



ALCALDÍA MAYOR DE BOGOTÁ D.C.
SECRETARIA DE EDUCACIÓN
SUBSECRETARIA DE ACCESO Y PERMANENCIA
DIRECCIÓN DE CONSTRUCCIÓN Y CONSERVACIÓN DE ESTABLECIMIENTOS EDUCATIVOS

PROYECTO: COLEGIO BOITÁ
CONTRATO DE CONSULTORÍA 519 DE 27/12/2019



CONSULTOR: MC CONSTRUCCIONES Y CONSULTORÍAS SAS



CONTENIDO:
MEMORIA ESTRUCTURAL

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CONTROL DE CAMBIOS Y DISTRIBUCIÓN DEL DOCUMENTO

Versión	Fecha	Descripción del cambio
V.0	28/04/2020	Versión Inicial pre dimensionamiento V0
V.1	14/09/2020	Cálculo de Irregularidades V1
V.2	06/05/2020	Predimensionamiento
V.3	14/08/2020	Memoria de Calculo Estructural

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MEMORIA DE CALCULO ESTRUCTURAL

DISEÑO Y CALCULO ESTRUCTURAL
ING. WILLIAM JAVIER FAJARDO K. MSc

SANTIAGO DE CALI
AGOSTO 14 DE 2020

1. FORMULACIÓN DEL PROYECTO

1.1 OBJETIVOS

General

Realizar el diseño estructural del edificio de la Institución Educativa Boitá Kennedy, de acuerdo a los requerimientos presentes en la Norma Colombiana Sismoresistente vigente NSR-10.

Específicos

- Reconocer y verificar la alternativa de sistema Estructural
- Especificar los materiales a utilizar.
- Determinar las solicitudes y casos de carga más desfavorables actuantes en los elementos estructurales.
- Realizar análisis dinámico de la estructura
- Realizar el diseño estructural

1.2 DESCRIPCIÓN DEL PROYECTO

El proyecto consiste en un proyecto educativo localizado en la ciudad de Bogotá D.C, el cual está conformado por 2 edificaciones independientes estructuralmente tanto en cimentación como en altura; cada uno cuenta con 5 niveles y uno de ellos con sótano. Estos edificios se comunican a través de rampas metálicas que no hacen parte del sistema de resistencia sísmica del proyecto. Además de esto, se proyecta el uso de las terrazas como zonas recreativas.

El sistema estructural adoptado para las dos estructuras, son pórticos de concreto reforzados combinados con muros estructurales. El sistema de losas de entrepiso, consiste en losas aligeradas en dos direcciones. La cimentación del proyecto, consiste en un sistema losa-pilotes para poder controlar los asentamientos generados por las cargas de la superestructura. Se aplicaron todos los requisitos presentes en el Reglamento NSR-10, así como los lineamientos presentes en el documento Lineamientos Básicos para el Diseño de Construcciones Escolares 2017 – de la SED Secretaría de Educación Distrital de Bogotá D.C.

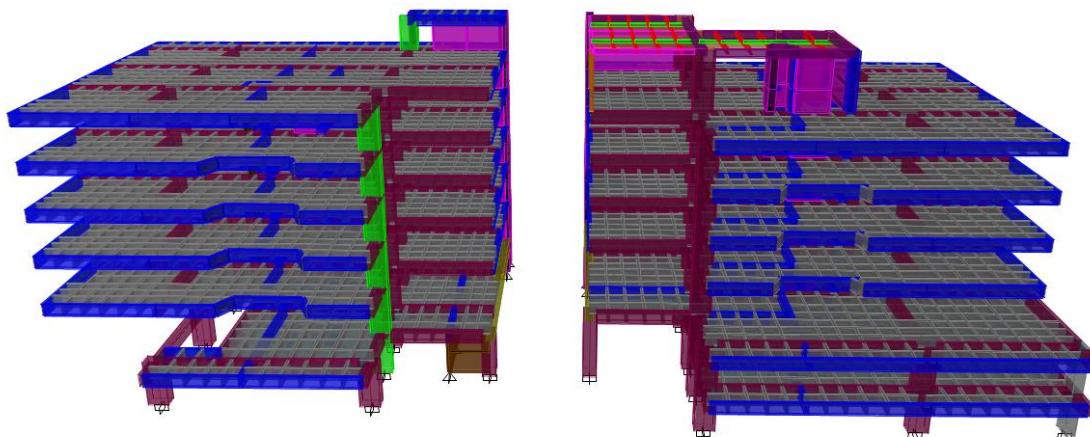


Figura 1 Modelo Estructural

2. ESPECIFICACIÓN DE LOS MATERIALES

Módulo de Elasticidad del Concreto

La NSR-10 permite el uso de dos correlaciones para el cálculo del módulo de elasticidad, para la aplicación de estas es necesario conocer la resistencia y masa unitaria del concreto. Dichas correlaciones se presentan en las ecuaciones (1) y (2).

$$E_c = 4700\sqrt{f'_c} \quad (1)$$

$$E_c = W_c^{1.5} 0,043 \sqrt{f'_c} \quad (2)$$

Dónde:

f'_c = Resistencia del concreto en (MPa)

W_c = Masa unitario (kg/m^3)

Una vez obtenido el módulo de elasticidad por medio de las ecuaciones (1) y (2), se procede a determinar los valores promedios teniendo en cuenta la situación más crítica, la cual se presenta con la ecuación (1).

Para los elementos estructurales, que comprenden la propuesta de diseño estructural, se definió la siguiente propiedad de material

Cimentación:

$$f'c = 21 \text{ MPa}, 3000 \text{ psi.} \quad E = 4700\sqrt{f'c} \text{ (Cap, C.8.5, NSR-10) } E_c = 21525 \text{ MPa}$$

Peso Unitario = 24 kN/m³ Relación de Poisson = 0.2

Vigas aéreas, y losas de entrepiso:

$$f'c = 27,58 \text{ MPa, 4000psi} \quad E = 4700\sqrt{f'c} \text{ (Cap, C.8.5, NSR-10) } E_c = 24855 \text{ MPa.}$$

Peso Unitario = 24 kN/m³ Relación de Poisson = 0.2

Columnas, y Muros Pantallas:

$$f'c = 35 \text{ MPa, 5000psi} \quad E = 4700\sqrt{f'c} \text{ (Cap, C.8.5, NSR-10) } E_c = 27805 \text{ MPa.}$$

Peso Unitario = 24 kN/m³ Relación de Poisson = 0.2

Acero de Refuerzo:

Acero Grado 60 Corrugado, (A615Gr60) fy= 420 MPa Diámetro > 3/8"

Perfiles Metálicos y láminas metálicas:

Perfiles Tubulares y Perlines cubierta A500GrB, Fy= 320 MPa y Fu= 400 MPa
Laminas metálicas ASTM A572Gr50, Fy =344 MPa y Fu=448Mpa
Pernos A325, Fu= 825 MPa
Módulo de Elasticidad 200 GPa
Peso Unitario = 76.97 kN/m³

3. DEFINICIÓN DE CARGAS DE DISEÑO

En este ítem se especifican las cargas consideradas en la modelación tridimensional de la estructura, así como las propiedades de los materiales que se usarán en el diseño de los diferentes elementos estructurales.

La Norma Colombiana de Sismo Resistencia define en el Título B todos los lineamientos en cuanto a las cargas que se deben considerar en la modelación de una estructura, entre ellas se encuentra la Carga Muerta, Carga Viva y Fuerzas de Viento.

B.3.1 — La carga muerta cubre todas las cargas de elementos permanentes de construcción incluyendo su estructura, los muros, pisos, cubiertas, cielos rasos, escaleras, equipos fijos todas aquellas cargas que no son causadas por la ocupación y uso de la edificación. Las fuerzas netas de preefuerzo deben incluirse dentro de la carga muerta.

B.4.1.1 — Las cargas vivas son aquellas cargas producidas por el uso y ocupación de la edificación y no deben incluir cargas ambientales tales como viento y sismo.

B.4.2.1 — Las cargas que se utilicen en el diseño de la estructura deben ser las máximas que se espera ocurran en la edificación debido al uso que ésta va a tener. En ningún caso estas cargas vivas pueden ser menores que las cargas vivas mínimas que se dan en las tablas B.4.2.1-1 y B.4.2.1-2.

EVALUACIÓN DE CARGAS VIVAS Y MUERTAS

Según la información arquitectónica, la estructura cuenta con diferentes niveles y espacios educativos. De acuerdo con el documento **Lineamiento Básicos de Construcción de Edificaciones de Construcciones Escolares 2017**, en el Capítulo 6. **Especificaciones Básicas de Construcción**, definido por la Secretaría de Educación Distrital de la Ciudad de Bogotá D.C, en el. Se tuvieron en cuenta los siguientes cuadros de especificaciones:

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS RASOS	G/ESCOBAS	VARIOS
EDUCACIÓN PREESCOLAR							
AULA PRIMERA INFANCIA	A5		B1		C1	D5	E1
LUDOTECA	A5		B1		C1	D5	
BAÑOS	A4	1	B2	2/3/4	C1	D2	
RECREACIÓN EXTERIOR	A2/A11 A12/A13		B1			D1	

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS RASOS	G/ESCOBAS	VARIOS
EDUCACIÓN PREESCOLAR							
AULA PRIMERA INFANCIA	A5		B1		C1	D5	E1
LUDOTECA	A5		B1		C1	D5	
BAÑOS	A4	1	B2	2/3/4	C1	D2	
RECREACIÓN EXTERIOR	A2/A11 A12/A13		B1			D1	
EDUCACIÓN PRIMARIA							
AULA GRADO 1 - 5	A4		B1		C1	D4	
LABORATORIO DE CIENCIAS	A4		B1		C1	D4	E3
AULA TALLER DE ARTE	A4		B1		C1	D4	E3
AULA TECNOLÓGICA	A4		B1		C1	D4	
BAÑOS	A4	1	B2	2/3/4	C1	D2	
RECREACIÓN EXTERIOR	A2/A13		B1			D1	
EDUCACIÓN BÁSICA							
SECUNDARIA							
AULAS GRADOS 6 - 9	A4		B1		C1	D4	
LABORATORIO FÍSICA QUÍMICA	A4		B1		C1	D4	E3
AULA TALLER DE ARTE	A4		B1		C1	D4	E3
AULA TECNOLÓGICA	A4		B1		C1	D4	
BAÑOS	A4	1	B2	2/3/4	C1	D2	
RECREACIÓN EXTERIOR	A2/A13		B1			D1	
EDUCACIÓN MEDIA							
AULAS GRADOS 10 - 11	A4		B1		C1	D4	
AULA TECNOLÓGICA	A4		B1		C1	D4	
BAÑOS	A4	1	B2	2/3/4	C1	D2	
RECREACIÓN EXTERIOR	A2/A13		B1			D1	

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS/RASOS	G/ESCOBAS	VARIOS
CENTRO INTEGRADO DE RECURSOS							
BIBLIOTECA	A4		B1		C1	D4	E2
AULA DE INFORMÁTICA	A4		B1		C1	D4	
SOCIALIZACIÓN Y BIENESTAR							
AULA MÚLTIPLE	A4		B1		C1	D4	
ATENCIÓN DE PÚBLICO COMESTIBLES	A4		B1		C1	D4	E2
BAÑOS	A4	1	B2	2/3/4	C1	D2	
EMISORA	A4		B1		C1	D4	
ADMINISTRACIÓN							
RECTORÍA	A3/A4		B1		C1	D3/D4	
SECRETARÍA	A3/A4		B1		C1	D3/D4	E2
BAÑO PRIVADO	A6		B2		C1		
ORIENTACIÓN Y PADRES DE FAMILIA	A3/A4		B1		C1	D3/D4	
COORDINACIÓN ACADÉMICA Y PROFESORES	A3/A4		B1		C1	D3/D	
BAÑOS PROFESORES	A4	1	B2	2/3/4	C1	D2	
ADMINISTRACIÓN ARCHIVO Y FOTOCOPIADO	A3/A4		B1		C1	D3/D4	
ENFERMERÍA	A4	1	B1		C1	D4	
BAÑOS ADMINISTRACIÓN Y ENFERMERÍA	A6		B2		C1		

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS/RASOS	G/ESCOBAS	VARIOS
SERVICIOS GENERALES							
BODEGA	A3		B1		C1	D3	
ALMACÉN	A3		B1		C1	D3	
EQUIPOS	A3		B1		C1	D3	
BASURAS	A4	1	B2		C1	D2	
PORTERÍA	A3		B1		C1	D3	E2
BAÑOS Y VESTIER PERSONAL	A4	1	B2		C1	D2	

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS RASOS	G/ESCOBAS	VARIOS
RECREACIÓN							
CANCHA MÚLTIPLE	A7						
TIENDA ESCOLAR	A3	1	B2		C1	D2	
AUDITORIO AL AIRE LIBRE	A2		B1			D1	
PATIO DE BANDERAS	A2		B1			D1	
OTROS							
ANDENES EXTERIORES	A1		B1				
HALLES Y CIRCULACIONES INTERIORES	A3/A4		B1		C1	D3/D4	
CIRCULACIONES EXTERIORES	A1		B1				
PATIOS INTERIORES	A2		B1			D1	
ESCALERAS INTERIORES	A8		B1		C1		
ESCALERAS EXTERIORES	A9		B1				
RAMPAS	A10		B1		C1		

Las especificaciones se cada elemento, se describen a continuación según la nomenclatura usada en los cuadros anteriores:

Acabados para pisos

- A1**
 - Andenes en concreto escobillado
 - Andenes en concreto lavado
 - Plaquetas prefabricadas en concreto reforzado
 - Confinamiento andenes en concreto reforzado, elementos prefabricados

- A2**
 - Adoquines en concreto
 - Adoquines en arcilla
 - Tolete de plano como adoquín

- A3** Pisos en arcilla cocida y vitrificada o gres
Tablón Cuarto x 26
Tabletas y tablones de gres de diferentes medidas
- A4** Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms.
Grano No 1. Colores claros
- A5** Baldosa de caucho para tráfico pesado.
- A6** Baldosín de porcelana o cerámica de 0.20 x 0.20 o de 0.30 x 0.30 ms.
Fabricación mediante proceso de monococción, alta resistencia, bajo nivel de absorción. Tráfico 4.
- A7** Pavimento en concreto reforzado
- A8** Gradas en ladrillo tolete moldurado
Gradas en gravilla lavada
Gradas en gravilla lavada y tabletas de gres
Gradas en granito pulido con pirlán de cobre y cintas antideslizantes
Enchapes en tablones de gres con perfil para gradas.
- A9** Gradas en ladrillo tolete
Gradas en concreto lavado
- A10** Concreto escobillado
Concreto lavado
- A11** Piso en deck sintético en PVC
- A12** Recubrimiento sintético de alta resistencia (caucho)
- A13** El césped

Observaciones sobre pisos

Cenefas en granito para conformar media caña.

Acabados muros

- B1** Muros en concreto reforzado a la vista.
 - Muros en ladrillo de arcilla a la vista con perforaciones verticales.
 - Muros en bloque de concreto a la vista con perforaciones verticales.
- B2** Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms. Filos y dilataciones con esquineros y platinas de aluminio crudo. A partir de esta altura, se aplicará pintura plástica sobre pañete.

Observaciones sobre muros

- 1 Divisiones para cabinas prefabricadas en lámina *cold rolled* con pintura electrostática o en lámina de acero inoxidable.
- 2 Mesones en concreto reforzado con enchape en granito pulido.
- 3 Puertas para cabinas en lámina *cold rolled* recubiertas con pintura electrostática o en lámina de acero inoxidable.

Acabados cielos rasos

- C1** Estructura en concreto reforzado a la vista o en crudo.
 - Teja aislada sobre estructura metálica.

Acabados guardaescobas

- D1** Arranque de mampostería en hilada de plano o hilada parada.
- D2** Media caña en granito pulido
- D3** Zócalos en gres para tablones y tabletas
- D4** Zócalos en baldosín de granito vibro prensado
- D5** Zócalos en caucho

Cargas Muertas

N+0.00 Planta Preescolar

Uso: AULAS PREESCOLAR, SALA DE PROFESORES, LUDOTECA

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A5: Baldosa de caucho para tráfico pesado	0.20 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (<i>NO LLEVA</i>)	0.00 kN/m ²
Total, Carga Muerta	2.00 kN/m²

Sobre Carga Distribuida

Muros B1: Muros en bloque de concreto a la vista con perforaciones verticales. h=3.0m 5.40 kN/m

Uso: BAÑOS

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (<i>NO LLEVA</i>)	0.00 kN/m ²
Total, Carga Muerta	2.10 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms. h=3.0m 5.40 kN/m

N+1.75: Planta Acceso Principal Administración

Uso: ADMINISTRACION, SECRETARIA, RECTORIA, ATENCION A PADR
MEDIOS EDUCATIVOS

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	2.60 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms.
h=3.0m

5.40 kN/m

N+3.50: Planta Comedor

Uso: Comedores, Baños, Cocinas

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	2.60 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms.
h=3.0m

5.40 kN/m

N+6.00, N+8.50: Planta de Basica Primaria

Uso: Aulas Educativas Primaria Basica

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	2.60 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms. h=3.0m

N+10.25, N+12.0: Planta Talleres Primaria y AA Secundaria

Uso: Salon talleres, laboratorios, salon de idiomas, Aulas secundaria

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	2.60 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms. h=3.0m

N+13.75, N+15.50: Planta AA Secundaria y Talleres Secundaria.

Uso: Aulas Secundaria, Laboratorio Fisica-Quimica Salon Idiomas
Taller de musica

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	2.60 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms.
h=3.0m

N+17.25: Planta AA Media

Uso: Aulas Secundaria, Sala Profesores

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Piso A4: Baldosín de granito vibroprensado de 0.30 x 0.30 o 0.33 x 0.33 ms. Grano No 1. Colores claros	0.80 kN/m ²
Particiones livianas	0.50 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	2.60 kN/m²

Sobre Carga Distribuida

Muros B1: Baldosín de porcelana de 0.20 x 0.20 o 0.30 x 0.30 ms. Altura del enchape de 1.80 ms.
h=3.0m

N+19.0 : Zona Recreativa Terraza□

Uso: Area Recreativa

Elemento	Carga
Piso A7: Pavimento en concreto reforzado	2.40 kN/m ²
Piso CauchO	0.40 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	3.00 kN/m²

N+20.75 : Planta Cancha Multiple

Uso: Área Recreativa, Cancha Multiple

Elemento	Carga
Piso A7: Pavimento en concreto reforzado	2.40 kN/m ²
Piso CauchO	0.40 kN/m ²
Ductos	0.20 kN/m ²
Cielo Raso C1: Estructura en concreto reforzado a la vista o en crudo (NO LLEVA)	0.00 kN/m ²
Total, Carga Muerta	3.00 kN/m²

Cubiertas Punto Fijos

Uso: Losa de Concreto

Elemento	Carga
Afinado de Piso 5cm	1.10 kN/m ²
Manto Asfaltico	0.05 kN/m ²
Ductos	0.20 kN/m ²
Total, Carga Muerta	1.35 kN/m²

Mamposteria Muros Perimetrales

Muros h=1.2m **3.1 kN/m**

Ventanas Fachada

Vidrio y Marco h=2m **1.0 kN/m**

Carga Viento **0.4 kN/m²**

Cargas Vivas

De acuerdo a lo presente en la Tabla B.4.2.1-1 de la NSR-10:

Planta	Carga
N+0.00: Planta Preescolar	5.00 kN/m ²
N+1.75: Planta Acceso Principal Administración	5.00 kN/m ²
N+3.50: Planta Comedor	5.00 kN/m ²
N+6.00, N+8.50: Planta de Basica Primaria	5.00 kN/m ²
N+10.25 N+12.0: Planta Talleres Primaria y AA	5.00 kN/m ²
N+13.75, N+15.50: Planta AA Secundaria y	5.00 kN/m ²
N+17.25: Planta AA Media	5.00 kN/m ²
N+19.0 : Zona Recreativa Terraza	5.00 kN/m ²
N+20.75 : Planta Cancha Multiple	5.00 kN/m ²

Cargas de Granizo:

La ciudad de Bogotá D.C, se encuentra ubicada a más de 2600m.s.n.m. De acuerdo con B.4.8.3 de la NSR-10 se debe tener en cuenta la carga de granizo tal como se explica a continuación.

B.4.8.3 — CARGA DE GRANIZO

B.4.8.3.1 — Las cargas de granizo, G , deben tenerse en cuenta en las regiones del país con más de 2 000 metros de altura sobre el nivel del mar o en lugares de menor altura donde la autoridad municipal o distrital así lo exija.

B.4.8.3.2 — En los municipios y distritos donde la carga de granizo deba tenerse en cuenta, su valor es de 1.0 kN/m² (100 kgf/m²). Para cubiertas con una inclinación mayor a 15° este valor puede reducirse a 0.5 kN/m² (50 kgf/m²).

N+18.0 : Zona Recreativa Terraza	1.00 kN/m ²	(B.4.8.3.2) NSR-10
N+19.75 : Planta Cancha Multiple	1.00 kN/m ²	(B.4.8.3.2) NSR-10

4. ANÁLISIS SÍSMICO

El método de análisis usado para la modelación dinámica de la estructura es el Análisis Dinámico Elástico Espectral, para el cual la normativa colombiana NSR-10 en el capítulo A.4, plantea los requerimientos que se muestran a continuación:

A.5.4 — ANÁLISIS DINÁMICO ELÁSTICO ESPECTRAL

A.5.4.1 — METODOLOGÍA DEL ANÁLISIS — Deben tenerse en cuenta los siguientes requisitos, cuando se utilice el método de análisis dinámico elástico espectral:

- (a)** Obtención de los modos de vibración — Los modos de vibración deben obtenerse utilizando metodologías establecidas de dinámica estructural, Deben utilizarse todos los modos de vibración de la estructura que contribuyan de una manera significativa a la respuesta dinámica de la misma, cumpliendo los requisitos de A.5.4.2.
- (b)** Respuesta espectral modal — La respuesta máxima de cada modo se obtiene utilizando las ordenadas del espectro de diseño definido en A.5.3.2. para el período de vibración propio del modo.
- (c)** Respuesta total — Las respuestas máximas modales, incluyendo las de deflexiones, derivas, fuerzas en los pisos, cortantes de piso, cortante en la base y fuerzas en los elementos, se combinan de una manera estadística para obtener la respuesta total de la estructura a los movimientos sísmicos de diseño, Deben cumplirse los requisitos de A.5.4.4 en la combinación estadística de las respuestas modales máximas.
- (d)** Ajuste de los resultados — Si los resultados de la respuesta total son menores que los valores mínimos prescritos en A.5.4.5, los resultados totales del análisis dinámico deben ser ajustados como se indica allí, El ajuste debe cubrir todos los resultados del análisis dinámico, incluyendo las deflexiones, derivas, fuerzas en los pisos, cortantes de piso, cortante en la base y fuerzas en los elementos.
- (e)** Evaluación de las derivas — Se debe verificar que las derivas totales obtenidas, debidamente ajustadas de acuerdo con los requisitos de A.5.4.5, no excedan los límites establecidos en el Capítulo A.6.
- (f)** Fuerzas de diseño en los elementos — Las fuerzas sísmicas internas totales de los elementos, $s F$, debidamente ajustadas de acuerdo con los requisitos de A.5.4.5, se dividen por el valor del coeficiente de capacidad de disipación de energía, R , del sistema de resistencia sísmica, modificado de acuerdo con la irregularidad y la ausencia de redundancia según los requisitos de A.3.3.3, para obtener las fuerzas sísmicas reducidas de diseño, E , y se combinan con las otras cargas prescritas por este Reglamento, de acuerdo con el Título B.
- (g)** Diseño de los elementos estructurales — Los elementos estructurales se diseñan y detallan siguiendo los requisitos propios del grado de capacidad de disipación de energía correspondiente del material, de acuerdo con los requisitos del Capítulo A.3,

Adicionalmente, para la elaboración del espectro es necesario establecer el coeficiente de importancia de la edificación, para lo cual se siguen los lineamientos de la Norma de Sismo Resistencia Colombiana en el capítulo A.

4.1 SISTEMA ESTRUCTURAL

El método de análisis a utilizar es el análisis dinámico elástico, que según el A.3.4.2 (NSR-10) permite analizar casi cualquier tipo de edificación. Dentro del análisis dinámico, se utilizará el análisis dinámico elástico espectral, cumpliendo con los requisitos del título A.5.4. Las fuerzas sísmicas de diseño se introducirán por medio del espectro elástico de diseño definido en el A.2 NSR-10.

El reglamento NSR-10 reconoce 4 tipos de Sistemas Estructurales de Resistencia Sísmica. Cada uno de ellos se subdivide según los tipos de elementos verticales utilizados para resistir las fuerzas sísmicas y gravitacionales y el grado de capacidad de disipación de energía del material estructural empleado. De acuerdo al A.3.2.1.1 del NSR-10, se puede concluir que el Sistema Estructural de Resistencia Sísmica de la edificación, es un **Sistema de Pórticos de Concreto Resistente a Momentos Combinado con Muros Estructurales**. Según las definiciones estipuladas en el título A de la Norma de Sismo Resistencia Colombiana:

A.3.2.1.2 — Sistema combinado — Es un sistema estructural, (véase la tabla A.3-2), en el cual:

- (a) Las cargas verticales son resistidas por un pórtico no resistente a momentos, esencialmente completo, y las fuerzas horizontales son resistidas por muros estructurales o pórticos con diagonales, o
- (b) Las cargas verticales y horizontales son resistidas por un pórtico resistente a momentos, esencialmente completo, combinado con muros estructurales o pórticos con diagonales, y que no cumple los requisitos de un sistema dual.

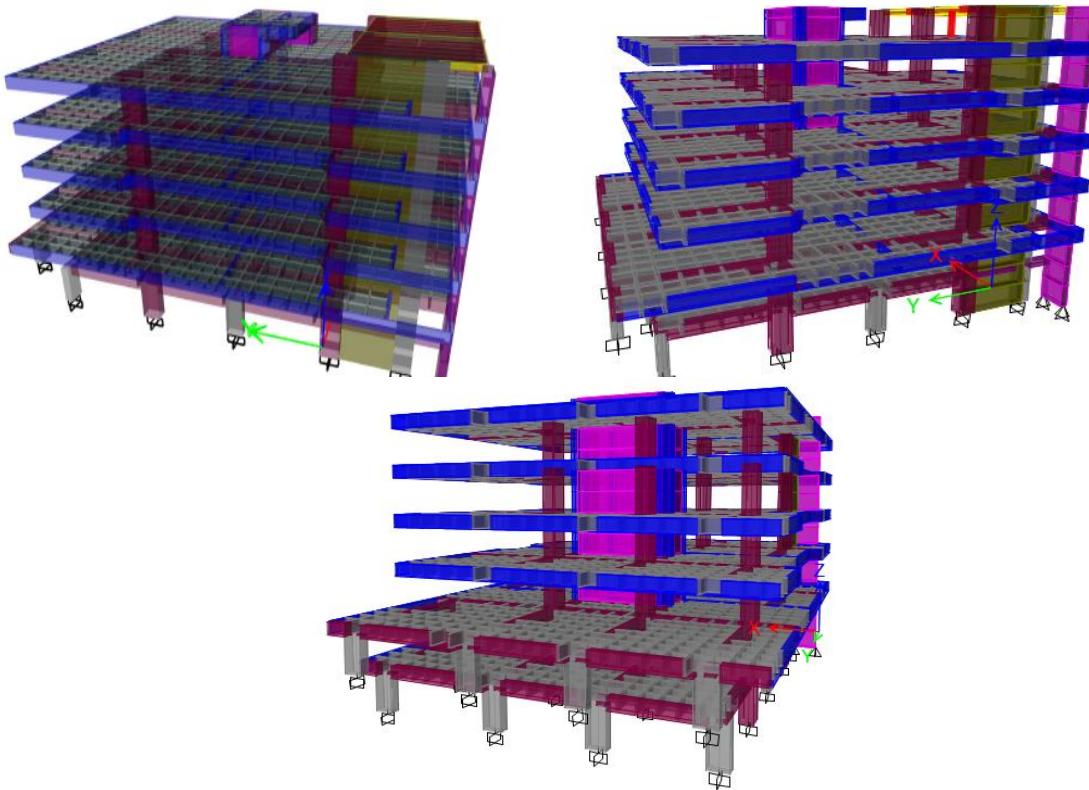


Figura 2 Modelación Estructural.

4.2 ZONA DE AMENAZA SÍSMICA DE ACUERDO A LA MICROZONA SÍSMICA

Según el decreto 523 del 16 diciembre de 2010 de la Alcaldía Mayor de Bogotá, por el cual se adopta la Microzonificación Sísmica de la ciudad, y se definen sus respectivas curvas y parámetros de diseño estructural sismo resistente. A partir de la información presente en el Estudio de Microzonificación, para este proyecto se construyeron los espectros elásticos de aceleración, y Curva elástica de Umbral de daño.

De acuerdo a la ubicación del proyecto, esté se encuentra en la Micro-Zona: Aluvial 200

- Dirección del predio: Calle 45sur N.^o 72Q-20
- Barrio: Boitá
- Localidad: 8 Kennedy.

El proyecto está localizado a una distancia aproximada de 826m de la Microzona Aluvial-100. Por lo tanto, no se hace necesario hacer un promedio de coeficientes y curvas debido a que esta distancia es mayor a 100m, tal como lo recomienda el decreto. Los mapas de localización y de microzonificación de la ciudad de Bogotá D.C, se consultaron a través de los mapas interactivos del sistema de Infraestructura de Datos Espaciales para el Distrito Capital IDECA. A partir del portal Geoportal Gestión de Riesgos y Atención de Emergencias.

Esta información se puede consultar en los siguientes enlaces:

<https://www.ideca.gov.co/recursos/aplicaciones/geoportal-gestion-de-riesgos-y-atencion-de-emergencias>
<https://idiger.maps.arcgis.com/apps/webappviewer/index.html?id=fa4b277533584c3a95a9208b4d542e19>

A continuación, se presenta la localización general en el mapa de microzonificación sísmica de la ciudad de Bogotá D.C.

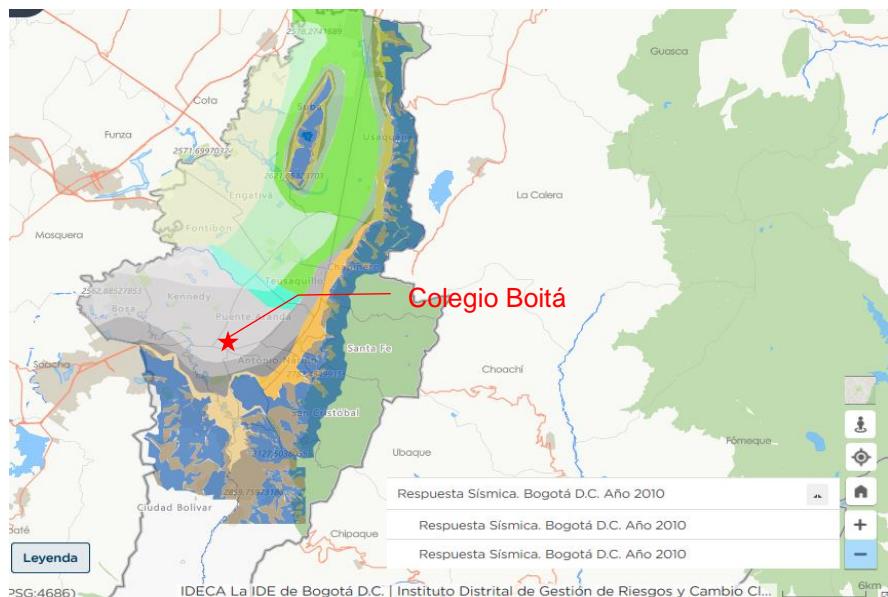


Figura 3 Localización del Proyecto en Mapa de Microzonificación Bogotá D.C

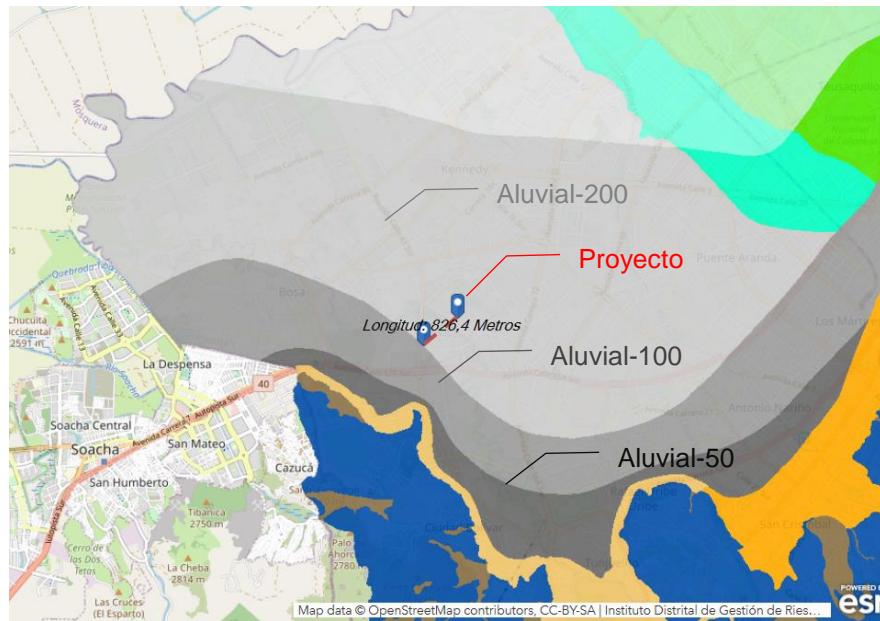


Figura 4 Localización a más de 200m de la Mircozona Aluvial-100

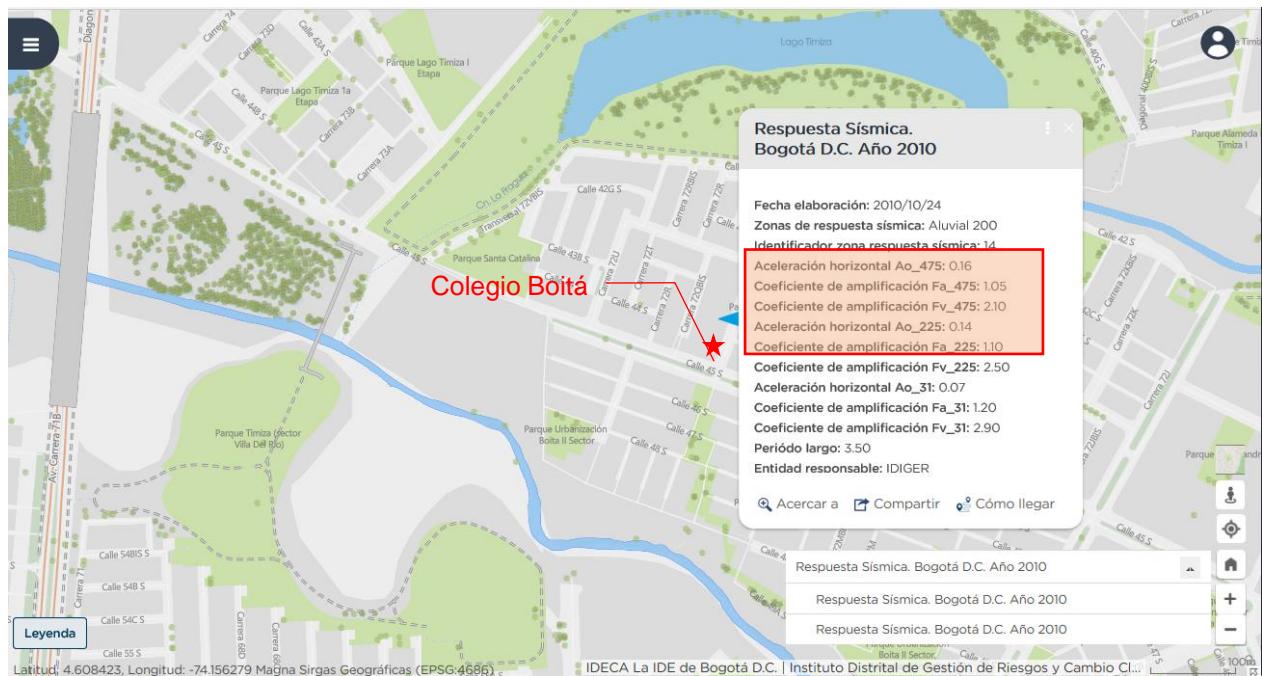


Figura 5 Zona de respuesta sísmica Aluvial-200

4.3 COEFICIENTE DE IMPORTANCIA

A.2.5.1 — GRUPOS DE USO — Todas las edificaciones deben clasificarse dentro de uno de los siguientes Grupos de Uso:

- A.2.5.1.4.- Grupo de Uso I**
- A.2.5.1.3.- Grupo de Uso II**
- A.2.5.1.2.- Grupo de Uso III**
- A.2.5.1.1.- Grupo de Uso IV**

La edificación corresponde a una institución educativa, por lo tanto, la edificación pertenece al **Grupo de Uso III- Edificaciones de atención a la comunidad**, tal como se describe a continuación:

A.2.5.1.2 — Grupo III — *Edificaciones de atención a la comunidad* — Este grupo comprende aquellas edificaciones, y sus accesos, que son indispensables después de un temblor para atender la emergencia y preservar la salud y la seguridad de las personas, exceptuando las incluidas en el grupo IV. Este grupo debe incluir:

- (a) Estaciones de bomberos, defensa civil, policía, cuarteles de las fuerzas armadas, y sedes de las oficinas de prevención y atención de desastres,
- (b) Garajes de vehículos de emergencia,
- (c) Estructuras y equipos de centros de atención de emergencias,
- (d) Guarderías, escuelas, colegios, universidades y otros centros de enseñanza,
- (e) Aquellas del grupo II para las que el propietario desee contar con seguridad adicional, y
- (f) Aquellas otras que la administración municipal, distrital, departamental o nacional designe como tales.

A.2.5 — COEFICIENTE DE IMPORTANCIA

A.2.5.2 — COEFICIENTE DE IMPORTANCIA — El Coeficiente de Importancia, I , modifica el espectro, y con ello las fuerzas de diseño, de acuerdo con el grupo de uso a que esté asignada la edificación para tomar en cuenta que para edificaciones de los grupos II, III y IV deben considerarse valores de aceleración con una probabilidad menor de ser excedidos que aquella del diez por ciento en un lapso de cincuenta años considerada en el numeral A.2.2.1, Los valores de I se dan en la tabla A.2.5-1.

Grupo de Uso	Coeficiente de Importancia, I
IV	1.50
III	1.25
II	1.10
I	1.00

De acuerdo a la tabla A.2.5-1 el coeficiente de importancia es $i=1.25$.

4.4 TIPO DE PERFIL DE SUELO

De acuerdo con la información presente en el estudio de suelos, la estratigrafía está caracterizada por sobre rellenos de material del sitio con grava y escombros en un espesor variable. A continuación, se encuentran capas de limos arcillosos de alta plasticidad, de consistencia media a dura y algo de arena.

De acuerdo con la información presente en el decreto de microzonificación sísmica el comportamiento geotécnico general de esta micro zona es:

Nombre	Geotecnia	Geología	Geomorfología	Composición principal	Comportamiento geotécnico general	Espesor
Cerros A	Roca de arenisca	Formaciones de Areniscas	Cerros de alta pendiente	Areniscas duras	Rocas competentes y resistentes a la meteorización, eventuales problemas de estabilidad de taludes en excavaciones a cielo abierto, principalmente cuando estén fracturadas o con intercalaciones de arcillolitas blandas	
Cerros B	Roca de arcillolita	Formaciones de Arcillolitas	Cerros de moderada a alta pendiente	Arcillolitas blandas	Rocas de moderada competencia y susceptibles a la meteorización, problemas de estabilidad de taludes en excavaciones a cielo abierto, principalmente cuando estén fracturadas	
Piedemonte A	Suelo coluvial y aluvial norte	Coluviones y Complejo de Conos Aluviales	Piedemonte	Gravas arcillo arenosas compactas	Suelos de alta capacidad portante pero pueden presentar problemas de inestabilidad en excavaciones abiertas	< 50 m
Piedemonte B	Suelo coluvial y aluvial centro			Gravas arenos arcillosas compactas		
Piedemonte C	Suelo coluvial y aluvial sur			Gravas arenos arcillosas compactas		
Lacustre A	Suelo lacustre muy blando	Terraza Alta - Lacustre	Planicie	Arcillas limosas muy blandas	Suelos de muy baja a media capacidad portante y muy compresibles	20 - 500 m
Lacustre B	Suelo lacustre blando			Arcillas limosas blandas		
Lacustre C	Suelo lacustre - aluvial			Arcillas arenosas firmes		
Aluvial	Suelo aluvial grueso a medio	Terraza Baja - Aluvial y Complejo de Conos Aluviales	Planicie	Arenas arcillosas sueltas a compactas	Suelos de mediana a alta capacidad portante poco compresibles, susceptibles a licuación e inestables en excavaciones a cielo abierto	50 - 250 m
Llanura A	Suelo de llanura - lacustre	Llanura de Inundación	Llanura	Arenas sueltas y arcillas limosas blandas	Suelos de moderada capacidad portante y compresibles, susceptibles a licuación	200 - 500 m
Llanura B	Suelo de llanura - aluvial			Arenas sueltas y arcillas arenosas duras		
Cauce	Cauce activo o antiguo	Caucos Activos	Piedemonte y Planicie	Gravas arenosas sueltas a compactas	Suelos de baja a mediana capacidad portante, susceptibles a licuación y problemas de estabilidad de taludes	
Depósitos	Suelo de ladera	Depósitos de Ladera	Cerros	Gravas arenos arcillosas compactas	Suelos de mediana capacidad portante susceptibles a problemas de estabilidad de taludes	5 - 15 m
Residual	Suelo residual	Suelo Residual	Cerros	Arcillas gravo arenosas firmes	Suelos de mediana a alta capacidad portante con posibles problemas de estabilidad de taludes en sectores de alta pendiente	5 - 10 m
Basura	Relleno de basura	Rellenos de Basuras	Piedemonte y Planicie	Basuras	Materiales heterogéneos, que acuerdo con su disposición pueden ser compresibles y susceptibles a problemas de estabilidad en taludes	
Relleno	Relleno de excavación	Rellenos de Excavación	Piedemonte y Planicie	Rellenos heterogéneos	Materiales heterogéneos, que acuerdo con su disposición pueden ser compresibles y susceptibles a problemas de estabilidad en taludes	
Excavación	Excavación especial	Excavaciones Especiales	Piedemonte	Gravas arenosas sueltas a compactas	Zonas de explotación de agregados en el Río Tunjuelo, susceptibles a problemas de estabilidad de taludes	

Tabla 4.1. Descripción de las zonas geotécnicas

4.5 ESPECTRO DE DISEÑO

Espectros de elásticos de aceleración

Zona	Fa475 D=5%	Fv475 D=5%	Ao475 (g)	Tl (s)
CERROS	1.35	1.30	0.18	3.0
PIEDEMONTE A	1.65	2.00	0.22	3.0
PIEDEMONTE B	1.95	1.70	0.26	3.0
PIEDEMONTE C	1.80	1.70	0.24	3.0
LACUSTRE-50	1.40	2.90	0.21	4.0
LACUSTRE-100	1.30	3.20	0.20	4.0
LACUSTRE-200	1.20	3.50	0.18	4.0
LACUSTRE-300	1.05	2.90	0.16	5.0
LACUSTRE-500	0.95	2.70	0.14	5.0
LACUSTRE ALUVIAL-200	1.10	2.80	0.17	4.0
LACUSTRE ALUVIAL-300	1.00	2.50	0.15	5.0
ALUVIAL-50	1.35	1.80	0.20	3.5
ALUVIAL-100	1.20	2.10	0.18	3.5
ALUVIAL-200	1.05	2.10	0.16	3.5
ALUVIAL-300	0.95	2.10	0.14	3.5
DEPOSITO LADERA	1.65	1.70	0.22	3.0

Tabla 1 Parámetros Ao, Fa y Fv para espectro de diseño Tr=475años

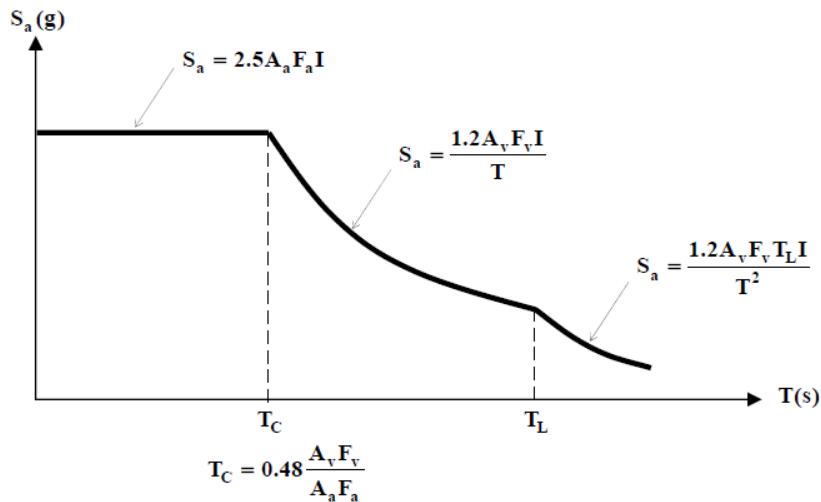


Figura 6 Curva de diseño para un coeficiente de amortiguamiento ξ de 5%

Parámetros

- A_a** = Aceleración horizontal pico efectiva de diseño. **A_a** = 0.15 g
A_v = Aceleración que representa la velocidad horizontal pico efectiva de diseño. **A_v** = 0.20 g
A₀ = Aceleración horizontal pico efectiva del terreno en superficie (g)
F_a = Coeficiente de amplificación que afecta la aceleración en la zona de períodos cortos
F_v = Coeficiente de amplificación que afecta la aceleración en la zona de períodos intermedios
I = Coeficiente de importancia
S_a = Aceleración espectral (g)
T = Período de vibración (s)
T_C = Período corto (s)
T_L = Período largo (s)

Aa	0.15
Av	0.20
Tr	475 años
Fa	1.05
Fv	2.10
To,	0.27
Tc	1.28
TL	3.50
I	1.25

Tabla 2 Parámetros de sitio Zona Aluvial-200

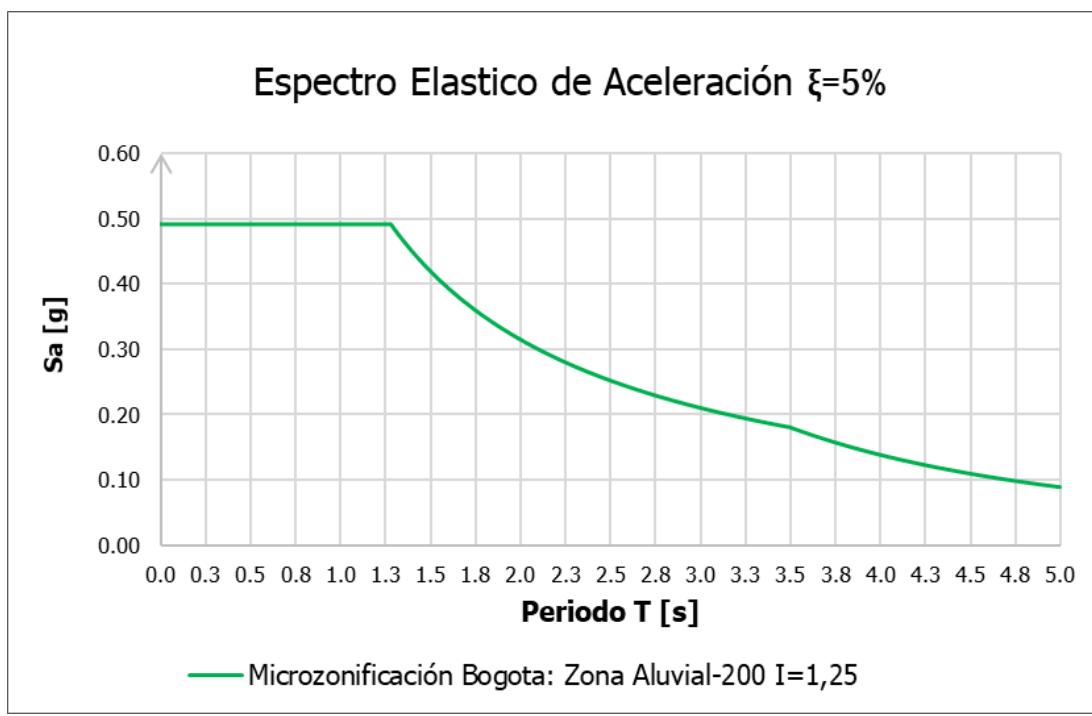


Figura 7 Espectro elástico de diseño i=1.25

Espectro Elástico de Aceleración Para Cálculo de Derivas

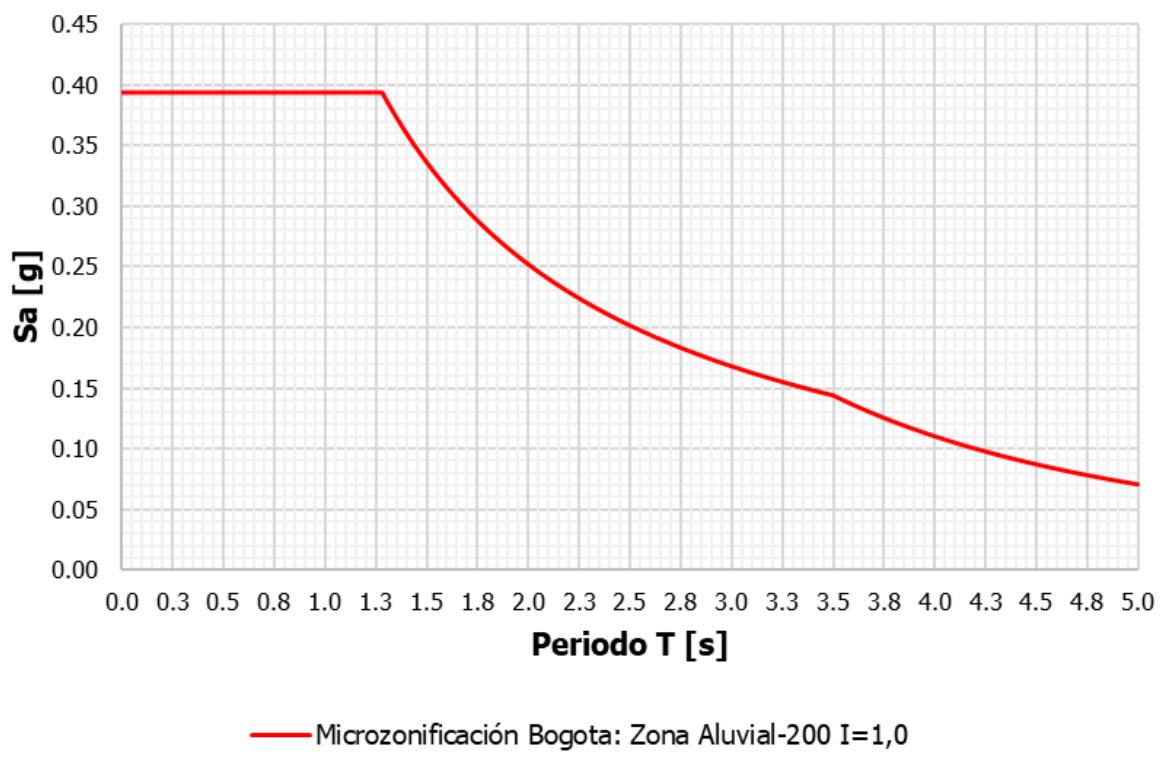


Figura 8 Espectro elástico de aceleración I=1.0

4.6 COEFICIENTE DE DISIPACIÓN DE ENERGÍA

A.2.3 — ZONAS DE AMENAZA SÍSMICA La edificación debe localizarse dentro de una de las zonas de amenaza sísmica que se definen en esta sección y que están presentadas en el Mapa de la figura A.2.3-1..

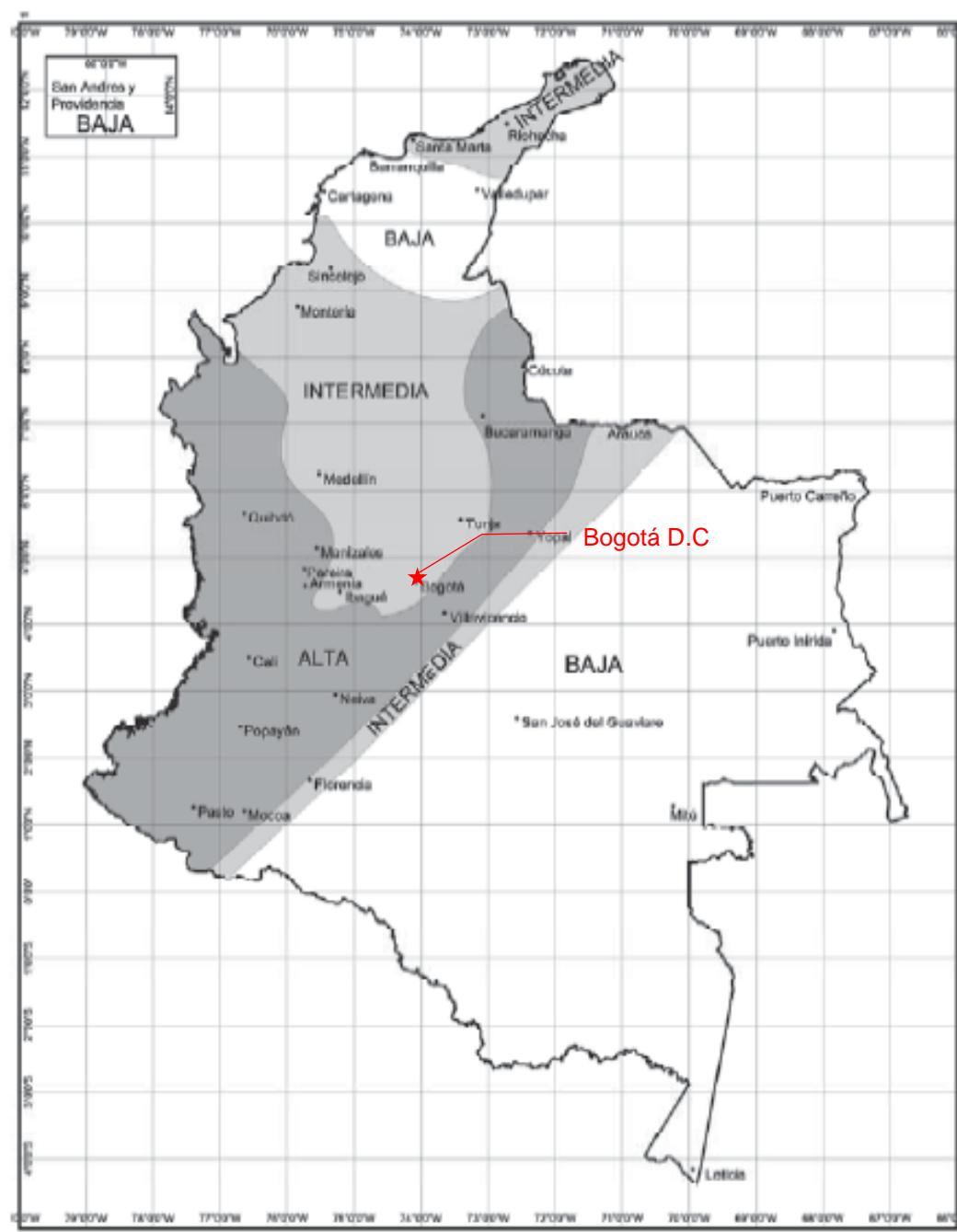


Figura A.2.3-1 — Zonas de Amenaza Sísmica aplicable a edificaciones para la NSR-10 en función de A_x y A_y .

La ciudad de Bogotá D.C se encuentra ubicada en **Zona de Amenaza Sismica Intermedia**.

A.3.1.3 — CAPACIDAD DE DISIPACIÓN DE ENERGÍA MÍNIMA REQUERIDA — Dependiendo del tipo de material estructural y de las características del sistema de resistencia sísmica se establecen los grados de capacidad de disipación de energía mínimos (DES, DMO, o DMI) que debe cumplir el material estructural en las diferentes zonas de amenaza sísmica definidas en el Capítulo A.2. Véanse las tablas A.3-1 a A.3-4.

Tabla A.3-2
Sistema estructural combinado (Nota 1)

B. SISTEMA COMBINADO		Valor R_0 (Nota 2)	Valor Ω_0 (Nota 4)	zonas de amenaza sísmica					
				alta		intermedia		baja	
Sistema resistencia sísmica (fuerzas horizontales)	Sistema resistencia para cargas verticales	uso permit	altura máx.	uso permit	altura máx.	uso permit	altura máx.	uso permit	altura máx.
2. Muros estructurales									
a. Muros de concreto con capacidad especial de disipación de energía (DES)	pórticos de concreto con capacidad especial de disipación de energía (DES)	7.0	2.5	si	72 m	si	sin límite	si	Sin límite
b. Muros de concreto con capacidad moderada de disipación de energía (DMO)	pórticos de concreto con capacidad moderada de disipación de energía (DMO)	5.0	2.5	no se permite		si	72 m	si	Sin límite
c. Muros de concreto con capacidad moderada de disipación de energía (DMO)	pórticos losa-columna (Nota 3) con capacidad moderada de disipación de energía (DMO)	3.5	2.5	no se permite		si	18 m	si	27 m
d. Muros de concreto con capacidad mínima de disipación de energía (DMI)	pórticos de concreto con capacidad mínima de disipación de energía (DMI)	2.5	2.5	no se permite		no se permite		si	72 m

En la ciudad de Bogotá D.C, por estar en una zona de amenaza sísmica intermedia, se permite el uso de sistemas estructurales con capacidad de disipación de energía moderada **DMO**, y capacidad de disipación especial de energía **DES**.

De acuerdo a esto, el sistema estructural adoptado para los dos edificios, corresponde a un **Sistema de Pórticos de Concreto Resistente a Momentos Combinado con Muros Estructurales**, con Capacidad Especial de Disipación de Energía **DES**.

Se toma el coeficiente de reducción **R₀=7,0** según la Tabla A.3-1 del NSR-10.

En **C.21.1.4** — Concreto en estructuras con capacidad de disipación de energía moderada (DMO) y especial (DES), se dan los requisitos para el concreto a utilizar en estructuras con capacidad de disipación de energía moderada, DMO, y especial, DES. En **C.21.1.5** — Refuerzo en estructuras con capacidad de disipación de energía moderada (DMO) y especial (DES), se dan los requisitos homólogos para el acero de refuerzo.

4.7 DESCRIPCIÓN DE IRREGULARIDADES

Chequeo de Irregularidades Edificio A (ejes 6c a 10)

El chequeo de irregularidades se realiza a partir de lo expuesto en la NSR-10 en las tablas A.3-6 y A.3-7 en el capítulo A. Lo expuesto a continuación corresponde a la verificación de cada tipo de irregularidad, evaluando el cumplimiento o no de las condiciones expuestas en la norma y mostrando un "OK" para el caso en que la evaluación permite afirmar que es una estructura regular.

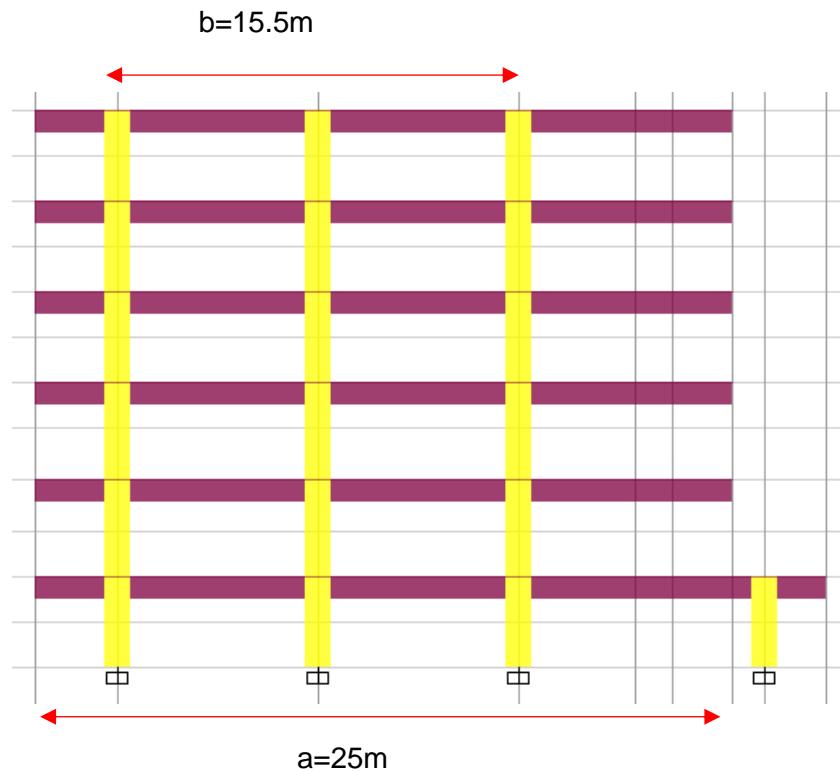
Chequeo Irregularidades en Altura Tabla A.3.7

TIPO	CARACTERISTICA	CHEQUEA	Si
		φ _a	
1A	Cuando la rigidez ante fuerza horizontal de un piso es menor del 70 por ciento de la rigidez del piso superior o menor del 80 por ciento del promedio de la rigidez de los tres pisos superiores, la estructura se considera irregular.	1	

TIPO	CARACTERISTICA	CHEQUEA	Si
		φ _a	
2A	Cuando la masa, m_i , de cualquier piso es mayor que 1.5 veces la masa de uno de los pisos contiguos, la estructura se considera irregular.	1	

TIPO	CARACTERISTICA	CHEQUEA	NO
		φ _a	
3A	Cuando la dimension horizontal del sistema de resistencia sismica, en en cualquier piso es mayor que 1.3 veces la misma dimension de un piso adyacente, la estructura se considera irregular. Se exceptua el caso de los altillos de un solo piso		0.9

<p>Tipo 3A — Geométrica — $\phi_a = 0.9$</p> <p>$a > 1.30 b$</p>	
---	--



$$\frac{a}{b} = 1.6 : a > 1.3b :$$

Por lo tanto, presenta irregularidad Geométrica Tipo 3A

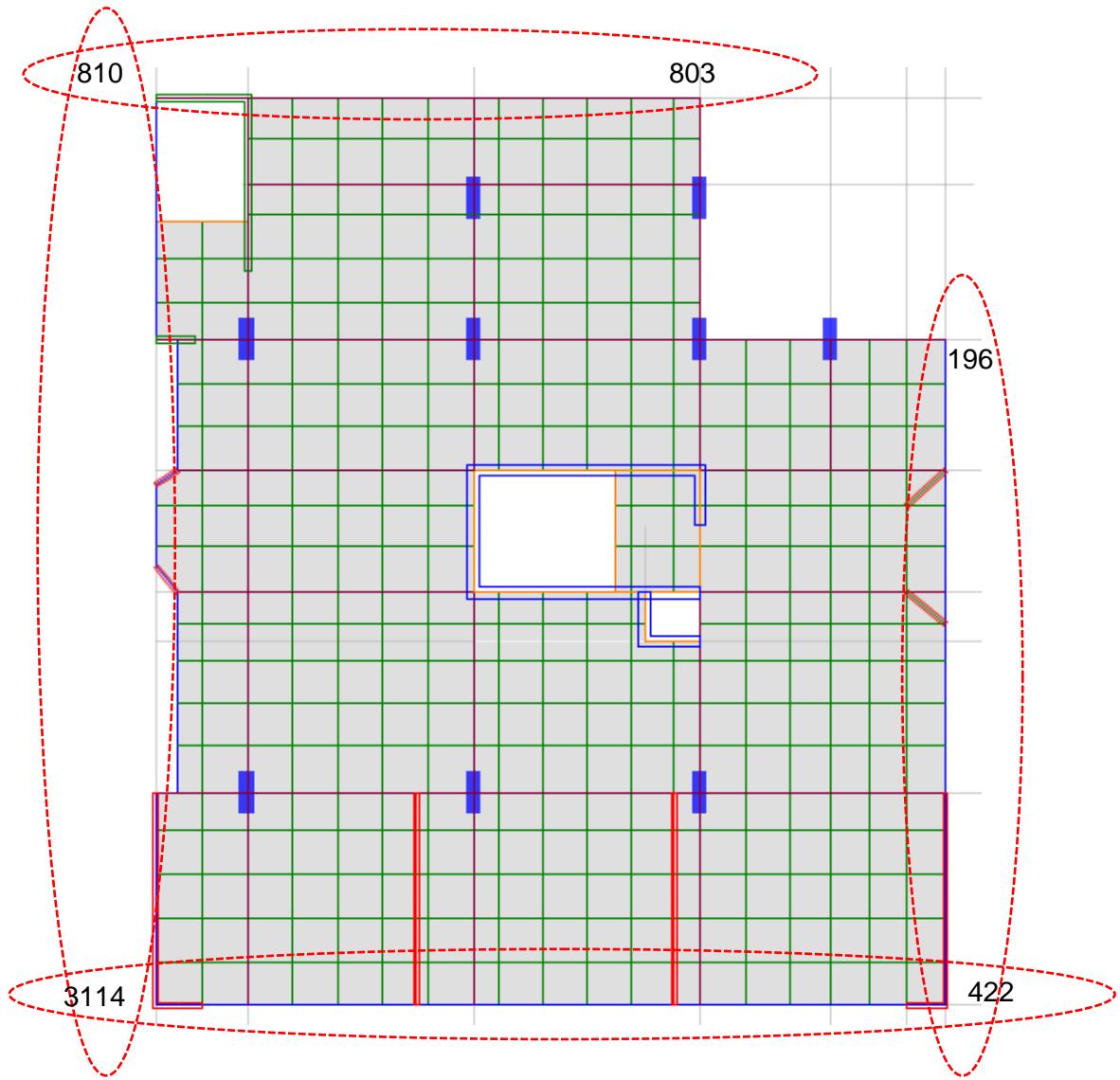
TIPO	CARACTERISTICA	CHEQUEA	SI
		φa	
4A	Cuando existen desplazamientos de los elementos verticales del sistema de resistencia sismica, dentro de su plano de accion, mayores que la dimension horizontal del elemento, la estructura se considera irregular.	1	

TIPO	CARACTERISTICA	CHEQUEA	Si
		φa	
5A	Cuando la resistencia del piso es menor del 70 por ciento de la del piso inmediatamente superior, entendiendo la resistencia del piso como la suma de las resistencias de todos los elementos que comparten el cortante del piso para la dirección considerada	1	

Conclusión: La estructura tiene coeficiente irregularidad en altura

φa	0.9
----	-----

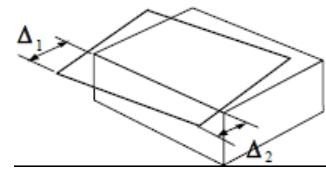
Chequeo Irregularidades en Planta Tabla A.3.6



Tipo 1aP — Irregularidad torsional $\phi_p = 0.9$	Tipo 1bP — Irregularidad torsional extrema $\phi_p = 0.8$
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) \geq \Delta_1 > 1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right)$	$\Delta_1 > 1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right)$

TABLE: Joint Displacements

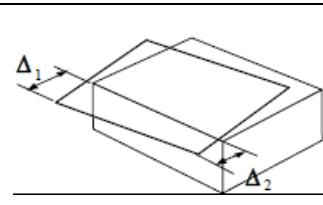
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	803	6517	Ux Max	3.74	1.71
N+20.75a	810	10479	Ux Max	3.75	1.46



ΔX_{max}	3.75	ΔY_{max}	1.71
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 4.50$		$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 1.903$	
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 5.24$		$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 2.220$	
No presenta Irregularidad		No presenta Irregularidad	
$\phi p \ 1.00$		$\phi p \ 1.00$	

TABLE: Joint Displacements

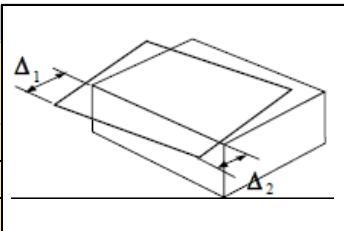
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	803	6517	Uy Max	3.03	3.06
N+20.75a	810	10479	Uy Max	3.04	4.27



ΔX_{max}	3.042	ΔY_{max}	4.27
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 3.64$		$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 4.40$	
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 4.247$		$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 5.14$	
No presenta Irregularidad		No presenta Irregularidad	
$\phi p \ 1.00$		$\phi p \ 1.00$	

TABLE: Joint Displacements

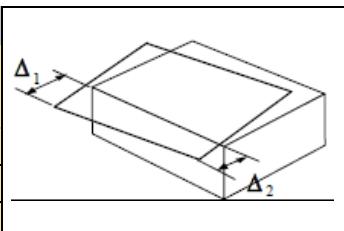
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y	
				cm	cm	
N+20.75a	810	10479	Ux Max	3.75	1.463	
N+20.75a	3114	4173	Ux Max	3.40	1.459	



ΔXmax	3.75	ΔYmax	1.46
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.29	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	1.753
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	5.01	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.045
No presenta Irregularidad		No presenta Irregularidad	
$\phi p \ 1.00$		$\phi p \ 1.00$	

TABLE: Joint Displacements

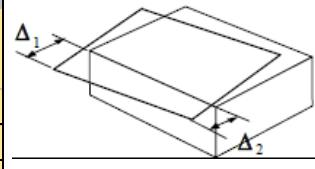
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y	
				cm	cm	
N+20.75a	810	10479	Uy Max	3.04	4.27	
N+20.75a	3114	4173	Uy Max	3.61	4.28	



ΔXmax	3.61	Δ1Y	4.28
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.99	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	5.13
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.66	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	5.99
No presenta Irregularidad		No presenta Irregularidad	
$\phi p \ 1.00$		$\phi p \ 1.00$	

TABLE: Joint Displacements

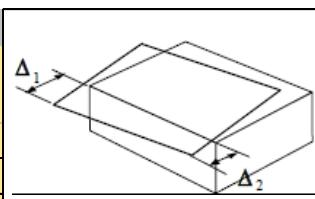
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y	
				cm	cm	
N+20.75a	3114	4173	Ux Max	3.00	1.38	
N+20.75a	422	6464	Ux Max	3.00	2.50	



Δ1X	3.00	Δ1Y	2.50
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 3.60$		$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 2.33$	
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 4.20$		$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 2.72$	
No presenta Irregularidad φp 1.00		Presenta Irregularidad Torsional Tipo 1aP φp 0.90	

TABLE: Joint Displacements

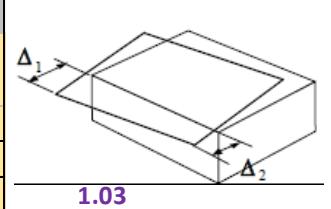
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y	
				cm	cm	
N+20.75a	3114	4173	Uy Max	3.65	4.35	
N+20.75a	422	6464	Uy Max	3.65	3.92	



Δ1X	3.65	Δ1Y	4.35
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 4.38$		$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 4.96$	
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 5.11$		$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) = 5.79$	
No presenta Irregularidad φp 1.00		No presenta Irregularidad φp 1.00	

TABLE: Joint Displacements

Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	196	6525	Ux Max	2.67	2.44
N+20.75a	422	6464	Ux Max	2.96	2.45

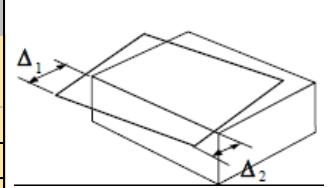


1.03

Δ1X	2.96	Δ1Y	2.45
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.38	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.93
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.94	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.42
No presenta Irregularidad		No presenta Irregularidad	
φp 1.00		φp 1.00	

TABLE: Joint Displacements

Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	196	6525	Uy Max	1.39	3.25
N+20.75a	422	6464	Uy Max	2.89	3.28



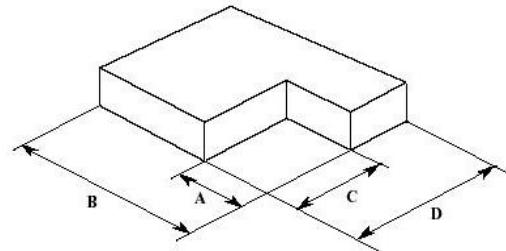
Δ1X	2.89	Δ1Y	3.28
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.57	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.92
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.00	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.57
Irregularidad Torsional Tipo 1aP		No presenta Irregularidad	
φp 0.90		φp= 1.00	

TIPO	CARACTERISTICA	CHEQUEA	NO
		φp	φp
1P	La irregularidad torsional existe cuando la máxima deriva de piso de un extremo de la estructura, calculada incluyendo la torsión accidental y medida perpendicularmente a un eje determinar, es más de 1.2 veces la deriva promedio de los dos extremos de la estructura, con respecto al mismo eje de referencia.		0.9

TIPO	CARACTERISTICA	CHEQUEA	NO
		φ _p	
2P	La configuración de una estructura se considera irregular cuando ésta tiene retrocesos excesivos en sus esquinas. Un retroceso en una esquina se considera excesivo cuando las proyecciones de la estructura, a ambos lados del retroceso, son mayores que el 15% de la dimensión de la planta de la estructura en la dirección del retroceso.		0.9

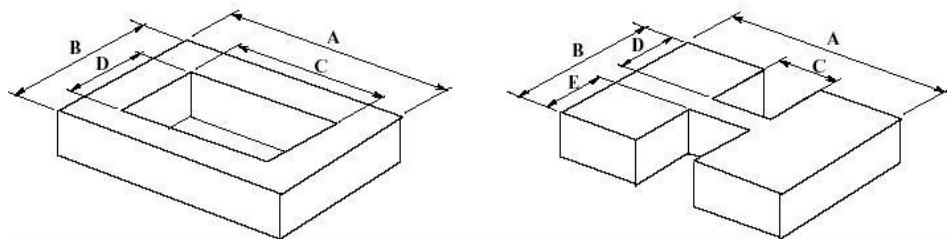
Tipo 2P – Retrocesos en las esquinas - $\phi_p = 0.9$
 $A > 0.15B$ y $C > 0.15D$

DIMENSIÓN				CHEQUEA
A	B	C	D	
8.4 m	32.0 m	8.4 m	27.0 m	No Cumple



CHEQUEA	Si	
TIPO	CARACTERISTICA	φ _p
3P	Cuando el diafragma tiene discontinuidades apreciables o variaciones en su rigidez, incluyendo las causadas por aberturas, entradas, retrocesos o huecos con áreas mayores al 50% del área bruta del diafragma o existen cambios en la rigidez efectiva del diafragma de mas del 50%, entre niveles consecutivos, la estructura se considera irregular.	1

Tipo 3P - Irregularidad del diafragma - $\phi_p = 0.9$
1) $C \times D > 0.5 A \times B$ 2) $(C \times D + C \times E) > 0.5 A \times B$



TIPO	CARACTERISTICA	CHEQUEA	Si
		φp	
4P	Cuando existen discontinuidades en las trayectorias de las fuerzas inducidas por los efectos sísmicos, tales como desplazamientos del plano de acción de elementos verticales del sistema de resistencia sísmica, la estructura se considera irregular.		1

TIPO	CARACTERISTICA	CHEQUEA	Si
		φp	
5P	Cuando las direcciones de acción horizontal de los elementos verticales del sistema de resistencia sísmica no son paralelas o simétricas con respecto a los ejes ortogonales horizontales principales del sistema de resistencia sísmica, la estructura se considera irregular		1

Cálculo de Coeficiente de Disipación de Energía Edificio A

A continuación, se presentan los coeficientes de reducción por las irregularidades, y el cálculo del coeficiente de reducción de capacidad de disipación de energía

COEFICIENTE DE CAPACIDAD DE DISIPACIÓN DE ENERGÍA	
Ro:	7.0 Pórticos Resistente a Momentos Combinado (DES)
φp:	0.9 Irregularidad: Tipo 1aP
φa:	0.8 Desplazamiento dentro del plano de acción: Tipo 4A
φr:	1.0 No presenta
R=	5.04 Ro*φa*φp*φr

Tabla 3 Coeficiente de disipación de energía Edificio A (ejes 6c a 10)

Chequeo de Irregularidades Edificio B (ejes 1 a 6)

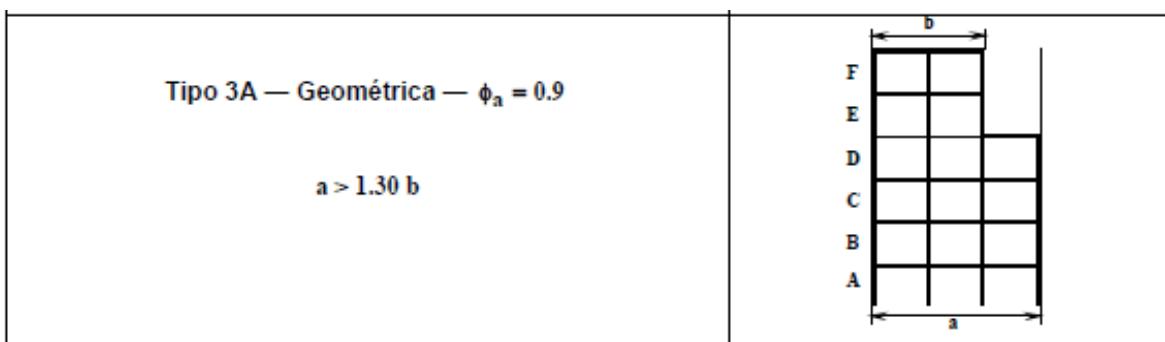
El chequeo de irregularidades se realiza a partir de lo expuesto en la NSR-10 en las tablas A.3-6 y A.3-7 en el capítulo A. Lo expuesto a continuación corresponde a la verificación de cada tipo de irregularidad, evaluando el cumplimiento o no de las condiciones expuestas en la norma y mostrando un "OK" para el caso en que la evaluación permite afirmar que es una estructura regular.

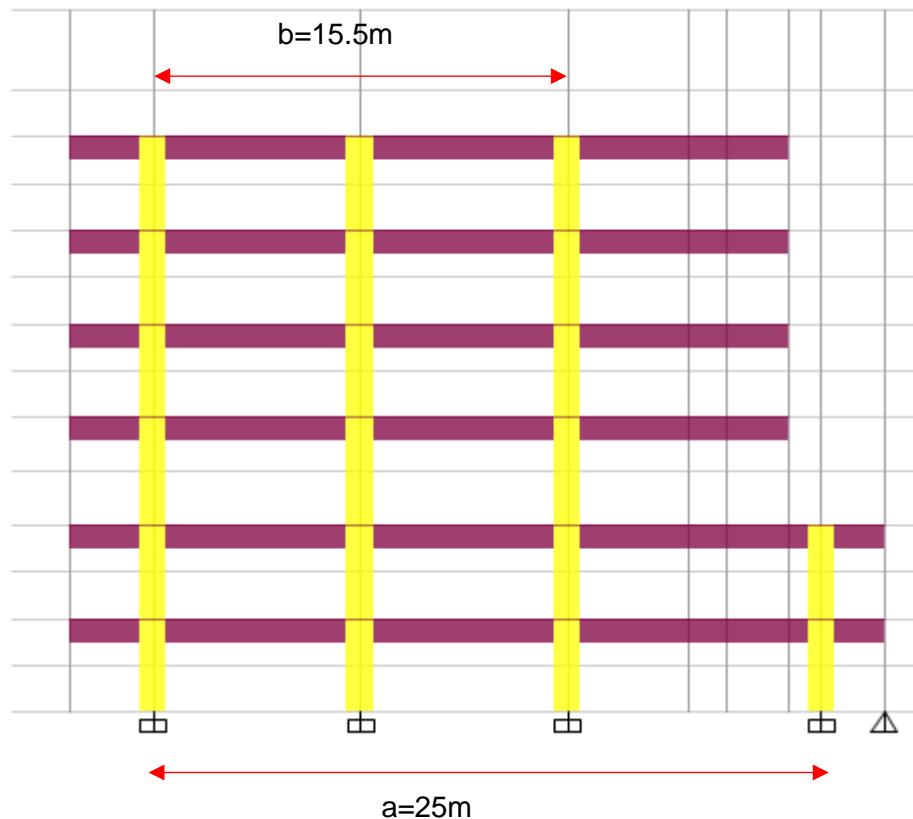
Chequeo Irregularidades en Altura Tabla A.3.7

TIPO	CARACTERISTICA	CHEQUEA	Si
		φa	
1A	Cuando la rigidez ante fuerza horizontal de un piso es menor del 70 por ciento de la rigidez del piso superior o menor del 80 por ciento del promedio de la rigidez de los tres pisos superiores, la estructura se considera irregular.	1	

TIPO	CARACTERISTICA	CHEQUEA	Si
		φa	
2A	Cuando la masa, m_i , de cualquier piso es mayor que 1.5 veces la masa de uno de los pisos contiguos, la estructura se considera irregular.	1	

TIPO	CARACTERISTICA	CHEQUEA	NO
		φa	
3A	Cuando la dimension horizontal del sistema de resistencia sismica, en en cualquier piso es mayor que 1.3 veces la misma dimension de un piso adyacente, la estructura se considera irregular. Se exceptua el caso de los altillos de un solo piso		0.9



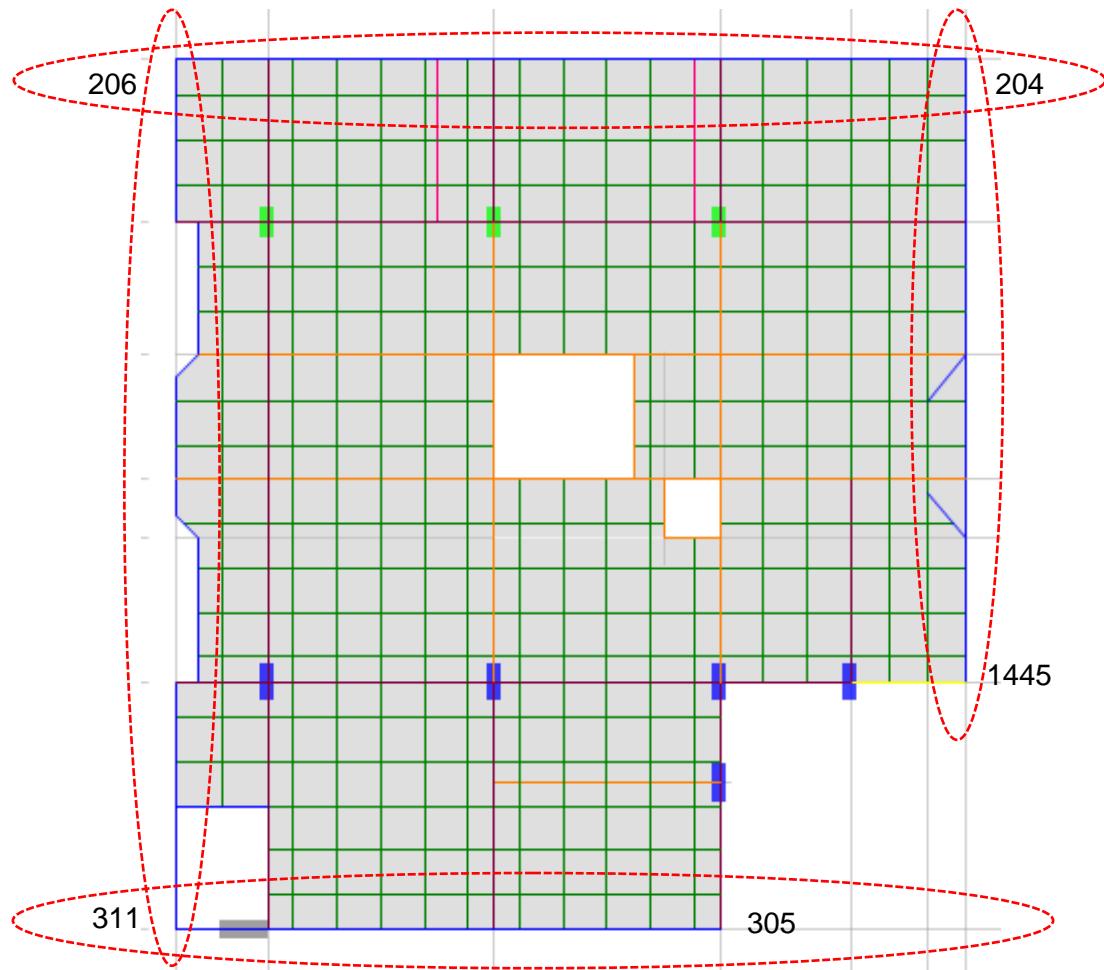


$$\frac{a}{b} = 1.6 : a > 1.3b:$$

TIPO	CARACTERISTICA	ϕ_a
4A	Cuando existen desplazamientos de los elementos verticales del sistema de resistencia sismica, dentro de su plano de accion, mayores que la dimension horizontal del elemento, la estructura se considera irregular.	0.8

<p>Tipo 4A — Desplazamiento dentro del plano de acción — $\phi_a = 0.8$</p> <p>$b > a$</p>	
---	--

Chequeo Irregularidades en Planta Tabla A.3.6



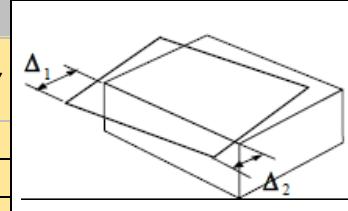
Tipo 1aP — Irregularidad torsional $\phi_p = 0.9$	Tipo 1bP — Irregularidad torsional extrema $\phi_p = 0.8$
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) \geq \Delta_1 > 1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right)$	$\Delta_1 > 1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right)$

Diagram illustrating torsional irregularity:

The diagram shows a 3D perspective of a rectangular structure. Two vertical dimensions are labeled: Δ_1 is the height from the base to the top of one corner, and Δ_2 is the height from the base to the top of the opposite corner. These dimensions represent the height differences used in the torsional irregularity formulas.

TABLE: Joint Displacements

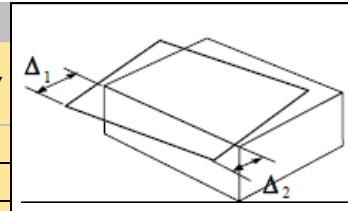
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	204	3601	Ux Max	3.940	2.171
N+19.00	206	793	Ux Max	3.929	1.660



ΔX_{max}	3.94	ΔY_{max}	2.171
$1.2 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 4.72$		$1.2 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 2.298$	
$1.4 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 5.51$		$1.4 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 2.681$	
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

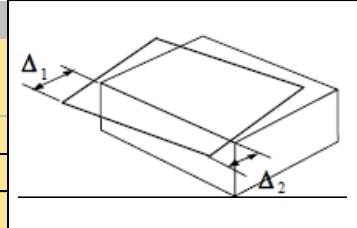
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	204	3601	Uy Max	1.65	3.52
N+19.00	206	793	Uy Max	1.65	3.67



ΔX_{max}	1.654	ΔY_{max}	3.67
$1.4 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 1.98$		$1.4 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 4.32$	
$1.2 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 2.314$		$1.2 \left(\frac{\Delta_1 + \Delta_2}{2} \right) = 5.04$	
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

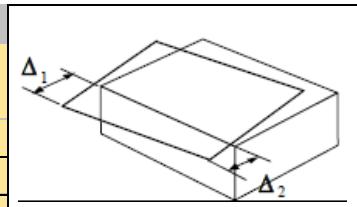
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	311	3592	Ux Max	3.20	1.672
N+19.00	206	793	Ux Max	3.93	1.660



ΔX_{max}	3.93	ΔY_{max}	1.67
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.28	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	1.999
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.99	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.332
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

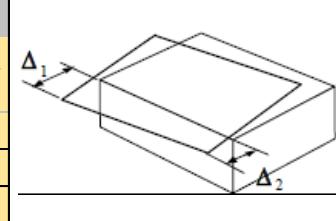
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	311	3592	Uy Max	1.27	3.70
N+19.00	206	793	Uy Max	1.65	3.67



ΔX_{max}	1.65	$\Delta 1Y$	3.70
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	1.75	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.42
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.05	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	5.16
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

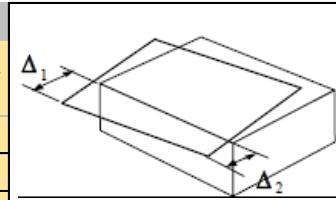
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	305	5145	Ux Max	3.18	1.66
N+19.00	311	3592	Ux Max	3.20	1.67



$\Delta 1X$	3.20	$\Delta 1Y$	1.67
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.83	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.00
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.47	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.33
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

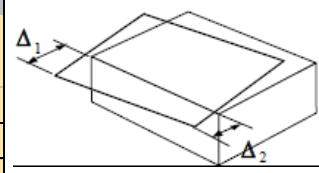
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	305	5145	Uy Max	1.27	3.54
N+19.00	311	3592	Uy Max	1.27	3.70



$\Delta 1X$	1.27	$\Delta 1Y$	3.70
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	1.53	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.34
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	1.78	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	5.07
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

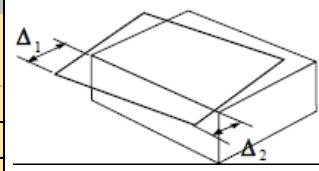
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y	
				cm	cm	
N+19.00	1445	3603	Ux Max	3.09	2.16	
N+19.00	204	3601	Ux Max	3.94	2.17	



$\Delta 1X$	3.94	$\Delta 1Y$	2.17
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.22	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.60
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.92	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	3.03
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TABLE: Joint Displacements

Story	Label	Unique Name	Load Case	Displacement X	Displacement Y	
				cm	cm	
N+19.00	1445	3603	Uy Max	1.34	3.55	
N+19.00	204	3601	Uy Max	1.65	3.52	



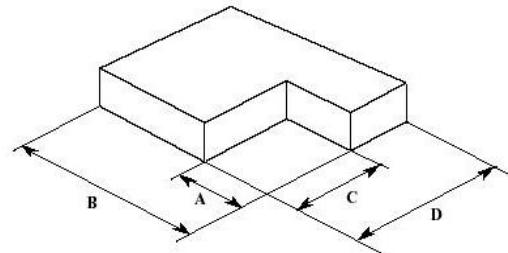
$\Delta 1X$	1.65	$\Delta 1Y$	3.55
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	1.80	$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.24
$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	2.10	$1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right) =$	4.95
No presenta Irregularidad		No presenta Irregularidad	
$\phi p = 1.00$		$\phi p = 1.00$	

TIPO	CARACTERISTICA	CHEQUEA	NO
			ϕp
1P	la irregularidad torsional existe cuando la máxima deriva de piso de un extremo de la estructura, calculada incluyendo la torsión accidental y medida perpendicularmente a un eje determinar, es más de 1.2 veces la deriva promedio de los dos extremos de la estructura, con respecto al mismo eje de referencia.		0.9

TIPO	CARACTERISTICA	CHEQUEA	NO
		ϕ_p	
2P	La configuración de una estructura se considera irregular cuando ésta tiene retrocesos excesivos en sus esquinas. Un retroceso en una esquina se considera excesivo cuando las proyecciones de la estructura, a ambos lados del retroceso, son mayores que el 15% de la dimensión de la planta de la estructura en la dirección del retroceso.		0.9

Tipo 2P – Retrocesos en las esquinas - $\phi_p = 0.9$
 $A > 0.15B$ y $C > 0.15D$

DIMENSIÓN				CHEQUEA
A	B	C	D	
8.4 m	32.0 m	8.4 m	27.0 m	No Cumple

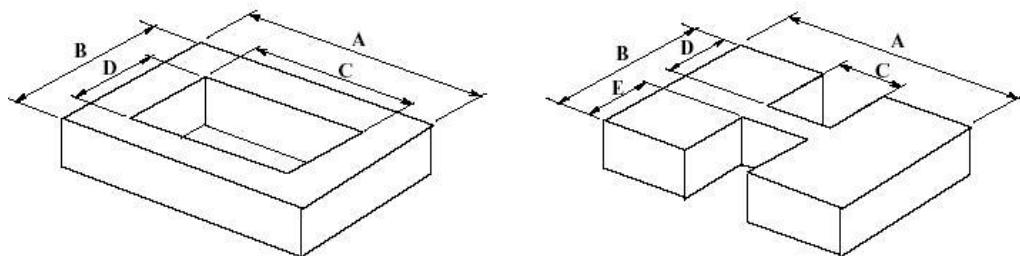


TIPO	CARACTERISTICA	CHEQUEA	Si
		ϕ_p	
3P	Cuando el diafragma tiene discontinuidades apreciables o variaciones en su rigidez, incluyendo las causadas por aberturas, entradas, retrocesos o huecos con áreas mayores al 50% del área bruta del diafragma o existen cambios en la rigidez efectiva del diafragma de mas del 50%, entre niveles consecutivos, la estructura se considera irregular.	1	

Tipo 3P - Irregularidad del diafragma - $\phi_p = 0.9$

$$1) C \times D > 0.5 A \times B$$

$$2) (C \times D + C \times E) > 0.5 A \times B$$



TIPO	CARACTERISTICA	CHEQUEA	Si
		φp	
4P	Cuando existen discontinuidades en las trayectorias de las fuerzas inducidas por los efectos sísmicos, tales como desplazamientos del plano de acción de elementos verticales del sistema de resistencia sísmica, la estructura se considera irregular.	1	

TIPO	CARACTERISTICA	CHEQUEA	Si
		φp	
5P	Cuando las direcciones de acción horizontal de los elementos verticales del sistema de resistencia sísmica no son paralelas o simétricas con respecto a los ejes ortogonales horizontales principales del sistema de resistencia sísmica, la estructura se considera irregular	1	

Cálculo de Coeficiente de Disipación de Energía Edificio B

A continuación, se presentan los coeficientes de reducción por las irregularidades, y el cálculo del coeficiente de reducción de capacidad de disipación de energía

COEFICIENTE DE CAPACIDAD DE DISIPACIÓN DE ENERGÍA	
Ro:	7.0 Pórticos Resistente a Momentos Combinado (DES)
φp:	0.9 Irregularidad: Tipo 1aP
φa:	0.8 Desplazamiento dentro del plano de acción: Tipo 4A
φr:	1.0 No presenta
R=	5.04 Ro*φa*φp*φr

Tabla 4 Coeficiente de disipación de energía Edificio B (ejes 1 a 6a)

4.8 ESPECTRO INELÁSTICO DE DISEÑO

De acuerdo con el sistema estructural adoptado y con la capacidad de disipación de energía exigida por el código para cada una de las regiones se determina el coeficiente de modificación de respuesta R de la tabla A. 3-3 de la NSR - 10.

Para el sistema estructural utilizado $R_o X-X = 7.0$ según la tabla A. 3-2 de la NSR-10

Para el sistema estructural utilizado $R_o Y-Y = 7.0$ según la tabla A. 3-3 de la NSR-10

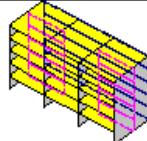
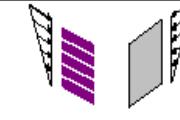
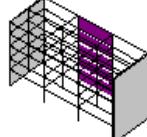
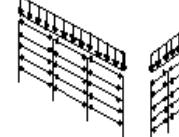
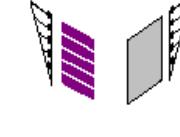
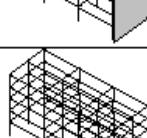
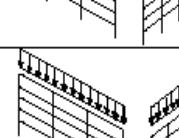
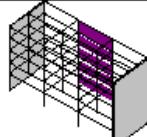
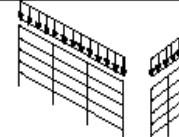
SISTEMAS ESTRUCTURALES DE RESISTENCIA SÍSMICA			
SISTEMA		CARGAS VERTICALES	FUERZAS HORIZONTALES
MUROS DE CARGA			
COMBINADO			
PORTICO			
DUAL			

Figura 9 Sistemas Estructurales de resistencia sísmica.

A continuación, se presenta el espectro inelástico de aceleración de diseño reducido, aplicando el coeficiente de capacidad de dissipación de energía (S_a/R).

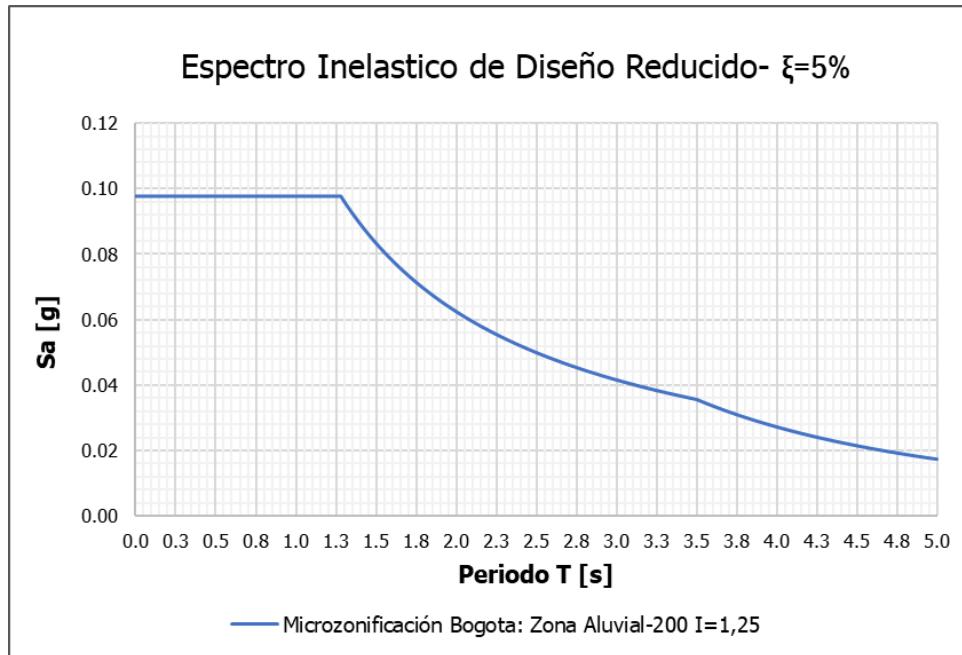


Figura 10 Espectro inelástico de diseño reducido Edificio B (ejes 1 – 6a), $R=5.04$

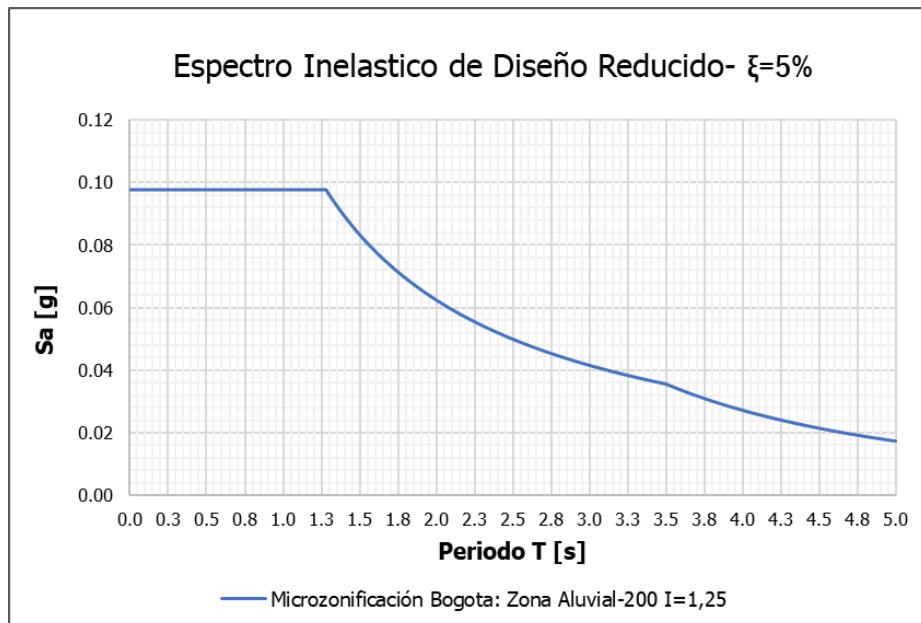


Figura 11 Espectro inelástico de diseño reducido Edificio A (ejes 6c – 10), $R=5.04$

4.9 PARÁMETROS Y REQUISITOS DE DISEÑO

El método de análisis a utilizar es el análisis dinámico elástico, que según el A.3.4.2 (NSR-10) permite analizar casi cualquier tipo de edificación. Dentro del análisis dinámico, se utilizará el análisis dinámico elástico espectral, cumpliendo con los requisitos del título A.5.4.

Las fuerzas sísmicas de diseño se introducirán por medio del espectro elástico de diseño definido en el A.2 NSR-10. De acuerdo a la **Zona de Amenaza Sísmica intermedia de la ciudad de Bogotá D.C.**, al tipo de material estructural, y las características del sistema de resistencia sísmica se estableció el grado de Capacidad Disipación Especial de Energía (**DES**), el cual debe cumplir con los requisitos según el nivel de amenaza sísmica, efectos locales e importancia de la estructura.

A.7.3 — ANÁLISIS Y DISEÑO ESTRUCTURAL

A continuación, se describe el alcance mínimo de los aspectos que debe tener en cuenta el ingeniero estructural para describir los efectos de interacción suelo-estructura:

A.7.3.1 — TIPO DE MODELO — Los modelos matemáticos pueden ser estáticos o dinámicos y deben describir las características de rigidez de la estructura, la cimentación y el suelo, a niveles compatibles con las deformaciones esperadas. En los modelos estructurales utilizados en el análisis de la estructura deben introducirse condiciones de apoyo elástico de los muros, columnas y elementos del sistema de resistencia sísmica al nivel de la cimentación, consistentes con las rigideces supuestas para obtener la respuesta de la estructura teniendo en cuenta los efectos de interacción suelo-estructura.

A.7.3.2 — FUERZAS DE DISEÑO DE LOS ELEMENTOS ESTRUCTURALES — El modelo matemático empleado debe utilizarse en la evaluación de las características propias de la respuesta de la estructura ante las diferentes solicitudes. La distribución de las fuerzas internas de la estructura que se utilice en el diseño de la misma debe ser la que se obtiene a través del análisis que incluye los efectos de interacción suelo-estructura.

A.7.3.3 — DERIVAS — Las derivas obtenidas al utilizar los procedimientos de interacción suelo-estructura deben cumplir con los límites establecidos en el Capítulo A.6. Como se indicó en A.7.1.2 (d) hay casos en que deben esperarse derivas mayores que las que se obtendrían al suponer la estructura empotrada en su base.

A.7.3.4 — CORTANTE SÍSMICO EN LA BASE — En aquellos casos en los cuales se presente un aumento en el cortante sísmico en la base, el diseño debe realizarse para el cortante obtenido utilizando la interacción suelo-estructura. Cuando debido a un aumento en el periodo estructural equivalente y/o en el amortiguamiento efectivo se presente una disminución del cortante sísmico de diseño en la base, el valor del cortante sísmico de diseño en la base no puede ser menor que el que se obtendría utilizando el método de la fuerza horizontal equivalente del Capítulo A.4, empleando un período de vibración igual a una C_T según A.4.2.1 y los espectros del Capítulo A.2.

4.10 EVALUACIÓN SÍSMICA

Edificio A: (Ejes 6c – 10)

Matriz de Masa

Las fuerzas iniciales que se tuvieron en cuenta durante la elaboración del modelo son:

Carga Permanente: Peso propio + Sobrecarga
Altura hasta la base de losa más alta 22.5m

COEFICIENTES SISMICOS DEL SUELO

Localización: Aluvial-200 Bogotá D.C

Sa	0.492	Fa	1.050
Av	0.200	Fv	2.100
Aa	0.150		

A.4.2.2 — Alternativamente el valor de T puede ser igual al período fundamental aproximado, T_a , que se obtenga por medio de la ecuación A.4.2-3.

$$T_a = C_t h^\alpha \quad (\text{A.4.2-3})$$

donde C_t y α tienen los valores dados en la tabla A.4.2-1.

Tabla A.4.2-1
Valor de los parámetros C_t y α para el cálculo del período aproximado T_a

Sistema estructural de resistencia sísmica	C_t	α
Pórticos resistentes a momentos de concreto reforzado que resisten la totalidad de las fuerzas sísmicas y que no están limitados o adheridos a componentes más rígidos, estructurales o no estructurales, que limiten los desplazamientos horizontales al verse sometidos a las fuerzas sísmicas.	0.047	0.9
Pórticos resistentes a momentos de acero estructural que resisten la totalidad de las fuerzas sísmicas y que no están limitados o adheridos a componentes más rígidos, estructurales o no estructurales, que limiten los desplazamientos horizontales al verse sometidos a las fuerzas sísmicas.	0.072	0.8
Pórticos arriostrados de acero estructural con diagonales excéntricas restringidas a pandeo.	0.073	0.75
Todos los otros sistemas estructurales basados en muros de rigidez similar o mayor a la de muros de concreto o mampostería	0.049	0.75
Alternativamente, para estructuras que tengan muros estructurales de concreto reforzado o mampostería estructural, pueden emplearse los siguientes parámetros C_t y α , donde C_w se calcula utilizando la ecuación A.4.2-4.	$\frac{0.0062}{\sqrt{C_w}}$	1.00

SENTIDO	X - X	Y - Y
C _t	0.049	0.049
a	0.750	0.750
T _a	0.506	0.506
I	1.250	1.250

A.4.2.1 El valor de T no puede exceder CuTa , donde Cu se calcula por medio de la ecuación A.4.2-2 y Ta se calcula de acuerdo con A.4.2-3.

A.4.3.1 El valor de Sa en la ecuación anterior corresponde al valor de la aceleración, como fracción de la de la gravedad, leída en el espectro definido en A.2.6 para el período T de la edificación.

Verificación Periodos

El valor de T no puede exceder C_uT_a , donde C_u se calcula por medio de la ecuación A.4.2-2 y T_a se calcula de acuerdo con A.4.2-3.

$$C_u = 1.75 - 1.2A_v F_v \quad (\text{A.4.2-2})$$

pero C_u no debe ser menor de 1.2.

$$\begin{array}{ll} Cu: & 1.25 > 1.2 \\ \text{Tomar Cu:} & 1.25 \end{array}$$

$$Cu * Ta: 0.631$$

Periodo del Primer Cu*Ta

T:	0.631
----	-------



Sax:	0.492
Say:	0.492

Periodo Modelo Estructural

T:	0.630
----	-------



Sax:	0.492
Say:	0.492

Por lo tanto, el periodo elástico del modelo estructural, NO SUPERA al valor del periodo teórico calculado según A.4.22

Periodo Elástico del Suelo

De acuerdo a la tabla 7.1 del Estudio de microzonificación sísmica de la ciudad de Bogotá D.C, El periodo fundamental del suelo para la zona de estudio Aluvial-200 está en un rango de 1.2s–2.5s. A continuación, se presenta la tabla con la descripción del suelo.

Zona	Espesor del depósito (m)	Periodo fundamental del suelo (s)	Descripción Geotécnica General	Velocidad onda promedio 50 m Vs (m/s)	Humedad Promedio 50 m Hn (%)	Efectos de sitio relacionados
Cerro	-	< 0.3	Rocas sedimentarias y depósitos de ladera con espesores inferiores a 6 m	> 750	< 10	Topográfico
Piedemonte A	< 50	0.3-0.6	Suelo coluvial y aluvial con intercalaciones de arcillas blandas: Bloques, cantos y gravas con matriz arcillo arenosas o arenarcillosa, capas de arcillas blandas.	200 - 750	Oct-80	Topográfico, amplificación
Piedemonte B	< 50	0.3-0.6	Suelo coluvial y aluvial con espesor superior a 12 m: Bloques, cantos y gravas con matriz arcillo arenosas o arenarcillosa	300 - 750	Oct-30	Topográfico, amplificación
Piedemonte C	< 50	0.3-0.6				
Lacustre-50	< 50	1.0-1.5	Suelo lacustre blando: Arcillas limosas o limos arcillosos, en algunos sectores con intercalaciones de lentes de turba	< 175	> 80	Amplificación
Lacustre-100	50-100	1.5-2.5				Amplificación
Lacustre-200	100-200	2.5-3.5				Amplificación
Lacustre-300	200-300	3.5-4.5				Amplificación
Lacustre-500	300-500	4.5-6.5				Amplificación
Lacustre Aluvial-200	100-200	2.0-3.0	Suelo lacustre con intercalaciones de aluvial: Arcillas limosas o limos arcillosos con de lentes de turba y capas de arenas compactas	< 200	> 60	Amplificación
Lacustre Aluvial-300	200-300	3.0-4.0				Amplificación
Aluvial-50	< 50	0.4-0.8	Suelo aluvial duro: Arcillas limosas o arenas arcillosos o limos arenosos, en algunos sectores se encuentran lentes de arenas limpias	175 - 300	25 - 50	Amplificación, licuación
Aluvial-100	50-100	0.8-1.2				Amplificación, licuación
Aluvial-200	100-200	1.2-2.5				Amplificación, licuación
Aluvial-300	200-300	2.5-4.0				Amplificación, licuación
Depósito Ladera	Jun-25	< 0.3	Depósitos de ladera con espesores superiores a 6 m de composición variable.	Variable según el tipo de deposito	Variable según el tipo de deposito	Topográfico

Tabla 5 Descripción de las zonas de respuesta sísmica

Por lo tanto, el periodo fundamental de la edificación no coincide con el periodo fundamental para el perfil del subsuelo de la Microzona donde se ubica el proyecto.

Por lo tanto, NO se prevé que se presente problemas de resonancia suelo-estructura.

OBTENCIÓN DEL CORTANTE EN LA BASE

TABLE: Base Reactions

Load Case/Combo	Fx	Fy	Fz	Mx	My	Mz
	tonf	tonf	tonf	tonf-m	tonf-m	tonf-m
Dead	0	0	5947	-187664	-77470	0
Live	0	0	1953	-58802	-27805	0
Sx Max	3437	1183	0	21709	64477	96690
Sy Max	1168	3432	0	63157	22014	57371
Ux Max	2750	946	0	17369	51587	77360
Uy Max	935	2746	0	50531	17613	45902
W	-45	-36	0	577	-700	-1924
Sobre Carga	0	0	1811	-56538	-25409	0
Lr	0	0	390	-13033	-4959	0
Granizo	0	0	74	-2517	-967	0
Umby Max	515	1512	0	28132	9802	25278
Umbx Max	1508	520	0	9647	28635	42468

$$V = Sa * g * M = Sa * W$$

$$\begin{array}{lll} \text{Sentido X:} & V = & 0.492 \\ \text{Sentido Y:} & V = & 0.492 \end{array} \quad * \quad W$$

DONDE W = 7758.12 ton

$$\begin{array}{lll} \text{Sentido X:} & V = & 3818.5 \text{ ton} \\ \text{Sentido Y:} & V = & 3818.5 \text{ ton} \end{array}$$

REVISIÓN DE LA CORTANTE EN LA BASE

Para determinar el valor mínimo de la cortante en la base del método del análisis Modal, se debe conocer el valor de la cortante en la base, valor calculado anteriormente.

$$\begin{array}{lll} \text{Sentido X:} & V_{FHE} = & 3819 \text{ ton} \\ \text{Sentido Y:} & V_{FHE} = & 3819 \text{ ton} \end{array} \quad \longrightarrow \quad \mathbf{90\%} \quad V_S = \quad 3437 \text{ ton}$$

Carga	Text	FX	FX
SISMOX	Max	3438.8	1182.5
SISMOY	Max	1168.2	3438.5

Después de revisar, las cortantes en la base se puede concluir que el modelo refleja las condiciones mínimas exigidas para este análisis. Por lo tanto no es necesario ajustar la fuerza sísmica para el SX y el SY.

Tabla 6. Participación modal de la masa Edificio A: Ejes 6c a 10

TABLE: Modal Participating Mass Ratios									
Case	Mode	Period sec	UX	UY	Sum UX	Sum UY	RZ	Sum RZ	
Modal	1	0.630	5%	6%	5%	6%	66%	66%	
Modal	2	0.433	5%	62%	10%	68%	10%	76%	
Modal	3	0.386	64%	8%	73%	77%	0%	76%	
Modal	4	0.182	1%	1%	74%	78%	10%	87%	
Modal	5	0.124	1%	11%	75%	89%	1%	88%	
Modal	6	0.113	11%	2%	86%	91%	0%	88%	
Modal	7	0.093	0%	0%	86%	91%	1%	89%	
Modal	8	0.073	2%	0%	89%	91%	1%	90%	
Modal	9	0.071	0%	0%	89%	91%	0%	90%	
Modal	10	0.069	0%	0%	89%	91%	0%	90%	
Modal	11	0.067	0%	0%	89%	91%	0%	90%	
Modal	12	0.063	0%	3%	89%	94%	0%	91%	
Modal	13	0.063	1%	0%	90%	95%	0%	91%	
Modal	14	0.06	0%	0%	90%	95%	3%	94%	
Modal	15	0.059	0%	0%	91%	95%	0%	94%	
Modal	16	0.057	0%	0%	91%	95%	0%	94%	
Modal	17	0.055	0%	0%	91%	95%	0%	94%	
Modal	18	0.053	1%	0%	92%	95%	0%	95%	
Modal	19	0.051	0%	1%	92%	96%	0%	95%	
Modal	20	0.048	1%	0%	93%	96%	1%	95%	
Modal	21	0.047	0%	0%	93%	96%	0%	96%	
Modal	22	0.046	0%	1%	93%	97%	0%	96%	
Modal	23	0.046	2%	0%	95%	97%	0%	96%	
Modal	24	0.044	0%	0%	95%	97%	0%	96%	
Modal	25	0.044	0%	0%	95%	97%	0%	96%	
Modal	26	0.044	0%	0%	95%	97%	0%	96%	
Modal	27	0.042	0%	0%	95%	98%	0%	96%	
Modal	28	0.041	0%	0%	95%	98%	0%	96%	
Modal	29	0.04	1%	0%	96%	98%	0%	96%	
Modal	30	0.039	0%	0%	96%	98%	0%	96%	
Modal	31	0.038	0%	0%	96%	98%	0%	96%	
Modal	32	0.038	0%	0%	96%	98%	0%	96%	
Modal	33	0.037	0%	0%	96%	98%	0%	96%	
Modal	34	0.037	1%	0%	97%	98%	1%	98%	
Modal	35	0.037	0%	0%	97%	98%	0%	98%	
Modal	36	0.037	0%	0%	97%	98%	0%	98%	
Modal	37	0.036	0%	1%	97%	99%	0%	98%	
Modal	38	0.036	0%	0%	97%	99%	0%	98%	
Modal	39	0.035	0%	0%	97%	99%	0%	98%	
Modal	40	0.035	0%	0%	97%	99%	0%	98%	

Como se puede observar, el porcentaje de activación de la masa supera el 90%, alcanzando valores de 90% en la dirección X y dirección Y.

Primeros Modos de Vibración Edificio A. (Ejes 6c a 10)

Modo 1

Este modo activa un porcentaje de masa del **5%** en la dirección x, y un **6%** en la dirección y. En la dirección rotacional θZ se activa un **66%**. Por lo tanto, en el modo 1 predomina el movimiento rotacional en Z.

Plan View - N+20.75a - Z = 20.75 (m) Mode Shape (Modal) - Mode 1 - Period 0.631

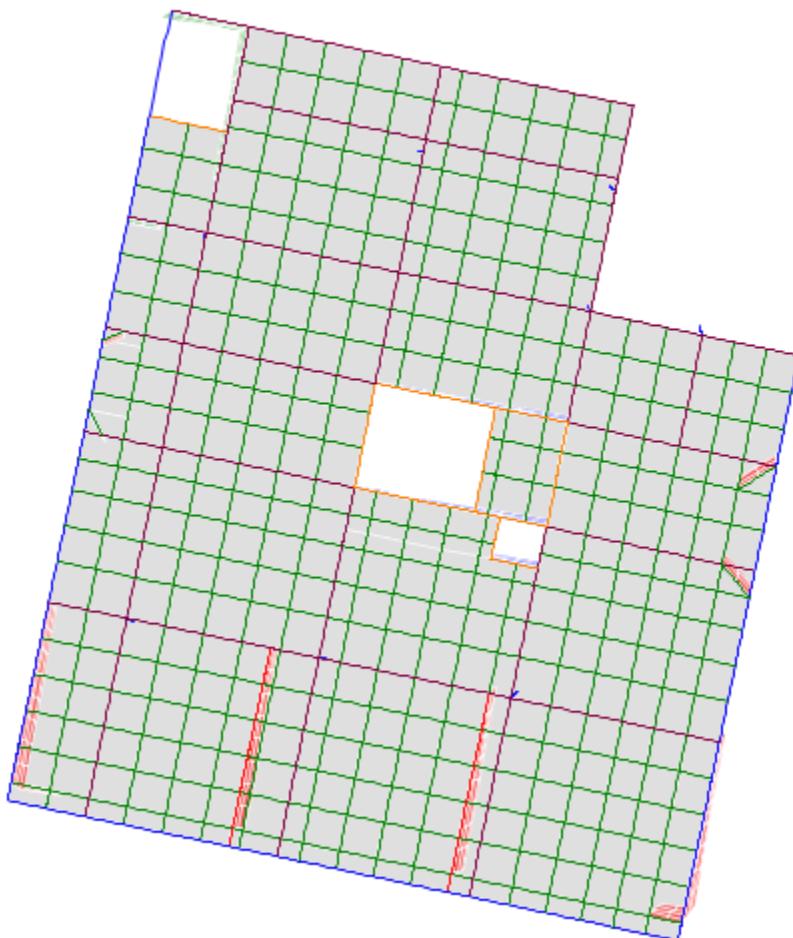


Figura 12 Modo 1 del Edificio A.

Modo 2

Este modo activa un porcentaje de masa del **5%** en la dirección x, y un **62%** en la dirección y. En la dirección rotacional θZ se activa un **10%**. Por lo tanto, en el modo 2 predomina el movimiento translacional en Y, y rotacional en Z.

3-D View Mode Shape (Modal) - Mode 2 - Period 0.433

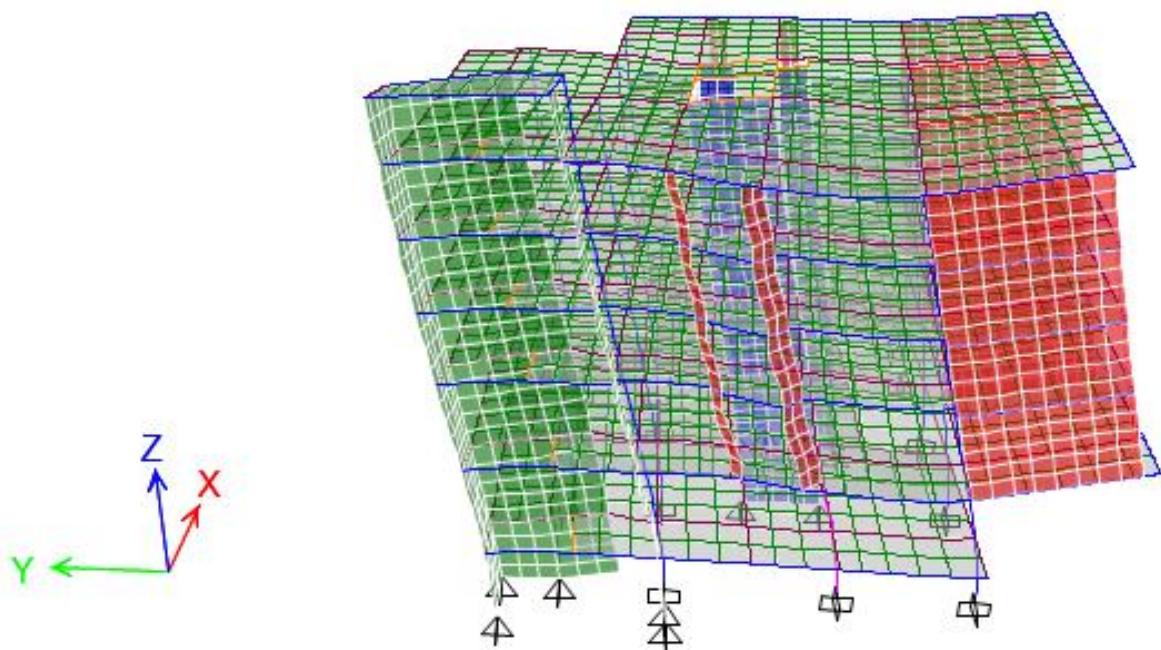


Figura 13 Modo 2 del Edificio A.

Modo 3

Este modo activa un porcentaje de masa del **64%** en la dirección x, y un **8%** en la dirección y. En la dirección rotacional θZ se activa un **0%**. Por lo tanto, en el modo 3 predomina el movimiento traslacional en X.

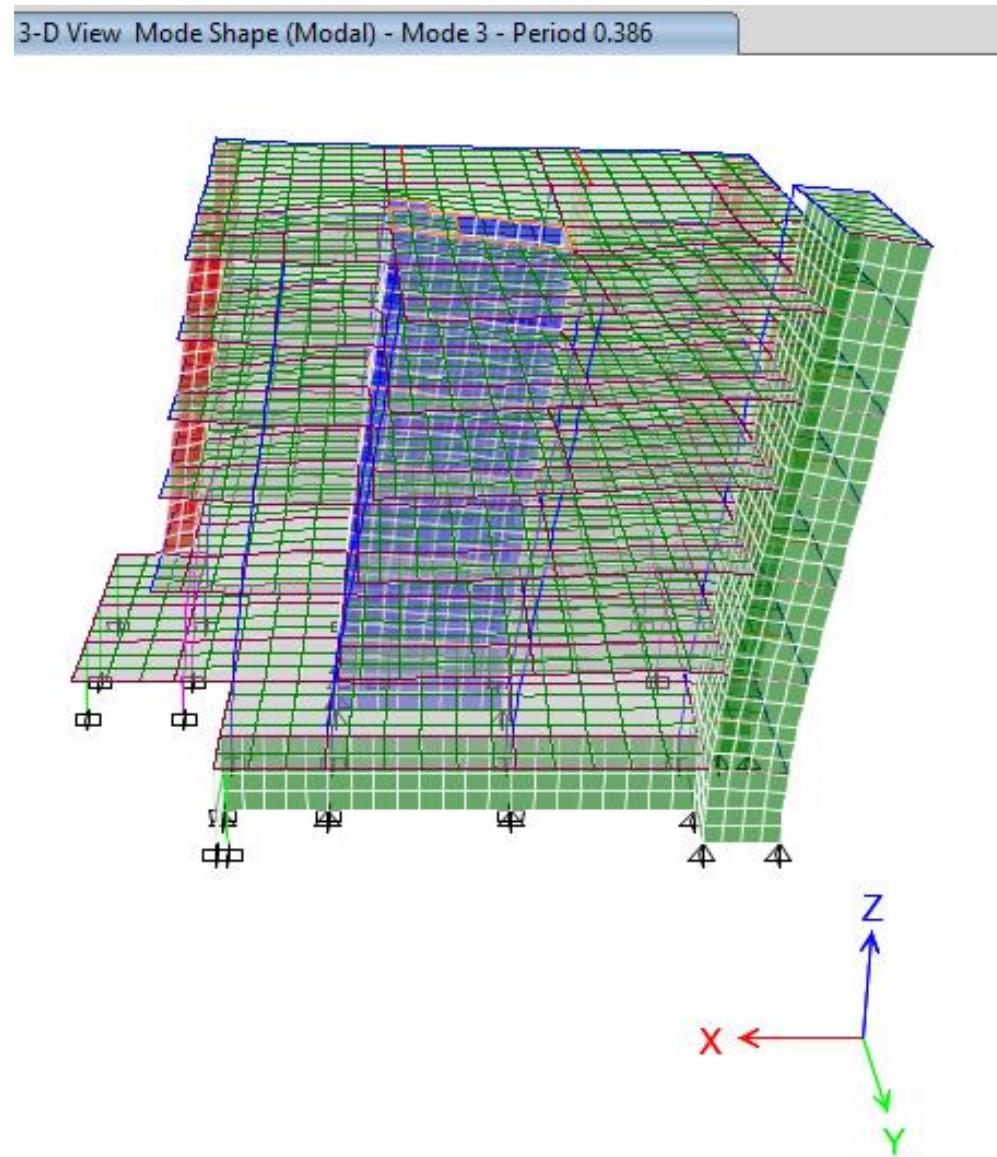


Figura 14 Modo 3 del Edificio A

Edificio B: (Ejes 1 – 6a)

Matriz de Masa

Las fuerzas iniciales que se tuvieron en cuenta durante la elaboración del modelo son:

Carga Permanente:	Peso propio + Sobrecarga
Altura hasta la base de losa más alta	22.5 m

COEFICIENTES SISMICOS DEL SUELO

Localización: Aluvial-200 Bogotá D.C

Sa	0.492		
Av	0.200	Fa	1.050
Aa	0.150	Fv	2.100

A.4.2.2 — Alternativamente el valor de T puede ser igual al periodo fundamental aproximado, T_a , que se obtenga por medio de la ecuación A.4.2-3.

$$T_a = C_t h^\alpha \quad (\text{A.4.2-3})$$

donde C_t y α tienen los valores dados en la tabla A.4.2-1.

