
N+2.95	B29	VT15x30	Middle	-0.6073	1.2D+L+EX-0.3EY	67.96	13.9681	1.2D+1.6L	144.04	0.26341	0.55829
N+2.95	B29	VT15x30	End-J	-20.2383	1.2D+L+EX-0.3EY	212.39	0	1.2D+L+EX-0.3EY	135	0.82322	0.52326
N+2.95	B30	VT15x30	End-I	-18.841	1.2D+L+EX-0.3EY	196.94	0	1.2D+L+EX-0.3EY	127.96	0.76333	0.49597
N+2.95	B30	VT15x30	Middle	-2.5311	1.2D+L+EX-0.3EY	63.21	9.0706	1.2D+1.6L	123.1	0.24500	0.47713
N+2.95	B30	VT15x30	End-J	-18.6677	1.2D+L+EX-0.3EY	195.03	0	1.2D+L+EX-0.3EY	126.76	0.75593	0.49132
N+2.95	B31	VT15x30	End-I	-20.7024	1.2D+L+EX-0.3EY	217.55	0	1.2D+L+EX-0.3EY	135	0.84322	0.52326
N+2.95	B31	VT15x30	Middle	0	1.2D+L+EX-0.3EY	69.54	13.8729	1.2D+L+EX-0.3EY	143.02	0.26953	0.55434
N+2.95	B31	VT15x30	End-J	-13.9923	1.2D+L+EX-0.3EY	144.3	10.2702	1.2D+L+EX-0.3EY	135	0.55930	0.52326
N+2.95	B32	VG30x30	End-I	-42.6978	1.2D+L+EX-0.3EY	469.1	0	1.2D+L+EX-0.3EY	260	0.58932	0.32663
N+2.95	B32	VG30x30	Middle	-19.5925	1.2D+L+EX-0.3EY	260	0	1.2D+L+EX-0.3EY	149.15	0.32663	0.18737
N+2.95	B32	VG30x30	End-J	-3.2096	1.2D+L+EX-0.3EY	44.4	2.3994	0.9D+EX-0.3EY	33.15	0.05578	0.04165
N+2.95	B33	VG30x30	End-I	-6.2149	1.2D+L+EX-0.3EY	144.19	0.048	1.2D+L+EX-0.3EY	144.19	0.18114	0.18114
N+2.95	B33	VG30x30	Middle	-18.1484	1.2D+L+EX-0.3EY	256.24	0	1.2D+L+EX-0.3EY	144.19	0.32191	0.18114
N+2.95	B33	VG30x30	End-J	-41.2978	1.2D+L+EX-0.3EY	452.72	0	1.2D+L+EX-0.3EY	260	0.56874	0.32663
N+2.95	B34	VG25x30	End-I	-0.4257	0.9D+0.3EX-EY	5.87	3.1691	1.2D+L+0.3EX-EY	43.87	0.00983	0.07348
N+2.95	B34	VG25x30	Middle	-0.2937	1.2D+L+0.3EX-EY	10.93	2.4785	1.2D+L+0.3EX-EY	34.27	0.01831	0.05740
N+2.95	B34	VG25x30	End-J	-1.1642	0.9D+0.3EX-EY	16.07	1.49	1.2D+L+0.3EX-EY	20.57	0.02692	0.03446
N+2.95	B36	VG25x30	End-I	-0.4321	0.9D+0.3EX-EY	5.96	3.145	1.2D+L+0.3EX-EY	43.54	0.00998	0.07293
N+2.95	B36	VG25x30	Middle	-0.3082	1.2D+L+0.3EX-EY	10.84	2.4562	1.2D+L+0.3EX-EY	33.96	0.01816	0.05688
N+2.95	B36	VG25x30	End-J	-1.1711	0.9D+0.3EX-EY	16.16	1.4695	1.2D+L+0.3EX-EY	20.29	0.02707	0.03399
N+2.95	B38	VG25x30	End-I	0	1.2D+L	0	3.1098	1.2D+L+EX-0.3EY	43.05	0.00000	0.07211
N+2.95	B38	VG25x30	Middle	0	1.2D+L+EX-0.3EY	10.72	4.9626	1.2D+L+0.3EX-EY	68.9	0.01796	0.11541
N+2.95	B38	VG25x30	End-J	0	1.2D+L	0	2.8093	1.2D+L+0.3EX-EY	38.87	0.00000	0.06511
N+2.95	B39	VG25x30	End-I	0	1.2D+L	0	3.0142	1.2D+L+EX-0.3EY	41.72	0.00000	0.06988
N+2.95	B39	VG25x30	Middle	0	1.2D+L+EX-0.3EY	10.39	4.8766	1.2D+L+0.3EX-EY	67.69	0.01740	0.11338
N+2.95	B39	VG25x30	End-J	0	1.2D+L	0	2.8251	1.2D+L+0.3EX-EY	39.09	0.00000	0.06548
N+2.95	B40	VT15x30	End-I	-11.1381	1.2D+L+EX-0.3EY	135	0	1.2D+L+EX-0.3EY	74.9	0.52326	0.29031