Tabla A.4.2-1
Valor de los parámetros C_t y α para el cálculo del periodo aproximado T_a

Sistema estructural de resistencia sísmica	C_t	α
Pórticos resistentes a momentos de concreto reforzado que resisten la totalidad de las fuerzas sísmicas y que no están limitados o adheridos a componentes más rígidos, estructurales o no estructurales, que limiten los desplazamientos horizontales al verse sometidos a las fuerzas sísmicas.	0.047	0.9
Pórticos resistentes a momentos de acero estructural que resisten la totalidad de las fuerzas sísmicas y que no están limitados o adheridos a componentes más rígidos, estructurales o no estructurales, que limiten los desplazamientos horizontales al verse sometidos a las fuerzas sísmicas.	0.072	0.8
Pórticos arriostrados de acero estructural con diagonales excéntricas restringidas a pandeo.	0.073	0.75
Todos los otros sistemas estructurales basados en muros de rigidez similar o mayor a la de muros de concreto o mampostería	0.049	0.75
Alternativamente, para estructuras que tengan muros estructurales de concreto reforzado o mampostería estructural, pueden emplearse los siguientes parámetros C_t y α , donde C_w se calcula utilizando la ecuación A.4.2-4.	$\frac{0.0062}{\sqrt{C_w}}$	1.00

SENTIDO	X - X	Y - Y
C_t	0.049	0.049
a	0.750	0.750
T_a	0.506	0.506
I	1.250	1.250

A.4.2.1 El valor de T no puede exceder CuTa , donde Cu se calcula por medio de la ecuación A.4.2-2 y Ta se calcula de acuerdo con A.4.2-3.

A.4.3.1 El valor de Sa en la ecuación anterior corresponde al valor de la aceleración, como fracción de la de la gravedad, leída en el espectro definido en A.2.6 para el período T de la edificación.

Verificación Periodos

El valor de T no puede exceder C_uT_a , donde C_u se calcula por medio de la ecuación A.4.2-2 y T_a se calcula de acuerdo con A.4.2-3.

$$C_u = 1.75 - 1.2A_v F_v \quad (\text{A.4.2-2})$$

pero C_u no debe ser menor de 1.2.

Cu: 1.25 > 1,2
Tomar Cu: 1.25

Cu*Ta:	0.631
---------------	-------

Periodo del Primer Cu*Ta

T:	0.631
-----------	-------



Sax:	0.492
Say:	0.492

Periodo Modelo Estructural

T:	0.567
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Sax:	0.492
Say:	0.492

Por lo tanto, el periodo elástico del modelo estructural, NO SUPERA al valor del periodo teórico calculado según A.4.22

Periodo Elástico del Suelo

De acuerdo a la tabla 7.1 del Estudio de microzonificación sísmica de la ciudad de Bogotá D.C, El periodo fundamental del suelo para la zona de estudio Aluvial-200 está en un rango de 1.2s–2.5s. A continuación, se presenta la tabla con la descripción del suelo.

Zona	Espesor del depósito (m)	Periodo fundamental del suelo (s)	Descripción Geotécnica General	Velocidad onda promedio 50 m Vs (m/s)	Humedad Promedio 50 m Hn (%)	Efectos de sitio relacionados
Cerro	-	< 0.3	Rocas sedimentarias y depósitos de ladera con espesores inferiores a 6 m	> 750	< 10	Topográfico
Piedemonte A	< 50	0.3-0.6	Suelo coluvial y aluvial con intercalaciones de arcillas blandas: Bloques, cantos y gravas con matriz arcillo arenosas o arena arcillosa, capas de arcillas blandas.	200 - 750	Oct-80	Topográfico, amplificación
Piedemonte B	< 50	0.3-0.6	Suelo coluvial y aluvial con espesor superior a 12 m: Bloques, cantos y gravas con matriz arcillo arenosas o arena arcillosa	300 - 750	Oct-30	Topográfico, amplificación
Piedemonte C	< 50	0.3-0.6				
Lacustre-50	< 50	1.0-1.5	Suelo lacustre blando: Arcillas limosas o limos arcillosos, en algunos sectores con intercalaciones de lentes de turba	< 175	> 80	Amplificación
Lacustre-100	50-100	1.5-2.5				Amplificación
Lacustre-200	100-200	2.5-3.5				Amplificación
Lacustre-300	200-300	3.5-4.5				Amplificación
Lacustre-500	300-500	4.5-6.5				Amplificación
Lacustre Aluvial-200	100-200	2.0-3.0	Suelo lacustre con intercalaciones de aluvial: Arcillas limosas o limos arcillosos con de lentes de turba y capas de arenas compactas	< 200	> 60	Amplificación
Lacustre Aluvial-300	200-300	3.0-4.0				Amplificación
Aluvial-50	< 50	0.4-0.8	Suelo aluvial duro: Arcillas limosas o arenas arcillosos o limos arenosos, en algunos sectores se encuentran lentes de arenas limpias	175 - 300	25 - 50	Amplificación, licuación
Aluvial-100	50-100	0.8-1.2				Amplificación, licuación
Aluvial-200	100-200	1.2-2.5				Amplificación, licuación
Aluvial-300	200-300	2.5-4.0				Amplificación, licuación
Depósito Ladera	Jun-25	< 0.3	Depósitos de ladera con espesores superiores a 6 m de composición variable.	Variable según el tipo de deposito	Variable según el tipo de deposito	Topográfico

Tabla 7 Descripción de las zonas de respuesta sísmica

Por lo tanto, el periodo fundamental de la edificación no coincide con el periodo fundamental para el perfil del Subsuelo de la Microzona donde se ubica el proyecto.

Por lo tanto, NO se prevé que se presente problemas de resonancia suelo-estructura.

OBTENCIÓN DEL CORTANTE EN LA BASE

TABLE: Base Reactions

Load Case/Combo	Fx tonf	Fy tonf	Fz tonf	Mx tonf-m	My tonf-m	Mz tonf-m
Dead	0.0	0.0	6764.5	61534.0	-93739.7	0.0
Live	0.0	0.0	2114.5	17803.1	-31224.0	0.0
Sx Max	3824.8	1583.9	0.0	27508.7	65522.4	51354.4
Sy Max	1513.2	3831.4	0.0	65355.2	26874.9	48896.3
Ux Max	3060.1	1267.3	0.0	22009.2	52423.3	41087.7
Uy Max	1210.7	3065.4	0.0	52289.4	21502.1	39121.0
W	-42.3	-41.6	0.0	541.8	-593.8	-101.8
Sobre Carga	0.0	0.0	1867.4	15085.9	-27154.7	-0.2
Lr	0.0	0.0	388.5	3067.7	-5162.8	0.0
Granizo	0.0	0.0	70.5	609.4	-939.9	0.0

$$V = Sa * g * M = Sa * W$$

$$Sentido X: \quad V = \quad 0.492 \quad * \quad W$$

$$Sentido Y: \quad V = \quad 0.492 \quad * \quad W$$

DONDE W = 8631.89 ton

$$Sentido X: \quad V = \quad 4248.6 \quad ton$$

$$Sentido Y: \quad V = \quad 4248.6 \quad ton$$

REVISIÓN DE LA CORTANTE EN LA BASE

Para determinar el valor mínimo de la cortante en la base del método del análisis Modal, se debe conocer el valor de la cortante en la base calculado anteriormente.

$$Sentido X: \quad V_{FHE} = \quad 4249 \text{ ton} \quad \longrightarrow \quad 90\% \quad V_s = \quad 3824 \text{ ton}$$

$$Sentido Y: \quad V_{FHE} = \quad 4249 \text{ ton} \quad \longrightarrow \quad 90\% \quad V_s = \quad 3824 \text{ ton}$$

Carga	Text	FX	FX
SISMOX	Max	3824.8	1583.9
SISMOY	Max	1513.2	3831.4

Después de revisar, las cortantes en la base se puede concluir que el modelo refleja las condiciones mínimas exigidas para este análisis. Por lo tanto no es necesario ajustar la fuerza sísmica para el SX y el SY.

Análisis Modal

La modelación de la estructura debe garantizar que efectivamente se cumplan los parámetros y limitaciones que exige la Normativa Colombiana.

A continuación, se muestran los lineamientos establecidos en el Capítulo A.

A.5.2.2 — MASA DE LA EDIFICACIÓN — Las masas de la edificación que se utilicen en el análisis dinámico deben ser representativas de las masas que existirán en la edificación cuando ésta se vea sometida a los movimientos sísmicos de diseño. Para efectos de los requisitos de este Reglamento, la masa total de la edificación se puede tomar como M . La distribución de la masa de la edificación debe representar la distribución real de las distintas masas de la edificación,

A.5.4.2 — NÚMERO DE MODOS DE VIBRACIÓN — Deben incluirse en el análisis dinámico todos los modos de vibración que contribuyan de una manera significativa a la respuesta dinámica de la estructura. Se considera que se ha cumplido este requisito cuando se demuestra que, con el número de modos empleados, p , se ha incluido en el cálculo de la respuesta, de cada una de las direcciones horizontales de análisis, j , por lo menos el 90 por ciento de la masa participante de la estructura. La masa participante, M_j , en cada una de las direcciones de análisis, j , para el número de modos empleados, p , se determina por medio de las siguientes expresiones:

$$\bar{M}_j = \sum_{m=1}^p \bar{M}_{mj} \geq 0.90 M \quad (\text{A.5.4-1})$$

$$\bar{M}_{mj} = \frac{\left(\sum_{i=1}^n m_i \phi_{ij}^m \right)^2}{\sum_{i=1}^n m_i (\phi_{ij}^m)^2} \quad (\text{A.5.4-2})$$

A continuación, se muestran los 40 primeros períodos de la estructura. Los 40 primeros modos de vibración que se han incluido en el cálculo de la respuesta dinámica de cada una de las direcciones horizontales principales sobrepasan el 90% de la masa participante de la estructura según se requiere en el A.5.4.2. También se presenta el coeficiente de participación modal, con porcentaje de masa activa asociada a cada modo y la participación acumulada en la excitación de la masa total del edificio en el análisis dinámico, para ambas direcciones principales del sismo y rotacional respecto al eje Z.

Tabla 8. Participación modal de la masa Edificio B: Ejes 1 a 6a

TABLE: Modal Participating Mass Ratios								
Case	Mode	Period sec	UX	UY	Sum UX	Sum UY	RZ	Sum RZ
Modal	1	0.567	2%	0%	2%	0%	61%	61%
Modal	2	0.467	8%	60%	10%	60%	0%	61%
Modal	3	0.409	56%	8%	66%	69%	0%	62%
Modal	4	0.177	1%	0%	67%	69%	7%	69%
Modal	5	0.14	1%	2%	68%	71%	0%	70%
Modal	6	0.132	0%	11%	68%	82%	1%	71%
Modal	7	0.121	14%	0%	82%	82%	0%	71%
Modal	8	0.119	0%	0%	82%	82%	8%	79%
Modal	9	0.106	0%	1%	82%	83%	2%	81%
Modal	10	0.093	2%	0%	84%	83%	1%	81%
Modal	11	0.091	1%	0%	85%	83%	0%	81%
Modal	12	0.083	1%	1%	86%	84%	0%	82%
Modal	13	0.081	0%	5%	86%	89%	0%	82%
Modal	14	0.076	0%	0%	86%	89%	0%	82%
Modal	15	0.069	0%	0%	86%	89%	0%	82%
Modal	16	0.068	0%	0%	86%	89%	0%	82%
Modal	17	0.064	0%	0%	86%	89%	0%	82%
Modal	18	0.063	0%	0%	86%	89%	0%	82%
Modal	19	0.061	0%	0%	87%	89%	0%	82%
Modal	20	0.059	0%	0%	87%	89%	0%	82%
Modal	21	0.058	0%	0%	87%	89%	0%	82%
Modal	22	0.056	0%	0%	87%	89%	0%	82%
Modal	23	0.054	1%	0%	88%	89%	0%	82%
Modal	24	0.05	0%	0%	88%	90%	0%	82%
Modal	25	0.05	0%	0%	88%	90%	0%	82%
Modal	26	0.049	1%	0%	90%	90%	0%	82%
Modal	27	0.048	2%	1%	92%	91%	0%	82%
Modal	28	0.045	2%	0%	94%	92%	2%	84%
Modal	29	0.043	0%	0%	94%	92%	0%	84%
Modal	30	0.042	0%	1%	94%	93%	0%	84%
Modal	31	0.041	0%	0%	94%	93%	0%	84%
Modal	32	0.04	0%	1%	94%	94%	0%	84%
Modal	33	0.039	0%	0%	94%	94%	1%	85%
Modal	34	0.038	0%	1%	94%	95%	0%	85%
Modal	35	0.037	0%	0%	94%	95%	0%	86%
Modal	36	0.037	0%	0%	94%	95%	0%	86%
Modal	37	0.036	0%	0%	94%	95%	0%	86%
Modal	38	0.036	0%	0%	94%	95%	0%	86%
Modal	39	0.035	0%	0%	94%	95%	0%	86%
Modal	40	0.034	0%	0%	94%	95%	1%	87%

Como se puede observar, el porcentaje de activación de la masa supera el 90%, alcanzando valores de 90% en la dirección X y dirección Y.

Primeros Modos de Vibración Edificio B. (Ejes 1 a 6a)

Modo 1

Este modo activa un porcentaje de masa del **2%** en la dirección x, y un **2%** en la dirección y. En la dirección rotacional θZ se activa un **61%**. Por lo tanto, en el modo 1 predomina el movimiento rotacional en Z.

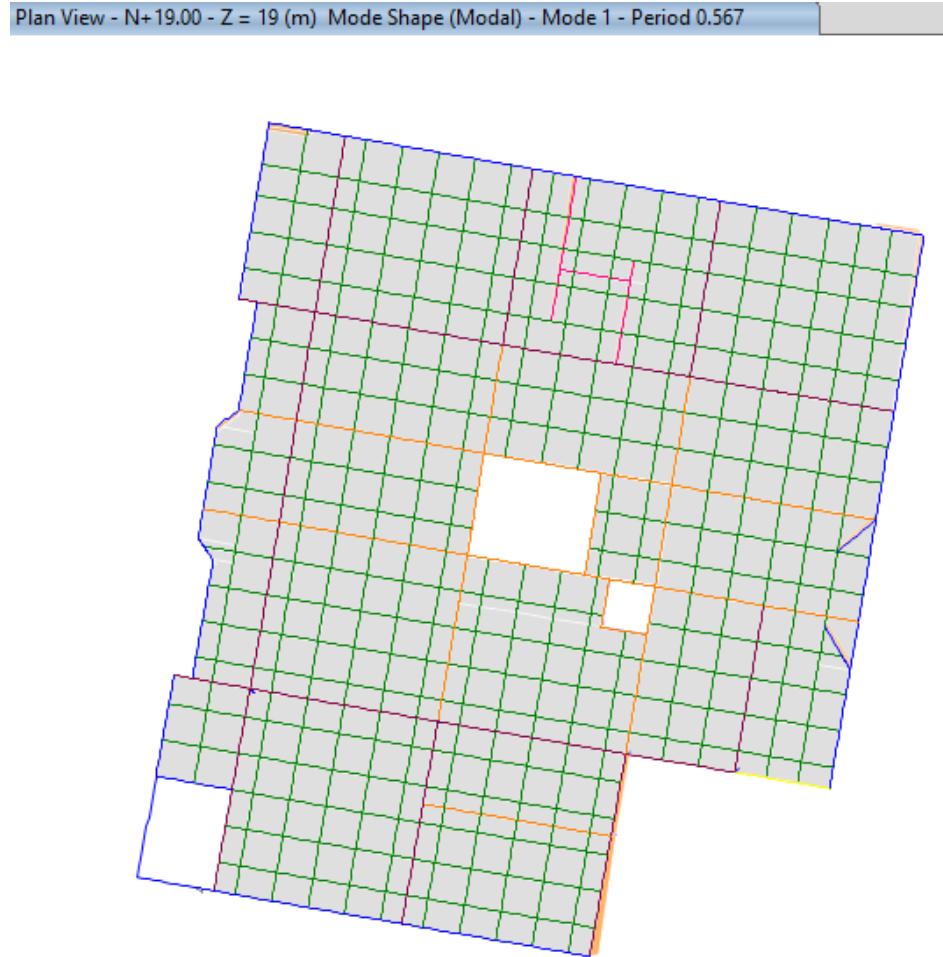


Figura 15 Modo 1 del Edificio B

Modo 2

Este modo activa un porcentaje de masa del **8%** en la dirección x, y un **60%** en la dirección y. En la dirección rotacional θZ se activa un **0%**. Por lo tanto, en el Modo 2 predomina el movimiento traslacional en Y.

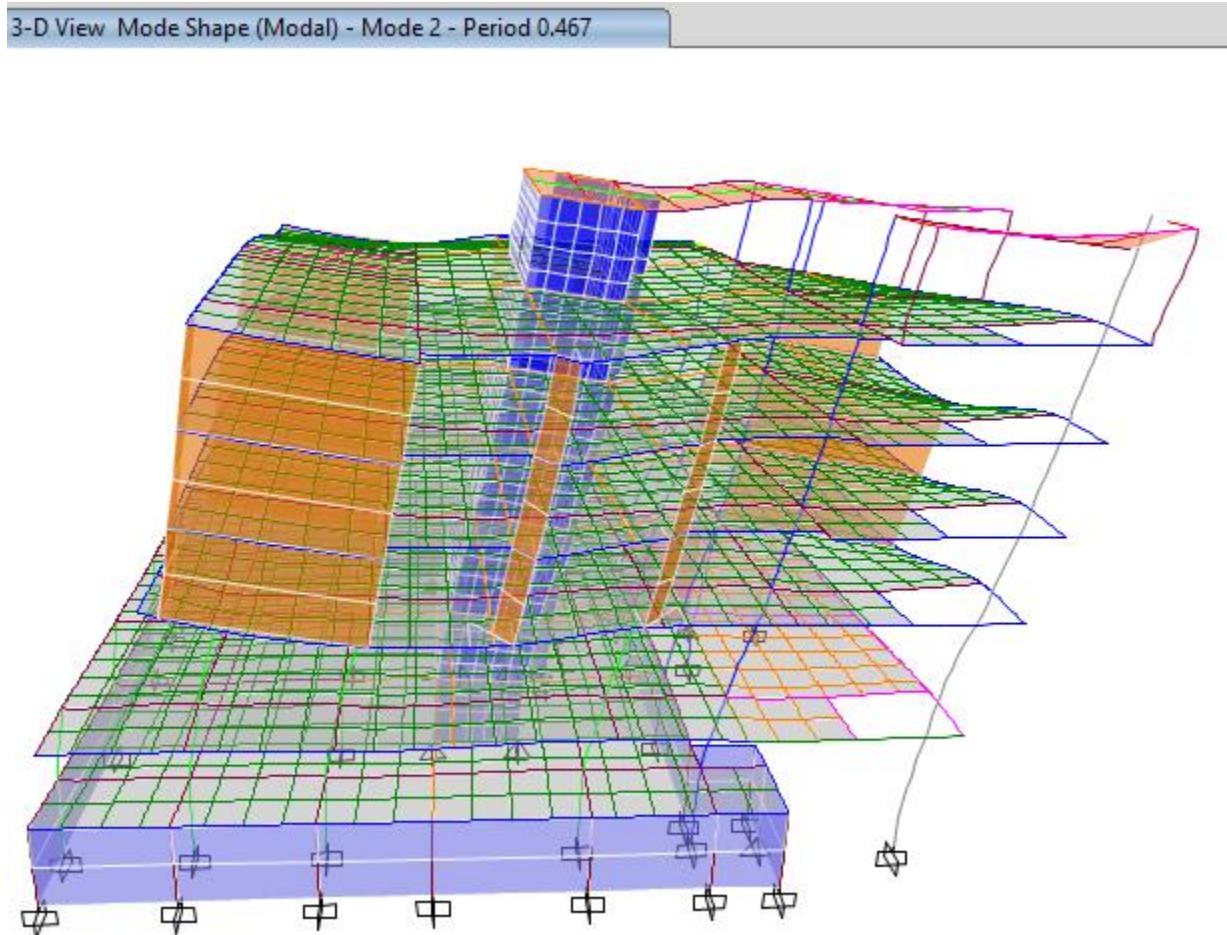


Figura 16 Modo 2 del Edificio B

Modo 3

Este modo activa un porcentaje de masa del **56%** en la dirección x, y un **8%** en la dirección y. En la dirección rotacional θZ se activa un **0%**. Por lo tanto, en el modo 3 predomina el movimiento traslacional en x.

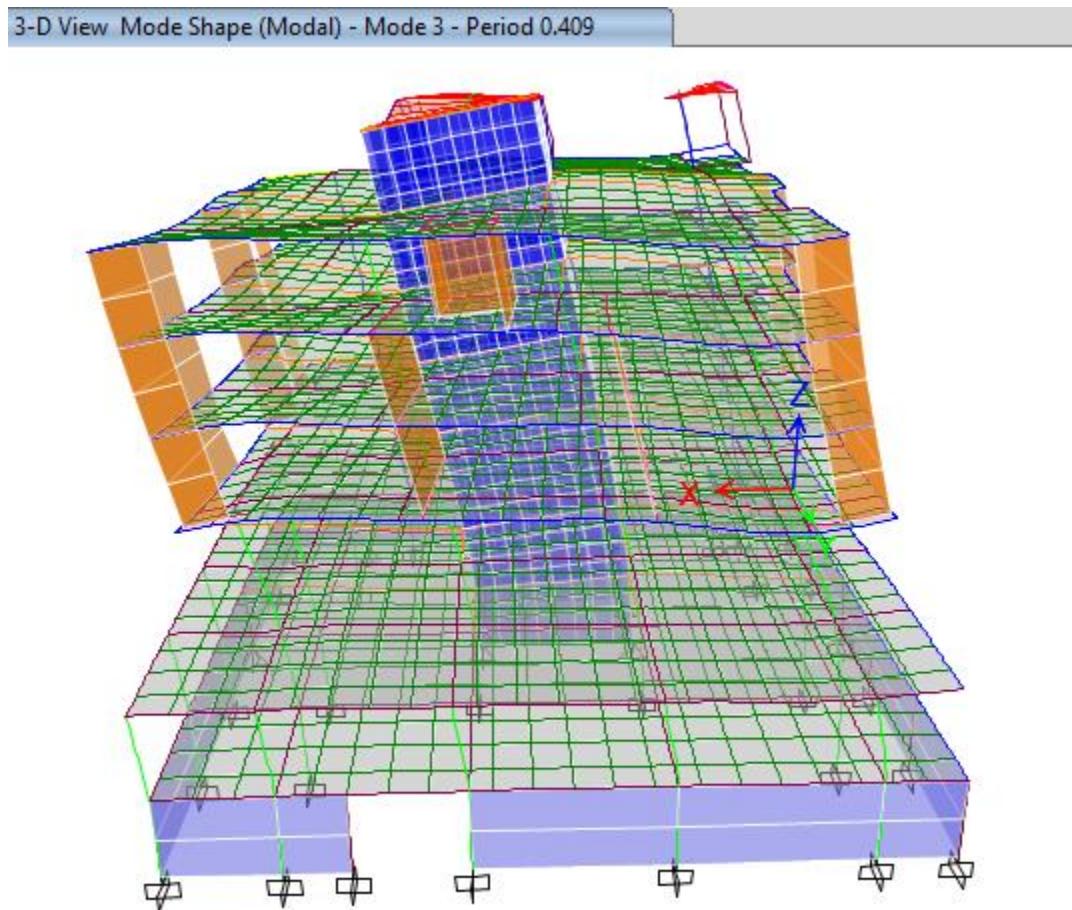


Figura 17 Modo 3 del Edificio B

4.11 COMBINACIONES DE SERVICIO

El cálculo de los estados límites de servicio, se evalúan según las combinaciones presentes en el Capítulo B.2.3.

D+F

D+H+F + T +L

D+H+F+(Lr ó G ó Le)

D+H+F+0,75(L+T)+0,75(Lr ó G ó Le)

D+H+F+W

D+H+F+0,7E

D+H+F+0,75W+0,75L+0,75(Lr ó G ó Le)

D+H+F+0,75(0,7E)+0,75L+0,75(Lr ó G ó Le)

0,6D+W+H

Dónde:

D: Carga muerta consistente en el peso propio del elemento y muros.

L: Carga viva debidas al uso y aplicación de la edificación

E: Fuerzas sísmicas reducidas de diseño

W: Fuerzas de viento

Lr: Carga viva de cubierta

G: Granizo

H: Presión de tierra

4.12 COMBINACIONES DE DISEÑO

El cálculo de las cargas actuantes sobre la estructura se realiza utilizando las combinaciones especificadas en el NSR-10. En el Capítulo B.2.4 se indica que las estructuras deben diseñarse de tal manera que su resistencia de diseño exceda los efectos de las cargas mayoradas de acuerdo con las siguientes combinaciones especificadas.

$$1.4 (D+F) \quad (\text{B.2.4-1})$$

$$1.2 (D+ F + T) + 1.6 (L + H) + 0.5 (Lr ó G ó Le) \quad (\text{B.2.4-2})$$

$$1.2D + 1.6 (Lr ó G ó Le) + (L ó 0.8W) \quad (\text{B.2.4-3})$$

$$1.2D + 1.6W +1.0L + 0.5(Lr ó G ó Le) \quad (\text{B.2.4-4})$$

$$1.2D + 1.0E + 1.0L \quad (\text{B.2.4-5})$$

$$0.9D + 1.6W +1.6H \quad (\text{B.2.4-6})$$

$$0.9D + 1.0E + 1.6H \quad (\text{B.2.4-7})$$

Dónde: D: Carga muerta consistente en el peso propio del elemento y muros.

L: Carga viva debidas al uso y aplicación de la edificación

E: Fuerzas sísmicas reducidas de diseño

W: Fuerzas de viento

Lr: Carga viva de cubierta

G: Granizo

H: Presión de tierra

La carga de peso propio la tiene en cuenta el programa, la cual es mayorada por el factor correspondiente. En total resultan 22 combinaciones de carga más una envolvente.

4.13 VERIFICACIÓN DE DERIVAS

En el capítulo A.6 de la norma NSR-10, se establecen los parámetros para la evaluación de la deriva en las estructuras. A continuación, se presenta los requisitos presentes en la norma.

A.6.3 — EVALUACIÓN DE LA DERIVA MÁXIMA

A.6.3.1 — DERIVA MÁXIMA — La deriva máxima para cualquier piso debe obtenerse así:

A.6.3.1.1 — En edificaciones regulares e irregulares que no tengan irregularidades en planta de los tipos 1aP ó 1bP (véase la tabla A.3-6), o edificaciones con diafragma flexible, la deriva máxima para el piso i , Δ_{max} , corresponde a la mayor deriva de las dos direcciones principales en planta, j , calculada como el valor absoluto de la diferencia algebraica de los desplazamientos horizontales del centro de masa del diafragma del piso i , $\delta_{cm, j}$, en la dirección principal en planta bajo estudio con respecto a los del diafragma del piso inmediatamente inferior ($i-1$) en la misma dirección, incluyendo los efectos P-Delta.

A.6.3.1.2 — En edificaciones que tengan irregularidades en planta de los tipos 1aP ó 1bP (véase la tabla A.3-6) la deriva máxima en cualquier punto del piso i , se puede obtener como la diferencia entre los desplazamientos horizontales totales máximos, de acuerdo con A.6.2.4, del punto en el piso i y los desplazamientos horizontales totales máximos de un punto localizado en el mismo eje vertical en el piso inmediatamente inferior ($i-1$), por medio de la siguiente ecuación:

$$\Delta_{max}^i = \sqrt{\sum_{j=1}^2 (\delta_{tot,j}^i - \delta_{tot,j}^{i-1})^2} \quad (A.6.3-1)$$

Alternativamente se pueden usar procedimientos para estimar respuestas máximas de cantidades vectoriales. El cumplimiento del cálculo de la deriva para cualquier punto del piso se puede realizar verificándola solamente en todos los ejes verticales de columna y en los puntos localizados en los bordes de los muros estructurales. La máxima deriva del piso i , Δ_{max} , corresponde a la máxima deriva que se obtenga de todos los puntos así estudiados dentro del mismo piso i .

A.6.3.1.3 — En los pisos superiores de edificaciones que cumplen las condiciones (a) a (e) presentadas a continuación, se permite calcular la deriva máxima del piso de la forma alternativa que se obtiene con la expresión A.6.3-2 indicada en esta sección,

- a) La edificación tiene diez o más pisos de altura sobre su base,
- b) El procedimiento alternativo solo es aplicable en los pisos superiores localizados por encima de dos tercios de la altura de la edificación medida desde su base,
- c) El sistema estructural de resistencia sísmica es diferente a pórtico resistente a momento,
- d) La edificación se clasifica como regular tanto en planta como en altura de acuerdo con los requisitos del Capítulo A.3,

e) El índice de estabilidad, Q_i , es menor de 0,10 en todos los pisos donde sería aplicable este procedimiento alternativo,

La máxima deriva del piso i , Δ_{max} , en el procedimiento alternativo corresponde a la máxima deriva de las dos direcciones principales en planta, j , calculada por medio de la siguiente ecuación:

$$\Delta_j^i = \delta_{cm,j}^i - 0.5 \left(\frac{(\delta_{cm,j}^{i-1} - \delta_{cm,j}^{i-2})(h_p^i + h_p^{i-1})}{h_p^{i-1}} + \delta_{cm,j}^{i-2} \right) - 0.5\delta_{cm,j}^{i-1} \quad (\text{A.6.3-2})$$

A.6.4 — LÍMITES DE LA DERIVA

A.6.4.1 — La deriva máxima para cualquier piso determinada de acuerdo con el procedimiento de A.6.3.1 no puede exceder los límites establecidos en la tabla A.6.4-1, en la cual la deriva máxima se expresa como un porcentaje de la altura de piso h_{pi} :

Tabla A.6.4-1
Derivas máximas como porcentaje de h_{pi}

Estructuras de:	Deriva máxima
concreto reforzado, metálicas, de madera, y de mampostería que cumplen los requisitos de A.6.4.2.2	1.0% $(\Delta_{max}^i \leq 0.010 h_{pi})$
de mampostería que cumplen los requisitos de A.6.4.2.3	0.5% $(\Delta_{max}^i \leq 0.005 h_{pi})$

Tabla 9. Derivas maximas.

A.6.4.1.1 — Cuando se utilicen secciones fisuradas, tanto en concreto reforzado, como en mampostería y en el caso de estructuras mixtas con acero, las derivas pueden multiplicarse por 0.7 antes de hacer la comparación con los límites establecidos en la tabla A.6.4-1

Tabla A.6.5-1
Separación sísmica mínima en la cubierta entre
edificaciones colindantes que no hagan parte de la misma construcción

Altura de la edificación nueva	Tipo de Colindancia		
	Existe edificación vecina que no ha dejado la separación sísmica requerida		No existe edificación vecina o la que existe ha dejado la separación sísmica requerida
	Coinciden las losas de entrepiso	No coinciden las losas de entrepiso	
1 y 2 pisos	no requiere separación	no requiere separación	no requiere separación
3 pisos	no requiere separación	0.01 veces la altura de la edificación nueva (1% de h_n)	no requiere separación
Más de 3 pisos	0.02 veces la altura de la edificación nueva (2% de h_n)	0.03 veces la altura de la edificación nueva (3% de h_n)	0.01 veces la altura de la edificación nueva (1% de h_n)

Tabla 10 Separación sísmica mínima entre edificaciones colindantes.

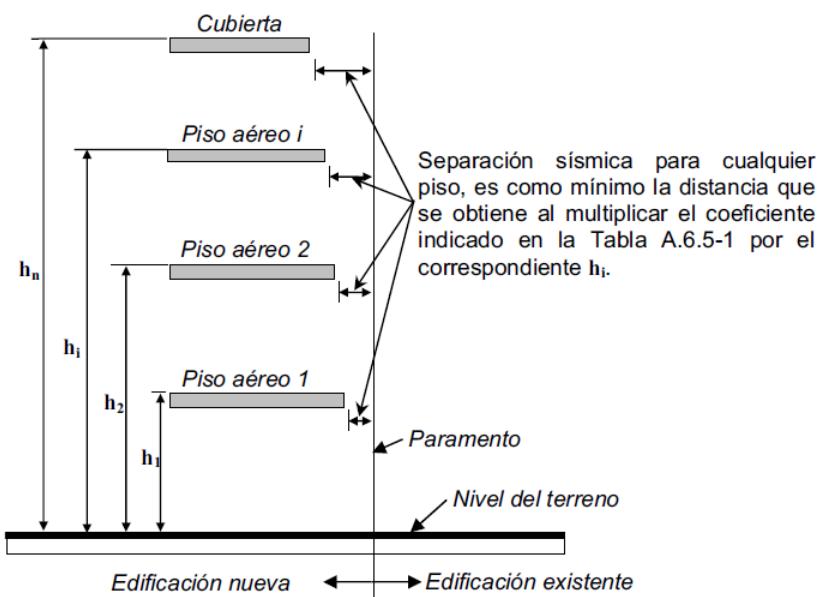


Figura 18 Medicion separacion sismica

Se calcularon los desplazamientos horizontales elásticos de la estructura por medio de un análisis modal espectral, después de obtener los desplazamientos horizontales se calcula los valores de deriva definidos como la diferencia entre los desplazamientos.

A continuación, se presentan los resultados de las derivas máximas de piso, obtenidas para la modelación estructural del Edificio B, las cuales no superaron el máximo permitido del 1%, según lo presente en tabla A.6.5-1 de la NSR-10.

Tabla 11 Derivas máximas de piso Edificio B (ejes 1 – 6a)

TABLE: Story Drifts				
Story	Load Case/Combo	Direction	Drift	Label
N+22.75	Ux Max	X	0.24%	194
N+22.75	Ux Max	Y	0.10%	194
N+22.75	Uy Max	X	0.15%	194
N+22.75	Uy Max	Y	0.18%	194
N+19.00	Ux Max	X	0.16%	311
N+19.00	Ux Max	Y	0.07%	204
N+19.00	Uy Max	X	0.07%	206
N+19.00	Uy Max	Y	0.16%	206
N+15.50	Ux Max	X	0.19%	258
N+15.50	Ux Max	Y	0.08%	1446
N+15.50	Uy Max	X	0.09%	258
N+15.50	Uy Max	Y	0.18%	311
N+12.00	Ux Max	X	0.19%	258
N+12.00	Ux Max	Y	0.09%	85
N+12.00	Uy Max	X	0.09%	204
N+12.00	Uy Max	Y	0.19%	41
N+8.50	Ux Max	X	0.27%	34
N+8.50	Ux Max	Y	0.18%	34
N+8.50	Uy Max	X	0.10%	36
N+8.50	Uy Max	Y	0.28%	34
N+3.50	Ux Max	X	0.15%	13
N+3.50	Ux Max	Y	0.09%	273
N+3.50	Uy Max	X	0.08%	273
N+3.50	Uy Max	Y	0.21%	273
N+0.00	Ux Max	X	0.10%	19
N+0.00	Ux Max	Y	0.04%	1586
N+0.00	Uy Max	X	0.03%	19
N+0.00	Uy Max	Y	0.09%	1586
N-1.75	Ux Max	X	0.08%	19
N-1.75	Ux Max	Y	0.04%	8
N-1.75	Uy Max	X	0.03%	8
N-1.75	Uy Max	Y	0.09%	8

A continuación, se presentan los resultados de las derivas máximas de piso, obtenidas para la modelación estructural del Edificio A, las cuales no superaron el máximo permitido del 1%, según lo presente en tabla A.6.5-1 de la NSR-10.

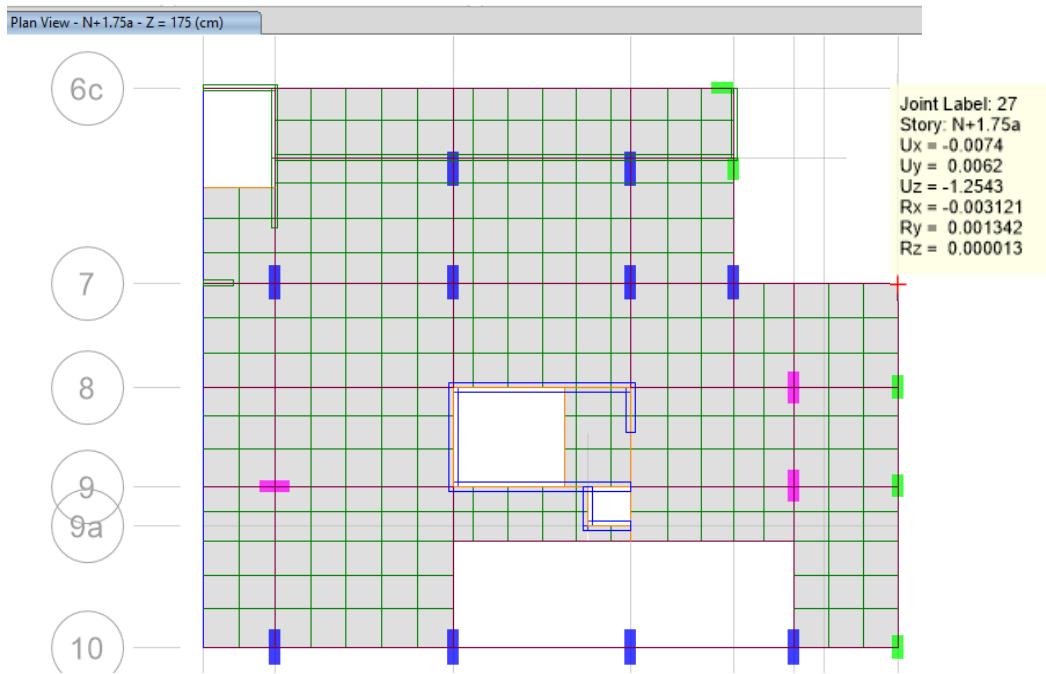
Tabla 12 Derivas máximas de piso Edificio A (ejes 6c – 10)

TABLE: Story Drifts				
Story	Load Case/Combo	Direction	Drift	Label
N+20.75a	Ux Max	X	0.18%	810
N+20.75a	Ux Max	Y	0.12%	36
N+20.75a	Uy Max	X	0.11%	810
N+20.75a	Uy Max	Y	0.17%	32
N+17.25a	Ux Max	X	0.19%	803
N+17.25a	Ux Max	Y	0.12%	36
N+17.25a	Uy Max	X	0.13%	36
N+17.25a	Uy Max	Y	0.17%	810
N+13.75a	Ux Max	X	0.20%	810
N+13.75a	Ux Max	Y	0.14%	419
N+13.75a	Uy Max	X	0.14%	36
N+13.75a	Uy Max	Y	0.19%	810
N+10.25a	Ux Max	X	0.19%	803
N+10.25a	Ux Max	Y	0.15%	419
N+10.25a	Uy Max	X	0.15%	810
N+10.25a	Uy Max	Y	0.20%	810
N+6.0a	Ux Max	X	0.18%	803
N+6.0a	Ux Max	Y	0.12%	111
N+6.0a	Uy Max	X	0.15%	803
N+6.0a	Uy Max	Y	0.20%	304
N+1.75a	Ux Max	X	0.07%	53
N+1.75a	Ux Max	Y	0.05%	810
N+1.75a	Uy Max	X	0.05%	53
N+1.75a	Uy Max	Y	0.12%	632

4.14 VERIFICACIÓN DE DEFLEXIONES

Verificación Deflexiones Edificio A (Ejes 6c-10)

Se tomará en cuenta, la deflexión en viga principal central y vigas de voladizo críticas.



$$L/480 = 710/480 = 1.48 \text{ cm}$$

Deflexión: $D+L = 1.25 \text{ cm}$

$$1.25 \text{ cm} < 1.48 \text{ cm}$$

Cumple

Deflexión a Largo Plazo

$$\rho = 0.005 \quad \lambda_{\Delta} = \frac{\xi}{1 + 50\rho'}$$

$$t > 5 \text{ años} \quad \xi = 2 \quad \lambda_{\Delta} = 1.6$$

$$\Delta_{muerta} = 0.73 \text{ cm} \quad \Delta_{muerta} * \lambda_{\Delta} = 1.17 \text{ cm}$$

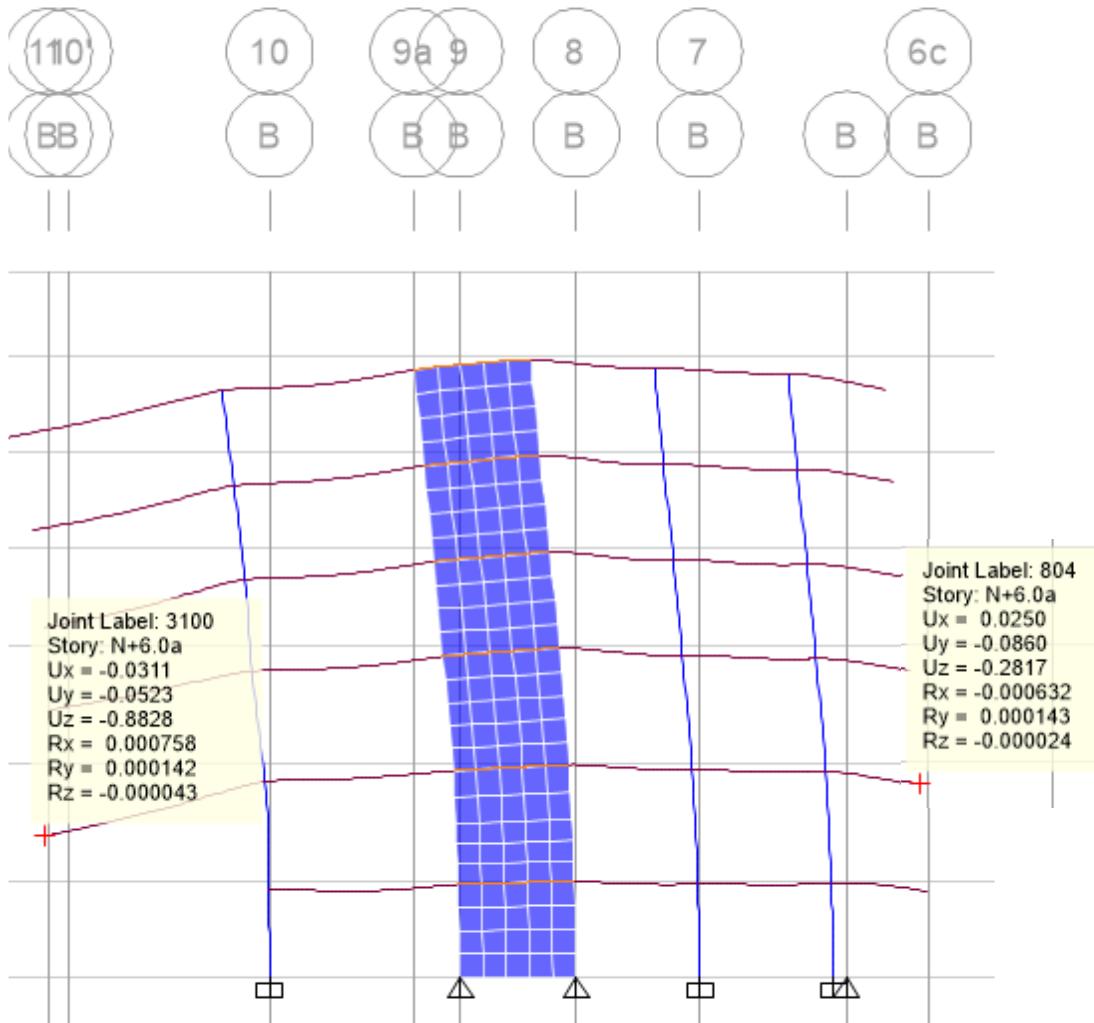


Figura 19 Deflexión en join 3100 (-0.88 cm) y join 804 (-0.28 cm) por cargas muertas

Deflexión a Largo Plazo	
$\rho = 0.0036$	$\lambda_{\Delta} = \frac{\xi}{1 + 50\rho'}$
$t > 5 \text{ años}$ $\xi = 2$	
$\lambda_{\Delta} = 1.7$	
$\Delta_{\text{muerta}} = 0.88 \text{ cm}$	$\Delta_{\text{muerta}} * \lambda_{\Delta} = 1.49 \text{ cm}$

Deflexión a Largo Plazo	
$\rho = 0.006$	$\lambda_{\Delta} = \frac{\xi}{1 + 50\rho'}$
$t > 5 \text{ años}$ $\xi = 2$	
$\lambda_{\Delta} = 1.5$	
$\Delta_{\text{muerta}} = 0.28 \text{ cm}$	$\Delta_{\text{muerta}} * \lambda_{\Delta} = 0.43 \text{ cm}$

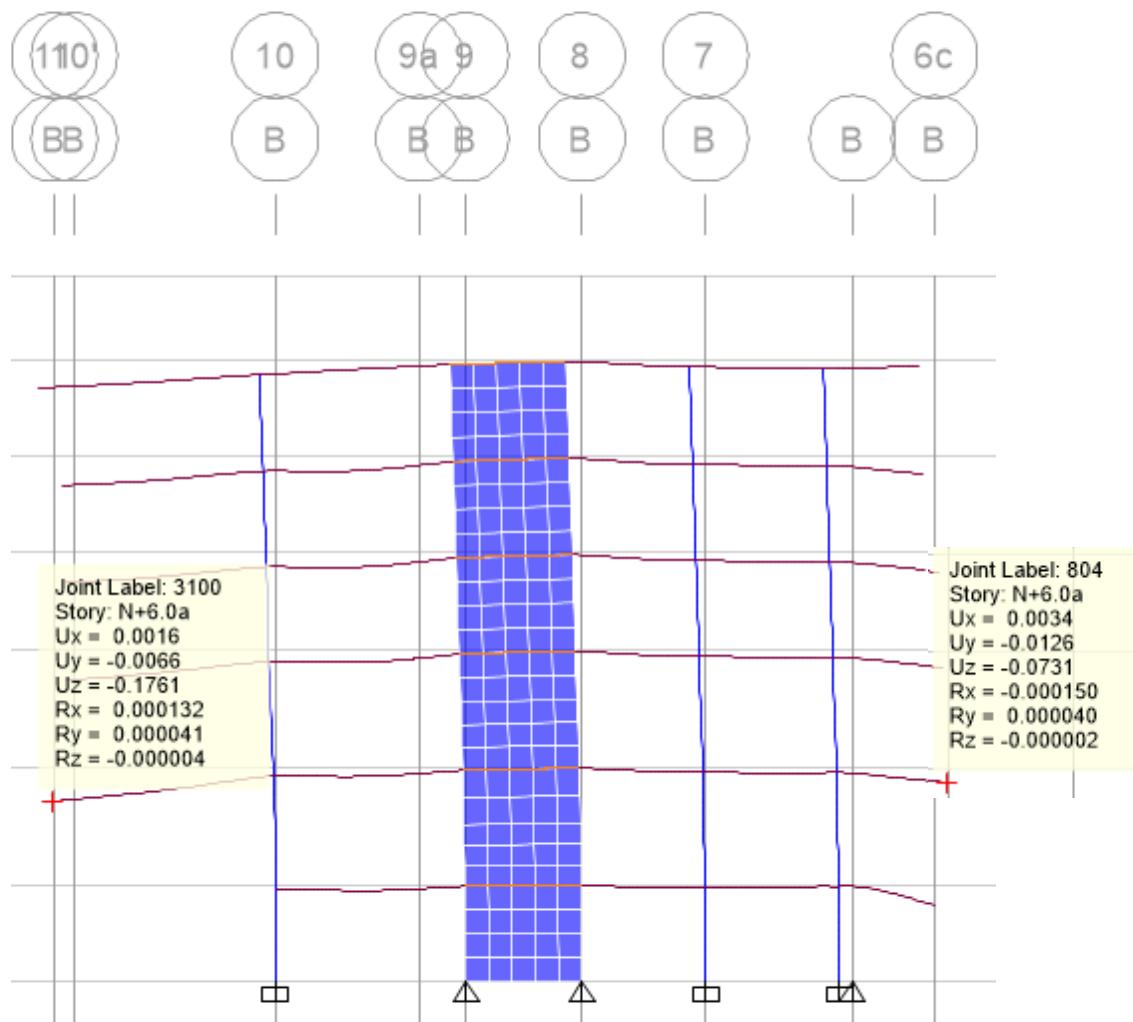


Figura 20 Deflexión en join 3100 (-0.17 cm) y join 804 (-0.07 cm) por cargas vivas

Join 305:

Longitud de la viga: 800cm
Deflexión D: -0.88cm
Deflexión L: -0.17cm
Deflexión D+L: -1.15cm

Deflexión admisible:

$$0.17cm \leq \frac{l}{360} = \frac{800}{360} = 2.2cm: \text{Cumple}$$

$$1.15cm \leq \frac{l}{480} = \frac{800}{480} = 1.17cm: \text{Cumple}$$

Join 163:

Longitud de la viga: 298cm
Deflexión D: -0.28cm
Deflexión L: -0.07cm
Deflexión D+L: -0.35cm

Deflexión admisible:

$$0.07cm \leq \frac{l}{360} = \frac{298}{360} = 0.82cm: \text{Cumple}$$

$$0.35cm \leq \frac{l}{480} = \frac{298}{480} = 0.62cm: \text{Cumple}$$

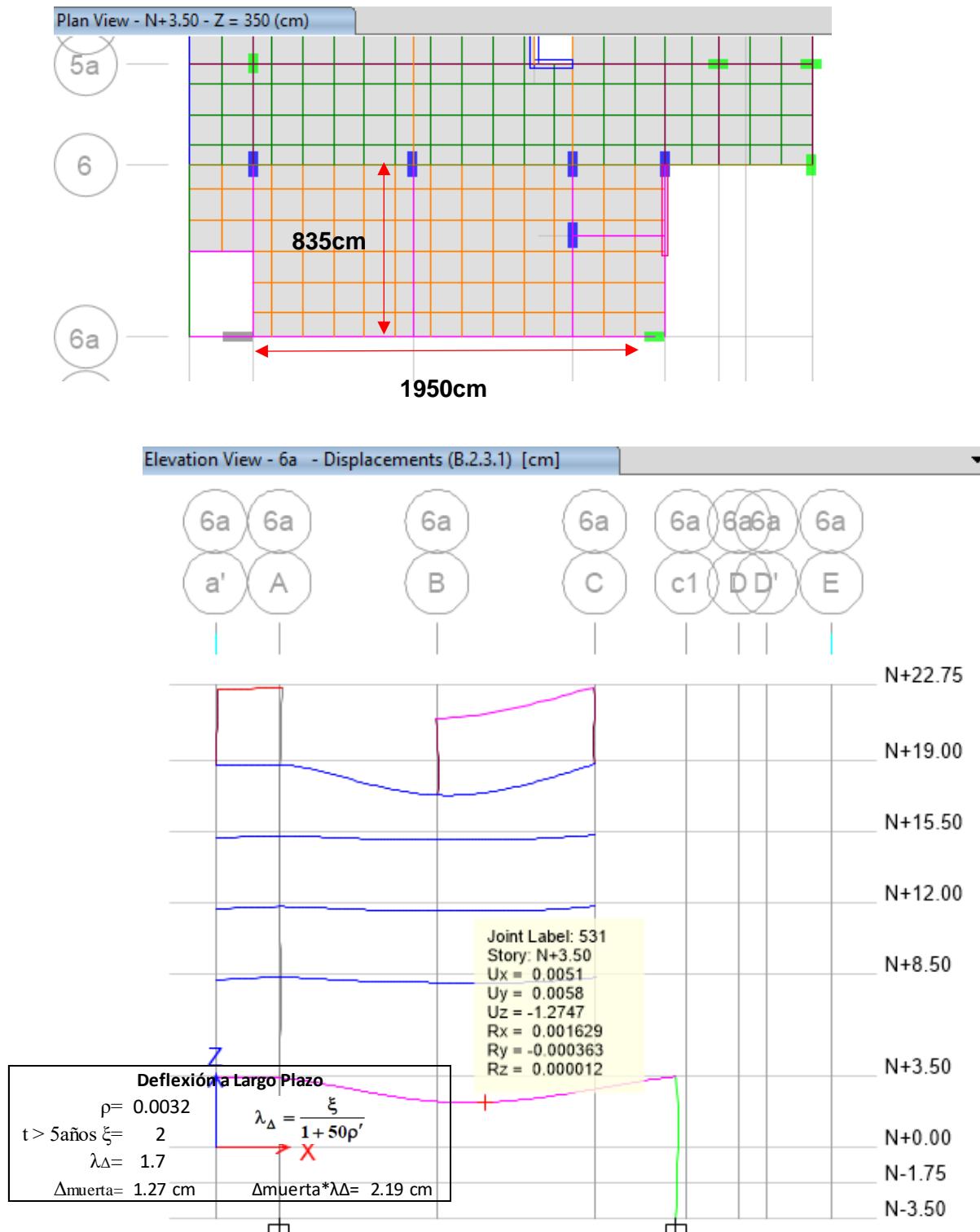


Figura 21 Deflexión en join 531 por cargas muertas -1.27cm

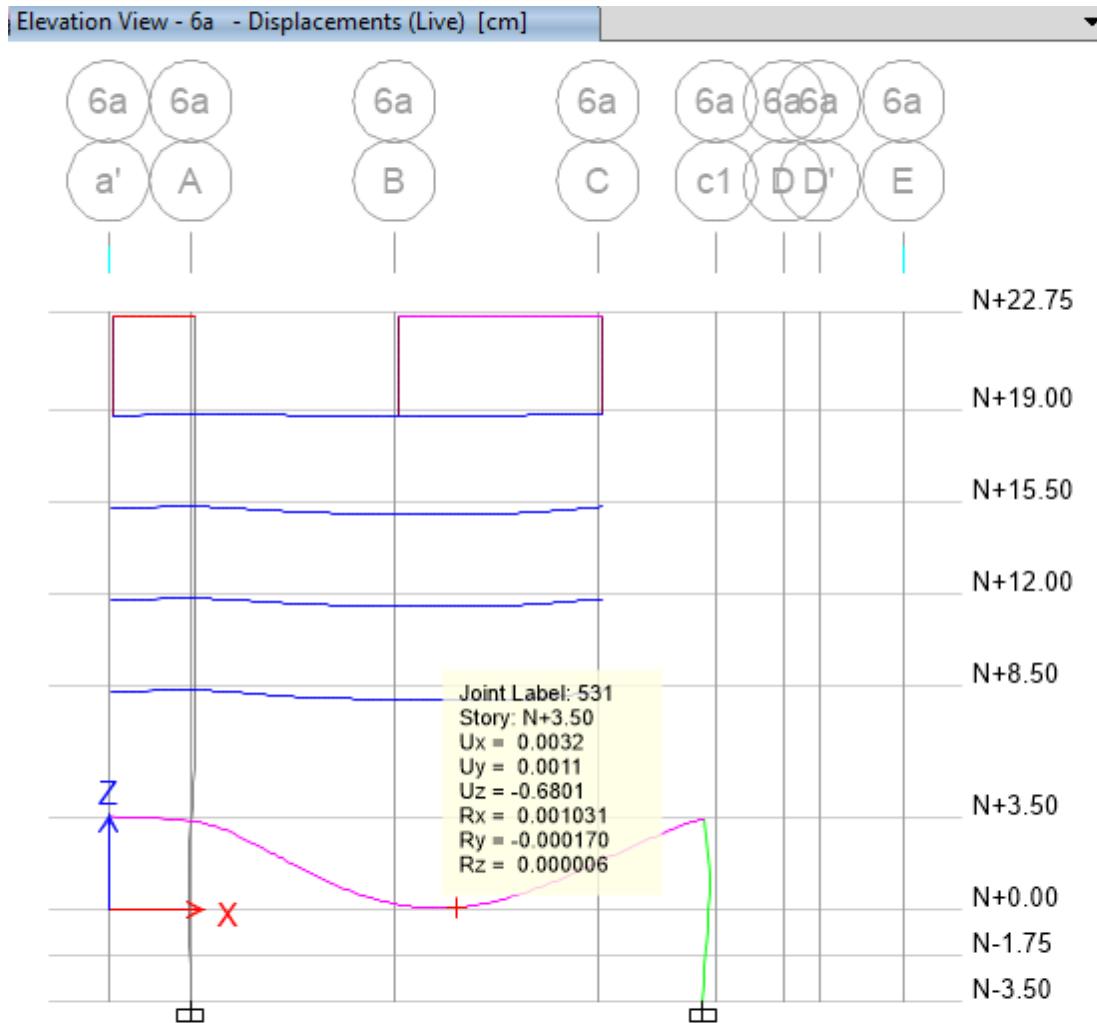


Figura 22 Deflexión en join 531 por carga viva -0.68cm

Long. Viga 6a (A-D): 1950cm
Deflexión D: -1.27cm
Deflexión L: -0.68cm
Deflexión D+L: -1.95cm

Deflexión admisible:

$$0.68cm \leq \frac{l}{360} = \frac{1950}{360} = 5.4cm: \text{Cumple}$$

$$1.95 cm \leq \frac{l}{240} = \frac{1950}{240} = 8.13cm: \text{Cumple}$$

Long. viga: B (5-6a): 835cm
Deflexión D: -1.27cm
Deflexión L: -0.68cm
Deflexión D+L: -1.95cm

Deflexión admisible:

$$0.68cm \leq \frac{l}{360} = \frac{835}{360} = 2.31cm: \text{Cumple}$$

$$1.95cm \leq \frac{l}{240} = \frac{835}{240} = 3.47cm: \text{Cumple}$$

De acuerdo a la tabla C.9.5 (b) de la NSR-10, se tienen los siguientes valores admisibles de deflexión:

TABLA C.9.5(b) — Deflexión máxima admisible calculada

Tipo de elemento	Deflexión considerada	Límite de deflexión
Cubiertas planas que no soporten ni estén ligadas a elementos no estructurales susceptibles de sufrir daños debido a deflexiones grandes.	Deflexión inmediata debida a la carga viva, L	$\ell/180^{\circ}$
Entrepisos que no soporten ni estén ligados a elementos no estructurales susceptibles de sufrir daños debido a deflexiones grandes.	Deflexión inmediata debida a la carga viva, L	$\ell/360$
Sistema de entrepiso o cubierta que soporte o esté ligado a elementos no estructurales susceptibles de sufrir daños debido a deflexiones grandes.	La parte de la deflexión total que ocurre después de la unión de los elementos no estructurales (la suma de la deflexión a largo plazo debida a todas las cargas permanentes, y la deflexión inmediata debida a cualquier carga viva adicional) [†]	$\ell/480^{\ddagger}$
Sistema de entrepiso o cubierta que soporte o esté ligado a elementos no estructurales no susceptibles de sufrir daños debido a deflexiones grandes.		$\ell/240^{\$}$

Tabla 13. Deriva máxima permisible

Verificación deflexiones Edificio B (Ejes 1-6a)

Se tomará en cuenta, la deflexión en viga principal central y vigas de voladizo críticos.

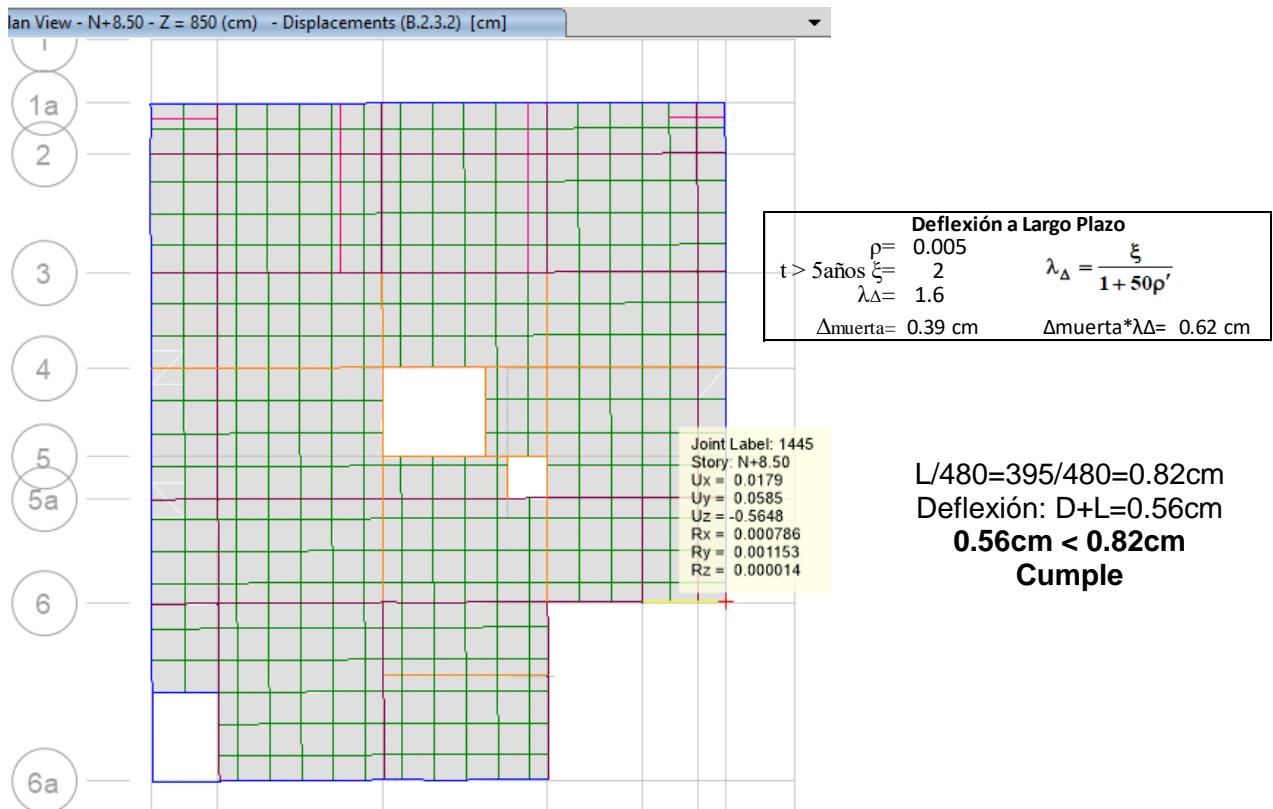


Figura 23 Viga Voladizo Edificio B, N+1.75.

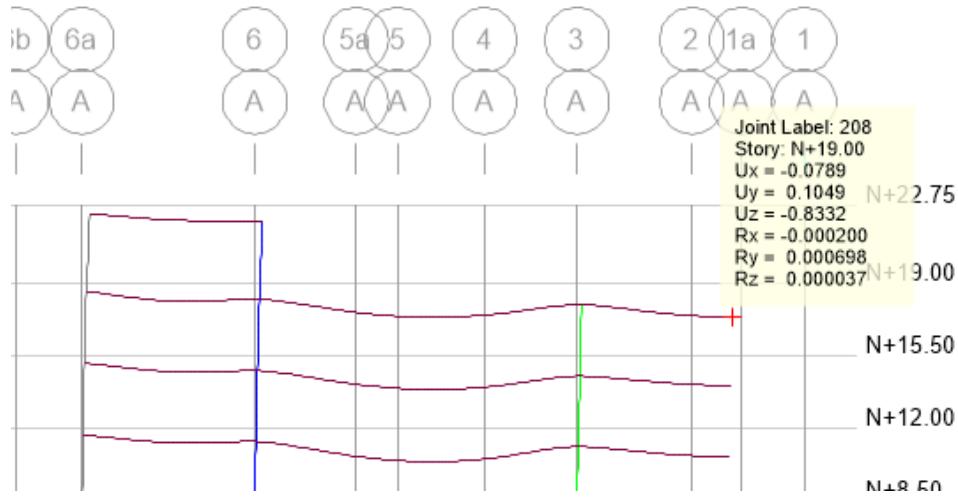


Figura 24 Deflexión en join 208 por sobre carga y peso propio -0.83cm.

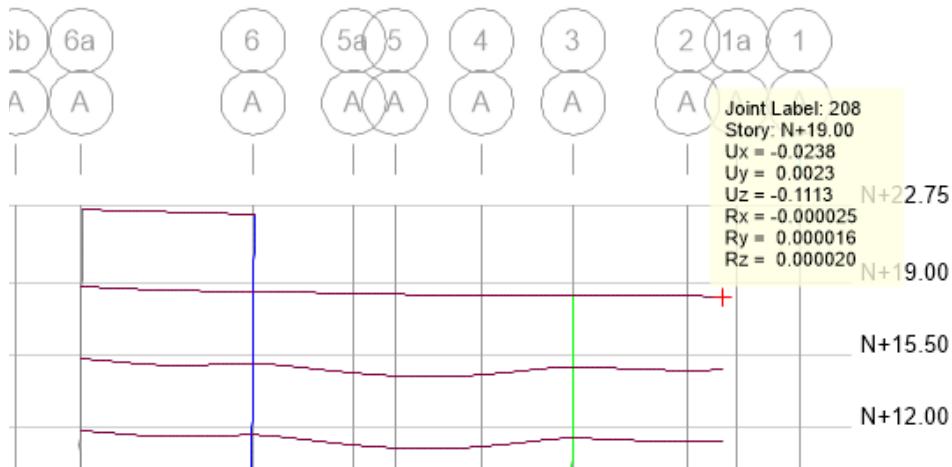


Figura 25 Deflexión en join 1 por carga viva -0.4cm

Longitud de voladizo:

820cm

Deflexión por Cargas Muertas:

-0.83cm

Deflexión por Carga Viva:

-0.11cm

Deflexión D+L:

-0.94 cm

Deflexión D*λΔ+L

-1.52cm

Deflexión admisible:

Deflexión a Largo Plazo

$$\rho = 0.0036$$

$$t > 5 \text{ años } \xi = 2$$

$$\lambda_\Delta = \frac{\xi}{1 + 50\rho'}$$

$$\lambda_\Delta = 1.7$$

$$\Delta_{muerta} = 0.83 \text{ cm}$$

$$\Delta_{muerta} * \lambda_\Delta = 1.41 \text{ cm}$$

$$0.11 \text{ cm} \leq \frac{l}{360} = \frac{820}{360} = 2.2 \text{ cm: Cumple}$$

$$0.94 \text{ cm} \leq \frac{l}{480} = \frac{820}{480} = 1.7 \text{ cm: Cumple}$$

$$1.52 \text{ cm} \leq \frac{l}{480} = \frac{820}{480} = 1.7 \text{ cm: Cumple}$$

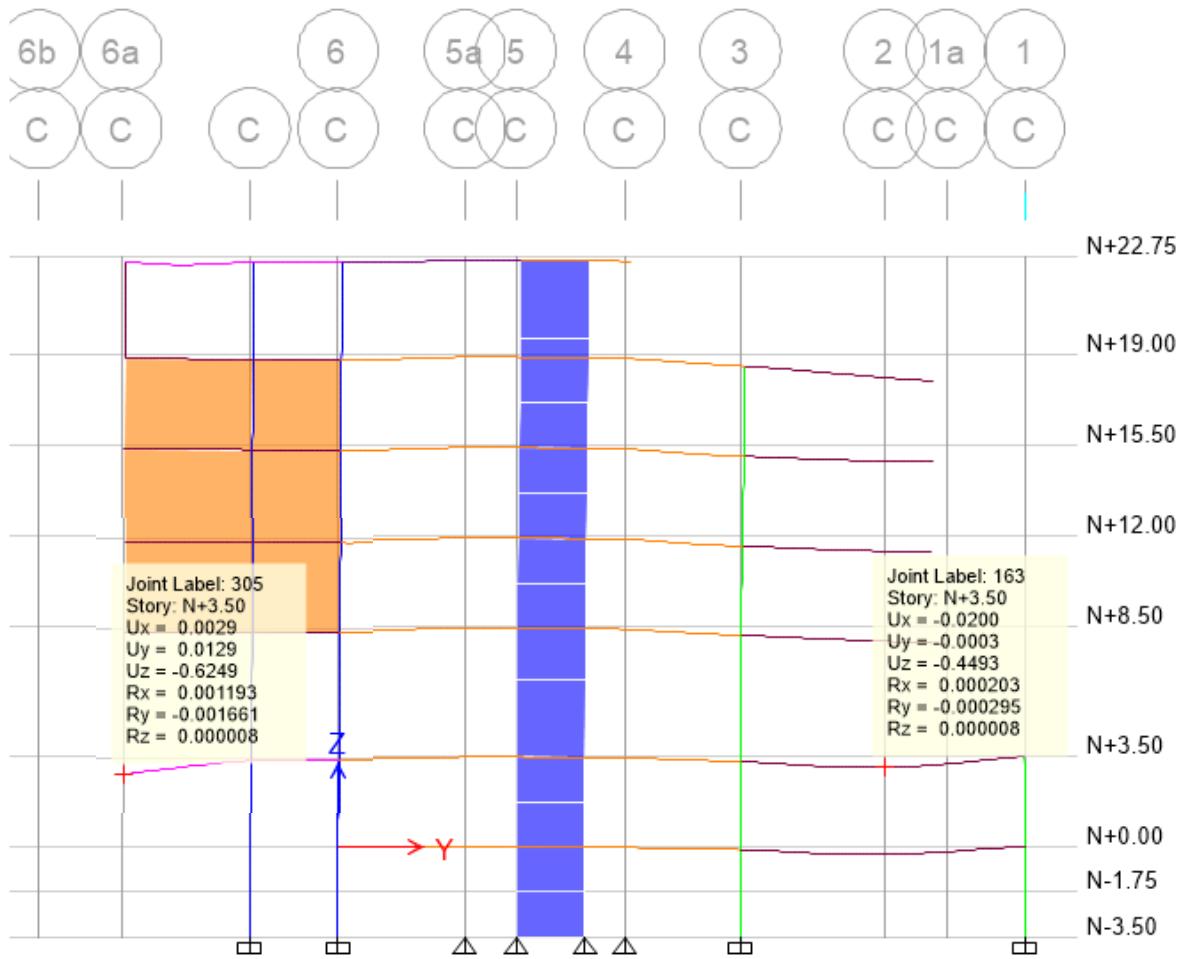


Figura 26 Deflexión en join 163 (-0.62cm) y join 305 (-0.45cm) por cargas muertas

Deflexión a Largo Plazo	
$\rho = 0.0054$	$\lambda_{\Delta} = \frac{\xi}{1 + 50\rho'}$
$t > 5 \text{ años}$	$\xi = 2$
$\lambda_{\Delta} = 1.6$	
$\Delta_{\text{muerta}} = 0.62 \text{ cm}$	$\Delta_{\text{muerta}} * \lambda_{\Delta} = 0.98 \text{ cm}$

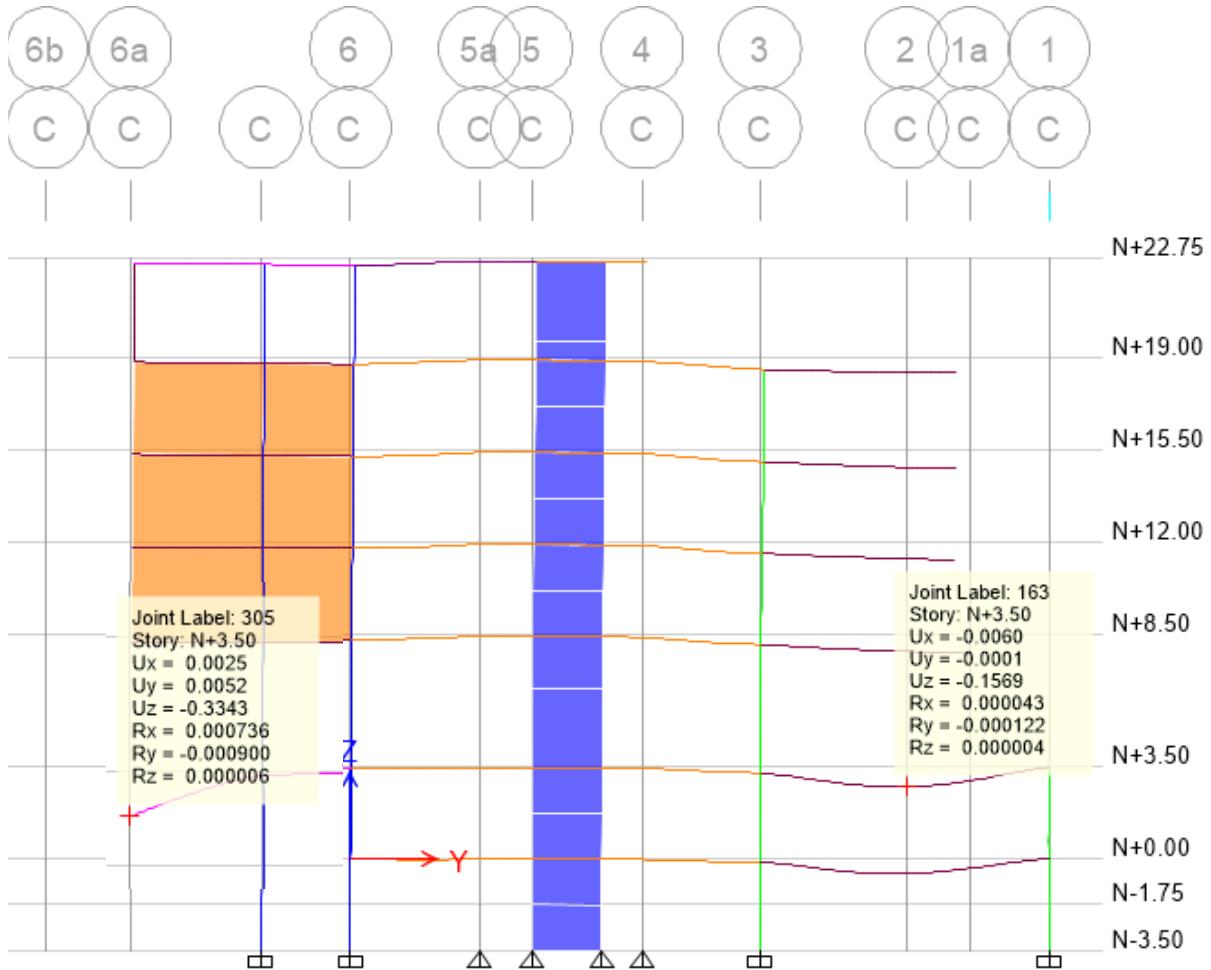


Figura 27 Deflexión en join 163 (-0.16cm) y join 305 (-0.33cm) por cargas vivas

Join 305:

Longitud de la viga: 495cm
 Deflexión D: -0.62cm
 Deflexión L: -0.33cm
 Deflexión D+L: -0.95cm

Deflexión admisible:

$$0.33cm \leq \frac{l}{360} = \frac{495}{360} = 1.4cm: \text{Cumple}$$

$$0.95cm \leq \frac{l}{480} = \frac{495}{480} = 1.1cm: \text{Cumple}$$

Join 163:

Longitud de la viga: 1096cm
 Deflexión D: -0.45cm
 Deflexión L: -0.15cm
 Deflexión D+L: -0.60cm

Deflexión admisible:

$$0.15cm \leq \frac{l}{360} = \frac{1096}{360} = 3.1cm: \text{Cumple}$$

$$0.60cm \leq \frac{l}{480} = \frac{1096}{480} = 2.3cm: \text{Cumple}$$

5 UMBRAL DE DAÑO

5.1 ESPECTRO UMBRAL DE DAÑO

De acuerdo con lo presente en el decreto 530 de 2010, por el cual se adopta la microzonificación sísmica de Bogotá D.C, el tercer espectro propuesto es el umbral de diseño que corresponde al espectro utilizado para edificaciones calificables dentro del grupo VI y grupo III de la NSR-10. Este es un espectro elástico establecido para un amortiguamiento crítico de 2%, corresponde a un periodo de retorno de 31 años, y está definido mediante A_d , que es la aceleración pico a nivel de umbral de daño. A continuación, se presentan los coeficientes presentes en el decreto:

Zona	F_a (31)	F_v (31)	T_{0d} (s)	T_{Cd} (s)	T_{Ld} (s)	A_{0d} (31) (g)
CERROS	1.50	1.70	0.11	0.57	3.0	0.08
PIEDEMONTES A	1.90	2.75	0.14	0.72	3.0	0.10
PIEDEMONTES B	2.20	2.25	0.10	0.51	3.0	0.12
PIEDEMONTES C	2.05	2.25	0.11	0.55	3.0	0.11
LACUSTRE-50	1.55	4.00	0.26	1.29	4.0	0.09
LACUSTRE-100	1.45	4.40	0.30	1.52	4.0	0.09
LACUSTRE-200	1.35	4.75	0.35	1.76	4.0	0.08
LACUSTRE-300	1.25	4.00	0.32	1.60	5.0	0.08
LACUSTRE-500	1.10	3.75	0.34	1.70	5.0	0.07
LACUSTRE ALUVIAL-200	1.30	3.85	0.30	1.48	4.0	0.08
LACUSTRE ALUVIAL-300	1.20	3.50	0.29	1.46	5.0	0.07
ALUVIAL-50	1.50	2.50	0.17	0.83	3.5	0.09
ALUVIAL-100	1.40	2.90	0.21	1.04	3.5	0.08
ALUVIAL-200	1.20	2.90	0.24	1.21	3.5	0.07
ALUVIAL-300	1.10	2.90	0.26	1.32	3.5	0.07
DEPOSITO LADERA	1.90	2.25	0.12	0.59	3.0	0.10

Figura 28 Parámetros Espectro elástico Umbral de daño Tr=31años

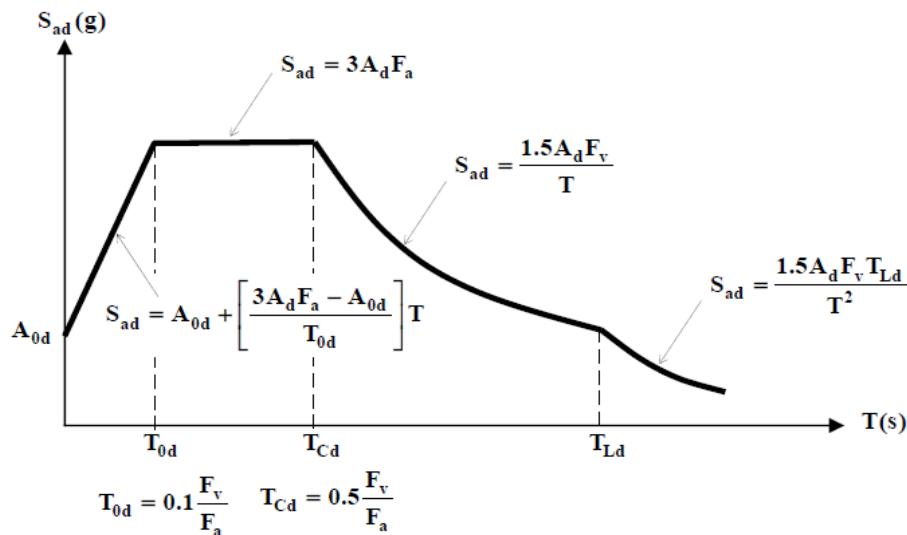


Figura 29 Curva Umbral de daño ξ de 2% del crítico

Parámetros

- A_d** = Aceleración horizontal pico efectiva de umbral de daño. **A_d** = 0.06 g
A_{0d} = Aceleración horizontal pico efectiva del terreno para umbral de daño en superficie (g)
F_a = Coeficiente de amplificación que afecta la aceleración en la zona de períodos cortos
F_v = Coeficiente de amplificación que afecta la aceleración en la zona de períodos intermedios
S_{ad} = Aceleración espectral de umbral de daño (g)
T = Período de vibración (s)
T_{0d} = Período inicial de umbral de daño (s)
T_{Cd} = Periodo corto de umbral de daño (s)
T_{Ld} = Periodo largo de umbral de daño (s)

Aa	0.15		Tod	0.24
Fa	1.20		Tcd	1.21
Fv	2.90		TLd	3.50
Tr	31 años		Ad	0.06
ξ	2%		A0d	0.07

Tabla 14 Parámetros de sitio Umbral de daño.

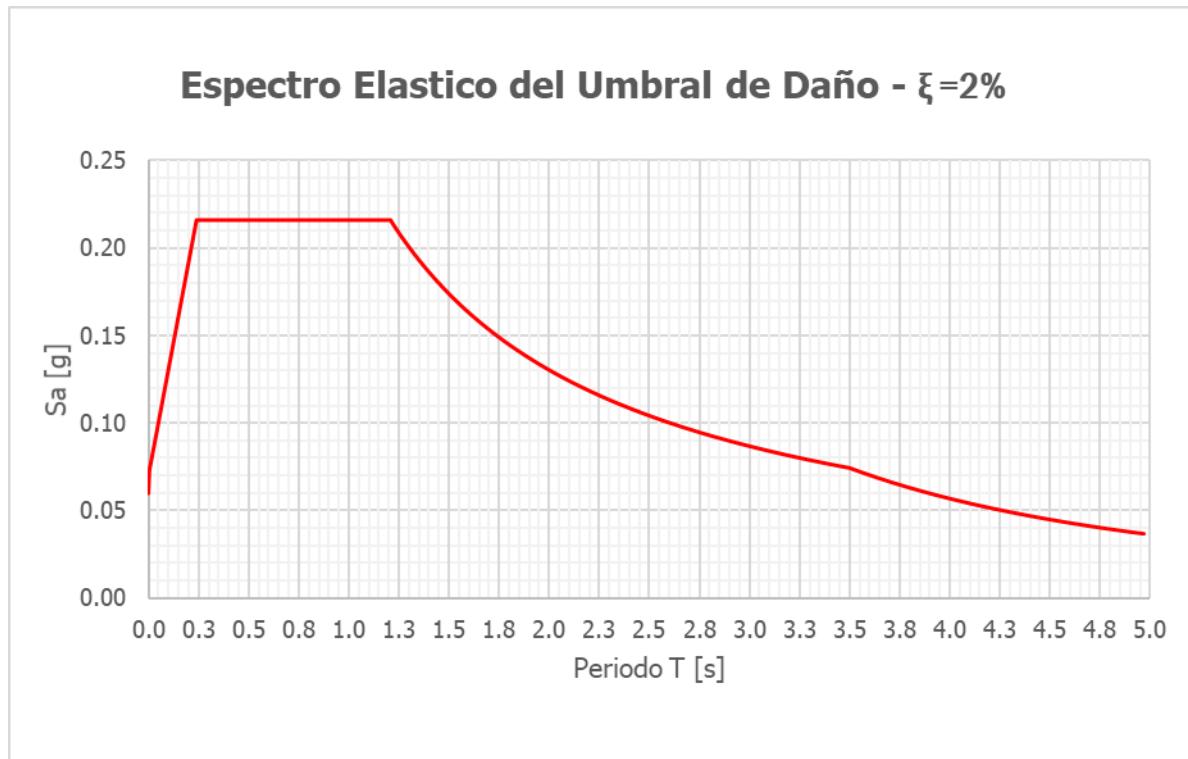


Figura 30 Espectro elástico umbral de daño Aluvial-200

5.2 DERIVAS UMBRAL DE DAÑO

A.12.5 — REQUISITOS DE LA DERIVA PARA EL UMBRAL DE DAÑO

A.12.5.1 DESPLAZAMIENTOS TOTALES HORIZONTALES PARA EL UMBRAL DE DAÑO —

Los desplazamientos horizontales, en las dos direcciones principales en planta, que tienen todos los grados de libertad de la estructura al verse afectada por los movimientos sísmicos para el umbral de daño, definidos en A.12.2, se determinan por medio del análisis estructural realizado utilizando el método de análisis definido en A.12.4 y con las rigideces indicadas en A.12.4.2. Los desplazamientos horizontales para el umbral de daño, en cualquiera de las direcciones principales en planta y para cualquier grado de libertad de la estructura, se obtienen por medio de la ecuación A.6.2-1, con la excepción de que no hay necesidad de incluir los desplazamientos causados por los efectos P-Delta.

A.12.5.2 — DERIVA MÁXIMA PARA EL UMBRAL DE DAÑO — La deriva máxima, para el umbral de daño, en cualquier punto del piso bajo estudio se obtiene por medio de la ecuación A.6.3-1.

A.12.5.3 — LÍMITES DE LA DERIVA PARA EL UMBRAL DE DAÑO — La deriva máxima, para el umbral de daño, evaluada en cualquier punto de la estructura, determinada de acuerdo con el procedimiento de A.12.5.2, no puede exceder los límites establecidos en la tabla A.12.5-1, en la cual la deriva máxima se expresa como un porcentaje de la altura de piso h_{pi} :

Tabla A.12.5-1
Derivas máximas para el umbral de daño como porcentaje de h_{pi}

Estructuras de:	Deriva máxima
concreto reforzado, metálicas, de madera, y de mampostería que cumplen los requisitos de A.12.5.3.1	$0.40\% \left(\Delta_{max}^i \leq 0.0040 h_{pi} \right)$
de mampostería que cumplen los requisitos de A.12.5.3.2	$0.20\% \left(\Delta_{max}^i \leq 0.0020 h_{pi} \right)$

Tabla 15 Derivas máximas umbral de daño

Se calcularon los desplazamientos horizontales elásticos de la estructura por medio de un análisis modal espectral, con el espectro elástico de umbral de daño y se obtuvieron los desplazamientos horizontales se calcula los valores de deriva definidos como la diferencia entre los desplazamientos.

A continuación, se presentan los resultados de las derivas para el edificio B (ejes 1 - 6a), las cuales no superaron el maximo permitido del 0.4%, según tabla A.12.5-1.

Tabla 16 Derivas máximas de piso umbral de daño Edificio B

TABLE: Story Drifts				
Story	Load Case/Combo	Direction	Drift	Label
N+22.75	Umby Max	X	0.06%	194
N+22.75	Umby Max	Y	0.08%	180
N+22.75	Umbx Max	X	0.12%	194
N+22.75	Umbx Max	Y	0.04%	194
N+19.00	Umby Max	X	0.04%	206
N+19.00	Umby Max	Y	0.09%	206
N+19.00	Umbx Max	X	0.09%	311
N+19.00	Umbx Max	Y	0.04%	204
N+15.50	Umby Max	X	0.05%	258
N+15.50	Umby Max	Y	0.10%	311
N+15.50	Umbx Max	X	0.11%	258
N+15.50	Umbx Max	Y	0.04%	1446
N+12.00	Umby Max	X	0.05%	204
N+12.00	Umby Max	Y	0.10%	10
N+12.00	Umbx Max	X	0.11%	258
N+12.00	Umbx Max	Y	0.05%	85
N+8.50	Umby Max	X	0.06%	36
N+8.50	Umby Max	Y	0.15%	34
N+8.50	Umbx Max	X	0.15%	34
N+8.50	Umbx Max	Y	0.10%	34
N+3.50	Umby Max	X	0.04%	273
N+3.50	Umby Max	Y	0.12%	273
N+3.50	Umbx Max	X	0.08%	13
N+3.50	Umbx Max	Y	0.05%	273
N+0.00	Umby Max	X	0.02%	19
N+0.00	Umby Max	Y	0.05%	13
N+0.00	Umbx Max	X	0.05%	19
N+0.00	Umbx Max	Y	0.02%	1586
N-1.75	Umby Max	X	0.02%	8
N-1.75	Umby Max	Y	0.05%	8
N-1.75	Umbx Max	X	0.04%	19
N-1.75	Umbx Max	Y	0.02%	8

A continuación, se presentan los resultados de las derivas para el edificio A (ejes 6c a 10), las cuales no superaron el maximo permitido del 0.4%, según tabla A.12.5-1.

Tabla 17 Derivas máximas de piso umbral de daño Edificio A

TABLE: Story Drifts				
Story	Load Case/Combo	Direction	Drift	Label
N+23.75	Umby Max	X	0.06%	809
N+23.75	Umby Max	Y	0.08%	304
N+23.75	Umbx Max	X	0.10%	809
N+23.75	Umbx Max	Y	0.04%	304
N+20.75a	Umby Max	X	0.06%	810
N+20.75a	Umby Max	Y	0.09%	32
N+20.75a	Umbx Max	X	0.10%	810
N+20.75a	Umbx Max	Y	0.07%	36
N+17.25a	Umby Max	X	0.07%	36
N+17.25a	Umby Max	Y	0.10%	810
N+17.25a	Umbx Max	X	0.10%	803
N+17.25a	Umbx Max	Y	0.07%	36
N+13.75a	Umby Max	X	0.08%	36
N+13.75a	Umby Max	Y	0.10%	810
N+13.75a	Umbx Max	X	0.11%	810
N+13.75a	Umbx Max	Y	0.07%	419
N+10.25a	Umby Max	X	0.08%	810
N+10.25a	Umby Max	Y	0.11%	810
N+10.25a	Umbx Max	X	0.11%	803
N+10.25a	Umbx Max	Y	0.08%	419
N+6.0a	Umby Max	X	0.09%	803
N+6.0a	Umby Max	Y	0.11%	304
N+6.0a	Umbx Max	X	0.10%	803
N+6.0a	Umbx Max	Y	0.06%	111
N+1.75a	Umby Max	X	0.03%	53
N+1.75a	Umby Max	Y	0.07%	632
N+1.75a	Umbx Max	X	0.04%	53
N+1.75a	Umbx Max	Y	0.03%	810

6 DISEÑO ESTRUCTURAL.

Para el diseño de los elementos estructurales se suponen los efectos ortogonales de la fuerza sísmica representada por el espectro, suponiendo la ocurrencia simultánea del 100% de la fuerza sísmica en una dirección y el 30% de la fuerza sísmica en la dirección perpendicular.

En la metodología utilizada se modela tridimensionalmente la estructura con el programa Sap2000 con esto se obtienen las fuerzas de corte, momentos flectores y fuerzas axiales, una vez realizado el análisis estructural, el programa diseña automáticamente el refuerzo en los elementos de concreto y se chequea, considerando las diferentes combinaciones de carga con los respectivos factores de mayoración de carga y reducción de resistencia del NSR10, que son iguales a los del AC1318. Una vez realizado el análisis estructural, las respuestas máximas modales incluyendo las deflexiones, derivas y esfuerzos se comparan con los admisibles especificados por el NSR-10.

Después de realizado el análisis estructural, se procede al diseño del refuerzo requerido según lo especificado en el NSR-10. El refuerzo se diseña con los momentos flectores alrededor del eje respectivo según sea el caso para vigas y columnas (M11, M22, M12 y V13, V23 arrojados por el programa).

En el diseño de la cimentación se usará zapatas individuales, con vigas de amarre, cuantificando los esfuerzos cortantes mayorados V_u , ocasionados por las reacciones del terreno, los cuales se comparan con el esfuerzo cortante admisible en el concreto ϕ_{vc} por funcionamiento, por aplastamiento y longitud de anclaje. La fuerza cortante generalmente es la que determina el espesor, aunque inicialmente se diseña por flexión. De igual manera se evalúan los momentos flectores, se supone una cuantía de 0.0020 y se calcula la altura, se compara el acero obtenido con el mínimo para flexión y se suministra el requerido para construcción, retracción de fraguado y temperatura. Despues se revisa la longitud de anclaje. La resistencia de diseño que tiene un elemento y cualquier parte o sección de él, en términos de momento flector, carga axial, cortante y torsión, debe ser igual a:

Resistencia de diseño < Resistencia Nominal > Resistencia Requerida

Los coeficientes de reducción de resistencia utilizados son:

Flexión: $\phi = 0.9$

Compresión Axial: $\phi = 0.65$

Cortante y Torsión: $\phi = 0.75$

El diseño a flexión requiere unas cuantías mínimas especificadas en el NSR-10.

En el Cap. C.7.12 especifica que se debe colocar refuerzo para retracción de fraguado y variación de temperatura perpendicular al refuerzo principal para losas macizas en una dirección. La relación de área de refuerzo a área bruta de concreto debe tener como mínimo una cuantía de 0.0018 para barras corrugadas con $f_y = 420$ MPa.

Para $f'_c = 21 \text{ MPa}$ y $f_y = 420 \text{ MPa}$ se obtiene una cuantía mínima de 0.0033

La distancia libre entre barras paralelas colocadas en una fila, no debe ser menor que el diámetro de la barra d_b , $s > d_b$, o $s > 25 \text{ mm}$ o $s > 1.33$ veces el tamaño del agregado grueso. (Cap. C.7.6)

Las barras del refuerzo deben tener el recubrimiento mínimo según sea el caso, para concreto colocado directamente sobre el suelo y en contacto permanente con la tierra el recubrimiento mínimo debe ser 75 mm y 50 mm para concreto no expuesto a la intemperie ni en contacto permanente con la tierra para todos los tipos de refuerzo en vigas, columnas y zapatas. Para estribos el recubrimiento mínimo debe ser de 30 ms. (Cap. C.7.7, NSR-10).

6.1 DISEÑO DE LA CIMENTACIÓN

Diseño de Cimentación Edificio A

De acuerdo con lo presente en el estudio de suelos, la cimentación consiste en un sistema de placa de cimentación combinada con pilotes:

4.1 Factor interacción balsa-pilote

Relación de Poisson		0,3	$\alpha_{cp} = 1 - \ln\left(\frac{r_c}{r_0}\right)/\zeta$
Longitud pilote:		15 m	
Módulo Elasticidad suelo a nivel pilote	Esl	198 Kg/cm ²	$\xi = E_{sl}/E_{sb}$
Módulo Elasticidad suelo bajo nivel pilote	Esb	207 Kg/cm ²	
Módulo Elasticidad suelo promedio pilote	Esav	107 Kg/cm ²	$P = E_{sav}/E_{sl}$
Relación Módulos 1 (Esl/Esb)	ζ	0,957	
Relación Módulos 2 (Esav/Esl)	ρ	0,539	$\frac{P_r}{P_t} = \frac{K_r(1-\alpha_{cp})}{(K_p+K_r(1-\alpha_{cp}))} = X$
Radio medio	r _m	10,637 m	
Radio pilote	r _o	0,75 m	
Relación forma	ζ	2,652	$\alpha_{cp} = 1 - \ln\left(\frac{r_c}{r_0}\right)/\zeta$
Área total losa	A	635 m ²	
Cantidad pilotes	n	24 pilotes	$\xi = \ln(r_m/r_o)$
Radio promedio losa	r _c	26,46 m	
Factor interacción losa/pilote	α_{cp}	0,09807	
Rigidez pilotes	K _p	85619	$r_m = (0.25)\xi + [2.5 \rho (1-\mu) - 0.25] * L$
Rigidez losa	K _r	24000	
Porcentaje losa	X	0,20	$K_{pr} = \frac{(K_p + K_r(1-\alpha_{cp}))}{(1-\alpha_{cp}^2 \frac{K_r}{K_p})}$
Divid		107264,822	
		0,99730382	
Rigidez Conjunto	K _{pr}	107323 KN/m	
		10,73 Kg/cm ³	

$$P_l = \frac{P_{up}}{(1-X)}$$

K_{pr}: Rigidez del conjunto Losa-pilotes: 10.73 kg/cm³.

L: Longitud de pilotes: 15m

Ø: Diámetro de pilotes: 1.5m y 1.2m

A: Área de la losa: 635m²

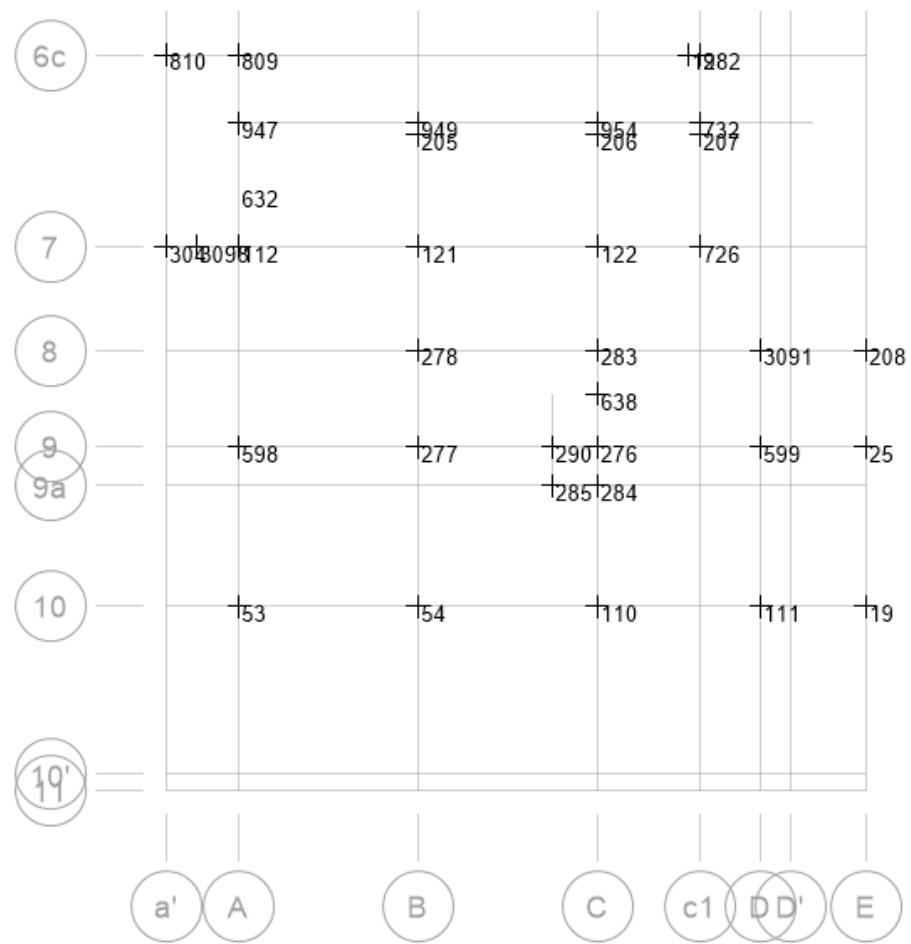


Figura 31 Joint Label base de columnas Edificio A N-1.75

Tabla 18 Reacciones cargas de servicio con sismo en Edificio A

TABLE: Joint Reactions					
Story	Joint Label	Unique Name	Load Case/Combo	FZ	FZ (máx)
				tonf	tonf
N-1.75	53	2165	Env Serv Max	936.3	936.3
N-1.75	53	2165	Env Serv Min	454.3	
N-1.75	54	2166	Env Serv Max	825.5	825.5
N-1.75	54	2166	Env Serv Min	389.8	
N-1.75	110	2167	Env Serv Max	864.1	864.1
N-1.75	110	2167	Env Serv Min	408.0	
N-1.75	111	2168	Env Serv Max	473.6	473.6
N-1.75	111	2168	Env Serv Min	232.8	
N-1.75	112	2177	Env Serv Max	578.9	578.9
N-1.75	112	2177	Env Serv Min	236.1	
N-1.75	121	2178	Env Serv Max	353.4	353.4
N-1.75	121	2178	Env Serv Min	155.8	
N-1.75	122	2179	Env Serv Max	303.8	303.8
N-1.75	122	2179	Env Serv Min	121.6	
N-1.75	276	1207	Env Serv Max	127.9	127.9
N-1.75	276	1207	Env Serv Min	-	28.8
N-1.75	277	8019	Env Serv Max	278.2	278.2
N-1.75	277	8019	Env Serv Min	-	10.6
N-1.75	278	8020	Env Serv Max	182.0	182.0
N-1.75	278	8020	Env Serv Min	-	112.9
N-1.75	283	2162	Env Serv Max	174.4	174.4
N-1.75	283	2162	Env Serv Min	-	89.5
N-1.75	284	8371	Env Serv Max	142.2	142.2
N-1.75	284	8371	Env Serv Min	-	7.9
N-1.75	285	8370	Env Serv Max	217.5	217.5
N-1.75	285	8370	Env Serv Min	-	26.4
N-1.75	290	2501	Env Serv Max	136.3	136.3
N-1.75	290	2501	Env Serv Min	-	25.1
N-1.75	304	2171	Env Serv Max	68.2	68.2
N-1.75	304	2171	Env Serv Min	-	24.0
N-1.75	598	19	Env Serv Max	339.0	339.0
N-1.75	598	19	Env Serv Min	-	156.6
N-1.75	599	21	Env Serv Max	331.6	331.6
N-1.75	599	21	Env Serv Min	-	154.6
N-1.75	947	2664	Env Serv Max	232.7	232.7
N-1.75	947	2664	Env Serv Min	-	65.6
N-1.75	949	2665	Env Serv Max	40.7	40.7
N-1.75	949	2665	Env Serv Min	-	16.2
N-1.75	954	2662	Env Serv Max	26.4	26.4
N-1.75	954	2662	Env Serv Min	-	10.3
N-1.75	3091	626	Env Serv Max	277.4	277.4
N-1.75	3091	626	Env Serv Min	-	118.4
N-1.75	809	7896	Env Serv Max	133.2	133.2
N-1.75	809	7896	Env Serv Min	-	86.8

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ	FZ (máx)
				tonf	tonf
N-1.75	810	2175	Env Serv Max	41.1	41.1
N-1.75	810	2175	Env Serv Min	-	20.2
N-1.75	3098	2173	Env Serv Max	61.5	61.5
N-1.75	3098	2173	Env Serv Min	25.7	
N-1.75	9	109	Env Serv Max	19.4	19.4
N-1.75	9	109	Env Serv Min	-	23.6
N-1.75	726	111	Env Serv Max	443.8	443.8
N-1.75	726	111	Env Serv Min	158.5	
N-1.75	732	161	Env Serv Max	29.9	29.9
N-1.75	732	161	Env Serv Min	-	9.8
N-1.75	638	122	Env Serv Max	111.0	111.0
N-1.75	638	122	Env Serv Min	-	23.9
N-1.75	205	2039	Env Serv Max	319.1	319.1
N-1.75	205	2039	Env Serv Min	148.6	
N-1.75	206	2137	Env Serv Max	196.4	196.4
N-1.75	206	2137	Env Serv Min	88.8	
N-1.75	207	2222	Env Serv Max	23.2	23.2
N-1.75	207	2222	Env Serv Min	6.2	
N-1.75	208	22	Env Serv Max	81.7	81.7
N-1.75	208	22	Env Serv Min	29.8	
N-1.75	19	83	Env Serv Max	20.1	20.1
N-1.75	19	83	Env Serv Min	9.0	
N-1.75	25	10	Env Serv Max	16.5	16.5
N-1.75	25	10	Env Serv Min	6.3	
N-1.75	1282	23	Env Serv Max	34.3	34.3
N-1.75	1282	23	Env Serv Min	7.0	

Condición Dinámica: Fz= 8441.4 ton

Condición Dinamica - Servicio Con Sismo

Area Losa **635 m²**

Peso Concreto Losa Aligerada	997.0 ton
SobreCarga Losa: 2.6kN/m ² *Area	168.47 ton
Carga Viva Losa: 5kN/m ² *Area	323.98 ton
Carga Total Cimentación	1489.4 ton

Carga SuperEstructura	8441.4 ton
Carga Total Cimentación	1489.4 ton
Fz_diseño	9930.8 ton

Qadm	0.96 kg/cm ²
	9.6 tof/m ²
Capacidad Losa	6096 ton

Servicio Con Sismo		
Fz_diseño	9930.8 ton	100%
Aporte Losa	6096.0 ton	61%
Requerido Pilotes	3834.8 ton	39%

Pilote	Qadm Dinamico	Cantidad Requerida	Pilotes Usados	
			Cantidades	Carga
100cm	137.4 ton	28	0	0.0 ton
120cm	177.8 ton	22	4	711.1 ton
150cm	246.3 ton	16	23	5665.8 ton
Capacidad Total			6376.9 ton	

Cumple: 6376.9>3834.8

Aporte Losa	6096.0 ton	48.9%
Aporte Pilotes	6376.9 ton	51.1%
Total	12472.90	100%

Tabla 19 Reacciones cargas de servicio sin sismo en Edificio A

TABLE: Joint Reactions					
Story	Joint Label	Unique Name	Load Case/Combo	Fz	FZ
				tonf	tonf
N-1.75	53	2165	Env Serv SS Max	891.5	891.5
N-1.75	53	2165	Env Serv SS Min	443.5	
N-1.75	54	2166	Env Serv SS Max	758.9	758.9
N-1.75	54	2166	Env Serv SS Min	373.0	
N-1.75	110	2167	Env Serv SS Max	772.8	772.8
N-1.75	110	2167	Env Serv SS Min	382.4	
N-1.75	111	2168	Env Serv SS Max	453.7	453.7
N-1.75	111	2168	Env Serv SS Min	230.7	
N-1.75	112	2177	Env Serv SS Max	476.5	476.5
N-1.75	112	2177	Env Serv SS Min	228.4	
N-1.75	121	2178	Env Serv SS Max	324.4	324.4
N-1.75	121	2178	Env Serv SS Min	150.3	
N-1.75	122	2179	Env Serv SS Max	284.1	284.1
N-1.75	122	2179	Env Serv SS Min	115.8	
N-1.75	276	1207	Env Serv SS Max	70.6	70.6
N-1.75	276	1207	Env Serv SS Min	24.3	
N-1.75	277	8019	Env Serv SS Max	175.5	175.5
N-1.75	277	8019	Env Serv SS Min	65.6	
N-1.75	278	8020	Env Serv SS Max	43.7	43.7
N-1.75	278	8020	Env Serv SS Min	18.0	
N-1.75	283	2162	Env Serv SS Max	65.9	65.9
N-1.75	283	2162	Env Serv SS Min	11.1	
N-1.75	284	8371	Env Serv SS Max	87.7	87.7
N-1.75	284	8371	Env Serv SS Min	40.5	
N-1.75	285	8370	Env Serv SS Max	153.2	153.2
N-1.75	285	8370	Env Serv SS Min	69.9	
N-1.75	290	2501	Env Serv SS Max	79.8	79.8
N-1.75	290	2501	Env Serv SS Min	28.1	
N-1.75	304	2171	Env Serv SS Max	56.5	56.5
N-1.75	304	2171	Env Serv SS Min	26.4	
N-1.75	598	19	Env Serv SS Max	347.8	347.8
N-1.75	598	19	Env Serv SS Min	161.0	
N-1.75	599	21	Env Serv SS Max	334.4	334.4
N-1.75	599	21	Env Serv SS Min	160.6	
N-1.75	947	2664	Env Serv SS Max	180.9	180.9
N-1.75	947	2664	Env Serv SS Min	87.2	
N-1.75	949	2665	Env Serv SS Max	38.8	38.8
N-1.75	949	2665	Env Serv SS Min	16.6	
N-1.75	954	2662	Env Serv SS Max	24.7	24.7
N-1.75	954	2662	Env Serv SS Min	10.5	
N-1.75	3091	626	Env Serv SS Max	278.0	278.0

N-1.75	3091	626	Env Serv SS Min	117.8	
N-1.75	809	7896	Env Serv SS Max	27.3	27.3
N-1.75	809	7896	Env Serv SS Min	9.4	
N-1.75	810	2175	Env Serv SS Max	13.1	13.1
N-1.75	810	2175	Env Serv SS Min	5.5	
N-1.75	3098	2173	Env Serv SS Max	53.8	53.8
N-1.75	3098	2173	Env Serv SS Min	26.7	
N-1.75	9	109	Env Serv SS Max	1.1	1.1
N-1.75	9	109	Env Serv SS Min	-	4.6
N-1.75	726	111	Env Serv SS Max	429.3	429.3
N-1.75	726	111	Env Serv SS Min	151.8	
N-1.75	732	161	Env Serv SS Max	11.9	11.9
N-1.75	732	161	Env Serv SS Min	4.1	
N-1.75	638	122	Env Serv SS Max	54.2	54.2
N-1.75	638	122	Env Serv SS Min	25.5	
N-1.75	205	2039	Env Serv SS Max	294.8	294.8
N-1.75	205	2039	Env Serv SS Min	141.1	
N-1.75	206	2137	Env Serv SS Max	174.3	174.3
N-1.75	206	2137	Env Serv SS Min	83.3	
N-1.75	207	2222	Env Serv SS Max	17.8	17.8
N-1.75	207	2222	Env Serv SS Min	8.0	
N-1.75	208	22	Env Serv SS Max	74.1	74.1
N-1.75	208	22	Env Serv SS Min	27.0	
N-1.75	19	83	Env Serv SS Max	18.5	18.5
N-1.75	19	83	Env Serv SS Min	9.0	
N-1.75	25	10	Env Serv SS Max	15.4	15.4
N-1.75	25	10	Env Serv SS Min	9.1	
N-1.75	1282	23	Env Serv SS Max	26.9	26.9
N-1.75	1282	23	Env Serv SS Min	10.4	

Condición Estática $\Sigma F_z = 7111.9$ ton

Condición Estática: Servicio SIN Sismo

Area Losa **635 m²**

Peso Concreto Losa Aligerada	997.0 ton
SobreCarga Losa: 2.6kN/m ² *Area	168.47 ton
Carga Viva Losa: 5kN/m ² *Area	323.98 ton
Carga Total Cimentación	1489.4 ton

Carga SuperEstructura	7111.9 ton
Carga Total Cimentación	1489.4 ton
Fz_diseño	8601.3 ton

Qadm	0.96 kg/cm ²
	9.6 tof/m ²
Capacidad Losa	6096 ton

Servicio Sin Sismo		
Fz_diseño	8601.3 ton	100%
Aporte Losa	6096.0 ton	71%
Requerido Pilotes	2505.3 ton	29%

Pilote	Qadm Estatico	Cantidad Requerida	Cantidad Usada	Carga
100cm	66.1 ton	38	0	0.0 ton
120cm	80.2 ton	32	4	320.9 ton
150cm	102.1 ton	25	23	2347.6 ton
Capacidad Total				2668.5 ton

Cumple: 2668.5>2505.3

Aporte Losa	6096.0 ton	70%
Aporte Pilotes	2668.5 ton	30%
Total	8764.53	100%

Por lo tanto, la condición recomendada por el estudio de suelos de implementar un sistema combinado de placa-pilote, cumple para la condición de carga estáticas y también para la condición dinámica.

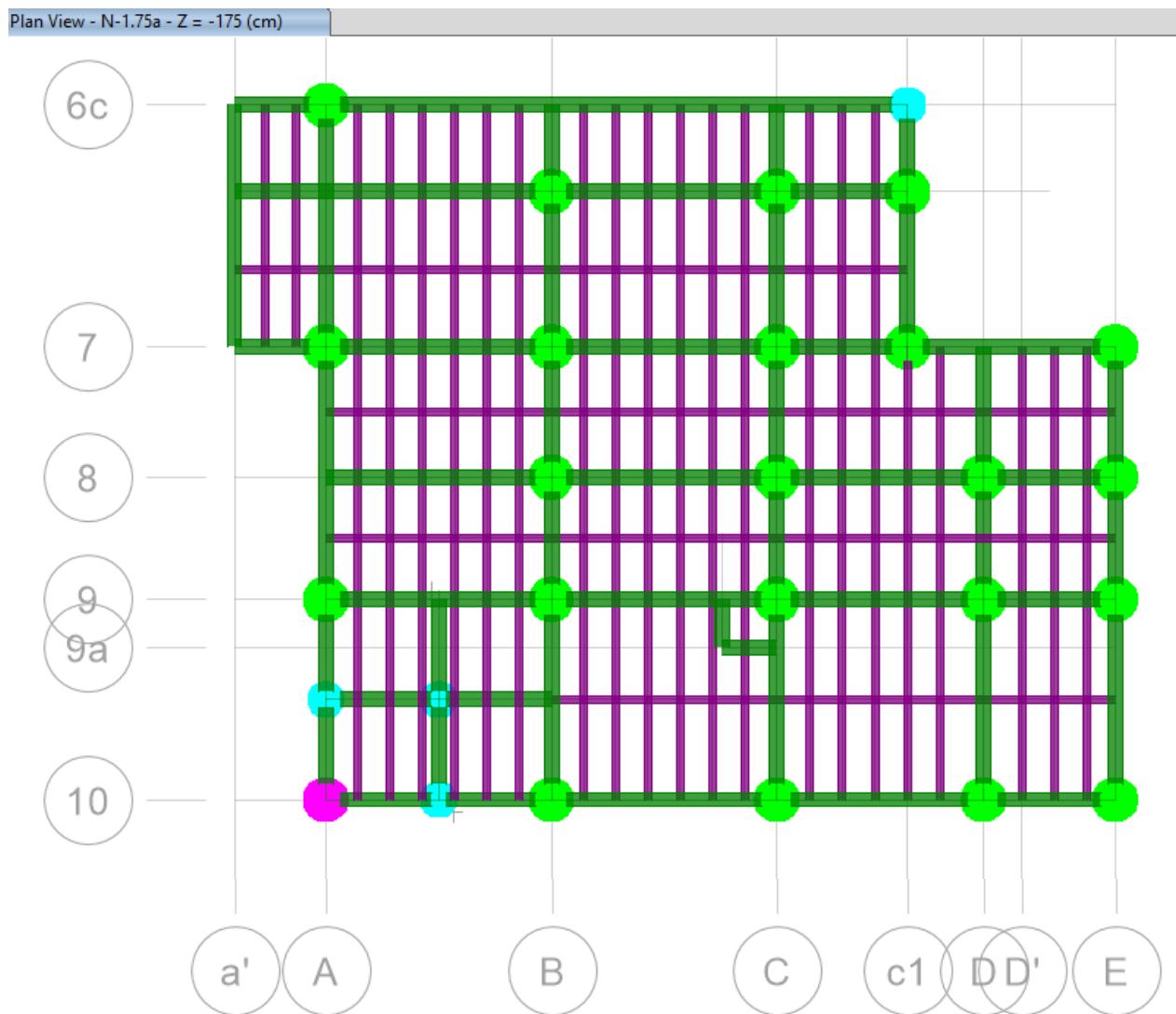


Figura 32 Planta Estructural Cimentación Edificio A

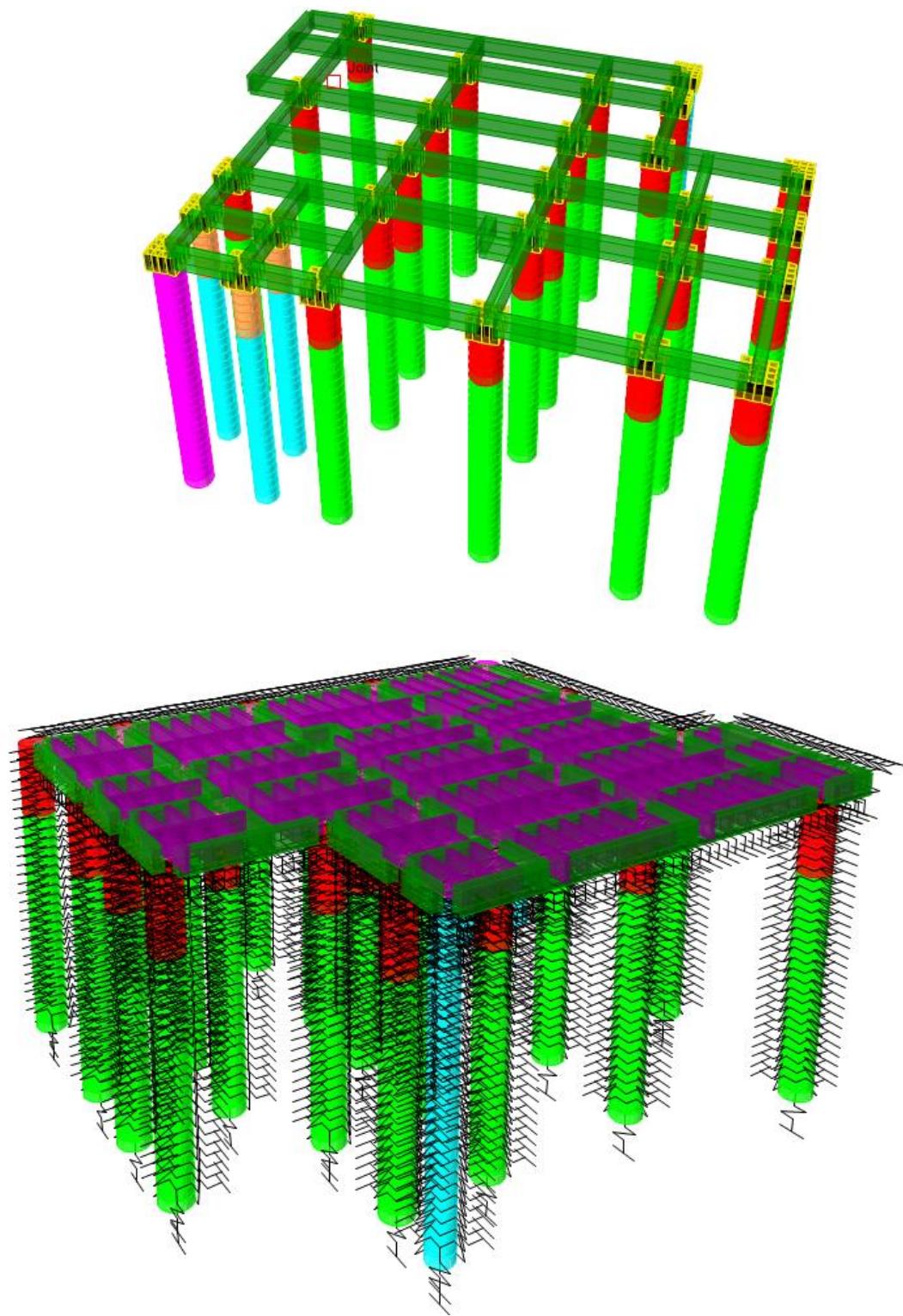


Figura 33 Modelo de Interacción de la Cimentación del Edificio A.

Definición de Pilotes y diagramas de interacción:

De acuerdo con lo presente en la NSR-10:

C.15.11.3 — Esfuerzos axiales máximos – Los esfuerzos axiales máximos admisibles sobre el pilote, o sobre el fuste cuando se trate de pilotes acampanados en su base, son los siguientes:

- (a) Esfuerzos de compresión causados por las carga gravitacionales (no incluye efectos de hincado):

$$D + L \leq 0.25f'_c A_g \quad (\text{C.15-2})$$

$$1.2D + 1.6L \leq 0.35f'_c A_g \quad (\text{C.15-3})$$

f'_c : 210kg/cm²

D: Carga Muerta Super Estructura: 7,758 ton

L: Carga Viva Super Estructura: 2,343 ton

Pilote	Area	Pilotes Usados		C.15.11.3	
		Cantidades	Area Total	0.25*Ag*f'c	0.35*Ag*f'c
120cm	1.1 m ²	4	4.5 m ²	2375.0 ton	3325.1 ton
150cm	1.8 m ²	23	40.6 m ²	21338.3 ton	29873.6 ton
$\Sigma =$		23713.3 ton		33198.7 ton	

$$D+L = 10101 \text{ ton}$$

$$1.2D+1.6L = 13058 \text{ ton}$$

$$(\text{C.15-2}) \quad D+L < 0.25*Ag*f'c: \quad 10101 \text{ ton} < 23713.3 \text{ ton} \quad \text{Cumple}$$

$$(\text{C.15-2}) \quad 1.2D+1.6L < 0.35*Ag*f'c: \quad 13058.4 \text{ ton} < 33198.7 \text{ ton} \quad \text{Cumple}$$

Tabla 20 Índice de sobreesfuerzo en Pilotes Edificio A.

TABLE: Concrete Column Summary - ACI 318-14									
Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
				cm					
N-1.75a	C15	572	P150R3	0	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75a	C15	572	P150R3	25	Check	0.092	B.2.4.5-1	122.32	No Message
N-1.75a	C15	572	P150R3	50	Check	0.092	B.2.4.5-1	122.32	No Message
N-1.75a	C17	573	P150R3	0	Check	0.099	B.2.4.5-1	122.32	No Message
N-1.75a	C17	573	P150R3	25	Check	0.098	B.2.4.5-1	122.32	No Message
N-1.75a	C17	573	P150R3	50	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75a	C18	574	P150R3	0	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75a	C18	574	P150R3	25	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75a	C18	574	P150R3	50	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75a	C20	575	P150R3	0	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75a	C20	575	P150R3	25	Check	0.095	B.2.4.5-1	122.32	No Message
N-1.75a	C20	575	P150R3	50	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75a	C21	576	P150R3	0	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75a	C21	576	P150R3	25	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75a	C21	576	P150R3	50	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75a	C23	577	P150R3	0	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75a	C23	577	P150R3	25	Check	0.092	B.2.4.5-1	122.32	No Message
N-1.75a	C23	577	P150R3	50	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75a	C25	578	P150R3	0	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75a	C25	578	P150R3	25	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75a	C25	578	P150R3	50	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75a	C26	579	P150R3	0	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75a	C26	579	P150R3	25	Check	0.099	B.2.4.5-1	122.32	No Message
N-1.75a	C26	579	P150R3	50	Check	0.1	B.2.4.5-1	122.32	No Message
N-1.75a	C27	580	P150R3	0	Check	0.1	B.2.4.5-1	122.32	No Message
N-1.75a	C27	580	P150R3	25	Check	0.101	B.2.4.5-1	122.32	No Message
N-1.75a	C27	580	P150R3	50	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75a	C28	581	P150R3	0	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75a	C28	581	P150R3	25	Check	0.103	B.2.4.5-1	122.32	No Message
N-1.75a	C28	581	P150R3	50	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75a	C29	582	P150R3	0	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75a	C29	582	P150R3	25	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75a	C29	582	P150R3	50	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75a	C30	583	P150R3	0	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75a	C30	583	P150R3	25	Check	0.103	B.2.4.5-1	122.32	No Message
N-1.75a	C30	583	P150R3	50	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75a	C31	584	P150R3	0	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75a	C31	584	P150R3	25	Check	0.099	B.2.4.5-1	122.32	No Message
N-1.75a	C31	584	P150R3	50	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75a	C32	585	P150R3	0	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75a	C32	585	P150R3	25	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75a	C32	585	P150R3	50	Check	0.09	B.2.4.5-1	122.32	No Message
N-1.75a	C33	586	P150R3	0	Check	0.09	B.2.4.5-1	122.32	No Message
N-1.75a	C33	586	P150R3	25	Check	0.09	B.2.4.5-1	122.32	No Message
N-1.75a	C33	586	P150R3	50	Check	0.098	B.2.4.5-1	122.32	No Message
N-1.75a	C34	587	P150R2	0	Check	0.091	B.2.4.5-1	188.45	No Message
N-1.75a	C34	587	P150R2	25	Check	0.1	B.2.4.5-1	188.45	No Message
N-1.75a	C34	587	P150R2	50	Check	0.11	B.2.4.5-1	188.45	No Message
N-1.75a	C35	588	P150R2	0	Check	0.11	B.2.4.5-1	188.45	No Message
N-1.75a	C35	588	P150R2	25	Check	0.123	B.2.4.5-1	188.45	No Message
N-1.75a	C35	588	P150R2	50	Check	0.137	B.2.4.5-1	188.45	No Message
N-1.75a	C36	589	P150R2	0	Check	0.137	B.2.4.5-1	188.45	No Message
N-1.75a	C36	589	P150R2	25	Check	0.152	B.2.4.5-1	188.45	No Message
N-1.75a	C36	589	P150R2	50	Check	0.164	B.2.4.5-1	188.45	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C37	590	P150R2	0	Check	0.164	B.2.4.5-1	188.45	No Message
N-1.75a	C37	590	P150R2	25	Check	0.177	B.2.4.5-1	188.45	No Message
N-1.75a	C37	590	P150R2	50	Check	0.192	B.2.4.5-1	188.45	No Message
N-1.75a	C38	591	P150R2	0	Check	0.192	B.2.4.5-1	188.45	No Message
N-1.75a	C38	591	P150R2	25	Check	0.212	B.2.4.5-1	188.45	No Message
N-1.75a	C38	591	P150R2	50	Check	0.233	B.2.4.5-1	188.45	No Message
N-1.75a	C39	592	P150R2	0	Check	0.233	B.2.4.5-1	188.45	No Message
N-1.75a	C39	592	P150R2	25	Check	0.26	B.2.4.5-1	188.45	No Message
N-1.75a	C39	592	P150R2	50	Check	0.293	B.2.4.5-1	188.45	No Message
N-1.75a	C40	593	P150R2	0	Check	0.293	B.2.4.5-1	188.45	No Message
N-1.75a	C40	593	P150R2	25	Check	0.329	B.2.4.5-1	188.45	No Message
N-1.75a	C40	593	P150R2	50	Check	0.364	B.2.4.5-1	188.45	No Message
N-1.75a	C41	594	P150R2	0	Check	0.364	B.2.4.5-1	188.45	No Message
N-1.75a	C41	594	P150R2	25	Check	0.402	B.2.4.5-1	188.45	No Message
N-1.75a	C41	594	P150R2	50	Check	0.44	B.2.4.5-1	188.45	No Message
N-1.75a	C42	595	P150R2	0	Check	0.44	B.2.4.5-1	188.45	No Message
N-1.75a	C42	595	P150R2	25	Check	0.479	B.2.4.5-1	188.45	No Message
N-1.75a	C42	595	P150R2	50	Check	0.519	B.2.4.5-1	188.45	No Message
N-1.75a	C43	596	P150R2	0	Check	0.519	B.2.4.5-1	188.45	No Message
N-1.75a	C43	596	P150R2	25	Check	0.56	B.2.4.5-1	188.45	No Message
N-1.75a	C43	596	P150R2	50	Check	0.602	B.2.4.5-1	188.45	No Message
N-1.75a	C44	597	P150R2	0	Check	0.602	B.2.4.5-1	188.45	No Message
N-1.75a	C44	597	P150R2	25	Check	0.645	B.2.4.5-8	188.45	No Message
N-1.75a	C44	597	P150R2	50	Check	0.69	B.2.4.5-8	188.45	No Message
N-1.75a	C45	598	P150R2	0	Check	0.69	B.2.4.5-8	188.45	No Message
N-1.75a	C45	598	P150R2	25	Check	0.736	B.2.4.5-8	188.45	No Message
N-1.75a	C45	598	P150R2	50	Check	0.782	B.2.4.5-8	188.45	No Message
N-1.75a	C46	599	P150R2	0	Check	0.782	B.2.4.5-8	188.45	No Message
N-1.75a	C46	599	P150R2	25	Check	0.828	B.2.4.5-8	188.45	No Message
N-1.75a	C46	599	P150R2	50	Check	0.875	B.2.4.5-8	188.45	No Message
N-1.75a	C47	600	P150R2	0	Check	0.875	B.2.4.5-8	188.45	No Message
N-1.75a	C47	600	P150R2	25	Check	0.922	B.2.4.5-8	188.45	No Message
N-1.75a	C47	600	P150R2	50	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75a	C48	601	P150R2	0	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75a	C48	601	P150R2	0.1	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75a	C48	601	P150R2	0.2	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75a	C49	602	P150R1	0	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C49	602	P150R1	25	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C49	602	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C50	603	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C50	603	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C50	603	P150R1	50	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75a	C51	604	P150R1	0	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75a	C51	604	P150R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C51	604	P150R1	50	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C52	605	P150R1	0	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C52	605	P150R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C52	605	P150R1	50	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C53	606	P150R1	0	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C53	606	P150R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C53	606	P150R1	50	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75a	C54	607	P150R1	0	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75a	C54	607	P150R1	25	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75a	C54	607	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C55	608	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C55	608	P150R1	25	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C55	608	P150R1	50	Check	0.037	B.2.4.5-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C56	609	P150R1	0	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C56	609	P150R1	25	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C56	609	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C57	610	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C57	610	P150R1	25	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75a	C57	610	P150R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C58	611	P150R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C58	611	P150R1	25	Check	0.072	B.2.4.7-2	61.16	No Message
N-1.75a	C58	611	P150R1	50	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C59	612	P150R1	0	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C59	612	P150R1	25	Check	0.092	B.2.4.7-2	61.16	No Message
N-1.75a	C59	612	P150R1	50	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75a	C60	613	P150R1	0	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75a	C60	613	P150R1	25	Check	0.111	B.2.4.7-2	61.16	No Message
N-1.75a	C60	613	P150R1	50	Check	0.121	B.2.4.7-2	61.16	No Message
N-1.75a	C61	614	P150R1	0	Check	0.121	B.2.4.7-2	61.16	No Message
N-1.75a	C61	614	P150R1	25	Check	0.13	B.2.4.7-2	61.16	No Message
N-1.75a	C61	614	P150R1	50	Check	0.139	B.2.4.7-2	61.16	No Message
N-1.75a	C62	615	P150R1	0	Check	0.139	B.2.4.7-2	61.16	No Message
N-1.75a	C62	615	P150R1	25	Check	0.147	B.2.4.7-2	61.16	No Message
N-1.75a	C62	615	P150R1	50	Check	0.155	B.2.4.7-8	61.16	No Message
N-1.75a	C63	616	P150R1	0	Check	0.155	B.2.4.7-8	61.16	No Message
N-1.75a	C63	616	P150R1	25	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75a	C63	616	P150R1	50	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75a	C64	617	P150R1	0	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75a	C64	617	P150R1	25	Check	0.206	B.2.4.7-2	61.16	No Message
N-1.75a	C64	617	P150R1	50	Check	0.223	B.2.4.7-2	61.16	No Message
N-1.75a	C65	618	P150R1	0	Check	0.223	B.2.4.7-2	61.16	No Message
N-1.75a	C65	618	P150R1	25	Check	0.241	B.2.4.7-2	61.16	No Message
N-1.75a	C65	618	P150R1	50	Check	0.259	B.2.4.7-2	61.16	No Message
N-1.75a	C66	619	P150R1	0	Check	0.259	B.2.4.7-2	61.16	No Message
N-1.75a	C66	619	P150R1	25	Check	0.277	B.2.4.7-2	61.16	No Message
N-1.75a	C66	619	P150R1	50	Check	0.302	B.2.4.5-2	61.16	No Message
N-1.75a	C67	620	P150R1	0	Check	0.302	B.2.4.5-2	61.16	No Message
N-1.75a	C67	620	P150R1	25	Check	0.33	B.2.4.5-2	61.16	No Message
N-1.75a	C67	620	P150R1	50	Check	0.358	B.2.4.5-2	61.16	No Message
N-1.75a	C68	621	P150R1	0	Check	0.358	B.2.4.5-2	61.16	No Message
N-1.75a	C68	621	P150R1	25	Check	0.387	B.2.4.5-2	61.16	No Message
N-1.75a	C68	621	P150R1	50	Check	0.416	B.2.4.5-2	61.16	No Message
N-1.75a	C69	622	P150R1	0	Check	0.416	B.2.4.5-2	61.16	No Message
N-1.75a	C69	622	P150R1	25	Check	0.446	B.2.4.5-2	61.16	No Message
N-1.75a	C69	622	P150R1	50	Check	0.476	B.2.4.5-2	61.16	No Message
N-1.75a	C70	623	P150R1	0	Check	0.476	B.2.4.5-2	61.16	No Message
N-1.75a	C70	623	P150R1	25	Check	0.507	B.2.4.5-1	61.16	No Message
N-1.75a	C70	623	P150R1	50	Check	0.542	B.2.4.5-1	61.16	No Message
N-1.75a	C71	624	P150R4	0	Check	0.29	B.2.4.5-1	122.32	No Message
N-1.75a	C71	624	P150R4	25	Check	0.309	B.2.4.5-1	122.32	No Message
N-1.75a	C71	624	P150R4	50	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75a	C72	625	P150R4	0	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75a	C72	625	P150R4	25	Check	0.346	B.2.4.5-1	122.32	No Message
N-1.75a	C72	625	P150R4	50	Check	0.365	B.2.4.5-1	122.32	No Message
N-1.75a	C73	626	P150R4	0	Check	0.365	B.2.4.5-1	122.32	No Message
N-1.75a	C73	626	P150R4	25	Check	0.384	B.2.4.5-1	122.32	No Message
N-1.75a	C73	626	P150R4	50	Check	0.403	B.2.4.5-1	122.32	No Message
N-1.75a	C74	627	P150R4	0	Check	0.403	B.2.4.5-1	122.32	No Message
N-1.75a	C74	627	P150R4	25	Check	0.422	B.2.4.5-1	122.32	No Message
N-1.75a	C74	627	P150R4	50	Check	0.443	B.2.4.5-1	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C75	628	P150R4	0	Check	0.443	B.2.4.5-1	122.32	No Message
N-1.75a	C75	628	P150R4	25	Check	0.463	B.2.4.5-1	122.32	No Message
N-1.75a	C75	628	P150R4	50	Check	0.484	B.2.4.5-1	122.32	No Message
N-1.75a	C76	629	P150R4	0	Check	0.484	B.2.4.5-1	122.32	No Message
N-1.75a	C76	629	P150R4	25	Check	0.505	B.2.4.5-1	122.32	No Message
N-1.75a	C76	629	P150R4	50	Check	0.527	B.2.4.5-1	122.32	No Message
N-1.75a	C77	630	P150R4	0	Check	0.527	B.2.4.5-1	122.32	No Message
N-1.75a	C77	630	P150R4	25	Check	0.548	B.2.4.5-1	122.32	No Message
N-1.75a	C77	630	P150R4	50	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75a	C78	631	P150R4	0	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75a	C78	631	P150R4	0.1	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75a	C78	631	P150R4	0.2	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75a	C79	632	P150R1	0	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75a	C79	632	P150R1	25	Check	0.037	B.2.4.5-8	61.16	No Message
N-1.75a	C79	632	P150R1	50	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75a	C80	633	P150R1	0	Check	0.039	B.2.4.5-8	61.16	No Message
N-1.75a	C80	633	P150R1	25	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75a	C80	633	P150R1	50	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75a	C81	634	P150R1	0	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75a	C81	634	P150R1	25	Check	0.037	B.2.4.5-8	61.16	No Message
N-1.75a	C81	634	P150R1	50	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75a	C82	635	P150R1	0	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75a	C82	635	P150R1	25	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75a	C82	635	P150R1	50	Check	0.035	B.2.4.5-8	61.16	No Message
N-1.75a	C83	636	P150R1	0	Check	0.035	B.2.4.5-8	61.16	No Message
N-1.75a	C83	636	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C83	636	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C84	637	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C84	637	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C84	637	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C85	638	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C85	638	P150R1	25	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C85	638	P150R1	50	Check	0.039	B.2.4.7-8	61.16	No Message
N-1.75a	C86	639	P150R1	0	Check	0.039	B.2.4.7-8	61.16	No Message
N-1.75a	C86	639	P150R1	25	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75a	C86	639	P150R1	50	Check	0.059	B.2.4.7-8	61.16	No Message
N-1.75a	C87	640	P150R1	0	Check	0.059	B.2.4.7-8	61.16	No Message
N-1.75a	C87	640	P150R1	25	Check	0.069	B.2.4.7-8	61.16	No Message
N-1.75a	C87	640	P150R1	50	Check	0.08	B.2.4.7-8	61.16	No Message
N-1.75a	C88	641	P150R1	0	Check	0.08	B.2.4.7-8	61.16	No Message
N-1.75a	C88	641	P150R1	25	Check	0.091	B.2.4.7-8	61.16	No Message
N-1.75a	C88	641	P150R1	50	Check	0.102	B.2.4.7-8	61.16	No Message
N-1.75a	C89	642	P150R1	0	Check	0.102	B.2.4.7-8	61.16	No Message
N-1.75a	C89	642	P150R1	25	Check	0.113	B.2.4.7-8	61.16	No Message
N-1.75a	C89	642	P150R1	50	Check	0.124	B.2.4.7-8	61.16	No Message
N-1.75a	C90	643	P150R1	0	Check	0.124	B.2.4.7-8	61.16	No Message
N-1.75a	C90	643	P150R1	25	Check	0.135	B.2.4.7-8	61.16	No Message
N-1.75a	C90	643	P150R1	50	Check	0.146	B.2.4.7-8	61.16	No Message
N-1.75a	C91	644	P150R1	0	Check	0.146	B.2.4.7-8	61.16	No Message
N-1.75a	C91	644	P150R1	25	Check	0.157	B.2.4.7-8	61.16	No Message
N-1.75a	C91	644	P150R1	50	Check	0.168	B.2.4.7-8	61.16	No Message
N-1.75a	C92	645	P150R1	0	Check	0.168	B.2.4.7-8	61.16	No Message
N-1.75a	C92	645	P150R1	25	Check	0.178	B.2.4.7-8	61.16	No Message
N-1.75a	C92	645	P150R1	50	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75a	C93	646	P150R1	0	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75a	C93	646	P150R1	25	Check	0.204	B.2.4.7-8	61.16	No Message
N-1.75a	C93	646	P150R1	50	Check	0.217	B.2.4.7-8	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C94	647	P150R1	0	Check	0.217	B.2.4.7-8	61.16	No Message
N-1.75a	C94	647	P150R1	25	Check	0.23	B.2.4.7-8	61.16	No Message
N-1.75a	C94	647	P150R1	50	Check	0.243	B.2.4.7-8	61.16	No Message
N-1.75a	C95	648	P150R1	0	Check	0.243	B.2.4.7-8	61.16	No Message
N-1.75a	C95	648	P150R1	25	Check	0.255	B.2.4.7-8	61.16	No Message
N-1.75a	C95	648	P150R1	50	Check	0.268	B.2.4.7-8	61.16	No Message
N-1.75a	C96	649	P150R1	0	Check	0.268	B.2.4.7-8	61.16	No Message
N-1.75a	C96	649	P150R1	25	Check	0.279	B.2.4.7-8	61.16	No Message
N-1.75a	C96	649	P150R1	50	Check	0.292	B.2.4.7-8	61.16	No Message
N-1.75a	C97	650	P150R1	0	Check	0.292	B.2.4.7-8	61.16	No Message
N-1.75a	C97	650	P150R1	25	Check	0.306	B.2.4.5-8	61.16	No Message
N-1.75a	C97	650	P150R1	50	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75a	C98	651	P150R1	0	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75a	C98	651	P150R1	25	Check	0.341	B.2.4.5-8	61.16	No Message
N-1.75a	C98	651	P150R1	50	Check	0.361	B.2.4.5-1	61.16	No Message
N-1.75a	C99	652	P150R1	0	Check	0.361	B.2.4.5-1	61.16	No Message
N-1.75a	C99	652	P150R1	25	Check	0.383	B.2.4.5-1	61.16	No Message
N-1.75a	C99	652	P150R1	50	Check	0.405	B.2.4.5-1	61.16	No Message
N-1.75a	C100	653	P150R1	0	Check	0.405	B.2.4.5-1	61.16	No Message
N-1.75a	C100	653	P150R1	25	Check	0.426	B.2.4.5-1	61.16	No Message
N-1.75a	C100	653	P150R1	50	Check	0.448	B.2.4.5-1	61.16	No Message
N-1.75a	C101	654	P150R4	0	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75a	C101	654	P150R4	25	Check	0.251	B.2.4.5-1	122.32	No Message
N-1.75a	C101	654	P150R4	50	Check	0.262	B.2.4.5-1	122.32	No Message
N-1.75a	C102	655	P150R4	0	Check	0.262	B.2.4.5-1	122.32	No Message
N-1.75a	C102	655	P150R4	25	Check	0.273	B.2.4.5-1	122.32	No Message
N-1.75a	C102	655	P150R4	50	Check	0.287	B.2.4.5-8	122.32	No Message
N-1.75a	C103	656	P150R4	0	Check	0.287	B.2.4.5-8	122.32	No Message
N-1.75a	C103	656	P150R4	25	Check	0.3	B.2.4.5-8	122.32	No Message
N-1.75a	C103	656	P150R4	50	Check	0.314	B.2.4.5-8	122.32	No Message
N-1.75a	C104	657	P150R4	0	Check	0.314	B.2.4.5-8	122.32	No Message
N-1.75a	C104	657	P150R4	25	Check	0.327	B.2.4.5-8	122.32	No Message
N-1.75a	C104	657	P150R4	50	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75a	C105	658	P150R4	0	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75a	C105	658	P150R4	25	Check	0.36	B.2.4.5-8	122.32	No Message
N-1.75a	C105	658	P150R4	50	Check	0.378	B.2.4.5-8	122.32	No Message
N-1.75a	C106	659	P150R4	0	Check	0.378	B.2.4.5-8	122.32	No Message
N-1.75a	C106	659	P150R4	25	Check	0.397	B.2.4.5-8	122.32	No Message
N-1.75a	C106	659	P150R4	50	Check	0.417	B.2.4.5-8	122.32	No Message
N-1.75a	C107	660	P150R4	0	Check	0.417	B.2.4.5-8	122.32	No Message
N-1.75a	C107	660	P150R4	25	Check	0.438	B.2.4.5-8	122.32	No Message
N-1.75a	C107	660	P150R4	50	Check	0.46	B.2.4.5-8	122.32	No Message
N-1.75a	C108	661	P150R4	0	Check	0.46	B.2.4.5-8	122.32	No Message
N-1.75a	C108	661	P150R4	0.1	Check	0.46	B.2.4.5-8	122.32	No Message
N-1.75a	C108	661	P150R4	0.2	Check	0.461	B.2.4.5-8	122.32	No Message
N-1.75a	C109	662	P150R1	0	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75a	C109	662	P150R1	25	Check	0.055	B.2.4.7-8	61.16	No Message
N-1.75a	C109	662	P150R1	50	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75a	C110	663	P150R1	0	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75a	C110	663	P150R1	25	Check	0.074	B.2.4.7-8	61.16	No Message
N-1.75a	C110	663	P150R1	50	Check	0.083	B.2.4.7-8	61.16	No Message
N-1.75a	C111	664	P150R1	0	Check	0.083	B.2.4.7-8	61.16	No Message
N-1.75a	C111	664	P150R1	25	Check	0.091	B.2.4.7-8	61.16	No Message
N-1.75a	C111	664	P150R1	50	Check	0.1	B.2.4.7-8	61.16	No Message
N-1.75a	C112	665	P150R1	0	Check	0.1	B.2.4.7-8	61.16	No Message
N-1.75a	C112	665	P150R1	25	Check	0.108	B.2.4.7-8	61.16	No Message
N-1.75a	C112	665	P150R1	50	Check	0.116	B.2.4.7-8	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C113	666	P150R1	0	Check	0.116	B.2.4.7-8	61.16	No Message
N-1.75a	C113	666	P150R1	25	Check	0.125	B.2.4.7-8	61.16	No Message
N-1.75a	C113	666	P150R1	50	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75a	C114	667	P150R1	0	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75a	C114	667	P150R1	25	Check	0.142	B.2.4.7-8	61.16	No Message
N-1.75a	C114	667	P150R1	50	Check	0.15	B.2.4.7-8	61.16	No Message
N-1.75a	C115	668	P150R1	0	Check	0.15	B.2.4.7-8	61.16	No Message
N-1.75a	C115	668	P150R1	25	Check	0.16	B.2.4.7-8	61.16	No Message
N-1.75a	C115	668	P150R1	50	Check	0.169	B.2.4.7-8	61.16	No Message
N-1.75a	C116	669	P150R1	0	Check	0.169	B.2.4.7-8	61.16	No Message
N-1.75a	C116	669	P150R1	25	Check	0.18	B.2.4.7-8	61.16	No Message
N-1.75a	C116	669	P150R1	50	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75a	C117	670	P150R1	0	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75a	C117	670	P150R1	25	Check	0.202	B.2.4.7-8	61.16	No Message
N-1.75a	C117	670	P150R1	50	Check	0.213	B.2.4.7-8	61.16	No Message
N-1.75a	C118	671	P150R1	0	Check	0.213	B.2.4.7-8	61.16	No Message
N-1.75a	C118	671	P150R1	25	Check	0.225	B.2.4.7-8	61.16	No Message
N-1.75a	C118	671	P150R1	50	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75a	C119	672	P150R1	0	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75a	C119	672	P150R1	25	Check	0.25	B.2.4.7-8	61.16	No Message
N-1.75a	C119	672	P150R1	50	Check	0.263	B.2.4.7-8	61.16	No Message
N-1.75a	C120	673	P150R1	0	Check	0.263	B.2.4.7-8	61.16	No Message
N-1.75a	C120	673	P150R1	25	Check	0.278	B.2.4.5-8	61.16	No Message
N-1.75a	C120	673	P150R1	50	Check	0.293	B.2.4.5-8	61.16	No Message
N-1.75a	C121	674	P150R1	0	Check	0.293	B.2.4.5-8	61.16	No Message
N-1.75a	C121	674	P150R1	25	Check	0.308	B.2.4.5-8	61.16	No Message
N-1.75a	C121	674	P150R1	50	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75a	C122	675	P150R1	0	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75a	C122	675	P150R1	25	Check	0.34	B.2.4.5-8	61.16	No Message
N-1.75a	C122	675	P150R1	50	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75a	C123	676	P150R1	0	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75a	C123	676	P150R1	25	Check	0.371	B.2.4.5-8	61.16	No Message
N-1.75a	C123	676	P150R1	50	Check	0.387	B.2.4.5-8	61.16	No Message
N-1.75a	C124	677	P150R1	0	Check	0.387	B.2.4.5-8	61.16	No Message
N-1.75a	C124	677	P150R1	25	Check	0.402	B.2.4.5-8	61.16	No Message
N-1.75a	C124	677	P150R1	50	Check	0.417	B.2.4.5-8	61.16	No Message
N-1.75a	C125	678	P150R1	0	Check	0.417	B.2.4.5-8	61.16	No Message
N-1.75a	C125	678	P150R1	25	Check	0.432	B.2.4.5-8	61.16	No Message
N-1.75a	C125	678	P150R1	50	Check	0.446	B.2.4.5-8	61.16	No Message
N-1.75a	C126	679	P150R1	0	Check	0.446	B.2.4.5-8	61.16	No Message
N-1.75a	C126	679	P150R1	25	Check	0.46	B.2.4.5-8	61.16	No Message
N-1.75a	C126	679	P150R1	50	Check	0.475	B.2.4.5-8	61.16	No Message
N-1.75a	C127	680	P150R1	0	Check	0.475	B.2.4.5-8	61.16	No Message
N-1.75a	C127	680	P150R1	25	Check	0.489	B.2.4.5-8	61.16	No Message
N-1.75a	C127	680	P150R1	50	Check	0.503	B.2.4.5-8	61.16	No Message
N-1.75a	C128	681	P150R1	0	Check	0.503	B.2.4.5-8	61.16	No Message
N-1.75a	C128	681	P150R1	25	Check	0.517	B.2.4.5-8	61.16	No Message
N-1.75a	C128	681	P150R1	50	Check	0.532	B.2.4.5-8	61.16	No Message
N-1.75a	C129	682	P150R1	0	Check	0.532	B.2.4.5-8	61.16	No Message
N-1.75a	C129	682	P150R1	25	Check	0.546	B.2.4.5-8	61.16	No Message
N-1.75a	C129	682	P150R1	50	Check	0.56	B.2.4.5-8	61.16	No Message
N-1.75a	C130	683	P150R1	0	Check	0.56	B.2.4.5-8	61.16	No Message
N-1.75a	C130	683	P150R1	25	Check	0.573	B.2.4.5-8	61.16	No Message
N-1.75a	C130	683	P150R1	50	Check	0.586	B.2.4.5-8	61.16	No Message
N-1.75a	C131	684	P150R4	0	Check	0.296	B.2.4.5-8	122.32	No Message
N-1.75a	C131	684	P150R4	25	Check	0.302	B.2.4.5-8	122.32	No Message
N-1.75a	C131	684	P150R4	50	Check	0.309	B.2.4.5-8	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C132	685	P150R4	0	Check	0.309	B.2.4.5-8	122.32	No Message
N-1.75a	C132	685	P150R4	25	Check	0.315	B.2.4.5-8	122.32	No Message
N-1.75a	C132	685	P150R4	50	Check	0.322	B.2.4.5-8	122.32	No Message
N-1.75a	C133	686	P150R4	0	Check	0.322	B.2.4.5-8	122.32	No Message
N-1.75a	C133	686	P150R4	25	Check	0.327	B.2.4.5-8	122.32	No Message
N-1.75a	C133	686	P150R4	50	Check	0.333	B.2.4.5-8	122.32	No Message
N-1.75a	C134	687	P150R4	0	Check	0.333	B.2.4.5-8	122.32	No Message
N-1.75a	C134	687	P150R4	25	Check	0.338	B.2.4.5-8	122.32	No Message
N-1.75a	C134	687	P150R4	50	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75a	C135	688	P150R4	0	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75a	C135	688	P150R4	25	Check	0.349	B.2.4.5-8	122.32	No Message
N-1.75a	C135	688	P150R4	50	Check	0.356	B.2.4.5-8	122.32	No Message
N-1.75a	C136	689	P150R4	0	Check	0.356	B.2.4.5-8	122.32	No Message
N-1.75a	C136	689	P150R4	25	Check	0.364	B.2.4.5-8	122.32	No Message
N-1.75a	C136	689	P150R4	50	Check	0.372	B.2.4.5-8	122.32	No Message
N-1.75a	C137	690	P150R4	0	Check	0.372	B.2.4.5-8	122.32	No Message
N-1.75a	C137	690	P150R4	25	Check	0.381	B.2.4.5-8	122.32	No Message
N-1.75a	C137	690	P150R4	50	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75a	C138	691	P150R4	0	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75a	C138	691	P150R4	0.1	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75a	C138	691	P150R4	0.2	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75a	C139	692	P150R1	0	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75a	C139	692	P150R1	25	Check	0.019	B.2.4.5-8	61.16	No Message
N-1.75a	C139	692	P150R1	50	Check	0.018	B.2.4.5-8	61.16	No Message
N-1.75a	C140	693	P150R1	0	Check	0.018	B.2.4.5-8	61.16	No Message
N-1.75a	C140	693	P150R1	25	Check	0.018	B.2.4.5-8	61.16	No Message
N-1.75a	C140	693	P150R1	50	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75a	C141	694	P150R1	0	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75a	C141	694	P150R1	25	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75a	C141	694	P150R1	50	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75a	C142	695	P150R1	0	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75a	C142	695	P150R1	25	Check	0.017	B.2.4.5-1	61.16	No Message
N-1.75a	C142	695	P150R1	50	Check	0.018	B.2.4.5-1	61.16	No Message
N-1.75a	C143	696	P150R1	0	Check	0.018	B.2.4.5-1	61.16	No Message
N-1.75a	C143	696	P150R1	25	Check	0.022	B.2.4.7-2	61.16	No Message
N-1.75a	C143	696	P150R1	50	Check	0.028	B.2.4.7-8	61.16	No Message
N-1.75a	C144	697	P150R1	0	Check	0.028	B.2.4.7-8	61.16	No Message
N-1.75a	C144	697	P150R1	25	Check	0.036	B.2.4.7-8	61.16	No Message
N-1.75a	C144	697	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C145	698	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C145	698	P150R1	25	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75a	C145	698	P150R1	50	Check	0.063	B.2.4.7-2	61.16	No Message
N-1.75a	C146	699	P150R1	0	Check	0.063	B.2.4.7-2	61.16	No Message
N-1.75a	C146	699	P150R1	25	Check	0.073	B.2.4.7-2	61.16	No Message
N-1.75a	C146	699	P150R1	50	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C147	700	P150R1	0	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C147	700	P150R1	25	Check	0.092	B.2.4.7-2	61.16	No Message
N-1.75a	C147	700	P150R1	50	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75a	C148	701	P150R1	0	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75a	C148	701	P150R1	25	Check	0.112	B.2.4.7-2	61.16	No Message
N-1.75a	C148	701	P150R1	50	Check	0.122	B.2.4.7-2	61.16	No Message
N-1.75a	C149	702	P150R1	0	Check	0.122	B.2.4.7-2	61.16	No Message
N-1.75a	C149	702	P150R1	25	Check	0.132	B.2.4.7-2	61.16	No Message
N-1.75a	C149	702	P150R1	50	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75a	C150	703	P150R1	0	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75a	C150	703	P150R1	25	Check	0.152	B.2.4.7-2	61.16	No Message
N-1.75a	C150	703	P150R1	50	Check	0.162	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C151	704	P150R1	0	Check	0.162	B.2.4.7-2	61.16	No Message
N-1.75a	C151	704	P150R1	25	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75a	C151	704	P150R1	50	Check	0.182	B.2.4.7-2	61.16	No Message
N-1.75a	C152	705	P150R1	0	Check	0.182	B.2.4.7-2	61.16	No Message
N-1.75a	C152	705	P150R1	25	Check	0.191	B.2.4.7-2	61.16	No Message
N-1.75a	C152	705	P150R1	50	Check	0.202	B.2.4.7-8	61.16	No Message
N-1.75a	C153	706	P150R1	0	Check	0.202	B.2.4.7-8	61.16	No Message
N-1.75a	C153	706	P150R1	25	Check	0.213	B.2.4.7-8	61.16	No Message
N-1.75a	C153	706	P150R1	50	Check	0.227	B.2.4.5-8	61.16	No Message
N-1.75a	C154	707	P150R1	0	Check	0.227	B.2.4.5-8	61.16	No Message
N-1.75a	C154	707	P150R1	25	Check	0.24	B.2.4.5-8	61.16	No Message
N-1.75a	C154	707	P150R1	50	Check	0.254	B.2.4.5-8	61.16	No Message
N-1.75a	C155	708	P150R1	0	Check	0.254	B.2.4.5-8	61.16	No Message
N-1.75a	C155	708	P150R1	25	Check	0.267	B.2.4.5-8	61.16	No Message
N-1.75a	C155	708	P150R1	50	Check	0.28	B.2.4.5-8	61.16	No Message
N-1.75a	C156	709	P150R1	0	Check	0.28	B.2.4.5-8	61.16	No Message
N-1.75a	C156	709	P150R1	25	Check	0.293	B.2.4.5-8	61.16	No Message
N-1.75a	C156	709	P150R1	50	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75a	C157	710	P150R1	0	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75a	C157	710	P150R1	25	Check	0.316	B.2.4.5-8	61.16	No Message
N-1.75a	C157	710	P150R1	50	Check	0.328	B.2.4.5-8	61.16	No Message
N-1.75a	C158	711	P150R1	0	Check	0.328	B.2.4.5-8	61.16	No Message
N-1.75a	C158	711	P150R1	25	Check	0.337	B.2.4.5-8	61.16	No Message
N-1.75a	C158	711	P150R1	50	Check	0.347	B.2.4.5-8	61.16	No Message
N-1.75a	C159	712	P150R1	0	Check	0.347	B.2.4.5-8	61.16	No Message
N-1.75a	C159	712	P150R1	25	Check	0.356	B.2.4.5-8	61.16	No Message
N-1.75a	C159	712	P150R1	50	Check	0.366	B.2.4.5-8	61.16	No Message
N-1.75a	C160	713	P150R1	0	Check	0.366	B.2.4.5-8	61.16	No Message
N-1.75a	C160	713	P150R1	25	Check	0.376	B.2.4.5-8	61.16	No Message
N-1.75a	C160	713	P150R1	50	Check	0.386	B.2.4.5-8	61.16	No Message
N-1.75a	C161	714	P150R4	0	Check	0.2	B.2.4.5-8	122.32	No Message
N-1.75a	C161	714	P150R4	25	Check	0.204	B.2.4.5-8	122.32	No Message
N-1.75a	C161	714	P150R4	50	Check	0.208	B.2.4.5-8	122.32	No Message
N-1.75a	C162	715	P150R4	0	Check	0.208	B.2.4.5-8	122.32	No Message
N-1.75a	C162	715	P150R4	25	Check	0.212	B.2.4.5-8	122.32	No Message
N-1.75a	C162	715	P150R4	50	Check	0.217	B.2.4.5-8	122.32	No Message
N-1.75a	C163	716	P150R4	0	Check	0.217	B.2.4.5-8	122.32	No Message
N-1.75a	C163	716	P150R4	25	Check	0.221	B.2.4.5-8	122.32	No Message
N-1.75a	C163	716	P150R4	50	Check	0.225	B.2.4.5-8	122.32	No Message
N-1.75a	C164	717	P150R4	0	Check	0.225	B.2.4.5-8	122.32	No Message
N-1.75a	C164	717	P150R4	25	Check	0.229	B.2.4.5-8	122.32	No Message
N-1.75a	C164	717	P150R4	50	Check	0.233	B.2.4.5-8	122.32	No Message
N-1.75a	C165	718	P150R4	0	Check	0.233	B.2.4.5-8	122.32	No Message
N-1.75a	C165	718	P150R4	25	Check	0.237	B.2.4.5-8	122.32	No Message
N-1.75a	C165	718	P150R4	50	Check	0.248	B.2.4.5-1	122.32	No Message
N-1.75a	C166	719	P150R4	0	Check	0.248	B.2.4.5-1	122.32	No Message
N-1.75a	C166	719	P150R4	25	Check	0.264	B.2.4.5-1	122.32	No Message
N-1.75a	C166	719	P150R4	50	Check	0.281	B.2.4.5-1	122.32	No Message
N-1.75a	C167	720	P150R4	0	Check	0.281	B.2.4.5-1	122.32	No Message
N-1.75a	C167	720	P150R4	25	Check	0.3	B.2.4.5-1	122.32	No Message
N-1.75a	C167	720	P150R4	50	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75a	C168	721	P150R4	0	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75a	C168	721	P150R4	0.1	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75a	C168	721	P150R4	0.2	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75a	C169	722	P150R1	0	Check	0.026	B.2.4.5-2	61.16	No Message
N-1.75a	C169	722	P150R1	25	Check	0.026	B.2.4.5-2	61.16	No Message
N-1.75a	C169	722	P150R1	50	Check	0.025	B.2.4.5-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C170	723	P150R1	0	Check	0.025	B.2.4.5-2	61.16	No Message
N-1.75a	C170	723	P150R1	25	Check	0.024	B.2.4.5-2	61.16	No Message
N-1.75a	C170	723	P150R1	50	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75a	C171	724	P150R1	0	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75a	C171	724	P150R1	25	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75a	C171	724	P150R1	50	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75a	C172	725	P150R1	0	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75a	C172	725	P150R1	25	Check	0.022	B.2.4.5-2	61.16	No Message
N-1.75a	C172	725	P150R1	50	Check	0.022	B.2.4.5-2	61.16	No Message
N-1.75a	C173	726	P150R1	0	Check	0.022	B.2.4.5-2	61.16	No Message
N-1.75a	C173	726	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C173	726	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C174	727	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C174	727	P150R1	25	Check	0.026	B.2.4.7-1	61.16	No Message
N-1.75a	C174	727	P150R1	50	Check	0.032	B.2.4.7-1	61.16	No Message
N-1.75a	C175	728	P150R1	0	Check	0.032	B.2.4.7-1	61.16	No Message
N-1.75a	C175	728	P150R1	25	Check	0.04	B.2.4.7-1	61.16	No Message
N-1.75a	C175	728	P150R1	50	Check	0.048	B.2.4.7-1	61.16	No Message
N-1.75a	C176	729	P150R1	0	Check	0.048	B.2.4.7-1	61.16	No Message
N-1.75a	C176	729	P150R1	25	Check	0.057	B.2.4.7-1	61.16	No Message
N-1.75a	C176	729	P150R1	50	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75a	C177	730	P150R1	0	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75a	C177	730	P150R1	25	Check	0.074	B.2.4.7-1	61.16	No Message
N-1.75a	C177	730	P150R1	50	Check	0.082	B.2.4.7-1	61.16	No Message
N-1.75a	C178	731	P150R1	0	Check	0.082	B.2.4.7-1	61.16	No Message
N-1.75a	C178	731	P150R1	25	Check	0.092	B.2.4.7-1	61.16	No Message
N-1.75a	C178	731	P150R1	50	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75a	C179	732	P150R1	0	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75a	C179	732	P150R1	25	Check	0.111	B.2.4.7-1	61.16	No Message
N-1.75a	C179	732	P150R1	50	Check	0.12	B.2.4.7-1	61.16	No Message
N-1.75a	C180	733	P150R1	0	Check	0.12	B.2.4.7-1	61.16	No Message
N-1.75a	C180	733	P150R1	25	Check	0.129	B.2.4.7-1	61.16	No Message
N-1.75a	C180	733	P150R1	50	Check	0.139	B.2.4.7-1	61.16	No Message
N-1.75a	C181	734	P150R1	0	Check	0.139	B.2.4.7-1	61.16	No Message
N-1.75a	C181	734	P150R1	25	Check	0.148	B.2.4.7-1	61.16	No Message
N-1.75a	C181	734	P150R1	50	Check	0.157	B.2.4.7-1	61.16	No Message
N-1.75a	C182	735	P150R1	0	Check	0.157	B.2.4.7-1	61.16	No Message
N-1.75a	C182	735	P150R1	25	Check	0.166	B.2.4.7-1	61.16	No Message
N-1.75a	C182	735	P150R1	50	Check	0.177	B.2.4.7-8	61.16	No Message
N-1.75a	C183	736	P150R1	0	Check	0.177	B.2.4.7-8	61.16	No Message
N-1.75a	C183	736	P150R1	25	Check	0.188	B.2.4.7-8	61.16	No Message
N-1.75a	C183	736	P150R1	50	Check	0.198	B.2.4.7-8	61.16	No Message
N-1.75a	C184	737	P150R1	0	Check	0.198	B.2.4.7-8	61.16	No Message
N-1.75a	C184	737	P150R1	25	Check	0.208	B.2.4.7-8	61.16	No Message
N-1.75a	C184	737	P150R1	50	Check	0.218	B.2.4.7-8	61.16	No Message
N-1.75a	C185	738	P150R1	0	Check	0.218	B.2.4.7-8	61.16	No Message
N-1.75a	C185	738	P150R1	25	Check	0.228	B.2.4.7-8	61.16	No Message
N-1.75a	C185	738	P150R1	50	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75a	C186	739	P150R1	0	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75a	C186	739	P150R1	25	Check	0.245	B.2.4.5-8	61.16	No Message
N-1.75a	C186	739	P150R1	50	Check	0.256	B.2.4.5-8	61.16	No Message
N-1.75a	C187	740	P150R1	0	Check	0.256	B.2.4.5-8	61.16	No Message
N-1.75a	C187	740	P150R1	25	Check	0.265	B.2.4.5-8	61.16	No Message
N-1.75a	C187	740	P150R1	50	Check	0.275	B.2.4.5-8	61.16	No Message
N-1.75a	C188	741	P150R1	0	Check	0.275	B.2.4.5-8	61.16	No Message
N-1.75a	C188	741	P150R1	25	Check	0.283	B.2.4.5-8	61.16	No Message
N-1.75a	C188	741	P150R1	50	Check	0.291	B.2.4.5-8	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C189	742	P150R1	0	Check	0.291	B.2.4.5-8	61.16	No Message
N-1.75a	C189	742	P150R1	25	Check	0.3	B.2.4.5-8	61.16	No Message
N-1.75a	C189	742	P150R1	50	Check	0.309	B.2.4.5-8	61.16	No Message
N-1.75a	C190	743	P150R1	0	Check	0.309	B.2.4.5-8	61.16	No Message
N-1.75a	C190	743	P150R1	25	Check	0.317	B.2.4.5-8	61.16	No Message
N-1.75a	C190	743	P150R1	50	Check	0.325	B.2.4.5-8	61.16	No Message
N-1.75a	C191	744	P150R4	0	Check	0.17	B.2.4.5-8	122.32	No Message
N-1.75a	C191	744	P150R4	25	Check	0.173	B.2.4.5-8	122.32	No Message
N-1.75a	C191	744	P150R4	50	Check	0.176	B.2.4.5-8	122.32	No Message
N-1.75a	C192	745	P150R4	0	Check	0.176	B.2.4.5-8	122.32	No Message
N-1.75a	C192	745	P150R4	25	Check	0.178	B.2.4.5-8	122.32	No Message
N-1.75a	C192	745	P150R4	50	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75a	C193	746	P150R4	0	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75a	C193	746	P150R4	25	Check	0.183	B.2.4.5-8	122.32	No Message
N-1.75a	C193	746	P150R4	50	Check	0.185	B.2.4.5-8	122.32	No Message
N-1.75a	C194	747	P150R4	0	Check	0.185	B.2.4.5-8	122.32	No Message
N-1.75a	C194	747	P150R4	25	Check	0.187	B.2.4.5-8	122.32	No Message
N-1.75a	C194	747	P150R4	50	Check	0.189	B.2.4.5-8	122.32	No Message
N-1.75a	C195	748	P150R4	0	Check	0.189	B.2.4.5-8	122.32	No Message
N-1.75a	C195	748	P150R4	25	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75a	C195	748	P150R4	50	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75a	C196	749	P150R4	0	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75a	C196	749	P150R4	25	Check	0.217	B.2.4.5-1	122.32	No Message
N-1.75a	C196	749	P150R4	50	Check	0.232	B.2.4.5-1	122.32	No Message
N-1.75a	C197	750	P150R4	0	Check	0.232	B.2.4.5-1	122.32	No Message
N-1.75a	C197	750	P150R4	25	Check	0.249	B.2.4.5-1	122.32	No Message
N-1.75a	C197	750	P150R4	50	Check	0.266	B.2.4.5-1	122.32	No Message
N-1.75a	C198	751	P150R4	0	Check	0.266	B.2.4.5-1	122.32	No Message
N-1.75a	C198	751	P150R4	0.1	Check	0.266	B.2.4.5-1	122.32	No Message
N-1.75a	C198	751	P150R4	0.2	Check	0.267	B.2.4.5-1	122.32	No Message
N-1.75a	C199	752	P150R1	0	Check	0.039	B.2.4.5-2	61.16	No Message
N-1.75a	C199	752	P150R1	25	Check	0.039	B.2.4.5-2	61.16	No Message
N-1.75a	C199	752	P150R1	50	Check	0.038	B.2.4.5-2	61.16	No Message
N-1.75a	C200	753	P150R1	0	Check	0.038	B.2.4.5-2	61.16	No Message
N-1.75a	C200	753	P150R1	25	Check	0.037	B.2.4.5-2	61.16	No Message
N-1.75a	C200	753	P150R1	50	Check	0.036	B.2.4.5-2	61.16	No Message
N-1.75a	C201	754	P150R1	0	Check	0.036	B.2.4.5-2	61.16	No Message
N-1.75a	C201	754	P150R1	25	Check	0.036	B.2.4.5-2	61.16	No Message
N-1.75a	C201	754	P150R1	50	Check	0.042	B.2.4.7-1	61.16	No Message
N-1.75a	C202	755	P150R1	0	Check	0.042	B.2.4.7-1	61.16	No Message
N-1.75a	C202	755	P150R1	25	Check	0.051	B.2.4.7-1	61.16	No Message
N-1.75a	C202	755	P150R1	50	Check	0.061	B.2.4.7-1	61.16	No Message
N-1.75a	C203	756	P150R1	0	Check	0.061	B.2.4.7-1	61.16	No Message
N-1.75a	C203	756	P150R1	25	Check	0.071	B.2.4.7-1	61.16	No Message
N-1.75a	C203	756	P150R1	50	Check	0.081	B.2.4.7-1	61.16	No Message
N-1.75a	C204	757	P150R1	0	Check	0.081	B.2.4.7-1	61.16	No Message
N-1.75a	C204	757	P150R1	25	Check	0.091	B.2.4.7-1	61.16	No Message
N-1.75a	C204	757	P150R1	50	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75a	C205	758	P150R1	0	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75a	C205	758	P150R1	25	Check	0.111	B.2.4.7-1	61.16	No Message
N-1.75a	C205	758	P150R1	50	Check	0.122	B.2.4.7-1	61.16	No Message
N-1.75a	C206	759	P150R1	0	Check	0.122	B.2.4.7-1	61.16	No Message
N-1.75a	C206	759	P150R1	25	Check	0.132	B.2.4.7-1	61.16	No Message
N-1.75a	C206	759	P150R1	50	Check	0.142	B.2.4.7-1	61.16	No Message
N-1.75a	C207	760	P150R1	0	Check	0.142	B.2.4.7-1	61.16	No Message
N-1.75a	C207	760	P150R1	25	Check	0.152	B.2.4.7-1	61.16	No Message
N-1.75a	C207	760	P150R1	50	Check	0.162	B.2.4.7-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C208	761	P150R1	0	Check	0.162	B.2.4.7-1	61.16	No Message
N-1.75a	C208	761	P150R1	25	Check	0.171	B.2.4.7-1	61.16	No Message
N-1.75a	C208	761	P150R1	50	Check	0.181	B.2.4.7-1	61.16	No Message
N-1.75a	C209	762	P150R1	0	Check	0.181	B.2.4.7-1	61.16	No Message
N-1.75a	C209	762	P150R1	25	Check	0.189	B.2.4.7-1	61.16	No Message
N-1.75a	C209	762	P150R1	50	Check	0.198	B.2.4.7-1	61.16	No Message
N-1.75a	C210	763	P150R1	0	Check	0.198	B.2.4.7-1	61.16	No Message
N-1.75a	C210	763	P150R1	25	Check	0.206	B.2.4.7-1	61.16	No Message
N-1.75a	C210	763	P150R1	50	Check	0.213	B.2.4.7-1	61.16	No Message
N-1.75a	C211	764	P150R1	0	Check	0.213	B.2.4.7-1	61.16	No Message
N-1.75a	C211	764	P150R1	25	Check	0.22	B.2.4.7-1	61.16	No Message
N-1.75a	C211	764	P150R1	50	Check	0.226	B.2.4.7-1	61.16	No Message
N-1.75a	C212	765	P150R1	0	Check	0.226	B.2.4.7-1	61.16	No Message
N-1.75a	C212	765	P150R1	25	Check	0.233	B.2.4.7-1	61.16	No Message
N-1.75a	C212	765	P150R1	50	Check	0.24	B.2.4.7-1	61.16	No Message
N-1.75a	C213	766	P150R1	0	Check	0.24	B.2.4.7-1	61.16	No Message
N-1.75a	C213	766	P150R1	25	Check	0.246	B.2.4.7-1	61.16	No Message
N-1.75a	C213	766	P150R1	50	Check	0.252	B.2.4.7-1	61.16	No Message
N-1.75a	C214	767	P150R1	0	Check	0.252	B.2.4.7-1	61.16	No Message
N-1.75a	C214	767	P150R1	25	Check	0.256	B.2.4.7-1	61.16	No Message
N-1.75a	C214	767	P150R1	50	Check	0.261	B.2.4.7-1	61.16	No Message
N-1.75a	C215	768	P150R1	0	Check	0.261	B.2.4.7-1	61.16	No Message
N-1.75a	C215	768	P150R1	25	Check	0.265	B.2.4.7-1	61.16	No Message
N-1.75a	C215	768	P150R1	50	Check	0.275	B.2.4.7-1	61.16	No Message
N-1.75a	C216	769	P150R1	0	Check	0.275	B.2.4.7-1	61.16	No Message
N-1.75a	C216	769	P150R1	25	Check	0.286	B.2.4.7-1	61.16	No Message
N-1.75a	C216	769	P150R1	50	Check	0.302	B.2.4.5-8	61.16	No Message
N-1.75a	C217	770	P150R4	0	Check	0.16	B.2.4.5-8	122.32	No Message
N-1.75a	C217	770	P150R4	25	Check	0.17	B.2.4.5-8	122.32	No Message
N-1.75a	C217	770	P150R4	50	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75a	C218	771	P150R4	0	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75a	C218	771	P150R4	25	Check	0.192	B.2.4.5-8	122.32	No Message
N-1.75a	C218	771	P150R4	50	Check	0.203	B.2.4.5-1	122.32	No Message
N-1.75a	C219	772	P150R4	0	Check	0.203	B.2.4.5-1	122.32	No Message
N-1.75a	C219	772	P150R4	25	Check	0.216	B.2.4.5-1	122.32	No Message
N-1.75a	C219	772	P150R4	50	Check	0.229	B.2.4.5-1	122.32	No Message
N-1.75a	C220	773	P150R4	0	Check	0.229	B.2.4.5-1	122.32	No Message
N-1.75a	C220	773	P150R4	25	Check	0.243	B.2.4.5-1	122.32	No Message
N-1.75a	C220	773	P150R4	50	Check	0.257	B.2.4.5-1	122.32	No Message
N-1.75a	C221	774	P150R4	0	Check	0.257	B.2.4.5-1	122.32	No Message
N-1.75a	C221	774	P150R4	25	Check	0.272	B.2.4.5-1	122.32	No Message
N-1.75a	C221	774	P150R4	50	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75a	C222	775	P150R4	0	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75a	C222	775	P150R4	25	Check	0.303	B.2.4.5-1	122.32	No Message
N-1.75a	C222	775	P150R4	50	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75a	C223	776	P150R4	0	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75a	C223	776	P150R4	25	Check	0.34	B.2.4.5-1	122.32	No Message
N-1.75a	C223	776	P150R4	50	Check	0.363	B.2.4.5-1	122.32	No Message
N-1.75a	C224	777	P150R4	0	Check	0.363	B.2.4.5-1	122.32	No Message
N-1.75a	C224	777	P150R4	25	Check	0.388	B.2.4.5-1	122.32	No Message
N-1.75a	C224	777	P150R4	50	Check	0.416	B.2.4.5-1	122.32	No Message
N-1.75a	C225	778	P150R4	0	Check	0.416	B.2.4.5-1	122.32	No Message
N-1.75a	C225	778	P150R4	25	Check	0.447	B.2.4.5-1	122.32	No Message
N-1.75a	C225	778	P150R4	50	Check	0.478	B.2.4.5-1	122.32	No Message
N-1.75a	C226	779	P150R4	0	Check	0.478	B.2.4.5-1	122.32	No Message
N-1.75a	C226	779	P150R4	25	Check	0.511	B.2.4.5-1	122.32	No Message
N-1.75a	C226	779	P150R4	50	Check	0.545	B.2.4.5-1	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C227	780	P150R4	0	Check	0.545	B.2.4.5-1	122.32	No Message
N-1.75a	C227	780	P150R4	25	Check	0.579	B.2.4.5-1	122.32	No Message
N-1.75a	C227	780	P150R4	50	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75a	C228	781	P150R4	0	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75a	C228	781	P150R4	0.1	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75a	C228	781	P150R4	0.2	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75a	C229	782	P150R1	0	Check	0.049	B.2.4.5-1	61.16	No Message
N-1.75a	C229	782	P150R1	25	Check	0.048	B.2.4.5-1	61.16	No Message
N-1.75a	C229	782	P150R1	50	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75a	C230	783	P150R1	0	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75a	C230	783	P150R1	25	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75a	C230	783	P150R1	50	Check	0.046	B.2.4.5-1	61.16	No Message
N-1.75a	C231	784	P150R1	0	Check	0.046	B.2.4.5-1	61.16	No Message
N-1.75a	C231	784	P150R1	25	Check	0.045	B.2.4.5-1	61.16	No Message
N-1.75a	C231	784	P150R1	50	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C232	785	P150R1	0	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C232	785	P150R1	25	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C232	785	P150R1	50	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C233	786	P150R1	0	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C233	786	P150R1	25	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C233	786	P150R1	50	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75a	C234	787	P150R1	0	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75a	C234	787	P150R1	25	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C234	787	P150R1	50	Check	0.073	B.2.4.7-2	61.16	No Message
N-1.75a	C235	788	P150R1	0	Check	0.073	B.2.4.7-2	61.16	No Message
N-1.75a	C235	788	P150R1	25	Check	0.084	B.2.4.7-2	61.16	No Message
N-1.75a	C235	788	P150R1	50	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75a	C236	789	P150R1	0	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75a	C236	789	P150R1	25	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75a	C236	789	P150R1	50	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75a	C237	790	P150R1	0	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75a	C237	790	P150R1	25	Check	0.128	B.2.4.7-2	61.16	No Message
N-1.75a	C237	790	P150R1	50	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75a	C238	791	P150R1	0	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75a	C238	791	P150R1	25	Check	0.148	B.2.4.7-2	61.16	No Message
N-1.75a	C238	791	P150R1	50	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75a	C239	792	P150R1	0	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75a	C239	792	P150R1	25	Check	0.168	B.2.4.7-2	61.16	No Message
N-1.75a	C239	792	P150R1	50	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75a	C240	793	P150R1	0	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75a	C240	793	P150R1	25	Check	0.184	B.2.4.7-2	61.16	No Message
N-1.75a	C240	793	P150R1	50	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75a	C241	794	P150R1	0	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75a	C241	794	P150R1	25	Check	0.199	B.2.4.7-2	61.16	No Message
N-1.75a	C241	794	P150R1	50	Check	0.206	B.2.4.7-2	61.16	No Message
N-1.75a	C242	795	P150R1	0	Check	0.206	B.2.4.7-2	61.16	No Message
N-1.75a	C242	795	P150R1	25	Check	0.211	B.2.4.7-2	61.16	No Message
N-1.75a	C242	795	P150R1	50	Check	0.216	B.2.4.7-2	61.16	No Message
N-1.75a	C243	796	P150R1	0	Check	0.216	B.2.4.7-2	61.16	No Message
N-1.75a	C243	796	P150R1	25	Check	0.219	B.2.4.7-2	61.16	No Message
N-1.75a	C243	796	P150R1	50	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75a	C244	797	P150R1	0	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75a	C244	797	P150R1	25	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75a	C244	797	P150R1	50	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75a	C245	798	P150R1	0	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75a	C245	798	P150R1	25	Check	0.237	B.2.4.7-2	61.16	No Message
N-1.75a	C245	798	P150R1	50	Check	0.252	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C246	799	P150R1	0	Check	0.252	B.2.4.7-2	61.16	No Message
N-1.75a	C246	799	P150R1	25	Check	0.267	B.2.4.7-2	61.16	No Message
N-1.75a	C246	799	P150R1	50	Check	0.282	B.2.4.7-2	61.16	No Message
N-1.75a	C247	800	P150R1	0	Check	0.282	B.2.4.7-2	61.16	No Message
N-1.75a	C247	800	P150R1	25	Check	0.299	B.2.4.7-2	61.16	No Message
N-1.75a	C247	800	P150R1	50	Check	0.315	B.2.4.7-2	61.16	No Message
N-1.75a	C248	801	P150R1	0	Check	0.315	B.2.4.7-2	61.16	No Message
N-1.75a	C248	801	P150R1	25	Check	0.337	B.2.4.5-2	61.16	No Message
N-1.75a	C248	801	P150R1	50	Check	0.364	B.2.4.5-2	61.16	No Message
N-1.75a	C249	802	P150R1	0	Check	0.364	B.2.4.5-2	61.16	No Message
N-1.75a	C249	802	P150R1	25	Check	0.392	B.2.4.5-2	61.16	No Message
N-1.75a	C249	802	P150R1	50	Check	0.42	B.2.4.5-2	61.16	No Message
N-1.75a	C250	803	P150R1	0	Check	0.42	B.2.4.5-2	61.16	No Message
N-1.75a	C250	803	P150R1	25	Check	0.449	B.2.4.5-2	61.16	No Message
N-1.75a	C250	803	P150R1	50	Check	0.477	B.2.4.5-2	61.16	No Message
N-1.75a	C251	804	P150R4	0	Check	0.255	B.2.4.5-2	122.32	No Message
N-1.75a	C251	804	P150R4	25	Check	0.271	B.2.4.5-1	122.32	No Message
N-1.75a	C251	804	P150R4	50	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75a	C252	805	P150R4	0	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75a	C252	805	P150R4	25	Check	0.303	B.2.4.5-1	122.32	No Message
N-1.75a	C252	805	P150R4	50	Check	0.321	B.2.4.5-1	122.32	No Message
N-1.75a	C253	806	P150R4	0	Check	0.321	B.2.4.5-1	122.32	No Message
N-1.75a	C253	806	P150R4	25	Check	0.346	B.2.4.5-1	122.32	No Message
N-1.75a	C253	806	P150R4	50	Check	0.378	B.2.4.5-1	122.32	No Message
N-1.75a	C254	807	P150R4	0	Check	0.378	B.2.4.5-1	122.32	No Message
N-1.75a	C254	807	P150R4	25	Check	0.412	B.2.4.5-1	122.32	No Message
N-1.75a	C254	807	P150R4	50	Check	0.447	B.2.4.5-1	122.32	No Message
N-1.75a	C255	808	P150R4	0	Check	0.447	B.2.4.5-1	122.32	No Message
N-1.75a	C255	808	P150R4	25	Check	0.485	B.2.4.5-1	122.32	No Message
N-1.75a	C255	808	P150R4	50	Check	0.524	B.2.4.5-1	122.32	No Message
N-1.75a	C256	809	P150R4	0	Check	0.524	B.2.4.5-1	122.32	No Message
N-1.75a	C256	809	P150R4	25	Check	0.565	B.2.4.5-1	122.32	No Message
N-1.75a	C256	809	P150R4	50	Check	0.605	B.2.4.5-1	122.32	No Message
N-1.75a	C257	810	P150R4	0	Check	0.605	B.2.4.5-1	122.32	No Message
N-1.75a	C257	810	P150R4	25	Check	0.647	B.2.4.5-1	122.32	No Message
N-1.75a	C257	810	P150R4	50	Check	0.689	B.2.4.5-1	122.32	No Message
N-1.75a	C258	811	P150R4	0	Check	0.689	B.2.4.5-1	122.32	No Message
N-1.75a	C258	811	P150R4	0.1	Check	0.69	B.2.4.5-1	122.32	No Message
N-1.75a	C258	811	P150R4	0.2	Check	0.69	B.2.4.5-1	122.32	No Message
N-1.75a	C259	812	P150R1	0	Check	0.064	B.2.4.5-8	61.16	No Message
N-1.75a	C259	812	P150R1	25	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75a	C259	812	P150R1	50	Check	0.062	B.2.4.5-8	61.16	No Message
N-1.75a	C260	813	P150R1	0	Check	0.062	B.2.4.5-8	61.16	No Message
N-1.75a	C260	813	P150R1	25	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75a	C260	813	P150R1	50	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75a	C261	814	P150R1	0	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75a	C261	814	P150R1	25	Check	0.06	B.2.4.5-8	61.16	No Message
N-1.75a	C261	814	P150R1	50	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75a	C262	815	P150R1	0	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75a	C262	815	P150R1	25	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75a	C262	815	P150R1	50	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C263	816	P150R1	0	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C263	816	P150R1	25	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C263	816	P150R1	50	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C264	817	P150R1	0	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C264	817	P150R1	25	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C264	817	P150R1	50	Check	0.057	B.2.4.5-8	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C265	818	P150R1	0	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C265	818	P150R1	25	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C265	818	P150R1	50	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C266	819	P150R1	0	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C266	819	P150R1	25	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C266	819	P150R1	50	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75a	C267	820	P150R1	0	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75a	C267	820	P150R1	25	Check	0.06	B.2.4.5-8	61.16	No Message
N-1.75a	C267	820	P150R1	50	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75a	C268	821	P150R1	0	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75a	C268	821	P150R1	25	Check	0.062	B.2.4.5-8	61.16	No Message
N-1.75a	C268	821	P150R1	50	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75a	C269	822	P150R1	0	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75a	C269	822	P150R1	25	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75a	C269	822	P150R1	50	Check	0.064	B.2.4.5-8	61.16	No Message
N-1.75a	C270	823	P150R1	0	Check	0.064	B.2.4.5-8	61.16	No Message
N-1.75a	C270	823	P150R1	25	Check	0.065	B.2.4.5-8	61.16	No Message
N-1.75a	C270	823	P150R1	50	Check	0.066	B.2.4.5-1	61.16	No Message
N-1.75a	C271	824	P150R1	0	Check	0.066	B.2.4.5-1	61.16	No Message
N-1.75a	C271	824	P150R1	25	Check	0.067	B.2.4.5-1	61.16	No Message
N-1.75a	C271	824	P150R1	50	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75a	C272	825	P150R1	0	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75a	C272	825	P150R1	25	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75a	C272	825	P150R1	50	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75a	C273	826	P150R1	0	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75a	C273	826	P150R1	25	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75a	C273	826	P150R1	50	Check	0.094	B.2.4.7-8	61.16	No Message
N-1.75a	C274	827	P150R1	0	Check	0.094	B.2.4.7-8	61.16	No Message
N-1.75a	C274	827	P150R1	25	Check	0.113	B.2.4.7-8	61.16	No Message
N-1.75a	C274	827	P150R1	50	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75a	C275	828	P150R1	0	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75a	C275	828	P150R1	25	Check	0.155	B.2.4.7-8	61.16	No Message
N-1.75a	C275	828	P150R1	50	Check	0.178	B.2.4.7-8	61.16	No Message
N-1.75a	C276	829	P150R1	0	Check	0.178	B.2.4.7-8	61.16	No Message
N-1.75a	C276	829	P150R1	25	Check	0.203	B.2.4.7-8	61.16	No Message
N-1.75a	C276	829	P150R1	50	Check	0.229	B.2.4.7-8	61.16	No Message
N-1.75a	C277	830	P150R1	0	Check	0.229	B.2.4.7-8	61.16	No Message
N-1.75a	C277	830	P150R1	25	Check	0.255	B.2.4.7-8	61.16	No Message
N-1.75a	C277	830	P150R1	50	Check	0.281	B.2.4.7-8	61.16	No Message
N-1.75a	C278	831	P150R1	0	Check	0.281	B.2.4.7-8	61.16	No Message
N-1.75a	C278	831	P150R1	25	Check	0.309	B.2.4.7-8	61.16	No Message
N-1.75a	C278	831	P150R1	50	Check	0.351	B.2.4.5-8	61.16	No Message
N-1.75a	C279	832	P150R1	0	Check	0.351	B.2.4.5-8	61.16	No Message
N-1.75a	C279	832	P150R1	25	Check	0.397	B.2.4.5-8	61.16	No Message
N-1.75a	C279	832	P150R1	50	Check	0.443	B.2.4.5-8	61.16	No Message
N-1.75a	C280	833	P150R1	0	Check	0.443	B.2.4.5-8	61.16	No Message
N-1.75a	C280	833	P150R1	25	Check	0.492	B.2.4.5-8	61.16	No Message
N-1.75a	C280	833	P150R1	50	Check	0.54	B.2.4.5-8	61.16	No Message
N-1.75a	C281	834	P150R1	0	Check	0.54	B.2.4.5-8	61.16	No Message
N-1.75a	C281	834	P150R1	25	Check	0.591	B.2.4.5-8	61.16	No Message
N-1.75a	C281	834	P150R1	50	Check	0.642	B.2.4.5-8	61.16	No Message
N-1.75a	C282	835	P150R4	0	Check	0.344	B.2.4.5-8	122.32	No Message
N-1.75a	C282	835	P150R4	25	Check	0.372	B.2.4.5-8	122.32	No Message
N-1.75a	C282	835	P150R4	50	Check	0.4	B.2.4.5-8	122.32	No Message
N-1.75a	C283	836	P150R4	0	Check	0.4	B.2.4.5-8	122.32	No Message
N-1.75a	C283	836	P150R4	25	Check	0.428	B.2.4.5-8	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C283	836	P150R4	50	Check	0.457	B.2.4.5-8	122.32	No Message
N-1.75a	C284	837	P150R4	0	Check	0.457	B.2.4.5-8	122.32	No Message
N-1.75a	C284	837	P150R4	25	Check	0.487	B.2.4.5-8	122.32	No Message
N-1.75a	C284	837	P150R4	50	Check	0.517	B.2.4.5-8	122.32	No Message
N-1.75a	C285	838	P150R4	0	Check	0.517	B.2.4.5-8	122.32	No Message
N-1.75a	C285	838	P150R4	25	Check	0.548	B.2.4.5-8	122.32	No Message
N-1.75a	C285	838	P150R4	50	Check	0.579	B.2.4.5-8	122.32	No Message
N-1.75a	C286	839	P150R4	0	Check	0.579	B.2.4.5-8	122.32	No Message
N-1.75a	C286	839	P150R4	25	Check	0.61	B.2.4.5-8	122.32	No Message
N-1.75a	C286	839	P150R4	50	Check	0.641	B.2.4.5-8	122.32	No Message
N-1.75a	C287	840	P150R4	0	Check	0.641	B.2.4.5-8	122.32	No Message
N-1.75a	C287	840	P150R4	25	Check	0.672	B.2.4.5-8	122.32	No Message
N-1.75a	C287	840	P150R4	50	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75a	C288	841	P150R4	0	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75a	C288	841	P150R4	0.1	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75a	C288	841	P150R4	0.2	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75a	C289	842	P150R1	0	Check	0.06	B.2.4.5-8	61.16	No Message
N-1.75a	C289	842	P150R1	25	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75a	C289	842	P150R1	50	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C290	843	P150R1	0	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C290	843	P150R1	25	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75a	C290	843	P150R1	50	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C291	844	P150R1	0	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75a	C291	844	P150R1	25	Check	0.056	B.2.4.5-8	61.16	No Message
N-1.75a	C291	844	P150R1	50	Check	0.055	B.2.4.5-8	61.16	No Message
N-1.75a	C292	845	P150R1	0	Check	0.055	B.2.4.5-8	61.16	No Message
N-1.75a	C292	845	P150R1	25	Check	0.055	B.2.4.5-8	61.16	No Message
N-1.75a	C292	845	P150R1	50	Check	0.054	B.2.4.5-8	61.16	No Message
N-1.75a	C293	846	P150R1	0	Check	0.054	B.2.4.5-8	61.16	No Message
N-1.75a	C293	846	P150R1	25	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C293	846	P150R1	50	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C294	847	P150R1	0	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C294	847	P150R1	25	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75a	C294	847	P150R1	50	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75a	C295	848	P150R1	0	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75a	C295	848	P150R1	25	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75a	C295	848	P150R1	50	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C296	849	P150R1	0	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C296	849	P150R1	25	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C296	849	P150R1	50	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C297	850	P150R1	0	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75a	C297	850	P150R1	25	Check	0.054	B.2.4.5-1	61.16	No Message
N-1.75a	C297	850	P150R1	50	Check	0.055	B.2.4.5-1	61.16	No Message
N-1.75a	C298	851	P150R1	0	Check	0.055	B.2.4.5-1	61.16	No Message
N-1.75a	C298	851	P150R1	25	Check	0.056	B.2.4.5-1	61.16	No Message
N-1.75a	C298	851	P150R1	50	Check	0.058	B.2.4.5-1	61.16	No Message
N-1.75a	C299	852	P150R1	0	Check	0.058	B.2.4.5-1	61.16	No Message
N-1.75a	C299	852	P150R1	25	Check	0.059	B.2.4.5-1	61.16	No Message
N-1.75a	C299	852	P150R1	50	Check	0.06	B.2.4.5-1	61.16	No Message
N-1.75a	C300	853	P150R1	0	Check	0.06	B.2.4.5-1	61.16	No Message
N-1.75a	C300	853	P150R1	25	Check	0.062	B.2.4.5-1	61.16	No Message
N-1.75a	C300	853	P150R1	50	Check	0.065	B.2.4.7-2	61.16	No Message
N-1.75a	C301	854	P150R1	0	Check	0.065	B.2.4.7-2	61.16	No Message
N-1.75a	C301	854	P150R1	25	Check	0.072	B.2.4.7-2	61.16	No Message
N-1.75a	C301	854	P150R1	50	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75a	C302	855	P150R1	0	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75a	C302	855	P150R1	25	Check	0.085	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C302	855	P150R1	50	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75a	C303	856	P150R1	0	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75a	C303	856	P150R1	25	Check	0.107	B.2.4.7-2	61.16	No Message
N-1.75a	C303	856	P150R1	50	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75a	C304	857	P150R1	0	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75a	C304	857	P150R1	25	Check	0.135	B.2.4.7-2	61.16	No Message
N-1.75a	C304	857	P150R1	50	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75a	C305	858	P150R1	0	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75a	C305	858	P150R1	25	Check	0.167	B.2.4.7-2	61.16	No Message
N-1.75a	C305	858	P150R1	50	Check	0.187	B.2.4.7-8	61.16	No Message
N-1.75a	C306	859	P150R1	0	Check	0.187	B.2.4.7-8	61.16	No Message
N-1.75a	C306	859	P150R1	25	Check	0.209	B.2.4.7-8	61.16	No Message
N-1.75a	C306	859	P150R1	50	Check	0.233	B.2.4.7-8	61.16	No Message
N-1.75a	C307	860	P150R1	0	Check	0.233	B.2.4.7-8	61.16	No Message
N-1.75a	C307	860	P150R1	25	Check	0.258	B.2.4.7-8	61.16	No Message
N-1.75a	C307	860	P150R1	50	Check	0.283	B.2.4.7-8	61.16	No Message
N-1.75a	C308	861	P150R1	0	Check	0.283	B.2.4.7-8	61.16	No Message
N-1.75a	C308	861	P150R1	25	Check	0.309	B.2.4.7-8	61.16	No Message
N-1.75a	C308	861	P150R1	50	Check	0.344	B.2.4.5-8	61.16	No Message
N-1.75a	C309	862	P150R1	0	Check	0.344	B.2.4.5-8	61.16	No Message
N-1.75a	C309	862	P150R1	25	Check	0.386	B.2.4.5-8	61.16	No Message
N-1.75a	C309	862	P150R1	50	Check	0.427	B.2.4.5-8	61.16	No Message
N-1.75a	C310	863	P150R1	0	Check	0.427	B.2.4.5-8	61.16	No Message
N-1.75a	C310	863	P150R1	25	Check	0.471	B.2.4.5-8	61.16	No Message
N-1.75a	C310	863	P150R1	50	Check	0.515	B.2.4.5-8	61.16	No Message
N-1.75a	C311	864	P150R1	0	Check	0.515	B.2.4.5-8	61.16	No Message
N-1.75a	C311	864	P150R1	25	Check	0.56	B.2.4.5-8	61.16	No Message
N-1.75a	C311	864	P150R1	50	Check	0.605	B.2.4.5-8	61.16	No Message
N-1.75a	C312	865	P150R4	0	Check	0.324	B.2.4.5-8	122.32	No Message
N-1.75a	C312	865	P150R4	25	Check	0.349	B.2.4.5-8	122.32	No Message
N-1.75a	C312	865	P150R4	50	Check	0.374	B.2.4.5-8	122.32	No Message
N-1.75a	C313	866	P150R4	0	Check	0.374	B.2.4.5-8	122.32	No Message
N-1.75a	C313	866	P150R4	25	Check	0.399	B.2.4.5-8	122.32	No Message
N-1.75a	C313	866	P150R4	50	Check	0.424	B.2.4.5-8	122.32	No Message
N-1.75a	C314	867	P150R4	0	Check	0.424	B.2.4.5-8	122.32	No Message
N-1.75a	C314	867	P150R4	25	Check	0.45	B.2.4.5-8	122.32	No Message
N-1.75a	C314	867	P150R4	50	Check	0.476	B.2.4.5-8	122.32	No Message
N-1.75a	C315	868	P150R4	0	Check	0.476	B.2.4.5-8	122.32	No Message
N-1.75a	C315	868	P150R4	25	Check	0.503	B.2.4.5-8	122.32	No Message
N-1.75a	C315	868	P150R4	50	Check	0.53	B.2.4.5-8	122.32	No Message
N-1.75a	C316	869	P150R4	0	Check	0.53	B.2.4.5-8	122.32	No Message
N-1.75a	C316	869	P150R4	25	Check	0.557	B.2.4.5-8	122.32	No Message
N-1.75a	C316	869	P150R4	50	Check	0.584	B.2.4.5-8	122.32	No Message
N-1.75a	C317	870	P150R4	0	Check	0.584	B.2.4.5-8	122.32	No Message
N-1.75a	C317	870	P150R4	25	Check	0.611	B.2.4.5-8	122.32	No Message
N-1.75a	C317	870	P150R4	50	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75a	C318	871	P150R4	0	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75a	C318	871	P150R4	0.1	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75a	C318	871	P150R4	0.2	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75a	C319	872	P150R1	0	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75a	C319	872	P150R1	25	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75a	C319	872	P150R1	50	Check	0.041	B.2.4.5-1	61.16	No Message
N-1.75a	C320	873	P150R1	0	Check	0.041	B.2.4.5-1	61.16	No Message
N-1.75a	C320	873	P150R1	25	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75a	C320	873	P150R1	50	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75a	C321	874	P150R1	0	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75a	C321	874	P150R1	25	Check	0.039	B.2.4.5-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C321	874	P150R1	50	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C322	875	P150R1	0	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C322	875	P150R1	25	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C322	875	P150R1	50	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C323	876	P150R1	0	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C323	876	P150R1	25	Check	0.048	B.2.4.7-2	61.16	No Message
N-1.75a	C323	876	P150R1	50	Check	0.058	B.2.4.7-2	61.16	No Message
N-1.75a	C324	877	P150R1	0	Check	0.058	B.2.4.7-2	61.16	No Message
N-1.75a	C324	877	P150R1	25	Check	0.068	B.2.4.7-2	61.16	No Message
N-1.75a	C324	877	P150R1	50	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75a	C325	878	P150R1	0	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75a	C325	878	P150R1	25	Check	0.089	B.2.4.7-2	61.16	No Message
N-1.75a	C325	878	P150R1	50	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75a	C326	879	P150R1	0	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75a	C326	879	P150R1	25	Check	0.11	B.2.4.7-2	61.16	No Message
N-1.75a	C326	879	P150R1	50	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75a	C327	880	P150R1	0	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75a	C327	880	P150R1	25	Check	0.13	B.2.4.7-2	61.16	No Message
N-1.75a	C327	880	P150R1	50	Check	0.14	B.2.4.7-2	61.16	No Message
N-1.75a	C328	881	P150R1	0	Check	0.14	B.2.4.7-2	61.16	No Message
N-1.75a	C328	881	P150R1	25	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75a	C328	881	P150R1	50	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75a	C329	882	P150R1	0	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75a	C329	882	P150R1	25	Check	0.167	B.2.4.7-2	61.16	No Message
N-1.75a	C329	882	P150R1	50	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75a	C330	883	P150R1	0	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75a	C330	883	P150R1	25	Check	0.185	B.2.4.7-2	61.16	No Message
N-1.75a	C330	883	P150R1	50	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75a	C331	884	P150R1	0	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75a	C331	884	P150R1	25	Check	0.201	B.2.4.7-2	61.16	No Message
N-1.75a	C331	884	P150R1	50	Check	0.208	B.2.4.7-2	61.16	No Message
N-1.75a	C332	885	P150R1	0	Check	0.208	B.2.4.7-2	61.16	No Message
N-1.75a	C332	885	P150R1	25	Check	0.213	B.2.4.7-2	61.16	No Message
N-1.75a	C332	885	P150R1	50	Check	0.218	B.2.4.7-2	61.16	No Message
N-1.75a	C333	886	P150R1	0	Check	0.218	B.2.4.7-2	61.16	No Message
N-1.75a	C333	886	P150R1	25	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75a	C333	886	P150R1	50	Check	0.24	B.2.4.7-2	61.16	No Message
N-1.75a	C334	887	P150R1	0	Check	0.24	B.2.4.7-2	61.16	No Message
N-1.75a	C334	887	P150R1	25	Check	0.253	B.2.4.7-2	61.16	No Message
N-1.75a	C334	887	P150R1	50	Check	0.265	B.2.4.7-2	61.16	No Message
N-1.75a	C335	888	P150R1	0	Check	0.265	B.2.4.7-2	61.16	No Message
N-1.75a	C335	888	P150R1	25	Check	0.278	B.2.4.7-2	61.16	No Message
N-1.75a	C335	888	P150R1	50	Check	0.29	B.2.4.7-2	61.16	No Message
N-1.75a	C336	889	P150R1	0	Check	0.29	B.2.4.7-2	61.16	No Message
N-1.75a	C336	889	P150R1	25	Check	0.301	B.2.4.7-2	61.16	No Message
N-1.75a	C336	889	P150R1	50	Check	0.318	B.2.4.5-2	61.16	No Message
N-1.75a	C337	890	P150R1	0	Check	0.318	B.2.4.5-2	61.16	No Message
N-1.75a	C337	890	P150R1	25	Check	0.337	B.2.4.5-1	61.16	No Message
N-1.75a	C337	890	P150R1	50	Check	0.356	B.2.4.5-1	61.16	No Message
N-1.75a	C338	891	P150R1	0	Check	0.356	B.2.4.5-1	61.16	No Message
N-1.75a	C338	891	P150R1	25	Check	0.375	B.2.4.5-1	61.16	No Message
N-1.75a	C338	891	P150R1	50	Check	0.395	B.2.4.5-1	61.16	No Message
N-1.75a	C339	892	P150R1	0	Check	0.395	B.2.4.5-1	61.16	No Message
N-1.75a	C339	892	P150R1	25	Check	0.414	B.2.4.5-1	61.16	No Message
N-1.75a	C339	892	P150R1	50	Check	0.434	B.2.4.5-1	61.16	No Message
N-1.75a	C340	893	P150R1	0	Check	0.434	B.2.4.5-1	61.16	No Message
N-1.75a	C340	893	P150R1	25	Check	0.457	B.2.4.5-8	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C340	893	P150R1	50	Check	0.489	B.2.4.5-8	61.16	No Message
N-1.75a	C341	894	P150R4	0	Check	0.261	B.2.4.5-8	122.32	No Message
N-1.75a	C341	894	P150R4	25	Check	0.279	B.2.4.5-8	122.32	No Message
N-1.75a	C341	894	P150R4	50	Check	0.298	B.2.4.5-8	122.32	No Message
N-1.75a	C342	895	P150R4	0	Check	0.298	B.2.4.5-8	122.32	No Message
N-1.75a	C342	895	P150R4	25	Check	0.317	B.2.4.5-8	122.32	No Message
N-1.75a	C342	895	P150R4	50	Check	0.338	B.2.4.5-8	122.32	No Message
N-1.75a	C343	896	P150R4	0	Check	0.338	B.2.4.5-8	122.32	No Message
N-1.75a	C343	896	P150R4	25	Check	0.362	B.2.4.5-8	122.32	No Message
N-1.75a	C343	896	P150R4	50	Check	0.388	B.2.4.5-8	122.32	No Message
N-1.75a	C344	897	P150R4	0	Check	0.388	B.2.4.5-8	122.32	No Message
N-1.75a	C344	897	P150R4	25	Check	0.414	B.2.4.5-8	122.32	No Message
N-1.75a	C344	897	P150R4	50	Check	0.44	B.2.4.5-8	122.32	No Message
N-1.75a	C345	898	P150R4	0	Check	0.44	B.2.4.5-8	122.32	No Message
N-1.75a	C345	898	P150R4	25	Check	0.474	B.2.4.5-1	122.32	No Message
N-1.75a	C345	898	P150R4	50	Check	0.51	B.2.4.5-1	122.32	No Message
N-1.75a	C346	899	P150R4	0	Check	0.51	B.2.4.5-1	122.32	No Message
N-1.75a	C346	899	P150R4	25	Check	0.547	B.2.4.5-1	122.32	No Message
N-1.75a	C346	899	P150R4	50	Check	0.584	B.2.4.5-1	122.32	No Message
N-1.75a	C347	900	P150R4	0	Check	0.584	B.2.4.5-1	122.32	No Message
N-1.75a	C347	900	P150R4	25	Check	0.622	B.2.4.5-1	122.32	No Message
N-1.75a	C347	900	P150R4	50	Check	0.66	B.2.4.5-1	122.32	No Message
N-1.75a	C348	901	P150R4	0	Check	0.66	B.2.4.5-1	122.32	No Message
N-1.75a	C348	901	P150R4	0.1	Check	0.661	B.2.4.5-1	122.32	No Message
N-1.75a	C348	901	P150R4	0.2	Check	0.661	B.2.4.5-1	122.32	No Message
N-1.75a	C349	902	P150R1	0	Check	0.032	B.2.4.5-2	61.16	No Message
N-1.75a	C349	902	P150R1	25	Check	0.031	B.2.4.5-2	61.16	No Message
N-1.75a	C349	902	P150R1	50	Check	0.03	B.2.4.5-2	61.16	No Message
N-1.75a	C350	903	P150R1	0	Check	0.03	B.2.4.5-2	61.16	No Message
N-1.75a	C350	903	P150R1	25	Check	0.03	B.2.4.5-2	61.16	No Message
N-1.75a	C350	903	P150R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C351	904	P150R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C351	904	P150R1	25	Check	0.038	B.2.4.7-1	61.16	No Message
N-1.75a	C351	904	P150R1	50	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75a	C352	905	P150R1	0	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75a	C352	905	P150R1	25	Check	0.056	B.2.4.7-1	61.16	No Message
N-1.75a	C352	905	P150R1	50	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75a	C353	906	P150R1	0	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75a	C353	906	P150R1	25	Check	0.074	B.2.4.7-1	61.16	No Message
N-1.75a	C353	906	P150R1	50	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C354	907	P150R1	0	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C354	907	P150R1	25	Check	0.091	B.2.4.7-2	61.16	No Message
N-1.75a	C354	907	P150R1	50	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75a	C355	908	P150R1	0	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75a	C355	908	P150R1	25	Check	0.109	B.2.4.7-2	61.16	No Message
N-1.75a	C355	908	P150R1	50	Check	0.118	B.2.4.7-2	61.16	No Message
N-1.75a	C356	909	P150R1	0	Check	0.118	B.2.4.7-2	61.16	No Message
N-1.75a	C356	909	P150R1	25	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75a	C356	909	P150R1	50	Check	0.136	B.2.4.7-2	61.16	No Message
N-1.75a	C357	910	P150R1	0	Check	0.136	B.2.4.7-2	61.16	No Message
N-1.75a	C357	910	P150R1	25	Check	0.145	B.2.4.7-2	61.16	No Message
N-1.75a	C357	910	P150R1	50	Check	0.154	B.2.4.7-2	61.16	No Message
N-1.75a	C358	911	P150R1	0	Check	0.154	B.2.4.7-2	61.16	No Message
N-1.75a	C358	911	P150R1	25	Check	0.163	B.2.4.7-2	61.16	No Message
N-1.75a	C358	911	P150R1	50	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75a	C359	912	P150R1	0	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75a	C359	912	P150R1	25	Check	0.18	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C359	912	P150R1	50	Check	0.189	B.2.4.7-2	61.16	No Message
N-1.75a	C360	913	P150R1	0	Check	0.189	B.2.4.7-2	61.16	No Message
N-1.75a	C360	913	P150R1	25	Check	0.198	B.2.4.7-2	61.16	No Message
N-1.75a	C360	913	P150R1	50	Check	0.207	B.2.4.7-2	61.16	No Message
N-1.75a	C361	914	P150R1	0	Check	0.207	B.2.4.7-2	61.16	No Message
N-1.75a	C361	914	P150R1	25	Check	0.215	B.2.4.7-2	61.16	No Message
N-1.75a	C361	914	P150R1	50	Check	0.224	B.2.4.7-1	61.16	No Message
N-1.75a	C362	915	P150R1	0	Check	0.224	B.2.4.7-1	61.16	No Message
N-1.75a	C362	915	P150R1	25	Check	0.236	B.2.4.7-1	61.16	No Message
N-1.75a	C362	915	P150R1	50	Check	0.248	B.2.4.7-1	61.16	No Message
N-1.75a	C363	916	P150R1	0	Check	0.248	B.2.4.7-1	61.16	No Message
N-1.75a	C363	916	P150R1	25	Check	0.26	B.2.4.7-1	61.16	No Message
N-1.75a	C363	916	P150R1	50	Check	0.272	B.2.4.7-1	61.16	No Message
N-1.75a	C364	917	P150R1	0	Check	0.272	B.2.4.7-1	61.16	No Message
N-1.75a	C364	917	P150R1	25	Check	0.284	B.2.4.7-1	61.16	No Message
N-1.75a	C364	917	P150R1	50	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75a	C365	918	P150R1	0	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75a	C365	918	P150R1	25	Check	0.313	B.2.4.5-1	61.16	No Message
N-1.75a	C365	918	P150R1	50	Check	0.33	B.2.4.5-1	61.16	No Message
N-1.75a	C366	919	P150R1	0	Check	0.33	B.2.4.5-1	61.16	No Message
N-1.75a	C366	919	P150R1	25	Check	0.346	B.2.4.5-1	61.16	No Message
N-1.75a	C366	919	P150R1	50	Check	0.362	B.2.4.5-1	61.16	No Message
N-1.75a	C367	920	P150R4	0	Check	0.188	B.2.4.5-1	122.32	No Message
N-1.75a	C367	920	P150R4	25	Check	0.196	B.2.4.5-1	122.32	No Message
N-1.75a	C367	920	P150R4	50	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75a	C368	921	P150R4	0	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75a	C368	921	P150R4	25	Check	0.213	B.2.4.5-1	122.32	No Message
N-1.75a	C368	921	P150R4	50	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75a	C369	922	P150R4	0	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75a	C369	922	P150R4	25	Check	0.231	B.2.4.5-1	122.32	No Message
N-1.75a	C369	922	P150R4	50	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75a	C370	923	P150R4	0	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75a	C370	923	P150R4	25	Check	0.249	B.2.4.5-1	122.32	No Message
N-1.75a	C370	923	P150R4	50	Check	0.259	B.2.4.5-1	122.32	No Message
N-1.75a	C371	924	P150R4	0	Check	0.259	B.2.4.5-1	122.32	No Message
N-1.75a	C371	924	P150R4	25	Check	0.267	B.2.4.5-1	122.32	No Message
N-1.75a	C371	924	P150R4	50	Check	0.276	B.2.4.5-1	122.32	No Message
N-1.75a	C372	925	P150R4	0	Check	0.276	B.2.4.5-1	122.32	No Message
N-1.75a	C372	925	P150R4	25	Check	0.285	B.2.4.5-1	122.32	No Message
N-1.75a	C372	925	P150R4	50	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75a	C373	926	P150R4	0	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75a	C373	926	P150R4	25	Check	0.306	B.2.4.5-1	122.32	No Message
N-1.75a	C373	926	P150R4	50	Check	0.323	B.2.4.5-1	122.32	No Message
N-1.75a	C374	927	P150R4	0	Check	0.323	B.2.4.5-1	122.32	No Message
N-1.75a	C374	927	P150R4	25	Check	0.342	B.2.4.5-1	122.32	No Message
N-1.75a	C374	927	P150R4	50	Check	0.362	B.2.4.5-1	122.32	No Message
N-1.75a	C375	928	P150R4	0	Check	0.362	B.2.4.5-1	122.32	No Message
N-1.75a	C375	928	P150R4	25	Check	0.382	B.2.4.5-1	122.32	No Message
N-1.75a	C375	928	P150R4	50	Check	0.404	B.2.4.5-1	122.32	No Message
N-1.75a	C376	929	P150R4	0	Check	0.404	B.2.4.5-1	122.32	No Message
N-1.75a	C376	929	P150R4	25	Check	0.427	B.2.4.5-1	122.32	No Message
N-1.75a	C376	929	P150R4	50	Check	0.453	B.2.4.5-1	122.32	No Message
N-1.75a	C377	930	P150R4	0	Check	0.453	B.2.4.5-1	122.32	No Message
N-1.75a	C377	930	P150R4	25	Check	0.479	B.2.4.5-1	122.32	No Message
N-1.75a	C377	930	P150R4	50	Check	0.505	B.2.4.5-1	122.32	No Message
N-1.75a	C378	931	P150R4	0	Check	0.505	B.2.4.5-1	122.32	No Message
N-1.75a	C378	931	P150R4	0.1	Check	0.506	B.2.4.5-1	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C378	931	P150R4	0.2	Check	0.506	B.2.4.5-1	122.32	No Message
N-1.75a	C379	932	P150R1	0	Check	0.022	B.2.4.5-8	61.16	No Message
N-1.75a	C379	932	P150R1	25	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75a	C379	932	P150R1	50	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75a	C380	933	P150R1	0	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75a	C380	933	P150R1	25	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75a	C380	933	P150R1	50	Check	0.019	B.2.4.5-8	61.16	No Message
N-1.75a	C381	934	P150R1	0	Check	0.019	B.2.4.5-8	61.16	No Message
N-1.75a	C381	934	P150R1	25	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75a	C381	934	P150R1	50	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75a	C382	935	P150R1	0	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75a	C382	935	P150R1	25	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75a	C382	935	P150R1	50	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75a	C383	936	P150R1	0	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75a	C383	936	P150R1	25	Check	0.022	B.2.4.7-1	61.16	No Message
N-1.75a	C383	936	P150R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C384	937	P150R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C384	937	P150R1	25	Check	0.036	B.2.4.7-1	61.16	No Message
N-1.75a	C384	937	P150R1	50	Check	0.044	B.2.4.7-1	61.16	No Message
N-1.75a	C385	938	P150R1	0	Check	0.044	B.2.4.7-1	61.16	No Message
N-1.75a	C385	938	P150R1	25	Check	0.052	B.2.4.7-1	61.16	No Message
N-1.75a	C385	938	P150R1	50	Check	0.06	B.2.4.7-1	61.16	No Message
N-1.75a	C386	939	P150R1	0	Check	0.06	B.2.4.7-1	61.16	No Message
N-1.75a	C386	939	P150R1	25	Check	0.068	B.2.4.7-1	61.16	No Message
N-1.75a	C386	939	P150R1	50	Check	0.077	B.2.4.7-1	61.16	No Message
N-1.75a	C387	940	P150R1	0	Check	0.077	B.2.4.7-1	61.16	No Message
N-1.75a	C387	940	P150R1	25	Check	0.086	B.2.4.7-1	61.16	No Message
N-1.75a	C387	940	P150R1	50	Check	0.095	B.2.4.7-1	61.16	No Message
N-1.75a	C388	941	P150R1	0	Check	0.095	B.2.4.7-1	61.16	No Message
N-1.75a	C388	941	P150R1	25	Check	0.105	B.2.4.7-1	61.16	No Message
N-1.75a	C388	941	P150R1	50	Check	0.115	B.2.4.7-1	61.16	No Message
N-1.75a	C389	942	P150R1	0	Check	0.115	B.2.4.7-1	61.16	No Message
N-1.75a	C389	942	P150R1	25	Check	0.125	B.2.4.7-1	61.16	No Message
N-1.75a	C389	942	P150R1	50	Check	0.135	B.2.4.7-1	61.16	No Message
N-1.75a	C390	943	P150R1	0	Check	0.135	B.2.4.7-1	61.16	No Message
N-1.75a	C390	943	P150R1	25	Check	0.146	B.2.4.7-1	61.16	No Message
N-1.75a	C390	943	P150R1	50	Check	0.156	B.2.4.7-1	61.16	No Message
N-1.75a	C391	944	P150R1	0	Check	0.156	B.2.4.7-1	61.16	No Message
N-1.75a	C391	944	P150R1	25	Check	0.167	B.2.4.7-1	61.16	No Message
N-1.75a	C391	944	P150R1	50	Check	0.177	B.2.4.7-1	61.16	No Message
N-1.75a	C392	945	P150R1	0	Check	0.177	B.2.4.7-1	61.16	No Message
N-1.75a	C392	945	P150R1	25	Check	0.187	B.2.4.7-1	61.16	No Message
N-1.75a	C392	945	P150R1	50	Check	0.197	B.2.4.7-1	61.16	No Message
N-1.75a	C393	946	P150R1	0	Check	0.197	B.2.4.7-1	61.16	No Message
N-1.75a	C393	946	P150R1	25	Check	0.207	B.2.4.7-1	61.16	No Message
N-1.75a	C393	946	P150R1	50	Check	0.216	B.2.4.7-1	61.16	No Message
N-1.75a	C394	947	P150R1	0	Check	0.216	B.2.4.7-1	61.16	No Message
N-1.75a	C394	947	P150R1	25	Check	0.225	B.2.4.7-1	61.16	No Message
N-1.75a	C394	947	P150R1	50	Check	0.234	B.2.4.7-1	61.16	No Message
N-1.75a	C395	948	P150R1	0	Check	0.234	B.2.4.7-1	61.16	No Message
N-1.75a	C395	948	P150R1	25	Check	0.241	B.2.4.7-1	61.16	No Message
N-1.75a	C395	948	P150R1	50	Check	0.249	B.2.4.5-1	61.16	No Message
N-1.75a	C396	949	P150R1	0	Check	0.249	B.2.4.5-1	61.16	No Message
N-1.75a	C396	949	P150R1	25	Check	0.258	B.2.4.5-8	61.16	No Message
N-1.75a	C396	949	P150R1	50	Check	0.269	B.2.4.5-8	61.16	No Message
N-1.75a	C397	950	P150R1	0	Check	0.269	B.2.4.5-8	61.16	No Message
N-1.75a	C397	950	P150R1	25	Check	0.279	B.2.4.5-8	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C397	950	P150R1	50	Check	0.289	B.2.4.5-8	61.16	No Message
N-1.75a	C398	951	P150R1	0	Check	0.289	B.2.4.5-8	61.16	No Message
N-1.75a	C398	951	P150R1	25	Check	0.297	B.2.4.5-8	61.16	No Message
N-1.75a	C398	951	P150R1	50	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75a	C399	952	P150R1	0	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75a	C399	952	P150R1	25	Check	0.312	B.2.4.5-8	61.16	No Message
N-1.75a	C399	952	P150R1	50	Check	0.321	B.2.4.5-8	61.16	No Message
N-1.75a	C400	953	P150R1	0	Check	0.321	B.2.4.5-8	61.16	No Message
N-1.75a	C400	953	P150R1	25	Check	0.328	B.2.4.5-8	61.16	No Message
N-1.75a	C400	953	P150R1	50	Check	0.335	B.2.4.5-8	61.16	No Message
N-1.75a	C401	954	P150R4	0	Check	0.172	B.2.4.5-8	122.32	No Message
N-1.75a	C401	954	P150R4	25	Check	0.175	B.2.4.5-8	122.32	No Message
N-1.75a	C401	954	P150R4	50	Check	0.177	B.2.4.5-8	122.32	No Message
N-1.75a	C402	955	P150R4	0	Check	0.177	B.2.4.5-8	122.32	No Message
N-1.75a	C402	955	P150R4	25	Check	0.179	B.2.4.5-8	122.32	No Message
N-1.75a	C402	955	P150R4	50	Check	0.18	B.2.4.5-8	122.32	No Message
N-1.75a	C403	956	P150R4	0	Check	0.18	B.2.4.5-8	122.32	No Message
N-1.75a	C403	956	P150R4	25	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75a	C403	956	P150R4	50	Check	0.182	B.2.4.5-8	122.32	No Message
N-1.75a	C404	957	P150R4	0	Check	0.182	B.2.4.5-8	122.32	No Message
N-1.75a	C404	957	P150R4	25	Check	0.183	B.2.4.5-8	122.32	No Message
N-1.75a	C404	957	P150R4	50	Check	0.184	B.2.4.5-8	122.32	No Message
N-1.75a	C405	958	P150R4	0	Check	0.184	B.2.4.5-8	122.32	No Message
N-1.75a	C405	958	P150R4	25	Check	0.188	B.2.4.5-1	122.32	No Message
N-1.75a	C405	958	P150R4	50	Check	0.194	B.2.4.5-1	122.32	No Message
N-1.75a	C406	959	P150R4	0	Check	0.194	B.2.4.5-1	122.32	No Message
N-1.75a	C406	959	P150R4	25	Check	0.202	B.2.4.5-1	122.32	No Message
N-1.75a	C406	959	P150R4	50	Check	0.212	B.2.4.5-1	122.32	No Message
N-1.75a	C407	960	P150R4	0	Check	0.212	B.2.4.5-1	122.32	No Message
N-1.75a	C407	960	P150R4	25	Check	0.223	B.2.4.5-1	122.32	No Message
N-1.75a	C407	960	P150R4	50	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75a	C408	961	P150R4	0	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75a	C408	961	P150R4	0.1	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75a	C408	961	P150R4	0.2	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75a	C409	962	P150R1	0	Check	0.015	B.2.4.5-8	61.16	No Message
N-1.75a	C409	962	P150R1	25	Check	0.015	B.2.4.5-8	61.16	No Message
N-1.75a	C409	962	P150R1	50	Check	0.014	B.2.4.5-8	61.16	No Message
N-1.75a	C410	963	P150R1	0	Check	0.014	B.2.4.5-8	61.16	No Message
N-1.75a	C410	963	P150R1	25	Check	0.013	B.2.4.5-8	61.16	No Message
N-1.75a	C410	963	P150R1	50	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75a	C411	964	P150R1	0	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75a	C411	964	P150R1	25	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75a	C411	964	P150R1	50	Check	0.015	B.2.4.7-2	61.16	No Message
N-1.75a	C412	965	P150R1	0	Check	0.015	B.2.4.7-2	61.16	No Message
N-1.75a	C412	965	P150R1	25	Check	0.021	B.2.4.7-2	61.16	No Message
N-1.75a	C412	965	P150R1	50	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75a	C413	966	P150R1	0	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75a	C413	966	P150R1	25	Check	0.037	B.2.4.7-2	61.16	No Message
N-1.75a	C413	966	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C414	967	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C414	967	P150R1	25	Check	0.053	B.2.4.7-2	61.16	No Message
N-1.75a	C414	967	P150R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C415	968	P150R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C415	968	P150R1	25	Check	0.07	B.2.4.7-2	61.16	No Message
N-1.75a	C415	968	P150R1	50	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75a	C416	969	P150R1	0	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75a	C416	969	P150R1	25	Check	0.089	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C416	969	P150R1	50	Check	0.099	B.2.4.7-2	61.16	No Message
N-1.75a	C417	970	P150R1	0	Check	0.099	B.2.4.7-2	61.16	No Message
N-1.75a	C417	970	P150R1	25	Check	0.109	B.2.4.7-2	61.16	No Message
N-1.75a	C417	970	P150R1	50	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75a	C418	971	P150R1	0	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75a	C418	971	P150R1	25	Check	0.131	B.2.4.7-2	61.16	No Message
N-1.75a	C418	971	P150R1	50	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75a	C419	972	P150R1	0	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75a	C419	972	P150R1	25	Check	0.153	B.2.4.7-2	61.16	No Message
N-1.75a	C419	972	P150R1	50	Check	0.164	B.2.4.7-2	61.16	No Message
N-1.75a	C420	973	P150R1	0	Check	0.164	B.2.4.7-2	61.16	No Message
N-1.75a	C420	973	P150R1	25	Check	0.175	B.2.4.7-2	61.16	No Message
N-1.75a	C420	973	P150R1	50	Check	0.186	B.2.4.7-2	61.16	No Message
N-1.75a	C421	974	P150R1	0	Check	0.186	B.2.4.7-2	61.16	No Message
N-1.75a	C421	974	P150R1	25	Check	0.199	B.2.4.5-2	61.16	No Message
N-1.75a	C421	974	P150R1	50	Check	0.212	B.2.4.5-2	61.16	No Message
N-1.75a	C422	975	P150R1	0	Check	0.212	B.2.4.5-2	61.16	No Message
N-1.75a	C422	975	P150R1	25	Check	0.224	B.2.4.5-2	61.16	No Message
N-1.75a	C422	975	P150R1	50	Check	0.237	B.2.4.5-2	61.16	No Message
N-1.75a	C423	976	P150R1	0	Check	0.237	B.2.4.5-2	61.16	No Message
N-1.75a	C423	976	P150R1	25	Check	0.248	B.2.4.5-2	61.16	No Message
N-1.75a	C423	976	P150R1	50	Check	0.26	B.2.4.5-2	61.16	No Message
N-1.75a	C424	977	P150R1	0	Check	0.26	B.2.4.5-2	61.16	No Message
N-1.75a	C424	977	P150R1	25	Check	0.271	B.2.4.5-2	61.16	No Message
N-1.75a	C424	977	P150R1	50	Check	0.282	B.2.4.5-2	61.16	No Message
N-1.75a	C425	978	P150R1	0	Check	0.282	B.2.4.5-2	61.16	No Message
N-1.75a	C425	978	P150R1	25	Check	0.292	B.2.4.5-1	61.16	No Message
N-1.75a	C425	978	P150R1	50	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75a	C426	979	P150R1	0	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75a	C426	979	P150R1	25	Check	0.309	B.2.4.5-1	61.16	No Message
N-1.75a	C426	979	P150R1	50	Check	0.317	B.2.4.5-1	61.16	No Message
N-1.75a	C427	980	P150R1	0	Check	0.317	B.2.4.5-1	61.16	No Message
N-1.75a	C427	980	P150R1	25	Check	0.327	B.2.4.5-8	61.16	No Message
N-1.75a	C427	980	P150R1	50	Check	0.338	B.2.4.5-8	61.16	No Message
N-1.75a	C428	981	P150R1	0	Check	0.338	B.2.4.5-8	61.16	No Message
N-1.75a	C428	981	P150R1	25	Check	0.347	B.2.4.5-8	61.16	No Message
N-1.75a	C428	981	P150R1	50	Check	0.357	B.2.4.5-8	61.16	No Message
N-1.75a	C429	982	P150R1	0	Check	0.357	B.2.4.5-8	61.16	No Message
N-1.75a	C429	982	P150R1	25	Check	0.364	B.2.4.5-8	61.16	No Message
N-1.75a	C429	982	P150R1	50	Check	0.372	B.2.4.5-8	61.16	No Message
N-1.75a	C430	983	P150R4	0	Check	0.191	B.2.4.5-8	122.32	No Message
N-1.75a	C430	983	P150R4	25	Check	0.194	B.2.4.5-8	122.32	No Message
N-1.75a	C430	983	P150R4	50	Check	0.197	B.2.4.5-8	122.32	No Message
N-1.75a	C431	984	P150R4	0	Check	0.197	B.2.4.5-8	122.32	No Message
N-1.75a	C431	984	P150R4	25	Check	0.2	B.2.4.5-8	122.32	No Message
N-1.75a	C431	984	P150R4	50	Check	0.204	B.2.4.5-8	122.32	No Message
N-1.75a	C432	985	P150R4	0	Check	0.204	B.2.4.5-8	122.32	No Message
N-1.75a	C432	985	P150R4	25	Check	0.207	B.2.4.5-8	122.32	No Message
N-1.75a	C432	985	P150R4	50	Check	0.21	B.2.4.5-8	122.32	No Message
N-1.75a	C433	986	P150R4	0	Check	0.21	B.2.4.5-8	122.32	No Message
N-1.75a	C433	986	P150R4	25	Check	0.214	B.2.4.5-8	122.32	No Message
N-1.75a	C433	986	P150R4	50	Check	0.219	B.2.4.5-8	122.32	No Message
N-1.75a	C434	987	P150R4	0	Check	0.219	B.2.4.5-8	122.32	No Message
N-1.75a	C434	987	P150R4	25	Check	0.224	B.2.4.5-8	122.32	No Message
N-1.75a	C434	987	P150R4	50	Check	0.231	B.2.4.5-1	122.32	No Message
N-1.75a	C435	988	P150R4	0	Check	0.231	B.2.4.5-1	122.32	No Message
N-1.75a	C435	988	P150R4	25	Check	0.243	B.2.4.5-1	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C435	988	P150R4	50	Check	0.255	B.2.4.5-1	122.32	No Message
N-1.75a	C436	989	P150R4	0	Check	0.255	B.2.4.5-1	122.32	No Message
N-1.75a	C436	989	P150R4	25	Check	0.269	B.2.4.5-1	122.32	No Message
N-1.75a	C436	989	P150R4	50	Check	0.284	B.2.4.5-1	122.32	No Message
N-1.75a	C437	990	P150R4	0	Check	0.284	B.2.4.5-1	122.32	No Message
N-1.75a	C437	990	P150R4	25	Check	0.3	B.2.4.5-1	122.32	No Message
N-1.75a	C437	990	P150R4	50	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75a	C438	991	P150R4	0	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75a	C438	991	P150R4	0.1	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75a	C438	991	P150R4	0.2	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75a	C439	992	P120R1	0	Check	0.024	B.2.4.7-8	61.16	No Message
N-1.75a	C439	992	P120R1	25	Check	0.028	B.2.4.7-8	61.16	No Message
N-1.75a	C439	992	P120R1	50	Check	0.034	B.2.4.7-8	61.16	No Message
N-1.75a	C440	993	P120R1	0	Check	0.036	B.2.4.7-8	61.16	No Message
N-1.75a	C440	993	P120R1	25	Check	0.042	B.2.4.7-8	61.16	No Message
N-1.75a	C440	993	P120R1	50	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75a	C441	994	P120R1	0	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75a	C441	994	P120R1	25	Check	0.053	B.2.4.7-8	61.16	No Message
N-1.75a	C441	994	P120R1	50	Check	0.057	B.2.4.7-8	61.16	No Message
N-1.75a	C442	995	P120R1	0	Check	0.057	B.2.4.7-8	61.16	No Message
N-1.75a	C442	995	P120R1	25	Check	0.061	B.2.4.7-8	61.16	No Message
N-1.75a	C442	995	P120R1	50	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75a	C443	996	P120R1	0	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75a	C443	996	P120R1	25	Check	0.069	B.2.4.7-8	61.16	No Message
N-1.75a	C443	996	P120R1	50	Check	0.072	B.2.4.7-8	61.16	No Message
N-1.75a	C444	997	P120R1	0	Check	0.072	B.2.4.7-8	61.16	No Message
N-1.75a	C444	997	P120R1	25	Check	0.075	B.2.4.7-8	61.16	No Message
N-1.75a	C444	997	P120R1	50	Check	0.079	B.2.4.7-8	61.16	No Message
N-1.75a	C445	998	P120R1	0	Check	0.079	B.2.4.7-8	61.16	No Message
N-1.75a	C445	998	P120R1	25	Check	0.083	B.2.4.7-1	61.16	No Message
N-1.75a	C445	998	P120R1	50	Check	0.088	B.2.4.7-1	61.16	No Message
N-1.75a	C446	999	P120R1	0	Check	0.088	B.2.4.7-1	61.16	No Message
N-1.75a	C446	999	P120R1	25	Check	0.093	B.2.4.7-1	61.16	No Message
N-1.75a	C446	999	P120R1	50	Check	0.099	B.2.4.7-1	61.16	No Message
N-1.75a	C447	1000	P120R1	0	Check	0.099	B.2.4.7-1	61.16	No Message
N-1.75a	C447	1000	P120R1	25	Check	0.106	B.2.4.5-1	61.16	No Message
N-1.75a	C447	1000	P120R1	50	Check	0.114	B.2.4.5-1	61.16	No Message
N-1.75a	C448	1001	P120R1	0	Check	0.114	B.2.4.5-1	61.16	No Message
N-1.75a	C448	1001	P120R1	25	Check	0.122	B.2.4.5-1	61.16	No Message
N-1.75a	C448	1001	P120R1	50	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75a	C449	1002	P120R1	0	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75a	C449	1002	P120R1	25	Check	0.14	B.2.4.5-1	61.16	No Message
N-1.75a	C449	1002	P120R1	50	Check	0.15	B.2.4.5-1	61.16	No Message
N-1.75a	C450	1003	P120R1	0	Check	0.15	B.2.4.5-1	61.16	No Message
N-1.75a	C450	1003	P120R1	25	Check	0.16	B.2.4.5-1	61.16	No Message
N-1.75a	C450	1003	P120R1	50	Check	0.17	B.2.4.5-1	61.16	No Message
N-1.75a	C451	1004	P120R1	0	Check	0.17	B.2.4.5-1	61.16	No Message
N-1.75a	C451	1004	P120R1	25	Check	0.18	B.2.4.5-1	61.16	No Message
N-1.75a	C451	1004	P120R1	50	Check	0.191	B.2.4.5-1	61.16	No Message
N-1.75a	C452	1005	P120R1	0	Check	0.191	B.2.4.5-1	61.16	No Message
N-1.75a	C452	1005	P120R1	25	Check	0.201	B.2.4.5-1	61.16	No Message
N-1.75a	C452	1005	P120R1	50	Check	0.212	B.2.4.5-1	61.16	No Message
N-1.75a	C453	1006	P120R1	0	Check	0.212	B.2.4.5-1	61.16	No Message
N-1.75a	C453	1006	P120R1	25	Check	0.223	B.2.4.5-1	61.16	No Message
N-1.75a	C453	1006	P120R1	50	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75a	C454	1007	P120R1	0	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75a	C454	1007	P120R1	25	Check	0.244	B.2.4.5-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C454	1007	P120R1	50	Check	0.254	B.2.4.5-1	61.16	No Message
N-1.75a	C455	1008	P120R1	0	Check	0.254	B.2.4.5-1	61.16	No Message
N-1.75a	C455	1008	P120R1	25	Check	0.264	B.2.4.5-1	61.16	No Message
N-1.75a	C455	1008	P120R1	50	Check	0.273	B.2.4.5-1	61.16	No Message
N-1.75a	C456	1009	P120R1	0	Check	0.273	B.2.4.5-1	61.16	No Message
N-1.75a	C456	1009	P120R1	25	Check	0.282	B.2.4.5-1	61.16	No Message
N-1.75a	C456	1009	P120R1	50	Check	0.29	B.2.4.5-1	61.16	No Message
N-1.75a	C457	1010	P120R1	0	Check	0.29	B.2.4.5-1	61.16	No Message
N-1.75a	C457	1010	P120R1	25	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75a	C457	1010	P120R1	50	Check	0.303	B.2.4.5-1	61.16	No Message
N-1.75a	C458	1011	P120R1	0	Check	0.303	B.2.4.5-1	61.16	No Message
N-1.75a	C458	1011	P120R1	25	Check	0.309	B.2.4.5-1	61.16	No Message
N-1.75a	C458	1011	P120R1	50	Check	0.315	B.2.4.5-1	61.16	No Message
N-1.75a	C459	1012	P120R1	0	Check	0.315	B.2.4.5-1	61.16	No Message
N-1.75a	C459	1012	P120R1	25	Check	0.321	B.2.4.5-1	61.16	No Message
N-1.75a	C459	1012	P120R1	50	Check	0.328	B.2.4.5-1	61.16	No Message
N-1.75a	C460	1013	P120R1	0	Check	0.328	B.2.4.5-1	61.16	No Message
N-1.75a	C460	1013	P120R1	25	Check	0.333	B.2.4.5-1	61.16	No Message
N-1.75a	C460	1013	P120R1	50	Check	0.339	B.2.4.5-1	61.16	No Message
N-1.75a	C461	1014	P120R1	0	Check	0.339	B.2.4.5-1	61.16	No Message
N-1.75a	C461	1014	P120R1	25	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75a	C461	1014	P120R1	50	Check	0.346	B.2.4.5-8	61.16	No Message
N-1.75a	C462	1015	P120R1	0	Check	0.346	B.2.4.5-8	61.16	No Message
N-1.75a	C462	1015	P120R1	25	Check	0.351	B.2.4.5-8	61.16	No Message
N-1.75a	C462	1015	P120R1	50	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75a	C463	1016	P120R1	0	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75a	C463	1016	P120R1	25	Check	0.359	B.2.4.5-8	61.16	No Message
N-1.75a	C463	1016	P120R1	50	Check	0.363	B.2.4.5-8	61.16	No Message
N-1.75a	C464	1017	P120R1	0	Check	0.363	B.2.4.5-8	61.16	No Message
N-1.75a	C464	1017	P120R1	25	Check	0.366	B.2.4.5-8	61.16	No Message
N-1.75a	C464	1017	P120R1	50	Check	0.371	B.2.4.5-8	61.16	No Message
N-1.75a	C465	1018	P120R1	0	Check	0.371	B.2.4.5-8	61.16	No Message
N-1.75a	C465	1018	P120R1	25	Check	0.375	B.2.4.5-8	61.16	No Message
N-1.75a	C465	1018	P120R1	50	Check	0.384	B.2.4.5-8	61.16	No Message
N-1.75a	C466	1019	P120R1	0	Check	0.384	B.2.4.5-8	61.16	No Message
N-1.75a	C466	1019	P120R1	25	Check	0.404	B.2.4.5-1	61.16	No Message
N-1.75a	C466	1019	P120R1	50	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75a	C467	1020	P120R1	0	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75a	C467	1020	P120R1	25	Check	0.45	B.2.4.5-1	61.16	No Message
N-1.75a	C467	1020	P120R1	50	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75a	C468	1021	P120R1	0	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75a	C468	1021	P120R1	0.1	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75a	C468	1021	P120R1	0.2	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75a	C469	1022	P150R1	0	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75a	C469	1022	P150R1	25	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75a	C469	1022	P150R1	50	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75a	C470	1023	P150R1	0	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75a	C470	1023	P150R1	25	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75a	C470	1023	P150R1	50	Check	0.017	B.2.4.7-2	61.16	No Message
N-1.75a	C471	1024	P150R1	0	Check	0.017	B.2.4.7-2	61.16	No Message
N-1.75a	C471	1024	P150R1	25	Check	0.025	B.2.4.7-2	61.16	No Message
N-1.75a	C471	1024	P150R1	50	Check	0.034	B.2.4.7-2	61.16	No Message
N-1.75a	C472	1025	P150R1	0	Check	0.034	B.2.4.7-2	61.16	No Message
N-1.75a	C472	1025	P150R1	25	Check	0.042	B.2.4.7-2	61.16	No Message
N-1.75a	C472	1025	P150R1	50	Check	0.05	B.2.4.7-2	61.16	No Message
N-1.75a	C473	1026	P150R1	0	Check	0.05	B.2.4.7-2	61.16	No Message
N-1.75a	C473	1026	P150R1	25	Check	0.058	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C473	1026	P150R1	50	Check	0.067	B.2.4.7-2	61.16	No Message
N-1.75a	C474	1027	P150R1	0	Check	0.067	B.2.4.7-2	61.16	No Message
N-1.75a	C474	1027	P150R1	25	Check	0.076	B.2.4.7-2	61.16	No Message
N-1.75a	C474	1027	P150R1	50	Check	0.086	B.2.4.7-2	61.16	No Message
N-1.75a	C475	1028	P150R1	0	Check	0.086	B.2.4.7-2	61.16	No Message
N-1.75a	C475	1028	P150R1	25	Check	0.096	B.2.4.7-2	61.16	No Message
N-1.75a	C475	1028	P150R1	50	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75a	C476	4565	P150R1	0	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75a	C476	4565	P150R1	25	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75a	C476	4565	P150R1	50	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75a	C477	4566	P150R1	0	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75a	C477	4566	P150R1	25	Check	0.14	B.2.4.5-2	61.16	No Message
N-1.75a	C477	4566	P150R1	50	Check	0.153	B.2.4.5-2	61.16	No Message
N-1.75a	C478	4567	P150R1	0	Check	0.153	B.2.4.5-2	61.16	No Message
N-1.75a	C478	4567	P150R1	25	Check	0.166	B.2.4.5-2	61.16	No Message
N-1.75a	C478	4567	P150R1	50	Check	0.18	B.2.4.5-2	61.16	No Message
N-1.75a	C479	4568	P150R1	0	Check	0.18	B.2.4.5-2	61.16	No Message
N-1.75a	C479	4568	P150R1	25	Check	0.193	B.2.4.5-2	61.16	No Message
N-1.75a	C479	4568	P150R1	50	Check	0.207	B.2.4.5-2	61.16	No Message
N-1.75a	C480	4569	P150R1	0	Check	0.207	B.2.4.5-2	61.16	No Message
N-1.75a	C480	4569	P150R1	25	Check	0.221	B.2.4.5-1	61.16	No Message
N-1.75a	C480	4569	P150R1	50	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75a	C481	4570	P150R1	0	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75a	C481	4570	P150R1	25	Check	0.248	B.2.4.5-1	61.16	No Message
N-1.75a	C481	4570	P150R1	50	Check	0.261	B.2.4.5-1	61.16	No Message
N-1.75a	C482	4571	P150R1	0	Check	0.261	B.2.4.5-1	61.16	No Message
N-1.75a	C482	4571	P150R1	25	Check	0.274	B.2.4.5-1	61.16	No Message
N-1.75a	C482	4571	P150R1	50	Check	0.287	B.2.4.5-1	61.16	No Message
N-1.75a	C483	4572	P150R1	0	Check	0.287	B.2.4.5-1	61.16	No Message
N-1.75a	C483	4572	P150R1	25	Check	0.299	B.2.4.5-1	61.16	No Message
N-1.75a	C483	4572	P150R1	50	Check	0.311	B.2.4.5-1	61.16	No Message
N-1.75a	C484	4573	P150R1	0	Check	0.311	B.2.4.5-1	61.16	No Message
N-1.75a	C484	4573	P150R1	25	Check	0.321	B.2.4.5-1	61.16	No Message
N-1.75a	C484	4573	P150R1	50	Check	0.332	B.2.4.5-1	61.16	No Message
N-1.75a	C485	4574	P150R1	0	Check	0.332	B.2.4.5-1	61.16	No Message
N-1.75a	C485	4574	P150R1	25	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75a	C485	4574	P150R1	50	Check	0.35	B.2.4.5-1	61.16	No Message
N-1.75a	C486	4575	P150R1	0	Check	0.35	B.2.4.5-1	61.16	No Message
N-1.75a	C486	4575	P150R1	25	Check	0.359	B.2.4.5-1	61.16	No Message
N-1.75a	C486	4575	P150R1	50	Check	0.367	B.2.4.5-1	61.16	No Message
N-1.75a	C487	4576	P150R1	0	Check	0.367	B.2.4.5-1	61.16	No Message
N-1.75a	C487	4576	P150R1	25	Check	0.373	B.2.4.5-1	61.16	No Message
N-1.75a	C487	4576	P150R1	50	Check	0.379	B.2.4.5-1	61.16	No Message
N-1.75a	C488	4577	P150R1	0	Check	0.379	B.2.4.5-1	61.16	No Message
N-1.75a	C488	4577	P150R1	25	Check	0.383	B.2.4.5-1	61.16	No Message
N-1.75a	C488	4577	P150R1	50	Check	0.387	B.2.4.5-1	61.16	No Message
N-1.75a	C489	4578	P150R1	0	Check	0.387	B.2.4.5-1	61.16	No Message
N-1.75a	C489	4578	P150R1	25	Check	0.389	B.2.4.5-1	61.16	No Message
N-1.75a	C489	4578	P150R1	50	Check	0.39	B.2.4.5-1	61.16	No Message
N-1.75a	C490	4579	P150R4	0	Check	0.196	B.2.4.5-1	122.32	No Message
N-1.75a	C490	4579	P150R4	25	Check	0.195	B.2.4.5-1	122.32	No Message
N-1.75a	C490	4579	P150R4	50	Check	0.195	B.2.4.5-1	122.32	No Message
N-1.75a	C491	4580	P150R4	0	Check	0.195	B.2.4.5-1	122.32	No Message
N-1.75a	C491	4580	P150R4	25	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75a	C491	4580	P150R4	50	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75a	C492	4581	P150R4	0	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75a	C492	4581	P150R4	25	Check	0.191	B.2.4.5-1	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C492	4581	P150R4	50	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75a	C493	4582	P150R4	0	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75a	C493	4582	P150R4	25	Check	0.188	B.2.4.5-1	122.32	No Message
N-1.75a	C493	4582	P150R4	50	Check	0.185	B.2.4.5-1	122.32	No Message
N-1.75a	C494	4583	P150R4	0	Check	0.185	B.2.4.5-1	122.32	No Message
N-1.75a	C494	4583	P150R4	25	Check	0.183	B.2.4.5-1	122.32	No Message
N-1.75a	C494	4583	P150R4	50	Check	0.183	B.2.4.5-1	122.32	No Message
N-1.75a	C495	4584	P150R4	0	Check	0.183	B.2.4.5-1	122.32	No Message
N-1.75a	C495	4584	P150R4	25	Check	0.185	B.2.4.5-1	122.32	No Message
N-1.75a	C495	4584	P150R4	50	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75a	C496	4585	P150R4	0	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75a	C496	4585	P150R4	25	Check	0.198	B.2.4.5-1	122.32	No Message
N-1.75a	C496	4585	P150R4	50	Check	0.208	B.2.4.5-1	122.32	No Message
N-1.75a	C497	4586	P150R4	0	Check	0.208	B.2.4.5-1	122.32	No Message
N-1.75a	C497	4586	P150R4	25	Check	0.221	B.2.4.5-1	122.32	No Message
N-1.75a	C497	4586	P150R4	50	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75a	C498	4587	P150R4	0	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75a	C498	4587	P150R4	0.1	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75a	C498	4587	P150R4	0.2	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75a	C499	4588	P150R1	0	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75a	C499	4588	P150R1	25	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75a	C499	4588	P150R1	50	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75a	C500	4589	P150R1	0	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75a	C500	4589	P150R1	25	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75a	C500	4589	P150R1	50	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75a	C501	4590	P150R1	0	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75a	C501	4590	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C501	4590	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C502	4591	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C502	4591	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75a	C502	4591	P150R1	50	Check	0.025	B.2.4.7-2	61.16	No Message
N-1.75a	C503	4592	P150R1	0	Check	0.025	B.2.4.7-2	61.16	No Message
N-1.75a	C503	4592	P150R1	25	Check	0.032	B.2.4.7-2	61.16	No Message
N-1.75a	C503	4592	P150R1	50	Check	0.039	B.2.4.7-2	61.16	No Message
N-1.75a	C504	4593	P150R1	0	Check	0.039	B.2.4.7-2	61.16	No Message
N-1.75a	C504	4593	P150R1	25	Check	0.047	B.2.4.7-2	61.16	No Message
N-1.75a	C504	4593	P150R1	50	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75a	C505	4594	P150R1	0	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75a	C505	4594	P150R1	25	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C505	4594	P150R1	50	Check	0.07	B.2.4.7-2	61.16	No Message
N-1.75a	C506	4595	P150R1	0	Check	0.07	B.2.4.7-2	61.16	No Message
N-1.75a	C506	4595	P150R1	25	Check	0.078	B.2.4.7-2	61.16	No Message
N-1.75a	C506	4595	P150R1	50	Check	0.087	B.2.4.7-2	61.16	No Message
N-1.75a	C507	4596	P150R1	0	Check	0.087	B.2.4.7-2	61.16	No Message
N-1.75a	C507	4596	P150R1	25	Check	0.097	B.2.4.7-2	61.16	No Message
N-1.75a	C507	4596	P150R1	50	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75a	C508	4597	P150R1	0	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75a	C508	4597	P150R1	25	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75a	C508	4597	P150R1	50	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75a	C509	4598	P150R1	0	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75a	C509	4598	P150R1	25	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75a	C509	4598	P150R1	50	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75a	C510	4599	P150R1	0	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75a	C510	4599	P150R1	25	Check	0.16	B.2.4.7-2	61.16	No Message
N-1.75a	C510	4599	P150R1	50	Check	0.171	B.2.4.7-2	61.16	No Message
N-1.75a	C511	4600	P150R1	0	Check	0.171	B.2.4.7-2	61.16	No Message
N-1.75a	C511	4600	P150R1	25	Check	0.182	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C511	4600	P150R1	50	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75a	C512	4601	P150R1	0	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75a	C512	4601	P150R1	25	Check	0.203	B.2.4.7-2	61.16	No Message
N-1.75a	C512	4601	P150R1	50	Check	0.214	B.2.4.7-2	61.16	No Message
N-1.75a	C513	4602	P150R1	0	Check	0.214	B.2.4.7-2	61.16	No Message
N-1.75a	C513	4602	P150R1	25	Check	0.224	B.2.4.7-2	61.16	No Message
N-1.75a	C513	4602	P150R1	50	Check	0.234	B.2.4.7-2	61.16	No Message
N-1.75a	C514	4603	P150R1	0	Check	0.234	B.2.4.7-2	61.16	No Message
N-1.75a	C514	4603	P150R1	25	Check	0.244	B.2.4.7-2	61.16	No Message
N-1.75a	C514	4603	P150R1	50	Check	0.253	B.2.4.7-2	61.16	No Message
N-1.75a	C515	4604	P150R1	0	Check	0.253	B.2.4.7-2	61.16	No Message
N-1.75a	C515	4604	P150R1	25	Check	0.262	B.2.4.7-2	61.16	No Message
N-1.75a	C515	4604	P150R1	50	Check	0.272	B.2.4.7-2	61.16	No Message
N-1.75a	C516	4605	P150R1	0	Check	0.272	B.2.4.7-2	61.16	No Message
N-1.75a	C516	4605	P150R1	25	Check	0.28	B.2.4.7-2	61.16	No Message
N-1.75a	C516	4605	P150R1	50	Check	0.288	B.2.4.7-2	61.16	No Message
N-1.75a	C517	4606	P150R1	0	Check	0.288	B.2.4.7-2	61.16	No Message
N-1.75a	C517	4606	P150R1	25	Check	0.295	B.2.4.7-2	61.16	No Message
N-1.75a	C517	4606	P150R1	50	Check	0.301	B.2.4.7-2	61.16	No Message
N-1.75a	C518	4607	P150R1	0	Check	0.301	B.2.4.7-2	61.16	No Message
N-1.75a	C518	4607	P150R1	25	Check	0.307	B.2.4.7-2	61.16	No Message
N-1.75a	C518	4607	P150R1	50	Check	0.312	B.2.4.7-2	61.16	No Message
N-1.75a	C519	4608	P150R1	0	Check	0.312	B.2.4.7-2	61.16	No Message
N-1.75a	C519	4608	P150R1	25	Check	0.315	B.2.4.7-2	61.16	No Message
N-1.75a	C519	4608	P150R1	50	Check	0.318	B.2.4.7-2	61.16	No Message
N-1.75a	C520	4609	P150R1	0	Check	0.318	B.2.4.7-2	61.16	No Message
N-1.75a	C520	4609	P150R1	25	Check	0.321	B.2.4.5-2	61.16	No Message
N-1.75a	C520	4609	P150R1	50	Check	0.325	B.2.4.5-2	61.16	No Message
N-1.75a	C521	4610	P150R4	0	Check	0.168	B.2.4.5-1	122.32	No Message
N-1.75a	C521	4610	P150R4	25	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75a	C521	4610	P150R4	50	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75a	C522	4611	P150R4	0	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75a	C522	4611	P150R4	25	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75a	C522	4611	P150R4	50	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75a	C523	4612	P150R4	0	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75a	C523	4612	P150R4	25	Check	0.17	B.2.4.5-1	122.32	No Message
N-1.75a	C523	4612	P150R4	50	Check	0.171	B.2.4.5-1	122.32	No Message
N-1.75a	C524	4613	P150R4	0	Check	0.171	B.2.4.5-1	122.32	No Message
N-1.75a	C524	4613	P150R4	25	Check	0.171	B.2.4.5-1	122.32	No Message
N-1.75a	C524	4613	P150R4	50	Check	0.172	B.2.4.5-1	122.32	No Message
N-1.75a	C525	4614	P150R4	0	Check	0.172	B.2.4.5-1	122.32	No Message
N-1.75a	C525	4614	P150R4	25	Check	0.173	B.2.4.5-1	122.32	No Message
N-1.75a	C525	4614	P150R4	50	Check	0.176	B.2.4.5-1	122.32	No Message
N-1.75a	C526	4615	P150R4	0	Check	0.176	B.2.4.5-1	122.32	No Message
N-1.75a	C526	4615	P150R4	25	Check	0.181	B.2.4.5-1	122.32	No Message
N-1.75a	C526	4615	P150R4	50	Check	0.186	B.2.4.5-1	122.32	No Message
N-1.75a	C527	4616	P150R4	0	Check	0.186	B.2.4.5-1	122.32	No Message
N-1.75a	C527	4616	P150R4	25	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75a	C527	4616	P150R4	50	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75a	C528	4617	P150R4	0	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75a	C528	4617	P150R4	0.1	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75a	C528	4617	P150R4	0.2	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75a	C529	4618	P150R1	0	Check	0.022	B.2.4.5-1	61.16	No Message
N-1.75a	C529	4618	P150R1	25	Check	0.021	B.2.4.5-1	61.16	No Message
N-1.75a	C529	4618	P150R1	50	Check	0.021	B.2.4.5-1	61.16	No Message
N-1.75a	C530	4619	P150R1	0	Check	0.021	B.2.4.5-1	61.16	No Message
N-1.75a	C530	4619	P150R1	25	Check	0.02	B.2.4.5-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C530	4619	P150R1	50	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75a	C531	4620	P150R1	0	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75a	C531	4620	P150R1	25	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75a	C531	4620	P150R1	50	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75a	C532	4621	P150R1	0	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75a	C532	4621	P150R1	25	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75a	C532	4621	P150R1	50	Check	0.02	B.2.4.5-1	61.16	No Message
N-1.75a	C533	4622	P150R1	0	Check	0.02	B.2.4.5-1	61.16	No Message
N-1.75a	C533	4622	P150R1	25	Check	0.022	B.2.4.7-2	61.16	No Message
N-1.75a	C533	4622	P150R1	50	Check	0.028	B.2.4.7-2	61.16	No Message
N-1.75a	C534	4623	P150R1	0	Check	0.028	B.2.4.7-2	61.16	No Message
N-1.75a	C534	4623	P150R1	25	Check	0.035	B.2.4.7-2	61.16	No Message
N-1.75a	C534	4623	P150R1	50	Check	0.043	B.2.4.7-2	61.16	No Message
N-1.75a	C535	4624	P150R1	0	Check	0.043	B.2.4.7-2	61.16	No Message
N-1.75a	C535	4624	P150R1	25	Check	0.051	B.2.4.7-2	61.16	No Message
N-1.75a	C535	4624	P150R1	50	Check	0.059	B.2.4.7-2	61.16	No Message
N-1.75a	C536	4625	P150R1	0	Check	0.059	B.2.4.7-2	61.16	No Message
N-1.75a	C536	4625	P150R1	25	Check	0.068	B.2.4.7-2	61.16	No Message
N-1.75a	C536	4625	P150R1	50	Check	0.076	B.2.4.7-2	61.16	No Message
N-1.75a	C537	4626	P150R1	0	Check	0.076	B.2.4.7-2	61.16	No Message
N-1.75a	C537	4626	P150R1	25	Check	0.086	B.2.4.7-2	61.16	No Message
N-1.75a	C537	4626	P150R1	50	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75a	C538	4627	P150R1	0	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75a	C538	4627	P150R1	25	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75a	C538	4627	P150R1	50	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75a	C539	4628	P150R1	0	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75a	C539	4628	P150R1	25	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75a	C539	4628	P150R1	50	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75a	C540	4629	P150R1	0	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75a	C540	4629	P150R1	25	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75a	C540	4629	P150R1	50	Check	0.16	B.2.4.7-2	61.16	No Message
N-1.75a	C541	4630	P150R1	0	Check	0.16	B.2.4.7-2	61.16	No Message
N-1.75a	C541	4630	P150R1	25	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75a	C541	4630	P150R1	50	Check	0.183	B.2.4.7-2	61.16	No Message
N-1.75a	C542	4631	P150R1	0	Check	0.183	B.2.4.7-2	61.16	No Message
N-1.75a	C542	4631	P150R1	25	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75a	C542	4631	P150R1	50	Check	0.205	B.2.4.7-2	61.16	No Message
N-1.75a	C543	4632	P150R1	0	Check	0.205	B.2.4.7-2	61.16	No Message
N-1.75a	C543	4632	P150R1	25	Check	0.216	B.2.4.7-2	61.16	No Message
N-1.75a	C543	4632	P150R1	50	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75a	C544	4633	P150R1	0	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75a	C544	4633	P150R1	25	Check	0.237	B.2.4.7-2	61.16	No Message
N-1.75a	C544	4633	P150R1	50	Check	0.249	B.2.4.7-2	61.16	No Message
N-1.75a	C545	4634	P150R1	0	Check	0.249	B.2.4.7-2	61.16	No Message
N-1.75a	C545	4634	P150R1	25	Check	0.261	B.2.4.5-2	61.16	No Message
N-1.75a	C545	4634	P150R1	50	Check	0.274	B.2.4.5-2	61.16	No Message
N-1.75a	C546	4635	P150R1	0	Check	0.274	B.2.4.5-2	61.16	No Message
N-1.75a	C546	4635	P150R1	25	Check	0.286	B.2.4.5-2	61.16	No Message
N-1.75a	C546	4635	P150R1	50	Check	0.298	B.2.4.5-2	61.16	No Message
N-1.75a	C547	4636	P150R1	0	Check	0.298	B.2.4.5-2	61.16	No Message
N-1.75a	C547	4636	P150R1	25	Check	0.309	B.2.4.5-2	61.16	No Message
N-1.75a	C547	4636	P150R1	50	Check	0.32	B.2.4.5-2	61.16	No Message
N-1.75a	C548	4637	P150R1	0	Check	0.32	B.2.4.5-2	61.16	No Message
N-1.75a	C548	4637	P150R1	25	Check	0.329	B.2.4.5-2	61.16	No Message
N-1.75a	C548	4637	P150R1	50	Check	0.338	B.2.4.5-2	61.16	No Message
N-1.75a	C549	4638	P150R1	0	Check	0.338	B.2.4.5-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C549	4638	P150R1	50	Check	0.356	B.2.4.5-2	61.16	No Message	
N-1.75a	C550	4639	P150R1	0	Check	0.356	B.2.4.5-2	61.16	No Message	
N-1.75a	C550	4639	P150R1	25	Check	0.363	B.2.4.5-2	61.16	No Message	
N-1.75a	C550	4639	P150R1	50	Check	0.37	B.2.4.5-2	61.16	No Message	
N-1.75a	C551	4640	P150R4	0	Check	0.192	B.2.4.5-2	122.32	No Message	
N-1.75a	C551	4640	P150R4	25	Check	0.195	B.2.4.5-2	122.32	No Message	
N-1.75a	C551	4640	P150R4	50	Check	0.197	B.2.4.5-2	122.32	No Message	
N-1.75a	C552	4641	P150R4	0	Check	0.197	B.2.4.5-2	122.32	No Message	
N-1.75a	C552	4641	P150R4	25	Check	0.199	B.2.4.5-1	122.32	No Message	
N-1.75a	C552	4641	P150R4	50	Check	0.202	B.2.4.5-1	122.32	No Message	
N-1.75a	C553	4642	P150R4	0	Check	0.202	B.2.4.5-1	122.32	No Message	
N-1.75a	C553	4642	P150R4	25	Check	0.205	B.2.4.5-1	122.32	No Message	
N-1.75a	C553	4642	P150R4	50	Check	0.207	B.2.4.5-1	122.32	No Message	
N-1.75a	C554	4643	P150R4	0	Check	0.207	B.2.4.5-1	122.32	No Message	
N-1.75a	C554	4643	P150R4	25	Check	0.21	B.2.4.5-1	122.32	No Message	
N-1.75a	C554	4643	P150R4	50	Check	0.213	B.2.4.5-1	122.32	No Message	
N-1.75a	C555	4644	P150R4	0	Check	0.213	B.2.4.5-1	122.32	No Message	
N-1.75a	C555	4644	P150R4	25	Check	0.215	B.2.4.5-1	122.32	No Message	
N-1.75a	C555	4644	P150R4	50	Check	0.218	B.2.4.5-1	122.32	No Message	
N-1.75a	C556	4645	P150R4	0	Check	0.218	B.2.4.5-1	122.32	No Message	
N-1.75a	C556	4645	P150R4	25	Check	0.222	B.2.4.5-1	122.32	No Message	
N-1.75a	C556	4645	P150R4	50	Check	0.228	B.2.4.5-1	122.32	No Message	
N-1.75a	C557	4646	P150R4	0	Check	0.228	B.2.4.5-1	122.32	No Message	
N-1.75a	C557	4646	P150R4	25	Check	0.234	B.2.4.5-1	122.32	No Message	
N-1.75a	C557	4646	P150R4	50	Check	0.239	B.2.4.5-1	122.32	No Message	
N-1.75a	C558	4647	P150R4	0	Check	0.239	B.2.4.5-1	122.32	No Message	
N-1.75a	C558	4647	P150R4	0.1	Check	0.239	B.2.4.5-1	122.32	No Message	
N-1.75a	C558	4647	P150R4	0.2	Check	0.24	B.2.4.5-1	122.32	No Message	
N-1.75a	C559	4648	P150R1	0	Check	0.026	B.2.4.5-1	61.16	No Message	
N-1.75a	C559	4648	P150R1	25	Check	0.026	B.2.4.5-1	61.16	No Message	
N-1.75a	C559	4648	P150R1	50	Check	0.025	B.2.4.5-1	61.16	No Message	
N-1.75a	C560	4649	P150R1	0	Check	0.025	B.2.4.5-1	61.16	No Message	
N-1.75a	C560	4649	P150R1	25	Check	0.024	B.2.4.5-1	61.16	No Message	
N-1.75a	C560	4649	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C561	4650	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C561	4650	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C561	4650	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C562	4651	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C562	4651	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C562	4651	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C563	4652	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C563	4652	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message	
N-1.75a	C563	4652	P150R1	50	Check	0.024	B.2.4.5-1	61.16	No Message	
N-1.75a	C564	4653	P150R1	0	Check	0.024	B.2.4.5-1	61.16	No Message	
N-1.75a	C564	4653	P150R1	25	Check	0.025	B.2.4.5-1	61.16	No Message	
N-1.75a	C564	4653	P150R1	50	Check	0.029	B.2.4.7-2	61.16	No Message	
N-1.75a	C565	4654	P150R1	0	Check	0.029	B.2.4.7-2	61.16	No Message	
N-1.75a	C565	4654	P150R1	25	Check	0.035	B.2.4.7-2	61.16	No Message	
N-1.75a	C565	4654	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message	
N-1.75a	C566	4655	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message	
N-1.75a	C566	4655	P150R1	25	Check	0.054	B.2.4.7-2	61.16	No Message	
N-1.75a	C566	4655	P150R1	50	Check	0.064	B.2.4.7-2	61.16	No Message	
N-1.75a	C567	4656	P150R1	0	Check	0.064	B.2.4.7-2	61.16	No Message	
N-1.75a	C567	4656	P150R1	25	Check	0.074	B.2.4.7-2	61.16	No Message	
N-1.75a	C567	4656	P150R1	50	Check	0.084	B.2.4.7-2	61.16	No Message	
N-1.75a	C568	4657	P150R1	0	Check	0.084	B.2.4.7-2	61.16	No Message	
N-1.75a	C568	4657	P150R1	25	Check	0.095	B.2.4.7-2	61.16	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C568	4657	P150R1	50	Check	0.106	B.2.4.7-2	61.16	No Message	
N-1.75a	C569	4658	P150R1	0	Check	0.106	B.2.4.7-2	61.16	No Message	
N-1.75a	C569	4658	P150R1	25	Check	0.117	B.2.4.7-2	61.16	No Message	
N-1.75a	C569	4658	P150R1	50	Check	0.128	B.2.4.7-2	61.16	No Message	
N-1.75a	C570	4659	P150R1	0	Check	0.128	B.2.4.7-2	61.16	No Message	
N-1.75a	C570	4659	P150R1	25	Check	0.139	B.2.4.7-2	61.16	No Message	
N-1.75a	C570	4659	P150R1	50	Check	0.151	B.2.4.7-2	61.16	No Message	
N-1.75a	C571	4660	P150R1	0	Check	0.151	B.2.4.7-2	61.16	No Message	
N-1.75a	C571	4660	P150R1	25	Check	0.162	B.2.4.7-2	61.16	No Message	
N-1.75a	C571	4660	P150R1	50	Check	0.173	B.2.4.7-2	61.16	No Message	
N-1.75a	C572	4661	P150R1	0	Check	0.173	B.2.4.7-2	61.16	No Message	
N-1.75a	C572	4661	P150R1	25	Check	0.183	B.2.4.7-2	61.16	No Message	
N-1.75a	C572	4661	P150R1	50	Check	0.194	B.2.4.7-2	61.16	No Message	
N-1.75a	C573	4662	P150R1	0	Check	0.194	B.2.4.7-2	61.16	No Message	
N-1.75a	C573	4662	P150R1	25	Check	0.204	B.2.4.7-2	61.16	No Message	
N-1.75a	C573	4662	P150R1	50	Check	0.213	B.2.4.7-2	61.16	No Message	
N-1.75a	C574	4663	P150R1	0	Check	0.213	B.2.4.7-2	61.16	No Message	
N-1.75a	C574	4663	P150R1	25	Check	0.222	B.2.4.7-2	61.16	No Message	
N-1.75a	C574	4663	P150R1	50	Check	0.231	B.2.4.7-2	61.16	No Message	
N-1.75a	C575	4664	P150R1	0	Check	0.231	B.2.4.7-2	61.16	No Message	
N-1.75a	C575	4664	P150R1	25	Check	0.238	B.2.4.7-2	61.16	No Message	
N-1.75a	C575	4664	P150R1	50	Check	0.245	B.2.4.7-2	61.16	No Message	
N-1.75a	C576	4665	P150R1	0	Check	0.245	B.2.4.7-2	61.16	No Message	
N-1.75a	C576	4665	P150R1	25	Check	0.251	B.2.4.7-2	61.16	No Message	
N-1.75a	C576	4665	P150R1	50	Check	0.257	B.2.4.7-2	61.16	No Message	
N-1.75a	C577	4666	P150R1	0	Check	0.257	B.2.4.7-2	61.16	No Message	
N-1.75a	C577	4666	P150R1	25	Check	0.262	B.2.4.7-2	61.16	No Message	
N-1.75a	C577	4666	P150R1	50	Check	0.268	B.2.4.7-2	61.16	No Message	
N-1.75a	C578	4667	P150R1	0	Check	0.268	B.2.4.7-2	61.16	No Message	
N-1.75a	C578	4667	P150R1	25	Check	0.271	B.2.4.7-2	61.16	No Message	
N-1.75a	C578	4667	P150R1	50	Check	0.274	B.2.4.7-2	61.16	No Message	
N-1.75a	C579	4668	P150R1	0	Check	0.274	B.2.4.7-2	61.16	No Message	
N-1.75a	C579	4668	P150R1	25	Check	0.275	B.2.4.7-2	61.16	No Message	
N-1.75a	C579	4668	P150R1	50	Check	0.276	B.2.4.7-2	61.16	No Message	
N-1.75a	C580	4669	P150R1	0	Check	0.276	B.2.4.7-2	61.16	No Message	
N-1.75a	C580	4669	P150R1	25	Check	0.274	B.2.4.7-2	61.16	No Message	
N-1.75a	C580	4669	P150R1	50	Check	0.272	B.2.4.7-2	61.16	No Message	
N-1.75a	C581	4670	P150R4	0	Check	0.141	B.2.4.7-2	122.32	No Message	
N-1.75a	C581	4670	P150R4	25	Check	0.138	B.2.4.7-2	122.32	No Message	
N-1.75a	C581	4670	P150R4	50	Check	0.135	B.2.4.7-2	122.32	No Message	
N-1.75a	C582	4671	P150R4	0	Check	0.135	B.2.4.7-2	122.32	No Message	
N-1.75a	C582	4671	P150R4	25	Check	0.134	B.2.4.5-2	122.32	No Message	
N-1.75a	C582	4671	P150R4	50	Check	0.134	B.2.4.5-2	122.32	No Message	
N-1.75a	C583	4672	P150R4	0	Check	0.134	B.2.4.5-2	122.32	No Message	
N-1.75a	C583	4672	P150R4	25	Check	0.134	B.2.4.5-2	122.32	No Message	
N-1.75a	C583	4672	P150R4	50	Check	0.135	B.2.4.5-2	122.32	No Message	
N-1.75a	C584	4673	P150R4	0	Check	0.135	B.2.4.5-2	122.32	No Message	
N-1.75a	C584	4673	P150R4	25	Check	0.137	B.2.4.5-2	122.32	No Message	
N-1.75a	C584	4673	P150R4	50	Check	0.14	B.2.4.5-2	122.32	No Message	
N-1.75a	C585	4674	P150R4	0	Check	0.14	B.2.4.5-2	122.32	No Message	
N-1.75a	C585	4674	P150R4	25	Check	0.144	B.2.4.5-2	122.32	No Message	
N-1.75a	C585	4674	P150R4	50	Check	0.15	B.2.4.5-2	122.32	No Message	
N-1.75a	C586	4675	P150R4	0	Check	0.15	B.2.4.5-2	122.32	No Message	
N-1.75a	C586	4675	P150R4	25	Check	0.156	B.2.4.5-2	122.32	No Message	
N-1.75a	C586	4675	P150R4	50	Check	0.165	B.2.4.5-2	122.32	No Message	
N-1.75a	C587	4676	P150R4	0	Check	0.165	B.2.4.5-2	122.32	No Message	
N-1.75a	C587	4676	P150R4	25	Check	0.175	B.2.4.5-2	122.32	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C587	4676	P150R4	50	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75a	C588	4677	P150R4	0	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75a	C588	4677	P150R4	0.1	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75a	C588	4677	P150R4	0.2	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75a	C589	4678	P150R1	0	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75a	C589	4678	P150R1	25	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75a	C589	4678	P150R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C590	4679	P150R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C590	4679	P150R1	25	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C590	4679	P150R1	50	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C591	4680	P150R1	0	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C591	4680	P150R1	25	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C591	4680	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C592	4681	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C592	4681	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C592	4681	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C593	4682	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C593	4682	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C594	4683	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C594	4683	P150R1	25	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C594	4683	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C595	4684	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75a	C595	4684	P150R1	25	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75a	C595	4684	P150R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C596	4685	P150R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C596	4685	P150R1	25	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75a	C596	4685	P150R1	50	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75a	C597	4686	P150R1	0	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75a	C597	4686	P150R1	25	Check	0.044	B.2.4.7-2	61.16	No Message
N-1.75a	C597	4686	P150R1	50	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75a	C598	4687	P150R1	0	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75a	C598	4687	P150R1	25	Check	0.06	B.2.4.7-2	61.16	No Message
N-1.75a	C598	4687	P150R1	50	Check	0.071	B.2.4.7-2	61.16	No Message
N-1.75a	C599	4688	P150R1	0	Check	0.071	B.2.4.7-2	61.16	No Message
N-1.75a	C599	4688	P150R1	25	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75a	C599	4688	P150R1	50	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75a	C600	4689	P150R1	0	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75a	C600	4689	P150R1	25	Check	0.103	B.2.4.7-2	61.16	No Message
N-1.75a	C600	4689	P150R1	50	Check	0.114	B.2.4.7-2	61.16	No Message
N-1.75a	C601	4690	P150R1	0	Check	0.114	B.2.4.7-2	61.16	No Message
N-1.75a	C601	4690	P150R1	25	Check	0.124	B.2.4.7-2	61.16	No Message
N-1.75a	C601	4690	P150R1	50	Check	0.134	B.2.4.7-2	61.16	No Message
N-1.75a	C602	4691	P150R1	0	Check	0.134	B.2.4.7-2	61.16	No Message
N-1.75a	C602	4691	P150R1	25	Check	0.145	B.2.4.7-2	61.16	No Message
N-1.75a	C602	4691	P150R1	50	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75a	C603	4692	P150R1	0	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75a	C603	4692	P150R1	25	Check	0.173	B.2.4.7-2	61.16	No Message
N-1.75a	C603	4692	P150R1	50	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75a	C604	4693	P150R1	0	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75a	C604	4693	P150R1	25	Check	0.202	B.2.4.7-2	61.16	No Message
N-1.75a	C604	4693	P150R1	50	Check	0.217	B.2.4.7-2	61.16	No Message
N-1.75a	C605	4694	P150R1	0	Check	0.217	B.2.4.7-2	61.16	No Message
N-1.75a	C605	4694	P150R1	25	Check	0.231	B.2.4.7-2	61.16	No Message
N-1.75a	C605	4694	P150R1	50	Check	0.247	B.2.4.7-2	61.16	No Message
N-1.75a	C606	4695	P150R1	0	Check	0.247	B.2.4.7-2	61.16	No Message
N-1.75a	C606	4695	P150R1	25	Check	0.264	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C606	4695	P150R1	50	Check	0.281	B.2.4.7-2	61.16	No Message	
N-1.75a	C607	4696	P150R1	0	Check	0.281	B.2.4.7-2	61.16	No Message	
N-1.75a	C607	4696	P150R1	25	Check	0.298	B.2.4.7-2	61.16	No Message	
N-1.75a	C607	4696	P150R1	50	Check	0.321	B.2.4.5-2	61.16	No Message	
N-1.75a	C608	4697	P150R1	0	Check	0.321	B.2.4.5-2	61.16	No Message	
N-1.75a	C608	4697	P150R1	25	Check	0.348	B.2.4.5-2	61.16	No Message	
N-1.75a	C608	4697	P150R1	50	Check	0.376	B.2.4.5-2	61.16	No Message	
N-1.75a	C609	4698	P150R1	0	Check	0.376	B.2.4.5-2	61.16	No Message	
N-1.75a	C609	4698	P150R1	25	Check	0.404	B.2.4.5-2	61.16	No Message	
N-1.75a	C609	4698	P150R1	50	Check	0.433	B.2.4.5-2	61.16	No Message	
N-1.75a	C610	4699	P150R1	0	Check	0.433	B.2.4.5-2	61.16	No Message	
N-1.75a	C610	4699	P150R1	25	Check	0.462	B.2.4.5-1	61.16	No Message	
N-1.75a	C610	4699	P150R1	50	Check	0.491	B.2.4.5-1	61.16	No Message	
N-1.75a	C611	4700	P150R1	0	Check	0.491	B.2.4.5-1	61.16	No Message	
N-1.75a	C611	4700	P150R1	25	Check	0.522	B.2.4.5-1	61.16	No Message	
N-1.75a	C611	4700	P150R1	50	Check	0.556	B.2.4.5-1	61.16	No Message	
N-1.75a	C612	4701	P150R4	0	Check	0.298	B.2.4.5-1	122.32	No Message	
N-1.75a	C612	4701	P150R4	25	Check	0.316	B.2.4.5-1	122.32	No Message	
N-1.75a	C612	4701	P150R4	50	Check	0.335	B.2.4.5-1	122.32	No Message	
N-1.75a	C613	4702	P150R4	0	Check	0.335	B.2.4.5-1	122.32	No Message	
N-1.75a	C613	4702	P150R4	25	Check	0.353	B.2.4.5-1	122.32	No Message	
N-1.75a	C613	4702	P150R4	50	Check	0.371	B.2.4.5-1	122.32	No Message	
N-1.75a	C614	4703	P150R4	0	Check	0.371	B.2.4.5-1	122.32	No Message	
N-1.75a	C614	4703	P150R4	25	Check	0.389	B.2.4.5-1	122.32	No Message	
N-1.75a	C614	4703	P150R4	50	Check	0.408	B.2.4.5-1	122.32	No Message	
N-1.75a	C615	4704	P150R4	0	Check	0.408	B.2.4.5-1	122.32	No Message	
N-1.75a	C615	4704	P150R4	25	Check	0.428	B.2.4.5-1	122.32	No Message	
N-1.75a	C615	4704	P150R4	50	Check	0.448	B.2.4.5-1	122.32	No Message	
N-1.75a	C616	4705	P150R4	0	Check	0.448	B.2.4.5-1	122.32	No Message	
N-1.75a	C616	4705	P150R4	25	Check	0.469	B.2.4.5-1	122.32	No Message	
N-1.75a	C616	4705	P150R4	50	Check	0.489	B.2.4.5-1	122.32	No Message	
N-1.75a	C617	4706	P150R4	0	Check	0.489	B.2.4.5-1	122.32	No Message	
N-1.75a	C617	4706	P150R4	25	Check	0.509	B.2.4.5-1	122.32	No Message	
N-1.75a	C617	4706	P150R4	50	Check	0.529	B.2.4.5-1	122.32	No Message	
N-1.75a	C618	4707	P150R4	0	Check	0.529	B.2.4.5-1	122.32	No Message	
N-1.75a	C618	4707	P150R4	0.1	Check	0.529	B.2.4.5-1	122.32	No Message	
N-1.75a	C618	4707	P150R4	0.2	Check	0.529	B.2.4.5-1	122.32	No Message	
N-1.75a	C619	4708	P150R1	0	Check	0.015	B.2.4.5-1	61.16	No Message	
N-1.75a	C619	4708	P150R1	25	Check	0.014	B.2.4.5-1	61.16	No Message	
N-1.75a	C619	4708	P150R1	50	Check	0.014	B.2.4.5-1	61.16	No Message	
N-1.75a	C620	4709	P150R1	0	Check	0.015	B.2.4.5-1	61.16	No Message	
N-1.75a	C620	4709	P150R1	25	Check	0.014	B.2.4.5-1	61.16	No Message	
N-1.75a	C620	4709	P150R1	50	Check	0.014	B.2.4.5-1	61.16	No Message	
N-1.75a	C621	4710	P150R1	0	Check	0.014	B.2.4.5-1	61.16	No Message	
N-1.75a	C621	4710	P150R1	25	Check	0.015	B.2.4.5-1	61.16	No Message	
N-1.75a	C621	4710	P150R1	50	Check	0.017	B.2.4.7-2	61.16	No Message	
N-1.75a	C622	4711	P150R1	0	Check	0.017	B.2.4.7-2	61.16	No Message	
N-1.75a	C622	4711	P150R1	25	Check	0.023	B.2.4.7-2	61.16	No Message	
N-1.75a	C622	4711	P150R1	50	Check	0.031	B.2.4.7-2	61.16	No Message	
N-1.75a	C623	4712	P150R1	0	Check	0.031	B.2.4.7-2	61.16	No Message	
N-1.75a	C623	4712	P150R1	25	Check	0.04	B.2.4.7-2	61.16	No Message	
N-1.75a	C623	4712	P150R1	50	Check	0.048	B.2.4.7-2	61.16	No Message	
N-1.75a	C624	4713	P150R1	0	Check	0.048	B.2.4.7-2	61.16	No Message	
N-1.75a	C624	4713	P150R1	25	Check	0.057	B.2.4.7-2	61.16	No Message	
N-1.75a	C624	4713	P150R1	50	Check	0.066	B.2.4.7-2	61.16	No Message	
N-1.75a	C625	4714	P150R1	0	Check	0.066	B.2.4.7-2	61.16	No Message	
N-1.75a	C625	4714	P150R1	25	Check	0.075	B.2.4.7-2	61.16	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C625	4714	P150R1	50	Check	0.085	B.2.4.7-2	61.16	No Message	
N-1.75a	C626	4715	P150R1	0	Check	0.085	B.2.4.7-2	61.16	No Message	
N-1.75a	C626	4715	P150R1	25	Check	0.095	B.2.4.7-2	61.16	No Message	
N-1.75a	C626	4715	P150R1	50	Check	0.105	B.2.4.7-2	61.16	No Message	
N-1.75a	C627	4716	P150R1	0	Check	0.105	B.2.4.7-2	61.16	No Message	
N-1.75a	C627	4716	P150R1	25	Check	0.116	B.2.4.7-2	61.16	No Message	
N-1.75a	C627	4716	P150R1	50	Check	0.127	B.2.4.7-2	61.16	No Message	
N-1.75a	C628	4717	P150R1	0	Check	0.127	B.2.4.7-2	61.16	No Message	
N-1.75a	C628	4717	P150R1	25	Check	0.138	B.2.4.7-2	61.16	No Message	
N-1.75a	C628	4717	P150R1	50	Check	0.15	B.2.4.7-2	61.16	No Message	
N-1.75a	C629	4718	P150R1	0	Check	0.15	B.2.4.7-2	61.16	No Message	
N-1.75a	C629	4718	P150R1	25	Check	0.163	B.2.4.5-2	61.16	No Message	
N-1.75a	C629	4718	P150R1	50	Check	0.178	B.2.4.5-2	61.16	No Message	
N-1.75a	C630	4719	P150R1	0	Check	0.178	B.2.4.5-2	61.16	No Message	
N-1.75a	C630	4719	P150R1	25	Check	0.194	B.2.4.5-2	61.16	No Message	
N-1.75a	C630	4719	P150R1	50	Check	0.21	B.2.4.5-2	61.16	No Message	
N-1.75a	C631	4720	P150R1	0	Check	0.21	B.2.4.5-2	61.16	No Message	
N-1.75a	C631	4720	P150R1	25	Check	0.226	B.2.4.5-2	61.16	No Message	
N-1.75a	C631	4720	P150R1	50	Check	0.242	B.2.4.5-2	61.16	No Message	
N-1.75a	C632	4721	P150R1	0	Check	0.242	B.2.4.5-2	61.16	No Message	
N-1.75a	C632	4721	P150R1	25	Check	0.259	B.2.4.5-2	61.16	No Message	
N-1.75a	C632	4721	P150R1	50	Check	0.275	B.2.4.5-1	61.16	No Message	
N-1.75a	C633	4722	P150R1	0	Check	0.275	B.2.4.5-1	61.16	No Message	
N-1.75a	C633	4722	P150R1	25	Check	0.292	B.2.4.5-1	61.16	No Message	
N-1.75a	C633	4722	P150R1	50	Check	0.308	B.2.4.5-1	61.16	No Message	
N-1.75a	C634	4723	P150R1	0	Check	0.308	B.2.4.5-1	61.16	No Message	
N-1.75a	C634	4723	P150R1	25	Check	0.324	B.2.4.5-1	61.16	No Message	
N-1.75a	C634	4723	P150R1	50	Check	0.341	B.2.4.5-1	61.16	No Message	
N-1.75a	C635	4724	P150R1	0	Check	0.341	B.2.4.5-1	61.16	No Message	
N-1.75a	C635	4724	P150R1	25	Check	0.358	B.2.4.5-1	61.16	No Message	
N-1.75a	C635	4724	P150R1	50	Check	0.375	B.2.4.5-1	61.16	No Message	
N-1.75a	C636	4725	P150R1	0	Check	0.375	B.2.4.5-1	61.16	No Message	
N-1.75a	C636	4725	P150R1	25	Check	0.391	B.2.4.5-1	61.16	No Message	
N-1.75a	C636	4725	P150R1	50	Check	0.408	B.2.4.5-1	61.16	No Message	
N-1.75a	C637	4726	P150R1	0	Check	0.408	B.2.4.5-1	61.16	No Message	
N-1.75a	C637	4726	P150R1	25	Check	0.423	B.2.4.5-1	61.16	No Message	
N-1.75a	C637	4726	P150R1	50	Check	0.439	B.2.4.5-1	61.16	No Message	
N-1.75a	C638	4727	P150R1	0	Check	0.439	B.2.4.5-1	61.16	No Message	
N-1.75a	C638	4727	P150R1	25	Check	0.453	B.2.4.5-1	61.16	No Message	
N-1.75a	C638	4727	P150R1	50	Check	0.467	B.2.4.5-1	61.16	No Message	
N-1.75a	C639	4728	P150R1	0	Check	0.467	B.2.4.5-1	61.16	No Message	
N-1.75a	C639	4728	P150R1	25	Check	0.479	B.2.4.5-1	61.16	No Message	
N-1.75a	C639	4728	P150R1	50	Check	0.491	B.2.4.5-1	61.16	No Message	
N-1.75a	C640	4729	P150R1	0	Check	0.491	B.2.4.5-1	61.16	No Message	
N-1.75a	C640	4729	P150R1	25	Check	0.501	B.2.4.5-1	61.16	No Message	
N-1.75a	C640	4729	P150R1	50	Check	0.512	B.2.4.5-1	61.16	No Message	
N-1.75a	C641	4730	P150R1	0	Check	0.512	B.2.4.5-1	61.16	No Message	
N-1.75a	C641	4730	P150R1	25	Check	0.522	B.2.4.5-1	61.16	No Message	
N-1.75a	C641	4730	P150R1	50	Check	0.531	B.2.4.5-1	61.16	No Message	
N-1.75a	C642	4731	P150R4	0	Check	0.275	B.2.4.5-1	122.32	No Message	
N-1.75a	C642	4731	P150R4	25	Check	0.279	B.2.4.5-1	122.32	No Message	
N-1.75a	C642	4731	P150R4	50	Check	0.283	B.2.4.5-1	122.32	No Message	
N-1.75a	C643	4732	P150R4	0	Check	0.283	B.2.4.5-1	122.32	No Message	
N-1.75a	C643	4732	P150R4	25	Check	0.286	B.2.4.5-1	122.32	No Message	
N-1.75a	C643	4732	P150R4	50	Check	0.289	B.2.4.5-1	122.32	No Message	
N-1.75a	C644	4733	P150R4	0	Check	0.289	B.2.4.5-1	122.32	No Message	
N-1.75a	C644	4733	P150R4	25	Check	0.292	B.2.4.5-1	122.32	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C644	4733	P150R4	50	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75a	C645	4734	P150R4	0	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75a	C645	4734	P150R4	25	Check	0.298	B.2.4.5-1	122.32	No Message
N-1.75a	C645	4734	P150R4	50	Check	0.302	B.2.4.5-1	122.32	No Message
N-1.75a	C646	4735	P150R4	0	Check	0.302	B.2.4.5-1	122.32	No Message
N-1.75a	C646	4735	P150R4	25	Check	0.304	B.2.4.5-1	122.32	No Message
N-1.75a	C646	4735	P150R4	50	Check	0.307	B.2.4.5-1	122.32	No Message
N-1.75a	C647	4736	P150R4	0	Check	0.307	B.2.4.5-1	122.32	No Message
N-1.75a	C647	4736	P150R4	25	Check	0.311	B.2.4.5-8	122.32	No Message
N-1.75a	C647	4736	P150R4	50	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75a	C648	4737	P150R4	0	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75a	C648	4737	P150R4	0.1	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75a	C648	4737	P150R4	0.2	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75a	C649	4738	P150R1	0	Check	0.009	B.2.4.5-1	61.16	No Message
N-1.75a	C649	4738	P150R1	25	Check	0.008	B.2.4.5-1	61.16	No Message
N-1.75a	C649	4738	P150R1	50	Check	0.008	B.2.4.5-1	61.16	No Message
N-1.75a	C650	4739	P150R1	0	Check	0.008	B.2.4.5-1	61.16	No Message
N-1.75a	C650	4739	P150R1	25	Check	0.009	B.2.4.5-1	61.16	No Message
N-1.75a	C650	4739	P150R1	50	Check	0.013	B.2.4.7-2	61.16	No Message
N-1.75a	C651	4740	P150R1	0	Check	0.013	B.2.4.7-2	61.16	No Message
N-1.75a	C651	4740	P150R1	25	Check	0.022	B.2.4.7-2	61.16	No Message
N-1.75a	C651	4740	P150R1	50	Check	0.03	B.2.4.7-2	61.16	No Message
N-1.75a	C652	4741	P150R1	0	Check	0.03	B.2.4.7-2	61.16	No Message
N-1.75a	C652	4741	P150R1	25	Check	0.039	B.2.4.7-2	61.16	No Message
N-1.75a	C652	4741	P150R1	50	Check	0.047	B.2.4.7-2	61.16	No Message
N-1.75a	C653	4742	P150R1	0	Check	0.047	B.2.4.7-2	61.16	No Message
N-1.75a	C653	4742	P150R1	25	Check	0.056	B.2.4.7-2	61.16	No Message
N-1.75a	C653	4742	P150R1	50	Check	0.066	B.2.4.5-2	61.16	No Message
N-1.75a	C654	4743	P150R1	0	Check	0.066	B.2.4.5-2	61.16	No Message
N-1.75a	C654	4743	P150R1	25	Check	0.076	B.2.4.5-2	61.16	No Message
N-1.75a	C654	4743	P150R1	50	Check	0.087	B.2.4.5-2	61.16	No Message
N-1.75a	C655	4744	P150R1	0	Check	0.087	B.2.4.5-2	61.16	No Message
N-1.75a	C655	4744	P150R1	25	Check	0.099	B.2.4.5-2	61.16	No Message
N-1.75a	C655	4744	P150R1	50	Check	0.111	B.2.4.5-2	61.16	No Message
N-1.75a	C656	4745	P150R1	0	Check	0.111	B.2.4.5-2	61.16	No Message
N-1.75a	C656	4745	P150R1	25	Check	0.123	B.2.4.5-2	61.16	No Message
N-1.75a	C656	4745	P150R1	50	Check	0.136	B.2.4.5-2	61.16	No Message
N-1.75a	C657	4746	P150R1	0	Check	0.136	B.2.4.5-2	61.16	No Message
N-1.75a	C657	4746	P150R1	25	Check	0.148	B.2.4.5-2	61.16	No Message
N-1.75a	C657	4746	P150R1	50	Check	0.162	B.2.4.5-1	61.16	No Message
N-1.75a	C658	4747	P150R1	0	Check	0.162	B.2.4.5-1	61.16	No Message
N-1.75a	C658	4747	P150R1	25	Check	0.175	B.2.4.5-1	61.16	No Message
N-1.75a	C658	4747	P150R1	50	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75a	C659	4748	P150R1	0	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75a	C659	4748	P150R1	25	Check	0.203	B.2.4.5-1	61.16	No Message
N-1.75a	C659	4748	P150R1	50	Check	0.217	B.2.4.5-1	61.16	No Message
N-1.75a	C660	4749	P150R1	0	Check	0.217	B.2.4.5-1	61.16	No Message
N-1.75a	C660	4749	P150R1	25	Check	0.231	B.2.4.5-1	61.16	No Message
N-1.75a	C660	4749	P150R1	50	Check	0.244	B.2.4.5-1	61.16	No Message
N-1.75a	C661	4750	P150R1	0	Check	0.244	B.2.4.5-1	61.16	No Message
N-1.75a	C661	4750	P150R1	25	Check	0.258	B.2.4.5-1	61.16	No Message
N-1.75a	C661	4750	P150R1	50	Check	0.271	B.2.4.5-1	61.16	No Message
N-1.75a	C662	4751	P150R1	0	Check	0.271	B.2.4.5-1	61.16	No Message
N-1.75a	C662	4751	P150R1	25	Check	0.284	B.2.4.5-1	61.16	No Message
N-1.75a	C662	4751	P150R1	50	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75a	C663	4752	P150R1	0	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75a	C663	4752	P150R1	25	Check	0.309	B.2.4.5-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C663	4752	P150R1	50	Check	0.32	B.2.4.5-1	61.16	No Message	
N-1.75a	C664	4753	P150R1	0	Check	0.32	B.2.4.5-1	61.16	No Message	
N-1.75a	C664	4753	P150R1	25	Check	0.331	B.2.4.5-1	61.16	No Message	
N-1.75a	C664	4753	P150R1	50	Check	0.341	B.2.4.5-1	61.16	No Message	
N-1.75a	C665	4754	P150R1	0	Check	0.341	B.2.4.5-1	61.16	No Message	
N-1.75a	C665	4754	P150R1	25	Check	0.35	B.2.4.5-1	61.16	No Message	
N-1.75a	C665	4754	P150R1	50	Check	0.358	B.2.4.5-1	61.16	No Message	
N-1.75a	C666	4755	P150R1	0	Check	0.358	B.2.4.5-1	61.16	No Message	
N-1.75a	C666	4755	P150R1	25	Check	0.365	B.2.4.5-1	61.16	No Message	
N-1.75a	C666	4755	P150R1	50	Check	0.371	B.2.4.5-1	61.16	No Message	
N-1.75a	C667	4756	P150R1	0	Check	0.371	B.2.4.5-1	61.16	No Message	
N-1.75a	C667	4756	P150R1	25	Check	0.377	B.2.4.5-1	61.16	No Message	
N-1.75a	C667	4756	P150R1	50	Check	0.384	B.2.4.5-1	61.16	No Message	
N-1.75a	C668	4757	P150R1	0	Check	0.384	B.2.4.5-1	61.16	No Message	
N-1.75a	C668	4757	P150R1	25	Check	0.388	B.2.4.5-1	61.16	No Message	
N-1.75a	C668	4757	P150R1	50	Check	0.392	B.2.4.5-1	61.16	No Message	
N-1.75a	C669	4758	P150R1	0	Check	0.392	B.2.4.5-1	61.16	No Message	
N-1.75a	C669	4758	P150R1	25	Check	0.394	B.2.4.5-1	61.16	No Message	
N-1.75a	C669	4758	P150R1	50	Check	0.396	B.2.4.5-1	61.16	No Message	
N-1.75a	C670	4759	P150R1	0	Check	0.396	B.2.4.5-1	61.16	No Message	
N-1.75a	C670	4759	P150R1	25	Check	0.396	B.2.4.5-1	61.16	No Message	
N-1.75a	C670	4759	P150R1	50	Check	0.396	B.2.4.5-2	61.16	No Message	
N-1.75a	C671	4760	P150R4	0	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C671	4760	P150R4	25	Check	0.199	B.2.4.5-2	122.32	No Message	
N-1.75a	C671	4760	P150R4	50	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C672	4761	P150R4	0	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C672	4761	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C672	4761	P150R4	50	Check	0.201	B.2.4.5-2	122.32	No Message	
N-1.75a	C673	4762	P150R4	0	Check	0.201	B.2.4.5-2	122.32	No Message	
N-1.75a	C673	4762	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C673	4762	P150R4	50	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C674	4763	P150R4	0	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C674	4763	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C674	4763	P150R4	50	Check	0.198	B.2.4.5-2	122.32	No Message	
N-1.75a	C674	4763	P150R4	50	Check	0.197	B.2.4.5-2	122.32	No Message	
N-1.75a	C675	4764	P150R4	0	Check	0.197	B.2.4.5-2	122.32	No Message	
N-1.75a	C675	4764	P150R4	25	Check	0.196	B.2.4.5-2	122.32	No Message	
N-1.75a	C675	4764	P150R4	50	Check	0.196	B.2.4.5-2	122.32	No Message	
N-1.75a	C676	4765	P150R4	0	Check	0.196	B.2.4.5-2	122.32	No Message	
N-1.75a	C676	4765	P150R4	25	Check	0.199	B.2.4.1	122.32	No Message	
N-1.75a	C676	4765	P150R4	50	Check	0.207	B.2.4.1	122.32	No Message	
N-1.75a	C677	4766	P150R4	0	Check	0.207	B.2.4.1	122.32	No Message	
N-1.75a	C677	4766	P150R4	25	Check	0.219	B.2.4.5-2	122.32	No Message	
N-1.75a	C677	4766	P150R4	50	Check	0.235	B.2.4.5-2	122.32	No Message	
N-1.75a	C678	4767	P150R4	0	Check	0.235	B.2.4.5-2	122.32	No Message	
N-1.75a	C678	4767	P150R4	0.1	Check	0.235	B.2.4.5-2	122.32	No Message	
N-1.75a	C678	4767	P150R4	0.2	Check	0.235	B.2.4.5-2	122.32	No Message	
N-1.75a	C679	4768	P150R1	0	Check	0.012	B.2.4.5-1	61.16	No Message	
N-1.75a	C679	4768	P150R1	25	Check	0.011	B.2.4.5-1	61.16	No Message	
N-1.75a	C679	4768	P150R1	50	Check	0.011	B.2.4.5-1	61.16	No Message	
N-1.75a	C680	4769	P150R1	0	Check	0.011	B.2.4.5-1	61.16	No Message	
N-1.75a	C680	4769	P150R1	25	Check	0.011	B.2.4.5-1	61.16	No Message	
N-1.75a	C680	4769	P150R1	50	Check	0.012	B.2.4.7-2	61.16	No Message	
N-1.75a	C681	4770	P150R1	0	Check	0.012	B.2.4.7-2	61.16	No Message	
N-1.75a	C681	4770	P150R1	25	Check	0.02	B.2.4.7-2	61.16	No Message	
N-1.75a	C681	4770	P150R1	50	Check	0.029	B.2.4.7-2	61.16	No Message	
N-1.75a	C682	4771	P150R1	0	Check	0.029	B.2.4.7-2	61.16	No Message	
N-1.75a	C682	4771	P150R1	25	Check	0.037	B.2.4.7-2	61.16	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C682	4771	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C683	4772	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75a	C683	4772	P150R1	25	Check	0.053	B.2.4.7-2	61.16	No Message
N-1.75a	C683	4772	P150R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C684	4773	P150R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75a	C684	4773	P150R1	25	Check	0.07	B.2.4.7-1	61.16	No Message
N-1.75a	C684	4773	P150R1	50	Check	0.079	B.2.4.7-1	61.16	No Message
N-1.75a	C685	4774	P150R1	0	Check	0.079	B.2.4.7-1	61.16	No Message
N-1.75a	C685	4774	P150R1	25	Check	0.089	B.2.4.7-1	61.16	No Message
N-1.75a	C685	4774	P150R1	50	Check	0.098	B.2.4.7-1	61.16	No Message
N-1.75a	C686	4775	P150R1	0	Check	0.098	B.2.4.7-1	61.16	No Message
N-1.75a	C686	4775	P150R1	25	Check	0.108	B.2.4.7-1	61.16	No Message
N-1.75a	C686	4775	P150R1	50	Check	0.118	B.2.4.7-1	61.16	No Message
N-1.75a	C687	4776	P150R1	0	Check	0.118	B.2.4.7-1	61.16	No Message
N-1.75a	C687	4776	P150R1	25	Check	0.13	B.2.4.5-1	61.16	No Message
N-1.75a	C687	4776	P150R1	50	Check	0.143	B.2.4.5-1	61.16	No Message
N-1.75a	C688	4777	P150R1	0	Check	0.143	B.2.4.5-1	61.16	No Message
N-1.75a	C688	4777	P150R1	25	Check	0.155	B.2.4.5-1	61.16	No Message
N-1.75a	C688	4777	P150R1	50	Check	0.168	B.2.4.5-1	61.16	No Message
N-1.75a	C689	4778	P150R1	0	Check	0.168	B.2.4.5-1	61.16	No Message
N-1.75a	C689	4778	P150R1	25	Check	0.181	B.2.4.5-1	61.16	No Message
N-1.75a	C689	4778	P150R1	50	Check	0.195	B.2.4.5-1	61.16	No Message
N-1.75a	C690	4779	P150R1	0	Check	0.195	B.2.4.5-1	61.16	No Message
N-1.75a	C690	4779	P150R1	25	Check	0.209	B.2.4.5-1	61.16	No Message
N-1.75a	C690	4779	P150R1	50	Check	0.223	B.2.4.5-1	61.16	No Message
N-1.75a	C691	4780	P150R1	0	Check	0.223	B.2.4.5-1	61.16	No Message
N-1.75a	C691	4780	P150R1	25	Check	0.236	B.2.4.5-1	61.16	No Message
N-1.75a	C691	4780	P150R1	50	Check	0.25	B.2.4.5-1	61.16	No Message
N-1.75a	C692	4781	P150R1	0	Check	0.25	B.2.4.5-1	61.16	No Message
N-1.75a	C692	4781	P150R1	25	Check	0.263	B.2.4.5-1	61.16	No Message
N-1.75a	C692	4781	P150R1	50	Check	0.276	B.2.4.5-1	61.16	No Message
N-1.75a	C693	4782	P150R1	0	Check	0.276	B.2.4.5-1	61.16	No Message
N-1.75a	C693	4782	P150R1	25	Check	0.289	B.2.4.5-1	61.16	No Message
N-1.75a	C693	4782	P150R1	50	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75a	C694	4783	P150R1	0	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75a	C694	4783	P150R1	25	Check	0.312	B.2.4.5-1	61.16	No Message
N-1.75a	C694	4783	P150R1	50	Check	0.324	B.2.4.5-1	61.16	No Message
N-1.75a	C695	4784	P150R1	0	Check	0.324	B.2.4.5-1	61.16	No Message
N-1.75a	C695	4784	P150R1	25	Check	0.334	B.2.4.5-1	61.16	No Message
N-1.75a	C695	4784	P150R1	50	Check	0.345	B.2.4.5-1	61.16	No Message
N-1.75a	C696	4785	P150R1	0	Check	0.345	B.2.4.5-1	61.16	No Message
N-1.75a	C696	4785	P150R1	25	Check	0.357	B.2.4.5-1	61.16	No Message
N-1.75a	C696	4785	P150R1	50	Check	0.369	B.2.4.5-1	61.16	No Message
N-1.75a	C697	4786	P150R1	0	Check	0.369	B.2.4.5-1	61.16	No Message
N-1.75a	C697	4786	P150R1	25	Check	0.38	B.2.4.5-1	61.16	No Message
N-1.75a	C697	4786	P150R1	50	Check	0.391	B.2.4.5-1	61.16	No Message
N-1.75a	C698	4787	P150R1	0	Check	0.391	B.2.4.5-1	61.16	No Message
N-1.75a	C698	4787	P150R1	25	Check	0.4	B.2.4.5-1	61.16	No Message
N-1.75a	C698	4787	P150R1	50	Check	0.41	B.2.4.5-1	61.16	No Message
N-1.75a	C699	4788	P150R1	0	Check	0.41	B.2.4.5-1	61.16	No Message
N-1.75a	C699	4788	P150R1	25	Check	0.417	B.2.4.5-1	61.16	No Message
N-1.75a	C699	4788	P150R1	50	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75a	C700	4789	P150R1	0	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75a	C700	4789	P150R1	25	Check	0.431	B.2.4.5-1	61.16	No Message
N-1.75a	C700	4789	P150R1	50	Check	0.436	B.2.4.5-1	61.16	No Message
N-1.75a	C701	4790	P150R4	0	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75a	C701	4790	P150R4	25	Check	0.224	B.2.4.5-1	122.32	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C701	4790	P150R4	50	Check	0.225	B.2.4.5-1	122.32	No Message
N-1.75a	C702	4791	P150R4	0	Check	0.225	B.2.4.5-1	122.32	No Message
N-1.75a	C702	4791	P150R4	25	Check	0.225	B.2.4.5-1	122.32	No Message
N-1.75a	C702	4791	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C703	4792	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C703	4792	P150R4	25	Check	0.225	B.2.4.5-2	122.32	No Message
N-1.75a	C703	4792	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C704	4793	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C704	4793	P150R4	25	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C704	4793	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C704	4793	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C705	4794	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C705	4794	P150R4	25	Check	0.225	B.2.4.5-2	122.32	No Message
N-1.75a	C705	4794	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C706	4795	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75a	C706	4795	P150R4	25	Check	0.23	B.2.4.5-2	122.32	No Message
N-1.75a	C706	4795	P150R4	50	Check	0.239	B.2.4.5-2	122.32	No Message
N-1.75a	C707	4796	P150R4	0	Check	0.239	B.2.4.5-2	122.32	No Message
N-1.75a	C707	4796	P150R4	25	Check	0.253	B.2.4.5-2	122.32	No Message
N-1.75a	C707	4796	P150R4	50	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75a	C708	4797	P150R4	0	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75a	C708	4797	P150R4	0.1	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75a	C708	4797	P150R4	0.2	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75a	C709	4798	P150R1	0	Check	0.009	B.2.4.1	61.16	No Message
N-1.75a	C709	4798	P150R1	25	Check	0.008	B.2.4.1	61.16	No Message
N-1.75a	C709	4798	P150R1	50	Check	0.008	B.2.4.5-2	61.16	No Message
N-1.75a	C710	4799	P150R1	0	Check	0.009	B.2.4.5-2	61.16	No Message
N-1.75a	C710	4799	P150R1	25	Check	0.009	B.2.4.5-2	61.16	No Message
N-1.75a	C710	4799	P150R1	50	Check	0.012	B.2.4.7-1	61.16	No Message
N-1.75a	C711	4800	P150R1	0	Check	0.012	B.2.4.7-1	61.16	No Message
N-1.75a	C711	4800	P150R1	25	Check	0.02	B.2.4.7-1	61.16	No Message
N-1.75a	C711	4800	P150R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C712	4801	P150R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C712	4801	P150R1	25	Check	0.038	B.2.4.7-1	61.16	No Message
N-1.75a	C712	4801	P150R1	50	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75a	C713	4802	P150R1	0	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75a	C713	4802	P150R1	25	Check	0.057	B.2.4.5-1	61.16	No Message
N-1.75a	C713	4802	P150R1	50	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75a	C714	4803	P150R1	0	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75a	C714	4803	P150R1	25	Check	0.079	B.2.4.5-1	61.16	No Message
N-1.75a	C714	4803	P150R1	50	Check	0.09	B.2.4.5-1	61.16	No Message
N-1.75a	C715	4804	P150R1	0	Check	0.09	B.2.4.5-1	61.16	No Message
N-1.75a	C715	4804	P150R1	25	Check	0.101	B.2.4.5-1	61.16	No Message
N-1.75a	C715	4804	P150R1	50	Check	0.113	B.2.4.5-1	61.16	No Message
N-1.75a	C716	4805	P150R1	0	Check	0.113	B.2.4.5-1	61.16	No Message
N-1.75a	C716	4805	P150R1	25	Check	0.125	B.2.4.5-1	61.16	No Message
N-1.75a	C716	4805	P150R1	50	Check	0.137	B.2.4.5-1	61.16	No Message
N-1.75a	C717	4806	P150R1	0	Check	0.137	B.2.4.5-1	61.16	No Message
N-1.75a	C717	4806	P150R1	25	Check	0.15	B.2.4.5-1	61.16	No Message
N-1.75a	C717	4806	P150R1	50	Check	0.163	B.2.4.5-1	61.16	No Message
N-1.75a	C718	4807	P150R1	0	Check	0.163	B.2.4.5-1	61.16	No Message
N-1.75a	C718	4807	P150R1	25	Check	0.176	B.2.4.5-1	61.16	No Message
N-1.75a	C718	4807	P150R1	50	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75a	C719	4808	P150R1	0	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75a	C719	4808	P150R1	25	Check	0.202	B.2.4.5-1	61.16	No Message
N-1.75a	C719	4808	P150R1	50	Check	0.215	B.2.4.5-1	61.16	No Message
N-1.75a	C720	4809	P150R1	0	Check	0.215	B.2.4.5-1	61.16	No Message
N-1.75a	C720	4809	P150R1	25	Check	0.227	B.2.4.5-1	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C720	4809	P150R1	50	Check	0.239	B.2.4.5-1	61.16	No Message	
N-1.75a	C721	4810	P150R1	0	Check	0.239	B.2.4.5-1	61.16	No Message	
N-1.75a	C721	4810	P150R1	25	Check	0.251	B.2.4.5-1	61.16	No Message	
N-1.75a	C721	4810	P150R1	50	Check	0.262	B.2.4.5-1	61.16	No Message	
N-1.75a	C722	4811	P150R1	0	Check	0.262	B.2.4.5-1	61.16	No Message	
N-1.75a	C722	4811	P150R1	25	Check	0.273	B.2.4.5-1	61.16	No Message	
N-1.75a	C722	4811	P150R1	50	Check	0.283	B.2.4.5-1	61.16	No Message	
N-1.75a	C723	4812	P150R1	0	Check	0.283	B.2.4.5-1	61.16	No Message	
N-1.75a	C723	4812	P150R1	25	Check	0.292	B.2.4.5-1	61.16	No Message	
N-1.75a	C723	4812	P150R1	50	Check	0.301	B.2.4.5-1	61.16	No Message	
N-1.75a	C724	4813	P150R1	0	Check	0.301	B.2.4.5-1	61.16	No Message	
N-1.75a	C724	4813	P150R1	25	Check	0.308	B.2.4.5-1	61.16	No Message	
N-1.75a	C724	4813	P150R1	50	Check	0.315	B.2.4.5-1	61.16	No Message	
N-1.75a	C725	4814	P150R1	0	Check	0.315	B.2.4.5-1	61.16	No Message	
N-1.75a	C725	4814	P150R1	25	Check	0.32	B.2.4.5-1	61.16	No Message	
N-1.75a	C725	4814	P150R1	50	Check	0.329	B.2.4.5-1	61.16	No Message	
N-1.75a	C726	4815	P150R1	0	Check	0.329	B.2.4.5-1	61.16	No Message	
N-1.75a	C726	4815	P150R1	25	Check	0.336	B.2.4.5-1	61.16	No Message	
N-1.75a	C726	4815	P150R1	50	Check	0.343	B.2.4.5-1	61.16	No Message	
N-1.75a	C727	4816	P150R1	0	Check	0.343	B.2.4.5-1	61.16	No Message	
N-1.75a	C727	4816	P150R1	25	Check	0.348	B.2.4.5-1	61.16	No Message	
N-1.75a	C727	4816	P150R1	50	Check	0.355	B.2.4.5-1	61.16	No Message	
N-1.75a	C728	4817	P150R1	0	Check	0.355	B.2.4.5-1	61.16	No Message	
N-1.75a	C728	4817	P150R1	25	Check	0.36	B.2.4.5-1	61.16	No Message	
N-1.75a	C728	4817	P150R1	50	Check	0.366	B.2.4.5-1	61.16	No Message	
N-1.75a	C729	4818	P150R1	0	Check	0.366	B.2.4.5-1	61.16	No Message	
N-1.75a	C729	4818	P150R1	25	Check	0.369	B.2.4.5-1	61.16	No Message	
N-1.75a	C729	4818	P150R1	50	Check	0.372	B.2.4.5-1	61.16	No Message	
N-1.75a	C730	4819	P150R1	0	Check	0.372	B.2.4.5-1	61.16	No Message	
N-1.75a	C730	4819	P150R1	25	Check	0.377	B.2.4.5-2	61.16	No Message	
N-1.75a	C730	4819	P150R1	50	Check	0.384	B.2.4.5-2	61.16	No Message	
N-1.75a	C731	4820	P150R4	0	Check	0.192	B.2.4.5-2	122.32	No Message	
N-1.75a	C731	4820	P150R4	25	Check	0.195	B.2.4.5-2	122.32	No Message	
N-1.75a	C731	4820	P150R4	50	Check	0.198	B.2.4.5-2	122.32	No Message	
N-1.75a	C732	4821	P150R4	0	Check	0.198	B.2.4.5-2	122.32	No Message	
N-1.75a	C732	4821	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message	
N-1.75a	C732	4821	P150R4	50	Check	0.202	B.2.4.5-2	122.32	No Message	
N-1.75a	C733	4822	P150R4	0	Check	0.202	B.2.4.5-2	122.32	No Message	
N-1.75a	C733	4822	P150R4	25	Check	0.204	B.2.4.5-2	122.32	No Message	
N-1.75a	C733	4822	P150R4	50	Check	0.205	B.2.4.5-2	122.32	No Message	
N-1.75a	C734	4823	P150R4	0	Check	0.205	B.2.4.5-2	122.32	No Message	
N-1.75a	C734	4823	P150R4	25	Check	0.216	B.2.4.1	122.32	No Message	
N-1.75a	C734	4823	P150R4	50	Check	0.227	B.2.4.1	122.32	No Message	
N-1.75a	C735	4824	P150R4	0	Check	0.227	B.2.4.1	122.32	No Message	
N-1.75a	C735	4824	P150R4	25	Check	0.237	B.2.4.1	122.32	No Message	
N-1.75a	C735	4824	P150R4	50	Check	0.248	B.2.4.1	122.32	No Message	
N-1.75a	C736	4825	P150R4	0	Check	0.248	B.2.4.1	122.32	No Message	
N-1.75a	C736	4825	P150R4	25	Check	0.26	B.2.4.1	122.32	No Message	
N-1.75a	C736	4825	P150R4	50	Check	0.28	B.2.4.5-1	122.32	No Message	
N-1.75a	C737	4826	P150R4	0	Check	0.28	B.2.4.5-1	122.32	No Message	
N-1.75a	C737	4826	P150R4	25	Check	0.304	B.2.4.5-1	122.32	No Message	
N-1.75a	C737	4826	P150R4	50	Check	0.328	B.2.4.5-1	122.32	No Message	
N-1.75a	C738	4827	P150R4	0	Check	0.328	B.2.4.5-1	122.32	No Message	
N-1.75a	C738	4827	P150R4	0.1	Check	0.328	B.2.4.5-1	122.32	No Message	
N-1.75a	C738	4827	P150R4	0.2	Check	0.328	B.2.4.5-1	122.32	No Message	
N-1.75a	C739	104	P120R1	0	Check	0.021	B.2.4.5-8	61.16	No Message	
N-1.75a	C739	104	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C739	104	P120R1	50	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C740	105	P120R1	0	Check	0.021	B.2.4.5-8	61.16	No Message	
N-1.75a	C740	105	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C740	105	P120R1	50	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C741	106	P120R1	0	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C741	106	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C741	106	P120R1	50	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C742	107	P120R1	0	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C742	107	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message	
N-1.75a	C742	107	P120R1	50	Check	0.021	B.2.4.5-8	61.16	No Message	
N-1.75a	C743	109	P120R1	0	Check	0.021	B.2.4.5-8	61.16	No Message	
N-1.75a	C743	109	P120R1	25	Check	0.021	B.2.4.5-8	61.16	No Message	
N-1.75a	C743	109	P120R1	50	Check	0.022	B.2.4.5-8	61.16	No Message	
N-1.75a	C744	110	P120R1	0	Check	0.022	B.2.4.5-8	61.16	No Message	
N-1.75a	C744	110	P120R1	25	Check	0.023	B.2.4.5-8	61.16	No Message	
N-1.75a	C744	110	P120R1	50	Check	0.024	B.2.4.5-1	61.16	No Message	
N-1.75a	C745	118	P120R1	0	Check	0.024	B.2.4.5-1	61.16	No Message	
N-1.75a	C745	118	P120R1	25	Check	0.027	B.2.4.7-8	61.16	No Message	
N-1.75a	C745	118	P120R1	50	Check	0.032	B.2.4.7-8	61.16	No Message	
N-1.75a	C746	123	P120R1	0	Check	0.032	B.2.4.7-8	61.16	No Message	
N-1.75a	C746	123	P120R1	25	Check	0.038	B.2.4.7-8	61.16	No Message	
N-1.75a	C746	123	P120R1	50	Check	0.045	B.2.4.7-8	61.16	No Message	
N-1.75a	C747	126	P120R1	0	Check	0.045	B.2.4.7-8	61.16	No Message	
N-1.75a	C747	126	P120R1	25	Check	0.052	B.2.4.7-8	61.16	No Message	
N-1.75a	C747	126	P120R1	50	Check	0.06	B.2.4.7-8	61.16	No Message	
N-1.75a	C748	127	P120R1	0	Check	0.06	B.2.4.7-8	61.16	No Message	
N-1.75a	C748	127	P120R1	25	Check	0.067	B.2.4.7-8	61.16	No Message	
N-1.75a	C748	127	P120R1	50	Check	0.076	B.2.4.7-8	61.16	No Message	
N-1.75a	C749	128	P120R1	0	Check	0.076	B.2.4.7-8	61.16	No Message	
N-1.75a	C749	128	P120R1	25	Check	0.084	B.2.4.7-8	61.16	No Message	
N-1.75a	C749	128	P120R1	50	Check	0.092	B.2.4.7-8	61.16	No Message	
N-1.75a	C750	141	P120R1	0	Check	0.092	B.2.4.7-8	61.16	No Message	
N-1.75a	C750	141	P120R1	25	Check	0.1	B.2.4.7-8	61.16	No Message	
N-1.75a	C750	141	P120R1	50	Check	0.109	B.2.4.7-8	61.16	No Message	
N-1.75a	C751	146	P120R1	0	Check	0.109	B.2.4.7-8	61.16	No Message	
N-1.75a	C751	146	P120R1	25	Check	0.116	B.2.4.7-8	61.16	No Message	
N-1.75a	C751	146	P120R1	50	Check	0.124	B.2.4.7-8	61.16	No Message	
N-1.75a	C752	154	P120R1	0	Check	0.124	B.2.4.7-8	61.16	No Message	
N-1.75a	C752	154	P120R1	25	Check	0.131	B.2.4.7-8	61.16	No Message	
N-1.75a	C752	154	P120R1	50	Check	0.138	B.2.4.7-8	61.16	No Message	
N-1.75a	C753	155	P120R1	0	Check	0.138	B.2.4.7-8	61.16	No Message	
N-1.75a	C753	155	P120R1	25	Check	0.144	B.2.4.7-8	61.16	No Message	
N-1.75a	C753	155	P120R1	50	Check	0.151	B.2.4.7-8	61.16	No Message	
N-1.75a	C754	156	P120R1	0	Check	0.151	B.2.4.7-8	61.16	No Message	
N-1.75a	C754	156	P120R1	25	Check	0.157	B.2.4.7-8	61.16	No Message	
N-1.75a	C754	156	P120R1	50	Check	0.163	B.2.4.7-8	61.16	No Message	
N-1.75a	C755	161	P120R1	0	Check	0.163	B.2.4.7-8	61.16	No Message	
N-1.75a	C755	161	P120R1	25	Check	0.169	B.2.4.5-2	61.16	No Message	
N-1.75a	C755	161	P120R1	50	Check	0.181	B.2.4.5-8	61.16	No Message	
N-1.75a	C756	162	P120R1	0	Check	0.181	B.2.4.5-8	61.16	No Message	
N-1.75a	C756	162	P120R1	25	Check	0.195	B.2.4.5-8	61.16	No Message	
N-1.75a	C756	162	P120R1	50	Check	0.209	B.2.4.5-8	61.16	No Message	
N-1.75a	C757	163	P120R1	0	Check	0.209	B.2.4.5-8	61.16	No Message	
N-1.75a	C757	163	P120R1	25	Check	0.222	B.2.4.5-8	61.16	No Message	
N-1.75a	C757	163	P120R1	50	Check	0.235	B.2.4.5-8	61.16	No Message	
N-1.75a	C758	164	P120R1	0	Check	0.235	B.2.4.5-8	61.16	No Message	
N-1.75a	C758	164	P120R1	25	Check	0.248	B.2.4.5-8	61.16	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C758	164	P120R1	50	Check	0.26	B.2.4.5-8	61.16	No Message
N-1.75a	C759	165	P120R1	0	Check	0.26	B.2.4.5-8	61.16	No Message
N-1.75a	C759	165	P120R1	25	Check	0.272	B.2.4.5-8	61.16	No Message
N-1.75a	C759	165	P120R1	50	Check	0.283	B.2.4.5-8	61.16	No Message
N-1.75a	C760	166	P120R1	0	Check	0.283	B.2.4.5-8	61.16	No Message
N-1.75a	C760	166	P120R1	25	Check	0.294	B.2.4.5-8	61.16	No Message
N-1.75a	C760	166	P120R1	50	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75a	C761	167	P120R2	0	Check	0.19	B.2.4.5-8	101.94	No Message
N-1.75a	C761	167	P120R2	25	Check	0.196	B.2.4.5-8	101.94	No Message
N-1.75a	C761	167	P120R2	50	Check	0.201	B.2.4.5-8	101.94	No Message
N-1.75a	C762	168	P120R2	0	Check	0.201	B.2.4.5-8	101.94	No Message
N-1.75a	C762	168	P120R2	25	Check	0.206	B.2.4.5-8	101.94	No Message
N-1.75a	C762	168	P120R2	50	Check	0.21	B.2.4.5-8	101.94	No Message
N-1.75a	C763	169	P120R2	0	Check	0.21	B.2.4.5-8	101.94	No Message
N-1.75a	C763	169	P120R2	25	Check	0.215	B.2.4.5-8	101.94	No Message
N-1.75a	C763	169	P120R2	50	Check	0.225	B.2.4.5-8	101.94	No Message
N-1.75a	C764	170	P120R2	0	Check	0.225	B.2.4.5-8	101.94	No Message
N-1.75a	C764	170	P120R2	25	Check	0.239	B.2.4.5-1	101.94	No Message
N-1.75a	C764	170	P120R2	50	Check	0.265	B.2.4.5-1	101.94	No Message
N-1.75a	C765	171	P120R2	0	Check	0.265	B.2.4.5-1	101.94	No Message
N-1.75a	C765	171	P120R2	25	Check	0.296	B.2.4.5-1	101.94	No Message
N-1.75a	C765	171	P120R2	50	Check	0.328	B.2.4.5-1	101.94	No Message
N-1.75a	C766	172	P120R2	0	Check	0.328	B.2.4.5-1	101.94	No Message
N-1.75a	C766	172	P120R2	25	Check	0.362	B.2.4.5-1	101.94	No Message
N-1.75a	C766	172	P120R2	50	Check	0.396	B.2.4.5-1	101.94	No Message
N-1.75a	C767	173	P120R2	0	Check	0.396	B.2.4.5-1	101.94	No Message
N-1.75a	C767	173	P120R2	25	Check	0.431	B.2.4.5-1	101.94	No Message
N-1.75a	C767	173	P120R2	50	Check	0.466	B.2.4.5-1	101.94	No Message
N-1.75a	C768	174	P120R2	0	Check	0.466	B.2.4.5-1	101.94	No Message
N-1.75a	C768	174	P120R2	0.1	Check	0.466	B.2.4.5-1	101.94	No Message
N-1.75a	C768	174	P120R2	0.2	Check	0.467	B.2.4.5-1	101.94	No Message
N-1.75a	C769	175	P120R1	0	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75a	C769	175	P120R1	25	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C769	175	P120R1	50	Check	0.03	B.2.4.5-1	61.16	No Message
N-1.75a	C770	176	P120R1	0	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C770	176	P120R1	25	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75a	C770	176	P120R1	50	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C771	177	P120R1	0	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C771	177	P120R1	25	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C771	177	P120R1	50	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C772	183	P120R1	0	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C772	183	P120R1	25	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75a	C772	183	P120R1	50	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75a	C773	187	P120R1	0	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75a	C773	187	P120R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75a	C773	187	P120R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C774	188	P120R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75a	C774	188	P120R1	25	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75a	C774	188	P120R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C775	189	P120R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C775	189	P120R1	25	Check	0.041	B.2.4.5-1	61.16	No Message
N-1.75a	C775	189	P120R1	50	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C776	190	P120R1	0	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C776	190	P120R1	25	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75a	C776	190	P120R1	50	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75a	C777	192	P120R1	0	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75a	C777	192	P120R1	25	Check	0.054	B.2.4.7-2	61.16	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings	cm
N-1.75a	C777	192	P120R1	50	Check	0.062	B.2.4.7-2	61.16	No Message	
N-1.75a	C778	193	P120R1	0	Check	0.062	B.2.4.7-2	61.16	No Message	
N-1.75a	C778	193	P120R1	25	Check	0.069	B.2.4.7-2	61.16	No Message	
N-1.75a	C778	193	P120R1	50	Check	0.078	B.2.4.7-2	61.16	No Message	
N-1.75a	C779	194	P120R1	0	Check	0.078	B.2.4.7-2	61.16	No Message	
N-1.75a	C779	194	P120R1	25	Check	0.087	B.2.4.7-2	61.16	No Message	
N-1.75a	C779	194	P120R1	50	Check	0.097	B.2.4.7-2	61.16	No Message	
N-1.75a	C780	195	P120R1	0	Check	0.097	B.2.4.7-2	61.16	No Message	
N-1.75a	C780	195	P120R1	25	Check	0.105	B.2.4.7-2	61.16	No Message	
N-1.75a	C780	195	P120R1	50	Check	0.114	B.2.4.7-2	61.16	No Message	
N-1.75a	C781	196	P120R1	0	Check	0.114	B.2.4.7-2	61.16	No Message	
N-1.75a	C781	196	P120R1	25	Check	0.122	B.2.4.7-2	61.16	No Message	
N-1.75a	C781	196	P120R1	50	Check	0.129	B.2.4.7-8	61.16	No Message	
N-1.75a	C782	197	P120R1	0	Check	0.129	B.2.4.7-8	61.16	No Message	
N-1.75a	C782	197	P120R1	25	Check	0.136	B.2.4.7-8	61.16	No Message	
N-1.75a	C782	197	P120R1	50	Check	0.142	B.2.4.7-8	61.16	No Message	
N-1.75a	C783	199	P120R1	0	Check	0.142	B.2.4.7-8	61.16	No Message	
N-1.75a	C783	199	P120R1	25	Check	0.146	B.2.4.7-8	61.16	No Message	
N-1.75a	C783	199	P120R1	50	Check	0.15	B.2.4.7-8	61.16	No Message	
N-1.75a	C784	200	P120R1	0	Check	0.15	B.2.4.7-8	61.16	No Message	
N-1.75a	C784	200	P120R1	25	Check	0.15	B.2.4.7-2	61.16	No Message	
N-1.75a	C784	200	P120R1	50	Check	0.151	B.2.4.7-2	61.16	No Message	
N-1.75a	C785	201	P120R1	0	Check	0.151	B.2.4.7-2	61.16	No Message	
N-1.75a	C785	201	P120R1	25	Check	0.149	B.2.4.7-2	61.16	No Message	
N-1.75a	C785	201	P120R1	50	Check	0.147	B.2.4.7-2	61.16	No Message	
N-1.75a	C786	202	P120R1	0	Check	0.147	B.2.4.7-2	61.16	No Message	
N-1.75a	C786	202	P120R1	25	Check	0.161	B.2.4.7-2	61.16	No Message	
N-1.75a	C786	202	P120R1	50	Check	0.177	B.2.4.7-2	61.16	No Message	
N-1.75a	C787	203	P120R1	0	Check	0.177	B.2.4.7-2	61.16	No Message	
N-1.75a	C787	203	P120R1	25	Check	0.196	B.2.4.5-2	61.16	No Message	
N-1.75a	C787	203	P120R1	50	Check	0.221	B.2.4.5-2	61.16	No Message	
N-1.75a	C788	205	P120R1	0	Check	0.221	B.2.4.5-2	61.16	No Message	
N-1.75a	C788	205	P120R1	25	Check	0.247	B.2.4.5-1	61.16	No Message	
N-1.75a	C788	205	P120R1	50	Check	0.274	B.2.4.5-1	61.16	No Message	
N-1.75a	C789	206	P120R1	0	Check	0.274	B.2.4.5-1	61.16	No Message	
N-1.75a	C789	206	P120R1	25	Check	0.303	B.2.4.5-1	61.16	No Message	
N-1.75a	C789	206	P120R1	50	Check	0.331	B.2.4.5-1	61.16	No Message	
N-1.75a	C790	207	P120R1	0	Check	0.331	B.2.4.5-1	61.16	No Message	
N-1.75a	C790	207	P120R1	25	Check	0.36	B.2.4.5-1	61.16	No Message	
N-1.75a	C790	207	P120R1	50	Check	0.39	B.2.4.5-1	61.16	No Message	
N-1.75a	C791	208	P120R2	0	Check	0.244	B.2.4.5-1	101.94	No Message	
N-1.75a	C791	208	P120R2	25	Check	0.263	B.2.4.5-1	101.94	No Message	
N-1.75a	C791	208	P120R2	50	Check	0.283	B.2.4.5-1	101.94	No Message	
N-1.75a	C792	209	P120R2	0	Check	0.283	B.2.4.5-1	101.94	No Message	
N-1.75a	C792	209	P120R2	25	Check	0.304	B.2.4.5-1	101.94	No Message	
N-1.75a	C792	209	P120R2	50	Check	0.329	B.2.4.5-1	101.94	No Message	
N-1.75a	C793	211	P120R2	0	Check	0.329	B.2.4.5-1	101.94	No Message	
N-1.75a	C793	211	P120R2	25	Check	0.356	B.2.4.5-1	101.94	No Message	
N-1.75a	C793	211	P120R2	50	Check	0.386	B.2.4.5-1	101.94	No Message	
N-1.75a	C794	212	P120R2	0	Check	0.386	B.2.4.5-1	101.94	No Message	
N-1.75a	C794	212	P120R2	25	Check	0.423	B.2.4.5-1	101.94	No Message	
N-1.75a	C794	212	P120R2	50	Check	0.46	B.2.4.5-1	101.94	No Message	
N-1.75a	C795	213	P120R2	0	Check	0.46	B.2.4.5-1	101.94	No Message	
N-1.75a	C795	213	P120R2	25	Check	0.501	B.2.4.5-1	101.94	No Message	
N-1.75a	C795	213	P120R2	50	Check	0.549	B.2.4.5-8	101.94	No Message	
N-1.75a	C796	214	P120R2	0	Check	0.549	B.2.4.5-8	101.94	No Message	
N-1.75a	C796	214	P120R2	25	Check	0.603	B.2.4.5-8	101.94	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As cm ²	Warnings
									cm
N-1.75a	C796	214	P120R2	50	Check	0.658	B.2.4.5-8	101.94	No Message
N-1.75a	C797	215	P120R2	0	Check	0.658	B.2.4.5-8	101.94	No Message
N-1.75a	C797	215	P120R2	25	Check	0.715	B.2.4.5-8	101.94	No Message
N-1.75a	C797	215	P120R2	50	Check	0.772	B.2.4.5-8	101.94	No Message
N-1.75a	C798	217	P120R2	0	Check	0.772	B.2.4.5-8	101.94	No Message
N-1.75a	C798	217	P120R2	0.1	Check	0.772	B.2.4.5-8	101.94	No Message
N-1.75a	C798	217	P120R2	0.2	Check	0.773	B.2.4.5-8	101.94	No Message
N-1.75a	C799	220	P120R1	0	Check	0.006	B.2.4.1	61.16	No Message
N-1.75a	C799	220	P120R1	25	Check	0.005	B.2.4.1	61.16	No Message
N-1.75a	C799	220	P120R1	50	Check	0.006	B.2.4.5-2	61.16	No Message
N-1.75a	C800	221	P120R1	0	Check	0.006	B.2.4.5-2	61.16	No Message
N-1.75a	C800	221	P120R1	25	Check	0.007	B.2.4.5-2	61.16	No Message
N-1.75a	C800	221	P120R1	50	Check	0.011	B.2.4.7-1	61.16	No Message
N-1.75a	C801	223	P120R1	0	Check	0.011	B.2.4.7-1	61.16	No Message
N-1.75a	C801	223	P120R1	25	Check	0.015	B.2.4.7-1	61.16	No Message
N-1.75a	C801	223	P120R1	50	Check	0.02	B.2.4.7-1	61.16	No Message
N-1.75a	C802	224	P120R1	0	Check	0.02	B.2.4.7-1	61.16	No Message
N-1.75a	C802	224	P120R1	25	Check	0.025	B.2.4.7-1	61.16	No Message
N-1.75a	C802	224	P120R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C803	225	P120R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75a	C803	225	P120R1	25	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75a	C803	225	P120R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C804	226	P120R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75a	C804	226	P120R1	25	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75a	C804	226	P120R1	50	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75a	C805	227	P120R1	0	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75a	C805	227	P120R1	25	Check	0.056	B.2.4.5-1	61.16	No Message
N-1.75a	C805	227	P120R1	50	Check	0.062	B.2.4.5-1	61.16	No Message
N-1.75a	C806	229	P120R1	0	Check	0.062	B.2.4.5-1	61.16	No Message
N-1.75a	C806	229	P120R1	25	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75a	C806	229	P120R1	50	Check	0.077	B.2.4.5-1	61.16	No Message
N-1.75a	C807	230	P120R1	0	Check	0.077	B.2.4.5-1	61.16	No Message
N-1.75a	C807	230	P120R1	25	Check	0.085	B.2.4.5-1	61.16	No Message
N-1.75a	C807	230	P120R1	50	Check	0.093	B.2.4.5-1	61.16	No Message
N-1.75a	C808	231	P120R1	0	Check	0.093	B.2.4.5-1	61.16	No Message
N-1.75a	C808	231	P120R1	25	Check	0.102	B.2.4.5-1	61.16	No Message
N-1.75a	C808	231	P120R1	50	Check	0.111	B.2.4.5-1	61.16	No Message
N-1.75a	C809	232	P120R1	0	Check	0.111	B.2.4.5-1	61.16	No Message
N-1.75a	C809	232	P120R1	25	Check	0.121	B.2.4.5-1	61.16	No Message
N-1.75a	C809	232	P120R1	50	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75a	C810	234	P120R1	0	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75a	C810	234	P120R1	25	Check	0.141	B.2.4.5-1	61.16	No Message
N-1.75a	C810	234	P120R1	50	Check	0.151	B.2.4.5-1	61.16	No Message
N-1.75a	C811	235	P120R1	0	Check	0.151	B.2.4.5-1	61.16	No Message
N-1.75a	C811	235	P120R1	25	Check	0.161	B.2.4.5-1	61.16	No Message
N-1.75a	C811	235	P120R1	50	Check	0.171	B.2.4.5-1	61.16	No Message
N-1.75a	C812	236	P120R1	0	Check	0.171	B.2.4.5-1	61.16	No Message
N-1.75a	C812	236	P120R1	25	Check	0.181	B.2.4.5-1	61.16	No Message
N-1.75a	C812	236	P120R1	50	Check	0.191	B.2.4.5-8	61.16	No Message
N-1.75a	C813	237	P120R1	0	Check	0.191	B.2.4.5-8	61.16	No Message
N-1.75a	C813	237	P120R1	25	Check	0.2	B.2.4.5-8	61.16	No Message
N-1.75a	C813	237	P120R1	50	Check	0.21	B.2.4.5-8	61.16	No Message
N-1.75a	C814	239	P120R1	0	Check	0.21	B.2.4.5-8	61.16	No Message
N-1.75a	C814	239	P120R1	25	Check	0.218	B.2.4.5-8	61.16	No Message
N-1.75a	C814	239	P120R1	50	Check	0.226	B.2.4.5-8	61.16	No Message
N-1.75a	C815	240	P120R1	0	Check	0.226	B.2.4.5-8	61.16	No Message