N+2.95	B40	VT15x30	Middle	-8.6723	1.2D+L+EX-0.3EY	117.57	0	1.2D+L+EX-0.3EY	37.73	0.45570	0.14624
N+2.95	B40	VT15x30	End-J	-11.3006	1.2D+L+EX-0.3EY	135	0	1.2D+L+EX-0.3EY	76.01	0.52326	0.29461
N+2.95	B45	VT15x30	End-I	-6.0722	1.2D+L+EX-0.3EY	81.77	0	1.2D+L+EX-0.3EY	40.57	0.31694	0.15725
N+2.95	B45	VT15x30	Middle	-4.7134	1.2D+L+0.3EX-EY	63.25	0	1.2D+L+EX-0.3EY	20.21	0.24516	0.07833
N+2.95	B45	VT15x30	End-J	-5.8044	1.2D+L+EX-0.3EY	78.11	0	1.2D+L+EX-0.3EY	38.77	0.30275	0.15027
N+2.95	B46	VT15x30	End-I	-1.1793	0.9D+0.3EX-EY	15.69	2.5146	1.2D+L+0.3EX-EY	33.56	0.06081	0.13008
N+2.95	B46	VT15x30	Middle	-0.4389	1.2D+L+EX-0.3EY	14.53	2.9188	1.2D+L+EX-0.3EY	38.99	0.05632	0.15112
N+2.95	B46	VT15x30	End-J	-2.6179	0.9D+EX-0.3EY	34.95	4.3698	1.2D+L+EX-0.3EY	58.59	0.13547	0.22709
N+2.95	B47	VT15x30	End-I	0	1.2D+L+0.3EX-EY	44.52	5.5779	1.2D+L+0.3EX-EY	75.02	0.17256	0.29078
N+2.95	B47	VT15x30	Middle	-5.2404	1.2D+L+EX-0.3EY	70.42	0	1.2D+L+0.3EX-EY	44.52	0.27295	0.17256
N+2.95	B47	VT15x30	End-J	-13.3154	1.2D+L+0.3EX-EY	137.07	0	1.2D+L+0.3EX-EY	89.79	0.53128	0.34802
N+2.95	B48	VT15x30	End-I	0	1.2D+L	0	8.8387	1.2D+L+EX-0.3EY	119.88	0.00000	0.46465
N+2.95	B48	VT15x30	Middle	0	1.2D+L+EX-0.3EY	30.52	9.6022	1.2D+1.6L	130.49	0.11829	0.50578
N+2.95	B48	VT15x30	End-J	0	1.2D+L	0	9.1535	1.2D+L+EX-0.3EY	124.25	0.00000	0.48159
N+2.95	B49	VT15x30	End-I	-13.4906	1.2D+L+0.3EX-EY	138.93	0	1.2D+L+0.3EX-EY	90.99	0.53849	0.35267
N+2.95	B49	VT15x30	Middle	-5.7538	1.2D+L+EX-0.3EY	77.42	0.492	1.2D+L+0.3EX-EY	45.11	0.30008	0.17484
N+2.95	B49	VT15x30	End-J	0	1.2D+L+0.3EX-EY	45.11	5.561	1.2D+L+0.3EX-EY	74.79	0.17484	0.28988
N+2.95	B50	VT15x30	End-I	-2.9489	1.2D+L+EX-0.3EY	39.4	3.914	0.9D+EX-0.3EY	52.42	0.15271	0.20318
N+2.95	B50	VT15x30	Middle	0	0.9D+EX-0.3EY	13.01	2.6594	1.2D+L+EX-0.3EY	35.51	0.05043	0.13764
N+2.95	B50	VT15x30	End-J	-1.133	0.9D+EX-0.3EY	15.07	2.7503	1.2D+L+EX-0.3EY	36.73	0.05841	0.14236
N+2.95	B51	VG25x30	End-I	-7.7752	1.2D+L+0.3EX-EY	108.44	0	1.2D+L+0.3EX-EY	53.88	0.18164	0.09025
N+2.95	B51	VG25x30	Middle	-4.9818	1.2D+L+0.3EX-EY	69.17	0	1.2D+L+0.3EX-EY	31.38	0.11586	0.05256
N+2.95	B51	VG25x30	End-J	-9.0803	1.2D+L+0.3EX-EY	126.92	0	1.2D+L+0.3EX-EY	62.99	0.21260	0.10551

N+2.95	B52	VG25x30	End-I	0	1.2D+L+EX-0.3EY	87.26	23.2925	1.2D+L+EX-0.3EY	250.18	0.14616	0.41906
N+2.95	B52	VG25x30	Middle	0	1.2D+L+EX-0.3EY	87.26	24.0398	1.2D+L+EX-0.3EY	258.55	0.14616	0.43308
N+2.95	B52	VG25x30	End-J	-25.0868	1.2D+L+EX-0.3EY	270.32	0	1.2D+L+EX-0.3EY	176.33	0.45280	0.29536
N+2.95	B53	VT15x30	End-I	-8.7982	1.2D+L+0.3EX-EY	119.31	7.99	1.2D+L+0.3EX-EY	108.13	0.46244	0.41911