Vigas Principales de Cimentación:

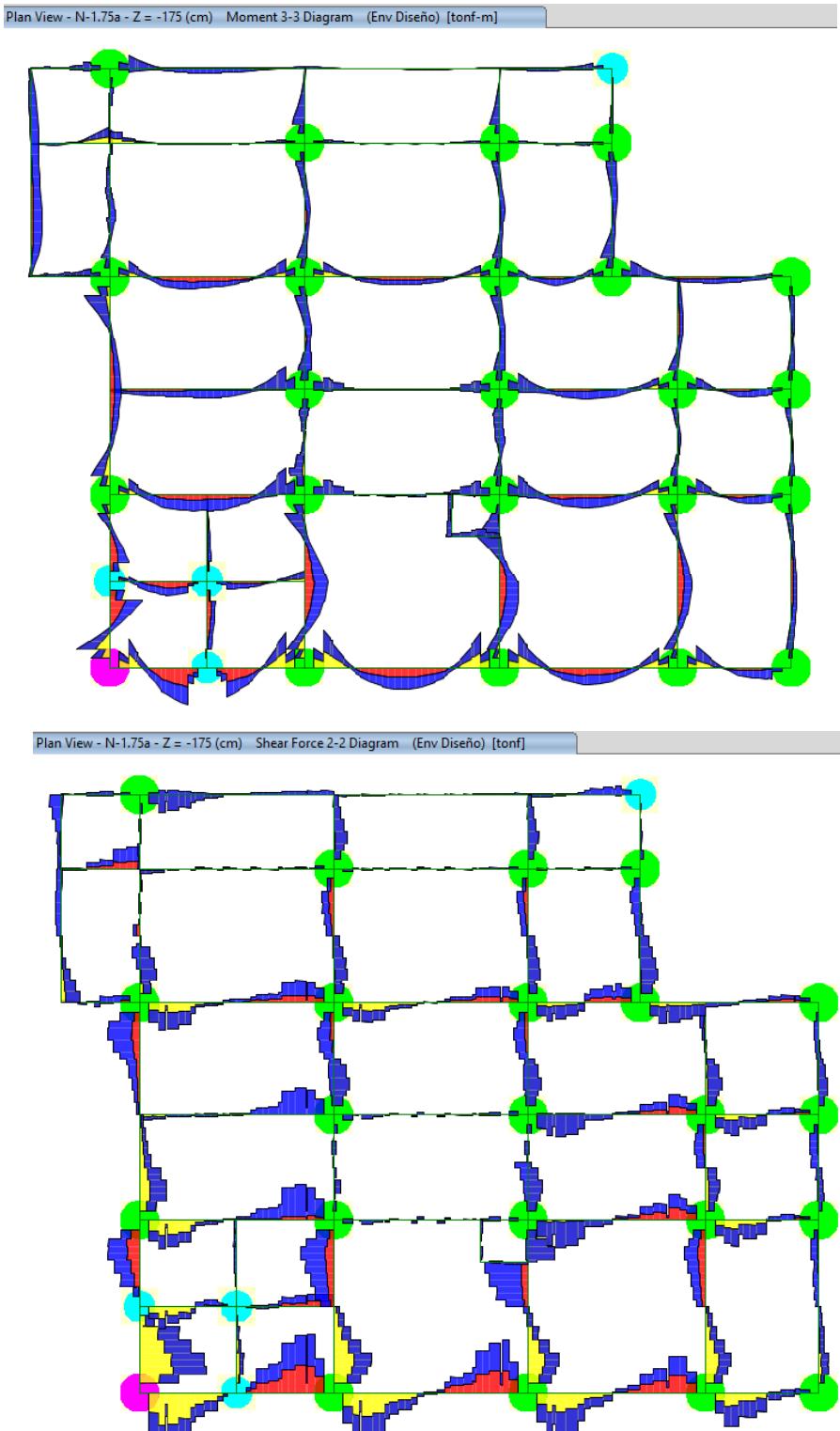
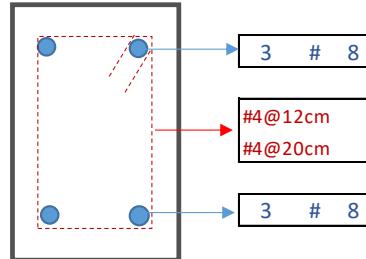


Figura 34 Diagramas de Momento Flector y Cortante Cimentación A

SECCIÓN: VIGA CIMENTACION 50 x 100

Base	50 cm
Altura	100 cm
Recubrimiento	7.5 cm
f'c	3000 psi 21 MPa
f_y	420 MPa
p_{min}	0.0033
A_{s,min}	15.3 cm ²



Refuerzo Base 3 # 8 Ast. Base: 15.3 cm ²

ρ _b 0.0213 p _{max} = 0.63 * ρ _b 0.0134 As _{max} 62 cm ²
--

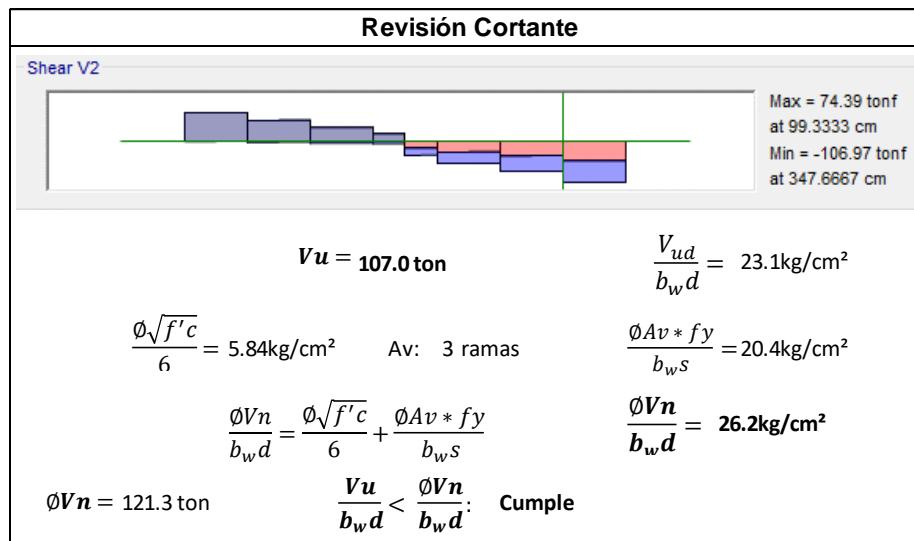
OK, Cumple Acero minimo

Refuerzo Superior	3 # 8	26 cm ²
Refuerzo Inferior	2 # 8	41 cm ²
0.63 * ρ_b * b * d: 62 cm²		
(Ast1 - Ast2) < 0.63 * ρ_b * b * d		

Ok, El diseño es SubReforzado

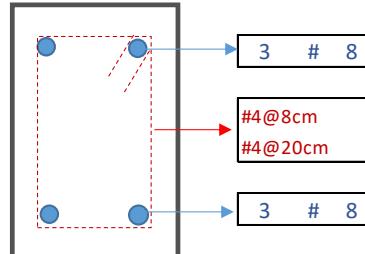
Separación Zona Confinada x<2H y Zona de Traslapos
X: cara del apoyo 200.0 cm d/4 23.8 cm 8*bd 20.3 cm 24*dbe E # 4 30.5 cm Menor a 30cm 30.0 cm Separacion Máxima 20.3 cm Separacion Usada 12.0 cm

Separación Zona NO Confinada x>2H
Distancia 2H 200.0 cm d/2 46.2 cm Separacion Máxima 46.2 cm Separacion Usada 20.0 cm



SECCIÓN: VIGA CIMENTACION 50 x 100

Base	50 cm
Altura	100 cm
Recubrimiento	7.5 cm
f'c	3000 psi 21 MPa
f_y	420 MPa
p_{min}	0.0033
A_{s,min}	15.3 cm ²



Refuerzo Base 3 # 8

Ast. Base: 15.3 cm²

OK, Cumple Acero minimo

pb 0.0213

p.max= 0.63*pb 0.0134

As.max 62 cm²

Refuerzo Superior	3 # 8	26 cm ²
Refuerzo Inferior	2 # 8	66 cm ²
0,63*pb*b*d: 62 cm²		
(Ast1 - Ast2) < 0,63*pb*b*d		
Ok, El diseño es SubReforzado		

Separación Zona Confinada x<2H y Zona de Traslados

X: cara del apoyo 200.0 cm

d/4 23.8 cm

8*bd 20.3 cm

24*dbe E # 4 30.5 cm

Menor a 30cm 30.0 cm

Separacion Máxima 20.3 cm

Separacion Usada 8.0 cm

Separación Zona NO Confinada x>2H

Distancia 2H 200.0 cm

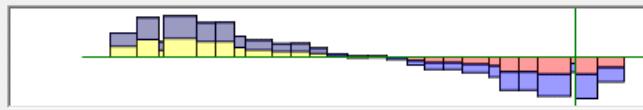
d/2 46.2 cm

Separacion Máxima 46.2 cm

Separacion Usada 20.0 cm

Revisión Cortante

Shear V2



$$Vu = 212.0 \text{ ton}$$

$$\frac{Vu_d}{b_w d} = 45.9 \text{ kg/cm}^2$$

$$\frac{\phi\sqrt{f'c}}{6} = 5.84 \text{ kg/cm}^2 \quad \text{Av: 5 ramas}$$

$$\frac{\phi Av * f_y}{b_w s} = 51.0 \text{ kg/cm}^2$$

$$\frac{\phi Vn}{b_w d} = \frac{\phi\sqrt{f'c}}{6} + \frac{\phi Av * f_y}{b_w s}$$

$$\frac{\phi Vn}{b_w d} = 56.9 \text{ kg/cm}^2$$

$$\phi Vn = 262.8 \text{ ton}$$

$$\frac{Vu}{b_w d} < \frac{\phi Vn}{b_w d}: \text{ Cumple}$$

Tabla 21 Reporte de diseño de vigas de cimentación Edificio A

TABLE: Concrete Beam Summary - ACI 318-14									
Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
			cm		cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B104	VCIM 50x100	103	B.2.4.5-8	19.4	28.4	0.0	33.7	0.1
N-1.75a	B104	VCIM 50x100	103	B.2.4.5-8	19.3	25.6	0.1	30.8	0.1
N-1.75a	B104	VCIM 50x100	111	B.2.4.5-8	19.3	23.9	0.1	30.8	0.1
N-1.75a	B104	VCIM 50x100	111	B.2.4.5-8	19.2	20.8	0.0	14.7	0.1
N-1.75a	B104	VCIM 50x100	155	B.2.4.5-8	19.2	19.2	0.0	14.7	0.1
N-1.75a	B104	VCIM 50x100	155	B.2.4.5-8	19.0	19.0	0.3	18.5	0.1
N-1.75a	B104	VCIM 50x100	181	B.2.4.5-8	19.0	19.0	0.3	18.5	0.1
N-1.75a	B104	VCIM 50x100	207	B.2.4.5-8	25.4	19.0	0.3	18.5	0.1
N-1.75a	B104	VCIM 50x100	207	B.2.4.5-8	26.6	19.0	0.3	20.3	0.1
N-1.75a	B104	VCIM 50x100	221	B.2.4.5-8	29.4	19.0	0.3	20.3	0.1
N-1.75a	B104	VCIM 50x100	221	B.2.4.5-8	29.6	18.9	0.2	19.7	0.1
N-1.75a	B104	VCIM 50x100	258	B.2.4.5-8	35.6	18.9	0.2	19.7	0.1
N-1.75a	B104	VCIM 50x100	258	B.2.4.5-8	35.9	18.7	0.2	20.4	0.1
N-1.75a	B104	VCIM 50x100	284	B.2.4.5-8	39.0	18.7	0.2	20.4	0.1
N-1.75a	B104	VCIM 50x100	310	B.2.4.5-8	42.2	18.7	0.2	20.4	0.1
N-1.75a	B104	VCIM 50x100	310	B.2.4.5-8	42.5	18.7	0.1	20.6	0.1
N-1.75a	B104	VCIM 50x100	332	B.2.4.5-8	44.2	18.7	0.1	20.6	0.1
N-1.75a	B104	VCIM 50x100	332	B.2.4.5-8	43.9	18.6	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	362	B.2.4.5-8	44.6	18.6	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	362	B.2.4.5-8	44.6	18.4	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	388	B.2.4.5-8	44.6	18.4	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	413	B.2.4.5-8	44.8	18.4	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	413	B.2.4.5-8	44.7	18.4	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	443	B.2.4.5-8	44.1	18.4	0.1	0.0	0.0
N-1.75a	B104	VCIM 50x100	443	B.2.4.5-8	44.0	18.3	0.1	14.0	0.1
N-1.75a	B104	VCIM 50x100	465	B.2.4.5-8	42.5	18.3	0.1	14.0	0.1
N-1.75a	B104	VCIM 50x100	465	B.2.4.5-8	42.1	18.2	0.2	13.9	0.1
N-1.75a	B104	VCIM 50x100	491	B.2.4.5-8	39.1	18.2	0.2	13.9	0.1
N-1.75a	B104	VCIM 50x100	517	B.2.4.5-8	36.2	18.2	0.2	13.9	0.1
N-1.75a	B104	VCIM 50x100	517	B.2.4.5-8	35.8	18.2	0.2	13.2	0.1
N-1.75a	B104	VCIM 50x100	554	B.2.4.5-8	30.3	18.2	0.2	13.2	0.1
N-1.75a	B104	VCIM 50x100	554	B.2.4.5-8	29.8	18.1	0.2	17.8	0.1
N-1.75a	B104	VCIM 50x100	568	B.2.4.5-8	27.0	18.1	0.2	17.8	0.1
N-1.75a	B104	VCIM 50x100	568	B.2.4.5-8	25.8	18.0	0.3	16.1	0.1
N-1.75a	B104	VCIM 50x100	594	B.2.4.5-8	18.0	18.0	0.3	16.1	0.1
N-1.75a	B104	VCIM 50x100	620	B.2.4.5-8	18.0	18.0	0.3	16.1	0.1
N-1.75a	B104	VCIM 50x100	620	B.2.4.5-8	18.0	18.0	0.3	12.6	0.0
N-1.75a	B104	VCIM 50x100	664	B.2.4.5-8	18.0	18.4	0.3	12.6	0.0
N-1.75a	B104	VCIM 50x100	664	B.2.4.5-8	17.9	21.3	0.3	25.1	0.1
N-1.75a	B104	VCIM 50x100	672	B.2.4.5-8	17.9	22.8	0.3	25.1	0.1
N-1.75a	B105	VCIM 50x100	100	B.2.4.5-1	16.9	26.6	0.0	30.1	0.1
N-1.75a	B105	VCIM 50x100	100	B.2.4.5-1	16.8	23.9	0.0	27.1	0.1
N-1.75a	B105	VCIM 50x100	112	B.2.4.5-1	16.8	19.4	0.0	27.1	0.1
N-1.75a	B105	VCIM 50x100	112	B.2.4.5-1	16.7	16.7	0.3	0.0	0.0
N-1.75a	B105	VCIM 50x100	150	B.2.4.5-1	16.7	16.7	0.3	0.0	0.0
N-1.75a	B105	VCIM 50x100	150	B.2.4.5-1	16.6	16.6	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	200	B.2.4.5-1	21.7	16.6	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	200	B.2.4.5-1	22.5	16.6	0.3	14.2	0.1
N-1.75a	B105	VCIM 50x100	225	B.2.4.5-1	27.4	16.6	0.3	14.2	0.1
N-1.75a	B105	VCIM 50x100	225	B.2.4.5-1	27.7	16.6	0.2	12.4	0.0
N-1.75a	B105	VCIM 50x100	249	B.2.4.5-1	30.6	16.6	0.2	12.4	0.0
N-1.75a	B105	VCIM 50x100	249	B.2.4.5-1	31.0	16.6	0.1	13.1	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B105	VCIM 50x100	299	B.2.4.5-8	35.4	16.6	0.1	13.1	0.0
N-1.75a	B105	VCIM 50x100	299	B.2.4.5-8	35.6	16.6	0.1	13.5	0.1
N-1.75a	B105	VCIM 50x100	337	B.2.4.5-8	37.3	16.6	0.1	13.5	0.1
N-1.75a	B105	VCIM 50x100	337	B.2.4.5-8	37.1	16.6	0.1	0.0	0.0
N-1.75a	B105	VCIM 50x100	349	B.2.4.5-8	37.0	16.6	0.1	0.0	0.0
N-1.75a	B105	VCIM 50x100	349	B.2.4.5-8	37.0	16.6	0.1	0.0	0.0
N-1.75a	B105	VCIM 50x100	399	B.2.4.5-8	35.1	16.6	0.1	0.0	0.0
N-1.75a	B105	VCIM 50x100	399	B.2.4.5-8	35.0	16.6	0.1	0.0	0.0
N-1.75a	B105	VCIM 50x100	449	B.2.4.5-8	31.4	16.6	0.1	0.0	0.0
N-1.75a	B105	VCIM 50x100	449	B.2.4.5-8	31.3	16.7	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	475	B.2.4.5-1	27.2	16.7	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	501	B.2.4.5-1	23.4	16.7	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	501	B.2.4.5-1	23.1	16.7	0.3	0.0	0.0
N-1.75a	B105	VCIM 50x100	527	B.2.4.5-1	18.1	16.7	0.3	0.0	0.0
N-1.75a	B105	VCIM 50x100	553	B.2.4.5-1	16.7	16.7	0.3	0.0	0.0
N-1.75a	B105	VCIM 50x100	553	B.2.4.5-1	16.7	16.7	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	561	B.2.4.5-1	16.7	16.7	0.2	0.0	0.0
N-1.75a	B105	VCIM 50x100	561	B.2.4.5-1	16.7	16.7	0.3	16.0	0.1
N-1.75a	B105	VCIM 50x100	605	B.2.4.5-1	16.7	16.7	0.3	16.0	0.1
N-1.75a	B105	VCIM 50x100	605	B.2.4.5-1	16.7	16.7	0.0	20.3	0.1
N-1.75a	B105	VCIM 50x100	631	B.2.4.5-1	16.7	27.6	0.0	20.3	0.1
N-1.75a	B125	VCIM 50x100	50	B.2.4.7-8	15.4	15.8	0.3	0.0	0.0
N-1.75a	B125	VCIM 50x100	99	B.2.4.5-8	15.4	8.4	0.3	0.0	0.0
N-1.75a	B125	VCIM 50x100	99	B.2.4.5-8	15.4	8.0	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	149	B.2.4.5-8	15.4	8.0	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	149	B.2.4.5-3	15.4	7.7	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	199	B.2.4.5-2	17.1	7.7	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	199	B.2.4.5-2	17.6	7.4	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	224	B.2.4.5-2	19.5	7.4	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	224	B.2.4.5-2	19.6	7.2	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	248	B.2.4.5-2	18.2	7.2	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	248	B.2.4.5-2	17.6	6.9	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	298	B.2.4.5-3	15.4	6.9	0.2	0.0	0.0
N-1.75a	B125	VCIM 50x100	298	B.2.4.5-3	15.4	6.5	0.3	0.0	0.0
N-1.75a	B125	VCIM 50x100	348	B.2.4.7-8	9.5	11.7	0.3	0.0	0.0
N-1.75a	B125	VCIM 50x100	348	B.2.4.7-8	8.6	12.5	0.3	0.0	0.0
N-1.75a	B125	VCIM 50x100	397	B.2.4.7-8	2.6	20.8	0.3	0.0	0.0
N-1.75a	B126	VCIM 50x100	53	B.2.4.5-8	8.0	25.9	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	84	B.2.4.5-8	14.9	26.0	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	84	B.2.4.5-1	14.3	24.4	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	105	B.2.4.5-1	14.3	24.1	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	105	B.2.4.5-1	14.7	17.4	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	131	B.2.4.5-1	14.7	16.2	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	158	B.2.4.5-1	14.7	15.4	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	158	B.2.4.5-1	14.8	14.8	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	168	B.2.4.5-1	14.8	14.8	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	168	B.2.4.5-1	11.5	11.5	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	210	B.2.4.5-1	11.5	11.5	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	210	B.2.4.5-1	12.2	12.2	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	252	B.2.4.5-1	12.2	12.2	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	252	B.2.4.5-2	9.3	9.3	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	263	B.2.4.5-2	9.3	9.3	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	263	B.2.4.5-2	9.3	9.3	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	289	B.2.4.5-2	9.3	9.3	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	315	B.2.4.5-2	9.3	9.4	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	315	B.2.4.5-1	9.5	12.6	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	336	B.2.4.5-1	9.5	12.7	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B126	VCIM 50x100	336	B.2.4.5-8	7.7	11.4	0.2	0.0	0.0
N-1.75a	B126	VCIM 50x100	368	B.2.4.7-8	7.6	10.8	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	79	B.2.4.5-8	12.4	25.0	0.0	0.0	0.0
N-1.75a	B127	VCIM 50x100	106	B.2.4.5-8	12.4	14.7	0.0	0.0	0.0
N-1.75a	B127	VCIM 50x100	106	B.2.4.5-8	12.9	12.9	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	132	B.2.4.5-8	13.6	12.9	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	159	B.2.4.5-8	20.2	12.9	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	159	B.2.4.5-8	21.8	13.3	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	185	B.2.4.5-8	28.1	13.3	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	212	B.2.4.5-8	34.6	13.3	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	212	B.2.4.5-8	35.7	13.7	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	238	B.2.4.5-8	39.3	13.7	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	265	B.2.4.5-8	43.0	13.7	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	265	B.2.4.5-8	43.7	14.0	0.1	0.0	0.0
N-1.75a	B127	VCIM 50x100	291	B.2.4.5-8	45.4	14.0	0.1	0.0	0.0
N-1.75a	B127	VCIM 50x100	318	B.2.4.5-8	47.1	14.0	0.1	0.0	0.0
N-1.75a	B127	VCIM 50x100	318	B.2.4.5-8	47.5	14.2	0.0	0.0	0.0
N-1.75a	B127	VCIM 50x100	344	B.2.4.5-8	48.2	14.2	0.0	0.0	0.0
N-1.75a	B127	VCIM 50x100	344	B.2.4.5-1	46.4	14.5	0.1	0.0	0.0
N-1.75a	B127	VCIM 50x100	370	B.2.4.5-1	42.9	14.5	0.1	0.0	0.0
N-1.75a	B127	VCIM 50x100	370	B.2.4.5-1	42.0	14.7	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	397	B.2.4.5-1	37.2	14.7	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	423	B.2.4.5-1	32.5	14.7	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	423	B.2.4.5-1	31.8	15.0	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	450	B.2.4.5-1	26.3	15.0	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	476	B.2.4.5-1	21.1	15.0	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	476	B.2.4.5-1	20.3	15.4	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	503	B.2.4.5-3	15.4	15.4	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	529	B.2.4.5-8	15.4	15.4	0.2	0.0	0.0
N-1.75a	B127	VCIM 50x100	529	B.2.4.5-8	15.4	15.4	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	556	B.2.4.5-8	15.4	15.4	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	582	B.2.4.5-8	15.4	15.4	0.3	0.0	0.0
N-1.75a	B127	VCIM 50x100	582	B.2.4.5-8	15.4	16.8	0.4	0.0	0.0
N-1.75a	B127	VCIM 50x100	609	B.2.4.5-8	15.4	27.6	0.4	0.0	0.0
N-1.75a	B131	VCIM 50x100	0	B.2.4.5-1	1.7	4.9	0.0	14.1	0.1
N-1.75a	B131	VCIM 50x100	26	B.2.4.5-8	5.0	5.6	0.0	14.1	0.1
N-1.75a	B131	VCIM 50x100	52	B.2.4.5-8	5.0	6.4	0.0	14.1	0.1
N-1.75a	B131	VCIM 50x100	52	B.2.4.5-1	5.1	10.8	0.0	14.6	0.1
N-1.75a	B131	VCIM 50x100	68	B.2.4.5-1	5.1	10.9	0.0	14.6	0.1
N-1.75a	B131	VCIM 50x100	68	B.2.4.5-1	5.1	8.3	0.0	16.3	0.1
N-1.75a	B131	VCIM 50x100	105	B.2.4.5-1	5.1	7.2	0.0	16.3	0.1
N-1.75a	B131	VCIM 50x100	105	B.2.4.5-1	5.3	5.3	0.0	17.6	0.1
N-1.75a	B131	VCIM 50x100	135	B.2.4.5-1	5.3	5.3	0.0	17.6	0.1
N-1.75a	B131	VCIM 50x100	135	B.2.4.5-2	3.9	5.3	0.1	19.2	0.1
N-1.75a	B131	VCIM 50x100	157	B.2.4.5-2	3.9	3.9	0.1	19.2	0.1
N-1.75a	B131	VCIM 50x100	157	B.2.4.5-2	4.0	4.0	0.0	31.2	0.1
N-1.75a	B131	VCIM 50x100	183	B.2.4.5-2	4.0	4.0	0.0	31.2	0.1
N-1.75a	B131	VCIM 50x100	209	B.2.4.5-1	4.9	4.0	0.0	31.2	0.1
N-1.75a	B131	VCIM 50x100	209	B.2.4.5-8	4.5	4.5	0.0	44.0	0.2
N-1.75a	B131	VCIM 50x100	236	B.2.4.5-8	4.5	8.3	0.0	44.0	0.2
N-1.75a	B131	VCIM 50x100	262	B.2.4.7-8	1.3	14.4	0.0	44.0	0.2
N-1.75a	B132	VCIM 50x100	78	B.2.4.5-2	12.6	19.0	0.0	19.7	0.1
N-1.75a	B132	VCIM 50x100	103	B.2.4.5-2	12.6	12.6	0.0	19.7	0.1
N-1.75a	B132	VCIM 50x100	103	B.2.4.5-2	12.5	12.5	0.1	18.8	0.1
N-1.75a	B132	VCIM 50x100	111	B.2.4.5-2	12.5	12.5	0.1	18.8	0.1
N-1.75a	B132	VCIM 50x100	111	B.2.4.5-2	12.3	12.3	0.2	0.0	0.0
N-1.75a	B132	VCIM 50x100	155	B.2.4.5-3	15.4	12.3	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	AI Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B132	VCIM 50x100	155	B.2.4.5-3	15.4	12.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	181	B.2.4.5-1	17.8	12.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	207	B.2.4.5-1	21.2	12.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	207	B.2.4.5-1	21.8	12.0	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	221	B.2.4.5-1	22.7	12.0	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	221	B.2.4.5-1	22.7	11.9	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	258	B.2.4.5-1	22.9	11.9	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	258	B.2.4.5-1	22.8	11.8	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	284	B.2.4.5-1	22.6	11.8	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	310	B.2.4.5-1	22.4	11.8	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	310	B.2.4.5-1	22.2	11.7	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	332	B.2.4.5-1	22.0	11.7	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	332	B.2.4.5-1	21.5	11.6	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	362	B.2.4.5-1	20.6	11.6	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	362	B.2.4.5-1	20.3	11.5	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	388	B.2.4.5-1	19.4	11.5	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	413	B.2.4.5-1	18.6	11.5	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	413	B.2.4.5-1	18.3	11.4	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	443	B.2.4.5-1	17.5	11.4	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	443	B.2.4.5-1	17.1	11.3	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	465	B.2.4.5-1	16.2	11.3	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	465	B.2.4.5-1	15.9	11.3	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	491	B.2.4.4-4	15.4	11.3	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	517	B.2.4.2-2	15.4	11.3	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	517	B.2.4.2-2	15.4	11.2	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	554	B.2.4.5-1	14.7	11.2	0.0	0.0	0.0
N-1.75a	B132	VCIM 50x100	554	B.2.4.5-1	13.9	11.2	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	568	B.2.4.5-1	12.6	11.2	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	568	B.2.4.5-1	11.7	11.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	594	B.2.4.5-2	11.1	11.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	620	B.2.4.5-2	11.1	11.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	620	B.2.4.5-2	11.1	11.1	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	664	B.2.4.5-2	11.1	11.4	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	664	B.2.4.5-2	11.1	13.9	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	672	B.2.4.5-2	11.1	14.6	0.1	0.0	0.0
N-1.75a	B132	VCIM 50x100	672	B.2.4.5-2	11.0	15.4	0.3	0.0	0.0
N-1.75a	B132	VCIM 50x100	698	B.2.4.5-2	11.0	22.1	0.3	0.0	0.0
N-1.75a	B138	VCIM 50x100	78	B.2.4.5-8	9.2	17.1	0.3	0.0	0.0
N-1.75a	B138	VCIM 50x100	103	B.2.4.5-8	9.2	12.5	0.3	0.0	0.0
N-1.75a	B138	VCIM 50x100	103	B.2.4.5-8	9.2	10.6	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	111	B.2.4.5-8	9.2	10.1	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	111	B.2.4.5-8	9.2	9.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	155	B.2.4.5-8	9.2	9.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	155	B.2.4.5-8	9.2	9.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	181	B.2.4.5-2	9.4	9.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	207	B.2.4.5-2	13.1	9.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	207	B.2.4.5-2	13.9	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	221	B.2.4.5-2	14.9	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	221	B.2.4.5-3	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	258	B.2.4.2-2	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	258	B.2.4.2-2	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	284	B.2.4.2-2	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	310	B.2.4.4-4	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	310	B.2.4.4-4	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	332	B.2.4.4-4	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	332	B.2.4.4-4	15.4	9.2	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	362	B.2.4.4-4	15.4	9.2	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B138	VCIM 50x100	362	B.2.4.4-4	15.4	9.3	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	388	B.2.4.4-4	15.4	9.3	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	413	B.2.4.4-4	15.4	9.3	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	413	B.2.4.4-4	15.4	9.4	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	443	B.2.4.4-4	15.4	9.4	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	443	B.2.4.4-4	15.4	9.5	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	465	B.2.4.2-2	15.4	9.5	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	465	B.2.4.2-2	15.4	9.7	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	491	B.2.4.2-2	15.4	9.7	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	517	B.2.4.5-3	15.4	9.7	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	517	B.2.4.5-3	15.4	9.8	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	554	B.2.4.5-2	14.6	9.8	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	554	B.2.4.5-2	14.3	9.9	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	568	B.2.4.5-2	13.4	9.9	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	568	B.2.4.5-2	12.9	10.1	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	594	B.2.4.5-2	10.1	10.1	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	620	B.2.4.5-2	10.1	10.1	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	620	B.2.4.5-2	10.2	10.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	664	B.2.4.5-2	10.2	10.2	0.1	0.0	0.0
N-1.75a	B138	VCIM 50x100	664	B.2.4.5-2	10.4	10.9	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	672	B.2.4.5-2	10.4	11.4	0.0	0.0	0.0
N-1.75a	B138	VCIM 50x100	672	B.2.4.5-2	10.5	13.1	0.3	0.0	0.0
N-1.75a	B138	VCIM 50x100	698	B.2.4.5-2	10.5	16.4	0.3	0.0	0.0
N-1.75a	B524	VCIM 50x100	52	B.2.4.7-2	0.6	31.9	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	78	B.2.4.5-2	14.6	18.5	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	103	B.2.4.5-2	14.6	14.6	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	103	B.2.4.5-2	15.0	15.0	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	111	B.2.4.5-2	15.0	15.0	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	111	B.2.4.5-2	15.3	15.3	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	155	B.2.4.5-1	17.8	15.3	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	155	B.2.4.5-1	18.9	15.4	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	181	B.2.4.5-1	22.3	15.4	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	207	B.2.4.5-1	25.9	15.4	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	207	B.2.4.5-1	26.9	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	221	B.2.4.5-1	27.8	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	221	B.2.4.5-1	27.9	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	258	B.2.4.5-1	28.3	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	258	B.2.4.5-1	28.5	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	284	B.2.4.5-1	28.5	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	310	B.2.4.5-1	28.6	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	310	B.2.4.5-1	28.7	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	332	B.2.4.5-1	28.7	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	332	B.2.4.5-1	28.6	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	362	B.2.4.5-1	28.3	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	362	B.2.4.5-1	28.2	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	388	B.2.4.5-1	28.0	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	388	B.2.4.5-1	29.1	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	413	B.2.4.5-1	28.7	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	413	B.2.4.5-1	28.7	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	443	B.2.4.5-1	28.2	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	443	B.2.4.5-1	28.3	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	465	B.2.4.5-1	27.5	15.4	0.0	0.0	0.0
N-1.75a	B524	VCIM 50x100	465	B.2.4.5-1	27.3	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	491	B.2.4.5-1	25.8	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	517	B.2.4.5-1	24.4	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	517	B.2.4.5-1	24.2	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	554	B.2.4.5-1	21.7	15.4	0.1	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B524	VCIM 50x100	554	B.2.4.5-1	21.0	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	568	B.2.4.5-1	19.5	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	568	B.2.4.5-1	18.3	15.4	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	594	B.2.4.5-3	15.4	15.4	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	620	B.2.4.5-3	15.4	15.4	0.2	0.0	0.0
N-1.75a	B524	VCIM 50x100	620	B.2.4.5-3	15.4	15.4	0.3	0.0	0.0
N-1.75a	B524	VCIM 50x100	664	B.2.4.5-3	15.4	15.4	0.3	0.0	0.0
N-1.75a	B524	VCIM 50x100	664	B.2.4.5-3	15.4	15.4	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	672	B.2.4.5-3	15.4	15.6	0.1	0.0	0.0
N-1.75a	B524	VCIM 50x100	672	B.2.4.5-3	15.4	18.8	0.3	0.0	0.0
N-1.75a	B524	VCIM 50x100	698	B.2.4.5-3	15.4	34.1	0.3	0.0	0.0
N-1.75a	B525	VCIM 50x100	52	B.2.4.5-8	7.3	22.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	97	B.2.4.5-2	13.1	22.1	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	97	B.2.4.5-1	11.6	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	103	B.2.4.5-1	11.6	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	103	B.2.4.5-1	11.4	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	111	B.2.4.5-1	11.4	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	111	B.2.4.5-1	11.8	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	155	B.2.4.5-1	11.8	14.5	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	155	B.2.4.5-1	12.2	12.2	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	194	B.2.4.5-1	12.2	12.2	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	194	B.2.4.5-1	9.1	9.1	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	207	B.2.4.5-1	9.1	9.1	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	207	B.2.4.5-1	8.9	8.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	221	B.2.4.5-1	8.9	8.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	221	B.2.4.5-1	9.4	9.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	258	B.2.4.5-1	9.4	9.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	258	B.2.4.5-1	9.9	9.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	291	B.2.4.5-1	9.9	9.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	291	B.2.4.5-1	7.8	7.8	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	310	B.2.4.5-1	7.8	7.8	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	310	B.2.4.5-1	7.6	7.6	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	332	B.2.4.5-1	7.6	7.6	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	332	B.2.4.5-1	7.8	7.8	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	362	B.2.4.5-1	7.8	7.8	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	362	B.2.4.5-1	8.1	8.1	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	388	B.2.4.5-1	8.1	8.1	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	388	B.2.4.5-1	9.3	9.3	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	413	B.2.4.5-1	9.3	9.3	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	413	B.2.4.5-1	8.9	8.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	443	B.2.4.5-1	8.9	8.9	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	443	B.2.4.5-1	8.3	8.3	0.1	11.6	0.0
N-1.75a	B525	VCIM 50x100	465	B.2.4.5-1	8.3	8.3	0.1	11.6	0.0
N-1.75a	B525	VCIM 50x100	465	B.2.4.5-1	8.5	8.5	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	484	B.2.4.5-1	8.5	8.5	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	484	B.2.4.5-1	12.4	12.4	0.1	12.1	0.0
N-1.75a	B525	VCIM 50x100	517	B.2.4.5-1	12.4	12.4	0.1	12.1	0.0
N-1.75a	B525	VCIM 50x100	517	B.2.4.5-1	12.0	12.0	0.1	12.3	0.0
N-1.75a	B525	VCIM 50x100	554	B.2.4.5-1	12.0	12.0	0.1	12.3	0.0
N-1.75a	B525	VCIM 50x100	554	B.2.4.5-1	11.6	12.5	0.1	12.1	0.0
N-1.75a	B525	VCIM 50x100	568	B.2.4.5-1	11.6	12.6	0.1	12.1	0.0
N-1.75a	B525	VCIM 50x100	568	B.2.4.5-1	11.8	13.4	0.1	12.6	0.0
N-1.75a	B525	VCIM 50x100	581	B.2.4.5-1	11.8	13.4	0.1	12.6	0.0
N-1.75a	B525	VCIM 50x100	581	B.2.4.5-1	13.5	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	586	B.2.4.5-1	13.5	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	586	B.2.4.5-1	13.3	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	620	B.2.4.5-1	13.3	15.4	0.1	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B525	VCIM 50x100	620	B.2.4.5-1	13.2	15.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	664	B.2.4.5-1	13.2	15.6	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	664	B.2.4.5-1	13.2	17.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	672	B.2.4.5-1	13.2	17.4	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	672	B.2.4.5-1	12.9	17.6	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	678	B.2.4.5-1	12.9	17.6	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	678	B.2.4.5-1	11.7	19.3	0.1	0.0	0.0
N-1.75a	B525	VCIM 50x100	723	B.2.4.7-2	8.7	19.1	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	50	B.2.4.7-2	9.8	40.4	0.4	15.0	0.1
N-1.75a	B526	VCIM 50x100	100	B.2.4.5-3	15.4	16.2	0.4	15.0	0.1
N-1.75a	B526	VCIM 50x100	100	B.2.4.5-3	15.4	15.4	0.2	15.4	0.1
N-1.75a	B526	VCIM 50x100	112	B.2.4.5-3	15.4	15.4	0.2	15.4	0.1
N-1.75a	B526	VCIM 50x100	112	B.2.4.5-3	15.4	15.4	0.2	0.0	0.0
N-1.75a	B526	VCIM 50x100	150	B.2.4.5-3	15.4	15.4	0.2	0.0	0.0
N-1.75a	B526	VCIM 50x100	150	B.2.4.5-3	15.4	15.4	0.2	0.0	0.0
N-1.75a	B526	VCIM 50x100	200	B.2.4.5-1	19.2	15.4	0.2	0.0	0.0
N-1.75a	B526	VCIM 50x100	200	B.2.4.5-1	20.2	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	225	B.2.4.5-1	23.6	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	225	B.2.4.5-1	24.3	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	249	B.2.4.5-1	25.3	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	249	B.2.4.5-1	25.5	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	299	B.2.4.5-1	27.4	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	299	B.2.4.5-1	27.5	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	337	B.2.4.5-1	28.4	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	337	B.2.4.5-1	28.1	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	349	B.2.4.5-1	28.0	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	349	B.2.4.5-1	27.7	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	399	B.2.4.5-1	26.1	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	399	B.2.4.5-1	25.8	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	449	B.2.4.5-1	23.8	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	449	B.2.4.5-1	23.4	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	475	B.2.4.5-1	20.7	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	501	B.2.4.5-1	18.1	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	501	B.2.4.5-1	17.6	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	527	B.2.4.5-3	15.4	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	553	B.2.4.5-1	15.4	15.4	0.1	0.0	0.0
N-1.75a	B526	VCIM 50x100	553	B.2.4.5-1	15.4	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	561	B.2.4.5-1	15.4	15.4	0.0	0.0	0.0
N-1.75a	B526	VCIM 50x100	561	B.2.4.5-1	15.4	15.4	0.3	0.0	0.0
N-1.75a	B526	VCIM 50x100	605	B.2.4.5-1	15.4	15.4	0.3	0.0	0.0
N-1.75a	B526	VCIM 50x100	605	B.2.4.5-1	15.4	15.4	0.3	0.0	0.0
N-1.75a	B526	VCIM 50x100	631	B.2.4.5-1	15.4	22.0	0.3	0.0	0.0
N-1.75a	B526	VCIM 50x100	657	B.2.4.5-1	3.7	30.1	0.3	0.0	0.0
N-1.75a	B533	VCIM 50x100	52	B.2.4.7-1	6.7	15.9	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	97	B.2.4.5-2	8.3	15.4	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	97	B.2.4.5-2	7.2	12.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	103	B.2.4.5-2	7.2	12.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	103	B.2.4.5-2	7.0	11.9	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	111	B.2.4.5-2	7.0	11.9	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	111	B.2.4.5-2	7.2	8.8	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	155	B.2.4.5-2	7.2	7.9	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	155	B.2.4.5-2	7.3	7.3	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	194	B.2.4.5-2	7.3	7.3	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	194	B.2.4.5-2	5.3	5.3	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	207	B.2.4.5-2	5.3	5.3	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	207	B.2.4.5-2	5.1	5.1	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	221	B.2.4.5-2	5.1	5.1	0.1	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	AI Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B533	VCIM 50x100	221	B.2.4.5-2	5.3	5.3	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	258	B.2.4.5-2	5.3	5.3	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	258	B.2.4.5-2	5.4	5.4	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	291	B.2.4.5-2	5.4	5.4	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	291	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	310	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	310	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	332	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	332	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	362	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	362	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	388	B.2.4.5-2	4.5	4.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	388	B.2.4.5-2	4.8	4.8	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	413	B.2.4.5-2	4.8	4.8	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	413	B.2.4.5-2	4.7	4.7	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	443	B.2.4.5-2	4.7	4.7	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	443	B.2.4.5-2	4.6	4.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	465	B.2.4.5-2	4.6	4.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	465	B.2.4.5-2	4.6	4.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	484	B.2.4.5-2	4.6	4.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	484	B.2.4.5-2	5.9	5.9	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	517	B.2.4.5-2	5.9	5.9	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	517	B.2.4.5-2	5.7	5.7	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	554	B.2.4.5-2	5.7	5.7	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	554	B.2.4.5-2	5.4	5.4	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	568	B.2.4.5-2	5.4	5.4	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	568	B.2.4.5-2	5.6	5.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	581	B.2.4.5-2	5.6	5.6	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	581	B.2.4.5-1	7.5	7.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	620	B.2.4.5-1	7.5	7.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	620	B.2.4.5-1	7.2	7.2	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	664	B.2.4.5-1	7.2	7.5	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	664	B.2.4.5-1	7.1	9.8	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	672	B.2.4.5-1	7.1	9.8	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	672	B.2.4.5-1	7.1	10.2	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	678	B.2.4.5-1	7.1	10.2	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	678	B.2.4.5-1	8.8	15.4	0.1	0.0	0.0
N-1.75a	B533	VCIM 50x100	723	B.2.4.7-1	8.4	15.4	0.1	0.0	0.0
N-1.75a	B559	VCIM 50x100	0	B.2.4.5-8	5.3	15.2	0.2	22.0	0.1
N-1.75a	B559	VCIM 50x100	34	B.2.4.5-1	8.1	15.3	0.2	22.0	0.1
N-1.75a	B559	VCIM 50x100	34	B.2.4.5-1	8.6	15.4	0.2	22.1	0.1
N-1.75a	B559	VCIM 50x100	78	B.2.4.5-1	8.6	15.4	0.2	22.1	0.1
N-1.75a	B559	VCIM 50x100	78	B.2.4.5-1	9.3	17.5	0.2	21.5	0.1
N-1.75a	B559	VCIM 50x100	86	B.2.4.5-1	9.3	17.6	0.2	21.5	0.1
N-1.75a	B559	VCIM 50x100	86	B.2.4.5-1	9.2	18.1	0.2	21.0	0.1
N-1.75a	B559	VCIM 50x100	95	B.2.4.5-1	9.2	18.1	0.2	21.0	0.1
N-1.75a	B559	VCIM 50x100	95	B.2.4.5-1	6.5	19.1	0.2	0.0	0.0
N-1.75a	B559	VCIM 50x100	137	B.2.4.5-1	6.5	18.0	0.2	0.0	0.0
N-1.75a	B559	VCIM 50x100	137	B.2.4.5-1	7.2	15.4	0.2	0.0	0.0
N-1.75a	B559	VCIM 50x100	163	B.2.4.5-1	7.2	15.4	0.2	0.0	0.0
N-1.75a	B559	VCIM 50x100	189	B.2.4.7-2	5.0	15.2	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	0	B.2.4.5-8	2.7	15.4	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	9	B.2.4.5-8	6.5	15.4	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	9	B.2.4.5-8	6.0	14.7	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	36	B.2.4.5-8	6.0	14.2	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	62	B.2.4.5-8	6.0	13.6	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	62	B.2.4.5-8	5.9	12.0	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	AI Torsion	At Torsion
					cm	cm ²	cm ²	cm ² /cm	cm ² /cm
N-1.75a	B560	VCIM 50x100	84	B.2.4.5-8	5.9	12.0	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	84	B.2.4.5-8	6.0	12.4	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	115	B.2.4.5-8	6.0	12.1	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	115	B.2.4.5-8	5.7	11.1	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	142	B.2.4.5-8	5.7	11.3	0.2	0.0	0.0
N-1.75a	B560	VCIM 50x100	168	B.2.4.7-2	3.9	11.3	0.2	0.0	0.0
N-1.75a	B578	VCIM 50x100	0	B.2.4.5-1	6.5	26.7	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	26	B.2.4.5-1	13.9	25.2	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	52	B.2.4.5-1	13.9	23.7	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	52	B.2.4.5-1	14.8	15.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	97	B.2.4.5-1	14.8	15.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	97	B.2.4.5-1	10.8	10.8	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	103	B.2.4.5-1	10.8	10.8	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	103	B.2.4.5-1	10.4	10.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	111	B.2.4.5-1	10.4	10.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	111	B.2.4.5-1	11.3	11.3	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	155	B.2.4.5-1	11.3	11.3	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	155	B.2.4.5-1	12.2	12.2	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	194	B.2.4.5-1	12.2	12.2	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	194	B.2.4.5-1	8.0	8.0	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	207	B.2.4.5-1	8.0	8.0	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	207	B.2.4.5-1	7.9	7.9	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	221	B.2.4.5-1	7.9	7.9	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	221	B.2.4.5-1	8.8	8.8	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	258	B.2.4.5-1	8.8	8.8	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	258	B.2.4.5-1	9.4	9.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	291	B.2.4.5-1	9.4	9.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	291	B.2.4.5-1	6.7	6.7	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	310	B.2.4.5-1	6.7	6.7	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	310	B.2.4.5-1	7.0	7.0	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	332	B.2.4.5-1	7.0	7.0	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	332	B.2.4.5-1	7.5	7.5	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	362	B.2.4.5-1	7.5	7.5	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	362	B.2.4.5-1	7.9	7.9	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	388	B.2.4.5-1	7.9	7.9	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	388	B.2.4.5-1	6.8	6.8	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	413	B.2.4.5-1	6.8	6.8	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	413	B.2.4.5-1	7.1	7.1	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	443	B.2.4.5-1	7.1	7.1	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	443	B.2.4.5-1	7.4	7.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	465	B.2.4.5-1	7.4	7.4	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	465	B.2.4.5-1	7.6	7.6	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	484	B.2.4.5-1	7.6	7.6	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	484	B.2.4.5-1	8.0	8.0	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	517	B.2.4.5-1	8.0	8.0	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	517	B.2.4.5-1	8.2	8.2	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	554	B.2.4.5-1	8.2	8.2	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	554	B.2.4.5-1	8.3	8.3	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	568	B.2.4.5-1	8.3	8.3	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	568	B.2.4.5-1	8.5	8.5	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	581	B.2.4.5-1	8.5	8.5	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	581	B.2.4.5-8	10.6	10.6	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	620	B.2.4.5-8	10.6	10.6	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	620	B.2.4.5-8	10.3	10.3	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	664	B.2.4.5-8	10.3	10.3	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	664	B.2.4.5-1	10.1	10.1	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	672	B.2.4.5-1	10.1	10.1	0.1	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B578	VCIM 50x100	672	B.2.4.5-1	10.6	10.6	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	678	B.2.4.5-1	10.6	10.6	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	678	B.2.4.5-8	14.5	14.5	0.1	0.0	0.0
N-1.75a	B578	VCIM 50x100	723	B.2.4.5-8	6.9	12.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	52	B.2.4.5-1	8.6	14.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	97	B.2.4.5-1	10.0	13.0	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	97	B.2.4.5-1	6.0	5.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	103	B.2.4.5-1	6.0	5.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	103	B.2.4.5-1	5.0	5.2	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	111	B.2.4.5-1	5.0	5.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	111	B.2.4.5-1	6.3	5.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	155	B.2.4.5-1	6.0	5.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	155	B.2.4.5-1	6.6	6.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	194	B.2.4.5-1	6.6	6.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	194	B.2.4.5-8	3.9	3.0	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	207	B.2.4.5-8	3.9	3.0	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	207	B.2.4.5-8	3.3	2.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	221	B.2.4.5-8	3.6	2.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	221	B.2.4.5-8	4.5	2.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	258	B.2.4.5-8	4.0	2.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	258	B.2.4.5-1	3.5	3.5	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	291	B.2.4.5-1	3.5	3.5	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	291	B.2.4.5-1	2.7	2.5	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	310	B.2.4.5-1	2.7	2.5	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	310	B.2.4.5-1	2.5	2.3	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	332	B.2.4.5-1	3.0	2.3	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	332	B.2.4.5-8	3.0	1.8	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	362	B.2.4.5-8	2.4	1.8	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	362	B.2.4.5-8	1.8	1.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	388	B.2.4.5-8	1.7	1.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	388	B.2.4.5-2	3.1	3.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	413	B.2.4.5-2	3.1	3.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	413	B.2.4.5-1	3.0	2.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	443	B.2.4.5-1	3.6	2.7	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	443	B.2.4.5-1	2.9	2.0	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	465	B.2.4.5-1	2.5	2.0	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	465	B.2.4.5-1	2.4	1.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	484	B.2.4.5-1	2.4	1.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	484	B.2.4.5-1	4.4	4.4	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	517	B.2.4.5-1	4.4	4.4	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	517	B.2.4.5-1	4.4	3.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	554	B.2.4.5-1	5.0	3.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	554	B.2.4.5-1	3.9	3.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	568	B.2.4.5-1	3.7	3.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	568	B.2.4.5-1	4.2	3.2	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	581	B.2.4.5-1	4.2	3.2	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	581	B.2.4.5-1	6.6	6.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	620	B.2.4.5-1	6.6	6.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	620	B.2.4.5-1	6.6	5.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	664	B.2.4.5-1	7.0	5.9	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	664	B.2.4.5-1	6.0	5.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	672	B.2.4.5-1	5.9	5.1	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	672	B.2.4.5-1	6.8	5.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	678	B.2.4.5-1	6.8	5.6	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	678	B.2.4.5-1	9.1	10.8	0.1	0.0	0.0
N-1.75a	B579	VCIM 50x100	723	B.2.4.5-1	8.8	12.1	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	89	B.2.4.7-8	9.8	15.0	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	AI Torsion	At Torsion
					cm	cm ²	cm ²	cm ² /cm	cm ² /cm
N-1.75a	B175	VCIM 50x100	89	B.2.4.7-8	9.5	13.2	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	134	B.2.4.5-8	11.7	9.0	0.2	0.0	0.0
N-1.75a	B175	VCIM 50x100	134	B.2.4.5-8	11.6	8.6	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	178	B.2.4.5-8	13.7	8.6	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	178	B.2.4.5-8	13.6	8.2	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	223	B.2.4.5-8	15.4	8.2	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	223	B.2.4.5-8	15.4	7.9	0.0	0.0	0.0
N-1.75a	B175	VCIM 50x100	267	B.2.4.2-2	15.4	7.9	0.0	0.0	0.0
N-1.75a	B175	VCIM 50x100	267	B.2.4.2-2	15.4	7.5	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	312	B.2.4.5-8	15.4	7.5	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	312	B.2.4.5-8	15.4	7.2	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	356	B.2.4.5-8	12.6	7.2	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	356	B.2.4.5-8	11.8	6.9	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	401	B.2.4.7-8	7.3	6.9	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	401	B.2.4.7-8	6.6	6.6	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	445	B.2.4.5-8	6.4	13.9	0.1	0.0	0.0
N-1.75a	B175	VCIM 50x100	445	B.2.4.5-8	5.9	14.4	0.2	0.0	0.0
N-1.75a	B176	VCIM 50x100	89	B.2.4.7-8	8.4	13.7	0.2	0.0	0.0
N-1.75a	B176	VCIM 50x100	89	B.2.4.7-8	8.1	12.2	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	134	B.2.4.5-8	9.0	7.3	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	134	B.2.4.5-8	9.1	7.1	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	178	B.2.4.5-8	10.7	7.1	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	178	B.2.4.5-8	10.7	6.9	0.0	0.0	0.0
N-1.75a	B176	VCIM 50x100	223	B.2.4.5-1	13.3	6.9	0.0	0.0	0.0
N-1.75a	B176	VCIM 50x100	223	B.2.4.5-1	13.5	6.8	0.0	0.0	0.0
N-1.75a	B176	VCIM 50x100	267	B.2.4.5-3	15.4	6.8	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	267	B.2.4.5-3	15.4	6.6	0.0	0.0	0.0
N-1.75a	B176	VCIM 50x100	312	B.2.4.5-8	14.5	6.6	0.0	0.0	0.0
N-1.75a	B176	VCIM 50x100	312	B.2.4.5-8	14.1	6.5	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	356	B.2.4.5-8	11.3	6.5	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	356	B.2.4.5-8	10.8	6.4	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	401	B.2.4.5-8	7.2	6.4	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	401	B.2.4.5-8	6.6	6.2	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	445	B.2.4.5-8	6.2	11.6	0.1	0.0	0.0
N-1.75a	B176	VCIM 50x100	445	B.2.4.5-8	5.9	12.2	0.1	0.0	0.0
N-1.75a	B199	VCIM 50x100	0	B.2.4.5-8	1.6	4.4	0.1	13.9	0.1
N-1.75a	B199	VCIM 50x100	26	B.2.4.5-8	4.0	4.4	0.1	13.9	0.1
N-1.75a	B199	VCIM 50x100	52	B.2.4.5-8	4.0	4.4	0.1	13.9	0.1
N-1.75a	B199	VCIM 50x100	52	B.2.4.5-8	3.9	5.0	0.1	14.0	0.1
N-1.75a	B199	VCIM 50x100	79	B.2.4.5-8	3.9	5.1	0.1	14.0	0.1
N-1.75a	B199	VCIM 50x100	79	B.2.4.5-1	6.3	6.9	0.1	14.4	0.1
N-1.75a	B199	VCIM 50x100	105	B.2.4.5-1	6.3	6.6	0.1	14.4	0.1
N-1.75a	B199	VCIM 50x100	105	B.2.4.5-8	5.8	5.8	0.1	15.0	0.1
N-1.75a	B199	VCIM 50x100	131	B.2.4.5-8	5.8	5.8	0.1	15.0	0.1
N-1.75a	B199	VCIM 50x100	157	B.2.4.5-8	5.8	5.8	0.1	15.0	0.1
N-1.75a	B199	VCIM 50x100	157	B.2.4.5-1	9.2	9.2	0.1	19.4	0.1
N-1.75a	B199	VCIM 50x100	183	B.2.4.5-1	9.2	9.2	0.1	19.4	0.1
N-1.75a	B199	VCIM 50x100	209	B.2.4.5-1	9.2	9.7	0.1	19.4	0.1
N-1.75a	B199	VCIM 50x100	209	B.2.4.7-1	10.3	14.0	0.1	19.8	0.1
N-1.75a	B199	VCIM 50x100	236	B.2.4.7-1	10.5	14.4	0.1	19.8	0.1
N-1.75a	B199	VCIM 50x100	236	B.2.4.7-1	13.0	15.4	0.1	20.2	0.1
N-1.75a	B199	VCIM 50x100	262	B.2.4.7-1	13.0	15.4	0.1	20.2	0.1
N-1.75a	B231	VCIM 50x100	49	B.2.4.7-8	4.9	24.1	0.3	0.0	0.0
N-1.75a	B231	VCIM 50x100	99	B.2.4.5-8	10.3	16.1	0.3	0.0	0.0
N-1.75a	B231	VCIM 50x100	99	B.2.4.5-8	10.0	15.4	0.3	0.0	0.0
N-1.75a	B231	VCIM 50x100	148	B.2.4.5-8	10.0	12.7	0.3	0.0	0.0
N-1.75a	B231	VCIM 50x100	148	B.2.4.5-8	9.7	11.8	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm	cm ²	cm ²	cm ² /cm	cm ² /cm
N-1.75a	B231	VCIM 50x100	197	B.2.4.5-8	9.7	9.7	0.2	0.0	0.0
N-1.75a	B231	VCIM 50x100	197	B.2.4.5-8	9.4	9.4	0.2	0.0	0.0
N-1.75a	B231	VCIM 50x100	247	B.2.4.5-8	9.4	9.4	0.2	0.0	0.0
N-1.75a	B231	VCIM 50x100	247	B.2.4.5-8	9.0	9.0	0.2	0.0	0.0
N-1.75a	B231	VCIM 50x100	296	B.2.4.5-8	3.7	2.8	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	49	B.2.4.7-8	6.2	18.6	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	99	B.2.4.5-8	8.3	15.4	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	99	B.2.4.5-8	8.0	15.4	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	148	B.2.4.5-8	8.0	9.7	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	148	B.2.4.5-8	7.8	9.0	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	197	B.2.4.5-8	7.8	7.8	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	197	B.2.4.5-8	7.5	7.5	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	247	B.2.4.5-8	7.5	7.5	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	247	B.2.4.5-8	7.1	7.1	0.2	0.0	0.0
N-1.75a	B232	VCIM 50x100	296	B.2.4.5-8	3.6	2.6	0.2	0.0	0.0
N-1.75a	B230	VCIM 50x100	45	B.2.4.7-8	2.9	20.4	0.3	14.6	0.1
N-1.75a	B230	VCIM 50x100	89	B.2.4.5-8	7.6	11.4	0.3	14.6	0.1
N-1.75a	B230	VCIM 50x100	89	B.2.4.5-8	7.8	10.1	0.2	14.1	0.1
N-1.75a	B230	VCIM 50x100	134	B.2.4.5-8	9.8	7.8	0.2	14.1	0.1
N-1.75a	B230	VCIM 50x100	134	B.2.4.5-8	10.4	8.4	0.1	13.2	0.0
N-1.75a	B230	VCIM 50x100	178	B.2.4.5-8	12.7	8.4	0.1	13.2	0.0
N-1.75a	B230	VCIM 50x100	178	B.2.4.5-8	14.1	9.2	0.2	12.3	0.0
N-1.75a	B230	VCIM 50x100	223	B.2.4.7-8	15.4	9.2	0.2	12.3	0.0
N-1.75a	B230	VCIM 50x100	223	B.2.4.5-3	15.4	11.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	235	B.2.4.5-3	15.4	11.9	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	235	B.2.4.5-3	15.4	9.0	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	267	B.2.4.5-3	15.4	9.0	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	267	B.2.4.5-8	15.4	9.0	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	312	B.2.4.5-8	12.7	9.0	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	312	B.2.4.5-8	9.4	13.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	335	B.2.4.5-8	9.4	13.6	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	335	B.2.4.5-8	11.0	15.4	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	356	B.2.4.5-8	11.0	15.4	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	356	B.2.4.5-8	10.6	14.5	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	401	B.2.4.5-8	10.6	13.5	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	401	B.2.4.5-8	10.0	11.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	434	B.2.4.5-8	10.0	11.2	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	434	B.2.4.5-8	10.7	11.2	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	445	B.2.4.5-8	10.7	11.2	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	445	B.2.4.5-8	10.3	10.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	490	B.2.4.5-8	10.3	10.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	490	B.2.4.5-8	9.8	9.8	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	534	B.2.4.5-8	9.8	9.8	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	534	B.2.4.5-8	8.8	8.8	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	583	B.2.4.5-8	8.8	8.8	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	583	B.2.4.5-8	8.3	8.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	633	B.2.4.5-8	8.3	8.3	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	633	B.2.4.5-8	8.4	8.4	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	682	B.2.4.5-8	8.4	8.4	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	682	B.2.4.5-8	7.7	7.7	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	731	B.2.4.5-8	7.7	7.7	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	731	B.2.4.5-8	8.5	8.5	0.0	0.0	0.0
N-1.75a	B230	VCIM 50x100	781	B.2.4.5-8	8.6	5.4	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	0	B.2.4.7-8	0.7	4.5	0.3	0.0	0.0
N-1.75a	B290	VCIM 50x100	45	B.2.4.5-8	11.5	1.6	0.3	0.0	0.0
N-1.75a	B290	VCIM 50x100	45	B.2.4.5-8	12.0	1.5	0.2	0.0	0.0
N-1.75a	B290	VCIM 50x100	89	B.2.4.5-1	16.4	1.5	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm	cm ²	cm ²	cm ² /cm	cm ² /cm
N-1.75a	B290	VCIM 50x100	89	B.2.4.5-1	16.6	1.4	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	134	B.2.4.5-1	21.1	1.4	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	134	B.2.4.5-1	21.2	1.2	0.0	13.0	0.0
N-1.75a	B290	VCIM 50x100	178	B.2.4.5-1	23.1	1.2	0.0	13.0	0.0
N-1.75a	B290	VCIM 50x100	178	B.2.4.5-1	23.2	1.2	0.0	13.8	0.1
N-1.75a	B290	VCIM 50x100	223	B.2.4.5-1	23.4	1.2	0.0	13.8	0.1
N-1.75a	B290	VCIM 50x100	223	B.2.4.5-1	23.6	1.4	0.0	14.1	0.1
N-1.75a	B290	VCIM 50x100	267	B.2.4.5-1	22.8	1.4	0.0	14.1	0.1
N-1.75a	B290	VCIM 50x100	267	B.2.4.5-1	22.5	1.7	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	312	B.2.4.5-1	20.0	1.7	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	312	B.2.4.5-1	20.0	1.9	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	356	B.2.4.5-1	17.6	1.9	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	356	B.2.4.5-1	17.8	2.2	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	401	B.2.4.5-1	16.1	2.2	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	401	B.2.4.5-1	16.3	2.7	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	445	B.2.4.5-3	15.4	2.7	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	445	B.2.4.5-1	15.5	3.2	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	490	B.2.4.5-3	15.4	3.2	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	490	B.2.4.5-3	15.4	3.6	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	534	B.2.4.5-3	15.4	3.9	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	534	B.2.4.5-2	16.4	3.8	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	583	B.2.4.5-2	15.6	5.0	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	583	B.2.4.5-3	15.4	4.7	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	633	B.2.4.5-3	15.4	6.0	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	633	B.2.4.5-3	15.4	5.9	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	682	B.2.4.5-3	15.4	6.7	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	682	B.2.4.5-3	15.4	6.6	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	731	B.2.4.5-8	14.5	6.5	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	731	B.2.4.5-8	14.2	6.4	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	781	B.2.4.5-8	8.2	5.4	0.0	0.0	0.0
N-1.75a	B290	VCIM 50x100	781	B.2.4.5-8	7.8	5.1	0.1	0.0	0.0
N-1.75a	B290	VCIM 50x100	830	B.2.4.7-2	1.5	5.6	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	53	B.2.4.7-2	8.2	15.4	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	79	B.2.4.7-2	7.9	9.6	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	105	B.2.4.5-2	9.5	5.9	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	105	B.2.4.5-2	9.7	5.9	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	131	B.2.4.5-2	11.1	5.9	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	158	B.2.4.5-1	14.5	5.9	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	158	B.2.4.5-1	15.2	6.1	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	184	B.2.4.5-3	15.4	6.1	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	210	B.2.4.5-3	15.4	8.3	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	210	B.2.4.5-3	15.4	11.0	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	230	B.2.4.5-3	15.4	14.0	0.2	0.0	0.0
N-1.75a	B69	VCIM 50x100	230	B.2.4.5-3	15.4	12.8	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	263	B.2.4.5-2	15.0	12.8	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	263	B.2.4.7-2	10.3	13.8	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	289	B.2.4.7-2	9.7	14.3	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	315	B.2.4.7-2	9.2	14.9	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	315	B.2.4.7-2	8.0	15.4	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	325	B.2.4.7-2	8.0	15.4	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	325	B.2.4.7-2	7.5	15.3	0.1	0.0	0.0
N-1.75a	B69	VCIM 50x100	368	B.2.4.7-1	7.5	13.9	0.1	0.0	0.0
N-1.75a	B200	VCIM 50x100	50	B.2.4.7-8	10.5	15.4	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	99	B.2.4.5-8	11.2	5.3	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	99	B.2.4.5-8	11.3	5.4	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	149	B.2.4.5-8	12.7	5.4	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	149	B.2.4.5-8	13.0	5.5	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B200	VCIM 50x100	199	B.2.4.5-3	15.4	5.5	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	199	B.2.4.5-3	15.4	5.5	0.1	0.0	0.0
N-1.75a	B200	VCIM 50x100	224	B.2.4.5-2	15.9	5.5	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	224	B.2.4.5-2	16.1	5.6	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	248	B.2.4.5-3	15.4	5.6	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	248	B.2.4.5-3	15.4	5.7	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	298	B.2.4.5-2	13.9	5.7	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	298	B.2.4.5-2	13.4	5.8	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	348	B.2.4.7-8	7.3	10.3	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	348	B.2.4.7-8	7.1	11.4	0.2	0.0	0.0
N-1.75a	B200	VCIM 50x100	397	B.2.4.7-8	2.1	18.0	0.2	0.0	0.0
N-1.75a	B797	VCIM 50x100	50	B.2.4.5-1	6.1	11.3	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	90	B.2.4.5-1	7.1	10.1	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	90	B.2.4.5-1	6.5	5.7	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	100	B.2.4.5-1	6.5	5.7	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	100	B.2.4.5-1	6.0	5.4	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	112	B.2.4.5-1	6.1	5.4	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	112	B.2.4.5-1	6.6	5.4	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	150	B.2.4.5-1	6.3	5.4	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	150	B.2.4.5-1	5.9	5.3	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	180	B.2.4.5-1	5.8	5.3	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	180	B.2.4.5-1	6.3	4.6	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	200	B.2.4.5-1	6.4	4.6	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	200	B.2.4.5-1	6.8	4.5	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	225	B.2.4.5-1	7.4	4.5	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	225	B.2.4.5-1	7.7	4.3	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	249	B.2.4.5-1	7.3	4.3	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	249	B.2.4.5-1	7.1	4.2	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	269	B.2.4.5-1	7.1	4.2	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	269	B.2.4.5-1	6.4	4.8	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	299	B.2.4.5-1	6.7	4.8	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	299	B.2.4.5-1	8.4	4.4	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	337	B.2.4.5-1	9.2	4.4	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	337	B.2.4.5-1	8.9	4.0	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	349	B.2.4.5-1	8.8	4.0	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	349	B.2.4.5-1	9.6	4.2	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	359	B.2.4.5-1	9.6	4.2	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	359	B.2.4.5-1	9.1	6.9	0.1	0.0	0.0
N-1.75a	B797	VCIM 50x100	399	B.2.4.5-1	9.4	7.6	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	50	B.2.4.5-1	2.9	20.3	0.3	0.0	0.0
N-1.75a	B65	VCIM 50x100	100	B.2.4.5-1	9.4	9.4	0.3	0.0	0.0
N-1.75a	B65	VCIM 50x100	100	B.2.4.5-1	10.4	9.5	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	112	B.2.4.5-1	12.1	9.5	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	112	B.2.4.5-1	14.7	9.6	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	150	B.2.4.4-3	15.4	9.6	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	150	B.2.4.5-1	16.0	9.8	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	200	B.2.4.5-1	22.0	9.8	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	200	B.2.4.5-1	22.6	9.9	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	225	B.2.4.5-1	24.6	9.9	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	225	B.2.4.5-1	25.0	10.0	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	249	B.2.4.5-1	23.6	10.0	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	249	B.2.4.5-1	23.2	10.1	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	299	B.2.4.5-1	18.2	10.1	0.1	0.0	0.0
N-1.75a	B65	VCIM 50x100	299	B.2.4.5-1	17.7	10.2	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	337	B.2.4.5-3	15.4	10.2	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	337	B.2.4.5-2	14.8	10.3	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	349	B.2.4.5-2	12.2	10.3	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B65	VCIM 50x100	349	B.2.4.5-1	10.3	10.3	0.2	0.0	0.0
N-1.75a	B65	VCIM 50x100	399	B.2.4.5-2	3.8	22.5	0.2	0.0	0.0
N-1.75a	B2197	VCIM 50x100	79	B.2.4.5-8	9.4	17.9	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	106	B.2.4.5-8	9.4	9.4	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	106	B.2.4.5-8	11.8	9.7	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	132	B.2.4.5-8	17.5	9.7	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	159	B.2.4.5-8	26.6	9.7	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	159	B.2.4.5-8	27.9	9.9	0.2	0.0	0.0
N-1.75a	B2197	VCIM 50x100	185	B.2.4.5-8	32.9	9.9	0.2	0.0	0.0
N-1.75a	B2197	VCIM 50x100	212	B.2.4.5-8	38.1	9.9	0.2	0.0	0.0
N-1.75a	B2197	VCIM 50x100	212	B.2.4.5-8	38.8	10.1	0.1	0.0	0.0
N-1.75a	B2197	VCIM 50x100	238	B.2.4.5-8	40.4	10.1	0.1	0.0	0.0
N-1.75a	B2197	VCIM 50x100	265	B.2.4.5-8	42.1	10.1	0.1	0.0	0.0
N-1.75a	B2197	VCIM 50x100	265	B.2.4.5-8	42.2	10.2	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	291	B.2.4.5-8	40.9	10.2	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	318	B.2.4.5-1	39.7	10.2	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	318	B.2.4.5-1	39.4	10.2	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	344	B.2.4.5-1	37.5	10.2	0.0	0.0	0.0
N-1.75a	B2197	VCIM 50x100	344	B.2.4.5-1	35.3	10.2	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	370	B.2.4.5-1	27.9	10.2	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	370	B.2.4.5-1	25.9	10.2	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	397	B.2.4.5-1	16.6	10.2	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	423	B.2.4.5-8	15.4	10.2	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	423	B.2.4.5-8	14.6	10.3	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	450	B.2.4.5-8	10.3	12.3	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	476	B.2.4.5-8	10.3	21.3	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	476	B.2.4.5-8	10.4	23.8	0.3	16.3	0.1
N-1.75a	B2197	VCIM 50x100	520	B.2.4.5-8	10.4	48.8	0.3	16.3	0.1
N-1.75a	B2197	VCIM 50x100	520	B.2.4.5-8	10.3	45.4	0.1	18.5	0.1
N-1.75a	B2197	VCIM 50x100	529	B.2.4.5-8	10.3	44.2	0.1	18.5	0.1
N-1.75a	B2197	VCIM 50x100	529	B.2.4.5-1	10.3	41.7	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	556	B.2.4.5-1	10.3	31.9	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	582	B.2.4.5-1	10.3	22.6	0.3	0.0	0.0
N-1.75a	B2197	VCIM 50x100	582	B.2.4.5-1	10.3	21.3	0.2	0.0	0.0
N-1.75a	B2197	VCIM 50x100	609	B.2.4.5-1	10.3	15.5	0.2	0.0	0.0
N-1.75a	B2197	VCIM 50x100	635	B.2.4.7-2	1.5	14.3	0.2	0.0	0.0
N-1.75a	B71	VCIM 50x100	52	B.2.4.7-8	15.4	25.3	0.3	15.6	0.0
N-1.75a	B71	VCIM 50x100	78	B.2.4.5-3	15.4	20.3	0.3	15.6	0.0
N-1.75a	B71	VCIM 50x100	103	B.2.4.5-3	15.4	15.4	0.3	15.6	0.0
N-1.75a	B71	VCIM 50x100	103	B.2.4.5-3	15.4	15.4	0.0	15.3	0.0
N-1.75a	B71	VCIM 50x100	111	B.2.4.5-3	15.4	15.4	0.0	15.3	0.0
N-1.75a	B71	VCIM 50x100	111	B.2.4.5-1	14.9	15.4	0.1	14.8	0.0
N-1.75a	B71	VCIM 50x100	155	B.2.4.5-1	14.9	14.9	0.1	14.8	0.0
N-1.75a	B71	VCIM 50x100	155	B.2.4.5-1	14.3	14.3	0.0	13.8	0.0
N-1.75a	B71	VCIM 50x100	181	B.2.4.5-1	14.6	14.3	0.0	13.8	0.0
N-1.75a	B71	VCIM 50x100	207	B.2.4.5-3	15.4	14.3	0.0	13.8	0.0
N-1.75a	B71	VCIM 50x100	207	B.2.4.5-3	15.4	13.9	0.0	13.3	0.0
N-1.75a	B71	VCIM 50x100	221	B.2.4.5-3	15.4	13.9	0.0	13.3	0.0
N-1.75a	B71	VCIM 50x100	221	B.2.4.5-3	15.4	13.5	0.0	12.7	0.0
N-1.75a	B71	VCIM 50x100	258	B.2.4.5-3	15.4	13.5	0.0	12.7	0.0
N-1.75a	B71	VCIM 50x100	258	B.2.4.5-3	15.4	13.1	0.0	12.4	0.0
N-1.75a	B71	VCIM 50x100	284	B.2.4.5-3	15.4	13.1	0.0	12.4	0.0
N-1.75a	B71	VCIM 50x100	310	B.2.4.5-3	15.4	13.1	0.0	12.4	0.0
N-1.75a	B71	VCIM 50x100	310	B.2.4.5-3	15.4	12.8	0.0	12.2	0.0
N-1.75a	B71	VCIM 50x100	332	B.2.4.5-3	15.4	12.8	0.0	12.2	0.0
N-1.75a	B71	VCIM 50x100	332	B.2.4.5-3	15.4	12.5	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	362	B.2.4.5-8	15.2	12.5	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B71	VCIM 50x100	362	B.2.4.5-8	14.9	12.1	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	388	B.2.4.5-8	14.3	12.1	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	413	B.2.4.5-1	13.8	12.1	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	413	B.2.4.5-8	13.5	11.8	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	443	B.2.4.5-1	12.9	11.8	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	443	B.2.4.5-1	12.3	11.5	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	465	B.2.4.5-1	11.9	11.5	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	465	B.2.4.5-1	11.5	11.2	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	491	B.2.4.5-1	11.2	11.2	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	517	B.2.4.5-1	11.2	11.2	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	517	B.2.4.5-1	10.9	10.9	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	554	B.2.4.5-1	10.9	10.9	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	554	B.2.4.5-1	10.6	10.6	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	568	B.2.4.5-1	10.6	10.6	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	568	B.2.4.5-1	10.3	10.3	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	594	B.2.4.5-1	10.3	10.3	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	620	B.2.4.5-1	10.3	10.3	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	620	B.2.4.5-1	10.0	10.0	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	664	B.2.4.5-1	10.0	10.0	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	664	B.2.4.5-1	9.7	9.7	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	672	B.2.4.5-1	9.7	9.7	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	672	B.2.4.5-1	9.5	9.5	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	698	B.2.4.5-1	9.5	9.5	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	723	B.2.4.5-1	9.5	9.5	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	723	B.2.4.5-8	9.3	9.3	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	749	B.2.4.5-8	9.3	9.3	0.0	0.0	0.0
N-1.75a	B71	VCIM 50x100	775	B.2.4.5-1	3.3	6.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	0	B.2.4.5-8	3.0	5.6	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	26	B.2.4.5-8	3.4	5.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	52	B.2.4.5-8	3.4	4.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	52	B.2.4.5-8	3.3	4.6	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	78	B.2.4.5-8	3.3	4.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	103	B.2.4.5-8	3.3	3.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	103	B.2.4.5-8	3.2	3.6	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	111	B.2.4.5-8	3.2	3.6	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	111	B.2.4.5-8	3.1	3.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	155	B.2.4.5-8	3.1	3.1	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	155	B.2.4.5-8	3.0	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	181	B.2.4.5-8	3.0	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	207	B.2.4.5-8	3.0	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	207	B.2.4.5-8	3.0	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	221	B.2.4.5-8	3.0	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	221	B.2.4.5-8	2.9	2.9	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	258	B.2.4.5-8	2.9	2.9	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	258	B.2.4.5-1	2.8	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	284	B.2.4.5-1	2.8	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	310	B.2.4.5-8	2.9	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	310	B.2.4.5-8	2.9	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	332	B.2.4.5-8	2.9	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	332	B.2.4.5-1	2.9	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	362	B.2.4.5-8	3.0	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	362	B.2.4.5-1	3.0	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	388	B.2.4.5-1	3.0	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	413	B.2.4.5-1	3.1	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	413	B.2.4.5-1	3.1	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	443	B.2.4.5-1	3.1	2.7	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	443	B.2.4.5-1	3.3	2.8	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B72	VCIM 50x100	465	B.2.4.5-1	3.3	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	465	B.2.4.5-1	3.4	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	491	B.2.4.5-1	3.4	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	517	B.2.4.5-1	3.5	2.8	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	517	B.2.4.5-1	3.6	2.9	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	554	B.2.4.5-1	3.6	2.9	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	554	B.2.4.5-1	3.8	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	568	B.2.4.5-1	3.8	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	568	B.2.4.5-1	3.8	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	594	B.2.4.5-1	3.8	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	620	B.2.4.5-1	3.9	3.0	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	620	B.2.4.5-1	4.0	3.1	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	664	B.2.4.5-1	3.9	3.1	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	664	B.2.4.5-1	4.0	3.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	672	B.2.4.5-1	4.0	3.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	672	B.2.4.5-1	4.0	3.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	698	B.2.4.5-1	4.0	3.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	723	B.2.4.5-1	3.9	3.2	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	723	B.2.4.5-1	4.0	3.3	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	749	B.2.4.5-1	3.9	3.3	0.0	0.0	0.0
N-1.75a	B72	VCIM 50x100	775	B.2.4.5-1	3.9	3.4	0.0	0.0	0.0
N-1.75a	B498	VCIM 50x100	50	B.2.4.5-1	3.1	26.9	0.4	0.0	0.0
N-1.75a	B498	VCIM 50x100	76	B.2.4.5-1	11.1	18.6	0.4	0.0	0.0
N-1.75a	B498	VCIM 50x100	101	B.2.4.5-1	11.1	14.3	0.4	0.0	0.0
N-1.75a	B498	VCIM 50x100	101	B.2.4.5-1	11.1	12.2	0.3	0.0	0.0
N-1.75a	B498	VCIM 50x100	132	B.2.4.5-1	11.1	11.1	0.3	0.0	0.0
N-1.75a	B498	VCIM 50x100	132	B.2.4.5-1	11.1	11.1	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	151	B.2.4.5-1	11.4	11.1	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	151	B.2.4.5-1	12.0	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	176	B.2.4.5-1	14.5	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	201	B.2.4.5-3	15.4	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	201	B.2.4.2-2	15.4	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	244	B.2.4.5-1	17.5	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	244	B.2.4.5-1	17.7	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	252	B.2.4.5-1	17.7	11.0	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	252	B.2.4.5-1	17.6	10.9	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	277	B.2.4.5-1	17.1	10.9	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	302	B.2.4.5-1	16.8	10.9	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	302	B.2.4.5-1	16.6	10.8	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	327	B.2.4.5-1	15.7	10.8	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	352	B.2.4.5-3	15.4	10.8	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	352	B.2.4.5-3	15.4	10.8	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	357	B.2.4.5-3	15.4	10.8	0.2	0.0	0.0
N-1.75a	B498	VCIM 50x100	357	B.2.4.5-3	15.4	10.7	0.3	0.0	0.0
N-1.75a	B498	VCIM 50x100	403	B.2.4.5-1	11.2	8.8	0.3	0.0	0.0
N-1.75a	B55	VCIM 50x100	0	B.2.4.5-1	6.2	3.9	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	26	B.2.4.5-2	13.2	13.2	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	52	B.2.4.5-2	13.2	13.2	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	52	B.2.4.5-2	13.4	13.4	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	78	B.2.4.5-2	13.4	13.4	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	103	B.2.4.5-2	13.4	13.4	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	103	B.2.4.5-2	13.6	13.6	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	111	B.2.4.5-2	13.6	13.6	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	111	B.2.4.5-2	13.6	13.6	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	155	B.2.4.5-2	13.6	13.6	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	155	B.2.4.5-2	13.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	181	B.2.4.5-2	13.7	13.7	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B55	VCIM 50x100	207	B.2.4.5-2	13.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	207	B.2.4.5-2	13.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	221	B.2.4.5-2	13.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	221	B.2.4.5-2	13.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	258	B.2.4.5-1	14.5	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	258	B.2.4.5-1	14.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	284	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	310	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	310	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	332	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	332	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	362	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	362	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	388	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	413	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	413	B.2.4.5-3	15.4	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	443	B.2.4.5-2	15.8	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	443	B.2.4.5-2	16.0	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	465	B.2.4.5-2	15.7	13.7	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	465	B.2.4.5-2	15.6	13.8	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	491	B.2.4.5-3	15.4	13.8	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	517	B.2.4.5-3	15.4	13.8	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	517	B.2.4.5-3	15.4	13.8	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	554	B.2.4.5-3	15.4	13.8	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	554	B.2.4.5-3	15.4	13.9	0.1	0.0	0.0
N-1.75a	B55	VCIM 50x100	568	B.2.4.5-2	14.3	13.9	0.0	0.0	0.0
N-1.75a	B55	VCIM 50x100	568	B.2.4.5-2	14.0	14.0	0.1	0.0	0.0
N-1.75a	B55	VCIM 50x100	594	B.2.4.5-2	14.0	14.0	0.1	0.0	0.0
N-1.75a	B55	VCIM 50x100	620	B.2.4.5-2	14.0	14.0	0.1	0.0	0.0
N-1.75a	B55	VCIM 50x100	620	B.2.4.5-2	14.1	14.1	0.2	0.0	0.0
N-1.75a	B55	VCIM 50x100	664	B.2.4.5-2	14.1	15.1	0.2	0.0	0.0
N-1.75a	B55	VCIM 50x100	664	B.2.4.5-2	14.3	15.4	0.1	0.0	0.0
N-1.75a	B55	VCIM 50x100	672	B.2.4.5-2	14.3	15.4	0.1	0.0	0.0
N-1.75a	B55	VCIM 50x100	672	B.2.4.5-2	14.5	16.8	0.3	0.0	0.0
N-1.75a	B55	VCIM 50x100	698	B.2.4.5-2	14.5	27.7	0.3	0.0	0.0
N-1.75a	B62	VCIM 50x100	50	B.2.4.7-1	13.4	32.7	0.2	0.0	0.0
N-1.75a	B62	VCIM 50x100	100	B.2.4.5-1	14.6	15.4	0.2	0.0	0.0
N-1.75a	B62	VCIM 50x100	100	B.2.4.5-1	14.3	15.4	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	112	B.2.4.5-1	14.3	14.3	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	112	B.2.4.5-1	14.1	14.1	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	150	B.2.4.5-1	14.1	14.1	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	150	B.2.4.5-1	13.9	13.9	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	200	B.2.4.5-3	15.4	13.9	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	200	B.2.4.5-3	15.4	13.8	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	225	B.2.4.5-1	17.1	13.8	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	225	B.2.4.5-1	17.6	13.7	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	249	B.2.4.5-1	18.5	13.7	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	249	B.2.4.5-1	18.7	13.6	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	299	B.2.4.5-1	20.5	13.6	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	299	B.2.4.5-1	20.6	13.4	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	337	B.2.4.5-1	21.5	13.4	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	337	B.2.4.5-1	21.4	13.4	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	349	B.2.4.5-1	21.4	13.4	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	349	B.2.4.5-1	21.3	13.3	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	399	B.2.4.5-1	20.6	13.3	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	399	B.2.4.5-1	20.4	13.2	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	449	B.2.4.5-1	19.4	13.2	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B62	VCIM 50x100	449	B.2.4.5-1	19.1	13.0	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	475	B.2.4.5-1	17.0	13.0	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	501	B.2.4.5-3	15.4	13.0	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	501	B.2.4.5-3	15.4	12.9	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	527	B.2.4.5-3	15.4	12.9	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	553	B.2.4.5-1	13.3	12.9	0.1	0.0	0.0
N-1.75a	B62	VCIM 50x100	553	B.2.4.5-1	12.8	12.8	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	561	B.2.4.5-1	12.8	12.8	0.0	0.0	0.0
N-1.75a	B62	VCIM 50x100	561	B.2.4.5-1	12.7	12.7	0.2	0.0	0.0
N-1.75a	B62	VCIM 50x100	605	B.2.4.5-1	12.7	14.5	0.2	0.0	0.0
N-1.75a	B62	VCIM 50x100	605	B.2.4.5-1	12.7	15.4	0.3	0.0	0.0
N-1.75a	B62	VCIM 50x100	631	B.2.4.5-1	12.7	17.7	0.3	0.0	0.0
N-1.75a	B62	VCIM 50x100	657	B.2.4.5-1	3.3	23.9	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	76	B.2.4.5-1	14.6	29.6	0.0	23.8	0.1
N-1.75a	B141	VCIM 50x100	101	B.2.4.5-1	14.6	17.2	0.0	23.8	0.1
N-1.75a	B141	VCIM 50x100	101	B.2.4.5-1	14.6	16.0	0.3	20.0	0.1
N-1.75a	B141	VCIM 50x100	132	B.2.4.5-1	14.6	14.6	0.3	20.0	0.1
N-1.75a	B141	VCIM 50x100	132	B.2.4.5-1	14.7	14.7	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	151	B.2.4.5-1	14.7	14.7	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	151	B.2.4.5-1	14.6	14.6	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	176	B.2.4.5-1	14.6	14.6	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	201	B.2.4.2-2	15.4	14.6	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	201	B.2.4.2-2	15.4	14.6	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	244	B.2.4.5-1	19.3	14.6	0.3	0.0	0.0
N-1.75a	B141	VCIM 50x100	244	B.2.4.5-1	19.3	14.6	0.2	0.0	0.0
N-1.75a	B141	VCIM 50x100	252	B.2.4.5-1	19.4	14.6	0.2	0.0	0.0
N-1.75a	B141	VCIM 50x100	252	B.2.4.5-1	19.6	14.5	0.2	0.0	0.0
N-1.75a	B141	VCIM 50x100	277	B.2.4.5-1	20.3	14.5	0.2	0.0	0.0
N-1.75a	B141	VCIM 50x100	302	B.2.4.5-1	21.0	14.5	0.2	0.0	0.0
N-1.75a	B141	VCIM 50x100	302	B.2.4.5-1	21.0	14.4	0.2	13.2	0.0
N-1.75a	B141	VCIM 50x100	327	B.2.4.5-1	20.8	14.4	0.2	13.2	0.0
N-1.75a	B141	VCIM 50x100	352	B.2.4.5-1	20.7	14.4	0.2	13.2	0.0
N-1.75a	B141	VCIM 50x100	352	B.2.4.5-1	20.6	14.4	0.2	13.7	0.1
N-1.75a	B141	VCIM 50x100	357	B.2.4.5-1	20.5	14.4	0.2	13.7	0.1
N-1.75a	B141	VCIM 50x100	357	B.2.4.5-1	19.8	14.3	0.3	19.8	0.1
N-1.75a	B141	VCIM 50x100	403	B.2.4.5-1	16.4	11.5	0.3	19.8	0.1
N-1.75a	B585	VCIM 50x100	52	B.2.4.5-1	5.0	32.1	0.3	19.4	0.1
N-1.75a	B585	VCIM 50x100	78	B.2.4.5-1	14.3	22.9	0.3	19.4	0.1
N-1.75a	B585	VCIM 50x100	104	B.2.4.5-1	14.3	15.4	0.3	19.4	0.1
N-1.75a	B585	VCIM 50x100	104	B.2.4.5-1	13.9	15.4	0.1	17.6	0.1
N-1.75a	B585	VCIM 50x100	112	B.2.4.5-1	13.9	15.4	0.1	17.6	0.1
N-1.75a	B585	VCIM 50x100	112	B.2.4.5-1	13.6	14.3	0.1	0.0	0.0
N-1.75a	B585	VCIM 50x100	156	B.2.4.5-1	13.6	13.6	0.1	0.0	0.0
N-1.75a	B585	VCIM 50x100	156	B.2.4.5-1	13.4	13.4	0.1	11.7	0.0
N-1.75a	B585	VCIM 50x100	182	B.2.4.5-1	13.4	13.4	0.1	11.7	0.0
N-1.75a	B585	VCIM 50x100	208	B.2.4.5-1	14.3	13.4	0.1	11.7	0.0
N-1.75a	B585	VCIM 50x100	208	B.2.4.5-1	14.4	13.2	0.1	12.8	0.0
N-1.75a	B585	VCIM 50x100	234	B.2.4.5-3	15.4	13.2	0.1	12.8	0.0
N-1.75a	B585	VCIM 50x100	260	B.2.4.5-1	15.4	13.2	0.1	12.8	0.0
N-1.75a	B585	VCIM 50x100	260	B.2.4.5-3	15.4	13.0	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	310	B.2.4.2-2	15.4	13.0	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	310	B.2.4.2-2	15.4	12.9	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	361	B.2.4.2-2	15.4	12.9	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	361	B.2.4.5-3	15.4	12.8	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	392	B.2.4.5-3	15.4	12.8	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	392	B.2.4.5-3	15.4	12.7	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	411	B.2.4.5-3	15.4	12.7	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B585	VCIM 50x100	411	B.2.4.5-3	15.4	12.7	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	461	B.2.4.5-3	15.4	12.7	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	461	B.2.4.5-3	15.4	12.5	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	504	B.2.4.5-1	14.6	12.5	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	504	B.2.4.5-1	14.4	12.4	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	512	B.2.4.5-1	14.2	12.4	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	512	B.2.4.5-1	13.9	12.3	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	562	B.2.4.5-1	12.3	12.3	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	562	B.2.4.5-1	12.2	12.2	0.1	0.0	0.0
N-1.75a	B585	VCIM 50x100	612	B.2.4.5-1	12.2	12.2	0.1	0.0	0.0
N-1.75a	B585	VCIM 50x100	612	B.2.4.5-1	12.0	12.0	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	617	B.2.4.5-1	12.0	12.0	0.0	0.0	0.0
N-1.75a	B585	VCIM 50x100	617	B.2.4.5-1	11.9	11.9	0.1	0.0	0.0
N-1.75a	B585	VCIM 50x100	663	B.2.4.7-2	3.3	12.9	0.1	0.0	0.0
N-1.75a	B366	VCIM 50x100	76	B.2.4.5-1	13.7	24.6	0.3	0.0	0.0
N-1.75a	B366	VCIM 50x100	101	B.2.4.5-1	13.7	15.4	0.3	0.0	0.0
N-1.75a	B366	VCIM 50x100	101	B.2.4.5-1	13.7	15.4	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	132	B.2.4.5-1	13.7	13.7	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	132	B.2.4.5-1	13.7	13.7	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	151	B.2.4.5-1	13.7	13.7	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	151	B.2.4.5-1	13.6	13.6	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	176	B.2.4.5-1	14.6	13.6	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	201	B.2.4.5-3	15.4	13.6	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	201	B.2.4.2-2	15.4	13.6	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	244	B.2.4.5-1	18.7	13.6	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	244	B.2.4.5-1	18.8	13.5	0.1	0.0	0.0
N-1.75a	B366	VCIM 50x100	252	B.2.4.5-1	18.9	13.5	0.1	0.0	0.0
N-1.75a	B366	VCIM 50x100	252	B.2.4.5-1	18.8	13.5	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	277	B.2.4.5-1	18.7	13.5	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	302	B.2.4.5-1	18.6	13.5	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	302	B.2.4.5-1	18.5	13.4	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	327	B.2.4.5-1	18.0	13.4	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	352	B.2.4.5-1	17.5	13.4	0.2	0.0	0.0
N-1.75a	B366	VCIM 50x100	352	B.2.4.5-1	17.3	13.3	0.1	0.0	0.0
N-1.75a	B366	VCIM 50x100	357	B.2.4.5-1	17.3	13.3	0.1	0.0	0.0
N-1.75a	B366	VCIM 50x100	357	B.2.4.5-1	16.7	13.2	0.2	11.8	0.0
N-1.75a	B366	VCIM 50x100	403	B.2.4.5-3	15.4	10.0	0.2	11.8	0.0
N-1.75a	B25	VCIM 50x100	45	B.2.4.7-2	8.5	26.2	0.3	0.0	0.0
N-1.75a	B25	VCIM 50x100	89	B.2.4.5-2	10.6	15.4	0.3	0.0	0.0
N-1.75a	B25	VCIM 50x100	89	B.2.4.5-2	10.2	15.4	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	134	B.2.4.7-2	10.4	10.2	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	134	B.2.4.7-2	10.0	9.9	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	178	B.2.4.5-1	12.7	9.9	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	178	B.2.4.5-1	12.6	9.6	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	223	B.2.4.5-1	14.8	9.6	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	223	B.2.4.5-1	14.7	9.4	0.1	0.0	0.0
N-1.75a	B25	VCIM 50x100	267	B.2.4.5-3	15.4	9.4	0.1	0.0	0.0
N-1.75a	B25	VCIM 50x100	267	B.2.4.5-3	15.4	9.3	0.1	0.0	0.0
N-1.75a	B25	VCIM 50x100	312	B.2.4.5-3	15.4	9.3	0.1	0.0	0.0
N-1.75a	B25	VCIM 50x100	312	B.2.4.5-3	15.4	9.4	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	356	B.2.4.5-1	15.2	9.4	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	356	B.2.4.5-8	15.3	9.5	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	401	B.2.4.5-2	13.3	9.5	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	401	B.2.4.5-8	13.4	9.8	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	445	B.2.4.5-2	10.8	11.6	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	445	B.2.4.5-2	11.0	12.3	0.2	0.0	0.0
N-1.75a	B25	VCIM 50x100	490	B.2.4.7-2	9.0	15.4	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm	cm ²	cm ²	cm ² /cm	cm ² /cm
N-1.75a	B26	VCIM 50x100	49	B.2.4.7-2	2.8	6.1	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	99	B.2.4.5-1	3.1	5.0	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	99	B.2.4.5-1	1.6	1.7	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	148	B.2.4.5-1	1.6	1.6	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	148	B.2.4.5-2	1.9	1.6	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	197	B.2.4.5-2	1.9	1.6	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	197	B.2.4.5-8	1.4	1.0	0.1	0.0	0.0
N-1.75a	B26	VCIM 50x100	247	B.2.4.5-8	1.5	0.8	0.1	0.0	0.0
N-1.75a	B13	VCIM 50x100	53	B.2.4.7-1	7.4	15.4	0.1	0.0	0.0
N-1.75a	B13	VCIM 50x100	79	B.2.4.7-1	8.3	12.8	0.1	0.0	0.0
N-1.75a	B13	VCIM 50x100	106	B.2.4.5-1	9.7	9.0	0.1	0.0	0.0
N-1.75a	B13	VCIM 50x100	106	B.2.4.5-1	9.3	8.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	132	B.2.4.5-1	10.2	6.0	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	159	B.2.4.5-1	11.3	6.0	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	159	B.2.4.5-1	10.8	5.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	185	B.2.4.5-1	11.1	5.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	185	B.2.4.5-1	11.3	5.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	212	B.2.4.5-1	11.7	5.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	212	B.2.4.5-1	11.3	5.0	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	238	B.2.4.5-1	11.3	5.0	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	265	B.2.4.5-1	11.5	5.0	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	265	B.2.4.5-1	11.0	4.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	291	B.2.4.5-1	10.9	4.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	318	B.2.4.5-1	10.9	4.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	318	B.2.4.5-1	10.6	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	344	B.2.4.5-1	10.5	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	344	B.2.4.5-1	10.3	4.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	370	B.2.4.5-1	9.6	4.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	370	B.2.4.5-1	9.5	4.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	397	B.2.4.5-1	8.7	4.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	423	B.2.4.5-1	8.1	4.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	423	B.2.4.5-1	8.1	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	450	B.2.4.5-1	7.4	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	476	B.2.4.5-1	7.0	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	476	B.2.4.5-1	6.9	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	503	B.2.4.5-2	6.5	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	503	B.2.4.5-2	6.3	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	529	B.2.4.5-2	5.9	4.3	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	529	B.2.4.5-2	6.0	4.5	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	556	B.2.4.7-2	5.3	6.2	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	582	B.2.4.7-2	5.1	8.8	0.0	0.0	0.0
N-1.75a	B13	VCIM 50x100	582	B.2.4.7-2	5.4	9.3	0.1	0.0	0.0
N-1.75a	B13	VCIM 50x100	609	B.2.4.7-2	4.9	12.9	0.1	0.0	0.0
N-1.75a	B13	VCIM 50x100	635	B.2.4.7-2	4.5	15.4	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	99	B.2.4.5-1	9.0	14.1	0.3	0.0	0.0
N-1.75a	B1114	VCIM 50x100	99	B.2.4.5-1	8.9	12.7	0.2	0.0	0.0
N-1.75a	B1114	VCIM 50x100	149	B.2.4.5-1	9.4	8.9	0.2	0.0	0.0
N-1.75a	B1114	VCIM 50x100	149	B.2.4.5-1	9.8	8.9	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	199	B.2.4.5-1	14.4	8.9	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	199	B.2.4.5-1	15.1	8.9	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	224	B.2.4.5-3	15.4	8.9	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	224	B.2.4.5-3	15.4	8.9	0.0	0.0	0.0
N-1.75a	B1114	VCIM 50x100	248	B.2.4.5-3	15.4	8.9	0.0	0.0	0.0
N-1.75a	B1114	VCIM 50x100	248	B.2.4.5-3	15.4	8.9	0.0	0.0	0.0
N-1.75a	B1114	VCIM 50x100	298	B.2.4.5-3	15.4	8.9	0.0	0.0	0.0
N-1.75a	B1114	VCIM 50x100	298	B.2.4.5-3	15.4	8.9	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	348	B.2.4.5-1	13.7	8.9	0.1	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B1114	VCIM 50x100	348	B.2.4.5-1	13.3	8.8	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	397	B.2.4.5-1	9.6	8.8	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	397	B.2.4.5-1	8.9	8.5	0.1	0.0	0.0
N-1.75a	B1114	VCIM 50x100	447	B.2.4.5-1	4.7	3.2	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	53	B.2.4.5-1	10.1	9.5	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	79	B.2.4.5-1	9.7	7.1	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	105	B.2.4.5-1	9.4	5.1	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	105	B.2.4.5-1	8.9	4.7	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	131	B.2.4.5-1	8.1	4.7	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	158	B.2.4.5-1	7.3	4.7	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	158	B.2.4.5-1	6.8	4.2	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	184	B.2.4.5-1	5.7	4.2	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	210	B.2.4.5-1	5.3	4.2	0.1	0.0	0.0
N-1.75a	B1161	VCIM 50x100	210	B.2.4.5-1	4.9	3.7	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	236	B.2.4.7-1	4.2	3.7	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	263	B.2.4.7-1	4.3	3.7	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	263	B.2.4.7-1	4.0	3.3	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	289	B.2.4.7-2	3.7	4.0	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	315	B.2.4.7-2	3.5	7.1	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	315	B.2.4.7-2	3.1	6.9	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	341	B.2.4.7-1	3.0	11.4	0.2	0.0	0.0
N-1.75a	B1161	VCIM 50x100	368	B.2.4.7-2	1.6	15.4	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	50	B.2.4.7-1	13.4	15.4	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	99	B.2.4.5-1	13.3	10.5	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	99	B.2.4.5-1	12.7	9.7	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	149	B.2.4.5-1	12.3	8.1	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	149	B.2.4.5-1	11.8	7.6	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	199	B.2.4.5-1	11.0	7.6	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	199	B.2.4.5-1	10.7	7.3	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	224	B.2.4.5-1	11.2	7.3	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	224	B.2.4.5-1	11.1	7.1	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	248	B.2.4.5-1	11.4	7.1	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	248	B.2.4.5-1	11.2	6.9	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	298	B.2.4.5-1	11.4	6.9	0.1	0.0	0.0
N-1.75a	B1162	VCIM 50x100	298	B.2.4.5-1	11.1	6.6	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	348	B.2.4.5-2	10.3	7.3	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	348	B.2.4.5-2	10.0	7.3	0.2	0.0	0.0
N-1.75a	B1162	VCIM 50x100	397	B.2.4.5-2	8.1	11.6	0.2	0.0	0.0
N-1.75a	B6	VCIM 50x100	53	B.2.4.4-4	0.0	28.4	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	79	B.2.4.5-1	8.3	18.0	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	106	B.2.4.5-1	8.3	10.8	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	106	B.2.4.5-1	8.7	9.5	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	132	B.2.4.5-1	10.0	8.7	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	159	B.2.4.5-3	15.4	8.7	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	159	B.2.4.5-3	15.4	9.1	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	185	B.2.4.5-1	17.6	9.1	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	212	B.2.4.5-1	21.1	9.1	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	212	B.2.4.5-1	21.8	9.3	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	238	B.2.4.5-1	23.6	9.3	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	265	B.2.4.5-1	25.5	9.3	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	265	B.2.4.5-1	25.9	9.6	0.0	0.0	0.0
N-1.75a	B6	VCIM 50x100	291	B.2.4.5-1	26.7	9.6	0.0	0.0	0.0
N-1.75a	B6	VCIM 50x100	318	B.2.4.5-1	27.6	9.6	0.0	0.0	0.0
N-1.75a	B6	VCIM 50x100	318	B.2.4.5-1	27.8	9.7	0.0	0.0	0.0
N-1.75a	B6	VCIM 50x100	344	B.2.4.5-1	28.1	9.7	0.0	0.0	0.0
N-1.75a	B6	VCIM 50x100	344	B.2.4.5-1	27.5	9.8	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	370	B.2.4.5-1	25.3	9.8	0.1	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B6	VCIM 50x100	370	B.2.4.5-1	24.8	9.9	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	397	B.2.4.5-1	21.8	9.9	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	423	B.2.4.5-1	19.0	9.9	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	423	B.2.4.5-1	18.6	10.0	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	450	B.2.4.5-1	15.4	10.0	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	476	B.2.4.5-3	15.4	10.0	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	476	B.2.4.5-3	15.4	10.2	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	503	B.2.4.5-1	12.3	10.2	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	529	B.2.4.5-1	10.2	10.2	0.1	0.0	0.0
N-1.75a	B6	VCIM 50x100	529	B.2.4.5-1	10.3	10.3	0.2	0.0	0.0
N-1.75a	B6	VCIM 50x100	556	B.2.4.5-1	10.3	10.3	0.2	0.0	0.0
N-1.75a	B6	VCIM 50x100	582	B.2.4.5-1	10.3	15.4	0.2	0.0	0.0
N-1.75a	B6	VCIM 50x100	582	B.2.4.5-1	10.5	15.4	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	609	B.2.4.5-1	10.5	21.1	0.3	0.0	0.0
N-1.75a	B6	VCIM 50x100	635	B.2.4.7-2	1.6	28.9	0.3	0.0	0.0
N-1.75a	B9	VCIM 50x100	53	B.2.4.7-8	0.2	15.4	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	79	B.2.4.5-1	4.9	12.5	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	105	B.2.4.5-1	4.9	5.4	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	105	B.2.4.5-2	5.3	4.9	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	131	B.2.4.5-1	8.5	4.9	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	158	B.2.4.5-1	12.1	4.9	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	158	B.2.4.5-1	12.6	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	184	B.2.4.5-1	15.3	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	210	B.2.4.4-4	15.4	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	210	B.2.4.4-3	15.4	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	236	B.2.4.5-3	15.4	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	263	B.2.4.5-1	13.6	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	263	B.2.4.5-1	13.1	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	289	B.2.4.5-1	9.6	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	315	B.2.4.5-1	6.3	5.0	0.1	0.0	0.0
N-1.75a	B9	VCIM 50x100	315	B.2.4.7-1	6.1	5.0	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	341	B.2.4.5-1	5.0	10.5	0.2	0.0	0.0
N-1.75a	B9	VCIM 50x100	368	B.2.4.7-2	1.6	15.4	0.2	0.0	0.0
N-1.75a	B4	VCIM 50x100	79	B.2.4.5-8	15.4	25.7	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	105	B.2.4.5-8	15.4	16.5	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	105	B.2.4.5-8	15.4	15.8	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	131	B.2.4.5-8	15.4	15.4	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	158	B.2.4.5-8	15.4	15.4	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	158	B.2.4.5-8	15.4	15.4	0.2	0.0	0.0
N-1.75a	B4	VCIM 50x100	184	B.2.4.5-8	15.4	15.4	0.2	0.0	0.0
N-1.75a	B4	VCIM 50x100	210	B.2.4.5-8	15.4	15.4	0.2	0.0	0.0
N-1.75a	B4	VCIM 50x100	210	B.2.4.5-8	15.4	15.4	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	236	B.2.4.5-3	15.4	15.4	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	263	B.2.4.2-2	15.4	15.4	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	263	B.2.4.4-4	15.4	15.4	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	289	B.2.4.5-8	16.5	15.4	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	315	B.2.4.5-1	17.8	15.4	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	315	B.2.4.5-1	17.8	15.4	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	341	B.2.4.5-1	18.6	15.4	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	368	B.2.4.5-1	19.5	15.4	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	368	B.2.4.5-1	19.6	15.4	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	394	B.2.4.5-1	20.1	15.4	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	420	B.2.4.5-1	20.6	15.4	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	420	B.2.4.5-1	20.4	15.3	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	470	B.2.4.5-8	19.8	15.3	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	470	B.2.4.5-8	19.6	15.2	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	519	B.2.4.5-8	18.4	15.2	0.0	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
N-1.75a	B4	VCIM 50x100	519	B.2.4.5-8	18.3	15.1	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	569	B.2.4.5-8	16.1	15.1	0.0	0.0	0.0
N-1.75a	B4	VCIM 50x100	569	B.2.4.5-8	15.9	15.1	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	619	B.2.4.5-3	15.4	15.1	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	619	B.2.4.5-3	15.4	15.1	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	644	B.2.4.5-8	15.1	15.1	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	644	B.2.4.5-8	15.1	15.1	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	668	B.2.4.5-8	15.1	15.1	0.1	0.0	0.0
N-1.75a	B4	VCIM 50x100	668	B.2.4.5-8	15.1	15.1	0.2	0.0	0.0
N-1.75a	B4	VCIM 50x100	718	B.2.4.5-8	15.1	15.1	0.2	0.0	0.0
N-1.75a	B4	VCIM 50x100	718	B.2.4.5-8	15.1	15.1	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	768	B.2.4.5-8	15.1	23.0	0.3	0.0	0.0
N-1.75a	B4	VCIM 50x100	768	B.2.4.5-8	15.1	23.9	0.3	0.0	0.0
N-1.75a	B75	VCIM 50x100	0	B.2.4.5-1	5.1	4.1	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	50	B.2.4.5-1	6.3	6.2	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	50	B.2.4.5-1	6.6	6.4	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	100	B.2.4.5-2	7.7	6.4	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	100	B.2.4.5-2	7.9	6.5	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	112	B.2.4.5-2	8.0	6.5	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	112	B.2.4.5-2	8.6	6.6	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	150	B.2.4.5-2	9.0	6.6	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	150	B.2.4.5-2	9.2	6.7	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	200	B.2.4.5-2	9.4	6.7	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	200	B.2.4.5-2	9.5	6.8	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	225	B.2.4.5-2	9.4	6.8	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	225	B.2.4.5-2	9.7	6.8	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	249	B.2.4.5-2	9.3	6.8	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	249	B.2.4.5-2	9.1	6.7	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	299	B.2.4.5-2	8.0	6.7	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	299	B.2.4.5-2	7.8	6.6	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	337	B.2.4.5-1	7.0	8.0	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	337	B.2.4.5-1	6.8	8.1	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	349	B.2.4.5-1	6.6	8.6	0.0	0.0	0.0
N-1.75a	B75	VCIM 50x100	349	B.2.4.5-1	6.2	8.7	0.2	0.0	0.0
N-1.75a	B75	VCIM 50x100	399	B.2.4.7-1	7.1	15.1	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	0	B.2.4.5-1	6.4	4.4	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	26	B.2.4.5-1	12.1	12.1	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	52	B.2.4.5-1	12.1	12.1	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	52	B.2.4.5-1	12.8	12.8	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	79	B.2.4.5-1	12.8	12.8	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	105	B.2.4.5-1	12.8	12.8	0.2	0.0	0.0
N-1.75a	B76	VCIM 50x100	105	B.2.4.5-1	13.7	13.7	0.2	12.1	0.0
N-1.75a	B76	VCIM 50x100	131	B.2.4.5-1	13.7	13.7	0.2	12.1	0.0
N-1.75a	B76	VCIM 50x100	157	B.2.4.5-1	13.7	13.7	0.2	12.1	0.0
N-1.75a	B76	VCIM 50x100	157	B.2.4.5-1	14.3	14.3	0.3	11.7	0.0
N-1.75a	B76	VCIM 50x100	183	B.2.4.5-1	14.3	14.3	0.3	11.7	0.0
N-1.75a	B76	VCIM 50x100	209	B.2.4.5-1	14.3	14.3	0.3	11.7	0.0
N-1.75a	B76	VCIM 50x100	209	B.2.4.5-1	15.1	15.1	0.3	12.6	0.0
N-1.75a	B76	VCIM 50x100	236	B.2.4.5-1	15.1	15.4	0.3	12.6	0.0
N-1.75a	B76	VCIM 50x100	262	B.2.4.5-1	15.1	20.4	0.3	12.6	0.0
N-1.75a	B76	VCIM 50x100	262	B.2.4.5-3	15.4	22.0	0.3	12.0	0.0
N-1.75a	B76	VCIM 50x100	288	B.2.4.5-3	15.4	28.4	0.3	12.0	0.0
N-1.75a	B76	VCIM 50x100	314	B.2.4.7-2	6.1	35.1	0.3	12.0	0.0
N-1.75a	B58	VCIM 50x100	52	B.2.4.7-2	6.5	15.0	0.3	0.0	0.0
N-1.75a	B58	VCIM 50x100	78	B.2.4.5-1	10.0	9.3	0.3	0.0	0.0
N-1.75a	B58	VCIM 50x100	103	B.2.4.5-1	14.9	7.1	0.3	0.0	0.0
N-1.75a	B58	VCIM 50x100	103	B.2.4.5-3	15.4	7.1	0.2	0.0	0.0

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top	As Bottom	At Shear	Al Torsion	At Torsion
					cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm
N-1.75a	B58	VCIM 50x100	111	B.2.4.5-3	15.4	7.1	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	111	B.2.4.5-3	15.4	7.0	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	155	B.2.4.5-1	15.5	7.0	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	155	B.2.4.5-1	15.5	6.8	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	181	B.2.4.5-1	16.0	6.8	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	207	B.2.4.5-1	16.6	6.8	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	207	B.2.4.5-1	16.6	6.8	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	221	B.2.4.5-1	16.7	6.8	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	221	B.2.4.5-1	16.6	6.6	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	258	B.2.4.4-4	15.4	6.6	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	258	B.2.4.4-3	15.4	6.5	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	284	B.2.4.5-3	15.4	6.5	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	310	B.2.4.5-3	15.4	6.5	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	310	B.2.4.5-3	15.4	6.3	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	332	B.2.4.5-3	15.4	6.3	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	332	B.2.4.5-3	15.4	6.2	0.2	0.0	0.0
N-1.75a	B58	VCIM 50x100	362	B.2.4.5-1	14.6	9.0	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	26	B.2.4.5-3	15.4	10.9	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	55	B.2.4.5-3	15.4	8.9	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	55	B.2.4.5-3	15.4	8.7	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	78	B.2.4.5-3	15.4	8.7	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	78	B.2.4.5-3	15.4	8.6	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	103	B.2.4.5-3	15.4	8.6	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	129	B.2.4.5-3	15.4	8.6	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	129	B.2.4.5-1	15.4	8.6	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	166	B.2.4.5-1	14.2	8.6	0.1	0.0	0.0
N-1.75a	B68	VCIM 50x100	166	B.2.4.5-1	13.3	8.5	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	181	B.2.4.5-1	12.5	8.5	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	181	B.2.4.5-1	12.2	8.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	207	B.2.4.5-1	9.8	8.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	233	B.2.4.5-1	8.4	8.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	233	B.2.4.5-1	8.4	8.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	277	B.2.4.5-1	8.4	8.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	277	B.2.4.5-1	8.3	8.3	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	284	B.2.4.5-1	8.3	8.3	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	284	B.2.4.5-1	8.2	8.2	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	310	B.2.4.5-1	8.2	11.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	336	B.2.4.5-1	8.2	14.7	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	336	B.2.4.5-1	8.1	14.9	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	362	B.2.4.5-1	8.1	15.4	0.2	0.0	0.0
N-1.75a	B68	VCIM 50x100	388	B.2.4.5-2	3.4	16.2	0.2	0.0	0.0
N-1.75a	B74	VCIM 50x100	78	B.2.4.5-8	19.0	42.9	0.0	53.4	0.2
N-1.75a	B74	VCIM 50x100	103	B.2.4.5-8	19.0	19.0	0.0	53.4	0.2
N-1.75a	B74	VCIM 50x100	103	B.2.4.5-8	18.9	18.9	0.0	47.8	0.2
N-1.75a	B74	VCIM 50x100	111	B.2.4.5-8	18.9	18.9	0.0	47.8	0.2
N-1.75a	B74	VCIM 50x100	111	B.2.4.5-8	18.8	18.8	0.0	25.1	0.1
N-1.75a	B74	VCIM 50x100	155	B.2.4.5-1	27.1	18.8	0.0	25.1	0.1
N-1.75a	B74	VCIM 50x100	155	B.2.4.5-1	28.1	18.6	0.0	30.3	0.1
N-1.75a	B74	VCIM 50x100	181	B.2.4.5-1	37.6	18.6	0.0	30.3	0.1
N-1.75a	B74	VCIM 50x100	207	B.2.4.5-1	47.7	18.6	0.0	30.3	0.1
N-1.75a	B74	VCIM 50x100	207	B.2.4.5-1	48.9	18.6	0.1	32.6	0.1
N-1.75a	B74	VCIM 50x100	221	B.2.4.5-1	51.9	18.6	0.1	32.6	0.1
N-1.75a	B74	VCIM 50x100	221	B.2.4.5-1	51.3	18.5	0.0	35.7	0.1
N-1.75a	B74	VCIM 50x100	258	B.2.4.2-1	57.3	18.5	0.0	35.7	0.1
N-1.75a	B74	VCIM 50x100	258	B.2.4.2-1	57.6	18.4	0.0	36.6	0.1
N-1.75a	B74	VCIM 50x100	284	B.2.4.2-1	60.1	18.4	0.0	36.6	0.1
N-1.75a	B74	VCIM 50x100	310	B.2.4.2-1	62.7	18.4	0.0	36.6	0.1

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion	
								cm ² /cm	cm ² /cm
N-1.75a	B74	VCIM 50x100	310	B.2.4.2-1	62.8	18.3	0.0	36.6	0.1
N-1.75a	B74	VCIM 50x100	332	B.2.4.2-1	63.8	18.3	0.0	36.6	0.1
N-1.75a	B74	VCIM 50x100	332	B.2.4.2-1	62.4	18.3	0.0	29.8	0.1
N-1.75a	B74	VCIM 50x100	362	B.2.4.2-1	62.5	30.2	0.0	29.8	0.1
N-1.75a	B79	VCIM 50x100	26	B.2.4.5-1	56.4	28.9	0.0	19.8	0.1
N-1.75a	B79	VCIM 50x100	55	B.2.4.5-1	53.3	20.9	0.0	19.8	0.1
N-1.75a	B79	VCIM 50x100	55	B.2.4.5-1	53.2	20.7	0.0	23.4	0.1
N-1.75a	B79	VCIM 50x100	78	B.2.4.5-1	50.5	20.7	0.0	23.4	0.1
N-1.75a	B79	VCIM 50x100	78	B.2.4.5-1	49.8	20.5	0.1	23.3	0.1
N-1.75a	B79	VCIM 50x100	103	B.2.4.5-1	45.1	20.5	0.1	23.3	0.1
N-1.75a	B79	VCIM 50x100	129	B.2.4.5-1	40.6	20.5	0.1	23.3	0.1
N-1.75a	B79	VCIM 50x100	129	B.2.4.5-1	40.0	20.4	0.1	22.6	0.1
N-1.75a	B79	VCIM 50x100	166	B.2.4.5-8	32.6	20.4	0.1	22.6	0.1
N-1.75a	B79	VCIM 50x100	166	B.2.4.5-8	32.2	20.3	0.1	21.5	0.1
N-1.75a	B79	VCIM 50x100	181	B.2.4.5-8	29.2	20.3	0.1	21.5	0.1
N-1.75a	B79	VCIM 50x100	181	B.2.4.5-8	27.9	20.2	0.3	19.8	0.1
N-1.75a	B79	VCIM 50x100	207	B.2.4.5-1	20.2	20.2	0.3	19.8	0.1
N-1.75a	B79	VCIM 50x100	233	B.2.4.5-1	20.2	20.2	0.3	19.8	0.1
N-1.75a	B79	VCIM 50x100	233	B.2.4.5-1	20.2	20.2	0.0	16.0	0.1
N-1.75a	B79	VCIM 50x100	277	B.2.4.5-1	20.2	21.7	0.0	16.0	0.1
N-1.75a	B79	VCIM 50x100	277	B.2.4.5-1	20.1	24.8	0.2	30.0	0.1
N-1.75a	B79	VCIM 50x100	284	B.2.4.5-1	20.1	26.5	0.2	30.0	0.1
N-1.75a	B79	VCIM 50x100	284	B.2.4.5-1	20.1	29.2	0.0	33.1	0.1
N-1.75a	B79	VCIM 50x100	310	B.2.4.5-1	20.1	52.1	0.0	33.1	0.1
N-1.75a	B79	VCIM 50x100	336	B.2.4.5-1	10.0	76.9	0.0	33.1	0.1
N-1.75a	B20	VCIM 50x100	106	B.2.4.2-2	15.4	20.8	0.0	0.0	0.0
N-1.75a	B20	VCIM 50x100	106	B.2.4.2-2	15.4	19.0	0.0	0.0	0.0
N-1.75a	B20	VCIM 50x100	132	B.2.4.2-2	15.4	15.4	0.0	0.0	0.0
N-1.75a	B20	VCIM 50x100	159	B.2.4.2-2	15.4	15.4	0.0	0.0	0.0
N-1.75a	B20	VCIM 50x100	159	B.2.4.5-8	15.7	15.4	0.0	21.6	0.1
N-1.75a	B20	VCIM 50x100	185	B.2.4.5-8	25.9	15.4	0.0	21.6	0.1
N-1.75a	B20	VCIM 50x100	212	B.2.4.5-1	37.6	15.4	0.0	21.6	0.1
N-1.75a	B20	VCIM 50x100	212	B.2.4.5-1	38.5	15.4	0.2	29.1	0.1
N-1.75a	B20	VCIM 50x100	238	B.2.4.5-1	47.1	15.4	0.2	29.1	0.1
N-1.75a	B20	VCIM 50x100	265	B.2.4.5-1	56.4	15.4	0.2	29.1	0.1
N-1.75a	B20	VCIM 50x100	265	B.2.4.5-1	57.1	15.4	0.1	33.0	0.1
N-1.75a	B20	VCIM 50x100	291	B.2.4.5-1	62.6	15.4	0.1	33.0	0.1
N-1.75a	B21	VCIM 50x100	53	B.2.4.5-8	37.9	13.8	0.0	0.0	0.0
N-1.75a	B21	VCIM 50x100	79	B.2.4.5-8	34.0	13.8	0.0	0.0	0.0
N-1.75a	B21	VCIM 50x100	79	B.2.4.5-8	33.5	13.7	0.1	0.0	0.0
N-1.75a	B21	VCIM 50x100	106	B.2.4.5-8	28.2	13.7	0.1	0.0	0.0
N-1.75a	B21	VCIM 50x100	132	B.2.4.5-1	23.3	13.7	0.1	0.0	0.0
N-1.75a	B21	VCIM 50x100	132	B.2.4.5-1	22.9	13.6	0.2	0.0	0.0
N-1.75a	B21	VCIM 50x100	159	B.2.4.5-1	16.9	13.6	0.2	0.0	0.0
N-1.75a	B21	VCIM 50x100	185	B.2.4.5-3	15.4	13.6	0.2	0.0	0.0
N-1.75a	B21	VCIM 50x100	185	B.2.4.5-8	15.4	13.7	0.2	0.0	0.0
N-1.75a	B21	VCIM 50x100	212	B.2.4.5-8	13.7	13.7	0.2	0.0	0.0
N-1.75a	B21	VCIM 50x100	238	B.2.4.5-8	13.7	13.7	0.2	0.0	0.0
N-1.75a	B21	VCIM 50x100	238	B.2.4.5-8	13.8	13.8	0.4	0.0	0.0
N-1.75a	B21	VCIM 50x100	265	B.2.4.5-8	13.8	20.5	0.4	0.0	0.0

Diseño de Cimentación Edificio B

De acuerdo con lo presente en el estudio de suelos, la cimentación consiste en un sistema de placa de cimentación combinada con pilotes:

4.1 Factor interacción balsa-pilote

Relación de Poisson

$$\alpha_{cp} = 1 - \ln\left(\frac{r_c}{r_0}\right)/\zeta$$

Longitud pilote:

13 m

Módulo Elasticidad suelo a nivel pilote

E_{sl}

198 Kg/cm²

$$\xi = E_{sl}/E_{sb}$$

Módulo Elasticidad suelo bajo nivel pilote

E_{sb}

207 Kg/cm²

Módulo Elasticidad suelo promedio pi

E_{sav}

107 Kg/cm²

$$P = E_{sav}/E_{sl}$$

Relación Módulos 1 (E_{sl}/E_{sh})

ζ

0,957

Relación Módulos 2 (E_{sav}/E_{sl})

ρ

0,539

$$\frac{P_r}{P_t} = \frac{K_r(1-\alpha_{cp})}{(K_p+K_r(1-\alpha_{cp}))} = X$$

Radio medio

r_m

9,250 m

Radio pilote

r_o

0,5 m

Relación forma

ζ

2,918

$$\alpha_{cp} = 1 - \ln\left(\frac{r_c}{r_0}\right)/\zeta$$

Area total losa

A

1030 m²

Cantidad pilotes

n

30 pilotes

$$\xi = \ln(r_m/r_o)$$

Radio promedio losa

r_c

34,33 m

Factor interacción losa/pilote

α_{cp}

-0,06843

Rigidez pilotes

K_p

86004

$$r_m = (0.25)\zeta + [2.5 \rho (1-\mu) - 0.25] \cdot L$$

Rigidez losa

K_l

25500

Porcentaje losa

X

0,24

$$K_{pr} = \frac{(K_p + K_r(1-\alpha_{cp}))}{(1-\alpha_{cp}^2, \frac{K_r}{K_p})}$$

Divid

113249,117

0,99861165

Rigidez Conjunto

K_{pr}

113287 KN/m

11,33 Kg/cm³

$$P_i = \frac{P_{up}}{(1-X)}$$

Kpr: Rigidez del conjunto Losa-pilotes: 11.33 kg/cm³.

L: Longitud de pilotes: 13m

Ø: Diámetro de pilotes: 1.0m

A: Área de la losa: 1030m²

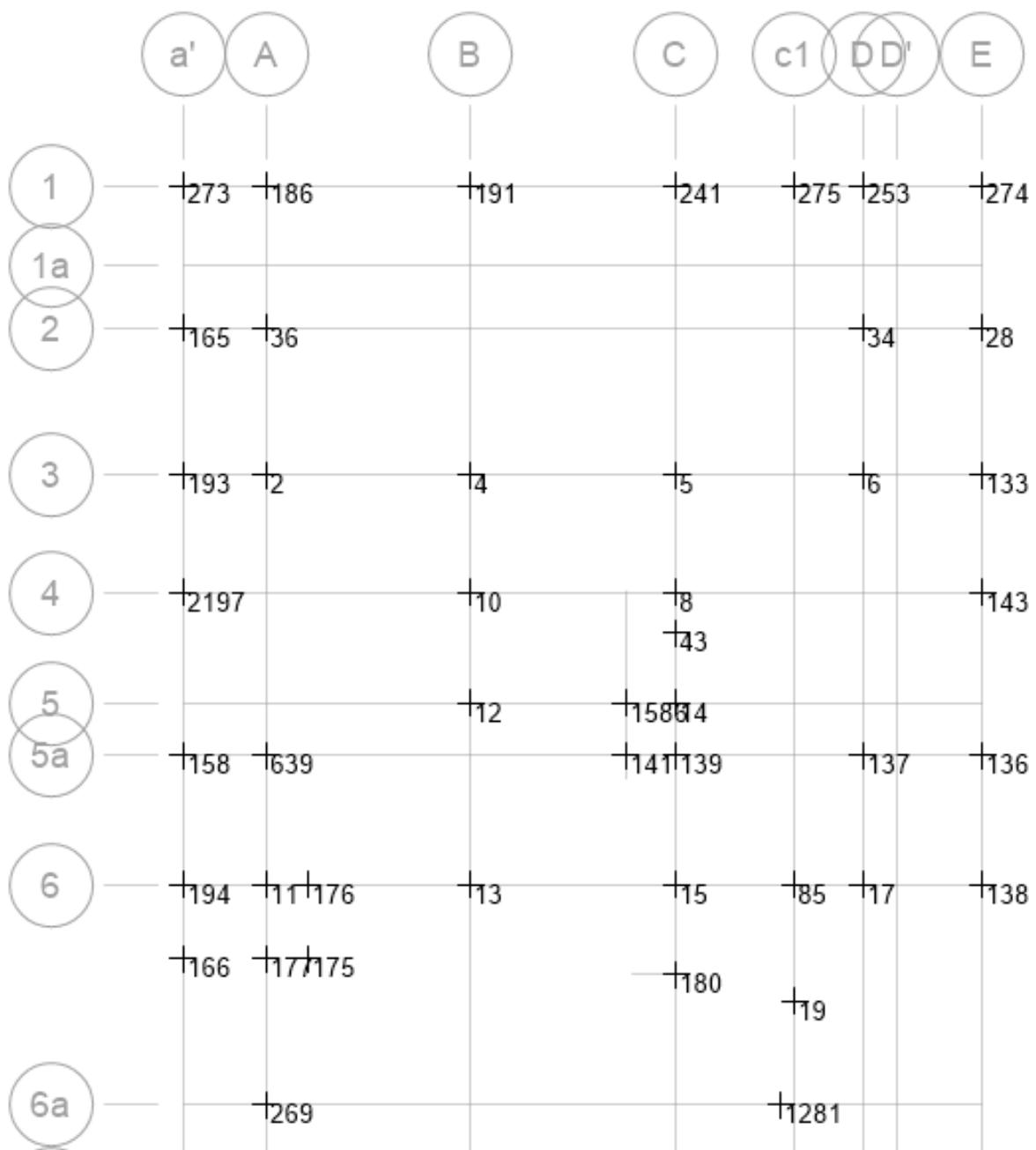


Figura 35 Joint Label base de columnas Edificio A N-1.75

Tabla 22 Reacciones servicio con sismo en columnas de Edificio B

TABLE: Joint Reactions					
Story	Joint Label	Unique Name	Load Case/Combo	FZ tonf	FZ max tonf
N-3.50	2	3	Env Serv Max	641.2	641.2
N-3.50	2	3	Env Serv Min	300.6	
N-3.50	11	17	Env Serv Max	487.8	487.8
N-3.50	11	17	Env Serv Min	230.9	
N-3.50	13	21	Env Serv Max	737.9	737.9
N-3.50	13	21	Env Serv Min	345.3	
N-3.50	15	25	Env Serv Max	460.8	460.8
N-3.50	15	25	Env Serv Min	211.8	
N-3.50	17	1523	Env Serv Max	95.6	95.6
N-3.50	17	1523	Env Serv Min	35.6	
N-3.50	4	2	Env Serv Max	642.2	642.2
N-3.50	4	2	Env Serv Min	283.8	
N-3.50	5	5	Env Serv Max	638.3	638.3
N-3.50	5	5	Env Serv Min	280.0	
N-3.50	6	13	Env Serv Max	365.8	365.8
N-3.50	6	13	Env Serv Min	170.6	
N-3.50	8	6373	Env Serv Max	144.6	144.6
N-3.50	8	6373	Env Serv Min	-	35.2
N-3.50	10	373	Env Serv Max	253.2	253.2
N-3.50	10	373	Env Serv Min	-	44.4
N-3.50	12	376	Env Serv Max	238.8	238.8
N-3.50	12	376	Env Serv Min	-	54.6
N-3.50	14	6364	Env Serv Max	352.8	352.8
N-3.50	14	6364	Env Serv Min	-	56.0
N-3.50	1586	382	Env Serv Max	226.9	226.9
N-3.50	1586	382	Env Serv Min	-	66.3
N-3.50	193	1100	Env Serv Max	58.0	58.0
N-3.50	193	1100	Env Serv Min	-	30.1
N-3.50	194	1126	Env Serv Max	37.4	37.4
N-3.50	194	1126	Env Serv Min	-	17.7
N-3.50	2197	169	Env Serv Max	16.9	16.9
N-3.50	2197	169	Env Serv Min	-	7.7
N-3.50	43	108	Env Serv Max	264.3	264.3
N-3.50	43	108	Env Serv Min	-	46.8
N-3.50	85	80	Env Serv Max	390.7	390.7
N-3.50	85	80	Env Serv Min	-	139.1
N-3.50	639	9	Env Serv Max	362.7	362.7
N-3.50	639	9	Env Serv Min	-	169.8
N-3.50	28	1551	Env Serv Max	78.6	78.6
N-3.50	28	1551	Env Serv Min	-	34.9
N-3.50	34	10	Env Serv Max	366.6	366.6
N-3.50	34	10	Env Serv Min	-	165.2
N-3.50	36	11	Env Serv Max	379.8	379.8
N-3.50	36	11	Env Serv Min	-	175.4
N-3.50	133	1550	Env Serv Max	121.9	121.9
N-3.50	133	1550	Env Serv Min	-	58.9
N-3.50	136	1549	Env Serv Max	132.9	132.9
N-3.50	136	1549	Env Serv Min	-	62.5

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ	FZ max
				tonf	tonf
N-3.50	137	19	Env Serv Max	384.5	384.5
N-3.50	137	19	Env Serv Min	175.7	
N-3.50	138	1536	Env Serv Max	97.0	97.0
N-3.50	138	1536	Env Serv Min	18.7	
N-3.50	139	390	Env Serv Max	180.6	180.6
N-3.50	139	390	Env Serv Min	-	48.8
N-3.50	141	391	Env Serv Max	331.7	331.7
N-3.50	141	391	Env Serv Min	-	52.1
N-3.50	143	570	Env Serv Max	18.8	18.8
N-3.50	143	570	Env Serv Min	8.7	
N-3.50	158	1118	Env Serv Max	57.7	57.7
N-3.50	158	1118	Env Serv Min	30.0	
N-3.50	165	1091	Env Serv Max	32.3	32.3
N-3.50	165	1091	Env Serv Min	16.7	
N-3.50	166	1141	Env Serv Max	34.9	34.9
N-3.50	166	1141	Env Serv Min	-	4.3
N-3.50	175	1495	Env Serv Max	32.2	32.2
N-3.50	175	1495	Env Serv Min	-	7.6
N-3.50	176	1496	Env Serv Max	176.4	176.4
N-3.50	176	1496	Env Serv Min	78.8	
N-3.50	177	1494	Env Serv Max	18.3	18.3
N-3.50	177	1494	Env Serv Min	-	3.1
N-3.50	186	1108	Env Serv Max	103.7	103.7
N-3.50	186	1108	Env Serv Min	48.6	
N-3.50	191	1106	Env Serv Max	195.2	195.2
N-3.50	191	1106	Env Serv Min	91.3	
N-3.50	241	1107	Env Serv Max	162.2	162.2
N-3.50	241	1107	Env Serv Min	73.4	
N-3.50	253	1109	Env Serv Max	77.4	77.4
N-3.50	253	1109	Env Serv Min	34.7	
N-3.50	273	1090	Env Serv Max	46.1	46.1
N-3.50	273	1090	Env Serv Min	-	0.9
N-3.50	274	1564	Env Serv Max	90.7	90.7
N-3.50	274	1564	Env Serv Min	-	1.1
N-3.50	275	1597	Env Serv Max	41.7	41.7
N-3.50	275	1597	Env Serv Min	3.0	

Condición Dinámica: Fz= 9577.1 ton

Condición Dinamica - Servicio Con Sismo

Area Losa	1030 m²			
Peso Concreto Losa Aligerada	1617.1 ton			
Tanques:Peso 219m ³ de agua	219.0 ton			
Peso Tanques Fibra de Vidrio 30kg/m ³ de agua	6.6 ton			
SobreCarga Losa: 3.5kN/m ² *Area	367.86 ton			
Carga Viva Losa: 5kN/m ² *Area	525.51 ton			
Carga Total Cimentación	2736.0 ton			
Carga SuperEstructura	9577.1 ton			
Carga Total Cimentación	2736.0 ton			
Fz_diseño	12313.1 ton			
Qadm	1.02 kg/cm ² 10.2 tof/m ²			
Capacidad Losa	10506 ton			
Servicio Con Sismo				
Fz_diseño	12313.1 ton	100%		
Aporte Losa	10506.0 ton	85%		
Requerido Pilotes	1807.1 ton	15%		
	Pilotes Usados			
Pilote	Qadm Dinamico	Cantidad Requerida	Cantidad Usada	Carga
100cm	137.4 ton	14	30	4121.0 ton
120cm	177.8 ton	11	0	0.0 ton
150cm	246.3 ton	8	0	0.0 ton
Capacidad Total	4121.0 ton			

Cumple: 4121>1807.1

Aporte Losa	10506.0 ton	71.8%
Aporte Pilotes	4121.0 ton	28.2%
Total	14626.98	100%

Tabla 23 Reacciones servicio sin sismo en columnas de Edificio A

TABLE: Joint Reactions					
Story	Joint Label	Unique Name	Load Case/Combo	FZ	FZ max
				tonf	tonf
N-3.50	2	3	Env Serv SS Max	624.3	624.3
N-3.50	2	3	Env Serv SS Min	300.6	
N-3.50	11	17	Env Serv SS Max	472.5	472.5
N-3.50	11	17	Env Serv SS Min	230.9	
N-3.50	13	21	Env Serv SS Max	718.5	718.5
N-3.50	13	21	Env Serv SS Min	345.3	
N-3.50	15	25	Env Serv SS Max	453.5	453.5
N-3.50	15	25	Env Serv SS Min	211.8	
N-3.50	17	1523	Env Serv SS Max	89.0	89.0
N-3.50	17	1523	Env Serv SS Min	35.6	
N-3.50	4	2	Env Serv SS Max	600.7	600.7
N-3.50	4	2	Env Serv SS Min	283.8	
N-3.50	5	5	Env Serv SS Max	596.7	596.7
N-3.50	5	5	Env Serv SS Min	280.0	
N-3.50	6	13	Env Serv SS Max	360.3	360.3
N-3.50	6	13	Env Serv SS Min	170.6	
N-3.50	8	6373	Env Serv SS Max	71.1	71.1
N-3.50	8	6373	Env Serv SS Min	25.3	
N-3.50	10	373	Env Serv SS Max	125.0	125.0
N-3.50	10	373	Env Serv SS Min	61.0	
N-3.50	12	376	Env Serv SS Max	118.7	118.7
N-3.50	12	376	Env Serv SS Min	41.7	
N-3.50	14	6364	Env Serv SS Max	186.3	186.3
N-3.50	14	6364	Env Serv SS Min	77.7	
N-3.50	1586	382	Env Serv SS Max	172.3	172.3
N-3.50	1586	382	Env Serv SS Min	83.7	
N-3.50	193	1100	Env Serv SS Max	57.3	57.3
N-3.50	193	1100	Env Serv SS Min	30.1	
N-3.50	194	1126	Env Serv SS Max	35.0	35.0
N-3.50	194	1126	Env Serv SS Min	17.7	
N-3.50	2197	169	Env Serv SS Max	16.9	16.9
N-3.50	2197	169	Env Serv SS Min	7.7	
N-3.50	43	108	Env Serv SS Max	141.6	141.6
N-3.50	43	108	Env Serv SS Min	51.7	
N-3.50	85	80	Env Serv SS Max	354.8	354.8
N-3.50	85	80	Env Serv SS Min	139.1	
N-3.50	639	9	Env Serv SS Max	362.3	362.3
N-3.50	639	9	Env Serv SS Min	169.8	
N-3.50	28	1551	Env Serv SS Max	69.8	69.8
N-3.50	28	1551	Env Serv SS Min	34.9	
N-3.50	34	10	Env Serv SS Max	344.5	344.5
N-3.50	34	10	Env Serv SS Min	165.2	
N-3.50	36	11	Env Serv SS Max	366.2	366.2
N-3.50	36	11	Env Serv SS Min	175.4	
N-3.50	133	1550	Env Serv SS Max	120.0	120.0

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ	FZ max
				tonf	tonf
N-3.50	133	1550	Env Serv SS Min	58.9	
N-3.50	136	1549	Env Serv SS Max	130.8	130.8
N-3.50	136	1549	Env Serv SS Min	62.5	
N-3.50	137	19	Env Serv SS Max	378.7	378.7
N-3.50	137	19	Env Serv SS Min	175.7	
N-3.50	138	1536	Env Serv SS Max	76.1	76.1
N-3.50	138	1536	Env Serv SS Min	32.2	
N-3.50	139	390	Env Serv SS Max	80.0	80.0
N-3.50	139	390	Env Serv SS Min	38.6	
N-3.50	141	391	Env Serv SS Max	170.9	170.9
N-3.50	141	391	Env Serv SS Min	77.5	
N-3.50	143	570	Env Serv SS Max	18.8	18.8
N-3.50	143	570	Env Serv SS Min	8.7	
N-3.50	158	1118	Env Serv SS Max	57.7	57.7
N-3.50	158	1118	Env Serv SS Min	30.0	
N-3.50	165	1091	Env Serv SS Max	30.8	30.8
N-3.50	165	1091	Env Serv SS Min	16.7	
N-3.50	166	1141	Env Serv SS Max	17.9	17.9
N-3.50	166	1141	Env Serv SS Min	7.3	
N-3.50	175	1495	Env Serv SS Max	14.0	14.0
N-3.50	175	1495	Env Serv SS Min	6.0	
N-3.50	176	1496	Env Serv SS Max	161.4	161.4
N-3.50	176	1496	Env Serv SS Min	78.8	
N-3.50	177	1494	Env Serv SS Max	8.4	8.4
N-3.50	177	1494	Env Serv SS Min	3.7	
N-3.50	186	1108	Env Serv SS Max	99.9	99.9
N-3.50	186	1108	Env Serv SS Min	48.6	
N-3.50	191	1106	Env Serv SS Max	195.2	195.2
N-3.50	191	1106	Env Serv SS Min	91.3	
N-3.50	241	1107	Env Serv SS Max	161.6	161.6
N-3.50	241	1107	Env Serv SS Min	73.4	
N-3.50	253	1109	Env Serv SS Max	72.3	72.3
N-3.50	253	1109	Env Serv SS Min	34.7	
N-3.50	273	1090	Env Serv SS Max	24.9	24.9
N-3.50	273	1090	Env Serv SS Min	12.9	
N-3.50	274	1564	Env Serv SS Max	53.0	53.0
N-3.50	274	1564	Env Serv SS Min	22.0	
N-3.50	275	1597	Env Serv SS Max	28.1	28.1
N-3.50	275	1597	Env Serv SS Min	11.4	

Condición Estática $\Sigma F_z = 8238.0$ ton

CONDICION ESTATICA: Servicio SIN Sismo

Area Losa	1030 m²
Peso Concreto Losa Aligerada	1617.1 ton
Peso 219m ³ de Agua	219.0 ton
Peso Tanques Fibra de Vidrio 30kg/m ³ de agua	6.6 ton
SobreCarga Losa: 3.5kN/m ² *Area	367.86 ton
Carga Viva Losa: 5kN/m ² *Area	525.51 ton
Carga Total Cimentación	2736.0 ton
Carga SuperEstructura	8238.0 ton
Carga Total Cimentación	2736.0 ton
Fz_diseño	10974.0 ton

Qadm	1.02 kg/cm ²
	10.2 tof/m ²
Capacidad Losa	10506 ton

Servicio Sin Sismo		
Fz_diseño	10974.0 ton	100%
Aporte Losa	10506.0 ton	96%
Requerido Pilotes	468.0 ton	4%

Pilotes Usados				
Pilote	Qadm Estático	Cantidad Requerida	Cantidad Usada	Carga
100cm	66.1 ton	8	30	1981.8 ton
120cm	80.2 ton	6	0	0.0 ton
150cm	102.1 ton	5	0	0.0 ton
			Capacidad Total	1981.8 ton

Cumple: 1981.8>468

Aporte Losa	10506.0 ton	84.1%
Aporte Pilotes	1981.8 ton	15.9%
Total	12487.80	100%

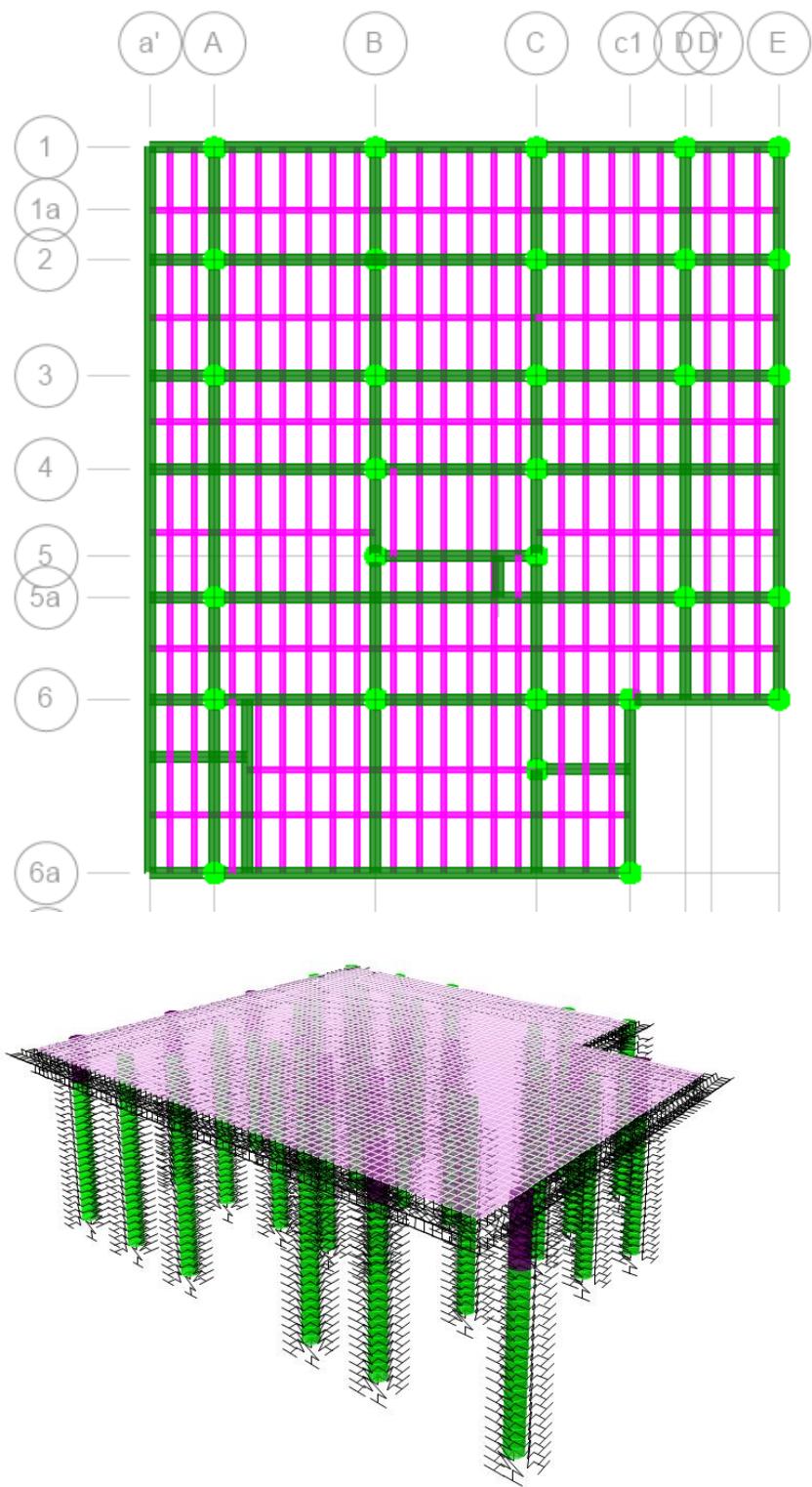


Figura 36 Modelo de Interacción de la Cimentación del Edificio B.

Definición de Pilotes y diagramas de interacción:

De acuerdo con lo presente en la NSR-10:

C.15.11.3 — Esfuerzos axiales máximos – Los esfuerzos axiales máximos admisibles sobre el pilote, o sobre el fuste cuando se trate de pilotes acampanados en su base, son los siguientes:

- (a) Esfuerzos de compresión causados por las carga gravitacionales (no incluye efectos de hincado):

$$D + L \leq 0.25f'_c A_g \quad (\text{C.15-2})$$

$$1.2D + 1.6L \leq 0.35f'_c A_g \quad (\text{C.15-3})$$

f'_c : 210kg/cm²

D: Carga Muerta Super Estructura: 8632 ton

L: Carga Viva Super Estructura: 2503 ton

Pilotes Usados				C.15.11.3	
Pilote	Area	Cantidades	Area Total	$0.25^*A_g*f'_c$	$0.35^*A_g*f'_c$
100cm	0.8 m ²	30	23.6 m ²	12370.0 ton	17318.0 ton
				$\Sigma: 12370.0$ ton	17318.0 ton