N+2.95	B53	VT15x30	Middle	0	1.2D+L+0.3EX-EY	32.7	10.4245	1.2D+1.6L	135	0.12674	0.52326
N+2.95	B53	VT15x30	End-J	-9.8032	1.2D+L+0.3EX-EY	133.29	5.9161	1.2D+1.6L	79.63	0.51663	0.30864
N+2.95	B58	VG25x30	End-I	0	1.2D+L+0.3EX-EY	10.83	4.736	1.2D+L+0.3EX-EY	65.73	0.01814	0.11010
N+2.95	B58	VG25x30	Middle	0	1.2D+L+0.3EX-EY	10.83	9.1216	1.2D+L+0.3EX-EY	127.5	0.01814	0.21357
N+2.95	B58	VG25x30	End-J	-3.1426	1.2D+L+0.3EX-EY	43.5	3.2379	1.2D+L+0.3EX-EY	44.83	0.07286	0.07509
N+2.95	B59	VG25x30	End-I	0	1.2D+L+0.3EX-EY	10.56	4.7156	1.2D+L+0.3EX-EY	65.44	0.01769	0.10961
N+2.95	B59	VG25x30	Middle	0	1.2D+L+0.3EX-EY	10.56	9.1724	1.2D+L+0.3EX-EY	128.22	0.01769	0.21477
N+2.95	B59	VG25x30	End-J	-3.0626	1.2D+L+0.3EX-EY	42.39	3.3225	1.2D+L+0.3EX-EY	46.01	0.07101	0.07707
N+2.95	B54	VT15x30	End-I	-17.402	1.2D+L+0.3EX-EY	181.16	0	1.2D+L+0.3EX-EY	117.97	0.70217	0.45725
N+2.95	B54	VT15x30	Middle	-0.9891	1.2D+L+0.3EX-EY	58.33	9.4477	1.2D+1.6L	128.34	0.22609	0.49744
N+2.95	B54	VT15x30	End-J	-10.0208	1.2D+L+EX-0.3EY	135	0	1.2D+L+EX-0.3EY	67.29	0.52326	0.26081
N+2.95	B55	VT15x30	End-I	-10.0221	1.2D+L+0.3EX-EY	135	0	1.2D+L+EX-0.3EY	68.14	0.52326	0.26411
N+2.95	B55	VT15x30	Middle	-0.6046	1.2D+L+0.3EX-EY	55.41	9.6628	1.2D+1.6L	131.34	0.21477	0.50907
N+2.95	B55	VT15x30	End-J	-16.5391	1.2D+L+0.3EX-EY	171.76	0	1.2D+L+0.3EX-EY	111.99	0.66574	0.43407
N+2.95	B56	VG25x30	End-I	0	1.2D+L+0.3EX-EY	61.68	8.4796	1.2D+L+0.3EX-EY	118.4	0.10332	0.19832
N+2.95	B56	VG25x30	Middle	0	1.2D+L+0.3EX-EY	61.68	11.1214	1.2D+L+0.3EX-EY	155.97	0.10332	0.26126
N+2.95	B56	VG25x30	End-J	-17.7855	1.2D+L+0.3EX-EY	216.67	0	1.2D+L+0.3EX-EY	124.26	0.36293	0.20814
N+2.95	B57	VG25x30	End-I	-13.152	1.2D+L+0.3EX-EY	185.08	0	1.2D+L+0.3EX-EY	91.54	0.31002	0.15333
N+2.95	B57	VG25x30	Middle	-5.4959	1.2D+L+0.3EX-EY	76.37	1.0307	1.2D+L+0.3EX-EY	45.53	0.12792	0.07626
N+2.95	B57	VG25x30	End-J	-1.8215	1.2D+L+0.3EX-EY	45.53	1.5699	1.2D+L+0.3EX-EY	45.53	0.07626	0.07626
N+2.95	B60	VG25x30	End-I	0	1.2D+L+0.3EX-EY	62.05	8.4136	1.2D+L+0.3EX-EY	117.47	0.10394	0.19677
N+2.95	B60	VG25x30	Middle	0	1.2D+L+0.3EX-EY	62.05	11.1016	1.2D+L+0.3EX-EY	155.69	0.10394	0.26079
N+2.95	B60	VG25x30	End-J	-17.8907	1.2D+L+0.3EX-EY	216.67	0	1.2D+L+0.3EX-EY	125	0.36293	0.20938
N+2.95	B61	VG25x30	End-I	-13.5569	1.2D+L+0.3EX-EY	190.91	0	1.2D+L+0.3EX-EY	94.39	0.31978	0.15811
N+2.95	B61	VG25x30	Middle	-5.8598	1.2D+L+0.3EX-EY	81.47	0.8282	1.2D+L+0.3EX-EY	46.93	0.13647	0.07861
N+2.95	B61	VG25x30	End-J	-2.0616	1.2D+L+0.3EX-EY	46.93	1.4742	1.2D+L+0.3EX-EY	46.93	0.07861	0.07861