$D+L=$ 11135 ton

$1.2D+1.6L=$ 14363 ton

(C.15-2) $D+L < 0.25^*A_g*f'_c$: 11134.9 ton < 12370 ton Cumple

(C.15-2) $1.2D+1.6L < 0.25^*A_g*f'_c$: 14363.08 ton < 17318 ton Cumple

Tabla 24 Índice de Sobreesfuerzo Pilotes Edificio B

TABLE: Concrete Column Summary - ACI 318-14										
Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major	At V Minor	Warnings
			cm				cm ²	cm ² /cm	cm ² /cm	
N-3.50	C27	Pilote 100	0	Check	0.016	B.2.4.5-8	28.4	0.00143	0.00303	No Message
N-3.50	C27	Pilote 100	25	Check	0.015	B.2.4.5-8	28.4	0.00143	0.00303	No Message
N-3.50	C27	Pilote 100	50	Check	0.014	B.2.4.5-8	28.4	0.00143	0.00303	No Message
N-3.50	C31	Pilote 100	0	Check	0.014	B.2.4.5-8	28.4	0.00171	0.0029	No Message
N-3.50	C31	Pilote 100	25	Check	0.014	B.2.4.5-8	28.4	0.00171	0.0029	No Message
N-3.50	C31	Pilote 100	50	Check	0.013	B.2.4.5-8	28.4	0.00171	0.0029	No Message
N-3.50	C32	Pilote 100	0	Check	0.013	B.2.4.5-8	28.4	0.00268	0.0036	No Message
N-3.50	C32	Pilote 100	25	Check	0.012	B.2.4.5-8	28.4	0.00268	0.0036	No Message
N-3.50	C32	Pilote 100	50	Check	0.017	B.2.4.7-8	28.4	0.00268	0.0036	No Message
N-3.50	C44	Pilote 100	0	Check	0.017	B.2.4.7-8	28.4	0.00378	0.00477	No Message
N-3.50	C44	Pilote 100	25	Check	0.026	B.2.4.7-8	28.4	0.00378	0.00477	No Message
N-3.50	C44	Pilote 100	50	Check	0.035	B.2.4.7-8	28.4	0.00378	0.00477	No Message
N-3.50	C45	Pilote 100	0	Check	0.035	B.2.4.7-8	28.4	0.00487	0.00604	No Message
N-3.50	C45	Pilote 100	25	Check	0.046	B.2.4.7-8	28.4	0.00487	0.00604	No Message
N-3.50	C45	Pilote 100	50	Check	0.057	B.2.4.7-8	28.4	0.00487	0.00604	No Message
N-3.50	C46	Pilote 100	0	Check	0.057	B.2.4.7-8	28.4	0.00591	0.00724	No Message
N-3.50	C46	Pilote 100	25	Check	0.069	B.2.4.7-8	28.4	0.00591	0.00724	No Message
N-3.50	C46	Pilote 100	50	Check	0.082	B.2.4.7-8	28.4	0.00591	0.00724	No Message
N-3.50	C47	Pilote 100	0	Check	0.082	B.2.4.7-8	28.4	0.00684	0.00828	No Message
N-3.50	C47	Pilote 100	25	Check	0.096	B.2.4.7-8	28.4	0.00684	0.00828	No Message
N-3.50	C47	Pilote 100	50	Check	0.11	B.2.4.7-8	28.4	0.00684	0.00828	No Message
N-3.50	C51	Pilote 100	0	Check	0.11	B.2.4.7-8	28.4	0.0076	0.00908	No Message
N-3.50	C51	Pilote 100	25	Check	0.126	B.2.4.7-8	28.4	0.0076	0.00908	No Message
N-3.50	C51	Pilote 100	50	Check	0.143	B.2.4.5-8	28.4	0.0076	0.00908	No Message
N-3.50	C59	Pilote 100	0	Check	0.143	B.2.4.5-8	28.4	0.0081	0.00954	No Message
N-3.50	C59	Pilote 100	25	Check	0.161	B.2.4.5-8	28.4	0.0081	0.00954	No Message
N-3.50	C59	Pilote 100	50	Check	0.179	B.2.4.5-8	28.4	0.0081	0.00954	No Message
N-3.50	C69	Pilote 100	0	Check	0.179	B.2.4.5-8	28.4	0.00825	0.00954	No Message
N-3.50	C69	Pilote 100	25	Check	0.197	B.2.4.5-8	28.4	0.00825	0.00954	No Message
N-3.50	C69	Pilote 100	50	Check	0.216	B.2.4.5-8	28.4	0.00825	0.00954	No Message
N-3.50	C70	Pilote 100	0	Check	0.216	B.2.4.5-8	28.4	0.00825	0.0093	No Message
N-3.50	C70	Pilote 100	25	Check	0.233	B.2.4.5-8	28.4	0.00825	0.0093	No Message
N-3.50	C70	Pilote 100	50	Check	0.251	B.2.4.5-8	28.4	0.00825	0.0093	No Message
N-3.50	C71	Pilote 100	0	Check	0.251	B.2.4.5-8	28.4	0.00806	0.01	No Message
N-3.50	C71	Pilote 100	25	Check	0.266	B.2.4.5-8	28.4	0.00806	0.01	No Message
N-3.50	C71	Pilote 100	50	Check	0.282	B.2.4.5-8	28.4	0.00806	0.01	No Message
N-3.50	C72	Pilote 100	0	Check	0.282	B.2.4.5-8	28.4	0.00736	0.01035	No Message
N-3.50	C72	Pilote 100	25	Check	0.295	B.2.4.5-8	28.4	0.00736	0.01035	No Message
N-3.50	C72	Pilote 100	50	Check	0.308	B.2.4.5-8	28.4	0.00736	0.01035	No Message
N-3.50	C73	Pilote 100	0	Check	0.308	B.2.4.5-8	28.4	0.00608	0.01028	No Message
N-3.50	C73	Pilote 100	25	Check	0.317	B.2.4.5-8	28.4	0.00608	0.01028	No Message
N-3.50	C73	Pilote 100	50	Check	0.325	B.2.4.5-8	28.4	0.00608	0.01028	No Message
N-3.50	C74	Pilote 100	0	Check	0.325	B.2.4.5-8	28.4	0.00431	0.00789	No Message
N-3.50	C74	Pilote 100	25	Check	0.329	B.2.4.5-8	28.4	0.00431	0.00789	No Message
N-3.50	C74	Pilote 100	50	Check	0.335	B.2.4.5-8	28.4	0.00431	0.00789	No Message
N-3.50	C87	Pilote 100	0	Check	0.335	B.2.4.5-8	28.4	0.00391	0.00258	No Message
N-3.50	C87	Pilote 100	25	Check	0.348	B.2.4.5-8	28.4	0.00391	0.00258	No Message
N-3.50	C87	Pilote 100	50	Check	0.361	B.2.4.5-8	28.4	0.00391	0.00258	No Message
N-3.50	C88	Pilote 100	0	Check	0.361	B.2.4.5-8	28.4	0.00865	0.00585	No Message
N-3.50	C88	Pilote 100	25	Check	0.37	B.2.4.5-8	28.4	0.00865	0.00585	No Message
N-3.50	C88	Pilote 100	50	Check	0.379	B.2.4.5-8	28.4	0.00865	0.00585	No Message
N-3.50	C89	Pilote 100	0	Check	0.379	B.2.4.5-8	28.4	0.01375	0.01534	No Message
N-3.50	C89	Pilote 100	25	Check	0.384	B.2.4.5-8	28.4	0.01375	0.01534	No Message
N-3.50	C89	Pilote 100	50	Check	0.389	B.2.4.5-8	28.4	0.01375	0.01534	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C90	Pilote 100	0	Check	0.389	B.2.4.5-8	28.4	0.01975	0.02644	No Message
N-3.50	C90	Pilote 100	25	Check	0.39	B.2.4.5-8	28.4	0.01975	0.02644	No Message
N-3.50	C90	Pilote 100	50	Check	0.393	B.2.4.5-8	28.4	0.01975	0.02644	No Message
N-3.50	C91	Pilote 100	0	Check	0.393	B.2.4.5-8	28.4	0.02622	0.03427	No Message
N-3.50	C91	Pilote 100	25	Check	0.39	B.2.4.5-8	28.4	0.02622	0.03427	No Message
N-3.50	C91	Pilote 100	50	Check	0.389	B.2.4.5-8	28.4	0.02622	0.03427	No Message
N-3.50	C92	P100R	0	Check	0.225	B.2.4.5-8	51	0.03291	0.04232	No Message
N-3.50	C92	P100R	25	Check	0.224	B.2.4.5-8	51	0.03291	0.04232	No Message
N-3.50	C92	P100R	50	Check	0.228	B.2.4.5-8	51	0.03291	0.04232	No Message
N-3.50	C93	P100R	0	Check	0.228	B.2.4.5-8	51	0.03955	0.05023	No Message
N-3.50	C93	P100R	25	Check	0.243	B.2.4.5-8	51	0.03955	0.05023	No Message
N-3.50	C93	P100R	50	Check	0.279	B.2.4.5-8	51	0.03955	0.05023	No Message
N-3.50	C94	P100R	0	Check	0.279	B.2.4.5-8	51	0.04575	0.05756	No Message
N-3.50	C94	P100R	25	Check	0.327	B.2.4.5-8	51	0.04575	0.05756	No Message
N-3.50	C94	P100R	50	Check	0.377	B.2.4.5-8	51	0.04575	0.05756	No Message
N-3.50	C95	P100R	0	Check	0.377	B.2.4.5-8	51	0.05124	0.06399	No Message
N-3.50	C95	P100R	25	Check	0.433	B.2.4.5-8	51	0.05124	0.06399	No Message
N-3.50	C95	P100R	50	Check	0.489	B.2.4.5-8	51	0.05124	0.06399	No Message
N-3.50	C96	P100R	0	Check	0.489	B.2.4.5-8	51	0.0557	0.06914	No Message
N-3.50	C96	P100R	25	Check	0.55	B.2.4.5-8	51	0.0557	0.06914	No Message
N-3.50	C96	P100R	50	Check	0.611	B.2.4.5-8	51	0.0557	0.06914	No Message
N-3.50	C97	P100R	0	Check	0.611	B.2.4.5-8	51	0	0	No Message
N-3.50	C97	P100R	0.1	Check	0.611	B.2.4.5-8	51	0	0	No Message
N-3.50	C97	P100R	0.2	Check	0.611	B.2.4.5-8	51	0	0	No Message
N-3.50	C98	Pilote 100	0	Check	0.017	B.2.4.5-8	28.4	0.00219	0.00545	No Message
N-3.50	C98	Pilote 100	25	Check	0.016	B.2.4.5-8	28.4	0.00219	0.00545	No Message
N-3.50	C98	Pilote 100	50	Check	0.016	B.2.4.5-8	28.4	0.00219	0.00545	No Message
N-3.50	C99	Pilote 100	0	Check	0.016	B.2.4.5-8	28.4	0.00183	0.00468	No Message
N-3.50	C99	Pilote 100	25	Check	0.015	B.2.4.5-8	28.4	0.00183	0.00468	No Message
N-3.50	C99	Pilote 100	50	Check	0.015	B.2.4.5-8	28.4	0.00183	0.00468	No Message
N-3.50	C100	Pilote 100	0	Check	0.015	B.2.4.5-8	28.4	0.00263	0.00368	No Message
N-3.50	C100	Pilote 100	25	Check	0.015	B.2.4.5-8	28.4	0.00263	0.00368	No Message
N-3.50	C100	Pilote 100	50	Check	0.016	B.2.4.5-8	28.4	0.00263	0.00368	No Message
N-3.50	C101	Pilote 100	0	Check	0.016	B.2.4.5-8	28.4	0.00368	0.00428	No Message
N-3.50	C101	Pilote 100	25	Check	0.017	B.2.4.5-8	28.4	0.00368	0.00428	No Message
N-3.50	C101	Pilote 100	50	Check	0.019	B.2.4.7-8	28.4	0.00368	0.00428	No Message
N-3.50	C102	Pilote 100	0	Check	0.019	B.2.4.7-8	28.4	0.00479	0.00535	No Message
N-3.50	C102	Pilote 100	25	Check	0.026	B.2.4.7-8	28.4	0.00479	0.00535	No Message
N-3.50	C102	Pilote 100	50	Check	0.035	B.2.4.7-8	28.4	0.00479	0.00535	No Message
N-3.50	C103	Pilote 100	0	Check	0.035	B.2.4.7-8	28.4	0.00587	0.0078	No Message
N-3.50	C103	Pilote 100	25	Check	0.046	B.2.4.7-8	28.4	0.00587	0.0078	No Message
N-3.50	C103	Pilote 100	50	Check	0.057	B.2.4.7-8	28.4	0.00587	0.0078	No Message
N-3.50	C104	Pilote 100	0	Check	0.057	B.2.4.7-8	28.4	0.00686	0.00868	No Message
N-3.50	C104	Pilote 100	25	Check	0.07	B.2.4.7-8	28.4	0.00686	0.00868	No Message
N-3.50	C104	Pilote 100	50	Check	0.083	B.2.4.7-8	28.4	0.00686	0.00868	No Message
N-3.50	C105	Pilote 100	0	Check	0.083	B.2.4.7-8	28.4	0.00769	0.00922	No Message
N-3.50	C105	Pilote 100	25	Check	0.097	B.2.4.7-8	28.4	0.00769	0.00922	No Message
N-3.50	C105	Pilote 100	50	Check	0.112	B.2.4.7-8	28.4	0.00769	0.00922	No Message
N-3.50	C106	Pilote 100	0	Check	0.112	B.2.4.7-8	28.4	0.00828	0.00931	No Message
N-3.50	C106	Pilote 100	25	Check	0.127	B.2.4.7-8	28.4	0.00828	0.00931	No Message
N-3.50	C106	Pilote 100	50	Check	0.144	B.2.4.5-8	28.4	0.00828	0.00931	No Message
N-3.50	C107	Pilote 100	0	Check	0.144	B.2.4.5-8	28.4	0.00855	0.00886	No Message
N-3.50	C107	Pilote 100	25	Check	0.162	B.2.4.5-8	28.4	0.00855	0.00886	No Message
N-3.50	C107	Pilote 100	50	Check	0.179	B.2.4.5-8	28.4	0.00855	0.00886	No Message
N-3.50	C108	Pilote 100	0	Check	0.179	B.2.4.5-8	28.4	0.00839	0.00776	No Message
N-3.50	C108	Pilote 100	25	Check	0.196	B.2.4.5-8	28.4	0.00839	0.00776	No Message
N-3.50	C108	Pilote 100	50	Check	0.212	B.2.4.5-8	28.4	0.00839	0.00776	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C109	Pilote 100	0	Check	0.212	B.2.4.5-8	28.4	0.00769	0.00936	No Message
N-3.50	C109	Pilote 100	25	Check	0.227	B.2.4.5-8	28.4	0.00769	0.00936	No Message
N-3.50	C109	Pilote 100	50	Check	0.241	B.2.4.5-8	28.4	0.00769	0.00936	No Message
N-3.50	C110	Pilote 100	0	Check	0.241	B.2.4.5-8	28.4	0.00635	0.01117	No Message
N-3.50	C110	Pilote 100	25	Check	0.252	B.2.4.5-8	28.4	0.00635	0.01117	No Message
N-3.50	C110	Pilote 100	50	Check	0.263	B.2.4.5-8	28.4	0.00635	0.01117	No Message
N-3.50	C111	Pilote 100	0	Check	0.263	B.2.4.5-8	28.4	0.00429	0.01035	No Message
N-3.50	C111	Pilote 100	25	Check	0.27	B.2.4.5-8	28.4	0.00429	0.01035	No Message
N-3.50	C111	Pilote 100	50	Check	0.276	B.2.4.5-8	28.4	0.00429	0.01035	No Message
N-3.50	C112	Pilote 100	0	Check	0.276	B.2.4.5-8	28.4	0.00144	0.00512	No Message
N-3.50	C112	Pilote 100	25	Check	0.277	B.2.4.5-8	28.4	0.00144	0.00512	No Message
N-3.50	C112	Pilote 100	50	Check	0.278	B.2.4.5-8	28.4	0.00144	0.00512	No Message
N-3.50	C113	Pilote 100	0	Check	0.278	B.2.4.5-8	28.4	0.00251	0.00545	No Message
N-3.50	C113	Pilote 100	25	Check	0.284	B.2.4.5-8	28.4	0.00251	0.00545	No Message
N-3.50	C113	Pilote 100	50	Check	0.301	B.2.4.5-8	28.4	0.00251	0.00545	No Message
N-3.50	C114	Pilote 100	0	Check	0.301	B.2.4.5-8	28.4	0.00706	0	No Message
N-3.50	C114	Pilote 100	25	Check	0.317	B.2.4.5-8	28.4	0.00706	0	No Message
N-3.50	C114	Pilote 100	50	Check	0.333	B.2.4.5-8	28.4	0.00706	0	No Message
N-3.50	C115	Pilote 100	0	Check	0.333	B.2.4.5-8	28.4	0.01239	0.0082	No Message
N-3.50	C115	Pilote 100	25	Check	0.351	B.2.4.5-8	28.4	0.01239	0.0082	No Message
N-3.50	C115	Pilote 100	50	Check	0.37	B.2.4.5-8	28.4	0.01239	0.0082	No Message
N-3.50	C116	Pilote 100	0	Check	0.37	B.2.4.5-8	28.4	0.01836	0.016	No Message
N-3.50	C116	Pilote 100	25	Check	0.386	B.2.4.5-8	28.4	0.01836	0.016	No Message
N-3.50	C116	Pilote 100	50	Check	0.404	B.2.4.5-8	28.4	0.01836	0.016	No Message
N-3.50	C117	Pilote 100	0	Check	0.404	B.2.4.5-8	28.4	0.02482	0.01511	No Message
N-3.50	C117	Pilote 100	25	Check	0.424	B.2.4.5-8	28.4	0.02482	0.01511	No Message
N-3.50	C117	Pilote 100	50	Check	0.445	B.2.4.5-8	28.4	0.02482	0.01511	No Message
N-3.50	C118	P100R	0	Check	0.262	B.2.4.5-8	51	0.03154	0.01353	No Message
N-3.50	C118	P100R	25	Check	0.274	B.2.4.5-8	51	0.03154	0.01353	No Message
N-3.50	C118	P100R	50	Check	0.29	B.2.4.5-8	51	0.03154	0.01353	No Message
N-3.50	C119	P100R	0	Check	0.29	B.2.4.5-8	51	0.03824	0.04482	No Message
N-3.50	C119	P100R	25	Check	0.308	B.2.4.5-8	51	0.03824	0.04482	No Message
N-3.50	C119	P100R	50	Check	0.331	B.2.4.5-8	51	0.03824	0.04482	No Message
N-3.50	C120	P100R	0	Check	0.331	B.2.4.5-8	51	0.04454	0.05122	No Message
N-3.50	C120	P100R	25	Check	0.37	B.2.4.5-8	51	0.04454	0.05122	No Message
N-3.50	C120	P100R	50	Check	0.418	B.2.4.5-8	51	0.04454	0.05122	No Message
N-3.50	C121	P100R	0	Check	0.418	B.2.4.5-8	51	0.05015	0.05681	No Message
N-3.50	C121	P100R	25	Check	0.474	B.2.4.5-8	51	0.05015	0.05681	No Message
N-3.50	C121	P100R	50	Check	0.531	B.2.4.5-8	51	0.05015	0.05681	No Message
N-3.50	C122	P100R	0	Check	0.531	B.2.4.5-8	51	0.05475	0.06127	No Message
N-3.50	C122	P100R	25	Check	0.593	B.2.4.5-8	51	0.05475	0.06127	No Message
N-3.50	C122	P100R	50	Check	0.656	B.2.4.5-8	51	0.05475	0.06127	No Message
N-3.50	C123	P100R	0	Check	0.656	B.2.4.5-8	51	0	0.71378	No Message
N-3.50	C123	P100R	0.1	Check	0.656	B.2.4.5-8	51	0	0.71378	No Message
N-3.50	C123	P100R	0.2	Check	0.656	B.2.4.5-8	51	0	0.71378	No Message
N-3.50	C124	Pilote 100	0	Check	0.02	B.2.4.5-8	28.4	0.00777	0.00375	No Message
N-3.50	C124	Pilote 100	25	Check	0.019	B.2.4.5-8	28.4	0.00777	0.00375	No Message
N-3.50	C124	Pilote 100	50	Check	0.019	B.2.4.5-8	28.4	0.00777	0.00375	No Message
N-3.50	C125	Pilote 100	0	Check	0.019	B.2.4.5-8	28.4	0.00546	0.00351	No Message
N-3.50	C125	Pilote 100	25	Check	0.018	B.2.4.5-3	28.4	0.00546	0.00351	No Message
N-3.50	C125	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00546	0.00351	No Message
N-3.50	C126	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.0043	0.00297	No Message
N-3.50	C126	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.0043	0.00297	No Message
N-3.50	C126	Pilote 100	50	Check	0.02	B.2.4.5-3	28.4	0.0043	0.00297	No Message
N-3.50	C127	Pilote 100	0	Check	0.02	B.2.4.5-3	28.4	0.00455	0.00374	No Message
N-3.50	C127	Pilote 100	25	Check	0.024	B.2.4.7-4	28.4	0.00455	0.00374	No Message
N-3.50	C127	Pilote 100	50	Check	0.031	B.2.4.7-4	28.4	0.00455	0.00374	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C128	Pilote 100	0	Check	0.031	B.2.4.7-4	28.4	0.00565	0.00471	No Message	
N-3.50	C128	Pilote 100	25	Check	0.039	B.2.4.7-4	28.4	0.00565	0.00471	No Message	
N-3.50	C128	Pilote 100	50	Check	0.047	B.2.4.7-4	28.4	0.00565	0.00471	No Message	
N-3.50	C129	Pilote 100	0	Check	0.047	B.2.4.7-4	28.4	0.00683	0.00695	No Message	
N-3.50	C129	Pilote 100	25	Check	0.056	B.2.4.7-4	28.4	0.00683	0.00695	No Message	
N-3.50	C129	Pilote 100	50	Check	0.066	B.2.4.7-4	28.4	0.00683	0.00695	No Message	
N-3.50	C130	Pilote 100	0	Check	0.066	B.2.4.7-4	28.4	0.00783	0.00774	No Message	
N-3.50	C130	Pilote 100	25	Check	0.076	B.2.4.7-4	28.4	0.00783	0.00774	No Message	
N-3.50	C130	Pilote 100	50	Check	0.088	B.2.4.7-4	28.4	0.00783	0.00774	No Message	
N-3.50	C131	Pilote 100	0	Check	0.088	B.2.4.7-4	28.4	0.00854	0.00825	No Message	
N-3.50	C131	Pilote 100	25	Check	0.1	B.2.4.7-4	28.4	0.00854	0.00825	No Message	
N-3.50	C131	Pilote 100	50	Check	0.112	B.2.4.7-4	28.4	0.00854	0.00825	No Message	
N-3.50	C132	Pilote 100	0	Check	0.112	B.2.4.7-4	28.4	0.0089	0.00838	No Message	
N-3.50	C132	Pilote 100	25	Check	0.126	B.2.4.7-8	28.4	0.0089	0.00838	No Message	
N-3.50	C132	Pilote 100	50	Check	0.143	B.2.4.5-8	28.4	0.0089	0.00838	No Message	
N-3.50	C133	Pilote 100	0	Check	0.143	B.2.4.5-8	28.4	0.00881	0.00804	No Message	
N-3.50	C133	Pilote 100	25	Check	0.159	B.2.4.5-8	28.4	0.00881	0.00804	No Message	
N-3.50	C133	Pilote 100	50	Check	0.176	B.2.4.5-8	28.4	0.00881	0.00804	No Message	
N-3.50	C134	Pilote 100	0	Check	0.176	B.2.4.5-8	28.4	0.00819	0.00713	No Message	
N-3.50	C134	Pilote 100	25	Check	0.192	B.2.4.5-8	28.4	0.00819	0.00713	No Message	
N-3.50	C134	Pilote 100	50	Check	0.208	B.2.4.5-8	28.4	0.00819	0.00713	No Message	
N-3.50	C135	Pilote 100	0	Check	0.208	B.2.4.5-8	28.4	0.00827	0.0087	No Message	
N-3.50	C135	Pilote 100	25	Check	0.221	B.2.4.5-8	28.4	0.00827	0.0087	No Message	
N-3.50	C135	Pilote 100	50	Check	0.235	B.2.4.5-8	28.4	0.00827	0.0087	No Message	
N-3.50	C136	Pilote 100	0	Check	0.235	B.2.4.5-8	28.4	0.00803	0.01062	No Message	
N-3.50	C136	Pilote 100	25	Check	0.245	B.2.4.5-8	28.4	0.00803	0.01062	No Message	
N-3.50	C136	Pilote 100	50	Check	0.255	B.2.4.5-8	28.4	0.00803	0.01062	No Message	
N-3.50	C137	Pilote 100	0	Check	0.255	B.2.4.5-8	28.4	0.0073	0.01256	No Message	
N-3.50	C137	Pilote 100	25	Check	0.26	B.2.4.5-8	28.4	0.0073	0.01256	No Message	
N-3.50	C137	Pilote 100	50	Check	0.265	B.2.4.5-8	28.4	0.0073	0.01256	No Message	
N-3.50	C138	Pilote 100	0	Check	0.265	B.2.4.5-8	28.4	0.00212	0.00551	No Message	
N-3.50	C138	Pilote 100	25	Check	0.264	B.2.4.5-8	28.4	0.00212	0.00551	No Message	
N-3.50	C138	Pilote 100	50	Check	0.266	B.2.4.7-8	28.4	0.00212	0.00551	No Message	
N-3.50	C139	Pilote 100	0	Check	0.266	B.2.4.7-8	28.4	0.00201	0.00446	No Message	
N-3.50	C139	Pilote 100	25	Check	0.27	B.2.4.7-8	28.4	0.00201	0.00446	No Message	
N-3.50	C139	Pilote 100	50	Check	0.291	B.2.4.5-8	28.4	0.00201	0.00446	No Message	
N-3.50	C140	Pilote 100	0	Check	0.291	B.2.4.5-8	28.4	0.00944	0	No Message	
N-3.50	C140	Pilote 100	25	Check	0.313	B.2.4.5-8	28.4	0.00944	0	No Message	
N-3.50	C140	Pilote 100	50	Check	0.335	B.2.4.5-8	28.4	0.00944	0	No Message	
N-3.50	C141	Pilote 100	0	Check	0.335	B.2.4.5-8	28.4	0.01818	0.00787	No Message	
N-3.50	C141	Pilote 100	25	Check	0.356	B.2.4.5-8	28.4	0.01818	0.00787	No Message	
N-3.50	C141	Pilote 100	50	Check	0.377	B.2.4.5-8	28.4	0.01818	0.00787	No Message	
N-3.50	C142	Pilote 100	0	Check	0.377	B.2.4.5-8	28.4	0.02506	0.00893	No Message	
N-3.50	C142	Pilote 100	25	Check	0.398	B.2.4.5-8	28.4	0.02506	0.00893	No Message	
N-3.50	C142	Pilote 100	50	Check	0.421	B.2.4.5-8	28.4	0.02506	0.00893	No Message	
N-3.50	C143	Pilote 100	0	Check	0.421	B.2.4.5-8	28.4	0.03238	0.01576	No Message	
N-3.50	C143	Pilote 100	25	Check	0.443	B.2.4.5-8	28.4	0.03238	0.01576	No Message	
N-3.50	C143	Pilote 100	50	Check	0.466	B.2.4.5-8	28.4	0.03238	0.01576	No Message	
N-3.50	C144	P100R	0	Check	0.276	B.2.4.5-8	51	0.03986	0.0148	No Message	
N-3.50	C144	P100R	25	Check	0.288	B.2.4.5-8	51	0.03986	0.0148	No Message	
N-3.50	C144	P100R	50	Check	0.308	B.2.4.5-8	51	0.03986	0.0148	No Message	
N-3.50	C145	P100R	0	Check	0.308	B.2.4.5-8	51	0.04718	0.02025	No Message	
N-3.50	C145	P100R	25	Check	0.334	B.2.4.5-8	51	0.04718	0.02025	No Message	
N-3.50	C145	P100R	50	Check	0.363	B.2.4.5-8	51	0.04718	0.02025	No Message	
N-3.50	C146	P100R	0	Check	0.363	B.2.4.5-8	51	0.05393	0.04499	No Message	
N-3.50	C146	P100R	25	Check	0.406	B.2.4.5-3	51	0.05393	0.04499	No Message	
N-3.50	C146	P100R	50	Check	0.453	B.2.4.5-3	51	0.05393	0.04499	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C147	P100R	0	Check	0.453	B.2.4.5-3	51	0.05982	0.04994	No Message
N-3.50	C147	P100R	25	Check	0.505	B.2.4.5-3	51	0.05982	0.04994	No Message
N-3.50	C147	P100R	50	Check	0.559	B.2.4.5-3	51	0.05982	0.04994	No Message
N-3.50	C148	P100R	0	Check	0.559	B.2.4.5-3	51	0.06451	0.05392	No Message
N-3.50	C148	P100R	25	Check	0.617	B.2.4.5-3	51	0.06451	0.05392	No Message
N-3.50	C148	P100R	50	Check	0.676	B.2.4.5-3	51	0.06451	0.05392	No Message
N-3.50	C149	P100R	0	Check	0.676	B.2.4.5-3	51	0	0	No Message
N-3.50	C149	P100R	0.1	Check	0.676	B.2.4.5-3	51	0	0	No Message
N-3.50	C149	P100R	0.2	Check	0.676	B.2.4.5-3	51	0	0	No Message
N-3.50	C150	Pilote 100	0	Check	0.013	B.2.4.5-8	28.4	0.00174	0.00612	No Message
N-3.50	C150	Pilote 100	25	Check	0.013	B.2.4.5-8	28.4	0.00174	0.00612	No Message
N-3.50	C150	Pilote 100	50	Check	0.012	B.2.4.5-8	28.4	0.00174	0.00612	No Message
N-3.50	C151	Pilote 100	0	Check	0.012	B.2.4.5-8	28.4	0.00148	0.0045	No Message
N-3.50	C151	Pilote 100	25	Check	0.012	B.2.4.5-8	28.4	0.00148	0.0045	No Message
N-3.50	C151	Pilote 100	50	Check	0.012	B.2.4.5-8	28.4	0.00148	0.0045	No Message
N-3.50	C152	Pilote 100	0	Check	0.012	B.2.4.5-8	28.4	0.00212	0.00363	No Message
N-3.50	C152	Pilote 100	25	Check	0.015	B.2.4.7-8	28.4	0.00212	0.00363	No Message
N-3.50	C152	Pilote 100	50	Check	0.022	B.2.4.7-8	28.4	0.00212	0.00363	No Message
N-3.50	C153	Pilote 100	0	Check	0.022	B.2.4.7-8	28.4	0.00303	0.00383	No Message
N-3.50	C153	Pilote 100	25	Check	0.029	B.2.4.7-8	28.4	0.00303	0.00383	No Message
N-3.50	C153	Pilote 100	50	Check	0.036	B.2.4.7-8	28.4	0.00303	0.00383	No Message
N-3.50	C154	Pilote 100	0	Check	0.036	B.2.4.7-8	28.4	0.00401	0.00477	No Message
N-3.50	C154	Pilote 100	25	Check	0.043	B.2.4.7-8	28.4	0.00401	0.00477	No Message
N-3.50	C154	Pilote 100	50	Check	0.051	B.2.4.7-8	28.4	0.00401	0.00477	No Message
N-3.50	C155	Pilote 100	0	Check	0.051	B.2.4.7-8	28.4	0.00498	0.00578	No Message
N-3.50	C155	Pilote 100	25	Check	0.059	B.2.4.7-8	28.4	0.00498	0.00578	No Message
N-3.50	C155	Pilote 100	50	Check	0.068	B.2.4.7-8	28.4	0.00498	0.00578	No Message
N-3.50	C156	Pilote 100	0	Check	0.068	B.2.4.7-8	28.4	0.0059	0.00664	No Message
N-3.50	C156	Pilote 100	25	Check	0.078	B.2.4.7-8	28.4	0.0059	0.00664	No Message
N-3.50	C156	Pilote 100	50	Check	0.089	B.2.4.7-8	28.4	0.0059	0.00664	No Message
N-3.50	C157	Pilote 100	0	Check	0.089	B.2.4.7-8	28.4	0.00671	0.00728	No Message
N-3.50	C157	Pilote 100	25	Check	0.102	B.2.4.5-8	28.4	0.00671	0.00728	No Message
N-3.50	C157	Pilote 100	50	Check	0.116	B.2.4.5-8	28.4	0.00671	0.00728	No Message
N-3.50	C158	Pilote 100	0	Check	0.116	B.2.4.5-8	28.4	0.00734	0.00762	No Message
N-3.50	C158	Pilote 100	25	Check	0.131	B.2.4.5-8	28.4	0.00734	0.00762	No Message
N-3.50	C158	Pilote 100	50	Check	0.147	B.2.4.5-8	28.4	0.00734	0.00762	No Message
N-3.50	C159	Pilote 100	0	Check	0.147	B.2.4.5-8	28.4	0.0077	0.0076	No Message
N-3.50	C159	Pilote 100	25	Check	0.162	B.2.4.5-8	28.4	0.0077	0.0076	No Message
N-3.50	C159	Pilote 100	50	Check	0.178	B.2.4.5-8	28.4	0.0077	0.0076	No Message
N-3.50	C160	Pilote 100	0	Check	0.178	B.2.4.5-8	28.4	0.00772	0.00735	No Message
N-3.50	C160	Pilote 100	25	Check	0.193	B.2.4.5-8	28.4	0.00772	0.00735	No Message
N-3.50	C160	Pilote 100	50	Check	0.208	B.2.4.5-8	28.4	0.00772	0.00735	No Message
N-3.50	C161	Pilote 100	0	Check	0.208	B.2.4.5-8	28.4	0.00732	0.00825	No Message
N-3.50	C161	Pilote 100	25	Check	0.223	B.2.4.5-8	28.4	0.00732	0.00825	No Message
N-3.50	C161	Pilote 100	50	Check	0.237	B.2.4.5-8	28.4	0.00732	0.00825	No Message
N-3.50	C162	Pilote 100	0	Check	0.237	B.2.4.5-8	28.4	0.00674	0.00895	No Message
N-3.50	C162	Pilote 100	25	Check	0.249	B.2.4.5-8	28.4	0.00674	0.00895	No Message
N-3.50	C162	Pilote 100	50	Check	0.262	B.2.4.5-8	28.4	0.00674	0.00895	No Message
N-3.50	C163	Pilote 100	0	Check	0.262	B.2.4.5-8	28.4	0.0057	0.00939	No Message
N-3.50	C163	Pilote 100	25	Check	0.271	B.2.4.5-8	28.4	0.0057	0.00939	No Message
N-3.50	C163	Pilote 100	50	Check	0.28	B.2.4.5-8	28.4	0.0057	0.00939	No Message
N-3.50	C164	Pilote 100	0	Check	0.28	B.2.4.5-8	28.4	0.00419	0.00777	No Message
N-3.50	C164	Pilote 100	25	Check	0.286	B.2.4.5-8	28.4	0.00419	0.00777	No Message
N-3.50	C164	Pilote 100	50	Check	0.292	B.2.4.5-8	28.4	0.00419	0.00777	No Message
N-3.50	C165	Pilote 100	0	Check	0.292	B.2.4.5-8	28.4	0.00288	0.00288	No Message
N-3.50	C165	Pilote 100	25	Check	0.305	B.2.4.5-8	28.4	0.00288	0.00288	No Message
N-3.50	C165	Pilote 100	50	Check	0.318	B.2.4.5-8	28.4	0.00288	0.00288	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C166	Pilote 100	0	Check	0.318	B.2.4.5-8	28.4	0.00498	0	No Message
N-3.50	C166	Pilote 100	25	Check	0.328	B.2.4.5-8	28.4	0.00498	0	No Message
N-3.50	C166	Pilote 100	50	Check	0.34	B.2.4.5-8	28.4	0.00498	0	No Message
N-3.50	C167	Pilote 100	0	Check	0.34	B.2.4.5-8	28.4	0.00916	0.00646	No Message
N-3.50	C167	Pilote 100	25	Check	0.349	B.2.4.5-8	28.4	0.00916	0.00646	No Message
N-3.50	C167	Pilote 100	50	Check	0.358	B.2.4.5-8	28.4	0.00916	0.00646	No Message
N-3.50	C168	Pilote 100	0	Check	0.358	B.2.4.5-8	28.4	0.01409	0.00705	No Message
N-3.50	C168	Pilote 100	25	Check	0.364	B.2.4.5-8	28.4	0.01409	0.00705	No Message
N-3.50	C168	Pilote 100	50	Check	0.372	B.2.4.5-8	28.4	0.01409	0.00705	No Message
N-3.50	C169	Pilote 100	0	Check	0.372	B.2.4.5-8	28.4	0.01955	0.02222	No Message
N-3.50	C169	Pilote 100	25	Check	0.376	B.2.4.5-8	28.4	0.01955	0.02222	No Message
N-3.50	C169	Pilote 100	50	Check	0.38	B.2.4.5-8	28.4	0.01955	0.02222	No Message
N-3.50	C170	Pilote 100	0	Check	0.38	B.2.4.5-8	28.4	0.02531	0.03329	No Message
N-3.50	C170	Pilote 100	25	Check	0.381	B.2.4.5-8	28.4	0.02531	0.03329	No Message
N-3.50	C170	Pilote 100	50	Check	0.383	B.2.4.5-8	28.4	0.02531	0.03329	No Message
N-3.50	C171	Pilote 100	0	Check	0.383	B.2.4.5-8	28.4	0.03111	0.03953	No Message
N-3.50	C171	Pilote 100	25	Check	0.386	B.2.4.5-8	28.4	0.03111	0.03953	No Message
N-3.50	C171	Pilote 100	50	Check	0.401	B.2.4.5-8	28.4	0.03111	0.03953	No Message
N-3.50	C172	Pilote 100	0	Check	0.401	B.2.4.5-8	28.4	0.03664	0.04532	No Message
N-3.50	C172	Pilote 100	25	Check	0.442	B.2.4.5-8	28.4	0.03664	0.04532	No Message
N-3.50	C172	Pilote 100	50	Check	0.5	B.2.4.5-8	28.4	0.03664	0.04532	No Message
N-3.50	C173	Pilote 100	0	Check	0.5	B.2.4.5-8	28.4	0.04162	0.05038	No Message
N-3.50	C173	Pilote 100	25	Check	0.568	B.2.4.5-8	28.4	0.04162	0.05038	No Message
N-3.50	C173	Pilote 100	50	Check	0.637	B.2.4.5-8	28.4	0.04162	0.05038	No Message
N-3.50	C174	Pilote 100	0	Check	0.637	B.2.4.5-8	28.4	0.04574	0.05444	No Message
N-3.50	C174	Pilote 100	25	Check	0.715	B.2.4.5-8	28.4	0.04574	0.05444	No Message
N-3.50	C174	Pilote 100	50	Check	0.794	B.2.4.5-8	28.4	0.04574	0.05444	No Message
N-3.50	C175	Pilote 100	0	Check	0.794	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C175	Pilote 100	0.1	Check	0.795	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C175	Pilote 100	0.2	Check	0.795	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C176	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00222	0.00614	No Message
N-3.50	C176	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00222	0.00614	No Message
N-3.50	C176	Pilote 100	50	Check	0.025	B.2.4.7-4	28.4	0.00222	0.00614	No Message
N-3.50	C177	Pilote 100	0	Check	0.025	B.2.4.7-4	28.4	0.00188	0.00427	No Message
N-3.50	C177	Pilote 100	25	Check	0.034	B.2.4.7-4	28.4	0.00188	0.00427	No Message
N-3.50	C177	Pilote 100	50	Check	0.043	B.2.4.7-4	28.4	0.00188	0.00427	No Message
N-3.50	C178	Pilote 100	0	Check	0.043	B.2.4.7-4	28.4	0.00221	0.00335	No Message
N-3.50	C178	Pilote 100	25	Check	0.05	B.2.4.7-4	28.4	0.00221	0.00335	No Message
N-3.50	C178	Pilote 100	50	Check	0.057	B.2.4.7-4	28.4	0.00221	0.00335	No Message
N-3.50	C179	Pilote 100	0	Check	0.057	B.2.4.7-4	28.4	0.00298	0.00363	No Message
N-3.50	C179	Pilote 100	25	Check	0.064	B.2.4.7-4	28.4	0.00298	0.00363	No Message
N-3.50	C179	Pilote 100	50	Check	0.071	B.2.4.7-4	28.4	0.00298	0.00363	No Message
N-3.50	C180	Pilote 100	0	Check	0.071	B.2.4.7-4	28.4	0.00387	0.00457	No Message
N-3.50	C180	Pilote 100	25	Check	0.078	B.2.4.7-4	28.4	0.00387	0.00457	No Message
N-3.50	C180	Pilote 100	50	Check	0.086	B.2.4.7-4	28.4	0.00387	0.00457	No Message
N-3.50	C181	Pilote 100	0	Check	0.086	B.2.4.7-4	28.4	0.00477	0.00559	No Message
N-3.50	C181	Pilote 100	25	Check	0.095	B.2.4.7-4	28.4	0.00477	0.00559	No Message
N-3.50	C181	Pilote 100	50	Check	0.104	B.2.4.7-4	28.4	0.00477	0.00559	No Message
N-3.50	C182	Pilote 100	0	Check	0.104	B.2.4.7-4	28.4	0.00562	0.00649	No Message
N-3.50	C182	Pilote 100	25	Check	0.115	B.2.4.7-4	28.4	0.00562	0.00649	No Message
N-3.50	C182	Pilote 100	50	Check	0.125	B.2.4.7-4	28.4	0.00562	0.00649	No Message
N-3.50	C183	Pilote 100	0	Check	0.125	B.2.4.7-4	28.4	0.00635	0.00721	No Message
N-3.50	C183	Pilote 100	25	Check	0.137	B.2.4.7-4	28.4	0.00635	0.00721	No Message
N-3.50	C183	Pilote 100	50	Check	0.149	B.2.4.5-3	28.4	0.00635	0.00721	No Message
N-3.50	C184	Pilote 100	0	Check	0.149	B.2.4.5-3	28.4	0.00692	0.00767	No Message
N-3.50	C184	Pilote 100	25	Check	0.164	B.2.4.5-3	28.4	0.00692	0.00767	No Message
N-3.50	C184	Pilote 100	50	Check	0.179	B.2.4.5-3	28.4	0.00692	0.00767	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C185	Pilote 100	0	Check	0.179	B.2.4.5-3	28.4	0.00725	0.00782	No Message	
N-3.50	C185	Pilote 100	25	Check	0.194	B.2.4.5-8	28.4	0.00725	0.00782	No Message	
N-3.50	C185	Pilote 100	50	Check	0.21	B.2.4.5-8	28.4	0.00725	0.00782	No Message	
N-3.50	C186	Pilote 100	0	Check	0.21	B.2.4.5-8	28.4	0.00734	0.00797	No Message	
N-3.50	C186	Pilote 100	25	Check	0.225	B.2.4.5-8	28.4	0.00734	0.00797	No Message	
N-3.50	C186	Pilote 100	50	Check	0.24	B.2.4.5-8	28.4	0.00734	0.00797	No Message	
N-3.50	C187	Pilote 100	0	Check	0.24	B.2.4.5-8	28.4	0.00789	0.00852	No Message	
N-3.50	C187	Pilote 100	25	Check	0.255	B.2.4.5-8	28.4	0.00789	0.00852	No Message	
N-3.50	C187	Pilote 100	50	Check	0.27	B.2.4.5-8	28.4	0.00789	0.00852	No Message	
N-3.50	C188	Pilote 100	0	Check	0.27	B.2.4.5-8	28.4	0.0082	0.00879	No Message	
N-3.50	C188	Pilote 100	25	Check	0.283	B.2.4.5-8	28.4	0.0082	0.00879	No Message	
N-3.50	C188	Pilote 100	50	Check	0.296	B.2.4.5-8	28.4	0.0082	0.00879	No Message	
N-3.50	C189	Pilote 100	0	Check	0.296	B.2.4.5-8	28.4	0.00824	0.00877	No Message	
N-3.50	C189	Pilote 100	25	Check	0.306	B.2.4.5-8	28.4	0.00824	0.00877	No Message	
N-3.50	C189	Pilote 100	50	Check	0.317	B.2.4.5-8	28.4	0.00824	0.00877	No Message	
N-3.50	C190	Pilote 100	0	Check	0.317	B.2.4.5-8	28.4	0.00808	0.00853	No Message	
N-3.50	C190	Pilote 100	25	Check	0.324	B.2.4.5-8	28.4	0.00808	0.00853	No Message	
N-3.50	C190	Pilote 100	50	Check	0.334	B.2.4.5-8	28.4	0.00808	0.00853	No Message	
N-3.50	C191	Pilote 100	0	Check	0.334	B.2.4.5-8	28.4	0.008	0.00732	No Message	
N-3.50	C191	Pilote 100	25	Check	0.349	B.2.4.5-8	28.4	0.008	0.00732	No Message	
N-3.50	C191	Pilote 100	50	Check	0.365	B.2.4.5-8	28.4	0.008	0.00732	No Message	
N-3.50	C192	Pilote 100	0	Check	0.365	B.2.4.5-8	28.4	0.00891	0.00894	No Message	
N-3.50	C192	Pilote 100	25	Check	0.378	B.2.4.5-8	28.4	0.00891	0.00894	No Message	
N-3.50	C192	Pilote 100	50	Check	0.391	B.2.4.5-8	28.4	0.00891	0.00894	No Message	
N-3.50	C193	Pilote 100	0	Check	0.391	B.2.4.5-8	28.4	0.01159	0.01428	No Message	
N-3.50	C193	Pilote 100	25	Check	0.402	B.2.4.5-8	28.4	0.01159	0.01428	No Message	
N-3.50	C193	Pilote 100	50	Check	0.413	B.2.4.5-8	28.4	0.01159	0.01428	No Message	
N-3.50	C194	Pilote 100	0	Check	0.413	B.2.4.5-8	28.4	0.0156	0.01945	No Message	
N-3.50	C194	Pilote 100	25	Check	0.421	B.2.4.5-8	28.4	0.0156	0.01945	No Message	
N-3.50	C194	Pilote 100	50	Check	0.43	B.2.4.5-8	28.4	0.0156	0.01945	No Message	
N-3.50	C195	Pilote 100	0	Check	0.43	B.2.4.5-8	28.4	0.02038	0.02524	No Message	
N-3.50	C195	Pilote 100	25	Check	0.436	B.2.4.5-8	28.4	0.02038	0.02524	No Message	
N-3.50	C195	Pilote 100	50	Check	0.446	B.2.4.5-3	28.4	0.02038	0.02524	No Message	
N-3.50	C196	Pilote 100	0	Check	0.446	B.2.4.5-3	28.4	0.02557	0.03131	No Message	
N-3.50	C196	Pilote 100	25	Check	0.456	B.2.4.5-3	28.4	0.02557	0.03131	No Message	
N-3.50	C196	Pilote 100	50	Check	0.47	B.2.4.5-3	28.4	0.02557	0.03131	No Message	
N-3.50	C197	Pilote 100	0	Check	0.47	B.2.4.5-3	28.4	0.03087	0.03737	No Message	
N-3.50	C197	Pilote 100	25	Check	0.489	B.2.4.5-3	28.4	0.03087	0.03737	No Message	
N-3.50	C197	Pilote 100	50	Check	0.517	B.2.4.5-3	28.4	0.03087	0.03737	No Message	
N-3.50	C198	Pilote 100	0	Check	0.517	B.2.4.5-3	28.4	0.03592	0.04305	No Message	
N-3.50	C198	Pilote 100	25	Check	0.554	B.2.4.5-3	28.4	0.03592	0.04305	No Message	
N-3.50	C198	Pilote 100	50	Check	0.6	B.2.4.5-3	28.4	0.03592	0.04305	No Message	
N-3.50	C199	Pilote 100	0	Check	0.6	B.2.4.5-3	28.4	0.04048	0.04809	No Message	
N-3.50	C199	Pilote 100	25	Check	0.655	B.2.4.5-3	28.4	0.04048	0.04809	No Message	
N-3.50	C199	Pilote 100	50	Check	0.714	B.2.4.5-3	28.4	0.04048	0.04809	No Message	
N-3.50	C200	Pilote 100	0	Check	0.714	B.2.4.5-3	28.4	0.04425	0.05218	No Message	
N-3.50	C200	Pilote 100	25	Check	0.78	B.2.4.5-3	28.4	0.04425	0.05218	No Message	
N-3.50	C200	Pilote 100	50	Check	0.852	B.2.4.5-3	28.4	0.04425	0.05218	No Message	
N-3.50	C201	Pilote 100	0	Check	0.852	B.2.4.5-3	28.4	0.52791	0.62722	No Message	
N-3.50	C201	Pilote 100	0.1	Check	0.852	B.2.4.5-3	28.4	0.52791	0.62722	No Message	
N-3.50	C201	Pilote 100	0.2	Check	0.853	B.2.4.5-3	28.4	0.52791	0.62722	No Message	
N-3.50	C202	Pilote 100	0	Check	0.015	B.2.4.5-3	28.4	0.0063	0.00142	No Message	
N-3.50	C202	Pilote 100	25	Check	0.014	B.2.4.5-3	28.4	0.0063	0.00142	No Message	
N-3.50	C202	Pilote 100	50	Check	0.013	B.2.4.5-3	28.4	0.0063	0.00142	No Message	
N-3.50	C203	Pilote 100	0	Check	0.013	B.2.4.5-3	28.4	0.00438	0.00165	No Message	
N-3.50	C203	Pilote 100	25	Check	0.013	B.2.4.5-3	28.4	0.00438	0.00165	No Message	
N-3.50	C203	Pilote 100	50	Check	0.021	B.2.4.7-4	28.4	0.00438	0.00165	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C204	Pilote 100	0	Check	0.021	B.2.4.7-4	28.4	0.00316	0.0027	No Message
N-3.50	C204	Pilote 100	25	Check	0.028	B.2.4.7-4	28.4	0.00316	0.0027	No Message
N-3.50	C204	Pilote 100	50	Check	0.036	B.2.4.7-4	28.4	0.00316	0.0027	No Message
N-3.50	C205	Pilote 100	0	Check	0.036	B.2.4.7-4	28.4	0.00297	0.00383	No Message
N-3.50	C205	Pilote 100	25	Check	0.042	B.2.4.7-4	28.4	0.00297	0.00383	No Message
N-3.50	C205	Pilote 100	50	Check	0.049	B.2.4.7-4	28.4	0.00297	0.00383	No Message
N-3.50	C206	Pilote 100	0	Check	0.049	B.2.4.7-4	28.4	0.0037	0.00497	No Message
N-3.50	C206	Pilote 100	25	Check	0.056	B.2.4.7-4	28.4	0.0037	0.00497	No Message
N-3.50	C206	Pilote 100	50	Check	0.063	B.2.4.7-4	28.4	0.0037	0.00497	No Message
N-3.50	C207	Pilote 100	0	Check	0.063	B.2.4.7-4	28.4	0.00459	0.00607	No Message
N-3.50	C207	Pilote 100	25	Check	0.072	B.2.4.7-4	28.4	0.00459	0.00607	No Message
N-3.50	C207	Pilote 100	50	Check	0.081	B.2.4.7-4	28.4	0.00459	0.00607	No Message
N-3.50	C208	Pilote 100	0	Check	0.081	B.2.4.7-4	28.4	0.00539	0.00708	No Message
N-3.50	C208	Pilote 100	25	Check	0.091	B.2.4.7-4	28.4	0.00539	0.00708	No Message
N-3.50	C208	Pilote 100	50	Check	0.102	B.2.4.7-4	28.4	0.00539	0.00708	No Message
N-3.50	C209	Pilote 100	0	Check	0.102	B.2.4.7-4	28.4	0.00602	0.00791	No Message
N-3.50	C209	Pilote 100	25	Check	0.114	B.2.4.7-4	28.4	0.00602	0.00791	No Message
N-3.50	C209	Pilote 100	50	Check	0.127	B.2.4.5-3	28.4	0.00602	0.00791	No Message
N-3.50	C210	Pilote 100	0	Check	0.127	B.2.4.5-3	28.4	0.00645	0.0085	No Message
N-3.50	C210	Pilote 100	25	Check	0.142	B.2.4.5-3	28.4	0.00645	0.0085	No Message
N-3.50	C210	Pilote 100	50	Check	0.157	B.2.4.5-3	28.4	0.00645	0.0085	No Message
N-3.50	C211	Pilote 100	0	Check	0.157	B.2.4.5-3	28.4	0.00664	0.00873	No Message
N-3.50	C211	Pilote 100	25	Check	0.173	B.2.4.5-3	28.4	0.00664	0.00873	No Message
N-3.50	C211	Pilote 100	50	Check	0.188	B.2.4.5-3	28.4	0.00664	0.00873	No Message
N-3.50	C212	Pilote 100	0	Check	0.188	B.2.4.5-3	28.4	0.00679	0.00852	No Message
N-3.50	C212	Pilote 100	25	Check	0.204	B.2.4.5-3	28.4	0.00679	0.00852	No Message
N-3.50	C212	Pilote 100	50	Check	0.219	B.2.4.5-8	28.4	0.00679	0.00852	No Message
N-3.50	C213	Pilote 100	0	Check	0.219	B.2.4.5-8	28.4	0.00783	0.00774	No Message
N-3.50	C213	Pilote 100	25	Check	0.234	B.2.4.5-8	28.4	0.00783	0.00774	No Message
N-3.50	C213	Pilote 100	50	Check	0.249	B.2.4.5-8	28.4	0.00783	0.00774	No Message
N-3.50	C214	Pilote 100	0	Check	0.249	B.2.4.5-8	28.4	0.00876	0.0063	No Message
N-3.50	C214	Pilote 100	25	Check	0.262	B.2.4.5-8	28.4	0.00876	0.0063	No Message
N-3.50	C214	Pilote 100	50	Check	0.275	B.2.4.5-8	28.4	0.00876	0.0063	No Message
N-3.50	C215	Pilote 100	0	Check	0.275	B.2.4.5-8	28.4	0.00956	0.00441	No Message
N-3.50	C215	Pilote 100	25	Check	0.285	B.2.4.5-3	28.4	0.00956	0.00441	No Message
N-3.50	C215	Pilote 100	50	Check	0.295	B.2.4.5-3	28.4	0.00956	0.00441	No Message
N-3.50	C216	Pilote 100	0	Check	0.295	B.2.4.5-3	28.4	0.01018	0.00206	No Message
N-3.50	C216	Pilote 100	25	Check	0.302	B.2.4.5-3	28.4	0.01018	0.00206	No Message
N-3.50	C216	Pilote 100	50	Check	0.31	B.2.4.5-3	28.4	0.01018	0.00206	No Message
N-3.50	C217	Pilote 100	0	Check	0.31	B.2.4.5-3	28.4	0.00891	0.00286	No Message
N-3.50	C217	Pilote 100	25	Check	0.319	B.2.4.5-3	28.4	0.00891	0.00286	No Message
N-3.50	C217	Pilote 100	50	Check	0.332	B.2.4.5-3	28.4	0.00891	0.00286	No Message
N-3.50	C218	Pilote 100	0	Check	0.332	B.2.4.5-3	28.4	0.00384	0.00758	No Message
N-3.50	C218	Pilote 100	25	Check	0.341	B.2.4.5-3	28.4	0.00384	0.00758	No Message
N-3.50	C218	Pilote 100	50	Check	0.351	B.2.4.5-3	28.4	0.00384	0.00758	No Message
N-3.50	C219	Pilote 100	0	Check	0.351	B.2.4.5-3	28.4	0.0055	0.01311	No Message
N-3.50	C219	Pilote 100	25	Check	0.357	B.2.4.5-3	28.4	0.0055	0.01311	No Message
N-3.50	C219	Pilote 100	50	Check	0.366	B.2.4.5-3	28.4	0.0055	0.01311	No Message
N-3.50	C220	Pilote 100	0	Check	0.366	B.2.4.5-3	28.4	0.00606	0.0193	No Message
N-3.50	C220	Pilote 100	25	Check	0.374	B.2.4.5-3	28.4	0.00606	0.0193	No Message
N-3.50	C220	Pilote 100	50	Check	0.382	B.2.4.5-3	28.4	0.00606	0.0193	No Message
N-3.50	C221	Pilote 100	0	Check	0.382	B.2.4.5-3	28.4	0.01683	0.02598	No Message
N-3.50	C221	Pilote 100	25	Check	0.388	B.2.4.5-3	28.4	0.01683	0.02598	No Message
N-3.50	C221	Pilote 100	50	Check	0.399	B.2.4.5-3	28.4	0.01683	0.02598	No Message
N-3.50	C222	Pilote 100	0	Check	0.399	B.2.4.5-3	28.4	0.02114	0.03293	No Message
N-3.50	C222	Pilote 100	25	Check	0.41	B.2.4.5-3	28.4	0.02114	0.03293	No Message
N-3.50	C222	Pilote 100	50	Check	0.425	B.2.4.5-3	28.4	0.02114	0.03293	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C223	Pilote 100	0	Check	0.425	B.2.4.5-3	28.4	0.02999	0.03984	No Message	
N-3.50	C223	Pilote 100	25	Check	0.447	B.2.4.5-3	28.4	0.02999	0.03984	No Message	
N-3.50	C223	Pilote 100	50	Check	0.475	B.2.4.5-3	28.4	0.02999	0.03984	No Message	
N-3.50	C224	Pilote 100	0	Check	0.475	B.2.4.5-3	28.4	0.03459	0.04634	No Message	
N-3.50	C224	Pilote 100	25	Check	0.508	B.2.4.5-3	28.4	0.03459	0.04634	No Message	
N-3.50	C224	Pilote 100	50	Check	0.552	B.2.4.5-3	28.4	0.03459	0.04634	No Message	
N-3.50	C225	Pilote 100	0	Check	0.552	B.2.4.5-3	28.4	0.03872	0.05212	No Message	
N-3.50	C225	Pilote 100	25	Check	0.605	B.2.4.5-8	28.4	0.03872	0.05212	No Message	
N-3.50	C225	Pilote 100	50	Check	0.669	B.2.4.5-8	28.4	0.03872	0.05212	No Message	
N-3.50	C226	Pilote 100	0	Check	0.669	B.2.4.5-8	28.4	0.04211	0.05684	No Message	
N-3.50	C226	Pilote 100	25	Check	0.743	B.2.4.5-8	28.4	0.04211	0.05684	No Message	
N-3.50	C226	Pilote 100	50	Check	0.819	B.2.4.5-8	28.4	0.04211	0.05684	No Message	
N-3.50	C227	Pilote 100	0	Check	0.819	B.2.4.5-8	28.4	0	0.64885	No Message	
N-3.50	C227	Pilote 100	0.1	Check	0.819	B.2.4.5-8	28.4	0	0.64885	No Message	
N-3.50	C227	Pilote 100	0.2	Check	0.82	B.2.4.5-8	28.4	0	0.64885	No Message	
N-3.50	C228	Pilote 100	0	Check	0.014	B.2.4.5-3	28.4	0.00414	0.00473	No Message	
N-3.50	C228	Pilote 100	25	Check	0.013	B.2.4.5-3	28.4	0.00414	0.00473	No Message	
N-3.50	C228	Pilote 100	50	Check	0.012	B.2.4.5-3	28.4	0.00414	0.00473	No Message	
N-3.50	C229	Pilote 100	0	Check	0.012	B.2.4.5-3	28.4	0.00324	0.00334	No Message	
N-3.50	C229	Pilote 100	25	Check	0.012	B.2.4.5-3	28.4	0.00324	0.00334	No Message	
N-3.50	C229	Pilote 100	50	Check	0.012	B.2.4.5-3	28.4	0.00324	0.00334	No Message	
N-3.50	C230	Pilote 100	0	Check	0.012	B.2.4.5-3	28.4	0.00283	0.00315	No Message	
N-3.50	C230	Pilote 100	25	Check	0.013	B.2.4.7-4	28.4	0.00283	0.00315	No Message	
N-3.50	C230	Pilote 100	50	Check	0.02	B.2.4.7-4	28.4	0.00283	0.00315	No Message	
N-3.50	C231	Pilote 100	0	Check	0.02	B.2.4.7-4	28.4	0.0026	0.00393	No Message	
N-3.50	C231	Pilote 100	25	Check	0.026	B.2.4.7-4	28.4	0.0026	0.00393	No Message	
N-3.50	C231	Pilote 100	50	Check	0.033	B.2.4.7-4	28.4	0.0026	0.00393	No Message	
N-3.50	C232	Pilote 100	0	Check	0.033	B.2.4.7-4	28.4	0.00393	0.00503	No Message	
N-3.50	C232	Pilote 100	25	Check	0.041	B.2.4.7-4	28.4	0.00393	0.00503	No Message	
N-3.50	C232	Pilote 100	50	Check	0.049	B.2.4.7-4	28.4	0.00393	0.00503	No Message	
N-3.50	C233	Pilote 100	0	Check	0.049	B.2.4.7-4	28.4	0.00475	0.00612	No Message	
N-3.50	C233	Pilote 100	25	Check	0.058	B.2.4.7-4	28.4	0.00475	0.00612	No Message	
N-3.50	C233	Pilote 100	50	Check	0.067	B.2.4.7-4	28.4	0.00475	0.00612	No Message	
N-3.50	C234	Pilote 100	0	Check	0.067	B.2.4.7-4	28.4	0.00545	0.00708	No Message	
N-3.50	C234	Pilote 100	25	Check	0.078	B.2.4.7-4	28.4	0.00545	0.00708	No Message	
N-3.50	C234	Pilote 100	50	Check	0.089	B.2.4.7-4	28.4	0.00545	0.00708	No Message	
N-3.50	C235	Pilote 100	0	Check	0.089	B.2.4.7-4	28.4	0.00599	0.00784	No Message	
N-3.50	C235	Pilote 100	25	Check	0.101	B.2.4.7-4	28.4	0.00599	0.00784	No Message	
N-3.50	C235	Pilote 100	50	Check	0.115	B.2.4.5-3	28.4	0.00599	0.00784	No Message	
N-3.50	C236	Pilote 100	0	Check	0.115	B.2.4.5-3	28.4	0.00631	0.00832	No Message	
N-3.50	C236	Pilote 100	25	Check	0.129	B.2.4.5-3	28.4	0.00631	0.00832	No Message	
N-3.50	C236	Pilote 100	50	Check	0.144	B.2.4.5-3	28.4	0.00631	0.00832	No Message	
N-3.50	C237	Pilote 100	0	Check	0.144	B.2.4.5-3	28.4	0.00636	0.00867	No Message	
N-3.50	C237	Pilote 100	25	Check	0.159	B.2.4.5-3	28.4	0.00636	0.00867	No Message	
N-3.50	C237	Pilote 100	50	Check	0.174	B.2.4.5-3	28.4	0.00636	0.00867	No Message	
N-3.50	C238	Pilote 100	0	Check	0.174	B.2.4.5-3	28.4	0.00651	0.00871	No Message	
N-3.50	C238	Pilote 100	25	Check	0.189	B.2.4.5-3	28.4	0.00651	0.00871	No Message	
N-3.50	C238	Pilote 100	50	Check	0.203	B.2.4.5-3	28.4	0.00651	0.00871	No Message	
N-3.50	C239	Pilote 100	0	Check	0.203	B.2.4.5-3	28.4	0.00784	0.00824	No Message	
N-3.50	C239	Pilote 100	25	Check	0.217	B.2.4.5-3	28.4	0.00784	0.00824	No Message	
N-3.50	C239	Pilote 100	50	Check	0.23	B.2.4.5-3	28.4	0.00784	0.00824	No Message	
N-3.50	C240	Pilote 100	0	Check	0.23	B.2.4.5-3	28.4	0.00915	0.00719	No Message	
N-3.50	C240	Pilote 100	25	Check	0.242	B.2.4.5-3	28.4	0.00915	0.00719	No Message	
N-3.50	C240	Pilote 100	50	Check	0.254	B.2.4.5-3	28.4	0.00915	0.00719	No Message	
N-3.50	C241	Pilote 100	0	Check	0.254	B.2.4.5-3	28.4	0.01039	0.00546	No Message	
N-3.50	C241	Pilote 100	25	Check	0.265	B.2.4.5-3	28.4	0.01039	0.00546	No Message	
N-3.50	C241	Pilote 100	50	Check	0.275	B.2.4.5-3	28.4	0.01039	0.00546	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C242	Pilote 100	0	Check	0.275	B.2.4.5-3	28.4	0.01152	0.00305	No Message
N-3.50	C242	Pilote 100	25	Check	0.283	B.2.4.5-3	28.4	0.01152	0.00305	No Message
N-3.50	C242	Pilote 100	50	Check	0.293	B.2.4.5-3	28.4	0.01152	0.00305	No Message
N-3.50	C243	Pilote 100	0	Check	0.293	B.2.4.5-3	28.4	0.00997	0.00411	No Message
N-3.50	C243	Pilote 100	25	Check	0.306	B.2.4.5-3	28.4	0.00997	0.00411	No Message
N-3.50	C243	Pilote 100	50	Check	0.32	B.2.4.5-3	28.4	0.00997	0.00411	No Message
N-3.50	C244	Pilote 100	0	Check	0.32	B.2.4.5-3	28.4	0.00498	0.00886	No Message
N-3.50	C244	Pilote 100	25	Check	0.334	B.2.4.5-3	28.4	0.00498	0.00886	No Message
N-3.50	C244	Pilote 100	50	Check	0.348	B.2.4.5-3	28.4	0.00498	0.00886	No Message
N-3.50	C245	Pilote 100	0	Check	0.348	B.2.4.5-3	28.4	0.00705	0.01444	No Message
N-3.50	C245	Pilote 100	25	Check	0.359	B.2.4.5-3	28.4	0.00705	0.01444	No Message
N-3.50	C245	Pilote 100	50	Check	0.371	B.2.4.5-3	28.4	0.00705	0.01444	No Message
N-3.50	C246	Pilote 100	0	Check	0.371	B.2.4.5-3	28.4	0.00779	0.02064	No Message
N-3.50	C246	Pilote 100	25	Check	0.383	B.2.4.5-3	28.4	0.00779	0.02064	No Message
N-3.50	C246	Pilote 100	50	Check	0.396	B.2.4.5-3	28.4	0.00779	0.02064	No Message
N-3.50	C247	Pilote 100	0	Check	0.396	B.2.4.5-3	28.4	0.00724	0.02729	No Message
N-3.50	C247	Pilote 100	25	Check	0.406	B.2.4.5-3	28.4	0.00724	0.02729	No Message
N-3.50	C247	Pilote 100	50	Check	0.418	B.2.4.5-3	28.4	0.00724	0.02729	No Message
N-3.50	C248	Pilote 100	0	Check	0.418	B.2.4.5-3	28.4	0.02218	0.03416	No Message
N-3.50	C248	Pilote 100	25	Check	0.434	B.2.4.5-3	28.4	0.02218	0.03416	No Message
N-3.50	C248	Pilote 100	50	Check	0.455	B.2.4.5-3	28.4	0.02218	0.03416	No Message
N-3.50	C249	Pilote 100	0	Check	0.455	B.2.4.5-3	28.4	0.02658	0.04096	No Message
N-3.50	C249	Pilote 100	25	Check	0.486	B.2.4.5-3	28.4	0.02658	0.04096	No Message
N-3.50	C249	Pilote 100	50	Check	0.519	B.2.4.5-3	28.4	0.02658	0.04096	No Message
N-3.50	C250	Pilote 100	0	Check	0.519	B.2.4.5-3	28.4	0.03081	0.04729	No Message
N-3.50	C250	Pilote 100	25	Check	0.557	B.2.4.5-3	28.4	0.03081	0.04729	No Message
N-3.50	C250	Pilote 100	50	Check	0.602	B.2.4.5-3	28.4	0.03081	0.04729	No Message
N-3.50	C251	Pilote 100	0	Check	0.602	B.2.4.5-3	28.4	0.04165	0.05289	No Message
N-3.50	C251	Pilote 100	25	Check	0.656	B.2.4.5-3	28.4	0.04165	0.05289	No Message
N-3.50	C251	Pilote 100	50	Check	0.716	B.2.4.5-3	28.4	0.04165	0.05289	No Message
N-3.50	C252	Pilote 100	0	Check	0.716	B.2.4.5-3	28.4	0.04494	0.05742	No Message
N-3.50	C252	Pilote 100	25	Check	0.789	B.2.4.5-8	28.4	0.04494	0.05742	No Message
N-3.50	C252	Pilote 100	50	Check	0.866	B.2.4.5-8	28.4	0.04494	0.05742	No Message
N-3.50	C253	Pilote 100	0	Check	0.866	B.2.4.5-8	28.4	0	0.70067	No Message
N-3.50	C253	Pilote 100	0.1	Check	0.867	B.2.4.5-8	28.4	0	0.70067	No Message
N-3.50	C253	Pilote 100	0.2	Check	0.867	B.2.4.5-8	28.4	0	0.70067	No Message
N-3.50	C254	Pilote 100	0	Check	0.023	B.2.4.5-8	28.4	0.00524	0.00312	No Message
N-3.50	C254	Pilote 100	25	Check	0.023	B.2.4.5-8	28.4	0.00524	0.00312	No Message
N-3.50	C254	Pilote 100	50	Check	0.022	B.2.4.5-8	28.4	0.00524	0.00312	No Message
N-3.50	C255	Pilote 100	0	Check	0.022	B.2.4.5-8	28.4	0.00337	0.00233	No Message
N-3.50	C255	Pilote 100	25	Check	0.021	B.2.4.5-8	28.4	0.00337	0.00233	No Message
N-3.50	C255	Pilote 100	50	Check	0.02	B.2.4.5-8	28.4	0.00337	0.00233	No Message
N-3.50	C256	Pilote 100	0	Check	0.02	B.2.4.5-8	28.4	0.00244	0.00247	No Message
N-3.50	C256	Pilote 100	25	Check	0.02	B.2.4.5-8	28.4	0.00244	0.00247	No Message
N-3.50	C256	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00244	0.00247	No Message
N-3.50	C257	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00265	0.00326	No Message
N-3.50	C257	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00265	0.00326	No Message
N-3.50	C257	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00265	0.00326	No Message
N-3.50	C258	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00344	0.00424	No Message
N-3.50	C258	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00344	0.00424	No Message
N-3.50	C258	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00433	0.00523	No Message
N-3.50	C259	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00433	0.00523	No Message
N-3.50	C259	Pilote 100	25	Check	0.02	B.2.4.5-3	28.4	0.00433	0.00523	No Message
N-3.50	C259	Pilote 100	50	Check	0.026	B.2.4.7-8	28.4	0.00433	0.00523	No Message
N-3.50	C260	Pilote 100	0	Check	0.026	B.2.4.7-8	28.4	0.00515	0.00615	No Message
N-3.50	C260	Pilote 100	25	Check	0.037	B.2.4.7-8	28.4	0.00515	0.00615	No Message
N-3.50	C260	Pilote 100	50	Check	0.047	B.2.4.7-8	28.4	0.00515	0.00615	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C261	Pilote 100	0	Check	0.047	B.2.4.7-8	28.4	0.00589	0.00693	No Message
N-3.50	C261	Pilote 100	25	Check	0.059	B.2.4.7-8	28.4	0.00589	0.00693	No Message
N-3.50	C261	Pilote 100	50	Check	0.072	B.2.4.7-8	28.4	0.00589	0.00693	No Message
N-3.50	C262	Pilote 100	0	Check	0.072	B.2.4.7-8	28.4	0.00654	0.0075	No Message
N-3.50	C262	Pilote 100	25	Check	0.085	B.2.4.7-8	28.4	0.00654	0.0075	No Message
N-3.50	C262	Pilote 100	50	Check	0.098	B.2.4.7-8	28.4	0.00654	0.0075	No Message
N-3.50	C263	Pilote 100	0	Check	0.098	B.2.4.7-8	28.4	0.00698	0.00778	No Message
N-3.50	C263	Pilote 100	25	Check	0.112	B.2.4.7-8	28.4	0.00698	0.00778	No Message
N-3.50	C263	Pilote 100	50	Check	0.126	B.2.4.7-8	28.4	0.00698	0.00778	No Message
N-3.50	C264	Pilote 100	0	Check	0.126	B.2.4.7-8	28.4	0.00715	0.00768	No Message
N-3.50	C264	Pilote 100	25	Check	0.139	B.2.4.7-8	28.4	0.00715	0.00768	No Message
N-3.50	C264	Pilote 100	50	Check	0.153	B.2.4.7-8	28.4	0.00715	0.00768	No Message
N-3.50	C265	Pilote 100	0	Check	0.153	B.2.4.7-8	28.4	0.00696	0.0071	No Message
N-3.50	C265	Pilote 100	25	Check	0.167	B.2.4.7-8	28.4	0.00696	0.0071	No Message
N-3.50	C265	Pilote 100	50	Check	0.18	B.2.4.7-8	28.4	0.00696	0.0071	No Message
N-3.50	C266	Pilote 100	0	Check	0.18	B.2.4.7-8	28.4	0.00633	0.006	No Message
N-3.50	C266	Pilote 100	25	Check	0.192	B.2.4.7-8	28.4	0.00633	0.006	No Message
N-3.50	C266	Pilote 100	50	Check	0.205	B.2.4.7-8	28.4	0.00633	0.006	No Message
N-3.50	C267	Pilote 100	0	Check	0.205	B.2.4.7-8	28.4	0.0052	0.00458	No Message
N-3.50	C267	Pilote 100	25	Check	0.215	B.2.4.7-8	28.4	0.0052	0.00458	No Message
N-3.50	C267	Pilote 100	50	Check	0.225	B.2.4.7-8	28.4	0.0052	0.00458	No Message
N-3.50	C268	Pilote 100	0	Check	0.225	B.2.4.7-8	28.4	0.00354	0.00254	No Message
N-3.50	C268	Pilote 100	25	Check	0.231	B.2.4.7-8	28.4	0.00354	0.00254	No Message
N-3.50	C268	Pilote 100	50	Check	0.238	B.2.4.7-8	28.4	0.00354	0.00254	No Message
N-3.50	C269	Pilote 100	0	Check	0.238	B.2.4.7-8	28.4	0.00185	0.00167	No Message
N-3.50	C269	Pilote 100	25	Check	0.241	B.2.4.7-8	28.4	0.00185	0.00167	No Message
N-3.50	C269	Pilote 100	50	Check	0.244	B.2.4.7-8	28.4	0.00185	0.00167	No Message
N-3.50	C270	Pilote 100	0	Check	0.244	B.2.4.7-8	28.4	0.00395	0.00564	No Message
N-3.50	C270	Pilote 100	25	Check	0.241	B.2.4.7-8	28.4	0.00395	0.00564	No Message
N-3.50	C270	Pilote 100	50	Check	0.239	B.2.4.7-8	28.4	0.00395	0.00564	No Message
N-3.50	C271	Pilote 100	0	Check	0.239	B.2.4.7-8	28.4	0.00765	0.01035	No Message
N-3.50	C271	Pilote 100	25	Check	0.23	B.2.4.7-8	28.4	0.00765	0.01035	No Message
N-3.50	C271	Pilote 100	50	Check	0.224	B.2.4.7-8	28.4	0.00765	0.01035	No Message
N-3.50	C272	Pilote 100	0	Check	0.224	B.2.4.7-8	28.4	0.01194	0.01565	No Message
N-3.50	C272	Pilote 100	25	Check	0.211	B.2.4.7-8	28.4	0.01194	0.01565	No Message
N-3.50	C272	Pilote 100	50	Check	0.201	B.2.4.5-3	28.4	0.01194	0.01565	No Message
N-3.50	C273	Pilote 100	0	Check	0.201	B.2.4.5-3	28.4	0.01665	0.02141	No Message
N-3.50	C273	Pilote 100	25	Check	0.186	B.2.4.5-3	28.4	0.01665	0.02141	No Message
N-3.50	C273	Pilote 100	50	Check	0.172	B.2.4.5-3	28.4	0.01665	0.02141	No Message
N-3.50	C274	Pilote 100	0	Check	0.172	B.2.4.5-3	28.4	0.02161	0.02742	No Message
N-3.50	C274	Pilote 100	25	Check	0.153	B.2.4.5-3	28.4	0.02161	0.02742	No Message
N-3.50	C274	Pilote 100	50	Check	0.143	B.2.4.5-3	28.4	0.02161	0.02742	No Message
N-3.50	C275	Pilote 100	0	Check	0.143	B.2.4.5-3	28.4	0.02661	0.03345	No Message
N-3.50	C275	Pilote 100	25	Check	0.17	B.2.4.5-8	28.4	0.02661	0.03345	No Message
N-3.50	C275	Pilote 100	50	Check	0.216	B.2.4.5-8	28.4	0.02661	0.03345	No Message
N-3.50	C276	Pilote 100	0	Check	0.216	B.2.4.5-8	28.4	0.03137	0.03914	No Message
N-3.50	C276	Pilote 100	25	Check	0.27	B.2.4.5-8	28.4	0.03137	0.03914	No Message
N-3.50	C276	Pilote 100	50	Check	0.325	B.2.4.5-8	28.4	0.03137	0.03914	No Message
N-3.50	C277	Pilote 100	0	Check	0.325	B.2.4.5-8	28.4	0.03566	0.04423	No Message
N-3.50	C277	Pilote 100	25	Check	0.387	B.2.4.5-8	28.4	0.03566	0.04423	No Message
N-3.50	C277	Pilote 100	50	Check	0.45	B.2.4.5-8	28.4	0.03566	0.04423	No Message
N-3.50	C278	Pilote 100	0	Check	0.45	B.2.4.5-8	28.4	0.03921	0.04842	No Message
N-3.50	C278	Pilote 100	25	Check	0.52	B.2.4.5-8	28.4	0.03921	0.04842	No Message
N-3.50	C278	Pilote 100	50	Check	0.59	B.2.4.5-8	28.4	0.03921	0.04842	No Message
N-3.50	C279	Pilote 100	0	Check	0.59	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C279	Pilote 100	0.1	Check	0.59	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C279	Pilote 100	0.2	Check	0.591	B.2.4.5-8	28.4	0	0	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major	At V Minor	Warnings
cm	cm ²	cm ² /cm	cm ² /cm							
N-3.50	C280	Pilote 100	0	Check	0.024	B.2.4.2-1	28.4	0.00593	0.00252	No Message
N-3.50	C280	Pilote 100	25	Check	0.023	B.2.4.2-1	28.4	0.00593	0.00252	No Message
N-3.50	C280	Pilote 100	50	Check	0.023	B.2.4.2-1	28.4	0.00593	0.00252	No Message
N-3.50	C281	Pilote 100	0	Check	0.023	B.2.4.2-1	28.4	0.00372	0.00204	No Message
N-3.50	C281	Pilote 100	25	Check	0.022	B.2.4.2-1	28.4	0.00372	0.00204	No Message
N-3.50	C281	Pilote 100	50	Check	0.021	B.2.4.2-1	28.4	0.00372	0.00204	No Message
N-3.50	C282	Pilote 100	0	Check	0.021	B.2.4.2-1	28.4	0.00239	0.00241	No Message
N-3.50	C282	Pilote 100	25	Check	0.02	B.2.4.2-1	28.4	0.00239	0.00241	No Message
N-3.50	C282	Pilote 100	50	Check	0.02	B.2.4.2-1	28.4	0.00239	0.00241	No Message
N-3.50	C283	Pilote 100	0	Check	0.02	B.2.4.2-1	28.4	0.00227	0.00327	No Message
N-3.50	C283	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00227	0.00327	No Message
N-3.50	C283	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00227	0.00327	No Message
N-3.50	C284	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00294	0.00424	No Message
N-3.50	C284	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00294	0.00424	No Message
N-3.50	C284	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00294	0.00424	No Message
N-3.50	C285	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00381	0.0052	No Message
N-3.50	C285	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00381	0.0052	No Message
N-3.50	C285	Pilote 100	50	Check	0.02	B.2.4.5-3	28.4	0.00381	0.0052	No Message
N-3.50	C286	Pilote 100	0	Check	0.02	B.2.4.5-3	28.4	0.00468	0.00608	No Message
N-3.50	C286	Pilote 100	25	Check	0.023	B.2.4.7-4	28.4	0.00468	0.00608	No Message
N-3.50	C286	Pilote 100	50	Check	0.03	B.2.4.7-8	28.4	0.00468	0.00608	No Message
N-3.50	C287	Pilote 100	0	Check	0.03	B.2.4.7-8	28.4	0.00548	0.00682	No Message
N-3.50	C287	Pilote 100	25	Check	0.039	B.2.4.7-8	28.4	0.00548	0.00682	No Message
N-3.50	C287	Pilote 100	50	Check	0.051	B.2.4.7-8	28.4	0.00548	0.00682	No Message
N-3.50	C288	Pilote 100	0	Check	0.051	B.2.4.7-8	28.4	0.00615	0.00735	No Message
N-3.50	C288	Pilote 100	25	Check	0.063	B.2.4.7-8	28.4	0.00615	0.00735	No Message
N-3.50	C288	Pilote 100	50	Check	0.076	B.2.4.7-8	28.4	0.00615	0.00735	No Message
N-3.50	C289	Pilote 100	0	Check	0.076	B.2.4.7-8	28.4	0.00666	0.00761	No Message
N-3.50	C289	Pilote 100	25	Check	0.089	B.2.4.7-8	28.4	0.00666	0.00761	No Message
N-3.50	C289	Pilote 100	50	Check	0.103	B.2.4.7-8	28.4	0.00666	0.00761	No Message
N-3.50	C290	Pilote 100	0	Check	0.103	B.2.4.7-8	28.4	0.00693	0.00777	No Message
N-3.50	C290	Pilote 100	25	Check	0.116	B.2.4.7-8	28.4	0.00693	0.00777	No Message
N-3.50	C290	Pilote 100	50	Check	0.129	B.2.4.7-8	28.4	0.00693	0.00777	No Message
N-3.50	C291	Pilote 100	0	Check	0.129	B.2.4.7-8	28.4	0.0069	0.00751	No Message
N-3.50	C291	Pilote 100	25	Check	0.142	B.2.4.7-8	28.4	0.0069	0.00751	No Message
N-3.50	C291	Pilote 100	50	Check	0.155	B.2.4.7-8	28.4	0.0069	0.00751	No Message
N-3.50	C292	Pilote 100	0	Check	0.155	B.2.4.7-8	28.4	0.0065	0.00677	No Message
N-3.50	C292	Pilote 100	25	Check	0.166	B.2.4.7-8	28.4	0.0065	0.00677	No Message
N-3.50	C292	Pilote 100	50	Check	0.178	B.2.4.7-8	28.4	0.0065	0.00677	No Message
N-3.50	C293	Pilote 100	0	Check	0.178	B.2.4.7-8	28.4	0.00565	0.00543	No Message
N-3.50	C293	Pilote 100	25	Check	0.187	B.2.4.7-8	28.4	0.00565	0.00543	No Message
N-3.50	C293	Pilote 100	50	Check	0.197	B.2.4.7-8	28.4	0.00565	0.00543	No Message
N-3.50	C294	Pilote 100	0	Check	0.197	B.2.4.7-8	28.4	0.00437	0.00347	No Message
N-3.50	C294	Pilote 100	25	Check	0.205	B.2.4.7-4	28.4	0.00437	0.00347	No Message
N-3.50	C294	Pilote 100	50	Check	0.214	B.2.4.7-4	28.4	0.00437	0.00347	No Message
N-3.50	C295	Pilote 100	0	Check	0.214	B.2.4.7-4	28.4	0.00287	0.00083	No Message
N-3.50	C295	Pilote 100	25	Check	0.219	B.2.4.7-4	28.4	0.00287	0.00083	No Message
N-3.50	C295	Pilote 100	50	Check	0.225	B.2.4.7-4	28.4	0.00287	0.00083	No Message
N-3.50	C296	Pilote 100	0	Check	0.225	B.2.4.7-4	28.4	0.00306	0.00614	No Message
N-3.50	C296	Pilote 100	25	Check	0.226	B.2.4.7-4	28.4	0.00306	0.00614	No Message
N-3.50	C296	Pilote 100	50	Check	0.228	B.2.4.7-4	28.4	0.00306	0.00614	No Message
N-3.50	C297	Pilote 100	0	Check	0.228	B.2.4.7-4	28.4	0.00578	0.01085	No Message
N-3.50	C297	Pilote 100	25	Check	0.224	B.2.4.7-4	28.4	0.00578	0.01085	No Message
N-3.50	C297	Pilote 100	50	Check	0.22	B.2.4.7-4	28.4	0.00578	0.01085	No Message
N-3.50	C298	Pilote 100	0	Check	0.22	B.2.4.7-4	28.4	0.00934	0.01614	No Message
N-3.50	C298	Pilote 100	25	Check	0.211	B.2.4.7-4	28.4	0.00934	0.01614	No Message
N-3.50	C298	Pilote 100	50	Check	0.204	B.2.4.5-3	28.4	0.00934	0.01614	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C299	Pilote 100	0	Check	0.204	B.2.4.5-3	28.4	0.01338	0.02186	No Message	
N-3.50	C299	Pilote 100	25	Check	0.191	B.2.4.5-3	28.4	0.01338	0.02186	No Message	
N-3.50	C299	Pilote 100	50	Check	0.18	B.2.4.5-3	28.4	0.01338	0.02186	No Message	
N-3.50	C300	Pilote 100	0	Check	0.18	B.2.4.5-3	28.4	0.01769	0.02782	No Message	
N-3.50	C300	Pilote 100	25	Check	0.164	B.2.4.5-3	28.4	0.01769	0.02782	No Message	
N-3.50	C300	Pilote 100	50	Check	0.154	B.2.4.5-3	28.4	0.01769	0.02782	No Message	
N-3.50	C301	Pilote 100	0	Check	0.154	B.2.4.5-3	28.4	0.02209	0.03377	No Message	
N-3.50	C301	Pilote 100	25	Check	0.165	B.2.4.5-3	28.4	0.02209	0.03377	No Message	
N-3.50	C301	Pilote 100	50	Check	0.199	B.2.4.5-8	28.4	0.02209	0.03377	No Message	
N-3.50	C302	Pilote 100	0	Check	0.199	B.2.4.5-8	28.4	0.02632	0.03937	No Message	
N-3.50	C302	Pilote 100	25	Check	0.248	B.2.4.5-8	28.4	0.02632	0.03937	No Message	
N-3.50	C302	Pilote 100	50	Check	0.299	B.2.4.5-8	28.4	0.02632	0.03937	No Message	
N-3.50	C303	Pilote 100	0	Check	0.299	B.2.4.5-8	28.4	0.03016	0.04437	No Message	
N-3.50	C303	Pilote 100	25	Check	0.358	B.2.4.5-8	28.4	0.03016	0.04437	No Message	
N-3.50	C303	Pilote 100	50	Check	0.419	B.2.4.5-8	28.4	0.03016	0.04437	No Message	
N-3.50	C304	Pilote 100	0	Check	0.419	B.2.4.5-8	28.4	0.03339	0.04846	No Message	
N-3.50	C304	Pilote 100	25	Check	0.485	B.2.4.5-8	28.4	0.03339	0.04846	No Message	
N-3.50	C304	Pilote 100	50	Check	0.551	B.2.4.5-8	28.4	0.03339	0.04846	No Message	
N-3.50	C305	Pilote 100	0	Check	0.551	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C305	Pilote 100	0.1	Check	0.551	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C305	Pilote 100	0.2	Check	0.551	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C306	Pilote 100	0	Check	0.048	B.2.4.5-8	28.4	0.0064	0.00608	No Message	
N-3.50	C306	Pilote 100	25	Check	0.047	B.2.4.5-8	28.4	0.0064	0.00608	No Message	
N-3.50	C306	Pilote 100	50	Check	0.047	B.2.4.5-8	28.4	0.0064	0.00608	No Message	
N-3.50	C307	Pilote 100	0	Check	0.047	B.2.4.5-8	28.4	0.00412	0.00414	No Message	
N-3.50	C307	Pilote 100	25	Check	0.046	B.2.4.5-8	28.4	0.00412	0.00414	No Message	
N-3.50	C307	Pilote 100	50	Check	0.045	B.2.4.5-8	28.4	0.00412	0.00414	No Message	
N-3.50	C308	Pilote 100	0	Check	0.045	B.2.4.5-8	28.4	0.00279	0.00319	No Message	
N-3.50	C308	Pilote 100	25	Check	0.045	B.2.4.5-8	28.4	0.00279	0.00319	No Message	
N-3.50	C308	Pilote 100	50	Check	0.044	B.2.4.5-8	28.4	0.00279	0.00319	No Message	
N-3.50	C309	Pilote 100	0	Check	0.044	B.2.4.5-8	28.4	0.00274	0.00345	No Message	
N-3.50	C309	Pilote 100	25	Check	0.043	B.2.4.5-8	28.4	0.00274	0.00345	No Message	
N-3.50	C309	Pilote 100	50	Check	0.042	B.2.4.5-8	28.4	0.00274	0.00345	No Message	
N-3.50	C310	Pilote 100	0	Check	0.042	B.2.4.5-8	28.4	0.00353	0.00438	No Message	
N-3.50	C310	Pilote 100	25	Check	0.042	B.2.4.5-8	28.4	0.00353	0.00438	No Message	
N-3.50	C310	Pilote 100	50	Check	0.041	B.2.4.5-8	28.4	0.00353	0.00438	No Message	
N-3.50	C311	Pilote 100	0	Check	0.041	B.2.4.5-8	28.4	0.00449	0.00541	No Message	
N-3.50	C311	Pilote 100	25	Check	0.04	B.2.4.5-8	28.4	0.00449	0.00541	No Message	
N-3.50	C311	Pilote 100	50	Check	0.04	B.2.4.5-8	28.4	0.00449	0.00541	No Message	
N-3.50	C312	Pilote 100	0	Check	0.04	B.2.4.5-8	28.4	0.00538	0.00632	No Message	
N-3.50	C312	Pilote 100	25	Check	0.04	B.2.4.5-8	28.4	0.00538	0.00632	No Message	
N-3.50	C312	Pilote 100	50	Check	0.04	B.2.4.5-8	28.4	0.00538	0.00632	No Message	
N-3.50	C313	Pilote 100	0	Check	0.04	B.2.4.5-8	28.4	0.00613	0.00706	No Message	
N-3.50	C313	Pilote 100	25	Check	0.041	B.2.4.5-8	28.4	0.00613	0.00706	No Message	
N-3.50	C313	Pilote 100	50	Check	0.042	B.2.4.5-8	28.4	0.00613	0.00706	No Message	
N-3.50	C314	Pilote 100	0	Check	0.042	B.2.4.5-8	28.4	0.00671	0.00756	No Message	
N-3.50	C314	Pilote 100	25	Check	0.043	B.2.4.5-8	28.4	0.00671	0.00756	No Message	
N-3.50	C314	Pilote 100	50	Check	0.047	B.2.4.7-8	28.4	0.00671	0.00756	No Message	
N-3.50	C315	Pilote 100	0	Check	0.047	B.2.4.7-8	28.4	0.00705	0.00774	No Message	
N-3.50	C315	Pilote 100	25	Check	0.057	B.2.4.7-8	28.4	0.00705	0.00774	No Message	
N-3.50	C315	Pilote 100	50	Check	0.069	B.2.4.7-8	28.4	0.00705	0.00774	No Message	
N-3.50	C316	Pilote 100	0	Check	0.069	B.2.4.7-8	28.4	0.00708	0.00756	No Message	
N-3.50	C316	Pilote 100	25	Check	0.082	B.2.4.7-8	28.4	0.00708	0.00756	No Message	
N-3.50	C316	Pilote 100	50	Check	0.095	B.2.4.7-8	28.4	0.00708	0.00756	No Message	
N-3.50	C317	Pilote 100	0	Check	0.095	B.2.4.7-8	28.4	0.00672	0.00759	No Message	
N-3.50	C317	Pilote 100	25	Check	0.108	B.2.4.7-8	28.4	0.00672	0.00759	No Message	
N-3.50	C317	Pilote 100	50	Check	0.121	B.2.4.7-8	28.4	0.00672	0.00759	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C318	Pilote 100	0	Check	0.121	B.2.4.7-8	28.4	0.00589	0.0072	No Message	
N-3.50	C318	Pilote 100	25	Check	0.132	B.2.4.7-8	28.4	0.00589	0.0072	No Message	
N-3.50	C318	Pilote 100	50	Check	0.144	B.2.4.7-8	28.4	0.00589	0.0072	No Message	
N-3.50	C319	Pilote 100	0	Check	0.144	B.2.4.7-8	28.4	0.00453	0.00634	No Message	
N-3.50	C319	Pilote 100	25	Check	0.153	B.2.4.7-8	28.4	0.00453	0.00634	No Message	
N-3.50	C319	Pilote 100	50	Check	0.162	B.2.4.7-8	28.4	0.00453	0.00634	No Message	
N-3.50	C320	Pilote 100	0	Check	0.162	B.2.4.7-8	28.4	0.0026	0.00497	No Message	
N-3.50	C320	Pilote 100	25	Check	0.168	B.2.4.7-8	28.4	0.0026	0.00497	No Message	
N-3.50	C320	Pilote 100	50	Check	0.174	B.2.4.7-8	28.4	0.0026	0.00497	No Message	
N-3.50	C321	Pilote 100	0	Check	0.174	B.2.4.7-8	28.4	0.00088	0.00164	No Message	
N-3.50	C321	Pilote 100	25	Check	0.178	B.2.4.7-8	28.4	0.00088	0.00164	No Message	
N-3.50	C321	Pilote 100	50	Check	0.183	B.2.4.7-8	28.4	0.00088	0.00164	No Message	
N-3.50	C322	Pilote 100	0	Check	0.183	B.2.4.7-8	28.4	0.00353	0.00695	No Message	
N-3.50	C322	Pilote 100	25	Check	0.184	B.2.4.7-8	28.4	0.00353	0.00695	No Message	
N-3.50	C322	Pilote 100	50	Check	0.185	B.2.4.7-8	28.4	0.00353	0.00695	No Message	
N-3.50	C323	Pilote 100	0	Check	0.185	B.2.4.7-8	28.4	0.00738	0.01174	No Message	
N-3.50	C323	Pilote 100	25	Check	0.181	B.2.4.7-8	28.4	0.00738	0.01174	No Message	
N-3.50	C323	Pilote 100	50	Check	0.177	B.2.4.7-8	28.4	0.00738	0.01174	No Message	
N-3.50	C324	Pilote 100	0	Check	0.177	B.2.4.7-8	28.4	0.0118	0.01714	No Message	
N-3.50	C324	Pilote 100	25	Check	0.167	B.2.4.7-8	28.4	0.0118	0.01714	No Message	
N-3.50	C324	Pilote 100	50	Check	0.158	B.2.4.7-8	28.4	0.0118	0.01714	No Message	
N-3.50	C325	Pilote 100	0	Check	0.158	B.2.4.7-8	28.4	0.01666	0.02299	No Message	
N-3.50	C325	Pilote 100	25	Check	0.142	B.2.4.7-8	28.4	0.01666	0.02299	No Message	
N-3.50	C325	Pilote 100	50	Check	0.127	B.2.4.7-8	28.4	0.01666	0.02299	No Message	
N-3.50	C326	P100R	0	Check	0.075	B.2.4.7-8	51	0.0218	0.02907	No Message	
N-3.50	C326	P100R	25	Check	0.063	B.2.4.7-8	51	0.0218	0.02907	No Message	
N-3.50	C326	P100R	50	Check	0.054	B.2.4.7-8	51	0.0218	0.02907	No Message	
N-3.50	C327	Pilote 100	0	Check	0.093	B.2.4.7-8	28.4	0.02698	0.03513	No Message	
N-3.50	C327	Pilote 100	25	Check	0.106	B.2.4.7-8	28.4	0.02698	0.03513	No Message	
N-3.50	C327	Pilote 100	50	Check	0.147	B.2.4.7-8	28.4	0.02698	0.03513	No Message	
N-3.50	C328	Pilote 100	0	Check	0.147	B.2.4.7-8	28.4	0.03193	0.04082	No Message	
N-3.50	C328	Pilote 100	25	Check	0.199	B.2.4.7-8	28.4	0.03193	0.04082	No Message	
N-3.50	C328	Pilote 100	50	Check	0.251	B.2.4.7-8	28.4	0.03193	0.04082	No Message	
N-3.50	C329	Pilote 100	0	Check	0.251	B.2.4.7-8	28.4	0.0364	0.04587	No Message	
N-3.50	C329	Pilote 100	25	Check	0.311	B.2.4.7-8	28.4	0.0364	0.04587	No Message	
N-3.50	C329	Pilote 100	50	Check	0.371	B.2.4.5-8	28.4	0.0364	0.04587	No Message	
N-3.50	C330	Pilote 100	0	Check	0.371	B.2.4.5-8	28.4	0.04011	0.05	No Message	
N-3.50	C330	Pilote 100	25	Check	0.44	B.2.4.5-8	28.4	0.04011	0.05	No Message	
N-3.50	C330	Pilote 100	50	Check	0.51	B.2.4.5-8	28.4	0.04011	0.05	No Message	
N-3.50	C331	Pilote 100	0	Check	0.51	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C331	Pilote 100	0.1	Check	0.51	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C331	Pilote 100	0.2	Check	0.511	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C332	Pilote 100	0	Check	0.05	B.2.4.5-8	28.4	0.0076	0.00411	No Message	
N-3.50	C332	Pilote 100	25	Check	0.049	B.2.4.5-8	28.4	0.0076	0.00411	No Message	
N-3.50	C332	Pilote 100	50	Check	0.049	B.2.4.5-8	28.4	0.0076	0.00411	No Message	
N-3.50	C333	Pilote 100	0	Check	0.049	B.2.4.5-8	28.4	0.0048	0.00307	No Message	
N-3.50	C333	Pilote 100	25	Check	0.048	B.2.4.5-8	28.4	0.0048	0.00307	No Message	
N-3.50	C333	Pilote 100	50	Check	0.047	B.2.4.5-8	28.4	0.0048	0.00307	No Message	
N-3.50	C334	Pilote 100	0	Check	0.047	B.2.4.5-8	28.4	0.00308	0.00303	No Message	
N-3.50	C334	Pilote 100	25	Check	0.047	B.2.4.5-8	28.4	0.00308	0.00303	No Message	
N-3.50	C334	Pilote 100	50	Check	0.046	B.2.4.5-8	28.4	0.00308	0.00303	No Message	
N-3.50	C335	Pilote 100	0	Check	0.046	B.2.4.5-8	28.4	0.00277	0.00383	No Message	
N-3.50	C335	Pilote 100	25	Check	0.045	B.2.4.5-8	28.4	0.00277	0.00383	No Message	
N-3.50	C335	Pilote 100	50	Check	0.044	B.2.4.5-8	28.4	0.00277	0.00383	No Message	
N-3.50	C336	Pilote 100	0	Check	0.044	B.2.4.5-8	28.4	0.00351	0.00491	No Message	
N-3.50	C336	Pilote 100	25	Check	0.044	B.2.4.5-8	28.4	0.00351	0.00491	No Message	
N-3.50	C336	Pilote 100	50	Check	0.043	B.2.4.5-8	28.4	0.00351	0.00491	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C337	Pilote 100	0	Check	0.043	B.2.4.5-8	28.4	0.00447	0.00599	No Message
N-3.50	C337	Pilote 100	25	Check	0.042	B.2.4.5-8	28.4	0.00447	0.00599	No Message
N-3.50	C337	Pilote 100	50	Check	0.042	B.2.4.5-8	28.4	0.00447	0.00599	No Message
N-3.50	C338	Pilote 100	0	Check	0.042	B.2.4.5-8	28.4	0.00535	0.00695	No Message
N-3.50	C338	Pilote 100	25	Check	0.042	B.2.4.5-8	28.4	0.00535	0.00695	No Message
N-3.50	C338	Pilote 100	50	Check	0.042	B.2.4.5-8	28.4	0.00535	0.00695	No Message
N-3.50	C339	Pilote 100	0	Check	0.042	B.2.4.5-8	28.4	0.00607	0.00774	No Message
N-3.50	C339	Pilote 100	25	Check	0.043	B.2.4.5-8	28.4	0.00607	0.00774	No Message
N-3.50	C339	Pilote 100	50	Check	0.044	B.2.4.5-8	28.4	0.00607	0.00774	No Message
N-3.50	C340	Pilote 100	0	Check	0.044	B.2.4.5-8	28.4	0.0066	0.00827	No Message
N-3.50	C340	Pilote 100	25	Check	0.046	B.2.4.5-8	28.4	0.0066	0.00827	No Message
N-3.50	C340	Pilote 100	50	Check	0.05	B.2.4.7-8	28.4	0.0066	0.00827	No Message
N-3.50	C341	Pilote 100	0	Check	0.05	B.2.4.7-8	28.4	0.0069	0.00845	No Message
N-3.50	C341	Pilote 100	25	Check	0.061	B.2.4.7-8	28.4	0.0069	0.00845	No Message
N-3.50	C341	Pilote 100	50	Check	0.072	B.2.4.7-8	28.4	0.0069	0.00845	No Message
N-3.50	C342	Pilote 100	0	Check	0.072	B.2.4.7-8	28.4	0.00696	0.00819	No Message
N-3.50	C342	Pilote 100	25	Check	0.086	B.2.4.7-8	28.4	0.00696	0.00819	No Message
N-3.50	C342	Pilote 100	50	Check	0.1	B.2.4.7-8	28.4	0.00696	0.00819	No Message
N-3.50	C343	Pilote 100	0	Check	0.1	B.2.4.7-8	28.4	0.00666	0.00817	No Message
N-3.50	C343	Pilote 100	25	Check	0.113	B.2.4.7-8	28.4	0.00666	0.00817	No Message
N-3.50	C343	Pilote 100	50	Check	0.126	B.2.4.7-8	28.4	0.00666	0.00817	No Message
N-3.50	C344	Pilote 100	0	Check	0.126	B.2.4.7-8	28.4	0.00591	0.00776	No Message
N-3.50	C344	Pilote 100	25	Check	0.138	B.2.4.7-8	28.4	0.00591	0.00776	No Message
N-3.50	C344	Pilote 100	50	Check	0.15	B.2.4.7-8	28.4	0.00591	0.00776	No Message
N-3.50	C345	Pilote 100	0	Check	0.15	B.2.4.7-8	28.4	0.00465	0.00686	No Message
N-3.50	C345	Pilote 100	25	Check	0.159	B.2.4.7-8	28.4	0.00465	0.00686	No Message
N-3.50	C345	Pilote 100	50	Check	0.168	B.2.4.7-8	28.4	0.00465	0.00686	No Message
N-3.50	C346	Pilote 100	0	Check	0.168	B.2.4.7-8	28.4	0.00286	0.00547	No Message
N-3.50	C346	Pilote 100	25	Check	0.174	B.2.4.7-8	28.4	0.00286	0.00547	No Message
N-3.50	C346	Pilote 100	50	Check	0.18	B.2.4.7-8	28.4	0.00286	0.00547	No Message
N-3.50	C347	Pilote 100	0	Check	0.18	B.2.4.7-8	28.4	0.00122	0.00371	No Message
N-3.50	C347	Pilote 100	25	Check	0.183	B.2.4.7-8	28.4	0.00122	0.00371	No Message
N-3.50	C347	Pilote 100	50	Check	0.189	B.2.4.7-8	28.4	0.00122	0.00371	No Message
N-3.50	C348	Pilote 100	0	Check	0.189	B.2.4.7-8	28.4	0.00395	0.00834	No Message
N-3.50	C348	Pilote 100	25	Check	0.19	B.2.4.7-8	28.4	0.00395	0.00834	No Message
N-3.50	C348	Pilote 100	50	Check	0.191	B.2.4.7-8	28.4	0.00395	0.00834	No Message
N-3.50	C349	Pilote 100	0	Check	0.191	B.2.4.7-8	28.4	0.00778	0.01371	No Message
N-3.50	C349	Pilote 100	25	Check	0.186	B.2.4.7-8	28.4	0.00778	0.01371	No Message
N-3.50	C349	Pilote 100	50	Check	0.182	B.2.4.7-8	28.4	0.00778	0.01371	No Message
N-3.50	C350	Pilote 100	0	Check	0.182	B.2.4.7-8	28.4	0.01216	0.01974	No Message
N-3.50	C350	Pilote 100	25	Check	0.173	B.2.4.7-8	28.4	0.01216	0.01974	No Message
N-3.50	C350	Pilote 100	50	Check	0.163	B.2.4.7-8	28.4	0.01216	0.01974	No Message
N-3.50	C351	Pilote 100	0	Check	0.163	B.2.4.7-8	28.4	0.01695	0.02625	No Message
N-3.50	C351	Pilote 100	25	Check	0.147	B.2.4.7-8	28.4	0.01695	0.02625	No Message
N-3.50	C351	Pilote 100	50	Check	0.132	B.2.4.7-8	28.4	0.01695	0.02625	No Message
N-3.50	C352	Pilote 100	0	Check	0.132	B.2.4.7-8	28.4	0.022	0.033	No Message
N-3.50	C352	Pilote 100	25	Check	0.111	B.2.4.7-8	28.4	0.022	0.033	No Message
N-3.50	C352	Pilote 100	50	Check	0.099	B.2.4.7-4	28.4	0.022	0.033	No Message
N-3.50	C353	Pilote 100	0	Check	0.099	B.2.4.7-4	28.4	0.02707	0.0397	No Message
N-3.50	C353	Pilote 100	25	Check	0.12	B.2.4.7-8	28.4	0.02707	0.0397	No Message
N-3.50	C353	Pilote 100	50	Check	0.167	B.2.4.7-8	28.4	0.02707	0.0397	No Message
N-3.50	C354	Pilote 100	0	Check	0.167	B.2.4.7-8	28.4	0.0319	0.04598	No Message
N-3.50	C354	Pilote 100	25	Check	0.224	B.2.4.7-8	28.4	0.0319	0.04598	No Message
N-3.50	C354	Pilote 100	50	Check	0.281	B.2.4.7-8	28.4	0.0319	0.04598	No Message
N-3.50	C355	Pilote 100	0	Check	0.281	B.2.4.7-8	28.4	0.03625	0.05155	No Message
N-3.50	C355	Pilote 100	25	Check	0.346	B.2.4.7-8	28.4	0.03625	0.05155	No Message
N-3.50	C355	Pilote 100	50	Check	0.415	B.2.4.5-8	28.4	0.03625	0.05155	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C356	Pilote 100	0	Check	0.415	B.2.4.5-8	28.4	0.03984	0.05608	No Message	
N-3.50	C356	Pilote 100	25	Check	0.491	B.2.4.5-8	28.4	0.03984	0.05608	No Message	
N-3.50	C356	Pilote 100	50	Check	0.567	B.2.4.5-8	28.4	0.03984	0.05608	No Message	
N-3.50	C357	Pilote 100	0	Check	0.567	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C357	Pilote 100	0.1	Check	0.568	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C357	Pilote 100	0.2	Check	0.568	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C358	Pilote 100	0	Check	0.036	B.2.4.2-1	28.4	0.00143	0.00448	No Message	
N-3.50	C358	Pilote 100	25	Check	0.036	B.2.4.2-1	28.4	0.00143	0.00448	No Message	
N-3.50	C358	Pilote 100	50	Check	0.035	B.2.4.2-1	28.4	0.00143	0.00448	No Message	
N-3.50	C359	Pilote 100	0	Check	0.035	B.2.4.2-1	28.4	0.00142	0.00332	No Message	
N-3.50	C359	Pilote 100	25	Check	0.034	B.2.4.2-1	28.4	0.00142	0.00332	No Message	
N-3.50	C359	Pilote 100	50	Check	0.033	B.2.4.2-1	28.4	0.00142	0.00332	No Message	
N-3.50	C360	Pilote 100	0	Check	0.033	B.2.4.2-1	28.4	0.00198	0.00338	No Message	
N-3.50	C360	Pilote 100	25	Check	0.033	B.2.4.2-1	28.4	0.00198	0.00338	No Message	
N-3.50	C360	Pilote 100	50	Check	0.032	B.2.4.2-1	28.4	0.00198	0.00338	No Message	
N-3.50	C361	Pilote 100	0	Check	0.032	B.2.4.2-1	28.4	0.00276	0.00435	No Message	
N-3.50	C361	Pilote 100	25	Check	0.031	B.2.4.2-1	28.4	0.00276	0.00435	No Message	
N-3.50	C361	Pilote 100	50	Check	0.031	B.2.4.2-1	28.4	0.00276	0.00435	No Message	
N-3.50	C362	Pilote 100	0	Check	0.031	B.2.4.2-1	28.4	0.00361	0.0056	No Message	
N-3.50	C362	Pilote 100	25	Check	0.03	B.2.4.2-1	28.4	0.00361	0.0056	No Message	
N-3.50	C362	Pilote 100	50	Check	0.029	B.2.4.2-1	28.4	0.00361	0.0056	No Message	
N-3.50	C363	Pilote 100	0	Check	0.029	B.2.4.2-1	28.4	0.00443	0.00685	No Message	
N-3.50	C363	Pilote 100	25	Check	0.029	B.2.4.5-8	28.4	0.00443	0.00685	No Message	
N-3.50	C363	Pilote 100	50	Check	0.03	B.2.4.5-8	28.4	0.00443	0.00685	No Message	
N-3.50	C364	Pilote 100	0	Check	0.03	B.2.4.5-8	28.4	0.00519	0.00798	No Message	
N-3.50	C364	Pilote 100	25	Check	0.032	B.2.4.5-8	28.4	0.00519	0.00798	No Message	
N-3.50	C364	Pilote 100	50	Check	0.033	B.2.4.5-8	28.4	0.00519	0.00798	No Message	
N-3.50	C365	Pilote 100	0	Check	0.033	B.2.4.5-8	28.4	0.00584	0.00891	No Message	
N-3.50	C365	Pilote 100	25	Check	0.036	B.2.4.5-8	28.4	0.00584	0.00891	No Message	
N-3.50	C365	Pilote 100	50	Check	0.041	B.2.4.7-8	28.4	0.00584	0.00891	No Message	
N-3.50	C366	Pilote 100	0	Check	0.041	B.2.4.7-8	28.4	0.00631	0.00954	No Message	
N-3.50	C366	Pilote 100	25	Check	0.053	B.2.4.7-8	28.4	0.00631	0.00954	No Message	
N-3.50	C366	Pilote 100	50	Check	0.065	B.2.4.7-8	28.4	0.00631	0.00954	No Message	
N-3.50	C367	Pilote 100	0	Check	0.065	B.2.4.7-8	28.4	0.00653	0.00978	No Message	
N-3.50	C367	Pilote 100	25	Check	0.079	B.2.4.7-8	28.4	0.00653	0.00978	No Message	
N-3.50	C367	Pilote 100	50	Check	0.095	B.2.4.7-8	28.4	0.00653	0.00978	No Message	
N-3.50	C368	Pilote 100	0	Check	0.095	B.2.4.7-8	28.4	0.00671	0.00982	No Message	
N-3.50	C368	Pilote 100	25	Check	0.11	B.2.4.7-8	28.4	0.00671	0.00982	No Message	
N-3.50	C368	Pilote 100	50	Check	0.126	B.2.4.7-8	28.4	0.00671	0.00982	No Message	
N-3.50	C369	Pilote 100	0	Check	0.126	B.2.4.7-8	28.4	0.00659	0.0095	No Message	
N-3.50	C369	Pilote 100	25	Check	0.14	B.2.4.7-8	28.4	0.00659	0.0095	No Message	
N-3.50	C369	Pilote 100	50	Check	0.155	B.2.4.7-8	28.4	0.00659	0.0095	No Message	
N-3.50	C370	Pilote 100	0	Check	0.155	B.2.4.7-8	28.4	0.00605	0.00855	No Message	
N-3.50	C370	Pilote 100	25	Check	0.167	B.2.4.7-8	28.4	0.00605	0.00855	No Message	
N-3.50	C370	Pilote 100	50	Check	0.18	B.2.4.7-8	28.4	0.00605	0.00855	No Message	
N-3.50	C371	Pilote 100	0	Check	0.18	B.2.4.7-8	28.4	0.00504	0.00687	No Message	
N-3.50	C371	Pilote 100	25	Check	0.19	B.2.4.7-8	28.4	0.00504	0.00687	No Message	
N-3.50	C371	Pilote 100	50	Check	0.199	B.2.4.7-8	28.4	0.00504	0.00687	No Message	
N-3.50	C372	Pilote 100	0	Check	0.199	B.2.4.7-8	28.4	0.00352	0.0044	No Message	
N-3.50	C372	Pilote 100	25	Check	0.206	B.2.4.7-8	28.4	0.00352	0.0044	No Message	
N-3.50	C372	Pilote 100	50	Check	0.214	B.2.4.7-8	28.4	0.00352	0.0044	No Message	
N-3.50	C373	Pilote 100	0	Check	0.214	B.2.4.7-8	28.4	0.00081	0.00134	No Message	
N-3.50	C373	Pilote 100	25	Check	0.218	B.2.4.7-8	28.4	0.00081	0.00134	No Message	
N-3.50	C373	Pilote 100	50	Check	0.222	B.2.4.7-8	28.4	0.00081	0.00134	No Message	
N-3.50	C374	Pilote 100	0	Check	0.222	B.2.4.7-8	28.4	0.00505	0.00875	No Message	
N-3.50	C374	Pilote 100	25	Check	0.221	B.2.4.7-8	28.4	0.00505	0.00875	No Message	
N-3.50	C374	Pilote 100	50	Check	0.219	B.2.4.7-8	28.4	0.00505	0.00875	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C375	Pilote 100	0	Check	0.219	B.2.4.7-8	28.4	0.00903	0.01497	No Message	
N-3.50	C375	Pilote 100	25	Check	0.211	B.2.4.7-8	28.4	0.00903	0.01497	No Message	
N-3.50	C375	Pilote 100	50	Check	0.203	B.2.4.7-8	28.4	0.00903	0.01497	No Message	
N-3.50	C376	Pilote 100	0	Check	0.203	B.2.4.7-8	28.4	0.01352	0.02192	No Message	
N-3.50	C376	Pilote 100	25	Check	0.187	B.2.4.7-8	28.4	0.01352	0.02192	No Message	
N-3.50	C376	Pilote 100	50	Check	0.171	B.2.4.7-8	28.4	0.01352	0.02192	No Message	
N-3.50	C377	Pilote 100	0	Check	0.171	B.2.4.7-8	28.4	0.0184	0.02943	No Message	
N-3.50	C377	Pilote 100	25	Check	0.147	B.2.4.7-8	28.4	0.0184	0.02943	No Message	
N-3.50	C377	Pilote 100	50	Check	0.123	B.2.4.7-8	28.4	0.0184	0.02943	No Message	
N-3.50	C378	Pilote 100	0	Check	0.123	B.2.4.7-8	28.4	0.02349	0.03722	No Message	
N-3.50	C378	Pilote 100	25	Check	0.097	B.2.4.7-4	28.4	0.02349	0.03722	No Message	
N-3.50	C378	Pilote 100	50	Check	0.09	B.2.4.7-4	28.4	0.02349	0.03722	No Message	
N-3.50	C379	Pilote 100	0	Check	0.09	B.2.4.7-4	28.4	0.02858	0.04497	No Message	
N-3.50	C379	Pilote 100	25	Check	0.135	B.2.4.7-8	28.4	0.02858	0.04497	No Message	
N-3.50	C379	Pilote 100	50	Check	0.192	B.2.4.5-8	28.4	0.02858	0.04497	No Message	
N-3.50	C380	Pilote 100	0	Check	0.192	B.2.4.5-8	28.4	0.03338	0.05224	No Message	
N-3.50	C380	Pilote 100	25	Check	0.263	B.2.4.5-8	28.4	0.03338	0.05224	No Message	
N-3.50	C380	Pilote 100	50	Check	0.334	B.2.4.5-8	28.4	0.03338	0.05224	No Message	
N-3.50	C381	Pilote 100	0	Check	0.334	B.2.4.5-8	28.4	0.03767	0.05871	No Message	
N-3.50	C381	Pilote 100	25	Check	0.413	B.2.4.5-8	28.4	0.03767	0.05871	No Message	
N-3.50	C381	Pilote 100	50	Check	0.491	B.2.4.5-8	28.4	0.03767	0.05871	No Message	
N-3.50	C382	Pilote 100	0	Check	0.491	B.2.4.5-8	28.4	0.04119	0.06398	No Message	
N-3.50	C382	Pilote 100	25	Check	0.577	B.2.4.5-8	28.4	0.04119	0.06398	No Message	
N-3.50	C382	Pilote 100	50	Check	0.663	B.2.4.5-8	28.4	0.04119	0.06398	No Message	
N-3.50	C383	Pilote 100	0	Check	0.663	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C383	Pilote 100	0.1	Check	0.663	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C383	Pilote 100	0.2	Check	0.663	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C384	Pilote 100	0	Check	0.025	B.2.4.5-8	28.4	0.00258	0.00441	No Message	
N-3.50	C384	Pilote 100	25	Check	0.024	B.2.4.5-8	28.4	0.00258	0.00441	No Message	
N-3.50	C384	Pilote 100	50	Check	0.024	B.2.4.5-8	28.4	0.00258	0.00441	No Message	
N-3.50	C385	Pilote 100	0	Check	0.024	B.2.4.5-8	28.4	0.00188	0.00311	No Message	
N-3.50	C385	Pilote 100	25	Check	0.023	B.2.4.5-8	28.4	0.00188	0.00311	No Message	
N-3.50	C385	Pilote 100	50	Check	0.022	B.2.4.5-8	28.4	0.00188	0.00311	No Message	
N-3.50	C386	Pilote 100	0	Check	0.022	B.2.4.5-8	28.4	0.00212	0.00305	No Message	
N-3.50	C386	Pilote 100	25	Check	0.022	B.2.4.5-8	28.4	0.00212	0.00305	No Message	
N-3.50	C386	Pilote 100	50	Check	0.021	B.2.4.5-8	28.4	0.00212	0.00305	No Message	
N-3.50	C387	Pilote 100	0	Check	0.021	B.2.4.5-8	28.4	0.00291	0.00395	No Message	
N-3.50	C387	Pilote 100	25	Check	0.02	B.2.4.5-8	28.4	0.00291	0.00395	No Message	
N-3.50	C387	Pilote 100	50	Check	0.02	B.2.4.5-8	28.4	0.00291	0.00395	No Message	
N-3.50	C388	Pilote 100	0	Check	0.02	B.2.4.5-8	28.4	0.00381	0.00517	No Message	
N-3.50	C388	Pilote 100	25	Check	0.021	B.2.4.5-8	28.4	0.00381	0.00517	No Message	
N-3.50	C388	Pilote 100	50	Check	0.021	B.2.4.5-8	28.4	0.00381	0.00517	No Message	
N-3.50	C388	Pilote 100	50	Check	0.021	B.2.4.5-8	28.4	0.00381	0.00517	No Message	
N-3.50	C389	Pilote 100	0	Check	0.021	B.2.4.5-8	28.4	0.00469	0.00642	No Message	
N-3.50	C389	Pilote 100	25	Check	0.022	B.2.4.5-8	28.4	0.00469	0.00642	No Message	
N-3.50	C389	Pilote 100	50	Check	0.025	B.2.4.7-8	28.4	0.00469	0.00642	No Message	
N-3.50	C390	Pilote 100	0	Check	0.025	B.2.4.7-8	28.4	0.00552	0.00759	No Message	
N-3.50	C390	Pilote 100	25	Check	0.034	B.2.4.7-8	28.4	0.00552	0.00759	No Message	
N-3.50	C390	Pilote 100	50	Check	0.046	B.2.4.7-8	28.4	0.00552	0.00759	No Message	
N-3.50	C391	Pilote 100	0	Check	0.046	B.2.4.7-8	28.4	0.00622	0.0086	No Message	
N-3.50	C391	Pilote 100	25	Check	0.06	B.2.4.7-8	28.4	0.00622	0.0086	No Message	
N-3.50	C391	Pilote 100	50	Check	0.074	B.2.4.7-8	28.4	0.00622	0.0086	No Message	
N-3.50	C392	Pilote 100	0	Check	0.074	B.2.4.7-8	28.4	0.00673	0.00937	No Message	
N-3.50	C392	Pilote 100	25	Check	0.089	B.2.4.7-8	28.4	0.00673	0.00937	No Message	
N-3.50	C392	Pilote 100	50	Check	0.104	B.2.4.7-8	28.4	0.00673	0.00937	No Message	
N-3.50	C393	Pilote 100	0	Check	0.104	B.2.4.7-8	28.4	0.00703	0.00979	No Message	
N-3.50	C393	Pilote 100	25	Check	0.12	B.2.4.7-8	28.4	0.00703	0.00979	No Message	
N-3.50	C393	Pilote 100	50	Check	0.136	B.2.4.7-8	28.4	0.00703	0.00979	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C394	Pilote 100	0	Check	0.136	B.2.4.7-8	28.4	0.00716	0.00976	No Message
N-3.50	C394	Pilote 100	25	Check	0.152	B.2.4.7-8	28.4	0.00716	0.00976	No Message
N-3.50	C394	Pilote 100	50	Check	0.168	B.2.4.7-8	28.4	0.00716	0.00976	No Message
N-3.50	C395	Pilote 100	0	Check	0.168	B.2.4.7-8	28.4	0.0069	0.00914	No Message
N-3.50	C395	Pilote 100	25	Check	0.183	B.2.4.7-8	28.4	0.0069	0.00914	No Message
N-3.50	C395	Pilote 100	50	Check	0.198	B.2.4.7-8	28.4	0.0069	0.00914	No Message
N-3.50	C396	Pilote 100	0	Check	0.198	B.2.4.7-8	28.4	0.00618	0.00783	No Message
N-3.50	C396	Pilote 100	25	Check	0.212	B.2.4.7-8	28.4	0.00618	0.00783	No Message
N-3.50	C396	Pilote 100	50	Check	0.225	B.2.4.7-8	28.4	0.00618	0.00783	No Message
N-3.50	C397	Pilote 100	0	Check	0.225	B.2.4.7-8	28.4	0.00492	0.00573	No Message
N-3.50	C397	Pilote 100	25	Check	0.236	B.2.4.7-8	28.4	0.00492	0.00573	No Message
N-3.50	C397	Pilote 100	50	Check	0.247	B.2.4.7-8	28.4	0.00492	0.00573	No Message
N-3.50	C398	Pilote 100	0	Check	0.247	B.2.4.7-8	28.4	0.00308	0.00282	No Message
N-3.50	C398	Pilote 100	25	Check	0.254	B.2.4.7-8	28.4	0.00308	0.00282	No Message
N-3.50	C398	Pilote 100	50	Check	0.262	B.2.4.7-8	28.4	0.00308	0.00282	No Message
N-3.50	C399	Pilote 100	0	Check	0.262	B.2.4.7-8	28.4	0.0013	0.00134	No Message
N-3.50	C399	Pilote 100	25	Check	0.264	B.2.4.7-8	28.4	0.0013	0.00134	No Message
N-3.50	C399	Pilote 100	50	Check	0.266	B.2.4.7-8	28.4	0.0013	0.00134	No Message
N-3.50	C400	Pilote 100	0	Check	0.266	B.2.4.7-8	28.4	0.00507	0.00609	No Message
N-3.50	C400	Pilote 100	25	Check	0.262	B.2.4.7-8	28.4	0.00507	0.00609	No Message
N-3.50	C400	Pilote 100	50	Check	0.259	B.2.4.7-8	28.4	0.00507	0.00609	No Message
N-3.50	C401	Pilote 100	0	Check	0.259	B.2.4.7-8	28.4	0.00928	0.01182	No Message
N-3.50	C401	Pilote 100	25	Check	0.247	B.2.4.7-8	28.4	0.00928	0.01182	No Message
N-3.50	C401	Pilote 100	50	Check	0.237	B.2.4.7-8	28.4	0.00928	0.01182	No Message
N-3.50	C402	Pilote 100	0	Check	0.237	B.2.4.7-8	28.4	0.01403	0.01831	No Message
N-3.50	C402	Pilote 100	25	Check	0.217	B.2.4.7-8	28.4	0.01403	0.01831	No Message
N-3.50	C402	Pilote 100	50	Check	0.199	B.2.4.7-8	28.4	0.01403	0.01831	No Message
N-3.50	C403	Pilote 100	0	Check	0.199	B.2.4.7-8	28.4	0.0192	0.02539	No Message
N-3.50	C403	Pilote 100	25	Check	0.173	B.2.4.7-8	28.4	0.0192	0.02539	No Message
N-3.50	C403	Pilote 100	50	Check	0.147	B.2.4.7-8	28.4	0.0192	0.02539	No Message
N-3.50	C404	Pilote 100	0	Check	0.147	B.2.4.7-8	28.4	0.0246	0.03282	No Message
N-3.50	C404	Pilote 100	25	Check	0.116	B.2.4.5-8	28.4	0.0246	0.03282	No Message
N-3.50	C404	Pilote 100	50	Check	0.116	B.2.4.1	28.4	0.0246	0.03282	No Message
N-3.50	C405	Pilote 100	0	Check	0.116	B.2.4.1	28.4	0.03	0.04028	No Message
N-3.50	C405	Pilote 100	25	Check	0.156	B.2.4.5-8	28.4	0.03	0.04028	No Message
N-3.50	C405	Pilote 100	50	Check	0.211	B.2.4.5-8	28.4	0.03	0.04028	No Message
N-3.50	C406	Pilote 100	0	Check	0.211	B.2.4.5-8	28.4	0.03511	0.04736	No Message
N-3.50	C406	Pilote 100	25	Check	0.276	B.2.4.5-8	28.4	0.03511	0.04736	No Message
N-3.50	C406	Pilote 100	50	Check	0.342	B.2.4.5-8	28.4	0.03511	0.04736	No Message
N-3.50	C407	Pilote 100	0	Check	0.342	B.2.4.5-8	28.4	0.03968	0.05373	No Message
N-3.50	C407	Pilote 100	25	Check	0.418	B.2.4.5-8	28.4	0.03968	0.05373	No Message
N-3.50	C407	Pilote 100	50	Check	0.493	B.2.4.5-8	28.4	0.03968	0.05373	No Message
N-3.50	C408	Pilote 100	0	Check	0.493	B.2.4.5-8	28.4	0.04344	0.05899	No Message
N-3.50	C408	Pilote 100	25	Check	0.576	B.2.4.5-8	28.4	0.04344	0.05899	No Message
N-3.50	C408	Pilote 100	50	Check	0.659	B.2.4.5-8	28.4	0.04344	0.05899	No Message
N-3.50	C409	Pilote 100	0	Check	0.659	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C409	Pilote 100	0.1	Check	0.659	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C409	Pilote 100	0.2	Check	0.659	B.2.4.5-8	28.4	0	0	No Message
N-3.50	C410	Pilote 100	0	Check	0.025	B.2.4.2-1	28.4	0.00135	0.00498	No Message
N-3.50	C410	Pilote 100	25	Check	0.024	B.2.4.2-1	28.4	0.00135	0.00498	No Message
N-3.50	C410	Pilote 100	50	Check	0.024	B.2.4.2-1	28.4	0.00135	0.00498	No Message
N-3.50	C411	Pilote 100	0	Check	0.024	B.2.4.2-1	28.4	0.00139	0.00353	No Message
N-3.50	C411	Pilote 100	25	Check	0.023	B.2.4.2-1	28.4	0.00139	0.00353	No Message
N-3.50	C411	Pilote 100	50	Check	0.022	B.2.4.2-1	28.4	0.00139	0.00353	No Message
N-3.50	C412	Pilote 100	0	Check	0.022	B.2.4.2-1	28.4	0.00204	0.00337	No Message
N-3.50	C412	Pilote 100	25	Check	0.022	B.2.4.2-1	28.4	0.00204	0.00337	No Message
N-3.50	C412	Pilote 100	50	Check	0.021	B.2.4.2-1	28.4	0.00204	0.00337	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C413	Pilote 100	0	Check	0.021	B.2.4.2-1	28.4	0.00285	0.00426	No Message	
N-3.50	C413	Pilote 100	25	Check	0.02	B.2.4.5-8	28.4	0.00285	0.00426	No Message	
N-3.50	C413	Pilote 100	50	Check	0.02	B.2.4.5-8	28.4	0.00285	0.00426	No Message	
N-3.50	C414	Pilote 100	0	Check	0.02	B.2.4.5-8	28.4	0.00373	0.00551	No Message	
N-3.50	C414	Pilote 100	25	Check	0.02	B.2.4.5-8	28.4	0.00373	0.00551	No Message	
N-3.50	C414	Pilote 100	50	Check	0.021	B.2.4.5-8	28.4	0.00373	0.00551	No Message	
N-3.50	C415	Pilote 100	0	Check	0.021	B.2.4.5-8	28.4	0.0046	0.00677	No Message	
N-3.50	C415	Pilote 100	25	Check	0.022	B.2.4.5-8	28.4	0.0046	0.00677	No Message	
N-3.50	C415	Pilote 100	50	Check	0.023	B.2.4.5-8	28.4	0.0046	0.00677	No Message	
N-3.50	C416	Pilote 100	0	Check	0.023	B.2.4.5-8	28.4	0.00541	0.00793	No Message	
N-3.50	C416	Pilote 100	25	Check	0.033	B.2.4.7-8	28.4	0.00541	0.00793	No Message	
N-3.50	C416	Pilote 100	50	Check	0.043	B.2.4.7-8	28.4	0.00541	0.00793	No Message	
N-3.50	C417	Pilote 100	0	Check	0.043	B.2.4.7-8	28.4	0.0061	0.00889	No Message	
N-3.50	C417	Pilote 100	25	Check	0.056	B.2.4.7-8	28.4	0.0061	0.00889	No Message	
N-3.50	C417	Pilote 100	50	Check	0.07	B.2.4.7-8	28.4	0.0061	0.00889	No Message	
N-3.50	C418	Pilote 100	0	Check	0.07	B.2.4.7-8	28.4	0.00661	0.00957	No Message	
N-3.50	C418	Pilote 100	25	Check	0.085	B.2.4.7-8	28.4	0.00661	0.00957	No Message	
N-3.50	C418	Pilote 100	50	Check	0.099	B.2.4.7-8	28.4	0.00661	0.00957	No Message	
N-3.50	C419	Pilote 100	0	Check	0.099	B.2.4.7-8	28.4	0.00697	0.00987	No Message	
N-3.50	C419	Pilote 100	25	Check	0.115	B.2.4.7-8	28.4	0.00697	0.00987	No Message	
N-3.50	C419	Pilote 100	50	Check	0.13	B.2.4.7-8	28.4	0.00697	0.00987	No Message	
N-3.50	C420	Pilote 100	0	Check	0.13	B.2.4.7-8	28.4	0.00713	0.00976	No Message	
N-3.50	C420	Pilote 100	25	Check	0.145	B.2.4.7-8	28.4	0.00713	0.00976	No Message	
N-3.50	C420	Pilote 100	50	Check	0.16	B.2.4.7-8	28.4	0.00713	0.00976	No Message	
N-3.50	C421	Pilote 100	0	Check	0.16	B.2.4.7-8	28.4	0.00693	0.0093	No Message	
N-3.50	C421	Pilote 100	25	Check	0.174	B.2.4.7-8	28.4	0.00693	0.0093	No Message	
N-3.50	C421	Pilote 100	50	Check	0.189	B.2.4.7-8	28.4	0.00693	0.0093	No Message	
N-3.50	C422	Pilote 100	0	Check	0.189	B.2.4.7-8	28.4	0.00629	0.00819	No Message	
N-3.50	C422	Pilote 100	25	Check	0.201	B.2.4.7-8	28.4	0.00629	0.00819	No Message	
N-3.50	C422	Pilote 100	50	Check	0.214	B.2.4.7-8	28.4	0.00629	0.00819	No Message	
N-3.50	C423	Pilote 100	0	Check	0.214	B.2.4.7-8	28.4	0.00511	0.00632	No Message	
N-3.50	C423	Pilote 100	25	Check	0.224	B.2.4.7-8	28.4	0.00511	0.00632	No Message	
N-3.50	C423	Pilote 100	50	Check	0.234	B.2.4.7-8	28.4	0.00511	0.00632	No Message	
N-3.50	C424	Pilote 100	0	Check	0.234	B.2.4.7-8	28.4	0.00338	0.00365	No Message	
N-3.50	C424	Pilote 100	25	Check	0.24	B.2.4.7-8	28.4	0.00338	0.00365	No Message	
N-3.50	C424	Pilote 100	50	Check	0.246	B.2.4.7-8	28.4	0.00338	0.00365	No Message	
N-3.50	C425	Pilote 100	0	Check	0.246	B.2.4.7-8	28.4	0.0006	0.00284	No Message	
N-3.50	C425	Pilote 100	25	Check	0.249	B.2.4.7-8	28.4	0.0006	0.00284	No Message	
N-3.50	C425	Pilote 100	50	Check	0.253	B.2.4.7-8	28.4	0.0006	0.00284	No Message	
N-3.50	C426	Pilote 100	0	Check	0.253	B.2.4.7-8	28.4	0.00493	0.00799	No Message	
N-3.50	C426	Pilote 100	25	Check	0.25	B.2.4.7-8	28.4	0.00493	0.00799	No Message	
N-3.50	C426	Pilote 100	50	Check	0.248	B.2.4.7-8	28.4	0.00493	0.00799	No Message	
N-3.50	C427	Pilote 100	0	Check	0.248	B.2.4.7-8	28.4	0.00905	0.0141	No Message	
N-3.50	C427	Pilote 100	25	Check	0.238	B.2.4.7-8	28.4	0.00905	0.0141	No Message	
N-3.50	C427	Pilote 100	50	Check	0.229	B.2.4.7-8	28.4	0.00905	0.0141	No Message	
N-3.50	C428	Pilote 100	0	Check	0.229	B.2.4.7-8	28.4	0.01371	0.02096	No Message	
N-3.50	C428	Pilote 100	25	Check	0.212	B.2.4.7-8	28.4	0.01371	0.02096	No Message	
N-3.50	C428	Pilote 100	50	Check	0.196	B.2.4.7-8	28.4	0.01371	0.02096	No Message	
N-3.50	C429	Pilote 100	0	Check	0.196	B.2.4.7-8	28.4	0.01879	0.02839	No Message	
N-3.50	C429	Pilote 100	25	Check	0.173	B.2.4.7-8	28.4	0.01879	0.02839	No Message	
N-3.50	C429	Pilote 100	50	Check	0.155	B.2.4.5-3	28.4	0.01879	0.02839	No Message	
N-3.50	C430	Pilote 100	0	Check	0.155	B.2.4.5-3	28.4	0.02409	0.03612	No Message	
N-3.50	C430	Pilote 100	25	Check	0.136	B.2.4.5-3	28.4	0.02409	0.03612	No Message	
N-3.50	C430	Pilote 100	50	Check	0.137	B.2.4.1	28.4	0.02409	0.03612	No Message	
N-3.50	C431	Pilote 100	0	Check	0.137	B.2.4.1	28.4	0.02941	0.04384	No Message	
N-3.50	C431	Pilote 100	25	Check	0.178	B.2.4.5-8	28.4	0.02941	0.04384	No Message	
N-3.50	C431	Pilote 100	50	Check	0.234	B.2.4.5-8	28.4	0.02941	0.04384	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C432	Pilote 100	0	Check	0.234	B.2.4.5-8	28.4	0.03443	0.05111	No Message	
N-3.50	C432	Pilote 100	25	Check	0.299	B.2.4.5-8	28.4	0.03443	0.05111	No Message	
N-3.50	C432	Pilote 100	50	Check	0.366	B.2.4.5-8	28.4	0.03443	0.05111	No Message	
N-3.50	C433	Pilote 100	0	Check	0.366	B.2.4.5-8	28.4	0.03893	0.05759	No Message	
N-3.50	C433	Pilote 100	25	Check	0.442	B.2.4.5-8	28.4	0.03893	0.05759	No Message	
N-3.50	C433	Pilote 100	50	Check	0.517	B.2.4.5-8	28.4	0.03893	0.05759	No Message	
N-3.50	C434	Pilote 100	0	Check	0.517	B.2.4.5-8	28.4	0.04264	0.0629	No Message	
N-3.50	C434	Pilote 100	25	Check	0.599	B.2.4.5-8	28.4	0.04264	0.0629	No Message	
N-3.50	C434	Pilote 100	50	Check	0.681	B.2.4.5-8	28.4	0.04264	0.0629	No Message	
N-3.50	C435	Pilote 100	0	Check	0.681	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C435	Pilote 100	0.1	Check	0.681	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C435	Pilote 100	0.2	Check	0.682	B.2.4.5-8	28.4	0	0	No Message	
N-3.50	C436	Pilote 100	0	Check	0.033	B.2.4.5-3	28.4	0.00228	0.00388	No Message	
N-3.50	C436	Pilote 100	25	Check	0.032	B.2.4.5-3	28.4	0.00228	0.00388	No Message	
N-3.50	C436	Pilote 100	50	Check	0.031	B.2.4.5-3	28.4	0.00228	0.00388	No Message	
N-3.50	C437	Pilote 100	0	Check	0.031	B.2.4.5-3	28.4	0.00238	0.00303	No Message	
N-3.50	C437	Pilote 100	25	Check	0.031	B.2.4.5-3	28.4	0.00238	0.00303	No Message	
N-3.50	C437	Pilote 100	50	Check	0.03	B.2.4.5-3	28.4	0.00238	0.00303	No Message	
N-3.50	C438	Pilote 100	0	Check	0.03	B.2.4.5-3	28.4	0.00344	0.00332	No Message	
N-3.50	C438	Pilote 100	25	Check	0.029	B.2.4.5-3	28.4	0.00344	0.00332	No Message	
N-3.50	C438	Pilote 100	50	Check	0.028	B.2.4.5-3	28.4	0.00344	0.00332	No Message	
N-3.50	C439	Pilote 100	0	Check	0.028	B.2.4.5-3	28.4	0.00462	0.00438	No Message	
N-3.50	C439	Pilote 100	25	Check	0.028	B.2.4.5-3	28.4	0.00462	0.00438	No Message	
N-3.50	C439	Pilote 100	50	Check	0.027	B.2.4.5-3	28.4	0.00462	0.00438	No Message	
N-3.50	C440	Pilote 100	0	Check	0.027	B.2.4.5-3	28.4	0.00583	0.00567	No Message	
N-3.50	C440	Pilote 100	25	Check	0.027	B.2.4.5-3	28.4	0.00583	0.00567	No Message	
N-3.50	C440	Pilote 100	50	Check	0.027	B.2.4.5-3	28.4	0.00583	0.00567	No Message	
N-3.50	C441	Pilote 100	0	Check	0.027	B.2.4.5-3	28.4	0.00694	0.00695	No Message	
N-3.50	C441	Pilote 100	25	Check	0.028	B.2.4.5-3	28.4	0.00694	0.00695	No Message	
N-3.50	C441	Pilote 100	50	Check	0.029	B.2.4.5-3	28.4	0.00694	0.00695	No Message	
N-3.50	C442	Pilote 100	0	Check	0.029	B.2.4.5-3	28.4	0.00787	0.00812	No Message	
N-3.50	C442	Pilote 100	25	Check	0.031	B.2.4.5-3	28.4	0.00787	0.00812	No Message	
N-3.50	C442	Pilote 100	50	Check	0.034	B.2.4.5-8	28.4	0.00787	0.00812	No Message	
N-3.50	C443	Pilote 100	0	Check	0.034	B.2.4.5-8	28.4	0.00856	0.0091	No Message	
N-3.50	C443	Pilote 100	25	Check	0.045	B.2.4.7-4	28.4	0.00856	0.0091	No Message	
N-3.50	C443	Pilote 100	50	Check	0.057	B.2.4.7-4	28.4	0.00856	0.0091	No Message	
N-3.50	C444	Pilote 100	0	Check	0.057	B.2.4.7-4	28.4	0.0089	0.0098	No Message	
N-3.50	C444	Pilote 100	25	Check	0.071	B.2.4.7-4	28.4	0.0089	0.0098	No Message	
N-3.50	C444	Pilote 100	50	Check	0.086	B.2.4.7-4	28.4	0.0089	0.0098	No Message	
N-3.50	C445	Pilote 100	0	Check	0.086	B.2.4.7-4	28.4	0.00879	0.0101	No Message	
N-3.50	C445	Pilote 100	25	Check	0.101	B.2.4.7-4	28.4	0.00879	0.0101	No Message	
N-3.50	C445	Pilote 100	50	Check	0.115	B.2.4.7-4	28.4	0.00879	0.0101	No Message	
N-3.50	C446	Pilote 100	0	Check	0.115	B.2.4.7-4	28.4	0.00813	0.00988	No Message	
N-3.50	C446	Pilote 100	25	Check	0.13	B.2.4.7-8	28.4	0.00813	0.00988	No Message	
N-3.50	C446	Pilote 100	50	Check	0.146	B.2.4.7-8	28.4	0.00813	0.00988	No Message	
N-3.50	C447	Pilote 100	0	Check	0.146	B.2.4.7-8	28.4	0.00716	0.00902	No Message	
N-3.50	C447	Pilote 100	25	Check	0.16	B.2.4.7-8	28.4	0.00716	0.00902	No Message	
N-3.50	C447	Pilote 100	50	Check	0.175	B.2.4.7-8	28.4	0.00716	0.00902	No Message	
N-3.50	C448	Pilote 100	0	Check	0.175	B.2.4.7-8	28.4	0.00676	0.00815	No Message	
N-3.50	C448	Pilote 100	25	Check	0.187	B.2.4.7-8	28.4	0.00676	0.00815	No Message	
N-3.50	C448	Pilote 100	50	Check	0.199	B.2.4.7-8	28.4	0.00676	0.00815	No Message	
N-3.50	C449	Pilote 100	0	Check	0.199	B.2.4.7-8	28.4	0.00591	0.0066	No Message	
N-3.50	C449	Pilote 100	25	Check	0.209	B.2.4.7-8	28.4	0.00591	0.0066	No Message	
N-3.50	C449	Pilote 100	50	Check	0.218	B.2.4.7-8	28.4	0.00591	0.0066	No Message	
N-3.50	C450	Pilote 100	0	Check	0.218	B.2.4.7-8	28.4	0.00195	0.0043	No Message	
N-3.50	C450	Pilote 100	25	Check	0.223	B.2.4.7-8	28.4	0.00195	0.0043	No Message	
N-3.50	C450	Pilote 100	50	Check	0.227	B.2.4.7-8	28.4	0.00195	0.0043	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C451	Pilote 100	0	Check	0.227	B.2.4.7-8	28.4	0.00307	0.00132	No Message
N-3.50	C451	Pilote 100	25	Check	0.227	B.2.4.7-8	28.4	0.00307	0.00132	No Message
N-3.50	C451	Pilote 100	50	Check	0.226	B.2.4.7-8	28.4	0.00307	0.00132	No Message
N-3.50	C452	Pilote 100	0	Check	0.226	B.2.4.7-8	28.4	0.01272	0.00833	No Message
N-3.50	C452	Pilote 100	25	Check	0.222	B.2.4.7-8	28.4	0.01272	0.00833	No Message
N-3.50	C452	Pilote 100	50	Check	0.222	B.2.4.7-8	28.4	0.01272	0.00833	No Message
N-3.50	C453	Pilote 100	0	Check	0.222	B.2.4.7-8	28.4	0.01921	0.01463	No Message
N-3.50	C453	Pilote 100	25	Check	0.215	B.2.4.7-8	28.4	0.01921	0.01463	No Message
N-3.50	C453	Pilote 100	50	Check	0.209	B.2.4.7-8	28.4	0.01921	0.01463	No Message
N-3.50	C454	Pilote 100	0	Check	0.209	B.2.4.7-8	28.4	0.02632	0.02168	No Message
N-3.50	C454	Pilote 100	25	Check	0.195	B.2.4.7-8	28.4	0.02632	0.02168	No Message
N-3.50	C454	Pilote 100	50	Check	0.182	B.2.4.7-8	28.4	0.02632	0.02168	No Message
N-3.50	C455	Pilote 100	0	Check	0.182	B.2.4.7-8	28.4	0.03386	0.02932	No Message
N-3.50	C455	Pilote 100	25	Check	0.164	B.2.4.5-8	28.4	0.03386	0.02932	No Message
N-3.50	C455	Pilote 100	50	Check	0.155	B.2.4.5-8	28.4	0.03386	0.02932	No Message
N-3.50	C456	P100R	0	Check	0.092	B.2.4.5-8	51	0.04154	0.03727	No Message
N-3.50	C456	P100R	25	Check	0.089	B.2.4.5-8	51	0.04154	0.03727	No Message
N-3.50	C456	P100R	50	Check	0.113	B.2.4.5-3	51	0.04154	0.03727	No Message
N-3.50	C457	P100R	0	Check	0.113	B.2.4.5-3	51	0.04905	0.0452	No Message
N-3.50	C457	P100R	25	Check	0.153	B.2.4.5-3	51	0.04905	0.0452	No Message
N-3.50	C457	P100R	50	Check	0.193	B.2.4.5-3	51	0.04905	0.0452	No Message
N-3.50	C458	P100R	0	Check	0.193	B.2.4.5-3	51	0.05595	0.05266	No Message
N-3.50	C458	P100R	25	Check	0.24	B.2.4.5-3	51	0.05595	0.05266	No Message
N-3.50	C458	P100R	50	Check	0.286	B.2.4.5-3	51	0.05595	0.05266	No Message
N-3.50	C459	P100R	0	Check	0.286	B.2.4.5-3	51	0.06196	0.05931	No Message
N-3.50	C459	P100R	25	Check	0.337	B.2.4.5-3	51	0.06196	0.05931	No Message
N-3.50	C459	P100R	50	Check	0.388	B.2.4.5-3	51	0.06196	0.05931	No Message
N-3.50	C460	P100R	0	Check	0.388	B.2.4.5-3	51	0.06674	0.06475	No Message
N-3.50	C460	P100R	25	Check	0.443	B.2.4.5-3	51	0.06674	0.06475	No Message
N-3.50	C460	P100R	50	Check	0.498	B.2.4.5-3	51	0.06674	0.06475	No Message
N-3.50	C461	P100R	0	Check	0.498	B.2.4.5-3	51	0	0	No Message
N-3.50	C461	P100R	0.1	Check	0.499	B.2.4.5-3	51	0	0	No Message
N-3.50	C461	P100R	0.2	Check	0.499	B.2.4.5-3	51	0	0	No Message
N-3.50	C462	Pilote 100	0	Check	0.031	B.2.4.2-1	28.4	0.00371	0.00291	No Message
N-3.50	C462	Pilote 100	25	Check	0.03	B.2.4.2-1	28.4	0.00371	0.00291	No Message
N-3.50	C462	Pilote 100	50	Check	0.029	B.2.4.2-1	28.4	0.00371	0.00291	No Message
N-3.50	C463	Pilote 100	0	Check	0.029	B.2.4.2-1	28.4	0.00314	0.00215	No Message
N-3.50	C463	Pilote 100	25	Check	0.029	B.2.4.2-1	28.4	0.00314	0.00215	No Message
N-3.50	C463	Pilote 100	50	Check	0.028	B.2.4.2-1	28.4	0.00314	0.00215	No Message
N-3.50	C464	Pilote 100	0	Check	0.028	B.2.4.2-1	28.4	0.0036	0.00238	No Message
N-3.50	C464	Pilote 100	25	Check	0.027	B.2.4.2-1	28.4	0.0036	0.00238	No Message
N-3.50	C464	Pilote 100	50	Check	0.027	B.2.4.2-1	28.4	0.0036	0.00238	No Message
N-3.50	C465	Pilote 100	0	Check	0.027	B.2.4.2-1	28.4	0.00468	0.00323	No Message
N-3.50	C465	Pilote 100	25	Check	0.026	B.2.4.2-1	28.4	0.00468	0.00323	No Message
N-3.50	C465	Pilote 100	50	Check	0.025	B.2.4.2-1	28.4	0.00468	0.00323	No Message
N-3.50	C466	Pilote 100	0	Check	0.025	B.2.4.2-1	28.4	0.0059	0.00428	No Message
N-3.50	C466	Pilote 100	25	Check	0.024	B.2.4.2-1	28.4	0.0059	0.00428	No Message
N-3.50	C466	Pilote 100	50	Check	0.024	B.2.4.5-3	28.4	0.0059	0.00428	No Message
N-3.50	C467	Pilote 100	0	Check	0.024	B.2.4.5-3	28.4	0.00704	0.00535	No Message
N-3.50	C467	Pilote 100	25	Check	0.025	B.2.4.5-3	28.4	0.00704	0.00535	No Message
N-3.50	C467	Pilote 100	50	Check	0.027	B.2.4.5-3	28.4	0.00704	0.00535	No Message
N-3.50	C468	Pilote 100	0	Check	0.027	B.2.4.5-3	28.4	0.008	0.00636	No Message
N-3.50	C468	Pilote 100	25	Check	0.029	B.2.4.5-3	28.4	0.008	0.00636	No Message
N-3.50	C468	Pilote 100	50	Check	0.032	B.2.4.5-3	28.4	0.008	0.00636	No Message
N-3.50	C469	Pilote 100	0	Check	0.032	B.2.4.5-3	28.4	0.00871	0.00726	No Message
N-3.50	C469	Pilote 100	25	Check	0.039	B.2.4.7-4	28.4	0.00871	0.00726	No Message
N-3.50	C469	Pilote 100	50	Check	0.05	B.2.4.7-4	28.4	0.00871	0.00726	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		At V Minor	Warnings
								cm	cm ²		
N-3.50	C470	Pilote 100	0	Check	0.05	B.2.4.7-4	28.4	0.00906	0.00797	No Message	
N-3.50	C470	Pilote 100	25	Check	0.063	B.2.4.7-4	28.4	0.00906	0.00797	No Message	
N-3.50	C470	Pilote 100	50	Check	0.077	B.2.4.7-4	28.4	0.00906	0.00797	No Message	
N-3.50	C471	Pilote 100	0	Check	0.077	B.2.4.7-4	28.4	0.00896	0.00841	No Message	
N-3.50	C471	Pilote 100	25	Check	0.092	B.2.4.7-4	28.4	0.00896	0.00841	No Message	
N-3.50	C471	Pilote 100	50	Check	0.106	B.2.4.7-4	28.4	0.00896	0.00841	No Message	
N-3.50	C472	Pilote 100	0	Check	0.106	B.2.4.7-4	28.4	0.0083	0.00847	No Message	
N-3.50	C472	Pilote 100	25	Check	0.12	B.2.4.7-4	28.4	0.0083	0.00847	No Message	
N-3.50	C472	Pilote 100	50	Check	0.135	B.2.4.7-4	28.4	0.0083	0.00847	No Message	
N-3.50	C473	Pilote 100	0	Check	0.135	B.2.4.7-4	28.4	0.00813	0.00806	No Message	
N-3.50	C473	Pilote 100	25	Check	0.148	B.2.4.7-4	28.4	0.00813	0.00806	No Message	
N-3.50	C473	Pilote 100	50	Check	0.161	B.2.4.7-4	28.4	0.00813	0.00806	No Message	
N-3.50	C474	Pilote 100	0	Check	0.161	B.2.4.7-4	28.4	0.00769	0.00708	No Message	
N-3.50	C474	Pilote 100	25	Check	0.171	B.2.4.7-4	28.4	0.00769	0.00708	No Message	
N-3.50	C474	Pilote 100	50	Check	0.182	B.2.4.7-4	28.4	0.00769	0.00708	No Message	
N-3.50	C475	Pilote 100	0	Check	0.182	B.2.4.7-4	28.4	0.00672	0.00544	No Message	
N-3.50	C475	Pilote 100	25	Check	0.19	B.2.4.7-4	28.4	0.00672	0.00544	No Message	
N-3.50	C475	Pilote 100	50	Check	0.198	B.2.4.7-4	28.4	0.00672	0.00544	No Message	
N-3.50	C476	Pilote 100	0	Check	0.198	B.2.4.7-4	28.4	0.00196	0.00312	No Message	
N-3.50	C476	Pilote 100	25	Check	0.201	B.2.4.7-4	28.4	0.00196	0.00312	No Message	
N-3.50	C476	Pilote 100	50	Check	0.204	B.2.4.7-4	28.4	0.00196	0.00312	No Message	
N-3.50	C477	Pilote 100	0	Check	0.204	B.2.4.7-4	28.4	0.00276	0.00105	No Message	
N-3.50	C477	Pilote 100	25	Check	0.205	B.2.4.7-8	28.4	0.00276	0.00105	No Message	
N-3.50	C477	Pilote 100	50	Check	0.209	B.2.4.7-8	28.4	0.00276	0.00105	No Message	
N-3.50	C478	Pilote 100	0	Check	0.209	B.2.4.7-8	28.4	0.01273	0.00436	No Message	
N-3.50	C478	Pilote 100	25	Check	0.209	B.2.4.7-8	28.4	0.01273	0.00436	No Message	
N-3.50	C478	Pilote 100	50	Check	0.208	B.2.4.7-4	28.4	0.01273	0.00436	No Message	
N-3.50	C479	Pilote 100	0	Check	0.208	B.2.4.7-4	28.4	0.0193	0.00904	No Message	
N-3.50	C479	Pilote 100	25	Check	0.203	B.2.4.7-4	28.4	0.0193	0.00904	No Message	
N-3.50	C479	Pilote 100	50	Check	0.197	B.2.4.7-4	28.4	0.0193	0.00904	No Message	
N-3.50	C480	Pilote 100	0	Check	0.197	B.2.4.7-4	28.4	0.0265	0.01441	No Message	
N-3.50	C480	Pilote 100	25	Check	0.185	B.2.4.7-4	28.4	0.0265	0.01441	No Message	
N-3.50	C480	Pilote 100	50	Check	0.173	B.2.4.5-3	28.4	0.0265	0.01441	No Message	
N-3.50	C481	Pilote 100	0	Check	0.173	B.2.4.5-3	28.4	0.03413	0.02031	No Message	
N-3.50	C481	Pilote 100	25	Check	0.16	B.2.4.5-3	28.4	0.03413	0.02031	No Message	
N-3.50	C481	Pilote 100	50	Check	0.148	B.2.4.5-3	28.4	0.03413	0.02031	No Message	
N-3.50	C482	Pilote 100	0	Check	0.148	B.2.4.5-3	28.4	0.04192	0.02654	No Message	
N-3.50	C482	Pilote 100	25	Check	0.146	B.2.4.1	28.4	0.04192	0.02654	No Message	
N-3.50	C482	Pilote 100	50	Check	0.178	B.2.4.5-3	28.4	0.04192	0.02654	No Message	
N-3.50	C483	Pilote 100	0	Check	0.178	B.2.4.5-3	28.4	0.04954	0.03284	No Message	
N-3.50	C483	Pilote 100	25	Check	0.24	B.2.4.5-3	28.4	0.04954	0.03284	No Message	
N-3.50	C483	Pilote 100	50	Check	0.303	B.2.4.5-3	28.4	0.04954	0.03284	No Message	
N-3.50	C484	Pilote 100	0	Check	0.303	B.2.4.5-3	28.4	0.05654	0.03884	No Message	
N-3.50	C484	Pilote 100	25	Check	0.376	B.2.4.5-3	28.4	0.05654	0.03884	No Message	
N-3.50	C484	Pilote 100	50	Check	0.448	B.2.4.5-3	28.4	0.05654	0.03884	No Message	
N-3.50	C485	Pilote 100	0	Check	0.448	B.2.4.5-3	28.4	0.06265	0.04426	No Message	
N-3.50	C485	Pilote 100	25	Check	0.528	B.2.4.5-3	28.4	0.06265	0.04426	No Message	
N-3.50	C485	Pilote 100	50	Check	0.608	B.2.4.5-3	28.4	0.06265	0.04426	No Message	
N-3.50	C486	Pilote 100	0	Check	0.608	B.2.4.5-3	28.4	0.0675	0.04877	No Message	
N-3.50	C486	Pilote 100	25	Check	0.695	B.2.4.5-3	28.4	0.0675	0.04877	No Message	
N-3.50	C486	Pilote 100	50	Check	0.784	B.2.4.5-3	28.4	0.0675	0.04877	No Message	
N-3.50	C487	Pilote 100	0	Check	0.784	B.2.4.5-3	28.4	0	0	No Message	
N-3.50	C487	Pilote 100	0.1	Check	0.784	B.2.4.5-3	28.4	0	0	No Message	
N-3.50	C487	Pilote 100	0.2	Check	0.784	B.2.4.5-3	28.4	0	0	No Message	
N-3.50	C488	Pilote 100	0	Check	0.027	B.2.4.2-1	28.4	0.00226	0.00327	No Message	
N-3.50	C488	Pilote 100	25	Check	0.026	B.2.4.2-1	28.4	0.00226	0.00327	No Message	

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C491	Pilote 100	0	Check	0.022	B.2.4.2-1	28.4	0.004	0.003	No Message
N-3.50	C491	Pilote 100	25	Check	0.022	B.2.4.2-1	28.4	0.004	0.003	No Message
N-3.50	C491	Pilote 100	50	Check	0.021	B.2.4.2-1	28.4	0.004	0.003	No Message
N-3.50	C492	Pilote 100	0	Check	0.021	B.2.4.2-1	28.4	0.006	0.004	No Message
N-3.50	C492	Pilote 100	25	Check	0.02	B.2.4.2-1	28.4	0.006	0.004	No Message
N-3.50	C492	Pilote 100	50	Check	0.021	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C493	Pilote 100	0	Check	0.021	B.2.4.5-3	28.4	0.007	0.005	No Message
N-3.50	C493	Pilote 100	25	Check	0.022	B.2.4.5-3	28.4	0.007	0.005	No Message
N-3.50	C493	Pilote 100	50	Check	0.024	B.2.4.5-3	28.4	0.007	0.005	No Message
N-3.50	C494	Pilote 100	0	Check	0.024	B.2.4.5-3	28.4	0.008	0.006	No Message
N-3.50	C494	Pilote 100	25	Check	0.027	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C494	Pilote 100	50	Check	0.037	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C495	Pilote 100	0	Check	0.037	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C495	Pilote 100	25	Check	0.048	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C495	Pilote 100	50	Check	0.062	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C496	Pilote 100	0	Check	0.062	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C496	Pilote 100	25	Check	0.076	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C496	Pilote 100	50	Check	0.09	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C497	Pilote 100	0	Check	0.09	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C497	Pilote 100	25	Check	0.105	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C497	Pilote 100	50	Check	0.119	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C498	Pilote 100	0	Check	0.119	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C498	Pilote 100	25	Check	0.133	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C498	Pilote 100	50	Check	0.147	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C499	Pilote 100	0	Check	0.147	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C499	Pilote 100	25	Check	0.159	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C499	Pilote 100	50	Check	0.172	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C500	Pilote 100	0	Check	0.172	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C500	Pilote 100	25	Check	0.183	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C500	Pilote 100	50	Check	0.193	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C501	Pilote 100	0	Check	0.193	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C501	Pilote 100	25	Check	0.201	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C501	Pilote 100	50	Check	0.209	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C502	Pilote 100	0	Check	0.209	B.2.4.7-4	28.4	0.002	0.005	No Message
N-3.50	C502	Pilote 100	25	Check	0.218	B.2.4.7-4	28.4	0.002	0.005	No Message
N-3.50	C502	Pilote 100	50	Check	0.227	B.2.4.7-4	28.4	0.002	0.005	No Message
N-3.50	C503	Pilote 100	0	Check	0.227	B.2.4.7-4	28.4	0.003	0.003	No Message
N-3.50	C503	Pilote 100	25	Check	0.233	B.2.4.7-4	28.4	0.003	0.003	No Message
N-3.50	C503	Pilote 100	50	Check	0.238	B.2.4.7-4	28.4	0.003	0.003	No Message
N-3.50	C504	Pilote 100	0	Check	0.238	B.2.4.7-4	28.4	0.012	0.006	No Message
N-3.50	C504	Pilote 100	25	Check	0.239	B.2.4.7-4	28.4	0.012	0.006	No Message
N-3.50	C504	Pilote 100	50	Check	0.24	B.2.4.7-4	28.4	0.012	0.006	No Message
N-3.50	C505	Pilote 100	0	Check	0.24	B.2.4.7-4	28.4	0.018	0.011	No Message
N-3.50	C505	Pilote 100	25	Check	0.235	B.2.4.7-4	28.4	0.018	0.011	No Message
N-3.50	C505	Pilote 100	50	Check	0.234	B.2.4.5-3	28.4	0.018	0.011	No Message
N-3.50	C506	Pilote 100	0	Check	0.234	B.2.4.5-3	28.4	0.025	0.016	No Message
N-3.50	C506	Pilote 100	25	Check	0.229	B.2.4.5-3	28.4	0.025	0.016	No Message
N-3.50	C506	Pilote 100	50	Check	0.224	B.2.4.5-3	28.4	0.025	0.016	No Message
N-3.50	C507	Pilote 100	0	Check	0.224	B.2.4.5-3	28.4	0.032	0.021	No Message
N-3.50	C507	Pilote 100	25	Check	0.213	B.2.4.5-3	28.4	0.032	0.021	No Message
N-3.50	C507	Pilote 100	50	Check	0.205	B.2.4.5-8	28.4	0.032	0.021	No Message
N-3.50	C508	Pilote 100	0	Check	0.205	B.2.4.5-8	28.4	0.040	0.027	No Message
N-3.50	C508	Pilote 100	25	Check	0.196	B.2.4.5-8	28.4	0.040	0.027	No Message
N-3.50	C508	Pilote 100	50	Check	0.215	B.2.4.5-3	28.4	0.040	0.027	No Message
N-3.50	C509	Pilote 100	0	Check	0.215	B.2.4.5-3	28.4	0.047	0.033	No Message
N-3.50	C509	Pilote 100	25	Check	0.269	B.2.4.5-3	28.4	0.047	0.033	No Message
N-3.50	C509	Pilote 100	50	Check	0.328	B.2.4.5-3	28.4	0.047	0.033	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C510	Pilote 100	0	Check	0.328	B.2.4.5-3	28.4	0.053	0.038	No Message
N-3.50	C510	Pilote 100	25	Check	0.398	B.2.4.5-3	28.4	0.053	0.038	No Message
N-3.50	C510	Pilote 100	50	Check	0.469	B.2.4.5-3	28.4	0.053	0.038	No Message
N-3.50	C511	Pilote 100	0	Check	0.469	B.2.4.5-3	28.4	0.059	0.043	No Message
N-3.50	C511	Pilote 100	25	Check	0.548	B.2.4.5-3	28.4	0.059	0.043	No Message
N-3.50	C511	Pilote 100	50	Check	0.627	B.2.4.5-3	28.4	0.059	0.043	No Message
N-3.50	C512	Pilote 100	0	Check	0.627	B.2.4.5-3	28.4	0.064	0.047	No Message
N-3.50	C512	Pilote 100	25	Check	0.712	B.2.4.5-3	28.4	0.064	0.047	No Message
N-3.50	C512	Pilote 100	50	Check	0.798	B.2.4.5-3	28.4	0.064	0.047	No Message
N-3.50	C513	Pilote 100	0	Check	0.798	B.2.4.5-3	28.4	0.000	0.000	No Message
N-3.50	C513	Pilote 100	0.1	Check	0.798	B.2.4.5-3	28.4	0.000	0.000	No Message
N-3.50	C513	Pilote 100	0.2	Check	0.799	B.2.4.5-3	28.4	0.000	0.000	No Message
N-3.50	C540	Pilote 100	0	Check	0.022	B.2.4.5-3	28.4	0.009	0.005	No Message
N-3.50	C540	Pilote 100	25	Check	0.021	B.2.4.5-3	28.4	0.009	0.005	No Message
N-3.50	C540	Pilote 100	50	Check	0.021	B.2.4.5-3	28.4	0.009	0.005	No Message
N-3.50	C541	Pilote 100	0	Check	0.021	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C541	Pilote 100	25	Check	0.029	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C541	Pilote 100	50	Check	0.039	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C542	Pilote 100	0	Check	0.039	B.2.4.7-4	28.4	0.004	0.004	No Message
N-3.50	C542	Pilote 100	25	Check	0.047	B.2.4.7-4	28.4	0.004	0.004	No Message
N-3.50	C542	Pilote 100	50	Check	0.055	B.2.4.7-4	28.4	0.004	0.004	No Message
N-3.50	C543	Pilote 100	0	Check	0.055	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C543	Pilote 100	25	Check	0.062	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C543	Pilote 100	50	Check	0.069	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C544	Pilote 100	0	Check	0.069	B.2.4.7-4	28.4	0.004	0.006	No Message
N-3.50	C544	Pilote 100	25	Check	0.077	B.2.4.7-4	28.4	0.004	0.006	No Message
N-3.50	C544	Pilote 100	50	Check	0.085	B.2.4.7-4	28.4	0.004	0.006	No Message
N-3.50	C545	Pilote 100	0	Check	0.085	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C545	Pilote 100	25	Check	0.094	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C545	Pilote 100	50	Check	0.103	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C546	Pilote 100	0	Check	0.103	B.2.4.7-4	28.4	0.006	0.008	No Message
N-3.50	C546	Pilote 100	25	Check	0.114	B.2.4.7-4	28.4	0.006	0.008	No Message
N-3.50	C546	Pilote 100	50	Check	0.125	B.2.4.7-4	28.4	0.006	0.008	No Message
N-3.50	C547	Pilote 100	0	Check	0.125	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C547	Pilote 100	25	Check	0.138	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C547	Pilote 100	50	Check	0.151	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C548	Pilote 100	0	Check	0.151	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C548	Pilote 100	25	Check	0.165	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C548	Pilote 100	50	Check	0.179	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C549	Pilote 100	0	Check	0.179	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C549	Pilote 100	25	Check	0.194	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C549	Pilote 100	50	Check	0.209	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C550	Pilote 100	0	Check	0.209	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C550	Pilote 100	25	Check	0.223	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C550	Pilote 100	50	Check	0.238	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C551	Pilote 100	0	Check	0.238	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C551	Pilote 100	25	Check	0.252	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C551	Pilote 100	50	Check	0.267	B.2.4.5-3	28.4	0.010	0.008	No Message
N-3.50	C552	Pilote 100	0	Check	0.267	B.2.4.5-3	28.4	0.010	0.008	No Message
N-3.50	C552	Pilote 100	25	Check	0.282	B.2.4.5-3	28.4	0.010	0.008	No Message
N-3.50	C552	Pilote 100	50	Check	0.297	B.2.4.5-3	28.4	0.010	0.008	No Message
N-3.50	C553	Pilote 100	0	Check	0.297	B.2.4.5-3	28.4	0.009	0.007	No Message
N-3.50	C553	Pilote 100	25	Check	0.309	B.2.4.5-3	28.4	0.009	0.007	No Message
N-3.50	C553	Pilote 100	50	Check	0.322	B.2.4.5-3	28.4	0.009	0.007	No Message
N-3.50	C554	Pilote 100	0	Check	0.322	B.2.4.5-3	28.4	0.008	0.007	No Message
N-3.50	C554	Pilote 100	25	Check	0.332	B.2.4.5-3	28.4	0.008	0.007	No Message
N-3.50	C554	Pilote 100	50	Check	0.342	B.2.4.5-3	28.4	0.008	0.007	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C555	Pilote 100	0	Check	0.342	B.2.4.5-3	28.4	0.006	0.006	No Message
N-3.50	C555	Pilote 100	25	Check	0.349	B.2.4.5-3	28.4	0.006	0.006	No Message
N-3.50	C555	Pilote 100	50	Check	0.355	B.2.4.5-3	28.4	0.006	0.006	No Message
N-3.50	C556	Pilote 100	0	Check	0.355	B.2.4.5-3	28.4	0.006	0.013	No Message
N-3.50	C556	Pilote 100	25	Check	0.36	B.2.4.5-3	28.4	0.006	0.013	No Message
N-3.50	C556	Pilote 100	50	Check	0.37	B.2.4.5-3	28.4	0.006	0.013	No Message
N-3.50	C557	Pilote 100	0	Check	0.37	B.2.4.5-3	28.4	0.012	0.019	No Message
N-3.50	C557	Pilote 100	25	Check	0.376	B.2.4.5-3	28.4	0.012	0.019	No Message
N-3.50	C557	Pilote 100	50	Check	0.382	B.2.4.5-3	28.4	0.012	0.019	No Message
N-3.50	C558	Pilote 100	0	Check	0.382	B.2.4.5-3	28.4	0.016	0.025	No Message
N-3.50	C558	Pilote 100	25	Check	0.385	B.2.4.5-3	28.4	0.016	0.025	No Message
N-3.50	C558	Pilote 100	50	Check	0.388	B.2.4.5-3	28.4	0.016	0.025	No Message
N-3.50	C559	Pilote 100	0	Check	0.388	B.2.4.5-3	28.4	0.022	0.032	No Message
N-3.50	C559	Pilote 100	25	Check	0.389	B.2.4.5-3	28.4	0.022	0.032	No Message
N-3.50	C559	Pilote 100	50	Check	0.395	B.2.4.5-3	28.4	0.022	0.032	No Message
N-3.50	C560	Pilote 100	0	Check	0.395	B.2.4.5-3	28.4	0.027	0.039	No Message
N-3.50	C560	Pilote 100	25	Check	0.402	B.2.4.5-3	28.4	0.027	0.039	No Message
N-3.50	C560	Pilote 100	50	Check	0.419	B.2.4.5-3	28.4	0.027	0.039	No Message
N-3.50	C561	Pilote 100	0	Check	0.419	B.2.4.5-3	28.4	0.033	0.046	No Message
N-3.50	C561	Pilote 100	25	Check	0.448	B.2.4.5-3	28.4	0.033	0.046	No Message
N-3.50	C561	Pilote 100	50	Check	0.492	B.2.4.5-3	28.4	0.033	0.046	No Message
N-3.50	C562	Pilote 100	0	Check	0.492	B.2.4.5-3	28.4	0.038	0.053	No Message
N-3.50	C562	Pilote 100	25	Check	0.555	B.2.4.5-3	28.4	0.038	0.053	No Message
N-3.50	C562	Pilote 100	50	Check	0.625	B.2.4.5-3	28.4	0.038	0.053	No Message
N-3.50	C563	Pilote 100	0	Check	0.625	B.2.4.5-3	28.4	0.042	0.059	No Message
N-3.50	C563	Pilote 100	25	Check	0.709	B.2.4.5-3	28.4	0.042	0.059	No Message
N-3.50	C563	Pilote 100	50	Check	0.794	B.2.4.5-3	28.4	0.042	0.059	No Message
N-3.50	C564	Pilote 100	0	Check	0.794	B.2.4.5-3	28.4	0.046	0.064	No Message
N-3.50	C564	Pilote 100	25	Check	0.886	B.2.4.5-3	28.4	0.046	0.064	No Message
N-3.50	C564	Pilote 100	50	Check	0.979	B.2.4.5-3	28.4	0.046	0.064	No Message
N-3.50	C565	Pilote 100	0	Check	0.979	B.2.4.5-3	28.4	0.000	0.629	No Message
N-3.50	C565	Pilote 100	0.1	Check	0.98	B.2.4.5-3	28.4	0.000	0.629	No Message
N-3.50	C565	Pilote 100	0.2	Check	0.98	B.2.4.5-3	28.4	0.000	0.629	No Message
N-3.50	C566	Pilote 100	0	Check	0.017	B.2.4.5-3	28.4	0.004	0.006	No Message
N-3.50	C566	Pilote 100	25	Check	0.016	B.2.4.5-3	28.4	0.004	0.006	No Message
N-3.50	C566	Pilote 100	50	Check	0.015	B.2.4.5-3	28.4	0.004	0.006	No Message
N-3.50	C567	Pilote 100	0	Check	0.015	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C567	Pilote 100	25	Check	0.015	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C567	Pilote 100	50	Check	0.014	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C568	Pilote 100	0	Check	0.014	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C568	Pilote 100	25	Check	0.018	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C568	Pilote 100	50	Check	0.025	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C569	Pilote 100	0	Check	0.025	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C569	Pilote 100	25	Check	0.032	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C569	Pilote 100	50	Check	0.04	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C570	Pilote 100	0	Check	0.04	B.2.4.7-4	28.4	0.004	0.006	No Message
N-3.50	C570	Pilote 100	25	Check	0.047	B.2.4.7-4	28.4	0.004	0.006	No Message
N-3.50	C570	Pilote 100	50	Check	0.056	B.2.4.7-4	28.4	0.004	0.006	No Message
N-3.50	C571	Pilote 100	0	Check	0.056	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C571	Pilote 100	25	Check	0.065	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C571	Pilote 100	50	Check	0.075	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C572	Pilote 100	0	Check	0.075	B.2.4.7-4	28.4	0.006	0.008	No Message
N-3.50	C572	Pilote 100	25	Check	0.087	B.2.4.7-4	28.4	0.006	0.008	No Message
N-3.50	C572	Pilote 100	50	Check	0.098	B.2.4.7-4	28.4	0.006	0.008	No Message
N-3.50	C573	Pilote 100	0	Check	0.098	B.2.4.7-4	28.4	0.006	0.009	No Message
N-3.50	C573	Pilote 100	25	Check	0.111	B.2.4.7-4	28.4	0.006	0.009	No Message
N-3.50	C573	Pilote 100	50	Check	0.125	B.2.4.7-4	28.4	0.006	0.009	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C574	Pilote 100	0	Check	0.125	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C574	Pilote 100	25	Check	0.139	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C574	Pilote 100	50	Check	0.155	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C575	Pilote 100	0	Check	0.155	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C575	Pilote 100	25	Check	0.171	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C575	Pilote 100	50	Check	0.188	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C576	Pilote 100	0	Check	0.188	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C576	Pilote 100	25	Check	0.203	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C576	Pilote 100	50	Check	0.219	B.2.4.5-3	28.4	0.007	0.009	No Message
N-3.50	C577	Pilote 100	0	Check	0.219	B.2.4.5-3	28.4	0.009	0.008	No Message
N-3.50	C577	Pilote 100	25	Check	0.233	B.2.4.5-3	28.4	0.009	0.008	No Message
N-3.50	C577	Pilote 100	50	Check	0.248	B.2.4.5-3	28.4	0.009	0.008	No Message
N-3.50	C578	Pilote 100	0	Check	0.248	B.2.4.5-3	28.4	0.010	0.007	No Message
N-3.50	C578	Pilote 100	25	Check	0.26	B.2.4.5-3	28.4	0.010	0.007	No Message
N-3.50	C578	Pilote 100	50	Check	0.272	B.2.4.5-3	28.4	0.010	0.007	No Message
N-3.50	C579	Pilote 100	0	Check	0.272	B.2.4.5-3	28.4	0.010	0.006	No Message
N-3.50	C579	Pilote 100	25	Check	0.28	B.2.4.5-3	28.4	0.010	0.006	No Message
N-3.50	C579	Pilote 100	50	Check	0.289	B.2.4.5-3	28.4	0.010	0.006	No Message
N-3.50	C580	Pilote 100	0	Check	0.289	B.2.4.5-3	28.4	0.011	0.003	No Message
N-3.50	C580	Pilote 100	25	Check	0.295	B.2.4.5-3	28.4	0.011	0.003	No Message
N-3.50	C580	Pilote 100	50	Check	0.307	B.2.4.5-3	28.4	0.011	0.003	No Message
N-3.50	C581	Pilote 100	0	Check	0.307	B.2.4.5-3	28.4	0.009	0.004	No Message
N-3.50	C581	Pilote 100	25	Check	0.317	B.2.4.5-3	28.4	0.009	0.004	No Message
N-3.50	C581	Pilote 100	50	Check	0.328	B.2.4.5-3	28.4	0.009	0.004	No Message
N-3.50	C582	Pilote 100	0	Check	0.328	B.2.4.5-3	28.4	0.005	0.010	No Message
N-3.50	C582	Pilote 100	25	Check	0.337	B.2.4.5-3	28.4	0.005	0.010	No Message
N-3.50	C582	Pilote 100	50	Check	0.349	B.2.4.5-3	28.4	0.005	0.010	No Message
N-3.50	C583	Pilote 100	0	Check	0.349	B.2.4.5-3	28.4	0.007	0.017	No Message
N-3.50	C583	Pilote 100	25	Check	0.36	B.2.4.5-3	28.4	0.007	0.017	No Message
N-3.50	C583	Pilote 100	50	Check	0.373	B.2.4.5-3	28.4	0.007	0.017	No Message
N-3.50	C584	Pilote 100	0	Check	0.373	B.2.4.5-3	28.4	0.006	0.023	No Message
N-3.50	C584	Pilote 100	25	Check	0.384	B.2.4.5-3	28.4	0.006	0.023	No Message
N-3.50	C584	Pilote 100	50	Check	0.395	B.2.4.5-3	28.4	0.006	0.023	No Message
N-3.50	C585	Pilote 100	0	Check	0.395	B.2.4.5-3	28.4	0.017	0.031	No Message
N-3.50	C585	Pilote 100	25	Check	0.403	B.2.4.5-3	28.4	0.017	0.031	No Message
N-3.50	C585	Pilote 100	50	Check	0.413	B.2.4.5-3	28.4	0.017	0.031	No Message
N-3.50	C586	Pilote 100	0	Check	0.413	B.2.4.5-3	28.4	0.022	0.038	No Message
N-3.50	C586	Pilote 100	25	Check	0.425	B.2.4.5-3	28.4	0.022	0.038	No Message
N-3.50	C586	Pilote 100	50	Check	0.447	B.2.4.5-3	28.4	0.022	0.038	No Message
N-3.50	C587	Pilote 100	0	Check	0.447	B.2.4.5-3	28.4	0.032	0.046	No Message
N-3.50	C587	Pilote 100	25	Check	0.475	B.2.4.5-3	28.4	0.032	0.046	No Message
N-3.50	C587	Pilote 100	50	Check	0.512	B.2.4.5-3	28.4	0.032	0.046	No Message
N-3.50	C588	Pilote 100	0	Check	0.512	B.2.4.5-3	28.4	0.037	0.053	No Message
N-3.50	C588	Pilote 100	25	Check	0.556	B.2.4.5-3	28.4	0.037	0.053	No Message
N-3.50	C588	Pilote 100	50	Check	0.606	B.2.4.5-3	28.4	0.037	0.053	No Message
N-3.50	C589	Pilote 100	0	Check	0.606	B.2.4.5-3	28.4	0.042	0.059	No Message
N-3.50	C589	Pilote 100	25	Check	0.674	B.2.4.5-3	28.4	0.042	0.059	No Message
N-3.50	C589	Pilote 100	50	Check	0.747	B.2.4.5-3	28.4	0.042	0.059	No Message
N-3.50	C590	Pilote 100	0	Check	0.747	B.2.4.5-3	28.4	0.045	0.064	No Message
N-3.50	C590	Pilote 100	25	Check	0.828	B.2.4.5-3	28.4	0.045	0.064	No Message
N-3.50	C590	Pilote 100	50	Check	0.913	B.2.4.5-3	28.4	0.045	0.064	No Message
N-3.50	C591	Pilote 100	0	Check	0.913	B.2.4.5-3	28.4	0.702	0.713	No Message
N-3.50	C591	Pilote 100	0.1	Check	0.913	B.2.4.5-3	28.4	0.702	0.713	No Message
N-3.50	C618	Pilote 100	0	Check	0.054	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C618	Pilote 100	25	Check	0.053	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C618	Pilote 100	50	Check	0.052	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C619	Pilote 100	0	Check	0.052	B.2.4.5-3	28.4	0.005	0.004	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C619	Pilote 100	25	Check	0.052	B.2.4.5-3	28.4	0.005	0.004	No Message
N-3.50	C619	Pilote 100	50	Check	0.051	B.2.4.5-3	28.4	0.005	0.004	No Message
N-3.50	C620	Pilote 100	0	Check	0.051	B.2.4.5-3	28.4	0.005	0.004	No Message
N-3.50	C620	Pilote 100	25	Check	0.05	B.2.4.5-3	28.4	0.005	0.004	No Message
N-3.50	C620	Pilote 100	50	Check	0.049	B.2.4.5-3	28.4	0.005	0.004	No Message
N-3.50	C621	Pilote 100	0	Check	0.049	B.2.4.5-3	28.4	0.006	0.005	No Message
N-3.50	C621	Pilote 100	25	Check	0.049	B.2.4.5-3	28.4	0.006	0.005	No Message
N-3.50	C621	Pilote 100	50	Check	0.048	B.2.4.5-3	28.4	0.006	0.005	No Message
N-3.50	C622	Pilote 100	0	Check	0.048	B.2.4.5-3	28.4	0.007	0.006	No Message
N-3.50	C622	Pilote 100	25	Check	0.047	B.2.4.5-3	28.4	0.007	0.006	No Message
N-3.50	C622	Pilote 100	50	Check	0.051	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C623	Pilote 100	0	Check	0.051	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C623	Pilote 100	25	Check	0.062	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C623	Pilote 100	50	Check	0.074	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C624	Pilote 100	0	Check	0.074	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C624	Pilote 100	25	Check	0.086	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C624	Pilote 100	50	Check	0.099	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C625	Pilote 100	0	Check	0.099	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C625	Pilote 100	25	Check	0.112	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C625	Pilote 100	50	Check	0.126	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C626	Pilote 100	0	Check	0.126	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C626	Pilote 100	25	Check	0.14	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C626	Pilote 100	50	Check	0.154	B.2.4.7-4	28.4	0.009	0.009	No Message
N-3.50	C627	Pilote 100	0	Check	0.154	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C627	Pilote 100	25	Check	0.168	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C627	Pilote 100	50	Check	0.181	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C628	Pilote 100	0	Check	0.181	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C628	Pilote 100	25	Check	0.193	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C628	Pilote 100	50	Check	0.206	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C629	Pilote 100	0	Check	0.206	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C629	Pilote 100	25	Check	0.216	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C629	Pilote 100	50	Check	0.225	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C630	Pilote 100	0	Check	0.225	B.2.4.7-4	28.4	0.009	0.010	No Message
N-3.50	C630	Pilote 100	25	Check	0.232	B.2.4.7-4	28.4	0.009	0.010	No Message
N-3.50	C630	Pilote 100	50	Check	0.239	B.2.4.7-4	28.4	0.009	0.010	No Message
N-3.50	C631	Pilote 100	0	Check	0.239	B.2.4.7-4	28.4	0.008	0.010	No Message
N-3.50	C631	Pilote 100	25	Check	0.241	B.2.4.7-4	28.4	0.008	0.010	No Message
N-3.50	C631	Pilote 100	50	Check	0.243	B.2.4.7-4	28.4	0.008	0.010	No Message
N-3.50	C632	Pilote 100	0	Check	0.243	B.2.4.7-4	28.4	0.006	0.011	No Message
N-3.50	C632	Pilote 100	25	Check	0.241	B.2.4.7-4	28.4	0.006	0.011	No Message
N-3.50	C632	Pilote 100	50	Check	0.238	B.2.4.7-4	28.4	0.006	0.011	No Message
N-3.50	C633	Pilote 100	0	Check	0.238	B.2.4.7-4	28.4	0.008	0.014	No Message
N-3.50	C633	Pilote 100	25	Check	0.238	B.2.4.7-4	28.4	0.008	0.014	No Message
N-3.50	C633	Pilote 100	50	Check	0.252	B.2.4.7-4	28.4	0.008	0.014	No Message
N-3.50	C634	Pilote 100	0	Check	0.252	B.2.4.7-4	28.4	0.010	0.018	No Message
N-3.50	C634	Pilote 100	25	Check	0.266	B.2.4.7-4	28.4	0.010	0.018	No Message
N-3.50	C634	Pilote 100	50	Check	0.281	B.2.4.7-4	28.4	0.010	0.018	No Message
N-3.50	C635	Pilote 100	0	Check	0.281	B.2.4.7-4	28.4	0.011	0.024	No Message
N-3.50	C635	Pilote 100	25	Check	0.298	B.2.4.7-4	28.4	0.011	0.024	No Message
N-3.50	C635	Pilote 100	50	Check	0.315	B.2.4.7-4	28.4	0.011	0.024	No Message
N-3.50	C636	Pilote 100	0	Check	0.315	B.2.4.7-4	28.4	0.011	0.029	No Message
N-3.50	C636	Pilote 100	25	Check	0.343	B.2.4.5-3	28.4	0.011	0.029	No Message
N-3.50	C636	Pilote 100	50	Check	0.374	B.2.4.5-3	28.4	0.011	0.029	No Message
N-3.50	C637	Pilote 100	0	Check	0.374	B.2.4.5-3	28.4	0.036	0.036	No Message
N-3.50	C637	Pilote 100	25	Check	0.406	B.2.4.5-3	28.4	0.036	0.036	No Message
N-3.50	C637	Pilote 100	50	Check	0.44	B.2.4.5-3	28.4	0.036	0.036	No Message
N-3.50	C638	P100R	0	Check	0.261	B.2.4.5-3	51	0.044	0.043	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C638	P100R	25	Check	0.284	B.2.4.5-3	51	0.044	0.043	No Message
N-3.50	C638	P100R	50	Check	0.317	B.2.4.5-3	51	0.044	0.043	No Message
N-3.50	C639	P100R	0	Check	0.317	B.2.4.5-3	51	0.051	0.051	No Message
N-3.50	C639	P100R	25	Check	0.365	B.2.4.5-3	51	0.051	0.051	No Message
N-3.50	C639	P100R	50	Check	0.417	B.2.4.5-3	51	0.051	0.051	No Message
N-3.50	C640	P100R	0	Check	0.417	B.2.4.5-3	51	0.069	0.058	No Message
N-3.50	C640	P100R	25	Check	0.475	B.2.4.5-3	51	0.069	0.058	No Message
N-3.50	C640	P100R	50	Check	0.536	B.2.4.5-3	51	0.069	0.058	No Message
N-3.50	C641	P100R	0	Check	0.536	B.2.4.5-3	51	0.075	0.064	No Message
N-3.50	C641	P100R	25	Check	0.601	B.2.4.5-3	51	0.075	0.064	No Message
N-3.50	C641	P100R	50	Check	0.667	B.2.4.5-3	51	0.075	0.064	No Message
N-3.50	C642	P100R	0	Check	0.667	B.2.4.5-3	51	0.080	0.069	No Message
N-3.50	C642	P100R	25	Check	0.736	B.2.4.5-3	51	0.080	0.069	No Message
N-3.50	C642	P100R	50	Check	0.805	B.2.4.5-3	51	0.080	0.069	No Message
N-3.50	C643	P100R	0	Check	0.805	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C643	P100R	0.1	Check	0.806	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C643	P100R	0.2	Check	0.806	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C644	Pilote 100	0	Check	0.046	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C644	Pilote 100	25	Check	0.046	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C644	Pilote 100	50	Check	0.045	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C645	Pilote 100	0	Check	0.045	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C645	Pilote 100	25	Check	0.044	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C645	Pilote 100	50	Check	0.043	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C646	Pilote 100	0	Check	0.043	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C646	Pilote 100	25	Check	0.043	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C646	Pilote 100	50	Check	0.042	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C647	Pilote 100	0	Check	0.042	B.2.4.5-3	28.4	0.006	0.005	No Message
N-3.50	C647	Pilote 100	25	Check	0.041	B.2.4.5-3	28.4	0.006	0.005	No Message
N-3.50	C647	Pilote 100	50	Check	0.041	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C648	Pilote 100	0	Check	0.041	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C648	Pilote 100	25	Check	0.053	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C648	Pilote 100	50	Check	0.065	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C649	Pilote 100	0	Check	0.065	B.2.4.7-4	28.4	0.010	0.007	No Message
N-3.50	C649	Pilote 100	25	Check	0.078	B.2.4.7-4	28.4	0.010	0.007	No Message
N-3.50	C649	Pilote 100	50	Check	0.092	B.2.4.7-4	28.4	0.010	0.007	No Message
N-3.50	C650	Pilote 100	0	Check	0.092	B.2.4.7-4	28.4	0.011	0.008	No Message
N-3.50	C650	Pilote 100	25	Check	0.107	B.2.4.7-4	28.4	0.011	0.008	No Message
N-3.50	C650	Pilote 100	50	Check	0.122	B.2.4.7-4	28.4	0.011	0.008	No Message
N-3.50	C651	Pilote 100	0	Check	0.122	B.2.4.7-4	28.4	0.011	0.008	No Message
N-3.50	C651	Pilote 100	25	Check	0.138	B.2.4.7-4	28.4	0.011	0.008	No Message
N-3.50	C651	Pilote 100	50	Check	0.154	B.2.4.7-4	28.4	0.011	0.008	No Message
N-3.50	C652	Pilote 100	0	Check	0.154	B.2.4.7-4	28.4	0.011	0.009	No Message
N-3.50	C652	Pilote 100	25	Check	0.169	B.2.4.7-4	28.4	0.011	0.009	No Message
N-3.50	C652	Pilote 100	50	Check	0.185	B.2.4.7-4	28.4	0.011	0.009	No Message
N-3.50	C653	Pilote 100	0	Check	0.185	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C653	Pilote 100	25	Check	0.2	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C653	Pilote 100	50	Check	0.215	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C654	Pilote 100	0	Check	0.215	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C654	Pilote 100	25	Check	0.228	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C654	Pilote 100	50	Check	0.242	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C655	Pilote 100	0	Check	0.242	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C655	Pilote 100	25	Check	0.252	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C655	Pilote 100	50	Check	0.262	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C656	Pilote 100	0	Check	0.262	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C656	Pilote 100	25	Check	0.268	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C656	Pilote 100	50	Check	0.275	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C657	Pilote 100	0	Check	0.275	B.2.4.7-4	28.4	0.004	0.007	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C657	Pilote 100	25	Check	0.275	B.2.4.7-4	28.4	0.004	0.007	No Message
N-3.50	C657	Pilote 100	50	Check	0.276	B.2.4.7-4	28.4	0.004	0.007	No Message
N-3.50	C658	Pilote 100	0	Check	0.276	B.2.4.7-4	28.4	0.004	0.009	No Message
N-3.50	C658	Pilote 100	25	Check	0.27	B.2.4.7-4	28.4	0.004	0.009	No Message
N-3.50	C658	Pilote 100	50	Check	0.266	B.2.4.7-4	28.4	0.004	0.009	No Message
N-3.50	C659	Pilote 100	0	Check	0.266	B.2.4.7-4	28.4	0.010	0.012	No Message
N-3.50	C659	Pilote 100	25	Check	0.257	B.2.4.7-4	28.4	0.010	0.012	No Message
N-3.50	C659	Pilote 100	50	Check	0.261	B.2.4.7-4	28.4	0.010	0.012	No Message
N-3.50	C660	Pilote 100	0	Check	0.261	B.2.4.7-4	28.4	0.012	0.017	No Message
N-3.50	C660	Pilote 100	25	Check	0.271	B.2.4.7-4	28.4	0.012	0.017	No Message
N-3.50	C660	Pilote 100	50	Check	0.282	B.2.4.7-4	28.4	0.012	0.017	No Message
N-3.50	C661	Pilote 100	0	Check	0.282	B.2.4.7-4	28.4	0.013	0.023	No Message
N-3.50	C661	Pilote 100	25	Check	0.293	B.2.4.7-4	28.4	0.013	0.023	No Message
N-3.50	C661	Pilote 100	50	Check	0.317	B.2.4.5-3	28.4	0.013	0.023	No Message
N-3.50	C662	Pilote 100	0	Check	0.317	B.2.4.5-3	28.4	0.014	0.029	No Message
N-3.50	C662	Pilote 100	25	Check	0.347	B.2.4.5-3	28.4	0.014	0.029	No Message
N-3.50	C662	Pilote 100	50	Check	0.378	B.2.4.5-3	28.4	0.014	0.029	No Message
N-3.50	C663	Pilote 100	0	Check	0.378	B.2.4.5-3	28.4	0.045	0.036	No Message
N-3.50	C663	Pilote 100	25	Check	0.414	B.2.4.5-3	28.4	0.045	0.036	No Message
N-3.50	C663	Pilote 100	50	Check	0.454	B.2.4.5-3	28.4	0.045	0.036	No Message
N-3.50	C664	P100R	0	Check	0.269	B.2.4.5-3	51	0.054	0.044	No Message
N-3.50	C664	P100R	25	Check	0.305	B.2.4.5-3	51	0.054	0.044	No Message
N-3.50	C664	P100R	50	Check	0.356	B.2.4.5-3	51	0.054	0.044	No Message
N-3.50	C665	P100R	0	Check	0.356	B.2.4.5-3	51	0.062	0.051	No Message
N-3.50	C665	P100R	25	Check	0.418	B.2.4.5-3	51	0.062	0.051	No Message
N-3.50	C665	P100R	50	Check	0.481	B.2.4.5-3	51	0.062	0.051	No Message
N-3.50	C666	P100R	0	Check	0.481	B.2.4.5-3	51	0.069	0.058	No Message
N-3.50	C666	P100R	25	Check	0.551	B.2.4.5-3	51	0.069	0.058	No Message
N-3.50	C666	P100R	50	Check	0.621	B.2.4.5-3	51	0.069	0.058	No Message
N-3.50	C667	P100R	0	Check	0.621	B.2.4.5-3	51	0.083	0.063	No Message
N-3.50	C667	P100R	25	Check	0.697	B.2.4.5-3	51	0.083	0.063	No Message
N-3.50	C667	P100R	50	Check	0.773	B.2.4.5-3	51	0.083	0.063	No Message
N-3.50	C668	P100R	0	Check	0.773	B.2.4.5-3	51	0.097	0.068	No Message
N-3.50	C668	P100R	25	Check	0.853	B.2.4.5-3	51	0.097	0.068	No Message
N-3.50	C668	P100R	50	Check	0.933	B.2.4.5-3	51	0.097	0.068	No Message
N-3.50	C669	P100R	0	Check	0.933	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C669	P100R	0.1	Check	0.933	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C669	P100R	0.2	Check	0.934	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C670	Pilote 100	0	Check	0.053	B.2.4.5-3	28.4	0.007	0.005	No Message
N-3.50	C670	Pilote 100	25	Check	0.052	B.2.4.5-3	28.4	0.007	0.005	No Message
N-3.50	C670	Pilote 100	50	Check	0.052	B.2.4.5-3	28.4	0.007	0.005	No Message
N-3.50	C671	Pilote 100	0	Check	0.052	B.2.4.5-3	28.4	0.005	0.005	No Message
N-3.50	C671	Pilote 100	25	Check	0.051	B.2.4.5-3	28.4	0.005	0.005	No Message
N-3.50	C671	Pilote 100	50	Check	0.05	B.2.4.5-3	28.4	0.005	0.005	No Message
N-3.50	C672	Pilote 100	0	Check	0.05	B.2.4.5-3	28.4	0.003	0.005	No Message
N-3.50	C672	Pilote 100	25	Check	0.05	B.2.4.5-3	28.4	0.003	0.005	No Message
N-3.50	C672	Pilote 100	50	Check	0.049	B.2.4.5-3	28.4	0.003	0.005	No Message
N-3.50	C673	Pilote 100	0	Check	0.049	B.2.4.5-3	28.4	0.003	0.007	No Message
N-3.50	C673	Pilote 100	25	Check	0.048	B.2.4.5-3	28.4	0.003	0.007	No Message
N-3.50	C673	Pilote 100	50	Check	0.05	B.2.4.7-4	28.4	0.003	0.007	No Message
N-3.50	C674	Pilote 100	0	Check	0.05	B.2.4.7-4	28.4	0.004	0.008	No Message
N-3.50	C674	Pilote 100	25	Check	0.058	B.2.4.7-4	28.4	0.004	0.008	No Message
N-3.50	C674	Pilote 100	50	Check	0.067	B.2.4.7-4	28.4	0.004	0.008	No Message
N-3.50	C675	Pilote 100	0	Check	0.067	B.2.4.7-4	28.4	0.005	0.009	No Message
N-3.50	C675	Pilote 100	25	Check	0.077	B.2.4.7-4	28.4	0.005	0.009	No Message
N-3.50	C675	Pilote 100	50	Check	0.088	B.2.4.7-4	28.4	0.005	0.009	No Message
N-3.50	C676	Pilote 100	0	Check	0.088	B.2.4.7-4	28.4	0.006	0.010	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C676	Pilote 100	25	Check	0.099	B.2.4.7-4	28.4	0.006	0.010	No Message
N-3.50	C676	Pilote 100	50	Check	0.111	B.2.4.7-4	28.4	0.006	0.010	No Message
N-3.50	C677	Pilote 100	0	Check	0.111	B.2.4.7-4	28.4	0.007	0.011	No Message
N-3.50	C677	Pilote 100	25	Check	0.123	B.2.4.7-4	28.4	0.007	0.011	No Message
N-3.50	C677	Pilote 100	50	Check	0.136	B.2.4.7-4	28.4	0.007	0.011	No Message
N-3.50	C678	Pilote 100	0	Check	0.136	B.2.4.7-4	28.4	0.007	0.011	No Message
N-3.50	C678	Pilote 100	25	Check	0.148	B.2.4.7-4	28.4	0.007	0.011	No Message
N-3.50	C678	Pilote 100	50	Check	0.162	B.2.4.7-4	28.4	0.007	0.011	No Message
N-3.50	C679	Pilote 100	0	Check	0.162	B.2.4.7-4	28.4	0.007	0.010	No Message
N-3.50	C679	Pilote 100	25	Check	0.174	B.2.4.7-4	28.4	0.007	0.010	No Message
N-3.50	C679	Pilote 100	50	Check	0.187	B.2.4.7-4	28.4	0.007	0.010	No Message
N-3.50	C680	Pilote 100	0	Check	0.187	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C680	Pilote 100	25	Check	0.199	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C680	Pilote 100	50	Check	0.211	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C681	Pilote 100	0	Check	0.211	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C681	Pilote 100	25	Check	0.221	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C681	Pilote 100	50	Check	0.231	B.2.4.7-4	28.4	0.008	0.009	No Message
N-3.50	C682	Pilote 100	0	Check	0.231	B.2.4.7-4	28.4	0.008	0.011	No Message
N-3.50	C682	Pilote 100	25	Check	0.239	B.2.4.7-4	28.4	0.008	0.011	No Message
N-3.50	C682	Pilote 100	50	Check	0.248	B.2.4.7-4	28.4	0.008	0.011	No Message
N-3.50	C683	Pilote 100	0	Check	0.248	B.2.4.7-4	28.4	0.009	0.013	No Message
N-3.50	C683	Pilote 100	25	Check	0.254	B.2.4.7-4	28.4	0.009	0.013	No Message
N-3.50	C683	Pilote 100	50	Check	0.26	B.2.4.7-4	28.4	0.009	0.013	No Message
N-3.50	C684	Pilote 100	0	Check	0.26	B.2.4.7-4	28.4	0.009	0.004	No Message
N-3.50	C684	Pilote 100	25	Check	0.262	B.2.4.7-4	28.4	0.009	0.004	No Message
N-3.50	C684	Pilote 100	50	Check	0.265	B.2.4.7-4	28.4	0.009	0.004	No Message
N-3.50	C685	Pilote 100	0	Check	0.265	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C685	Pilote 100	25	Check	0.268	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C685	Pilote 100	50	Check	0.282	B.2.4.7-4	28.4	0.007	0.009	No Message
N-3.50	C686	Pilote 100	0	Check	0.282	B.2.4.7-4	28.4	0.003	0.011	No Message
N-3.50	C686	Pilote 100	25	Check	0.298	B.2.4.7-4	28.4	0.003	0.011	No Message
N-3.50	C686	Pilote 100	50	Check	0.316	B.2.4.7-4	28.4	0.003	0.011	No Message
N-3.50	C687	Pilote 100	0	Check	0.316	B.2.4.7-4	28.4	0.003	0.010	No Message
N-3.50	C687	Pilote 100	25	Check	0.333	B.2.4.7-4	28.4	0.003	0.010	No Message
N-3.50	C687	Pilote 100	50	Check	0.352	B.2.4.7-4	28.4	0.003	0.010	No Message
N-3.50	C688	Pilote 100	0	Check	0.352	B.2.4.7-4	28.4	0.013	0.010	No Message
N-3.50	C688	Pilote 100	25	Check	0.387	B.2.4.5-3	28.4	0.013	0.010	No Message
N-3.50	C688	Pilote 100	50	Check	0.424	B.2.4.5-3	28.4	0.013	0.010	No Message
N-3.50	C689	Pilote 100	0	Check	0.424	B.2.4.5-3	28.4	0.022	0.041	No Message
N-3.50	C689	Pilote 100	25	Check	0.463	B.2.4.5-3	28.4	0.022	0.041	No Message
N-3.50	C689	Pilote 100	50	Check	0.504	B.2.4.5-3	28.4	0.022	0.041	No Message
N-3.50	C690	P100R	0	Check	0.298	B.2.4.5-3	51	0.027	0.049	No Message
N-3.50	C690	P100R	25	Check	0.327	B.2.4.5-3	51	0.027	0.049	No Message
N-3.50	C690	P100R	50	Check	0.359	B.2.4.5-3	51	0.027	0.049	No Message
N-3.50	C691	P100R	0	Check	0.359	B.2.4.5-3	51	0.033	0.057	No Message
N-3.50	C691	P100R	25	Check	0.395	B.2.4.5-3	51	0.033	0.057	No Message
N-3.50	C691	P100R	50	Check	0.436	B.2.4.5-3	51	0.033	0.057	No Message
N-3.50	C692	P100R	0	Check	0.436	B.2.4.5-3	51	0.038	0.079	No Message
N-3.50	C692	P100R	25	Check	0.484	B.2.4.5-3	51	0.038	0.079	No Message
N-3.50	C692	P100R	50	Check	0.535	B.2.4.5-3	51	0.038	0.079	No Message
N-3.50	C693	P100R	0	Check	0.535	B.2.4.5-3	51	0.043	0.086	No Message
N-3.50	C693	P100R	25	Check	0.591	B.2.4.5-3	51	0.043	0.086	No Message
N-3.50	C693	P100R	50	Check	0.648	B.2.4.5-3	51	0.043	0.086	No Message
N-3.50	C694	P100R	0	Check	0.648	B.2.4.5-3	51	0.046	0.091	No Message
N-3.50	C694	P100R	25	Check	0.709	B.2.4.5-3	51	0.046	0.091	No Message
N-3.50	C694	P100R	50	Check	0.771	B.2.4.5-3	51	0.046	0.091	No Message
N-3.50	C695	P100R	0	Check	0.771	B.2.4.5-3	51	0.000	0.000	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C695	P100R	0.1	Check	0.771	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C695	P100R	0.2	Check	0.772	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C696	Pilote 100	0	Check	0.048	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C696	Pilote 100	25	Check	0.047	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C696	Pilote 100	50	Check	0.046	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C697	Pilote 100	0	Check	0.046	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C697	Pilote 100	25	Check	0.045	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C697	Pilote 100	50	Check	0.045	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C698	Pilote 100	0	Check	0.045	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C698	Pilote 100	25	Check	0.044	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C698	Pilote 100	50	Check	0.043	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C699	Pilote 100	0	Check	0.043	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C699	Pilote 100	25	Check	0.043	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C699	Pilote 100	50	Check	0.042	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C700	Pilote 100	0	Check	0.042	B.2.4.5-3	28.4	0.004	0.003	No Message
N-3.50	C700	Pilote 100	25	Check	0.041	B.2.4.5-3	28.4	0.004	0.003	No Message
N-3.50	C700	Pilote 100	50	Check	0.04	B.2.4.5-3	28.4	0.004	0.003	No Message
N-3.50	C701	Pilote 100	0	Check	0.04	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C701	Pilote 100	25	Check	0.04	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C701	Pilote 100	50	Check	0.042	B.2.4.7-4	28.4	0.005	0.003	No Message
N-3.50	C702	Pilote 100	0	Check	0.042	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C702	Pilote 100	25	Check	0.052	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C702	Pilote 100	50	Check	0.061	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C703	Pilote 100	0	Check	0.061	B.2.4.7-4	28.4	0.007	0.005	No Message
N-3.50	C703	Pilote 100	25	Check	0.072	B.2.4.7-4	28.4	0.007	0.005	No Message
N-3.50	C703	Pilote 100	50	Check	0.083	B.2.4.7-4	28.4	0.007	0.005	No Message
N-3.50	C704	Pilote 100	0	Check	0.083	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C704	Pilote 100	25	Check	0.095	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C704	Pilote 100	50	Check	0.107	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C705	Pilote 100	0	Check	0.107	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C705	Pilote 100	25	Check	0.12	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C705	Pilote 100	50	Check	0.133	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C706	Pilote 100	0	Check	0.133	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C706	Pilote 100	25	Check	0.146	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C706	Pilote 100	50	Check	0.159	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C707	Pilote 100	0	Check	0.159	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C707	Pilote 100	25	Check	0.172	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C707	Pilote 100	50	Check	0.185	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C708	Pilote 100	0	Check	0.185	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C708	Pilote 100	25	Check	0.197	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C708	Pilote 100	50	Check	0.209	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C709	Pilote 100	0	Check	0.209	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C709	Pilote 100	25	Check	0.22	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C709	Pilote 100	50	Check	0.231	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C710	Pilote 100	0	Check	0.231	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C710	Pilote 100	25	Check	0.239	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C710	Pilote 100	50	Check	0.248	B.2.4.7-4	28.4	0.010	0.008	No Message
N-3.50	C711	Pilote 100	0	Check	0.248	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C711	Pilote 100	25	Check	0.255	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C711	Pilote 100	50	Check	0.262	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C712	Pilote 100	0	Check	0.262	B.2.4.7-4	28.4	0.010	0.007	No Message
N-3.50	C712	Pilote 100	25	Check	0.272	B.2.4.7-4	28.4	0.010	0.007	No Message
N-3.50	C712	Pilote 100	50	Check	0.285	B.2.4.7-4	28.4	0.010	0.007	No Message
N-3.50	C713	Pilote 100	0	Check	0.285	B.2.4.7-4	28.4	0.006	0.007	No Message
N-3.50	C713	Pilote 100	25	Check	0.296	B.2.4.7-4	28.4	0.006	0.007	No Message
N-3.50	C713	Pilote 100	50	Check	0.307	B.2.4.7-4	28.4	0.006	0.007	No Message
N-3.50	C714	Pilote 100	0	Check	0.307	B.2.4.7-4	28.4	0.015	0.009	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C714	Pilote 100	25	Check	0.317	B.2.4.7-4	28.4	0.015	0.009	No Message
N-3.50	C714	Pilote 100	50	Check	0.327	B.2.4.7-4	28.4	0.015	0.009	No Message
N-3.50	C715	Pilote 100	0	Check	0.327	B.2.4.7-4	28.4	0.020	0.011	No Message
N-3.50	C715	Pilote 100	25	Check	0.336	B.2.4.7-4	28.4	0.020	0.011	No Message
N-3.50	C715	Pilote 100	50	Check	0.346	B.2.4.5-3	28.4	0.020	0.011	No Message
N-3.50	C716	P100R	0	Check	0.205	B.2.4.5-3	51	0.025	0.014	No Message
N-3.50	C716	P100R	25	Check	0.214	B.2.4.5-3	51	0.025	0.014	No Message
N-3.50	C716	P100R	50	Check	0.224	B.2.4.5-3	51	0.025	0.014	No Message
N-3.50	C717	P100R	0	Check	0.224	B.2.4.5-3	51	0.036	0.018	No Message
N-3.50	C717	P100R	25	Check	0.235	B.2.4.5-3	51	0.036	0.018	No Message
N-3.50	C717	P100R	50	Check	0.247	B.2.4.5-3	51	0.036	0.018	No Message
N-3.50	C718	P100R	0	Check	0.247	B.2.4.5-3	51	0.042	0.022	No Message
N-3.50	C718	P100R	25	Check	0.261	B.2.4.5-3	51	0.042	0.022	No Message
N-3.50	C718	P100R	50	Check	0.279	B.2.4.5-3	51	0.042	0.022	No Message
N-3.50	C719	P100R	0	Check	0.279	B.2.4.5-3	51	0.047	0.026	No Message
N-3.50	C719	P100R	25	Check	0.301	B.2.4.5-3	51	0.047	0.026	No Message
N-3.50	C719	P100R	50	Check	0.326	B.2.4.5-3	51	0.047	0.026	No Message
N-3.50	C720	P100R	0	Check	0.326	B.2.4.5-3	51	0.051	0.029	No Message
N-3.50	C720	P100R	25	Check	0.355	B.2.4.5-3	51	0.051	0.029	No Message
N-3.50	C720	P100R	50	Check	0.387	B.2.4.5-3	51	0.051	0.029	No Message
N-3.50	C721	P100R	0	Check	0.387	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C721	P100R	0.1	Check	0.388	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C721	P100R	0.2	Check	0.388	B.2.4.5-3	51	0.000	0.000	No Message
N-3.50	C722	Pilote 100	0	Check	0.053	B.2.4.5-8	28.4	0.011	0.007	No Message
N-3.50	C722	Pilote 100	25	Check	0.052	B.2.4.5-8	28.4	0.011	0.007	No Message
N-3.50	C722	Pilote 100	50	Check	0.051	B.2.4.5-8	28.4	0.011	0.007	No Message
N-3.50	C723	Pilote 100	0	Check	0.051	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C723	Pilote 100	25	Check	0.051	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C723	Pilote 100	50	Check	0.05	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C724	Pilote 100	0	Check	0.05	B.2.4.5-8	28.4	0.004	0.003	No Message
N-3.50	C724	Pilote 100	25	Check	0.049	B.2.4.5-8	28.4	0.004	0.003	No Message
N-3.50	C724	Pilote 100	50	Check	0.048	B.2.4.5-8	28.4	0.004	0.003	No Message
N-3.50	C725	Pilote 100	0	Check	0.048	B.2.4.5-8	28.4	0.003	0.004	No Message
N-3.50	C725	Pilote 100	25	Check	0.049	B.2.4.5-8	28.4	0.003	0.004	No Message
N-3.50	C725	Pilote 100	50	Check	0.049	B.2.4.5-8	28.4	0.003	0.004	No Message
N-3.50	C726	Pilote 100	0	Check	0.049	B.2.4.5-8	28.4	0.003	0.005	No Message
N-3.50	C726	Pilote 100	25	Check	0.05	B.2.4.5-8	28.4	0.003	0.005	No Message
N-3.50	C726	Pilote 100	50	Check	0.051	B.2.4.5-8	28.4	0.003	0.005	No Message
N-3.50	C727	Pilote 100	0	Check	0.051	B.2.4.5-8	28.4	0.005	0.004	No Message
N-3.50	C727	Pilote 100	25	Check	0.053	B.2.4.5-8	28.4	0.005	0.004	No Message
N-3.50	C727	Pilote 100	50	Check	0.055	B.2.4.5-8	28.4	0.005	0.004	No Message
N-3.50	C728	Pilote 100	0	Check	0.055	B.2.4.5-8	28.4	0.006	0.011	No Message
N-3.50	C728	Pilote 100	25	Check	0.058	B.2.4.5-8	28.4	0.006	0.011	No Message
N-3.50	C728	Pilote 100	50	Check	0.061	B.2.4.5-8	28.4	0.006	0.011	No Message
N-3.50	C729	Pilote 100	0	Check	0.061	B.2.4.5-8	28.4	0.007	0.011	No Message
N-3.50	C729	Pilote 100	25	Check	0.065	B.2.4.5-8	28.4	0.007	0.011	No Message
N-3.50	C729	Pilote 100	50	Check	0.071	B.2.4.5-8	28.4	0.007	0.011	No Message
N-3.50	C730	Pilote 100	0	Check	0.071	B.2.4.5-8	28.4	0.007	0.013	No Message
N-3.50	C730	Pilote 100	25	Check	0.076	B.2.4.7-8	28.4	0.007	0.013	No Message
N-3.50	C730	Pilote 100	50	Check	0.089	B.2.4.7-8	28.4	0.007	0.013	No Message
N-3.50	C731	Pilote 100	0	Check	0.089	B.2.4.7-8	28.4	0.008	0.012	No Message
N-3.50	C731	Pilote 100	25	Check	0.103	B.2.4.7-8	28.4	0.008	0.012	No Message
N-3.50	C731	Pilote 100	50	Check	0.119	B.2.4.7-8	28.4	0.008	0.012	No Message
N-3.50	C732	Pilote 100	0	Check	0.119	B.2.4.7-8	28.4	0.008	0.009	No Message
N-3.50	C732	Pilote 100	25	Check	0.134	B.2.4.7-8	28.4	0.008	0.009	No Message
N-3.50	C732	Pilote 100	50	Check	0.149	B.2.4.7-8	28.4	0.008	0.009	No Message
N-3.50	C733	Pilote 100	0	Check	0.149	B.2.4.7-8	28.4	0.009	0.014	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C733	Pilote 100	25	Check	0.161	B.2.4.7-8	28.4	0.009	0.014	No Message
N-3.50	C733	Pilote 100	50	Check	0.173	B.2.4.7-8	28.4	0.009	0.014	No Message
N-3.50	C734	Pilote 100	0	Check	0.173	B.2.4.7-8	28.4	0.010	0.019	No Message
N-3.50	C734	Pilote 100	25	Check	0.182	B.2.4.7-8	28.4	0.010	0.019	No Message
N-3.50	C734	Pilote 100	50	Check	0.19	B.2.4.7-8	28.4	0.010	0.019	No Message
N-3.50	C735	Pilote 100	0	Check	0.19	B.2.4.7-8	28.4	0.010	0.007	No Message
N-3.50	C735	Pilote 100	25	Check	0.194	B.2.4.7-8	28.4	0.010	0.007	No Message
N-3.50	C735	Pilote 100	50	Check	0.197	B.2.4.7-8	28.4	0.010	0.007	No Message
N-3.50	C736	Pilote 100	0	Check	0.197	B.2.4.7-8	28.4	0.010	0.015	No Message
N-3.50	C736	Pilote 100	25	Check	0.194	B.2.4.7-8	28.4	0.010	0.015	No Message
N-3.50	C736	Pilote 100	50	Check	0.191	B.2.4.7-8	28.4	0.010	0.015	No Message
N-3.50	C737	Pilote 100	0	Check	0.191	B.2.4.7-8	28.4	0.009	0.000	No Message
N-3.50	C737	Pilote 100	25	Check	0.204	B.2.4.7-8	28.4	0.009	0.000	No Message
N-3.50	C737	Pilote 100	50	Check	0.236	B.2.4.7-8	28.4	0.009	0.000	No Message
N-3.50	C738	Pilote 100	0	Check	0.236	B.2.4.7-8	28.4	0.006	0.000	No Message
N-3.50	C738	Pilote 100	25	Check	0.27	B.2.4.7-8	28.4	0.006	0.000	No Message
N-3.50	C738	Pilote 100	50	Check	0.305	B.2.4.7-8	28.4	0.006	0.000	No Message
N-3.50	C739	Pilote 100	0	Check	0.305	B.2.4.7-8	28.4	0.006	0.000	No Message
N-3.50	C739	Pilote 100	25	Check	0.35	B.2.4.5-8	28.4	0.006	0.000	No Message
N-3.50	C739	Pilote 100	50	Check	0.408	B.2.4.5-8	28.4	0.006	0.000	No Message
N-3.50	C740	Pilote 100	0	Check	0.408	B.2.4.5-8	28.4	0.008	0.000	No Message
N-3.50	C740	Pilote 100	25	Check	0.472	B.2.4.5-8	28.4	0.008	0.000	No Message
N-3.50	C740	Pilote 100	50	Check	0.538	B.2.4.5-8	28.4	0.008	0.000	No Message
N-3.50	C741	P100R	0	Check	0.32	B.2.4.5-8	51	0.015	0.000	No Message
N-3.50	C741	P100R	25	Check	0.361	B.2.4.5-8	51	0.015	0.000	No Message
N-3.50	C741	P100R	50	Check	0.403	B.2.4.5-8	51	0.015	0.000	No Message
N-3.50	C742	P100R	0	Check	0.403	B.2.4.5-8	51	0.020	0.030	No Message
N-3.50	C742	P100R	25	Check	0.447	B.2.4.5-8	51	0.020	0.030	No Message
N-3.50	C742	P100R	50	Check	0.491	B.2.4.5-8	51	0.020	0.030	No Message
N-3.50	C743	P100R	0	Check	0.491	B.2.4.5-8	51	0.025	0.083	No Message
N-3.50	C743	P100R	25	Check	0.538	B.2.4.5-8	51	0.025	0.083	No Message
N-3.50	C743	P100R	50	Check	0.587	B.2.4.5-8	51	0.025	0.083	No Message
N-3.50	C744	P100R	0	Check	0.587	B.2.4.5-8	51	0.030	0.083	No Message
N-3.50	C744	P100R	25	Check	0.641	B.2.4.5-8	51	0.030	0.083	No Message
N-3.50	C744	P100R	50	Check	0.699	B.2.4.5-8	51	0.030	0.083	No Message
N-3.50	C745	P100R	0	Check	0.699	B.2.4.5-8	51	0.035	0.083	No Message
N-3.50	C745	P100R	25	Check	0.765	B.2.4.5-8	51	0.035	0.083	No Message
N-3.50	C745	P100R	50	Check	0.839	B.2.4.5-8	51	0.035	0.083	No Message
N-3.50	C746	P100R	0	Check	0.839	B.2.4.5-8	51	0.038	0.083	No Message
N-3.50	C746	P100R	25	Check	0.922	B.2.4.5-8	51	0.038	0.083	No Message
N-3.50	C748	Pilote 100	0	Check	0.032	B.2.4.5-8	28.4	0.007	0.006	No Message
N-3.50	C748	Pilote 100	25	Check	0.031	B.2.4.5-8	28.4	0.007	0.006	No Message
N-3.50	C748	Pilote 100	50	Check	0.03	B.2.4.5-8	28.4	0.007	0.006	No Message
N-3.50	C749	Pilote 100	0	Check	0.03	B.2.4.5-8	28.4	0.005	0.005	No Message
N-3.50	C749	Pilote 100	25	Check	0.029	B.2.4.5-8	28.4	0.005	0.005	No Message
N-3.50	C749	Pilote 100	50	Check	0.029	B.2.4.5-8	28.4	0.005	0.005	No Message
N-3.50	C750	Pilote 100	0	Check	0.029	B.2.4.5-8	28.4	0.004	0.004	No Message
N-3.50	C750	Pilote 100	25	Check	0.028	B.2.4.5-8	28.4	0.004	0.004	No Message
N-3.50	C750	Pilote 100	50	Check	0.027	B.2.4.5-8	28.4	0.004	0.004	No Message
N-3.50	C751	Pilote 100	0	Check	0.027	B.2.4.5-8	28.4	0.004	0.004	No Message
N-3.50	C751	Pilote 100	25	Check	0.027	B.2.4.5-8	28.4	0.004	0.004	No Message
N-3.50	C751	Pilote 100	50	Check	0.027	B.2.4.5-8	28.4	0.004	0.004	No Message
N-3.50	C752	Pilote 100	0	Check	0.027	B.2.4.5-8	28.4	0.005	0.006	No Message
N-3.50	C752	Pilote 100	25	Check	0.03	B.2.4.7-8	28.4	0.005	0.006	No Message
N-3.50	C752	Pilote 100	50	Check	0.038	B.2.4.7-8	28.4	0.005	0.006	No Message
N-3.50	C753	Pilote 100	0	Check	0.038	B.2.4.7-8	28.4	0.006	0.007	No Message
N-3.50	C753	Pilote 100	25	Check	0.047	B.2.4.7-8	28.4	0.006	0.007	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C753	Pilote 100	50	Check	0.056	B.2.4.7-8	28.4	0.006	0.007	No Message
N-3.50	C754	Pilote 100	0	Check	0.056	B.2.4.7-8	28.4	0.007	0.008	No Message
N-3.50	C754	Pilote 100	25	Check	0.066	B.2.4.7-8	28.4	0.007	0.008	No Message
N-3.50	C754	Pilote 100	50	Check	0.077	B.2.4.7-8	28.4	0.007	0.008	No Message
N-3.50	C755	Pilote 100	0	Check	0.077	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C755	Pilote 100	25	Check	0.089	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C755	Pilote 100	50	Check	0.101	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C756	Pilote 100	0	Check	0.101	B.2.4.7-8	28.4	0.009	0.009	No Message
N-3.50	C756	Pilote 100	25	Check	0.114	B.2.4.7-8	28.4	0.009	0.009	No Message
N-3.50	C756	Pilote 100	50	Check	0.127	B.2.4.7-8	28.4	0.009	0.009	No Message
N-3.50	C757	Pilote 100	0	Check	0.127	B.2.4.7-8	28.4	0.009	0.009	No Message
N-3.50	C757	Pilote 100	25	Check	0.141	B.2.4.7-8	28.4	0.009	0.009	No Message
N-3.50	C757	Pilote 100	50	Check	0.154	B.2.4.7-8	28.4	0.009	0.009	No Message
N-3.50	C758	Pilote 100	0	Check	0.154	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C758	Pilote 100	25	Check	0.168	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C758	Pilote 100	50	Check	0.181	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C759	Pilote 100	0	Check	0.181	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C759	Pilote 100	25	Check	0.193	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C759	Pilote 100	50	Check	0.205	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C760	Pilote 100	0	Check	0.205	B.2.4.7-8	28.4	0.008	0.009	No Message
N-3.50	C760	Pilote 100	25	Check	0.215	B.2.4.7-8	28.4	0.008	0.009	No Message
N-3.50	C760	Pilote 100	50	Check	0.225	B.2.4.7-8	28.4	0.008	0.009	No Message
N-3.50	C761	Pilote 100	0	Check	0.225	B.2.4.7-8	28.4	0.007	0.009	No Message
N-3.50	C761	Pilote 100	25	Check	0.232	B.2.4.7-8	28.4	0.007	0.009	No Message
N-3.50	C761	Pilote 100	50	Check	0.24	B.2.4.7-8	28.4	0.007	0.009	No Message
N-3.50	C762	Pilote 100	0	Check	0.24	B.2.4.7-8	28.4	0.006	0.007	No Message
N-3.50	C762	Pilote 100	25	Check	0.243	B.2.4.7-8	28.4	0.006	0.007	No Message
N-3.50	C762	Pilote 100	50	Check	0.246	B.2.4.7-8	28.4	0.006	0.007	No Message
N-3.50	C763	Pilote 100	0	Check	0.246	B.2.4.7-8	28.4	0.002	0.003	No Message
N-3.50	C763	Pilote 100	25	Check	0.245	B.2.4.7-8	28.4	0.002	0.003	No Message
N-3.50	C763	Pilote 100	50	Check	0.251	B.2.4.7-8	28.4	0.002	0.003	No Message
N-3.50	C764	Pilote 100	0	Check	0.251	B.2.4.7-8	28.4	0.007	0.003	No Message
N-3.50	C764	Pilote 100	25	Check	0.259	B.2.4.7-8	28.4	0.007	0.003	No Message
N-3.50	C764	Pilote 100	50	Check	0.267	B.2.4.7-8	28.4	0.007	0.003	No Message
N-3.50	C765	Pilote 100	0	Check	0.267	B.2.4.7-8	28.4	0.014	0.006	No Message
N-3.50	C765	Pilote 100	25	Check	0.272	B.2.4.5-8	28.4	0.014	0.006	No Message
N-3.50	C765	Pilote 100	50	Check	0.285	B.2.4.5-8	28.4	0.014	0.006	No Message
N-3.50	C766	Pilote 100	0	Check	0.285	B.2.4.5-8	28.4	0.020	0.019	No Message
N-3.50	C766	Pilote 100	25	Check	0.295	B.2.4.5-8	28.4	0.020	0.019	No Message
N-3.50	C766	Pilote 100	50	Check	0.306	B.2.4.5-8	28.4	0.020	0.019	No Message
N-3.50	C767	Pilote 100	0	Check	0.306	B.2.4.5-8	28.4	0.027	0.025	No Message
N-3.50	C767	Pilote 100	25	Check	0.315	B.2.4.5-8	28.4	0.027	0.025	No Message
N-3.50	C767	Pilote 100	50	Check	0.326	B.2.4.5-8	28.4	0.027	0.025	No Message
N-3.50	C768	Pilote 100	0	Check	0.326	B.2.4.5-8	28.4	0.034	0.039	No Message
N-3.50	C768	Pilote 100	25	Check	0.336	B.2.4.5-8	28.4	0.034	0.039	No Message
N-3.50	C768	Pilote 100	50	Check	0.348	B.2.4.5-8	28.4	0.034	0.039	No Message
N-3.50	C769	Pilote 100	0	Check	0.348	B.2.4.5-8	28.4	0.041	0.047	No Message
N-3.50	C769	Pilote 100	25	Check	0.37	B.2.4.5-8	28.4	0.041	0.047	No Message
N-3.50	C769	Pilote 100	50	Check	0.419	B.2.4.5-8	28.4	0.041	0.047	No Message
N-3.50	C770	Pilote 100	0	Check	0.419	B.2.4.5-8	28.4	0.047	0.053	No Message
N-3.50	C770	Pilote 100	25	Check	0.489	B.2.4.5-8	28.4	0.047	0.053	No Message
N-3.50	C770	Pilote 100	50	Check	0.563	B.2.4.5-8	28.4	0.047	0.053	No Message
N-3.50	C771	Pilote 100	0	Check	0.563	B.2.4.5-8	28.4	0.053	0.059	No Message
N-3.50	C771	Pilote 100	25	Check	0.646	B.2.4.5-8	28.4	0.053	0.059	No Message
N-3.50	C771	Pilote 100	50	Check	0.73	B.2.4.5-8	28.4	0.053	0.059	No Message
N-3.50	C772	Pilote 100	0	Check	0.73	B.2.4.5-8	28.4	0.058	0.064	No Message
N-3.50	C772	Pilote 100	25	Check	0.82	B.2.4.5-8	28.4	0.058	0.064	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C772	Pilote 100	50	Check	0.91	B.2.4.5-8	28.4	0.058	0.064	No Message
N-3.50	C773	Pilote 100	0	Check	0.91	B.2.4.5-8	28.4	0.000	0.000	No Message
N-3.50	C773	Pilote 100	0.1	Check	0.91	B.2.4.5-8	28.4	0.000	0.000	No Message
N-3.50	C773	Pilote 100	0.2	Check	0.91	B.2.4.5-8	28.4	0.000	0.000	No Message
N-3.50	C800	Pilote 100	0	Check	0.006	B.2.4.1	28.4	0.006	0.005	No Message
N-3.50	C800	Pilote 100	25	Check	0.005	B.2.4.1	28.4	0.006	0.005	No Message
N-3.50	C800	Pilote 100	50	Check	0.006	B.2.4.5-3	28.4	0.006	0.005	No Message
N-3.50	C801	Pilote 100	0	Check	0.006	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C801	Pilote 100	25	Check	0.009	B.2.4.7-4	28.4	0.004	0.004	No Message
N-3.50	C801	Pilote 100	50	Check	0.016	B.2.4.7-4	28.4	0.004	0.004	No Message
N-3.50	C802	Pilote 100	0	Check	0.016	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C802	Pilote 100	25	Check	0.023	B.2.4.7-4	28.4	0.003	0.004	No Message
N-3.50	C802	Pilote 100	50	Check	0.03	B.2.4.7-8	28.4	0.003	0.004	No Message
N-3.50	C803	Pilote 100	0	Check	0.03	B.2.4.7-8	28.4	0.003	0.004	No Message
N-3.50	C803	Pilote 100	25	Check	0.038	B.2.4.5-8	28.4	0.003	0.004	No Message
N-3.50	C803	Pilote 100	50	Check	0.047	B.2.4.5-8	28.4	0.003	0.004	No Message
N-3.50	C804	Pilote 100	0	Check	0.047	B.2.4.5-8	28.4	0.004	0.005	No Message
N-3.50	C804	Pilote 100	25	Check	0.056	B.2.4.5-8	28.4	0.004	0.005	No Message
N-3.50	C804	Pilote 100	50	Check	0.066	B.2.4.5-8	28.4	0.004	0.005	No Message
N-3.50	C805	Pilote 100	0	Check	0.066	B.2.4.5-8	28.4	0.005	0.007	No Message
N-3.50	C805	Pilote 100	25	Check	0.078	B.2.4.5-8	28.4	0.005	0.007	No Message
N-3.50	C805	Pilote 100	50	Check	0.09	B.2.4.5-8	28.4	0.005	0.007	No Message
N-3.50	C806	Pilote 100	0	Check	0.09	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C806	Pilote 100	25	Check	0.103	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C806	Pilote 100	50	Check	0.117	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C807	Pilote 100	0	Check	0.117	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C807	Pilote 100	25	Check	0.131	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C807	Pilote 100	50	Check	0.146	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C808	Pilote 100	0	Check	0.146	B.2.4.5-8	28.4	0.007	0.009	No Message
N-3.50	C808	Pilote 100	25	Check	0.162	B.2.4.5-8	28.4	0.007	0.009	No Message
N-3.50	C808	Pilote 100	50	Check	0.178	B.2.4.5-8	28.4	0.007	0.009	No Message
N-3.50	C809	Pilote 100	0	Check	0.178	B.2.4.5-8	28.4	0.007	0.009	No Message
N-3.50	C809	Pilote 100	25	Check	0.194	B.2.4.5-8	28.4	0.007	0.009	No Message
N-3.50	C809	Pilote 100	50	Check	0.21	B.2.4.5-8	28.4	0.007	0.009	No Message
N-3.50	C810	Pilote 100	0	Check	0.21	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C810	Pilote 100	25	Check	0.226	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C810	Pilote 100	50	Check	0.242	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C811	Pilote 100	0	Check	0.242	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C811	Pilote 100	25	Check	0.256	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C811	Pilote 100	50	Check	0.271	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C812	Pilote 100	0	Check	0.271	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C812	Pilote 100	25	Check	0.283	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C812	Pilote 100	50	Check	0.296	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C813	Pilote 100	0	Check	0.296	B.2.4.5-8	28.4	0.004	0.006	No Message
N-3.50	C813	Pilote 100	25	Check	0.305	B.2.4.5-8	28.4	0.004	0.006	No Message
N-3.50	C813	Pilote 100	50	Check	0.314	B.2.4.5-8	28.4	0.004	0.006	No Message
N-3.50	C814	Pilote 100	0	Check	0.314	B.2.4.5-8	28.4	0.002	0.001	No Message
N-3.50	C814	Pilote 100	25	Check	0.319	B.2.4.5-8	28.4	0.002	0.001	No Message
N-3.50	C814	Pilote 100	50	Check	0.324	B.2.4.5-8	28.4	0.002	0.001	No Message
N-3.50	C815	Pilote 100	0	Check	0.324	B.2.4.5-8	28.4	0.002	0.004	No Message
N-3.50	C815	Pilote 100	25	Check	0.325	B.2.4.5-8	28.4	0.002	0.004	No Message
N-3.50	C815	Pilote 100	50	Check	0.331	B.2.4.5-8	28.4	0.002	0.004	No Message
N-3.50	C816	Pilote 100	0	Check	0.331	B.2.4.5-8	28.4	0.005	0.011	No Message
N-3.50	C816	Pilote 100	25	Check	0.332	B.2.4.5-8	28.4	0.005	0.011	No Message
N-3.50	C816	Pilote 100	50	Check	0.334	B.2.4.5-8	28.4	0.005	0.011	No Message
N-3.50	C817	Pilote 100	0	Check	0.334	B.2.4.5-8	28.4	0.010	0.017	No Message
N-3.50	C817	Pilote 100	25	Check	0.33	B.2.4.5-8	28.4	0.010	0.017	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C817	Pilote 100	50	Check	0.326	B.2.4.5-8	28.4	0.010	0.017	No Message
N-3.50	C818	Pilote 100	0	Check	0.326	B.2.4.5-8	28.4	0.014	0.024	No Message
N-3.50	C818	Pilote 100	25	Check	0.315	B.2.4.5-8	28.4	0.014	0.024	No Message
N-3.50	C818	Pilote 100	50	Check	0.305	B.2.4.5-8	28.4	0.014	0.024	No Message
N-3.50	C819	Pilote 100	0	Check	0.305	B.2.4.5-8	28.4	0.020	0.031	No Message
N-3.50	C819	Pilote 100	25	Check	0.289	B.2.4.5-8	28.4	0.020	0.031	No Message
N-3.50	C819	Pilote 100	50	Check	0.273	B.2.4.5-8	28.4	0.020	0.031	No Message
N-3.50	C820	Pilote 100	0	Check	0.273	B.2.4.5-8	28.4	0.026	0.038	No Message
N-3.50	C820	Pilote 100	25	Check	0.283	B.2.4.1	28.4	0.026	0.038	No Message
N-3.50	C820	Pilote 100	50	Check	0.304	B.2.4.5-8	28.4	0.026	0.038	No Message
N-3.50	C821	Pilote 100	0	Check	0.304	B.2.4.5-8	28.4	0.031	0.045	No Message
N-3.50	C821	Pilote 100	25	Check	0.361	B.2.4.5-8	28.4	0.031	0.045	No Message
N-3.50	C821	Pilote 100	50	Check	0.422	B.2.4.5-8	28.4	0.031	0.045	No Message
N-3.50	C822	Pilote 100	0	Check	0.422	B.2.4.5-8	28.4	0.036	0.052	No Message
N-3.50	C822	Pilote 100	25	Check	0.491	B.2.4.5-8	28.4	0.036	0.052	No Message
N-3.50	C822	Pilote 100	50	Check	0.56	B.2.4.5-8	28.4	0.036	0.052	No Message
N-3.50	C823	Pilote 100	0	Check	0.56	B.2.4.5-8	28.4	0.041	0.057	No Message
N-3.50	C823	Pilote 100	25	Check	0.636	B.2.4.5-8	28.4	0.041	0.057	No Message
N-3.50	C823	Pilote 100	50	Check	0.713	B.2.4.5-8	28.4	0.041	0.057	No Message
N-3.50	C824	Pilote 100	0	Check	0.713	B.2.4.5-8	28.4	0.045	0.062	No Message
N-3.50	C824	Pilote 100	25	Check	0.797	B.2.4.5-8	28.4	0.045	0.062	No Message
N-3.50	C824	Pilote 100	50	Check	0.884	B.2.4.5-8	28.4	0.045	0.062	No Message
N-3.50	C825	Pilote 100	0	Check	0.884	B.2.4.5-8	28.4	0.045	0.000	No Message
N-3.50	C825	Pilote 100	0.1	Check	0.884	B.2.4.5-8	28.4	0.045	0.000	No Message
N-3.50	C825	Pilote 100	0.2	Check	0.884	B.2.4.5-8	28.4	0.045	0.000	No Message
N-3.50	C826	Pilote 100	0	Check	0.004	B.2.4.1	28.4	0.006	0.004	No Message
N-3.50	C826	Pilote 100	25	Check	0.004	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C826	Pilote 100	50	Check	0.007	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C827	Pilote 100	0	Check	0.007	B.2.4.7-4	28.4	0.004	0.003	No Message
N-3.50	C827	Pilote 100	25	Check	0.014	B.2.4.7-4	28.4	0.004	0.003	No Message
N-3.50	C827	Pilote 100	50	Check	0.023	B.2.4.7-4	28.4	0.004	0.003	No Message
N-3.50	C828	Pilote 100	0	Check	0.023	B.2.4.7-4	28.4	0.003	0.003	No Message
N-3.50	C828	Pilote 100	25	Check	0.029	B.2.4.7-4	28.4	0.003	0.003	No Message
N-3.50	C828	Pilote 100	50	Check	0.037	B.2.4.5-3	28.4	0.003	0.003	No Message
N-3.50	C829	Pilote 100	0	Check	0.037	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C829	Pilote 100	25	Check	0.045	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C829	Pilote 100	50	Check	0.053	B.2.4.5-3	28.4	0.003	0.004	No Message
N-3.50	C830	Pilote 100	0	Check	0.053	B.2.4.5-3	28.4	0.004	0.005	No Message
N-3.50	C830	Pilote 100	25	Check	0.062	B.2.4.5-3	28.4	0.004	0.005	No Message
N-3.50	C830	Pilote 100	50	Check	0.071	B.2.4.5-8	28.4	0.004	0.005	No Message
N-3.50	C831	Pilote 100	0	Check	0.071	B.2.4.5-8	28.4	0.005	0.006	No Message
N-3.50	C831	Pilote 100	25	Check	0.083	B.2.4.5-8	28.4	0.005	0.006	No Message
N-3.50	C831	Pilote 100	50	Check	0.095	B.2.4.5-8	28.4	0.005	0.006	No Message
N-3.50	C832	Pilote 100	0	Check	0.095	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C832	Pilote 100	25	Check	0.108	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C832	Pilote 100	50	Check	0.121	B.2.4.5-8	28.4	0.006	0.007	No Message
N-3.50	C833	Pilote 100	0	Check	0.121	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C833	Pilote 100	25	Check	0.136	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C833	Pilote 100	50	Check	0.151	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C834	Pilote 100	0	Check	0.151	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C834	Pilote 100	25	Check	0.166	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C834	Pilote 100	50	Check	0.181	B.2.4.5-8	28.4	0.007	0.008	No Message
N-3.50	C835	Pilote 100	0	Check	0.181	B.2.4.5-8	28.4	0.008	0.008	No Message
N-3.50	C835	Pilote 100	25	Check	0.197	B.2.4.5-8	28.4	0.008	0.008	No Message
N-3.50	C835	Pilote 100	50	Check	0.213	B.2.4.5-8	28.4	0.008	0.008	No Message
N-3.50	C836	Pilote 100	0	Check	0.213	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C836	Pilote 100	25	Check	0.228	B.2.4.5-8	28.4	0.007	0.007	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C836	Pilote 100	50	Check	0.243	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C837	Pilote 100	0	Check	0.243	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C837	Pilote 100	25	Check	0.257	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C837	Pilote 100	50	Check	0.271	B.2.4.5-8	28.4	0.007	0.007	No Message
N-3.50	C838	Pilote 100	0	Check	0.271	B.2.4.5-8	28.4	0.006	0.006	No Message
N-3.50	C838	Pilote 100	25	Check	0.283	B.2.4.5-8	28.4	0.006	0.006	No Message
N-3.50	C838	Pilote 100	50	Check	0.295	B.2.4.5-8	28.4	0.006	0.006	No Message
N-3.50	C839	Pilote 100	0	Check	0.295	B.2.4.5-8	28.4	0.005	0.005	No Message
N-3.50	C839	Pilote 100	25	Check	0.304	B.2.4.5-8	28.4	0.005	0.005	No Message
N-3.50	C839	Pilote 100	50	Check	0.313	B.2.4.5-8	28.4	0.005	0.005	No Message
N-3.50	C840	Pilote 100	0	Check	0.313	B.2.4.5-8	28.4	0.003	0.001	No Message
N-3.50	C840	Pilote 100	25	Check	0.318	B.2.4.5-8	28.4	0.003	0.001	No Message
N-3.50	C840	Pilote 100	50	Check	0.323	B.2.4.5-8	28.4	0.003	0.001	No Message
N-3.50	C841	Pilote 100	0	Check	0.323	B.2.4.5-8	28.4	0.002	0.004	No Message
N-3.50	C841	Pilote 100	25	Check	0.324	B.2.4.5-8	28.4	0.002	0.004	No Message
N-3.50	C841	Pilote 100	50	Check	0.329	B.2.4.5-8	28.4	0.002	0.004	No Message
N-3.50	C842	Pilote 100	0	Check	0.329	B.2.4.5-8	28.4	0.006	0.010	No Message
N-3.50	C842	Pilote 100	25	Check	0.331	B.2.4.5-8	28.4	0.006	0.010	No Message
N-3.50	C842	Pilote 100	50	Check	0.333	B.2.4.5-8	28.4	0.006	0.010	No Message
N-3.50	C843	Pilote 100	0	Check	0.333	B.2.4.5-8	28.4	0.011	0.015	No Message
N-3.50	C843	Pilote 100	25	Check	0.331	B.2.4.5-8	28.4	0.011	0.015	No Message
N-3.50	C843	Pilote 100	50	Check	0.328	B.2.4.5-8	28.4	0.011	0.015	No Message
N-3.50	C844	Pilote 100	0	Check	0.328	B.2.4.5-8	28.4	0.016	0.021	No Message
N-3.50	C844	Pilote 100	25	Check	0.32	B.2.4.5-8	28.4	0.016	0.021	No Message
N-3.50	C844	Pilote 100	50	Check	0.311	B.2.4.5-8	28.4	0.016	0.021	No Message
N-3.50	C845	Pilote 100	0	Check	0.311	B.2.4.5-8	28.4	0.022	0.028	No Message
N-3.50	C845	Pilote 100	25	Check	0.297	B.2.4.5-8	28.4	0.022	0.028	No Message
N-3.50	C845	Pilote 100	50	Check	0.282	B.2.4.5-8	28.4	0.022	0.028	No Message
N-3.50	C846	P100R	0	Check	0.158	B.2.4.5-8	51	0.028	0.034	No Message
N-3.50	C846	P100R	25	Check	0.16	B.2.4.1	51	0.028	0.034	No Message
N-3.50	C846	P100R	50	Check	0.17	B.2.4.5-8	51	0.028	0.034	No Message
N-3.50	C847	Pilote 100	0	Check	0.303	B.2.4.5-8	28.4	0.033	0.041	No Message
N-3.50	C847	Pilote 100	25	Check	0.36	B.2.4.5-8	28.4	0.033	0.041	No Message
N-3.50	C847	Pilote 100	50	Check	0.418	B.2.4.5-8	28.4	0.033	0.041	No Message
N-3.50	C848	Pilote 100	0	Check	0.418	B.2.4.5-8	28.4	0.039	0.047	No Message
N-3.50	C848	Pilote 100	25	Check	0.483	B.2.4.5-8	28.4	0.039	0.047	No Message
N-3.50	C848	Pilote 100	50	Check	0.548	B.2.4.5-8	28.4	0.039	0.047	No Message
N-3.50	C849	Pilote 100	0	Check	0.548	B.2.4.5-8	28.4	0.044	0.052	No Message
N-3.50	C849	Pilote 100	25	Check	0.62	B.2.4.5-8	28.4	0.044	0.052	No Message
N-3.50	C849	Pilote 100	50	Check	0.693	B.2.4.5-8	28.4	0.044	0.052	No Message
N-3.50	C850	Pilote 100	0	Check	0.693	B.2.4.5-8	28.4	0.048	0.056	No Message
N-3.50	C850	Pilote 100	25	Check	0.772	B.2.4.5-8	28.4	0.048	0.056	No Message
N-3.50	C850	Pilote 100	50	Check	0.854	B.2.4.5-8	28.4	0.048	0.056	No Message
N-3.50	C851	Pilote 100	0	Check	0.854	B.2.4.5-8	28.4	0.716	0.000	No Message
N-3.50	C851	Pilote 100	0.1	Check	0.854	B.2.4.5-8	28.4	0.716	0.000	No Message
N-3.50	C851	Pilote 100	0.2	Check	0.855	B.2.4.5-8	28.4	0.716	0.000	No Message
N-3.50	C878	Pilote 100	0	Check	0.025	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C878	Pilote 100	25	Check	0.024	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C878	Pilote 100	50	Check	0.023	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C879	Pilote 100	0	Check	0.023	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C879	Pilote 100	25	Check	0.023	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C879	Pilote 100	50	Check	0.022	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C880	Pilote 100	0	Check	0.022	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C880	Pilote 100	25	Check	0.021	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C880	Pilote 100	50	Check	0.021	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C881	Pilote 100	0	Check	0.021	B.2.4.5-3	28.4	0.003	0.003	No Message
N-3.50	C881	Pilote 100	25	Check	0.02	B.2.4.5-3	28.4	0.003	0.003	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C881	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.003	0.003	No Message
N-3.50	C882	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C882	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C882	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.004	0.004	No Message
N-3.50	C883	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.005	0.005	No Message
N-3.50	C883	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.005	0.005	No Message
N-3.50	C883	Pilote 100	50	Check	0.02	B.2.4.5-3	28.4	0.005	0.005	No Message
N-3.50	C884	Pilote 100	0	Check	0.02	B.2.4.5-3	28.4	0.005	0.006	No Message
N-3.50	C884	Pilote 100	25	Check	0.027	B.2.4.7-4	28.4	0.005	0.006	No Message
N-3.50	C884	Pilote 100	50	Check	0.036	B.2.4.7-4	28.4	0.005	0.006	No Message
N-3.50	C885	Pilote 100	0	Check	0.036	B.2.4.7-4	28.4	0.006	0.007	No Message
N-3.50	C885	Pilote 100	25	Check	0.049	B.2.4.7-4	28.4	0.006	0.007	No Message
N-3.50	C885	Pilote 100	50	Check	0.061	B.2.4.7-4	28.4	0.006	0.007	No Message
N-3.50	C886	Pilote 100	0	Check	0.061	B.2.4.7-4	28.4	0.007	0.007	No Message
N-3.50	C886	Pilote 100	25	Check	0.074	B.2.4.7-4	28.4	0.007	0.007	No Message
N-3.50	C886	Pilote 100	50	Check	0.088	B.2.4.7-4	28.4	0.007	0.007	No Message
N-3.50	C887	Pilote 100	0	Check	0.088	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C887	Pilote 100	25	Check	0.102	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C887	Pilote 100	50	Check	0.116	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C888	Pilote 100	0	Check	0.116	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C888	Pilote 100	25	Check	0.13	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C888	Pilote 100	50	Check	0.144	B.2.4.7-4	28.4	0.008	0.008	No Message
N-3.50	C889	Pilote 100	0	Check	0.144	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C889	Pilote 100	25	Check	0.158	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C889	Pilote 100	50	Check	0.172	B.2.4.7-4	28.4	0.008	0.007	No Message
N-3.50	C890	Pilote 100	0	Check	0.172	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C890	Pilote 100	25	Check	0.185	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C890	Pilote 100	50	Check	0.197	B.2.4.7-4	28.4	0.007	0.006	No Message
N-3.50	C891	Pilote 100	0	Check	0.197	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C891	Pilote 100	25	Check	0.208	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C891	Pilote 100	50	Check	0.219	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C892	Pilote 100	0	Check	0.219	B.2.4.7-4	28.4	0.004	0.003	No Message
N-3.50	C892	Pilote 100	25	Check	0.226	B.2.4.7-4	28.4	0.004	0.003	No Message
N-3.50	C892	Pilote 100	50	Check	0.234	B.2.4.7-4	28.4	0.004	0.003	No Message
N-3.50	C893	Pilote 100	0	Check	0.234	B.2.4.7-4	28.4	0.002	0.002	No Message
N-3.50	C893	Pilote 100	25	Check	0.238	B.2.4.7-4	28.4	0.002	0.002	No Message
N-3.50	C893	Pilote 100	50	Check	0.242	B.2.4.7-4	28.4	0.002	0.002	No Message
N-3.50	C894	Pilote 100	0	Check	0.242	B.2.4.7-4	28.4	0.003	0.005	No Message
N-3.50	C894	Pilote 100	25	Check	0.241	B.2.4.7-4	28.4	0.003	0.005	No Message
N-3.50	C894	Pilote 100	50	Check	0.241	B.2.4.7-4	28.4	0.003	0.005	No Message
N-3.50	C895	Pilote 100	0	Check	0.241	B.2.4.7-4	28.4	0.006	0.010	No Message
N-3.50	C895	Pilote 100	25	Check	0.235	B.2.4.7-4	28.4	0.006	0.010	No Message
N-3.50	C895	Pilote 100	50	Check	0.229	B.2.4.7-4	28.4	0.006	0.010	No Message
N-3.50	C896	Pilote 100	0	Check	0.229	B.2.4.7-4	28.4	0.011	0.015	No Message
N-3.50	C896	Pilote 100	25	Check	0.217	B.2.4.7-4	28.4	0.011	0.015	No Message
N-3.50	C896	Pilote 100	50	Check	0.206	B.2.4.7-4	28.4	0.011	0.015	No Message
N-3.50	C897	Pilote 100	0	Check	0.206	B.2.4.7-4	28.4	0.016	0.021	No Message
N-3.50	C897	Pilote 100	25	Check	0.189	B.2.4.7-4	28.4	0.016	0.021	No Message
N-3.50	C897	Pilote 100	50	Check	0.173	B.2.4.7-4	28.4	0.016	0.021	No Message
N-3.50	C898	Pilote 100	0	Check	0.173	B.2.4.7-4	28.4	0.021	0.027	No Message
N-3.50	C898	Pilote 100	25	Check	0.151	B.2.4.7-4	28.4	0.021	0.027	No Message
N-3.50	C898	Pilote 100	50	Check	0.136	B.2.4.7-4	28.4	0.021	0.027	No Message
N-3.50	C899	Pilote 100	0	Check	0.136	B.2.4.7-4	28.4	0.026	0.033	No Message
N-3.50	C899	Pilote 100	25	Check	0.145	B.2.4.5-3	28.4	0.026	0.033	No Message
N-3.50	C899	Pilote 100	50	Check	0.178	B.2.4.5-8	28.4	0.026	0.033	No Message
N-3.50	C900	Pilote 100	0	Check	0.178	B.2.4.5-8	28.4	0.032	0.039	No Message
N-3.50	C900	Pilote 100	25	Check	0.227	B.2.4.5-8	28.4	0.032	0.039	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C900	Pilote 100	50	Check	0.276	B.2.4.5-8	28.4	0.032	0.039	No Message
N-3.50	C901	Pilote 100	0	Check	0.276	B.2.4.5-8	28.4	0.036	0.044	No Message
N-3.50	C901	Pilote 100	25	Check	0.332	B.2.4.5-8	28.4	0.036	0.044	No Message
N-3.50	C901	Pilote 100	50	Check	0.392	B.2.4.5-8	28.4	0.036	0.044	No Message
N-3.50	C902	Pilote 100	0	Check	0.392	B.2.4.5-8	28.4	0.040	0.048	No Message
N-3.50	C902	Pilote 100	25	Check	0.457	B.2.4.5-8	28.4	0.040	0.048	No Message
N-3.50	C902	Pilote 100	50	Check	0.522	B.2.4.5-8	28.4	0.040	0.048	No Message
N-3.50	C903	Pilote 100	0	Check	0.522	B.2.4.5-8	28.4	0.000	0.000	No Message
N-3.50	C903	Pilote 100	0.1	Check	0.522	B.2.4.5-8	28.4	0.000	0.000	No Message
N-3.50	C903	Pilote 100	0.2	Check	0.523	B.2.4.5-8	28.4	0.000	0.000	No Message
N-3.50	C5	Pilote 100	0	Check	0.026	B.2.4.5-3	28.4	0.002	0.003	No Message
N-3.50	C5	Pilote 100	25	Check	0.025	B.2.4.5-3	28.4	0.002	0.003	No Message
N-3.50	C5	Pilote 100	50	Check	0.024	B.2.4.5-3	28.4	0.002	0.003	No Message
N-3.50	C10	Pilote 100	0	Check	0.024	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C10	Pilote 100	25	Check	0.023	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C10	Pilote 100	50	Check	0.023	B.2.4.5-3	28.4	0.002	0.002	No Message
N-3.50	C11	Pilote 100	0	Check	0.023	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C11	Pilote 100	25	Check	0.022	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C11	Pilote 100	50	Check	0.021	B.2.4.5-3	28.4	0.003	0.002	No Message
N-3.50	C12	Pilote 100	0	Check	0.021	B.2.4.5-3	28.4	0.004	0.003	No Message
N-3.50	C12	Pilote 100	25	Check	0.021	B.2.4.5-3	28.4	0.004	0.003	No Message
N-3.50	C12	Pilote 100	50	Check	0.02	B.2.4.5-3	28.4	0.004	0.003	No Message
N-3.50	C13	Pilote 100	0	Check	0.02	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C13	Pilote 100	25	Check	0.02	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C13	Pilote 100	50	Check	0.02	B.2.4.5-3	28.4	0.005	0.003	No Message
N-3.50	C15	Pilote 100	0	Check	0.02	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C15	Pilote 100	25	Check	0.02	B.2.4.5-3	28.4	0.006	0.004	No Message
N-3.50	C15	Pilote 100	50	Check	0.028	B.2.4.7-4	28.4	0.006	0.004	No Message
N-3.50	C23	Pilote 100	0	Check	0.028	B.2.4.7-4	28.4	0.007	0.005	No Message
N-3.50	C23	Pilote 100	25	Check	0.04	B.2.4.7-4	28.4	0.007	0.005	No Message
N-3.50	C23	Pilote 100	50	Check	0.052	B.2.4.7-4	28.4	0.007	0.005	No Message
N-3.50	C26	Pilote 100	0	Check	0.052	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C26	Pilote 100	25	Check	0.066	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C26	Pilote 100	50	Check	0.079	B.2.4.7-4	28.4	0.008	0.006	No Message
N-3.50	C38	Pilote 100	0	Check	0.079	B.2.4.7-4	28.4	0.009	0.007	No Message
N-3.50	C38	Pilote 100	25	Check	0.094	B.2.4.7-4	28.4	0.009	0.007	No Message
N-3.50	C38	Pilote 100	50	Check	0.108	B.2.4.7-4	28.4	0.009	0.007	No Message
N-3.50	C592	Pilote 100	0	Check	0.108	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C592	Pilote 100	25	Check	0.123	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C592	Pilote 100	50	Check	0.138	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C593	Pilote 100	0	Check	0.138	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C593	Pilote 100	25	Check	0.154	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C593	Pilote 100	50	Check	0.169	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C594	Pilote 100	0	Check	0.169	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C594	Pilote 100	25	Check	0.183	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C594	Pilote 100	50	Check	0.198	B.2.4.7-4	28.4	0.009	0.008	No Message
N-3.50	C595	Pilote 100	0	Check	0.198	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C595	Pilote 100	25	Check	0.211	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C595	Pilote 100	50	Check	0.224	B.2.4.7-4	28.4	0.007	0.008	No Message
N-3.50	C596	Pilote 100	0	Check	0.224	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C596	Pilote 100	25	Check	0.235	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C596	Pilote 100	50	Check	0.246	B.2.4.7-4	28.4	0.005	0.007	No Message
N-3.50	C597	Pilote 100	0	Check	0.246	B.2.4.7-4	28.4	0.003	0.006	No Message
N-3.50	C597	Pilote 100	25	Check	0.253	B.2.4.7-4	28.4	0.003	0.006	No Message
N-3.50	C597	Pilote 100	50	Check	0.26	B.2.4.7-4	28.4	0.003	0.006	No Message
N-3.50	C598	Pilote 100	0	Check	0.26	B.2.4.7-4	28.4	0.002	0.005	No Message
N-3.50	C598	Pilote 100	25	Check	0.264	B.2.4.7-4	28.4	0.002	0.005	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C598	Pilote 100	50	Check	0.267	B.2.4.7-4	28.4	0.002	0.005	No Message
N-3.50	C599	Pilote 100	0	Check	0.267	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C599	Pilote 100	25	Check	0.265	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C599	Pilote 100	50	Check	0.264	B.2.4.7-4	28.4	0.006	0.005	No Message
N-3.50	C600	Pilote 100	0	Check	0.264	B.2.4.7-4	28.4	0.012	0.007	No Message
N-3.50	C600	Pilote 100	25	Check	0.255	B.2.4.7-4	28.4	0.012	0.007	No Message
N-3.50	C600	Pilote 100	50	Check	0.248	B.2.4.7-4	28.4	0.012	0.007	No Message
N-3.50	C601	Pilote 100	0	Check	0.248	B.2.4.7-4	28.4	0.017	0.010	No Message
N-3.50	C601	Pilote 100	25	Check	0.236	B.2.4.7-4	28.4	0.017	0.010	No Message
N-3.50	C601	Pilote 100	50	Check	0.226	B.2.4.7-4	28.4	0.017	0.010	No Message
N-3.50	C602	Pilote 100	0	Check	0.226	B.2.4.7-4	28.4	0.024	0.015	No Message
N-3.50	C602	Pilote 100	25	Check	0.218	B.2.4.7-8	28.4	0.024	0.015	No Message
N-3.50	C602	Pilote 100	50	Check	0.212	B.2.4.7-8	28.4	0.024	0.015	No Message
N-3.50	C603	P100R	0	Check	0.124	B.2.4.7-8	51	0.031	0.020	No Message
N-3.50	C603	P100R	25	Check	0.118	B.2.4.7-8	51	0.031	0.020	No Message
N-3.50	C603	P100R	50	Check	0.114	B.2.4.7-8	51	0.031	0.020	No Message
N-3.50	C604	P100R	0	Check	0.114	B.2.4.7-8	51	0.038	0.026	No Message
N-3.50	C604	P100R	25	Check	0.121	B.2.4.5-3	51	0.038	0.026	No Message
N-3.50	C604	P100R	50	Check	0.139	B.2.4.7-4	51	0.038	0.026	No Message
N-3.50	C605	P100R	0	Check	0.139	B.2.4.7-4	51	0.045	0.031	No Message
N-3.50	C605	P100R	25	Check	0.165	B.2.4.7-4	51	0.045	0.031	No Message
N-3.50	C605	P100R	50	Check	0.196	B.2.4.7-4	51	0.045	0.031	No Message
N-3.50	C606	P100R	0	Check	0.196	B.2.4.7-4	51	0.051	0.036	No Message
N-3.50	C606	P100R	25	Check	0.232	B.2.4.7-4	51	0.051	0.036	No Message
N-3.50	C606	P100R	50	Check	0.269	B.2.4.7-4	51	0.051	0.036	No Message
N-3.50	C607	P100R	0	Check	0.269	B.2.4.7-4	51	0.055	0.040	No Message
N-3.50	C607	P100R	25	Check	0.311	B.2.4.5-3	51	0.055	0.040	No Message
N-3.50	C607	P100R	50	Check	0.355	B.2.4.5-3	51	0.055	0.040	No Message
N-3.50	C608	P100R	0	Check	0.355	B.2.4.5-3	51	0.000	0.551	No Message
N-3.50	C608	P100R	0.1	Check	0.355	B.2.4.5-3	51	0.000	0.551	No Message
N-3.50	C608	P100R	0.2	Check	0.355	B.2.4.5-3	51	0.000	0.551	No Message
N-3.50	C514	Pilote 100	0	Check	0.025	B.2.4.5-8	28.4	0.007	0.006	No Message
N-3.50	C514	Pilote 100	25	Check	0.024	B.2.4.5-8	28.4	0.007	0.006	No Message
N-3.50	C514	Pilote 100	50	Check	0.023	B.2.4.5-8	28.4	0.007	0.006	No Message
N-3.50	C515	Pilote 100	0	Check	0.023	B.2.4.5-8	28.4	0.006	0.004	No Message
N-3.50	C515	Pilote 100	25	Check	0.023	B.2.4.5-8	28.4	0.006	0.004	No Message
N-3.50	C515	Pilote 100	50	Check	0.022	B.2.4.5-8	28.4	0.006	0.004	No Message
N-3.50	C516	Pilote 100	0	Check	0.022	B.2.4.5-8	28.4	0.004	0.003	No Message
N-3.50	C516	Pilote 100	25	Check	0.028	B.2.4.7-8	28.4	0.004	0.003	No Message
N-3.50	C516	Pilote 100	50	Check	0.036	B.2.4.7-8	28.4	0.004	0.003	No Message
N-3.50	C517	Pilote 100	0	Check	0.036	B.2.4.7-8	28.4	0.004	0.003	No Message
N-3.50	C517	Pilote 100	25	Check	0.043	B.2.4.7-8	28.4	0.004	0.003	No Message
N-3.50	C517	Pilote 100	50	Check	0.051	B.2.4.7-8	28.4	0.004	0.003	No Message
N-3.50	C518	Pilote 100	0	Check	0.051	B.2.4.7-8	28.4	0.005	0.004	No Message
N-3.50	C518	Pilote 100	25	Check	0.058	B.2.4.7-8	28.4	0.005	0.004	No Message
N-3.50	C518	Pilote 100	50	Check	0.066	B.2.4.7-8	28.4	0.005	0.004	No Message
N-3.50	C519	Pilote 100	0	Check	0.066	B.2.4.7-8	28.4	0.006	0.005	No Message
N-3.50	C519	Pilote 100	25	Check	0.074	B.2.4.7-8	28.4	0.006	0.005	No Message
N-3.50	C519	Pilote 100	50	Check	0.082	B.2.4.7-8	28.4	0.006	0.005	No Message
N-3.50	C520	Pilote 100	0	Check	0.082	B.2.4.7-8	28.4	0.008	0.006	No Message
N-3.50	C520	Pilote 100	25	Check	0.092	B.2.4.7-8	28.4	0.008	0.006	No Message
N-3.50	C520	Pilote 100	50	Check	0.101	B.2.4.7-8	28.4	0.008	0.006	No Message
N-3.50	C521	Pilote 100	0	Check	0.101	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C521	Pilote 100	25	Check	0.112	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C521	Pilote 100	50	Check	0.123	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C522	Pilote 100	0	Check	0.123	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C522	Pilote 100	25	Check	0.134	B.2.4.7-8	28.4	0.009	0.007	No Message

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Design Section	Station	Design/Check	PMM Ratio	PMM Combo	As	At V Major		Warnings
								cm	cm ² /cm	
N-3.50	C522	Pilote 100	50	Check	0.146	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C523	Pilote 100	0	Check	0.146	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C523	Pilote 100	25	Check	0.158	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C523	Pilote 100	50	Check	0.169	B.2.4.7-8	28.4	0.009	0.007	No Message
N-3.50	C524	Pilote 100	0	Check	0.169	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C524	Pilote 100	25	Check	0.181	B.2.4.7-8	28.4	0.008	0.008	No Message
N-3.50	C524	Pilote 100	50	Check	0.193	B.2.4.5-8	28.4	0.008	0.008	No Message
N-3.50	C525	Pilote 100	0	Check	0.193	B.2.4.5-8	28.4	0.010	0.008	No Message
N-3.50	C525	Pilote 100	25	Check	0.205	B.2.4.5-3	28.4	0.010	0.008	No Message
N-3.50	C525	Pilote 100	50	Check	0.217	B.2.4.5-3	28.4	0.010	0.008	No Message
N-3.50	C526	Pilote 100	0	Check	0.217	B.2.4.5-3	28.4	0.013	0.008	No Message
N-3.50	C526	Pilote 100	25	Check	0.227	B.2.4.5-3	28.4	0.013	0.008	No Message
N-3.50	C526	Pilote 100	50	Check	0.236	B.2.4.5-3	28.4	0.013	0.008	No Message
N-3.50	C527	Pilote 100	0	Check	0.236	B.2.4.5-3	28.4	0.016	0.007	No Message
N-3.50	C527	Pilote 100	25	Check	0.242	B.2.4.5-3	28.4	0.016	0.007	No Message
N-3.50	C527	Pilote 100	50	Check	0.25	B.2.4.7-8	28.4	0.016	0.007	No Message
N-3.50	C528	Pilote 100	0	Check	0.25	B.2.4.7-8	28.4	0.015	0.006	No Message
N-3.50	C528	Pilote 100	25	Check	0.258	B.2.4.7-8	28.4	0.015	0.006	No Message
N-3.50	C528	Pilote 100	50	Check	0.267	B.2.4.7-8	28.4	0.015	0.006	No Message
N-3.50	C529	Pilote 100	0	Check	0.267	B.2.4.7-8	28.4	0.007	0.001	No Message
N-3.50	C529	Pilote 100	25	Check	0.28	B.2.4.7-8	28.4	0.007	0.001	No Message
N-3.50	C529	Pilote 100	50	Check	0.306	B.2.4.5-3	28.4	0.007	0.001	No Message
N-3.50	C530	Pilote 100	0	Check	0.306	B.2.4.5-3	28.4	0.012	0.002	No Message
N-3.50	C530	Pilote 100	25	Check	0.337	B.2.4.5-3	28.4	0.012	0.002	No Message
N-3.50	C530	Pilote 100	50	Check	0.369	B.2.4.5-3	28.4	0.012	0.002	No Message
N-3.50	C531	Pilote 100	0	Check	0.369	B.2.4.5-3	28.4	0.014	0.011	No Message
N-3.50	C531	Pilote 100	25	Check	0.403	B.2.4.5-3	28.4	0.014	0.011	No Message
N-3.50	C531	Pilote 100	50	Check	0.436	B.2.4.5-3	28.4	0.014	0.011	No Message
N-3.50	C532	Pilote 100	0	Check	0.436	B.2.4.5-3	28.4	0.018	0.016	No Message
N-3.50	C532	Pilote 100	25	Check	0.47	B.2.4.5-3	28.4	0.018	0.016	No Message
N-3.50	C532	Pilote 100	50	Check	0.504	B.2.4.5-3	28.4	0.018	0.016	No Message
N-3.50	C533	P100R	0	Check	0.297	B.2.4.5-3	51	0.020	0.022	No Message
N-3.50	C533	P100R	25	Check	0.317	B.2.4.5-3	51	0.020	0.022	No Message
N-3.50	C533	P100R	50	Check	0.339	B.2.4.5-3	51	0.020	0.022	No Message
N-3.50	C534	P100R	0	Check	0.339	B.2.4.5-3	51	0.022	0.028	No Message
N-3.50	C534	P100R	25	Check	0.362	B.2.4.5-3	51	0.022	0.028	No Message
N-3.50	C534	P100R	50	Check	0.391	B.2.4.5-8	51	0.022	0.028	No Message
N-3.50	C535	P100R	0	Check	0.391	B.2.4.5-8	51	0.024	0.033	No Message
N-3.50	C535	P100R	25	Check	0.422	B.2.4.5-8	51	0.024	0.033	No Message
N-3.50	C535	P100R	50	Check	0.456	B.2.4.5-8	51	0.024	0.033	No Message
N-3.50	C536	P100R	0	Check	0.456	B.2.4.5-8	51	0.025	0.039	No Message
N-3.50	C536	P100R	25	Check	0.493	B.2.4.5-8	51	0.025	0.039	No Message
N-3.50	C536	P100R	50	Check	0.534	B.2.4.5-8	51	0.025	0.039	No Message
N-3.50	C537	P100R	0	Check	0.534	B.2.4.5-8	51	0.049	0.043	No Message
N-3.50	C537	P100R	25	Check	0.579	B.2.4.5-8	51	0.049	0.043	No Message
N-3.50	C537	P100R	50	Check	0.625	B.2.4.5-8	51	0.049	0.043	No Message
N-3.50	C538	P100R	0	Check	0.625	B.2.4.5-8	51	0.053	0.047	No Message
N-3.50	C538	P100R	25	Check	0.674	B.2.4.5-8	51	0.053	0.047	No Message
N-3.50	C538	P100R	50	Check	0.725	B.2.4.5-8	51	0.053	0.047	No Message
N-3.50	C539	P100R	0	Check	0.725	B.2.4.5-8	51	0.000	0.000	No Message
N-3.50	C539	P100R	0.1	Check	0.725	B.2.4.5-8	51	0.000	0.000	No Message
N-3.50	C539	P100R	0.2	Check	0.725	B.2.4.5-8	51	0.000	0.000	No Message

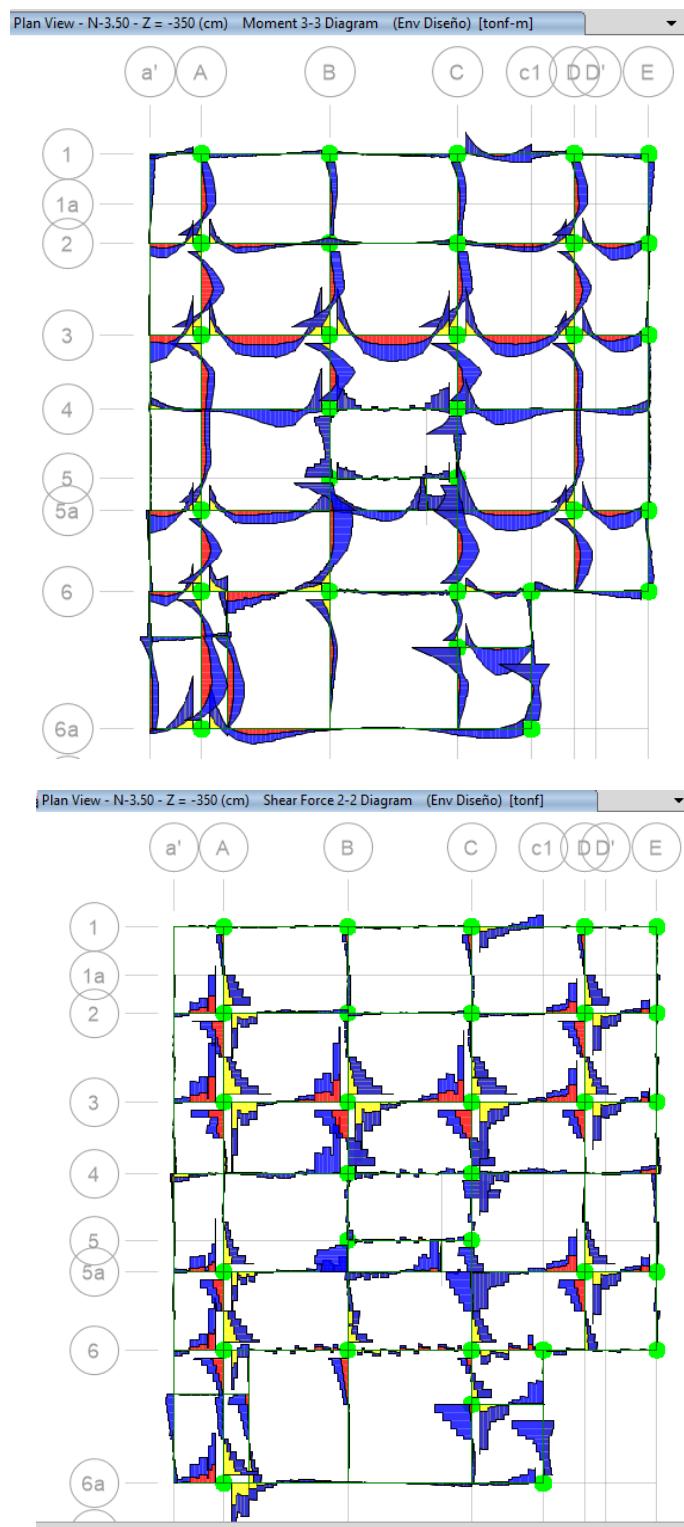
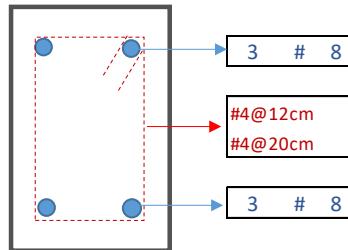


Figura 37 Diagramas de Momento y cortante en vigas principales cimentación Edificio B

SECCIÓN: VIGA CIMENTACION 50 x 100

Base	50 cm
Altura	100 cm
Recubrimiento	7.5 cm
f'c	3000 psi 21 MPa
fy	420 MPa
pmin	0.0033
As.min	15.3 cm ²



Refuerzo Base 3 # 8
Ast. Base: 15.3 cm²
OK, Cumple Acero mínimo

pb 0.0213
p.max = 0.75 * pb 0.0159
As.max 74 cm²
OK, Cumple Cuantía Máxima

Refuerzo Superior	3 # 8	26 cm ²
Refuerzo Inferior	2 # 8	41 cm ²
0,63 * pb * b * d: 64 cm² (Ast1 - Ast2) < 0,63 * pb * b * d		
Ok, El diseño es SubReforzado		

Separación Zona Confinada x<2H y Zona de Traslados	
X: cara del apoyo	200.0 cm
d/4	23.8 cm
8*bd	20.3 cm
24*dbe E # 4	30.5 cm
Menor a 30cm	30.0 cm
Separacion Máxima	20.3 cm
Separacion Usada	12.0 cm

Separación Zona NO Confinada x>2H	
Distancia 2H	200.0 cm
d/2	46.2 cm
Separacion Máxima	46.2 cm
Separacion Usada	20.0 cm

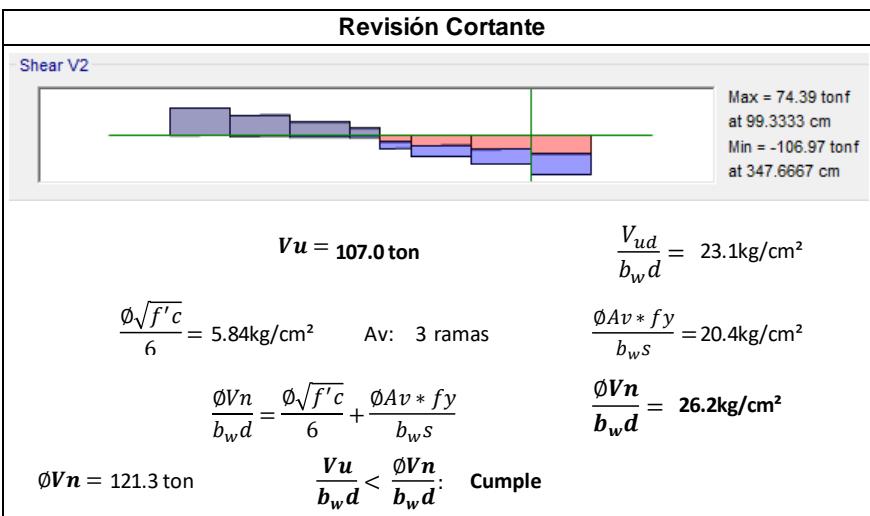


Tabla 25 Reporte de diseño de vigas de cimentación Edificio B

TABLE: Concrete Beam Summary - ACI 318-14											
Story	Label	Unique Name	Design Section	Station cm	As Top Combo		As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
					As Top	As Bottom					
N-3.50	B5	1488	VC0.5x1	8.0	B.2.4.5-8		4.00	3.30	0.04	14.40	0.05
N-3.50	B5	1488	VC0.5x1	33.8	B.2.4.5-8		4.70	4.70	0.04	14.40	0.05
N-3.50	B5	1488	VC0.5x1	59.5	B.2.4.5-8		4.70	4.70	0.04	14.40	0.05
N-3.50	B5	1488	VC0.5x1	59.5	B.2.4.5-8		4.80	4.80	0.04	15.40	0.06
N-3.50	B5	1488	VC0.5x1	85.3	B.2.4.5-8		4.80	4.80	0.04	15.40	0.06
N-3.50	B5	1488	VC0.5x1	111.0	B.2.4.5-8		4.80	4.80	0.04	15.40	0.06
N-3.50	B5	1488	VC0.5x1	111.0	B.2.4.5-3		6.10	4.90	0.04	13.30	0.05
N-3.50	B5	1488	VC0.5x1	136.7	B.2.4.5-3		5.70	4.90	0.04	13.30	0.05
N-3.50	B5	1488	VC0.5x1	162.5	B.2.4.5-3		5.50	4.90	0.04	13.30	0.05
N-3.50	B5	1488	VC0.5x1	162.5	B.2.4.5-3		6.70	5.10	0.04	14.40	0.05
N-3.50	B5	1488	VC0.5x1	188.3	B.2.4.5-3		6.70	5.40	0.04	14.40	0.05
N-3.50	B5	1488	VC0.5x1	214.0	B.2.4.5-3		6.70	5.80	0.04	14.40	0.05
N-3.50	B5	1488	VC0.5x1	214.0	B.2.4.5-3		8.00	7.10	0.04	14.50	0.05
N-3.50	B5	1488	VC0.5x1	239.8	B.2.4.5-3		8.00	7.20	0.04	14.50	0.05
N-3.50	B5	1488	VC0.5x1	265.5	B.2.4.5-3		8.00	7.30	0.04	14.50	0.05
N-3.50	B5	1488	VC0.5x1	265.5	B.2.4.5-8		2.50	2.50	0.00	0.00	0.00
N-3.50	B5	1488	VC0.5x1	266.0	B.2.4.5-8		2.50	2.50	0.00	0.00	0.00
N-3.50	B5	1488	VC0.5x1	266.0	B.2.4.7-4		11.10	29.70	0.13	0.00	0.00
N-3.50	B5	1488	VC0.5x1	291.5	B.2.4.7-4		9.10	22.30	0.13	0.00	0.00
N-3.50	B5	1488	VC0.5x1	317.0	B.2.4.7-4		7.30	15.40	0.13	0.00	0.00
N-3.50	B5	1488	VC0.5x1	317.0	B.2.4.7-4		7.00	15.40	0.14	0.00	0.00
N-3.50	B5	1488	VC0.5x1	342.8	B.2.4.7-8		5.90	14.70	0.14	0.00	0.00
N-3.50	B5	1488	VC0.5x1	368.5	B.2.4.7-8		6.40	12.10	0.15	0.00	0.00
N-3.50	B5	1488	VC0.5x1	368.5	B.2.4.7-8		6.60	12.00	0.12	0.00	0.00
N-3.50	B5	1488	VC0.5x1	370.0	B.2.4.7-8		6.60	12.00	0.12	0.00	0.00
N-3.50	B6	1423	VC0.5x1	49.7	B.2.4.5-8		12.10	10.30	0.23	0.00	0.00
N-3.50	B6	1423	VC0.5x1	99.3	B.2.4.5-8		15.40	9.50	0.23	0.00	0.00
N-3.50	B6	1423	VC0.5x1	99.3	B.2.4.5-8		15.40	9.40	0.18	0.00	0.00
N-3.50	B6	1423	VC0.5x1	149.0	B.2.4.5-3		15.80	9.40	0.18	0.00	0.00
N-3.50	B6	1423	VC0.5x1	149.0	B.2.4.5-3		16.30	9.40	0.14	0.00	0.00
N-3.50	B6	1423	VC0.5x1	198.7	B.2.4.5-3		21.40	9.40	0.14	0.00	0.00
N-3.50	B6	1423	VC0.5x1	198.7	B.2.4.5-3		21.80	9.40	0.10	0.00	0.00
N-3.50	B6	1423	VC0.5x1	223.5	B.2.4.5-3		23.30	9.40	0.11	0.00	0.00
N-3.50	B6	1423	VC0.5x1	223.5	B.2.4.5-3		23.40	9.50	0.19	0.00	0.00
N-3.50	B6	1423	VC0.5x1	248.3	B.2.4.5-3		20.80	9.50	0.19	0.00	0.00
N-3.50	B6	1423	VC0.5x1	248.3	B.2.4.5-3		20.10	9.50	0.25	0.00	0.00
N-3.50	B6	1423	VC0.5x1	298.0	B.2.4.5-3		15.40	9.50	0.25	0.00	0.00
N-3.50	B6	1423	VC0.5x1	298.0	B.2.4.5-8		14.90	9.50	0.32	0.00	0.00
N-3.50	B6	1423	VC0.5x1	347.7	B.2.4.5-8		9.50	14.30	0.31	0.00	0.00
N-3.50	B6	1423	VC0.5x1	347.7	B.2.4.5-8		9.40	15.40	0.27	0.00	0.00
N-3.50	B6	1423	VC0.5x1	397.3	B.2.4.5-8		1.70	25.30	0.27	0.00	0.00
N-3.50	B9	1424	VC0.5x1	49.7	B.2.4.7-8		11.50	14.70	0.27	0.00	0.00
N-3.50	B9	1424	VC0.5x1	99.3	B.2.4.5-8		15.40	9.00	0.27	0.00	0.00
N-3.50	B9	1424	VC0.5x1	99.3	B.2.4.5-8		15.40	9.10	0.20	0.00	0.00
N-3.50	B9	1424	VC0.5x1	149.0	B.2.4.5-3		16.00	9.10	0.20	0.00	0.00
N-3.50	B9	1424	VC0.5x1	149.0	B.2.4.5-3		16.50	9.10	0.15	0.00	0.00
N-3.50	B9	1424	VC0.5x1	198.7	B.2.4.5-3		22.50	9.10	0.15	0.00	0.00
N-3.50	B9	1424	VC0.5x1	198.7	B.2.4.5-3		23.00	9.20	0.11	0.00	0.00
N-3.50	B9	1424	VC0.5x1	223.5	B.2.4.5-3		24.80	9.20	0.11	0.00	0.00
N-3.50	B9	1424	VC0.5x1	223.5	B.2.4.5-3		24.90	9.20	0.18	0.00	0.00
N-3.50	B9	1424	VC0.5x1	248.3	B.2.4.5-3		22.40	9.20	0.18	0.00	0.00
N-3.50	B9	1424	VC0.5x1	248.3	B.2.4.5-3		21.60	9.20	0.24	0.00	0.00
N-3.50	B9	1424	VC0.5x1	298.0	B.2.4.5-3		15.40	9.20	0.24	0.00	0.00
N-3.50	B9	1424	VC0.5x1	298.0	B.2.4.5-3		15.40	9.20	0.31	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B9	1424	VC0.5x1	347.7	B.2.4.5-8	9.20	12.40	0.31	0.00	0.00	0.00
N-3.50	B9	1424	VC0.5x1	347.7	B.2.4.5-8	9.20	13.50	0.27	0.00	0.00	0.00
N-3.50	B9	1424	VC0.5x1	397.3	B.2.4.5-8	1.90	24.00	0.27	0.00	0.00	0.00
N-3.50	B10	1405	VC0.5x1	8.0	B.2.4.7-4	6.90	26.30	0.00	28.60	0.11	
N-3.50	B10	1405	VC0.5x1	33.8	B.2.4.5-3	12.30	25.00	0.00	28.60	0.11	
N-3.50	B10	1405	VC0.5x1	59.5	B.2.4.5-3	12.30	23.50	0.00	28.60	0.11	
N-3.50	B10	1405	VC0.5x1	59.5	B.2.4.5-3	12.20	17.30	0.00	27.00	0.10	
N-3.50	B10	1405	VC0.5x1	84.0	B.2.4.5-3	12.20	17.10	0.00	27.00	0.10	
N-3.50	B10	1405	VC0.5x1	84.0	B.2.4.5-3	15.40	15.40	0.16	13.10	0.04	
N-3.50	B10	1405	VC0.5x1	111.0	B.2.4.5-3	15.40	15.40	0.16	13.10	0.04	
N-3.50	B10	1405	VC0.5x1	111.0	B.2.4.5-3	15.30	15.30	0.15	14.10	0.03	
N-3.50	B10	1405	VC0.5x1	136.7	B.2.4.5-3	15.30	15.30	0.15	14.10	0.03	
N-3.50	B10	1405	VC0.5x1	162.5	B.2.4.5-3	15.30	15.30	0.15	14.10	0.03	
N-3.50	B10	1405	VC0.5x1	162.5	B.2.4.5-3	15.40	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	168.0	B.2.4.5-3	15.40	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	168.0	B.2.4.5-3	15.40	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	214.0	B.2.4.5-3	15.40	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	214.0	B.2.4.5-3	15.40	15.40	0.16	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	252.0	B.2.4.5-3	15.40	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	252.0	B.2.4.5-3	15.00	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	265.5	B.2.4.5-3	15.00	15.40	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	265.5	B.2.4.5-3	15.30	15.40	0.16	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	291.2	B.2.4.5-3	15.30	15.40	0.16	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	317.0	B.2.4.5-3	15.30	15.40	0.16	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	317.0	B.2.4.5-3	15.30	18.50	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	336.0	B.2.4.5-3	15.30	18.60	0.15	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	336.0	B.2.4.5-8	11.50	16.50	0.16	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	368.5	B.2.4.5-8	11.50	16.10	0.16	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	368.5	B.2.4.5-8	11.50	15.40	0.17	0.00	0.00	
N-3.50	B10	1405	VC0.5x1	370.0	B.2.4.7-8	8.30	15.40	0.17	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	50.0	B.2.4.5-3	1.00	48.20	0.00	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	50.6	B.2.4.5-3	15.30	47.70	0.00	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	50.6	B.2.4.5-3	15.40	46.10	0.00	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	76.0	B.2.4.5-3	15.40	30.30	0.00	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	101.3	B.2.4.5-3	15.40	16.10	0.00	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	101.3	B.2.4.5-3	15.40	15.40	0.27	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	114.5	B.2.4.5-3	15.40	15.40	0.27	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	114.5	B.2.4.5-3	15.40	15.40	0.22	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	151.9	B.2.4.5-3	15.40	15.40	0.22	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	151.9	B.2.4.5-3	15.40	15.40	0.20	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	177.3	B.2.4.5-3	15.40	15.40	0.20	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	202.6	B.2.4.2-2	15.40	15.40	0.20	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	202.6	B.2.4.4-4	15.40	15.40	0.15	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	234.5	B.2.4.5-8	18.60	15.40	0.16	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	234.5	B.2.4.5-8	19.00	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	253.2	B.2.4.5-8	19.40	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	253.2	B.2.4.5-8	19.60	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	278.5	B.2.4.5-8	20.30	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	303.9	B.2.4.5-8	20.90	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	303.9	B.2.4.5-8	21.00	15.40	0.04	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	329.2	B.2.4.5-8	21.30	15.40	0.04	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	354.5	B.2.4.5-8	21.60	15.40	0.04	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	354.5	B.2.4.5-3	21.40	15.40	0.06	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	379.8	B.2.4.5-3	20.70	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	405.1	B.2.4.5-3	20.00	15.40	0.05	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	405.1	B.2.4.5-3	19.90	15.40	0.06	0.00	0.00	
N-3.50	B13	1419	VC0.5x1	430.5	B.2.4.5-3	19.10	15.40	0.06	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top		At Shear	Al Torsion	At Torsion
						cm	cm ²	cm ²	cm ² /cm	cm ²
N-3.50	B13	1419	VC0.5x1	455.8	B.2.4.5-3	18.30	15.40	0.06	0.00	0.00
N-3.50	B13	1419	VC0.5x1	455.8	B.2.4.5-3	18.10	15.40	0.05	0.00	0.00
N-3.50	B13	1419	VC0.5x1	474.5	B.2.4.5-3	17.70	15.40	0.05	0.00	0.00
N-3.50	B13	1419	VC0.5x1	474.5	B.2.4.5-3	17.50	15.40	0.11	0.00	0.00
N-3.50	B13	1419	VC0.5x1	506.4	B.2.4.4-4	15.40	15.40	0.11	0.00	0.00
N-3.50	B13	1419	VC0.5x1	506.4	B.2.4.2-2	15.40	15.40	0.13	0.00	0.00
N-3.50	B13	1419	VC0.5x1	531.8	B.2.4.5-3	15.40	15.40	0.13	0.00	0.00
N-3.50	B13	1419	VC0.5x1	557.1	B.2.4.5-3	15.40	15.40	0.13	0.00	0.00
N-3.50	B13	1419	VC0.5x1	557.1	B.2.4.5-3	15.40	15.40	0.14	0.00	0.00
N-3.50	B13	1419	VC0.5x1	594.5	B.2.4.5-3	15.40	15.40	0.14	0.00	0.00
N-3.50	B13	1419	VC0.5x1	594.5	B.2.4.5-3	15.40	15.40	0.18	0.00	0.00
N-3.50	B13	1419	VC0.5x1	607.7	B.2.4.5-3	15.40	15.40	0.18	0.00	0.00
N-3.50	B13	1419	VC0.5x1	607.7	B.2.4.5-3	15.40	15.40	0.36	0.00	0.00
N-3.50	B13	1419	VC0.5x1	633.0	B.2.4.5-3	15.40	15.40	0.35	0.00	0.00
N-3.50	B13	1419	VC0.5x1	658.4	B.2.4.5-3	15.40	22.10	0.35	0.00	0.00
N-3.50	B13	1419	VC0.5x1	658.4	B.2.4.5-3	15.40	22.40	0.36	0.00	0.00
N-3.50	B13	1419	VC0.5x1	659.0	B.2.4.5-3	1.70	22.60	0.36	0.00	0.00
N-3.50	B14	1506	VC0.5x1	50.0	B.2.4.5-8	1.20	47.10	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	51.7	B.2.4.5-8	15.30	45.70	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	51.7	B.2.4.5-8	15.40	43.60	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	87.5	B.2.4.5-8	15.40	21.20	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	87.5	B.2.4.5-8	15.40	17.60	0.20	0.00	0.00
N-3.50	B14	1506	VC0.5x1	103.3	B.2.4.5-8	15.40	15.40	0.20	0.00	0.00
N-3.50	B14	1506	VC0.5x1	103.3	B.2.4.5-8	15.40	15.40	0.31	0.00	0.00
N-3.50	B14	1506	VC0.5x1	129.2	B.2.4.5-8	15.40	15.40	0.31	0.00	0.00
N-3.50	B14	1506	VC0.5x1	155.0	B.2.4.5-8	15.40	15.40	0.31	0.00	0.00
N-3.50	B14	1506	VC0.5x1	155.0	B.2.4.5-8	15.40	15.40	0.23	0.00	0.00
N-3.50	B14	1506	VC0.5x1	180.8	B.2.4.5-8	15.40	15.40	0.23	0.00	0.00
N-3.50	B14	1506	VC0.5x1	206.7	B.2.4.5-8	17.10	15.40	0.23	0.00	0.00
N-3.50	B14	1506	VC0.5x1	206.7	B.2.4.5-8	17.60	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	207.5	B.2.4.5-8	17.60	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	207.5	B.2.4.5-8	17.50	15.40	0.08	0.00	0.00
N-3.50	B14	1506	VC0.5x1	232.9	B.2.4.5-8	19.40	15.40	0.08	0.00	0.00
N-3.50	B14	1506	VC0.5x1	258.3	B.2.4.5-8	21.30	15.40	0.08	0.00	0.00
N-3.50	B14	1506	VC0.5x1	258.3	B.2.4.5-8	21.50	15.40	0.06	0.00	0.00
N-3.50	B14	1506	VC0.5x1	284.2	B.2.4.5-8	23.00	15.40	0.06	0.00	0.00
N-3.50	B14	1506	VC0.5x1	310.0	B.2.4.5-8	24.60	15.40	0.07	0.00	0.00
N-3.50	B14	1506	VC0.5x1	310.0	B.2.4.5-8	24.80	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	327.5	B.2.4.5-8	25.40	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	327.5	B.2.4.5-8	25.40	15.40	0.01	0.00	0.00
N-3.50	B14	1506	VC0.5x1	361.7	B.2.4.5-8	25.50	15.40	0.01	0.00	0.00
N-3.50	B14	1506	VC0.5x1	361.7	B.2.4.5-8	25.50	15.40	0.01	0.00	0.00
N-3.50	B14	1506	VC0.5x1	387.5	B.2.4.5-8	25.40	15.40	0.01	0.00	0.00
N-3.50	B14	1506	VC0.5x1	413.3	B.2.4.5-8	25.40	15.40	0.01	0.00	0.00
N-3.50	B14	1506	VC0.5x1	413.3	B.2.4.5-8	25.40	15.40	0.02	0.00	0.00
N-3.50	B14	1506	VC0.5x1	447.5	B.2.4.5-8	25.20	15.40	0.01	0.00	0.00
N-3.50	B14	1506	VC0.5x1	447.5	B.2.4.5-8	25.20	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	465.0	B.2.4.5-8	24.60	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	465.0	B.2.4.5-8	24.30	15.40	0.07	0.00	0.00
N-3.50	B14	1506	VC0.5x1	490.8	B.2.4.5-8	22.80	15.40	0.06	0.00	0.00
N-3.50	B14	1506	VC0.5x1	516.7	B.2.4.5-8	21.40	15.40	0.06	0.00	0.00
N-3.50	B14	1506	VC0.5x1	516.7	B.2.4.5-8	21.10	15.40	0.08	0.00	0.00
N-3.50	B14	1506	VC0.5x1	542.1	B.2.4.5-8	19.20	15.40	0.08	0.00	0.00
N-3.50	B14	1506	VC0.5x1	567.5	B.2.4.5-8	17.40	15.40	0.08	0.00	0.00
N-3.50	B14	1506	VC0.5x1	567.5	B.2.4.5-8	17.50	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	568.3	B.2.4.5-8	17.50	15.40	0.04	0.00	0.00
N-3.50	B14	1506	VC0.5x1	568.3	B.2.4.5-8	17.00	15.40	0.22	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B14	1506	VC0.5x1	594.2	B.2.4.5-8	15.40	15.40	0.22	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	620.0	B.2.4.5-8	15.40	15.40	0.22	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	620.0	B.2.4.5-8	15.40	15.40	0.29	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	645.8	B.2.4.5-8	15.40	15.40	0.29	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	671.7	B.2.4.5-8	15.40	15.40	0.29	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	671.7	B.2.4.5-8	15.40	15.40	0.19	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	687.5	B.2.4.5-8	15.40	15.70	0.19	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	687.5	B.2.4.5-8	15.40	19.10	0.00	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	723.3	B.2.4.5-8	15.40	40.20	0.00	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	723.3	B.2.4.5-8	15.10	42.20	0.00	0.00	0.00	0.00
N-3.50	B14	1506	VC0.5x1	725.0	B.2.4.5-3	1.20	43.50	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	50.0	B.2.4.5-3	2.30	34.60	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	51.7	B.2.4.5-3	15.40	33.40	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	51.7	B.2.4.5-3	15.40	31.40	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	87.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	87.5	B.2.4.5-3	15.40	15.40	0.18	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	103.3	B.2.4.5-3	15.40	15.40	0.18	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	103.3	B.2.4.5-3	15.40	15.40	0.24	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	129.2	B.2.4.5-3	15.40	15.40	0.24	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	155.0	B.2.4.5-3	15.40	15.40	0.25	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	155.0	B.2.4.5-3	15.40	15.40	0.19	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	180.8	B.2.4.4-4	15.40	15.40	0.19	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	206.7	B.2.4.5-3	19.30	15.40	0.19	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	206.7	B.2.4.5-3	19.60	15.40	0.01	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	207.5	B.2.4.5-3	19.60	15.40	0.01	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	207.5	B.2.4.5-3	19.30	15.40	0.05	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	232.9	B.2.4.5-3	20.10	15.40	0.05	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	258.3	B.2.4.5-3	21.00	15.40	0.05	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	258.3	B.2.4.5-3	21.10	15.40	0.04	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	284.2	B.2.4.5-3	21.70	15.40	0.04	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	310.0	B.2.4.5-3	22.30	15.40	0.04	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	310.0	B.2.4.5-3	22.40	15.40	0.03	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	327.5	B.2.4.5-3	22.60	15.40	0.03	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	327.5	B.2.4.5-3	22.50	15.40	0.02	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	361.7	B.2.4.5-3	22.50	15.40	0.01	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	361.7	B.2.4.5-3	22.50	15.40	0.02	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	387.5	B.2.4.5-3	22.40	15.40	0.02	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	413.3	B.2.4.5-3	22.40	15.40	0.01	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	413.3	B.2.4.5-3	22.40	15.40	0.02	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	447.5	B.2.4.5-8	22.40	15.40	0.02	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	447.5	B.2.4.5-8	22.50	15.40	0.04	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	465.0	B.2.4.5-8	22.00	15.40	0.04	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	465.0	B.2.4.5-8	21.80	15.40	0.06	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	490.8	B.2.4.5-8	20.60	15.40	0.06	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	516.7	B.2.4.5-8	19.40	15.40	0.06	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	516.7	B.2.4.5-8	19.20	15.40	0.08	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	542.1	B.2.4.5-8	17.60	15.40	0.08	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	567.5	B.2.4.5-8	16.00	15.40	0.07	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	567.5	B.2.4.5-8	16.00	15.40	0.02	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	568.3	B.2.4.5-8	16.00	15.40	0.01	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	568.3	B.2.4.5-8	15.50	15.40	0.23	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	594.2	B.2.4.5-3	15.40	15.40	0.22	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	620.0	B.2.4.5-3	15.40	15.40	0.22	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	620.0	B.2.4.5-3	15.40	15.40	0.30	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	645.8	B.2.4.5-3	15.40	15.40	0.29	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	671.7	B.2.4.5-3	15.40	15.40	0.29	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	671.7	B.2.4.5-3	15.40	15.80	0.19	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B15	1503	VC0.5x1	687.5	B.2.4.5-3	15.40	18.70	0.19	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	687.5	B.2.4.5-3	15.40	22.40	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	723.3	B.2.4.5-3	15.40	44.50	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	723.3	B.2.4.5-3	15.40	46.50	0.00	0.00	0.00	0.00
N-3.50	B15	1503	VC0.5x1	725.0	B.2.4.5-8	1.30	48.00	0.00	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	50.0	B.2.4.7-4	10.10	37.30	0.15	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	51.7	B.2.4.5-3	15.40	37.20	0.15	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	51.7	B.2.4.5-3	15.40	24.80	0.13	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	87.5	B.2.4.5-3	15.40	23.10	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	87.5	B.2.4.5-3	15.40	18.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	96.9	B.2.4.5-3	15.40	18.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	96.9	B.2.4.5-3	15.40	19.20	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	103.3	B.2.4.5-3	15.40	19.20	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	103.3	B.2.4.5-3	15.40	16.40	0.13	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	129.2	B.2.4.5-3	15.40	15.40	0.13	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	155.0	B.2.4.5-3	15.40	15.40	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	155.0	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	193.8	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	193.8	B.2.4.5-3	14.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	206.7	B.2.4.5-3	14.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	206.7	B.2.4.5-3	13.90	13.90	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	207.5	B.2.4.5-3	13.90	13.90	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	207.5	B.2.4.5-3	14.70	14.70	0.12	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	232.9	B.2.4.5-3	14.70	14.70	0.12	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	258.3	B.2.4.5-3	14.70	14.70	0.12	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	258.3	B.2.4.5-3	15.20	15.20	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	290.6	B.2.4.5-3	15.20	15.20	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	290.6	B.2.4.5-3	13.40	13.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	310.0	B.2.4.5-3	13.40	13.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	310.0	B.2.4.5-3	13.40	13.40	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	327.5	B.2.4.5-3	13.40	13.40	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	327.5	B.2.4.5-3	13.30	13.30	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	361.7	B.2.4.5-3	13.30	13.30	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	361.7	B.2.4.5-3	13.40	13.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	387.5	B.2.4.5-3	13.40	13.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	387.5	B.2.4.5-3	14.50	14.50	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	413.3	B.2.4.5-3	14.50	14.50	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	413.3	B.2.4.5-3	14.40	14.40	0.13	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	447.5	B.2.4.5-3	14.40	14.40	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	447.5	B.2.4.5-3	14.20	14.20	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	465.0	B.2.4.5-3	14.20	14.20	0.14	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	465.0	B.2.4.5-3	14.30	14.30	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	484.4	B.2.4.5-3	14.30	14.30	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	484.4	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	516.7	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	516.7	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	542.1	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	567.5	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	567.5	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	568.3	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	568.3	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	581.3	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	581.3	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	620.0	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	620.0	B.2.4.5-3	15.40	17.30	0.13	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	645.8	B.2.4.5-3	15.40	18.50	0.13	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	671.7	B.2.4.5-3	15.40	19.50	0.13	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B18	1490	VC0.5x1	671.7	B.2.4.5-3	15.40	22.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	678.1	B.2.4.5-3	15.40	22.40	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	678.1	B.2.4.5-3	14.50	19.80	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	687.5	B.2.4.5-3	14.50	19.80	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	687.5	B.2.4.5-3	14.50	21.60	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	723.3	B.2.4.5-3	14.50	22.20	0.11	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	723.3	B.2.4.5-3	14.80	27.10	0.12	0.00	0.00	0.00
N-3.50	B18	1490	VC0.5x1	725.0	B.2.4.7-4	10.50	27.10	0.12	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	50.0	B.2.4.7-4	8.00	18.40	0.08	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	51.7	B.2.4.5-3	11.40	18.30	0.08	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	51.7	B.2.4.5-3	11.70	15.40	0.07	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	87.5	B.2.4.5-3	11.70	15.40	0.08	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	87.5	B.2.4.5-3	12.10	15.40	0.07	13.90	0.03	
N-3.50	B19	1497	VC0.5x1	97.7	B.2.4.5-3	12.10	15.40	0.07	13.90	0.03	
N-3.50	B19	1497	VC0.5x1	97.7	B.2.4.5-3	10.40	15.40	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	103.3	B.2.4.5-3	10.40	15.40	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	103.3	B.2.4.5-3	10.70	15.40	0.08	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	129.2	B.2.4.5-3	10.70	14.90	0.08	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	155.0	B.2.4.5-3	10.70	13.90	0.08	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	155.0	B.2.4.5-3	11.30	11.30	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	195.3	B.2.4.5-3	11.30	11.30	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	195.3	B.2.4.5-3	8.10	8.10	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	206.7	B.2.4.5-3	8.10	8.10	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	206.7	B.2.4.5-3	7.80	7.80	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	207.5	B.2.4.5-3	7.80	7.80	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	207.5	B.2.4.5-3	8.60	8.60	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	232.9	B.2.4.5-3	8.60	8.60	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	258.3	B.2.4.5-3	8.60	8.60	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	258.3	B.2.4.5-3	9.30	9.30	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	293.0	B.2.4.5-3	9.30	9.30	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	293.0	B.2.4.5-3	6.60	6.60	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	310.0	B.2.4.5-3	6.60	6.60	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	310.0	B.2.4.5-3	6.70	6.70	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	327.5	B.2.4.5-3	6.70	6.70	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	327.5	B.2.4.5-3	7.10	7.10	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	361.7	B.2.4.5-3	7.10	7.10	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	361.7	B.2.4.5-3	7.40	7.40	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	390.7	B.2.4.5-3	7.40	7.40	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	390.7	B.2.4.5-3	7.40	7.40	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	413.3	B.2.4.5-3	7.40	7.40	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	413.3	B.2.4.5-3	7.10	7.10	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	447.5	B.2.4.5-3	7.10	7.10	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	447.5	B.2.4.5-3	6.80	6.80	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	465.0	B.2.4.5-3	6.80	6.80	0.09	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	465.0	B.2.4.5-3	6.70	6.70	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	488.3	B.2.4.5-3	6.70	6.70	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	488.3	B.2.4.5-3	9.00	9.00	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	516.7	B.2.4.5-3	9.00	9.00	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	516.7	B.2.4.5-3	8.50	8.50	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	542.1	B.2.4.5-3	8.50	8.50	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	567.5	B.2.4.5-3	8.50	8.50	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	567.5	B.2.4.5-3	8.00	8.00	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	568.3	B.2.4.5-3	8.00	8.00	0.06	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	568.3	B.2.4.5-3	8.20	8.20	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	586.0	B.2.4.5-3	8.20	8.20	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	586.0	B.2.4.5-3	10.20	11.50	0.07	0.00	0.00	
N-3.50	B19	1497	VC0.5x1	620.0	B.2.4.5-3	10.20	11.20	0.07	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B19	1497	VC0.5x1	620.0	B.2.4.5-3	9.80	9.80	0.06	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	645.8	B.2.4.5-3	9.80	9.80	0.06	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	671.7	B.2.4.5-3	9.80	9.80	0.07	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	671.7	B.2.4.5-3	9.60	10.40	0.06	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	680.5	B.2.4.5-3	9.60	10.40	0.06	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	680.5	B.2.4.5-3	10.50	10.50	0.06	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	687.5	B.2.4.5-3	10.50	10.50	0.06	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	687.5	B.2.4.5-3	10.20	13.30	0.08	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	723.3	B.2.4.5-3	10.20	14.40	0.08	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	723.3	B.2.4.5-3	10.00	17.50	0.09	0.00	0.00	0.00
N-3.50	B19	1497	VC0.5x1	725.0	B.2.4.7-4	8.80	17.60	0.09	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	50.0	B.2.4.7-4	3.00	25.80	0.36	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	62.5	B.2.4.5-3	10.20	21.10	0.36	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	62.5	B.2.4.5-3	12.30	21.40	0.29	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	87.5	B.2.4.5-3	12.30	15.40	0.29	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	87.5	B.2.4.5-3	12.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	103.3	B.2.4.5-3	12.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	103.3	B.2.4.5-3	12.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	129.2	B.2.4.5-3	12.40	15.60	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	155.0	B.2.4.5-3	12.40	17.00	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	155.0	B.2.4.5-3	12.30	17.10	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	156.0	B.2.4.5-3	12.30	17.10	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	156.0	B.2.4.5-3	24.70	14.60	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	181.3	B.2.4.5-3	24.60	14.60	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	206.7	B.2.4.5-3	24.60	14.60	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	206.7	B.2.4.5-3	22.90	14.40	0.04	14.80	0.06	0.06
N-3.50	B24	1499	VC0.5x1	207.5	B.2.4.5-3	22.90	14.40	0.04	14.80	0.06	0.06
N-3.50	B24	1499	VC0.5x1	207.5	B.2.4.5-3	21.40	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	232.9	B.2.4.5-3	21.30	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	258.3	B.2.4.5-3	21.30	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	258.3	B.2.4.5-3	18.20	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	284.2	B.2.4.5-3	18.50	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	310.0	B.2.4.5-3	18.80	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	310.0	B.2.4.5-3	16.50	14.40	0.02	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	327.5	B.2.4.5-3	17.10	14.40	0.02	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	327.5	B.2.4.5-3	15.90	14.40	0.01	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	361.7	B.2.4.4-4	15.40	14.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	361.7	B.2.4.5-3	15.40	14.50	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	387.5	B.2.4.5-3	15.40	14.50	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	413.3	B.2.4.5-3	15.40	14.50	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	413.3	B.2.4.5-3	14.50	14.50	0.02	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	447.5	B.2.4.5-3	15.40	14.50	0.02	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	447.5	B.2.4.5-3	14.60	14.60	0.03	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	465.0	B.2.4.5-3	14.60	14.60	0.03	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	465.0	B.2.4.5-3	14.60	14.60	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	490.8	B.2.4.5-3	14.60	14.60	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	516.7	B.2.4.5-3	14.60	14.60	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	516.7	B.2.4.5-3	14.80	14.80	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	542.1	B.2.4.5-3	14.80	14.80	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	567.5	B.2.4.5-3	14.80	14.80	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	567.5	B.2.4.5-3	14.90	14.90	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	568.3	B.2.4.5-3	14.90	14.90	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	568.3	B.2.4.5-3	14.80	14.80	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	594.2	B.2.4.5-3	14.80	14.80	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	620.0	B.2.4.5-3	14.80	15.40	0.04	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	620.0	B.2.4.5-3	15.10	15.40	0.01	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	645.8	B.2.4.5-3	15.10	15.40	0.01	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B24	1499	VC0.5x1	671.7	B.2.4.5-3	15.10	15.40	0.01	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	671.7	B.2.4.5-3	15.40	15.50	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	687.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	687.5	B.2.4.5-3	15.40	18.00	0.03	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	712.5	B.2.4.5-3	15.40	19.20	0.03	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	712.5	B.2.4.5-3	14.10	18.70	0.00	0.00	0.00	0.00
N-3.50	B24	1499	VC0.5x1	725.0	B.2.4.5-3	6.10	18.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	50.0	B.2.4.5-3	4.50	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	62.5	B.2.4.5-8	5.10	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	62.5	B.2.4.5-8	6.30	8.30	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	87.5	B.2.4.5-8	6.30	6.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	87.5	B.2.4.5-8	6.20	6.20	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	103.3	B.2.4.5-8	6.20	6.20	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	103.3	B.2.4.5-8	5.90	6.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	129.2	B.2.4.5-8	5.90	5.90	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	155.0	B.2.4.5-8	6.00	5.90	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	155.0	B.2.4.5-8	5.80	6.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	180.8	B.2.4.5-8	5.80	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	206.7	B.2.4.5-8	7.80	5.80	0.01	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	206.7	B.2.4.5-8	7.60	5.80	0.04	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	207.5	B.2.4.5-8	7.60	5.80	0.04	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	207.5	B.2.4.5-8	7.20	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	232.9	B.2.4.5-8	7.10	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	258.3	B.2.4.5-8	7.00	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	258.3	B.2.4.5-8	6.10	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	284.2	B.2.4.5-8	7.20	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	310.0	B.2.4.5-8	8.40	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	310.0	B.2.4.5-8	7.80	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	327.5	B.2.4.5-8	9.10	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	327.5	B.2.4.5-8	9.40	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	361.7	B.2.4.5-8	7.50	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	361.7	B.2.4.5-8	8.20	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	387.5	B.2.4.5-8	8.00	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	413.3	B.2.4.5-8	7.90	5.60	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	413.3	B.2.4.5-8	8.10	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	447.5	B.2.4.5-8	9.60	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	447.5	B.2.4.5-8	9.70	5.70	0.04	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	465.0	B.2.4.5-8	8.40	5.70	0.04	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	465.0	B.2.4.5-8	9.60	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	490.8	B.2.4.5-8	8.40	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	516.7	B.2.4.5-8	7.30	5.70	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	516.7	B.2.4.5-8	8.70	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	542.1	B.2.4.5-8	8.80	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	567.5	B.2.4.5-8	8.90	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	567.5	B.2.4.5-8	9.50	5.90	0.04	13.10	0.05	
N-3.50	B25	1468	VC0.5x1	568.3	B.2.4.5-8	9.50	5.90	0.04	13.10	0.05	
N-3.50	B25	1468	VC0.5x1	568.3	B.2.4.5-8	9.90	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	594.2	B.2.4.5-8	8.20	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	620.0	B.2.4.5-8	6.50	5.80	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	620.0	B.2.4.5-8	8.90	6.00	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	645.8	B.2.4.5-8	8.10	6.00	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	671.7	B.2.4.5-8	7.30	6.00	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	671.7	B.2.4.5-8	9.10	6.20	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	687.5	B.2.4.5-8	9.50	6.20	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	687.5	B.2.4.5-8	8.00	6.20	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	712.5	B.2.4.5-8	6.60	6.20	0.00	0.00	0.00	0.00
N-3.50	B25	1468	VC0.5x1	712.5	B.2.4.5-3	8.20	5.30	0.00	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B25	1468	VC0.5x1	725.0	B.2.4.5-3	8.20	6.20	0.00	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	0.0	B.2.4.5-3	15.40	9.40	0.20	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	26.2	B.2.4.5-3	15.40	11.40	0.20	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	52.3	B.2.4.5-3	15.40	11.40	0.20	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	52.3	B.2.4.5-3	15.40	11.60	0.19	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	97.0	B.2.4.5-3	15.80	11.60	0.19	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	97.0	B.2.4.5-3	16.30	11.70	0.17	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	104.7	B.2.4.5-3	16.10	11.70	0.17	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	104.7	B.2.4.5-3	15.70	11.80	0.25	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	130.8	B.2.4.5-3	15.40	11.80	0.25	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	157.0	B.2.4.5-3	14.20	11.80	0.24	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	157.0	B.2.4.5-3	13.80	11.90	0.30	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	183.2	B.2.4.5-3	11.90	11.90	0.29	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	209.3	B.2.4.5-3	11.90	11.90	0.29	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	209.3	B.2.4.5-3	12.00	12.00	0.20	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	217.0	B.2.4.5-3	12.00	12.00	0.20	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	217.0	B.2.4.5-3	11.90	11.90	0.33	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	251.5	B.2.4.5-3	11.90	19.90	0.33	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	251.5	B.2.4.5-3	10.20	20.00	0.00	0.00	0.00	0.00
N-3.50	B216	1433	VC0.5x1	264.0	B.2.4.7-4	2.30	26.50	0.00	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	0.0	B.2.4.5-3	28.10	15.40	0.30	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	26.2	B.2.4.5-3	27.10	15.20	0.30	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	52.3	B.2.4.5-3	26.20	15.20	0.30	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	52.3	B.2.4.5-3	26.00	15.10	0.32	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	97.0	B.2.4.5-3	23.80	15.10	0.31	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	97.0	B.2.4.5-3	23.50	15.00	0.33	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	104.7	B.2.4.5-3	23.20	15.00	0.33	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	104.7	B.2.4.5-3	22.20	15.00	0.10	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	130.8	B.2.4.5-3	17.10	15.00	0.10	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	157.0	B.2.4.5-3	15.40	15.00	0.10	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	157.0	B.2.4.5-3	15.00	14.90	0.16	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	183.2	B.2.4.5-3	14.90	14.90	0.16	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	209.3	B.2.4.5-3	14.90	14.90	0.16	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	209.3	B.2.4.5-3	14.90	14.90	0.35	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	217.0	B.2.4.5-3	14.90	14.90	0.35	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	217.0	B.2.4.5-3	14.70	14.70	0.00	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	261.7	B.2.4.5-3	14.70	36.30	0.00	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	261.7	B.2.4.5-3	13.30	37.40	0.00	0.00	0.00	0.00
N-3.50	B218	1428	VC0.5x1	264.0	B.2.4.5-3	1.50	39.20	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	0.0	B.2.4.5-8	1.70	1.60	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	49.1	B.2.4.5-8	8.50	8.50	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	49.1	B.2.4.5-8	8.70	8.70	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	98.2	B.2.4.5-8	8.70	8.70	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	98.2	B.2.4.5-8	8.80	8.80	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	147.4	B.2.4.5-8	8.80	8.80	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	147.4	B.2.4.5-8	8.90	8.90	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	196.5	B.2.4.5-8	8.90	8.90	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	196.5	B.2.4.5-8	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	245.6	B.2.4.5-8	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	245.6	B.2.4.5-8	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	277.5	B.2.4.5-8	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	277.5	B.2.4.5-8	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	294.7	B.2.4.5-8	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	294.7	B.2.4.5-8	9.10	9.10	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	343.8	B.2.4.5-8	9.10	9.10	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	343.8	B.2.4.5-8	9.10	9.10	0.00	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	392.9	B.2.4.5-8	9.80	9.10	0.00	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top		At Shear	Al Torsion	At Torsion
						cm	cm ²	cm ²	cm ² /cm	cm ²
N-3.50	B221	1532	VC0.5x1	392.9	B.2.4.5-8	9.90	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	442.1	B.2.4.5-8	10.70	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	442.1	B.2.4.5-8	10.80	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	491.2	B.2.4.5-8	11.30	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	491.2	B.2.4.5-8	11.30	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	495.0	B.2.4.5-8	11.30	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	495.0	B.2.4.5-8	11.40	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	540.3	B.2.4.5-8	9.30	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	540.3	B.2.4.5-8	9.10	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	589.4	B.2.4.5-8	9.10	9.10	0.00	0.00	0.00
N-3.50	B221	1532	VC0.5x1	589.4	B.2.4.5-8	9.10	9.10	0.03	0.00	0.00
N-3.50	B221	1532	VC0.5x1	638.5	B.2.4.5-8	9.10	9.10	0.02	0.00	0.00
N-3.50	B221	1532	VC0.5x1	638.5	B.2.4.5-8	9.10	9.10	0.05	0.00	0.00
N-3.50	B221	1532	VC0.5x1	687.6	B.2.4.5-8	9.10	9.80	0.05	0.00	0.00
N-3.50	B221	1532	VC0.5x1	687.6	B.2.4.5-8	9.10	10.40	0.09	0.00	0.00
N-3.50	B221	1532	VC0.5x1	736.8	B.2.4.5-8	9.10	15.40	0.09	0.00	0.00
N-3.50	B221	1532	VC0.5x1	736.8	B.2.4.5-8	9.20	15.40	0.13	0.00	0.00
N-3.50	B221	1532	VC0.5x1	772.5	B.2.4.5-8	9.20	20.40	0.13	0.00	0.00
N-3.50	B221	1532	VC0.5x1	772.5	B.2.4.5-8	8.10	20.20	0.17	0.00	0.00
N-3.50	B221	1532	VC0.5x1	785.0	B.2.4.7-8	1.40	22.60	0.17	0.00	0.00
N-3.50	B222	767	VC0.5x1	0.0	B.2.4.5-8	7.80	4.40	0.04	19.60	0.07
N-3.50	B222	767	VC0.5x1	49.1	B.2.4.5-8	9.80	2.80	0.04	19.60	0.07
N-3.50	B222	767	VC0.5x1	49.1	B.2.4.5-8	10.00	3.00	0.04	19.20	0.07
N-3.50	B222	767	VC0.5x1	98.2	B.2.4.5-8	11.30	3.00	0.04	19.20	0.07
N-3.50	B222	767	VC0.5x1	98.2	B.2.4.5-8	11.50	3.20	0.04	18.10	0.07
N-3.50	B222	767	VC0.5x1	147.4	B.2.4.5-8	12.00	3.20	0.04	18.10	0.07
N-3.50	B222	767	VC0.5x1	147.4	B.2.4.5-8	12.30	3.40	0.04	16.90	0.06
N-3.50	B222	767	VC0.5x1	196.5	B.2.4.5-8	12.10	3.40	0.04	16.90	0.06
N-3.50	B222	767	VC0.5x1	196.5	B.2.4.5-8	12.30	3.70	0.04	15.80	0.06
N-3.50	B222	767	VC0.5x1	245.6	B.2.4.5-8	11.70	3.70	0.04	15.80	0.06
N-3.50	B222	767	VC0.5x1	245.6	B.2.4.5-8	11.90	3.90	0.04	15.20	0.06
N-3.50	B222	767	VC0.5x1	277.5	B.2.4.5-8	11.30	3.90	0.04	15.20	0.06
N-3.50	B222	767	VC0.5x1	277.5	B.2.4.5-8	11.80	4.10	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	294.7	B.2.4.5-8	11.20	4.10	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	294.7	B.2.4.5-8	11.20	4.30	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	343.8	B.2.4.5-8	8.80	4.30	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	343.8	B.2.4.5-8	9.00	4.60	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	392.9	B.2.4.5-8	6.60	4.60	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	392.9	B.2.4.5-8	6.90	4.90	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	442.1	B.2.4.5-8	5.70	4.90	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	442.1	B.2.4.5-8	6.10	5.40	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	491.2	B.2.4.7-8	5.80	8.80	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	491.2	B.2.4.7-8	6.20	9.50	0.09	0.00	0.00
N-3.50	B222	767	VC0.5x1	540.3	B.2.4.7-8	6.50	14.60	0.09	0.00	0.00
N-3.50	B222	767	VC0.5x1	540.3	B.2.4.7-8	6.80	15.30	0.00	0.00	0.00
N-3.50	B222	767	VC0.5x1	555.0	B.2.4.7-8	6.90	15.40	0.00	0.00	0.00
N-3.50	B222	767	VC0.5x1	555.0	B.2.4.5-8	6.30	7.20	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	589.4	B.2.4.5-8	6.30	7.20	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	589.4	B.2.4.5-8	6.30	7.00	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	638.5	B.2.4.5-8	6.30	6.90	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	638.5	B.2.4.5-8	6.40	6.70	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	687.6	B.2.4.5-8	6.40	6.60	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	687.6	B.2.4.5-8	6.50	6.50	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	736.8	B.2.4.5-8	6.50	6.50	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	736.8	B.2.4.5-8	6.70	6.70	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	785.9	B.2.4.5-8	6.70	6.70	0.04	0.00	0.00
N-3.50	B222	767	VC0.5x1	785.9	B.2.4.5-8	6.80	6.80	0.04	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B222	767	VC0.5x1	835.0	B.2.4.5-8	5.00	6.70	0.04	0.00	0.00	0.00
N-3.50	B223	1530	VC0.5x1	0.0	B.2.4.5-3	6.30	3.60	0.26	22.80	0.09	
N-3.50	B223	1530	VC0.5x1	26.2	B.2.4.5-3	15.40	15.40	0.25	22.80	0.09	
N-3.50	B223	1530	VC0.5x1	52.3	B.2.4.5-3	15.40	15.40	0.25	22.80	0.09	
N-3.50	B223	1530	VC0.5x1	52.3	B.2.4.5-3	15.40	15.40	0.00	22.20	0.08	
N-3.50	B223	1530	VC0.5x1	97.0	B.2.4.5-3	15.40	15.40	0.28	22.20	0.08	
N-3.50	B223	1530	VC0.5x1	97.0	B.2.4.5-3	15.40	15.40	0.28	21.10	0.08	
N-3.50	B223	1530	VC0.5x1	104.7	B.2.4.5-3	15.40	15.40	0.28	21.10	0.08	
N-3.50	B223	1530	VC0.5x1	104.7	B.2.4.5-3	15.40	15.40	0.09	19.90	0.08	
N-3.50	B223	1530	VC0.5x1	130.8	B.2.4.5-3	15.40	15.40	0.09	19.90	0.08	
N-3.50	B223	1530	VC0.5x1	157.0	B.2.4.5-3	15.40	15.40	0.09	19.90	0.08	
N-3.50	B223	1530	VC0.5x1	157.0	B.2.4.5-3	15.40	15.40	0.16	16.70	0.06	
N-3.50	B223	1530	VC0.5x1	183.2	B.2.4.5-3	15.40	18.00	0.16	16.70	0.06	
N-3.50	B223	1530	VC0.5x1	209.3	B.2.4.5-3	15.40	24.80	0.16	16.70	0.06	
N-3.50	B223	1530	VC0.5x1	209.3	B.2.4.5-3	15.40	25.90	0.04	14.50	0.05	
N-3.50	B223	1530	VC0.5x1	217.0	B.2.4.5-3	15.40	26.90	0.04	14.50	0.05	
N-3.50	B223	1530	VC0.5x1	217.0	B.2.4.5-3	15.40	29.20	0.29	15.30	0.06	
N-3.50	B223	1530	VC0.5x1	239.0	B.2.4.5-3	15.40	38.10	0.28	15.30	0.06	
N-3.50	B223	1530	VC0.5x1	239.0	B.2.4.5-3	15.40	39.10	0.00	16.60	0.06	
N-3.50	B223	1530	VC0.5x1	264.0	B.2.4.7-4	0.90	53.70	0.00	16.60	0.06	
N-3.50	B80	705	VC0.5x1	50.0	B.2.4.5-3	3.10	15.40	0.11	0.00	0.00	
N-3.50	B80	705	VC0.5x1	62.5	B.2.4.5-8	7.10	15.40	0.11	0.00	0.00	
N-3.50	B80	705	VC0.5x1	62.5	B.2.4.5-3	8.70	15.40	0.17	0.00	0.00	
N-3.50	B80	705	VC0.5x1	101.3	B.2.4.5-3	8.70	13.20	0.17	0.00	0.00	
N-3.50	B80	705	VC0.5x1	101.3	B.2.4.5-8	8.40	11.40	0.16	0.00	0.00	
N-3.50	B80	705	VC0.5x1	114.5	B.2.4.5-8	8.40	9.50	0.16	0.00	0.00	
N-3.50	B80	705	VC0.5x1	114.5	B.2.4.5-8	8.30	8.30	0.11	0.00	0.00	
N-3.50	B80	705	VC0.5x1	151.9	B.2.4.5-8	8.30	8.30	0.11	0.00	0.00	
N-3.50	B80	705	VC0.5x1	151.9	B.2.4.5-3	8.30	8.30	0.13	0.00	0.00	
N-3.50	B80	705	VC0.5x1	177.3	B.2.4.5-3	8.30	8.30	0.13	0.00	0.00	
N-3.50	B80	705	VC0.5x1	202.6	B.2.4.5-3	8.60	8.30	0.13	0.00	0.00	
N-3.50	B80	705	VC0.5x1	202.6	B.2.4.5-3	9.10	8.40	0.15	0.00	0.00	
N-3.50	B80	705	VC0.5x1	234.5	B.2.4.5-3	12.90	8.40	0.15	0.00	0.00	
N-3.50	B80	705	VC0.5x1	234.5	B.2.4.5-3	13.50	8.60	0.13	0.00	0.00	
N-3.50	B80	705	VC0.5x1	253.2	B.2.4.5-3	12.00	8.60	0.13	0.00	0.00	
N-3.50	B80	705	VC0.5x1	253.2	B.2.4.5-3	12.60	8.60	0.12	0.00	0.00	
N-3.50	B80	705	VC0.5x1	278.5	B.2.4.5-3	11.30	8.60	0.12	0.00	0.00	
N-3.50	B80	705	VC0.5x1	303.9	B.2.4.5-3	10.00	8.60	0.12	0.00	0.00	
N-3.50	B80	705	VC0.5x1	303.9	B.2.4.5-3	11.30	9.10	0.10	0.00	0.00	
N-3.50	B80	705	VC0.5x1	329.2	B.2.4.5-3	11.00	9.10	0.10	0.00	0.00	
N-3.50	B80	705	VC0.5x1	354.5	B.2.4.5-3	10.80	9.10	0.10	0.00	0.00	
N-3.50	B80	705	VC0.5x1	354.5	B.2.4.5-3	9.70	9.50	0.18	0.00	0.00	
N-3.50	B80	705	VC0.5x1	386.5	B.2.4.5-3	9.50	9.50	0.17	0.00	0.00	
N-3.50	B80	705	VC0.5x1	386.5	B.2.4.5-3	8.60	8.60	0.11	0.00	0.00	
N-3.50	B80	705	VC0.5x1	399.0	B.2.4.5-3	4.50	7.30	0.11	0.00	0.00	
N-3.50	B296	670	VC0.5x1	50.0	B.2.4.5-8	3.00	6.60	0.04	0.00	0.00	
N-3.50	B296	670	VC0.5x1	50.5	B.2.4.5-8	3.90	6.60	0.04	0.00	0.00	
N-3.50	B296	670	VC0.5x1	50.5	B.2.4.5-8	4.20	6.70	0.04	0.00	0.00	
N-3.50	B296	670	VC0.5x1	75.8	B.2.4.5-8	4.20	6.60	0.04	0.00	0.00	
N-3.50	B296	670	VC0.5x1	101.1	B.2.4.5-8	4.20	6.40	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	101.1	B.2.4.5-8	4.10	6.00	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	126.4	B.2.4.5-8	4.10	5.70	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	151.6	B.2.4.5-8	4.10	5.40	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	151.6	B.2.4.5-8	3.90	5.10	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	176.9	B.2.4.5-8	3.90	4.80	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	202.2	B.2.4.5-8	3.90	4.50	0.05	0.00	0.00	
N-3.50	B296	670	VC0.5x1	202.2	B.2.4.5-8	3.80	4.30	0.05	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion cm ²	At Torsion cm ² /cm
N-3.50	B296	670	VC0.5x1	227.5	B.2.4.5-8	3.80	3.90	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	252.7	B.2.4.5-8	3.80	3.80	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	252.7	B.2.4.5-8	3.70	3.70	0.06	0.00	0.00
N-3.50	B296	670	VC0.5x1	278.0	B.2.4.5-8	3.70	3.70	0.06	0.00	0.00
N-3.50	B296	670	VC0.5x1	278.0	B.2.4.5-8	3.70	3.70	0.06	0.00	0.00
N-3.50	B296	670	VC0.5x1	303.3	B.2.4.5-8	3.70	3.70	0.06	0.00	0.00
N-3.50	B296	670	VC0.5x1	303.3	B.2.4.5-8	3.80	3.80	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	328.5	B.2.4.5-8	3.80	3.80	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	353.8	B.2.4.5-8	3.80	3.80	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	353.8	B.2.4.5-8	3.70	3.70	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	379.1	B.2.4.5-8	3.70	3.70	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	404.4	B.2.4.5-8	3.70	3.80	0.04	0.00	0.00
N-3.50	B296	670	VC0.5x1	404.4	B.2.4.5-8	3.80	3.60	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	429.6	B.2.4.5-8	3.60	3.70	0.05	0.00	0.00
N-3.50	B296	670	VC0.5x1	454.9	B.2.4.5-8	3.60	3.90	0.04	0.00	0.00
N-3.50	B296	670	VC0.5x1	454.9	B.2.4.5-8	4.10	3.70	0.04	0.00	0.00
N-3.50	B296	670	VC0.5x1	480.2	B.2.4.5-8	4.00	3.80	0.04	0.00	0.00
N-3.50	B296	670	VC0.5x1	505.5	B.2.4.5-8	4.00	3.90	0.04	0.00	0.00
N-3.50	B296	670	VC0.5x1	505.5	B.2.4.5-8	4.60	3.80	0.04	0.00	0.00
N-3.50	B296	670	VC0.5x1	506.0	B.2.4.5-8	4.60	3.80	0.04	0.00	0.00
N-3.50	B326	694	VC0.5x1	49.0	B.2.4.5-8	8.40	5.60	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	98.0	B.2.4.5-8	8.50	4.20	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	98.0	B.2.4.5-8	7.00	4.00	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	147.0	B.2.4.5-8	7.20	4.00	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	147.0	B.2.4.5-8	5.70	3.90	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	196.0	B.2.4.5-8	6.20	3.90	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	196.0	B.2.4.5-8	4.40	3.90	0.08	0.00	0.00
N-3.50	B326	694	VC0.5x1	245.0	B.2.4.5-8	5.60	3.90	0.09	0.00	0.00
N-3.50	B326	694	VC0.5x1	245.0	B.2.4.5-8	4.80	4.00	0.09	0.00	0.00
N-3.50	B326	694	VC0.5x1	294.0	B.2.4.7-8	4.00	4.00	0.09	0.00	0.00
N-3.50	B326	694	VC0.5x1	294.0	B.2.4.7-8	4.10	4.10	0.08	0.00	0.00
N-3.50	B326	694	VC0.5x1	343.0	B.2.4.7-8	4.10	4.20	0.08	0.00	0.00
N-3.50	B326	694	VC0.5x1	343.0	B.2.4.7-8	4.30	5.00	0.08	0.00	0.00
N-3.50	B326	694	VC0.5x1	392.0	B.2.4.7-8	4.30	5.70	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	392.0	B.2.4.7-8	4.40	6.70	0.07	0.00	0.00
N-3.50	B326	694	VC0.5x1	441.0	B.2.4.7-8	3.20	7.20	0.07	0.00	0.00
N-3.50	B328	1420	VC0.5x1	50.0	B.2.4.7-4	1.50	26.70	0.34	0.00	0.00
N-3.50	B328	1420	VC0.5x1	50.3	B.2.4.5-3	9.70	26.50	0.34	0.00	0.00
N-3.50	B328	1420	VC0.5x1	50.3	B.2.4.5-3	10.70	26.10	0.30	0.00	0.00
N-3.50	B328	1420	VC0.5x1	75.5	B.2.4.5-3	10.70	16.40	0.30	0.00	0.00
N-3.50	B328	1420	VC0.5x1	100.7	B.2.4.5-3	10.70	10.70	0.30	0.00	0.00
N-3.50	B328	1420	VC0.5x1	100.7	B.2.4.5-3	10.80	10.80	0.14	0.00	0.00
N-3.50	B328	1420	VC0.5x1	106.5	B.2.4.5-3	10.80	10.80	0.14	0.00	0.00
N-3.50	B328	1420	VC0.5x1	106.5	B.2.4.5-3	10.80	10.80	0.22	0.00	0.00
N-3.50	B328	1420	VC0.5x1	151.0	B.2.4.5-3	10.80	10.80	0.22	0.00	0.00
N-3.50	B328	1420	VC0.5x1	151.0	B.2.4.5-3	11.10	10.80	0.19	0.00	0.00
N-3.50	B328	1420	VC0.5x1	176.2	B.2.4.5-3	14.30	10.80	0.19	0.00	0.00
N-3.50	B328	1420	VC0.5x1	201.3	B.2.4.5-3	15.40	10.80	0.20	0.00	0.00
N-3.50	B328	1420	VC0.5x1	201.3	B.2.4.5-3	15.40	10.90	0.16	0.00	0.00
N-3.50	B328	1420	VC0.5x1	226.5	B.2.4.5-3	16.60	10.90	0.16	0.00	0.00
N-3.50	B328	1420	VC0.5x1	226.5	B.2.4.5-3	16.90	10.90	0.09	0.00	0.00
N-3.50	B328	1420	VC0.5x1	251.7	B.2.4.5-3	17.20	10.90	0.09	0.00	0.00
N-3.50	B328	1420	VC0.5x1	251.7	B.2.4.5-3	17.20	10.90	0.11	0.00	0.00
N-3.50	B328	1420	VC0.5x1	276.8	B.2.4.5-3	17.30	10.90	0.11	0.00	0.00
N-3.50	B328	1420	VC0.5x1	302.0	B.2.4.5-3	17.30	10.90	0.11	0.00	0.00
N-3.50	B328	1420	VC0.5x1	302.0	B.2.4.5-3	17.30	10.90	0.12	0.00	0.00
N-3.50	B328	1420	VC0.5x1	334.9	B.2.4.5-3	16.90	10.90	0.11	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B328	1420	VC0.5x1	334.9	B.2.4.5-3	16.70	10.90	0.09	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	346.5	B.2.4.5-3	16.70	10.90	0.09	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	346.5	B.2.4.5-3	16.10	10.80	0.10	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	352.3	B.2.4.5-3	16.00	10.80	0.10	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	352.3	B.2.4.5-3	15.50	10.80	0.18	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	396.4	B.2.4.5-3	15.40	10.80	0.18	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	396.4	B.2.4.5-3	15.10	10.80	0.09	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	402.7	B.2.4.5-3	15.10	10.80	0.09	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	402.7	B.2.4.5-3	14.00	9.50	0.21	0.00	0.00	0.00
N-3.50	B328	1420	VC0.5x1	403.0	B.2.4.5-3	14.00	7.60	0.21	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	50.0	B.2.4.7-4	1.50	27.50	0.34	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	50.3	B.2.4.5-3	9.90	27.30	0.34	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	50.3	B.2.4.5-3	10.90	26.80	0.32	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	75.5	B.2.4.5-3	10.90	16.20	0.32	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	100.7	B.2.4.5-3	10.90	10.90	0.32	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	100.7	B.2.4.5-3	11.00	11.00	0.13	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	106.5	B.2.4.5-3	11.00	11.00	0.13	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	106.5	B.2.4.5-3	11.00	11.00	0.21	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	151.0	B.2.4.5-3	11.80	11.00	0.21	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	151.0	B.2.4.5-3	12.50	11.00	0.18	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	176.2	B.2.4.5-3	15.40	11.00	0.18	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	201.3	B.2.4.5-3	16.10	11.00	0.18	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	201.3	B.2.4.5-3	16.70	11.00	0.14	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	226.5	B.2.4.5-3	19.10	11.00	0.14	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	226.5	B.2.4.5-3	19.30	10.90	0.09	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	251.7	B.2.4.5-3	19.30	10.90	0.08	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	251.7	B.2.4.5-3	19.20	10.90	0.10	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	276.8	B.2.4.5-3	18.70	10.90	0.10	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	302.0	B.2.4.5-3	18.30	10.90	0.10	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	302.0	B.2.4.5-3	18.10	10.80	0.12	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	346.5	B.2.4.5-3	16.40	10.80	0.12	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	346.5	B.2.4.5-3	15.50	10.80	0.09	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	352.3	B.2.4.5-3	15.40	10.80	0.09	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	352.3	B.2.4.5-3	15.40	10.70	0.21	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	377.5	B.2.4.5-3	15.20	10.70	0.21	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	402.7	B.2.4.5-3	10.90	10.70	0.21	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	402.7	B.2.4.5-3	9.50	9.50	0.24	0.00	0.00	0.00
N-3.50	B339	1407	VC0.5x1	403.0	B.2.4.5-3	9.40	5.20	0.24	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	50.0	B.2.4.5-3	2.40	23.90	0.35	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	51.7	B.2.4.5-3	9.60	23.10	0.35	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	51.7	B.2.4.5-3	11.10	22.30	0.29	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	80.5	B.2.4.5-3	11.10	15.40	0.29	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	80.5	B.2.4.5-3	11.10	14.50	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	87.5	B.2.4.5-3	11.10	14.20	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	87.5	B.2.4.5-3	11.10	14.40	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	89.2	B.2.4.5-3	11.10	14.40	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	89.2	B.2.4.5-3	11.10	12.20	0.03	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	103.3	B.2.4.5-3	11.10	11.10	0.03	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	103.3	B.2.4.5-3	11.10	11.10	0.08	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	140.9	B.2.4.5-3	11.10	11.10	0.08	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	140.9	B.2.4.5-3	11.10	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	155.0	B.2.4.5-3	11.10	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	155.0	B.2.4.5-3	11.70	11.10	0.05	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	193.7	B.2.4.5-3	15.40	11.10	0.06	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	193.7	B.2.4.5-3	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	206.7	B.2.4.5-3	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	206.7	B.2.4.5-3	15.40	11.10	0.00	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B341	1513	VC0.5x1	207.5	B.2.4.5-3	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	207.5	B.2.4.5-3	15.40	11.00	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	211.4	B.2.4.5-3	15.40	11.00	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	211.4	B.2.4.5-3	15.40	11.00	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	258.3	B.2.4.2-2	15.40	11.00	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	258.3	B.2.4.2-2	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	284.2	B.2.4.2-2	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	310.0	B.2.4.2-2	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	310.0	B.2.4.2-2	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	327.5	B.2.4.2-2	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	327.5	B.2.4.2-2	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	361.7	B.2.4.5-3	15.40	11.10	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	361.7	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	387.5	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	387.5	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	413.3	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	413.3	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	422.7	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	422.7	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	447.5	B.2.4.5-3	15.40	11.20	0.00	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	447.5	B.2.4.5-3	15.40	11.20	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	465.0	B.2.4.5-3	15.40	11.20	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	465.0	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	489.5	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	489.5	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	516.7	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	516.7	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	563.6	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	563.6	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	567.5	B.2.4.5-3	15.40	11.30	0.04	0.00	0.00	0.00
N-3.50	B341	1513	VC0.5x1	567.5	B.2.4.5-3	15.40	11.30	0.04	17.00	0.06	0.06
N-3.50	B341	1513	VC0.5x1	568.3	B.2.4.5-3	15.40	11.30	0.04	17.00	0.06	0.06
N-3.50	B341	1513	VC0.5x1	568.3	B.2.4.5-3	15.00	11.40	0.04	17.20	0.06	0.06
N-3.50	B341	1513	VC0.5x1	581.2	B.2.4.5-3	14.60	11.40	0.04	17.20	0.06	0.06
N-3.50	B341	1513	VC0.5x1	581.2	B.2.4.5-3	13.20	11.40	0.04	17.20	0.06	0.06
N-3.50	B341	1513	VC0.5x1	620.0	B.2.4.5-3	11.40	11.40	0.04	17.20	0.06	0.06
N-3.50	B341	1513	VC0.5x1	620.0	B.2.4.5-3	11.40	11.40	0.06	17.90	0.07	0.07
N-3.50	B341	1513	VC0.5x1	645.8	B.2.4.5-3	11.40	11.40	0.06	17.90	0.07	0.07
N-3.50	B341	1513	VC0.5x1	671.7	B.2.4.5-3	11.40	11.40	0.06	17.90	0.07	0.07
N-3.50	B341	1513	VC0.5x1	671.7	B.2.4.5-3	11.50	11.50	0.04	18.00	0.07	0.07
N-3.50	B341	1513	VC0.5x1	687.5	B.2.4.5-3	11.50	11.50	0.04	18.00	0.07	0.07
N-3.50	B341	1513	VC0.5x1	687.5	B.2.4.5-3	11.50	12.10	0.04	23.20	0.09	0.09
N-3.50	B341	1513	VC0.5x1	694.5	B.2.4.5-3	11.50	12.20	0.04	23.20	0.09	0.09
N-3.50	B341	1513	VC0.5x1	694.5	B.2.4.5-3	11.50	13.50	0.04	23.20	0.09	0.09
N-3.50	B341	1513	VC0.5x1	704.5	B.2.4.5-3	11.50	14.40	0.04	23.20	0.09	0.09
N-3.50	B341	1513	VC0.5x1	704.5	B.2.4.5-3	11.50	15.40	0.04	23.20	0.09	0.09
N-3.50	B341	1513	VC0.5x1	723.3	B.2.4.5-3	11.50	15.40	0.04	23.20	0.09	0.09
N-3.50	B341	1513	VC0.5x1	723.3	B.2.4.5-3	11.50	15.40	0.12	21.40	0.08	0.08
N-3.50	B341	1513	VC0.5x1	749.2	B.2.4.5-3	11.50	18.50	0.11	21.40	0.08	0.08
N-3.50	B341	1513	VC0.5x1	775.0	B.2.4.7-4	5.40	22.30	0.11	21.40	0.08	0.08
N-3.50	B355	1427	VC0.5x1	0.0	B.2.4.5-3	22.60	15.40	0.21	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	26.2	B.2.4.5-3	21.90	11.40	0.21	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	52.3	B.2.4.5-3	21.20	11.40	0.21	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	52.3	B.2.4.5-3	21.00	11.40	0.21	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	78.5	B.2.4.5-3	20.30	11.40	0.21	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	78.5	B.2.4.5-3	19.70	11.40	0.21	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	97.0	B.2.4.5-3	19.50	11.40	0.21	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	AI Torsion		At Torsion
									cm	cm ²	cm ² /cm
cm	cm ²	cm ²	cm ² /cm	cm ²	cm ² /cm						
N-3.50	B355	1427	VC0.5x1	97.0	B.2.4.5-3	19.20	11.50	0.23	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	104.7	B.2.4.5-3	18.90	11.50	0.23	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	104.7	B.2.4.5-3	18.30	11.50	0.33	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	130.8	B.2.4.5-3	15.40	11.50	0.33	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	157.0	B.2.4.5-3	14.40	11.50	0.32	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	157.0	B.2.4.5-3	13.20	11.60	0.34	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	196.3	B.2.4.5-3	11.60	11.60	0.34	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	196.3	B.2.4.5-3	11.60	11.60	0.24	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	209.3	B.2.4.5-3	11.60	11.60	0.24	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	209.3	B.2.4.5-3	11.60	11.60	0.25	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	217.0	B.2.4.5-3	11.60	11.60	0.25	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	217.0	B.2.4.5-3	11.50	11.50	0.09	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	235.5	B.2.4.5-3	11.50	15.30	0.37	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	235.5	B.2.4.5-3	11.50	17.70	0.18	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	261.7	B.2.4.5-3	11.50	24.80	0.18	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	261.7	B.2.4.5-3	10.10	26.30	0.00	0.00	0.00	0.00
N-3.50	B355	1427	VC0.5x1	264.0	B.2.4.5-3	1.70	27.60	0.00	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	50.0	B.2.4.7-4	2.10	25.00	0.32	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	50.3	B.2.4.5-3	9.60	24.90	0.32	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	50.3	B.2.4.5-3	9.80	23.40	0.27	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	75.5	B.2.4.5-3	9.80	15.40	0.27	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	100.7	B.2.4.5-3	9.80	9.80	0.28	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	100.7	B.2.4.5-3	9.90	9.90	0.11	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	106.5	B.2.4.5-3	9.90	9.90	0.11	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	106.5	B.2.4.5-3	10.00	10.00	0.19	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	151.0	B.2.4.5-3	10.40	10.00	0.19	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	151.0	B.2.4.5-3	11.20	10.10	0.16	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	176.2	B.2.4.5-3	15.00	10.10	0.16	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	201.3	B.2.4.5-3	15.40	10.10	0.17	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	201.3	B.2.4.5-3	15.40	10.20	0.13	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	226.5	B.2.4.5-3	16.90	10.20	0.13	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	226.5	B.2.4.5-3	17.10	10.20	0.07	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	251.7	B.2.4.5-3	17.10	10.20	0.07	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	251.7	B.2.4.5-3	17.10	10.30	0.09	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	276.8	B.2.4.5-3	16.70	10.30	0.09	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	302.0	B.2.4.5-3	16.30	10.30	0.09	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	302.0	B.2.4.5-3	16.30	10.30	0.11	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	346.5	B.2.4.5-3	15.40	10.30	0.10	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	346.5	B.2.4.5-3	15.40	10.30	0.08	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	352.3	B.2.4.5-3	15.40	10.30	0.08	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	352.3	B.2.4.5-3	15.40	10.30	0.17	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	377.5	B.2.4.5-3	14.40	10.30	0.17	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	402.7	B.2.4.5-3	10.80	10.30	0.17	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	402.7	B.2.4.5-3	10.20	10.20	0.18	0.00	0.00	0.00
N-3.50	B392	1213	VC0.5x1	403.0	B.2.4.5-3	10.10	6.40	0.18	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	0.0	B.2.4.5-3	15.40	10.30	0.16	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	26.2	B.2.4.5-3	15.40	9.70	0.16	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	52.3	B.2.4.5-3	15.40	9.70	0.16	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	52.3	B.2.4.5-3	15.40	9.80	0.13	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	53.6	B.2.4.5-3	15.40	9.80	0.13	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	53.6	B.2.4.5-3	15.40	9.80	0.15	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	97.0	B.2.4.5-3	15.70	9.80	0.15	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	97.0	B.2.4.5-3	15.90	9.80	0.15	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	104.7	B.2.4.5-3	15.70	9.80	0.15	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	104.7	B.2.4.5-3	15.40	9.80	0.23	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	130.8	B.2.4.5-3	15.40	9.80	0.23	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	157.0	B.2.4.5-3	13.30	9.80	0.23	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B398	1179	VC0.5x1	157.0	B.2.4.5-3	12.70	9.70	0.27	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	183.2	B.2.4.5-3	9.70	9.70	0.27	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	209.3	B.2.4.5-3	9.70	9.70	0.27	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	209.3	B.2.4.5-3	9.70	9.70	0.17	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	217.0	B.2.4.5-3	9.70	9.70	0.17	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	217.0	B.2.4.5-3	9.50	9.50	0.31	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	261.7	B.2.4.5-3	9.50	20.90	0.31	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	261.7	B.2.4.5-3	8.20	21.10	0.36	0.00	0.00	0.00
N-3.50	B398	1179	VC0.5x1	264.0	B.2.4.5-3	1.40	22.30	0.36	0.00	0.00	0.00
N-3.50	B401	1550	VC0.5x1	0.0	B.2.4.5-8	7.20	5.10	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	34.4	B.2.4.5-8	7.10	5.30	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	34.4	B.2.4.5-8	5.20	5.20	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	83.5	B.2.4.5-8	5.20	5.20	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	83.5	B.2.4.5-8	5.00	5.00	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	132.6	B.2.4.5-8	5.00	5.00	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	132.6	B.2.4.5-8	4.90	5.60	0.12	12.70	0.05	
N-3.50	B401	1550	VC0.5x1	181.8	B.2.4.5-8	4.90	6.20	0.12	12.70	0.05	
N-3.50	B401	1550	VC0.5x1	181.8	B.2.4.5-8	4.70	8.50	0.12	12.70	0.05	
N-3.50	B401	1550	VC0.5x1	230.9	B.2.4.5-8	4.70	9.10	0.12	12.70	0.05	
N-3.50	B401	1550	VC0.5x1	230.9	B.2.4.5-8	4.60	11.30	0.11	12.80	0.05	
N-3.50	B401	1550	VC0.5x1	280.0	B.2.4.5-8	2.20	11.50	0.11	12.80	0.05	
N-3.50	B404	4256	VC0.5x1	0.0	B.2.4.5-3	6.10	4.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	26.2	B.2.4.5-3	6.10	2.80	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	52.3	B.2.4.5-3	6.10	2.80	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	52.3	B.2.4.5-3	6.00	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	61.0	B.2.4.5-3	6.00	3.00	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	61.0	B.2.4.5-3	5.40	2.90	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	97.0	B.2.4.5-3	5.60	2.90	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	97.0	B.2.4.5-3	5.80	3.10	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	102.2	B.2.4.5-3	5.80	3.10	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	102.2	B.2.4.5-3	5.50	3.00	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	104.7	B.2.4.5-3	5.50	3.00	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	104.7	B.2.4.5-3	5.50	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	125.6	B.2.4.5-3	5.30	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	125.6	B.2.4.5-3	4.80	2.90	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	157.0	B.2.4.5-3	5.00	2.90	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	157.0	B.2.4.5-3	4.60	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	183.2	B.2.4.5-3	4.60	3.00	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	209.3	B.2.4.5-3	4.70	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	209.3	B.2.4.5-3	4.40	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	217.0	B.2.4.5-3	4.50	3.00	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	217.0	B.2.4.5-3	3.80	3.10	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	261.7	B.2.4.5-3	3.40	3.10	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	261.7	B.2.4.5-3	3.20	3.10	0.05	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	298.3	B.2.4.5-3	3.10	3.10	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	298.3	B.2.4.5-3	3.00	3.00	0.04	0.00	0.00	
N-3.50	B404	4256	VC0.5x1	314.0	B.2.4.5-3	2.90	2.40	0.04	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	0.0	B.2.4.5-3	2.20	4.60	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	25.8	B.2.4.5-3	2.80	4.70	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	51.7	B.2.4.5-3	2.80	4.70	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	51.7	B.2.4.5-3	2.80	5.70	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	87.5	B.2.4.5-3	2.80	5.80	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	87.5	B.2.4.5-3	2.70	6.30	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	97.4	B.2.4.5-3	2.70	6.40	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	97.4	B.2.4.5-3	2.80	6.80	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	103.3	B.2.4.5-3	2.80	6.80	0.05	0.00	0.00	
N-3.50	B405	1546	VC0.5x1	103.3	B.2.4.5-3	2.80	7.40	0.05	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B405	1546	VC0.5x1	129.2	B.2.4.5-3	2.80	7.50	0.05	0.00	0.00	0.00
N-3.50	B405	1546	VC0.5x1	155.0	B.2.4.5-3	2.80	7.60	0.05	0.00	0.00	0.00
N-3.50	B405	1546	VC0.5x1	155.0	B.2.4.5-8	0.60	0.60	0.05	0.00	0.00	0.00
N-3.50	B405	1546	VC0.5x1	156.0	B.2.4.4-4	0.00	0.00	0.05	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	50.0	B.2.4.5-8	0.60	28.10	0.36	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	50.5	B.2.4.5-8	9.40	27.80	0.36	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	50.5	B.2.4.5-8	10.40	27.50	0.35	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	75.8	B.2.4.5-8	10.40	18.90	0.35	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	101.1	B.2.4.5-8	10.40	14.30	0.35	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	101.1	B.2.4.5-8	10.60	13.20	0.24	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	126.4	B.2.4.5-8	10.60	10.60	0.25	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	151.6	B.2.4.5-8	10.60	10.60	0.25	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	151.6	B.2.4.5-8	10.80	10.80	0.18	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	176.9	B.2.4.5-8	12.70	10.80	0.18	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	202.2	B.2.4.4-4	15.40	10.80	0.18	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	202.2	B.2.4.4-4	15.40	11.00	0.12	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	227.5	B.2.4.5-8	16.40	11.00	0.12	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	252.7	B.2.4.5-8	19.20	11.00	0.13	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	252.7	B.2.4.5-8	19.80	11.10	0.08	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	278.0	B.2.4.5-8	21.60	11.10	0.08	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	278.0	B.2.4.5-8	21.60	11.30	0.06	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	303.3	B.2.4.5-8	20.50	11.30	0.06	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	303.3	B.2.4.5-8	20.30	11.40	0.09	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	328.5	B.2.4.5-8	18.40	11.40	0.09	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	353.8	B.2.4.5-8	16.60	11.40	0.09	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	353.8	B.2.4.5-8	16.40	11.70	0.13	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	379.1	B.2.4.2-2	15.40	11.70	0.13	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	404.4	B.2.4.5-8	14.90	11.70	0.13	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	404.4	B.2.4.5-8	14.50	11.90	0.18	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	429.6	B.2.4.5-8	11.90	11.90	0.18	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	454.9	B.2.4.5-8	11.90	11.90	0.18	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	454.9	B.2.4.5-8	12.00	12.00	0.24	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	480.2	B.2.4.5-8	12.00	12.50	0.24	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	505.5	B.2.4.5-8	12.00	15.40	0.24	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	505.5	B.2.4.5-8	11.20	15.40	0.32	0.00	0.00	0.00
N-3.50	B1282	1429	VC0.5x1	506.0	B.2.4.5-8	2.40	15.40	0.32	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	0.0	B.2.4.5-3	5.50	4.00	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	25.8	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	51.7	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	51.7	B.2.4.5-3	14.50	14.50	0.02	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	87.5	B.2.4.5-3	14.50	14.50	0.02	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	87.5	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	103.3	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	103.3	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	129.2	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	155.0	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	155.0	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	180.8	B.2.4.5-3	14.50	14.50	0.03	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	206.7	B.2.4.5-3	14.50	14.50	0.04	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	206.7	B.2.4.5-3	14.50	14.50	0.02	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	207.5	B.2.4.5-3	14.50	14.50	0.02	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	207.5	B.2.4.5-3	14.50	14.50	0.05	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	232.9	B.2.4.5-3	14.50	14.50	0.05	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	258.3	B.2.4.5-3	14.50	14.50	0.05	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	258.3	B.2.4.5-3	14.50	14.50	0.05	0.00	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	284.2	B.2.4.5-3	14.50	14.50	0.05	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion cm ²	At Torsion cm ² /cm
N-3.50	B1287	1509	VC0.5x1	516.7	B.2.4.5-3	17.90	14.60	0.04	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	542.1	B.2.4.5-3	17.10	14.60	0.04	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	567.5	B.2.4.5-3	16.30	14.60	0.04	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	567.5	B.2.4.5-3	16.30	14.60	0.04	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	568.3	B.2.4.5-3	16.30	14.60	0.04	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	568.3	B.2.4.5-3	15.90	14.60	0.18	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	594.2	B.2.4.5-3	14.80	14.60	0.18	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	620.0	B.2.4.5-3	14.60	14.60	0.18	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	620.0	B.2.4.5-3	14.60	14.60	0.26	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	645.8	B.2.4.5-3	14.60	14.60	0.26	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	671.7	B.2.4.5-3	14.60	14.70	0.26	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	671.7	B.2.4.5-3	14.60	15.40	0.15	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	687.5	B.2.4.5-3	14.60	15.40	0.15	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	687.5	B.2.4.5-3	14.60	19.30	0.35	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	723.3	B.2.4.5-3	14.60	37.10	0.34	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	723.3	B.2.4.5-3	14.70	39.90	0.32	0.00	0.00
N-3.50	B1287	1509	VC0.5x1	725.0	B.2.4.7-4	6.60	41.00	0.32	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	0.0	B.2.4.5-3	1.60	15.40	0.03	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	26.2	B.2.4.5-3	5.10	12.80	0.04	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	52.3	B.2.4.5-3	5.10	10.30	0.04	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	52.3	B.2.4.5-3	5.40	10.20	0.03	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	97.0	B.2.4.5-3	5.40	6.30	0.03	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	97.0	B.2.4.5-3	5.50	5.90	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	104.7	B.2.4.5-3	5.50	5.80	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	104.7	B.2.4.5-3	5.60	5.60	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	130.8	B.2.4.5-3	5.60	5.60	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	157.0	B.2.4.5-3	5.60	5.60	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	157.0	B.2.4.5-3	5.70	5.70	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	183.2	B.2.4.5-3	5.70	5.70	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	209.3	B.2.4.5-3	5.70	5.70	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	209.3	B.2.4.5-3	5.80	5.80	0.04	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	217.0	B.2.4.5-3	5.80	5.80	0.04	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	217.0	B.2.4.5-3	5.80	5.80	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	261.7	B.2.4.5-3	5.80	5.80	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	261.7	B.2.4.5-3	5.90	5.90	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	287.8	B.2.4.5-3	5.90	5.90	0.00	0.00	0.00
N-3.50	B1288	1426	VC0.5x1	314.0	B.2.4.5-3	6.00	4.20	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	50.0	B.2.4.7-4	8.00	28.30	0.26	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	50.6	B.2.4.5-3	9.80	28.00	0.26	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	50.6	B.2.4.5-3	9.90	26.40	0.23	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	76.0	B.2.4.5-3	9.90	16.70	0.23	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	101.3	B.2.4.5-3	9.90	10.00	0.23	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	101.3	B.2.4.5-3	10.00	10.00	0.15	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	114.5	B.2.4.5-3	10.00	10.00	0.15	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	114.5	B.2.4.5-3	10.10	10.10	0.05	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	141.8	B.2.4.5-3	10.10	10.10	0.05	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	141.8	B.2.4.5-3	10.10	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	151.9	B.2.4.5-3	10.10	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	151.9	B.2.4.5-8	10.30	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	177.3	B.2.4.5-8	12.10	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	177.3	B.2.4.5-8	14.10	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	202.6	B.2.4.5-3	15.40	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	202.6	B.2.4.5-3	15.40	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	234.5	B.2.4.5-3	15.70	10.10	0.04	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	234.5	B.2.4.5-3	15.70	10.20	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	253.2	B.2.4.5-3	15.70	10.20	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	253.2	B.2.4.5-3	15.60	10.20	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top		At Shear	Al Torsion	At Torsion
						cm	cm ²	cm ²	cm ² /cm	cm ²
N-3.50	B1289	1422	VC0.5x1	283.6	B.2.4.5-3	15.40	10.20	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	283.6	B.2.4.5-3	15.40	10.20	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	303.9	B.2.4.5-3	15.40	10.20	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	303.9	B.2.4.5-3	15.40	10.20	0.01	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	329.2	B.2.4.5-3	15.40	10.20	0.01	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	354.5	B.2.4.5-3	15.40	10.20	0.01	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	354.5	B.2.4.5-3	15.40	10.30	0.02	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	379.8	B.2.4.5-3	15.40	10.30	0.02	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	405.1	B.2.4.5-3	14.90	10.30	0.02	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	405.1	B.2.4.5-3	14.80	10.30	0.02	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	430.5	B.2.4.5-3	13.20	10.30	0.02	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	455.8	B.2.4.5-3	11.80	10.30	0.02	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	455.8	B.2.4.5-3	11.50	10.40	0.01	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	474.5	B.2.4.5-3	10.80	10.40	0.01	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	474.5	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	496.3	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	496.3	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	506.4	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	506.4	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	531.8	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	531.8	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	557.1	B.2.4.5-3	10.40	10.40	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	557.1	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	594.5	B.2.4.5-3	10.50	10.50	0.01	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	594.5	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	607.7	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	607.7	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	638.1	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	638.1	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	658.4	B.2.4.5-3	10.50	10.50	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	658.4	B.2.4.5-3	10.60	10.60	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	683.7	B.2.4.5-3	10.60	10.60	0.00	0.00	0.00
N-3.50	B1289	1422	VC0.5x1	709.0	B.2.4.5-3	4.20	3.00	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	0.0	B.2.4.5-3	4.40	3.20	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	25.2	B.2.4.5-3	4.60	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	50.3	B.2.4.5-3	4.60	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	50.3	B.2.4.5-3	4.70	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	75.5	B.2.4.5-3	4.90	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	100.7	B.2.4.5-3	5.20	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	100.7	B.2.4.5-3	5.20	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	106.5	B.2.4.5-3	5.20	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	106.5	B.2.4.5-3	5.50	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	151.0	B.2.4.5-3	6.40	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	151.0	B.2.4.5-3	6.50	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	176.2	B.2.4.5-3	7.00	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	201.3	B.2.4.5-3	7.60	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	201.3	B.2.4.5-3	7.80	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	226.5	B.2.4.5-3	8.30	4.70	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	226.5	B.2.4.5-3	8.60	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	251.7	B.2.4.5-3	8.90	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	251.7	B.2.4.5-3	8.90	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	276.8	B.2.4.5-3	9.20	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	302.0	B.2.4.5-3	9.40	4.60	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	302.0	B.2.4.5-3	9.40	4.50	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	346.5	B.2.4.5-3	9.40	4.50	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	346.5	B.2.4.5-3	9.20	4.50	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	352.3	B.2.4.5-3	9.10	4.60	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B1290	1421	VC0.5x1	352.3	B.2.4.5-3	8.80	4.70	0.00	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	377.5	B.2.4.5-3	7.40	6.00	0.00	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	402.7	B.2.4.7-4	6.20	7.50	0.00	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	402.7	B.2.4.7-4	5.70	7.50	0.01	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	427.8	B.2.4.7-4	4.60	9.70	0.01	0.00	0.00	0.00
N-3.50	B1290	1421	VC0.5x1	453.0	B.2.4.7-4	3.50	11.80	0.01	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	0.0	B.2.4.7-8	3.40	11.00	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	25.8	B.2.4.5-8	4.40	10.90	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	51.5	B.2.4.5-8	4.40	10.90	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	51.5	B.2.4.5-8	4.20	9.80	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	77.3	B.2.4.5-8	4.20	9.70	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	103.0	B.2.4.5-8	4.20	9.60	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	103.0	B.2.4.5-8	4.00	8.60	0.11	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	128.8	B.2.4.5-8	4.00	8.60	0.11	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	154.5	B.2.4.5-8	4.00	8.50	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	154.5	B.2.4.5-8	3.90	8.20	0.10	0.00	0.00	0.00
N-3.50	B1292	1410	VC0.5x1	198.0	B.2.4.5-8	1.60	8.30	0.10	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	0.0	B.2.4.7-4	4.60	48.60	0.29	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	25.3	B.2.4.5-3	15.40	37.00	0.29	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	50.6	B.2.4.5-3	15.40	26.20	0.30	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	50.6	B.2.4.5-3	15.40	24.80	0.27	12.40	0.05	
N-3.50	B1918	1408	VC0.5x1	76.0	B.2.4.5-3	15.40	15.60	0.27	12.40	0.05	
N-3.50	B1918	1408	VC0.5x1	101.3	B.2.4.5-3	15.40	15.40	0.27	12.40	0.05	
N-3.50	B1918	1408	VC0.5x1	101.3	B.2.4.5-3	15.40	15.40	0.14	13.00	0.05	
N-3.50	B1918	1408	VC0.5x1	114.5	B.2.4.5-3	15.40	15.40	0.14	13.00	0.05	
N-3.50	B1918	1408	VC0.5x1	114.5	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	151.9	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	151.9	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	177.3	B.2.4.5-3	15.40	15.40	0.11	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	202.6	B.2.4.5-8	15.50	15.40	0.11	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	202.6	B.2.4.5-8	16.00	15.40	0.08	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	234.5	B.2.4.5-8	18.70	15.40	0.09	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	234.5	B.2.4.5-8	18.80	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	253.2	B.2.4.5-8	19.00	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	253.2	B.2.4.5-8	19.00	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	278.5	B.2.4.5-3	19.40	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	303.9	B.2.4.5-3	19.90	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	303.9	B.2.4.5-3	19.90	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	329.2	B.2.4.5-3	20.20	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	354.5	B.2.4.5-3	20.40	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	354.5	B.2.4.5-3	20.30	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	379.8	B.2.4.5-3	19.60	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	405.1	B.2.4.5-3	19.00	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	405.1	B.2.4.5-3	18.90	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	430.5	B.2.4.5-3	18.10	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	455.8	B.2.4.5-3	17.40	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	455.8	B.2.4.5-3	17.20	15.40	0.04	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	474.5	B.2.4.5-3	16.80	15.40	0.03	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	474.5	B.2.4.5-3	16.70	15.40	0.10	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	506.4	B.2.4.5-3	15.40	15.40	0.09	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	506.4	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	531.8	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	557.1	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	557.1	B.2.4.5-3	15.40	15.40	0.13	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	594.5	B.2.4.5-3	15.40	15.40	0.13	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	594.5	B.2.4.5-3	15.40	15.40	0.17	0.00	0.00	
N-3.50	B1918	1408	VC0.5x1	607.7	B.2.4.5-3	15.40	15.40	0.17	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B1918	1408	VC0.5x1	607.7	B.2.4.5-3	15.40	15.40	0.37	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	633.0	B.2.4.5-3	15.40	15.40	0.36	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	658.4	B.2.4.5-3	15.40	22.60	0.36	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	658.4	B.2.4.5-3	15.40	22.90	0.31	0.00	0.00	0.00
N-3.50	B1918	1408	VC0.5x1	659.0	B.2.4.5-3	1.50	23.20	0.31	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	50.0	B.2.4.5-3	3.30	5.10	0.01	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	50.6	B.2.4.5-3	8.80	8.80	0.01	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	50.6	B.2.4.5-3	8.90	8.90	0.01	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	76.0	B.2.4.5-3	8.90	8.90	0.01	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	101.3	B.2.4.5-3	8.90	8.90	0.01	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	101.3	B.2.4.5-3	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	114.5	B.2.4.5-3	9.00	9.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	114.5	B.2.4.5-3	9.10	9.10	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	151.9	B.2.4.5-3	9.10	9.10	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	151.9	B.2.4.5-3	9.20	9.20	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	177.3	B.2.4.5-3	9.20	9.20	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	202.6	B.2.4.5-3	9.20	9.20	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	202.6	B.2.4.5-3	9.30	9.30	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	218.2	B.2.4.5-3	9.30	9.30	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	218.2	B.2.4.5-3	9.30	9.30	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	234.5	B.2.4.5-3	9.30	9.30	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	234.5	B.2.4.5-3	9.40	9.40	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	252.6	B.2.4.5-3	9.40	9.40	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	252.6	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	253.2	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	253.2	B.2.4.5-3	9.50	9.50	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	278.5	B.2.4.5-3	9.50	9.50	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	303.9	B.2.4.5-3	9.70	9.50	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	303.9	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	304.9	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	304.9	B.2.4.5-3	10.00	9.60	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	354.5	B.2.4.5-3	11.40	9.60	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	354.5	B.2.4.5-3	11.80	9.80	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	404.4	B.2.4.5-3	12.50	9.80	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	404.4	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	405.1	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	405.1	B.2.4.5-3	12.60	9.80	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	430.5	B.2.4.5-3	12.90	9.80	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	455.8	B.2.4.5-3	13.20	9.80	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	455.8	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	456.0	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	456.0	B.2.4.5-3	13.30	9.90	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	474.5	B.2.4.5-3	13.30	9.90	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	474.5	B.2.4.5-3	13.60	10.00	0.03	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	506.2	B.2.4.5-3	11.90	10.00	0.03	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	506.2	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	506.4	B.2.4.5-3	7.00	7.00	0.00	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	506.4	B.2.4.5-3	11.70	10.10	0.05	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	531.8	B.2.4.5-3	10.10	10.10	0.04	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	557.1	B.2.4.5-3	10.10	10.10	0.04	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	557.1	B.2.4.5-3	10.20	10.20	0.06	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	594.5	B.2.4.5-3	10.20	10.20	0.06	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	594.5	B.2.4.5-3	10.40	10.40	0.11	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	607.7	B.2.4.5-3	10.40	10.40	0.11	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	607.7	B.2.4.5-3	10.50	11.50	0.32	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	633.0	B.2.4.5-3	10.50	15.60	0.32	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	658.4	B.2.4.5-3	10.50	22.90	0.32	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B1933	1481	VC0.5x1	658.4	B.2.4.5-3	10.70	24.30	0.30	0.00	0.00	0.00
N-3.50	B1933	1481	VC0.5x1	659.0	B.2.4.5-3	3.40	24.50	0.30	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	50.0	B.2.4.5-8	2.70	23.90	0.36	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	62.5	B.2.4.5-8	9.80	19.50	0.36	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	62.5	B.2.4.5-8	11.00	19.40	0.29	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	98.0	B.2.4.5-8	11.00	13.90	0.29	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	98.0	B.2.4.5-8	10.90	12.40	0.23	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	147.0	B.2.4.5-8	11.10	10.90	0.23	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	147.0	B.2.4.5-8	11.70	10.80	0.17	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	196.0	B.2.4.5-3	15.60	10.80	0.17	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	196.0	B.2.4.5-3	16.00	10.70	0.12	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	245.0	B.2.4.5-3	21.10	10.70	0.12	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	245.0	B.2.4.5-3	21.00	10.50	0.09	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	294.0	B.2.4.5-3	17.50	10.50	0.08	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	294.0	B.2.4.5-3	17.10	10.40	0.13	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	343.0	B.2.4.5-3	15.40	10.40	0.13	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	343.0	B.2.4.5-3	14.90	10.20	0.18	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	392.0	B.2.4.5-3	10.20	10.20	0.18	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	392.0	B.2.4.5-3	10.10	10.10	0.24	0.00	0.00	0.00
N-3.50	B2589	1415	VC0.5x1	441.0	B.2.4.5-3	2.80	15.40	0.24	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	0.0	B.2.4.7-8	2.00	1.20	0.09	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	49.0	B.2.4.5-8	8.00	5.20	0.09	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	49.0	B.2.4.5-8	9.00	5.70	0.07	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	98.0	B.2.4.5-3	14.90	5.70	0.07	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	98.0	B.2.4.5-3	15.40	6.10	0.04	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	147.0	B.2.4.2-2	15.40	6.10	0.04	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	147.0	B.2.4.4-4	15.40	6.50	0.01	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	196.0	B.2.4.5-3	16.90	6.50	0.01	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	196.0	B.2.4.5-3	17.30	6.80	0.00	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	245.0	B.2.4.5-3	17.60	6.80	0.00	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	245.0	B.2.4.5-3	18.00	6.90	0.07	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	294.0	B.2.4.5-3	15.40	6.90	0.07	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	294.0	B.2.4.5-3	15.40	7.10	0.11	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	343.0	B.2.4.5-3	9.10	7.10	0.11	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	343.0	B.2.4.5-3	8.40	7.10	0.17	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	392.0	B.2.4.5-3	7.10	8.00	0.16	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	392.0	B.2.4.5-3	7.10	9.00	0.26	0.00	0.00	0.00
N-3.50	B2609	1400	VC0.5x1	441.0	B.2.4.5-3	1.50	18.20	0.26	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	50.0	B.2.4.5-8	0.60	18.10	0.34	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	50.5	B.2.4.5-8	6.30	18.00	0.34	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	50.5	B.2.4.5-8	7.00	17.70	0.23	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	75.8	B.2.4.5-8	7.00	15.40	0.23	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	101.1	B.2.4.5-8	7.00	8.50	0.23	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	101.1	B.2.4.5-8	7.10	7.60	0.14	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	126.4	B.2.4.5-8	7.10	7.10	0.14	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	151.6	B.2.4.5-8	7.30	7.10	0.14	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	151.6	B.2.4.5-8	7.90	7.20	0.09	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	176.9	B.2.4.5-8	11.10	7.20	0.09	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	202.2	B.2.4.5-8	14.60	7.20	0.10	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	202.2	B.2.4.5-8	15.10	7.30	0.06	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	227.5	B.2.4.2-2	15.40	7.30	0.06	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	252.7	B.2.4.4-4	15.40	7.30	0.06	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	252.7	B.2.4.5-8	15.60	7.40	0.03	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	278.0	B.2.4.5-8	16.90	7.40	0.03	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	278.0	B.2.4.5-8	17.00	7.50	0.02	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	303.3	B.2.4.5-8	16.00	7.50	0.02	0.00	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	303.3	B.2.4.5-8	15.70	7.60	0.05	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion cm ²	At Torsion cm ² /cm
N-3.50	B2630	1215	VC0.5x1	328.5	B.2.4.4-4	15.40	7.60	0.05	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	353.8	B.2.4.5-3	15.40	7.60	0.05	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	353.8	B.2.4.5-3	15.40	7.70	0.09	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	379.1	B.2.4.5-8	12.90	7.70	0.09	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	404.4	B.2.4.5-8	9.70	7.70	0.09	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	404.4	B.2.4.5-8	9.30	7.80	0.13	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	429.6	B.2.4.5-8	7.80	7.80	0.13	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	454.9	B.2.4.5-8	7.80	7.80	0.13	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	454.9	B.2.4.5-8	8.00	8.00	0.20	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	480.2	B.2.4.5-8	8.00	13.70	0.20	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	505.5	B.2.4.5-8	8.00	15.40	0.20	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	505.5	B.2.4.5-8	8.10	16.30	0.27	0.00	0.00
N-3.50	B2630	1215	VC0.5x1	506.0	B.2.4.5-8	2.30	16.40	0.27	0.00	0.00
N-3.50	B12	1543	VC0.5x1	50.0	B.2.4.5-3	1.90	23.00	0.35	0.00	0.00
N-3.50	B12	1543	VC0.5x1	50.6	B.2.4.5-3	8.60	22.70	0.35	0.00	0.00
N-3.50	B12	1543	VC0.5x1	50.6	B.2.4.5-3	8.70	21.60	0.36	0.00	0.00
N-3.50	B12	1543	VC0.5x1	76.0	B.2.4.5-3	8.70	15.40	0.36	0.00	0.00
N-3.50	B12	1543	VC0.5x1	101.3	B.2.4.5-3	8.70	8.70	0.36	0.00	0.00
N-3.50	B12	1543	VC0.5x1	101.3	B.2.4.5-3	8.90	8.90	0.25	0.00	0.00
N-3.50	B12	1543	VC0.5x1	114.5	B.2.4.5-3	11.50	8.90	0.26	0.00	0.00
N-3.50	B12	1543	VC0.5x1	114.5	B.2.4.5-3	13.60	8.90	0.15	0.00	0.00
N-3.50	B12	1543	VC0.5x1	151.9	B.2.4.5-8	15.80	8.90	0.15	0.00	0.00
N-3.50	B12	1543	VC0.5x1	151.9	B.2.4.5-8	16.10	8.90	0.12	0.00	0.00
N-3.50	B12	1543	VC0.5x1	177.3	B.2.4.5-8	19.80	8.90	0.12	0.00	0.00
N-3.50	B12	1543	VC0.5x1	202.6	B.2.4.5-8	23.50	8.90	0.12	0.00	0.00
N-3.50	B12	1543	VC0.5x1	202.6	B.2.4.5-8	23.90	9.00	0.09	0.00	0.00
N-3.50	B12	1543	VC0.5x1	234.5	B.2.4.5-8	27.30	9.00	0.09	0.00	0.00
N-3.50	B12	1543	VC0.5x1	234.5	B.2.4.5-8	27.50	9.00	0.04	0.00	0.00
N-3.50	B12	1543	VC0.5x1	253.2	B.2.4.5-8	27.30	9.00	0.04	0.00	0.00
N-3.50	B12	1543	VC0.5x1	253.2	B.2.4.5-8	27.20	9.00	0.04	0.00	0.00
N-3.50	B12	1543	VC0.5x1	278.5	B.2.4.5-8	26.20	9.00	0.04	0.00	0.00
N-3.50	B12	1543	VC0.5x1	303.9	B.2.4.5-8	25.30	9.00	0.04	0.00	0.00
N-3.50	B12	1543	VC0.5x1	303.9	B.2.4.5-8	25.10	8.90	0.07	0.00	0.00
N-3.50	B12	1543	VC0.5x1	329.2	B.2.4.5-8	23.20	8.90	0.06	0.00	0.00
N-3.50	B12	1543	VC0.5x1	354.5	B.2.4.5-8	21.40	8.90	0.06	0.00	0.00
N-3.50	B12	1543	VC0.5x1	354.5	B.2.4.5-8	20.10	8.70	0.20	0.00	0.00
N-3.50	B12	1543	VC0.5x1	379.8	B.2.4.5-3	15.40	8.70	0.20	0.00	0.00
N-3.50	B12	1543	VC0.5x1	405.1	B.2.4.5-8	13.00	8.70	0.20	0.00	0.00
N-3.50	B12	1543	VC0.5x1	405.1	B.2.4.5-8	12.10	8.40	0.23	0.00	0.00
N-3.50	B12	1543	VC0.5x1	449.0	B.2.4.7-4	2.90	4.80	0.23	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	45.3	B.2.4.7-8	1.70	15.40	0.21	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	94.4	B.2.4.5-8	5.70	6.20	0.22	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	94.4	B.2.4.5-8	5.80	5.80	0.17	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	143.5	B.2.4.5-8	6.00	5.80	0.17	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	143.5	B.2.4.5-8	6.40	6.00	0.12	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	192.6	B.2.4.5-8	8.00	6.00	0.12	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	192.6	B.2.4.5-8	8.00	6.10	0.14	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	241.8	B.2.4.5-8	6.10	6.10	0.14	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	241.8	B.2.4.5-8	6.20	6.20	0.17	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	277.5	B.2.4.5-8	6.20	7.00	0.17	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	277.5	B.2.4.5-8	5.40	6.50	0.19	0.00	0.00
N-3.50	B1228	1534	VC0.5x1	290.0	B.2.4.7-8	1.40	8.40	0.19	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	0.0	B.2.4.5-8	3.50	2.50	0.08	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	49.1	B.2.4.5-8	15.10	15.10	0.08	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	49.1	B.2.4.5-8	15.40	15.40	0.08	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	98.2	B.2.4.5-8	15.40	15.40	0.09	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	98.2	B.2.4.5-8	15.40	15.40	0.09	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B1238	1535	VC0.5x1	147.4	B.2.4.5-8	15.40	15.40	0.09	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	147.4	B.2.4.5-8	15.40	15.40	0.08	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	196.5	B.2.4.5-8	15.40	15.40	0.09	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	196.5	B.2.4.5-8	15.40	15.40	0.08	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	245.6	B.2.4.5-8	15.40	15.40	0.08	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	245.6	B.2.4.5-8	15.40	15.40	0.07	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	277.5	B.2.4.5-8	15.40	15.40	0.07	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	277.5	B.2.4.5-8	15.40	15.40	0.11	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	294.7	B.2.4.5-8	15.40	15.40	0.10	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	294.7	B.2.4.5-8	15.40	15.40	0.15	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	343.8	B.2.4.5-8	15.40	15.40	0.15	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	343.8	B.2.4.5-8	15.40	15.40	0.19	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	392.9	B.2.4.5-8	15.40	15.40	0.19	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	392.9	B.2.4.5-8	15.40	15.40	0.30	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	442.1	B.2.4.5-8	15.40	25.30	0.29	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	442.1	B.2.4.5-8	15.40	26.80	0.36	0.00	0.00	0.00
N-3.50	B1238	1535	VC0.5x1	491.2	B.2.4.7-8	5.30	46.60	0.35	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	50.0	B.2.4.5-8	2.00	38.40	0.35	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	50.5	B.2.4.5-8	13.50	38.20	0.35	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	50.5	B.2.4.5-8	14.60	37.50	0.23	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	75.8	B.2.4.5-8	14.60	28.40	0.23	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	101.1	B.2.4.5-8	14.60	19.60	0.24	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	101.1	B.2.4.5-8	14.60	18.60	0.29	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	126.4	B.2.4.5-8	14.60	15.40	0.29	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	151.6	B.2.4.5-8	14.60	14.60	0.29	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	151.6	B.2.4.5-8	14.60	14.60	0.23	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	176.9	B.2.4.5-8	14.60	14.60	0.23	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	202.2	B.2.4.5-8	14.60	14.60	0.24	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	202.2	B.2.4.5-8	14.50	14.50	0.19	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	227.5	B.2.4.5-8	14.50	14.50	0.19	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	252.7	B.2.4.5-3	15.40	14.50	0.19	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	252.7	B.2.4.5-3	15.40	14.50	0.15	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	278.0	B.2.4.5-8	16.10	14.50	0.16	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	278.0	B.2.4.5-8	15.80	14.60	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	303.3	B.2.4.5-8	15.70	14.60	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	303.3	B.2.4.5-8	15.60	14.60	0.10	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	333.6	B.2.4.2-2	15.40	14.60	0.10	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	333.6	B.2.4.5-3	15.40	14.60	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	353.8	B.2.4.5-3	15.40	14.60	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	353.8	B.2.4.5-3	15.40	14.60	0.10	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	370.7	B.2.4.5-3	15.40	14.60	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	370.7	B.2.4.5-3	15.40	14.60	0.11	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	404.4	B.2.4.5-3	15.40	14.60	0.10	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	404.4	B.2.4.5-3	15.40	14.70	0.11	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	444.8	B.2.4.5-8	15.40	14.70	0.11	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	444.8	B.2.4.5-8	15.40	14.70	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	454.9	B.2.4.5-8	15.40	14.70	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	454.9	B.2.4.5-8	15.40	14.80	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	463.3	B.2.4.5-8	15.40	14.80	0.09	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	463.3	B.2.4.5-8	15.40	14.80	0.11	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	505.5	B.2.4.5-8	15.40	14.80	0.11	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	505.5	B.2.4.5-8	15.40	14.90	0.12	0.00	0.00	0.00
N-3.50	B335	1484	VC0.5x1	506.0	B.2.4.5-8	15.40	9.50	0.12	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	50.0	B.2.4.5-8	1.90	38.60	0.35	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	50.5	B.2.4.5-8	13.60	38.30	0.35	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	50.5	B.2.4.5-8	14.50	37.60	0.24	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	75.8	B.2.4.5-8	14.50	28.30	0.24	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B343	2270	VC0.5x1	101.1	B.2.4.5-8	14.50	19.60	0.24	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	101.1	B.2.4.5-8	14.50	18.50	0.29	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	126.4	B.2.4.5-8	14.50	15.40	0.29	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	151.6	B.2.4.5-8	14.50	14.50	0.29	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	151.6	B.2.4.5-8	14.40	14.40	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	158.9	B.2.4.5-8	14.40	14.40	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	158.9	B.2.4.5-8	14.40	14.40	0.22	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	202.2	B.2.4.5-8	14.40	14.40	0.22	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	202.2	B.2.4.5-8	14.40	14.40	0.19	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	227.5	B.2.4.5-8	14.40	14.40	0.19	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	252.7	B.2.4.5-3	15.40	14.40	0.19	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	252.7	B.2.4.5-3	15.40	14.30	0.15	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	278.0	B.2.4.5-8	16.00	14.30	0.15	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	278.0	B.2.4.5-8	15.70	14.40	0.09	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	303.3	B.2.4.5-8	15.60	14.40	0.09	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	303.3	B.2.4.5-8	15.50	14.40	0.09	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	317.7	B.2.4.5-8	15.50	14.40	0.09	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	317.7	B.2.4.2-2	15.40	14.40	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	353.8	B.2.4.5-3	15.40	14.40	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	353.8	B.2.4.5-3	15.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	379.1	B.2.4.5-3	15.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	404.4	B.2.4.5-3	15.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	404.4	B.2.4.5-3	15.40	14.40	0.09	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	417.0	B.2.4.5-3	15.40	14.40	0.09	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	417.0	B.2.4.5-3	15.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	454.9	B.2.4.5-8	15.40	14.40	0.11	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	454.9	B.2.4.5-8	15.40	14.50	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	476.6	B.2.4.5-8	15.40	14.50	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	476.6	B.2.4.5-8	15.40	14.50	0.11	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	505.5	B.2.4.5-8	15.10	14.50	0.10	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	505.5	B.2.4.5-8	15.00	14.60	0.12	0.00	0.00	0.00
N-3.50	B343	2270	VC0.5x1	506.0	B.2.4.5-8	15.00	9.00	0.12	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	0.0	B.2.4.5-8	3.20	5.20	0.02	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	25.3	B.2.4.5-8	3.70	5.20	0.02	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	50.5	B.2.4.5-8	3.70	5.20	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	50.5	B.2.4.5-8	3.60	5.00	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	75.8	B.2.4.5-8	3.60	4.90	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	101.1	B.2.4.5-8	3.60	4.80	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	101.1	B.2.4.5-8	3.40	4.60	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	126.4	B.2.4.5-8	3.40	4.40	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	151.6	B.2.4.5-8	3.40	4.30	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	151.6	B.2.4.5-8	3.30	4.10	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	176.9	B.2.4.5-8	3.30	3.90	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	202.2	B.2.4.5-8	3.30	3.70	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	202.2	B.2.4.5-8	3.10	3.60	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	227.5	B.2.4.5-8	3.10	3.40	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	252.7	B.2.4.5-8	3.10	3.30	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	252.7	B.2.4.5-8	3.10	3.30	0.04	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	278.0	B.2.4.5-8	3.10	3.10	0.04	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	278.0	B.2.4.5-8	3.10	3.10	0.04	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	303.3	B.2.4.5-8	3.10	3.20	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	303.3	B.2.4.5-8	3.20	3.20	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	328.5	B.2.4.5-8	3.20	3.20	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	353.8	B.2.4.5-8	3.20	3.20	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	353.8	B.2.4.5-8	3.10	3.10	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	379.1	B.2.4.5-8	3.10	3.10	0.03	0.00	0.00	0.00
N-3.50	B372	879	VC0.5x1	404.4	B.2.4.5-8	3.10	3.10	0.03	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top		At Shear	Al Torsion	At Torsion
						cm	cm ²	cm ²	cm ² /cm	cm ²
N-3.50	B372	879	VC0.5x1	404.4	B.2.4.5-8	3.10	3.10	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	429.6	B.2.4.5-8	3.10	3.10	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	454.9	B.2.4.5-8	3.10	3.10	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	454.9	B.2.4.5-8	3.00	3.00	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	480.2	B.2.4.5-8	3.00	3.00	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	505.5	B.2.4.5-8	3.00	3.10	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	505.5	B.2.4.5-8	3.00	3.00	0.03	0.00	0.00
N-3.50	B372	879	VC0.5x1	530.7	B.2.4.5-8	3.00	3.00	0.02	0.00	0.00
N-3.50	B372	879	VC0.5x1	556.0	B.2.4.5-8	2.90	2.80	0.03	0.00	0.00
N-3.50	B377	874	VC0.5x1	0.0	B.2.4.5-8	1.50	2.20	0.04	0.00	0.00
N-3.50	B377	874	VC0.5x1	49.7	B.2.4.5-8	2.50	1.70	0.04	0.00	0.00
N-3.50	B377	874	VC0.5x1	49.7	B.2.4.5-8	1.70	1.60	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	99.3	B.2.4.5-8	2.80	1.60	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	99.3	B.2.4.5-8	2.10	1.70	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	149.0	B.2.4.5-8	2.70	1.70	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	149.0	B.2.4.5-8	2.30	1.90	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	198.7	B.2.4.5-8	2.60	1.90	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	198.7	B.2.4.5-8	2.30	1.80	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	223.5	B.2.4.5-8	2.40	1.80	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	223.5	B.2.4.5-8	2.20	1.70	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	248.3	B.2.4.5-8	2.00	1.70	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	248.3	B.2.4.5-8	2.10	1.70	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	298.0	B.2.4.5-8	1.80	1.80	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	298.0	B.2.4.5-8	2.20	1.90	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	347.7	B.2.4.5-8	1.90	2.20	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	347.7	B.2.4.5-8	2.30	2.20	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	397.3	B.2.4.5-8	2.10	2.40	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	397.3	B.2.4.5-8	2.40	2.30	0.00	0.00	0.00
N-3.50	B377	874	VC0.5x1	447.0	B.2.4.5-8	2.40	2.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	0.0	B.2.4.5-3	2.20	1.70	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	25.8	B.2.4.5-3	2.20	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	51.5	B.2.4.5-3	2.20	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	51.5	B.2.4.5-3	1.80	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	77.3	B.2.4.5-3	1.90	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	103.0	B.2.4.5-3	2.10	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	103.0	B.2.4.5-3	1.60	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	128.8	B.2.4.5-3	1.80	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	154.5	B.2.4.5-3	2.10	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	154.5	B.2.4.5-3	1.50	1.20	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	180.3	B.2.4.5-3	1.80	1.20	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	206.0	B.2.4.5-3	2.10	1.20	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	206.0	B.2.4.5-3	1.50	1.20	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	231.8	B.2.4.5-3	1.90	1.20	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	257.5	B.2.4.5-3	2.20	1.20	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	257.5	B.2.4.5-3	1.70	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	283.3	B.2.4.5-3	2.10	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	309.0	B.2.4.5-3	2.60	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	309.0	B.2.4.5-8	2.80	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	334.7	B.2.4.5-3	2.40	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	360.5	B.2.4.5-3	2.10	1.30	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	360.5	B.2.4.5-8	2.60	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	386.3	B.2.4.5-3	2.20	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	412.0	B.2.4.5-3	1.90	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	412.0	B.2.4.5-8	2.70	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	437.8	B.2.4.5-8	2.20	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	463.5	B.2.4.5-8	1.80	1.40	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	463.5	B.2.4.5-8	2.80	1.50	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	AI Torsion		At Torsion
									cm	cm ²	cm ²
N-3.50	B378	776	VC0.5x1	489.2	B.2.4.5-8	2.20	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	515.0	B.2.4.5-8	1.60	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	515.0	B.2.4.5-8	2.90	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	540.8	B.2.4.5-8	2.10	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	566.5	B.2.4.5-8	1.50	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	566.5	B.2.4.5-3	2.80	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	592.3	B.2.4.5-8	1.60	1.50	0.00	0.00	0.00	0.00
N-3.50	B378	776	VC0.5x1	618.0	B.2.4.5-8	1.20	2.20	0.00	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	0.0	B.2.4.5-8	8.10	6.90	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	49.0	B.2.4.5-8	8.10	6.60	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	49.0	B.2.4.5-8	7.30	6.60	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	98.0	B.2.4.5-8	7.40	6.60	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	98.0	B.2.4.5-8	6.70	6.60	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	147.0	B.2.4.5-8	6.80	6.60	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	147.0	B.2.4.5-8	6.70	6.70	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	196.0	B.2.4.5-8	6.70	6.70	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	196.0	B.2.4.5-8	6.70	6.80	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	245.0	B.2.4.5-8	6.70	6.70	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	245.0	B.2.4.5-8	6.90	6.90	0.08	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	294.0	B.2.4.5-8	6.90	7.50	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	294.0	B.2.4.5-8	7.00	7.70	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	343.0	B.2.4.5-8	7.00	8.10	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	343.0	B.2.4.5-8	7.20	8.50	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	392.0	B.2.4.5-8	7.20	8.90	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	392.0	B.2.4.5-8	7.40	9.60	0.07	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	441.0	B.2.4.5-8	7.40	9.90	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	441.0	B.2.4.5-8	7.60	10.60	0.06	0.00	0.00	0.00
N-3.50	B379	772	VC0.5x1	490.0	B.2.4.5-8	6.60	10.70	0.06	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	50.0	B.2.4.5-8	1.90	16.70	0.30	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	75.0	B.2.4.5-8	9.10	12.60	0.30	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	75.0	B.2.4.5-8	10.30	12.40	0.20	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	98.2	B.2.4.5-8	10.30	10.30	0.21	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	98.2	B.2.4.5-8	11.10	10.30	0.17	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	147.4	B.2.4.5-8	16.90	10.30	0.17	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	147.4	B.2.4.5-8	17.40	10.30	0.08	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	196.5	B.2.4.5-8	22.60	10.30	0.08	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	196.5	B.2.4.5-8	22.90	10.30	0.04	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	245.6	B.2.4.5-8	25.50	10.30	0.04	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	245.6	B.2.4.5-8	25.70	10.20	0.04	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	277.5	B.2.4.5-8	26.50	10.20	0.04	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	277.5	B.2.4.5-8	25.60	10.20	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	294.7	B.2.4.5-8	25.20	10.20	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	294.7	B.2.4.5-8	24.90	10.10	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	343.8	B.2.4.5-8	22.60	10.10	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	343.8	B.2.4.5-8	22.30	10.10	0.01	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	392.9	B.2.4.5-8	19.50	10.10	0.01	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	392.9	B.2.4.5-8	19.30	10.10	0.01	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	442.1	B.2.4.5-8	16.20	10.10	0.01	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	442.1	B.2.4.5-8	15.90	10.10	0.02	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	491.2	B.2.4.2-2	15.40	10.10	0.02	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	491.2	B.2.4.2-2	15.40	10.00	0.03	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	540.3	B.2.4.5-8	15.40	10.00	0.03	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	540.3	B.2.4.5-8	15.30	10.10	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	555.0	B.2.4.5-8	14.90	10.10	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	555.0	B.2.4.5-3	15.40	9.90	0.01	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	589.4	B.2.4.5-8	15.20	9.90	0.00	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	589.4	B.2.4.5-8	14.90	9.90	0.03	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B1507	1414	VC0.5x1	638.5	B.2.4.5-8	10.60	9.90	0.03	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	638.5	B.2.4.5-8	10.30	10.00	0.07	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	687.6	B.2.4.5-8	10.00	10.00	0.07	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	687.6	B.2.4.5-8	10.10	10.10	0.14	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	736.8	B.2.4.5-8	10.10	15.10	0.14	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	736.8	B.2.4.5-3	10.20	15.40	0.22	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	772.5	B.2.4.5-3	10.20	19.80	0.22	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	772.5	B.2.4.5-3	9.90	20.40	0.32	0.00	0.00	0.00
N-3.50	B1507	1414	VC0.5x1	785.0	B.2.4.5-3	2.60	24.10	0.32	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	50.0	B.2.4.5-3	7.00	4.70	0.03	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	51.7	B.2.4.5-3	7.00	3.40	0.03	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	51.7	B.2.4.5-3	7.20	4.40	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	87.5	B.2.4.5-3	7.50	4.40	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	87.5	B.2.4.5-3	7.20	4.20	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	103.3	B.2.4.5-3	7.10	4.20	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	103.3	B.2.4.5-3	6.30	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	129.2	B.2.4.5-3	6.40	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	155.0	B.2.4.5-3	6.60	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	155.0	B.2.4.5-3	5.80	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	180.8	B.2.4.5-3	6.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	206.7	B.2.4.5-3	6.40	4.00	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	206.7	B.2.4.5-3	5.80	3.90	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	207.5	B.2.4.5-3	5.80	3.90	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	207.5	B.2.4.5-3	5.40	3.90	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	232.9	B.2.4.5-3	5.50	3.90	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	258.3	B.2.4.5-3	5.60	3.90	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	258.3	B.2.4.5-3	4.90	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	284.2	B.2.4.5-3	5.10	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	310.0	B.2.4.5-3	5.30	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	310.0	B.2.4.5-3	4.70	4.00	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	327.5	B.2.4.5-3	5.00	4.00	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	327.5	B.2.4.5-3	4.60	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	361.7	B.2.4.5-3	4.40	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	361.7	B.2.4.5-3	4.00	4.00	0.03	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	387.5	B.2.4.5-3	4.00	4.00	0.03	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	413.3	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	413.3	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	447.5	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	447.5	B.2.4.5-3	4.00	4.00	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	465.0	B.2.4.5-3	4.00	4.00	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	465.0	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	490.8	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	516.7	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	516.7	B.2.4.5-3	4.10	4.10	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	542.1	B.2.4.5-3	4.10	4.10	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	567.5	B.2.4.5-3	4.10	4.10	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	567.5	B.2.4.5-3	4.20	4.20	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	568.3	B.2.4.5-3	4.20	4.20	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	568.3	B.2.4.5-3	4.10	4.40	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	594.2	B.2.4.5-3	4.10	4.90	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	620.0	B.2.4.5-3	4.10	5.40	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	620.0	B.2.4.5-3	4.30	5.50	0.05	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	645.8	B.2.4.5-3	4.30	5.90	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	671.7	B.2.4.5-3	4.30	6.30	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	671.7	B.2.4.5-3	4.30	6.20	0.03	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	687.5	B.2.4.5-3	4.30	6.20	0.03	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	687.5	B.2.4.5-3	4.40	6.80	0.04	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B178	1462	VC0.5x1	723.3	B.2.4.5-3	4.40	7.20	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	723.3	B.2.4.5-3	4.00	6.70	0.04	0.00	0.00	0.00
N-3.50	B178	1462	VC0.5x1	725.0	B.2.4.5-3	2.80	6.70	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	50.0	B.2.4.5-3	2.90	5.20	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	51.7	B.2.4.5-3	4.00	5.20	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	51.7	B.2.4.5-3	4.30	5.70	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	87.5	B.2.4.5-3	4.30	5.30	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	87.5	B.2.4.5-3	4.20	4.80	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	103.3	B.2.4.5-3	4.20	4.80	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	103.3	B.2.4.5-3	4.20	5.00	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	129.2	B.2.4.5-3	4.20	4.60	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	155.0	B.2.4.5-3	4.20	4.20	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	155.0	B.2.4.5-3	4.00	4.30	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	180.8	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	206.7	B.2.4.5-3	4.00	4.00	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	206.7	B.2.4.5-3	4.10	4.10	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	207.5	B.2.4.5-3	4.10	4.10	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	207.5	B.2.4.5-3	4.10	4.10	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	232.9	B.2.4.5-3	4.10	4.10	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	258.3	B.2.4.5-3	4.10	4.10	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	258.3	B.2.4.5-3	3.90	3.90	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	284.2	B.2.4.5-3	3.90	3.90	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	310.0	B.2.4.5-3	4.10	3.90	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	310.0	B.2.4.5-3	4.00	3.90	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	327.5	B.2.4.5-3	4.30	3.90	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	327.5	B.2.4.5-3	4.40	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	361.7	B.2.4.5-3	4.20	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	361.7	B.2.4.5-3	4.40	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	387.5	B.2.4.5-3	4.50	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	413.3	B.2.4.5-3	4.60	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	413.3	B.2.4.5-3	4.70	3.80	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	447.5	B.2.4.5-3	5.10	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	447.5	B.2.4.5-3	5.30	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	465.0	B.2.4.5-3	5.00	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	465.0	B.2.4.5-3	5.50	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	490.8	B.2.4.5-3	5.30	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	516.7	B.2.4.5-3	5.10	3.80	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	516.7	B.2.4.5-3	5.60	3.70	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	542.1	B.2.4.5-3	5.50	3.70	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	567.5	B.2.4.5-3	5.50	3.70	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	567.5	B.2.4.5-3	5.80	3.70	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	568.3	B.2.4.5-3	5.80	3.70	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	568.3	B.2.4.5-3	6.30	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	594.2	B.2.4.5-3	5.90	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	620.0	B.2.4.5-3	5.50	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	620.0	B.2.4.5-3	6.30	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	645.8	B.2.4.5-3	6.00	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	671.7	B.2.4.5-3	5.70	3.80	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	671.7	B.2.4.5-3	6.60	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	687.5	B.2.4.5-3	6.70	3.90	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	687.5	B.2.4.5-3	7.00	4.20	0.04	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	723.3	B.2.4.5-3	6.60	4.20	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	723.3	B.2.4.5-3	6.20	3.10	0.03	0.00	0.00	0.00
N-3.50	B230	1465	VC0.5x1	725.0	B.2.4.5-3	6.20	4.20	0.03	0.00	0.00	0.00
N-3.50	B232	563	VC0.5x1	50.0	B.2.4.5-3	3.60	22.10	0.25	0.00	0.00	0.00
N-3.50	B232	563	VC0.5x1	50.6	B.2.4.5-3	10.00	21.90	0.25	0.00	0.00	0.00
N-3.50	B232	563	VC0.5x1	50.6	B.2.4.5-3	11.40	22.60	0.18	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top		At Shear	Al Torsion	At Torsion
						cm	cm ²	cm ²	cm ² /cm	cm ²
N-3.50	B232	563	VC0.5x1	76.0	B.2.4.5-3	11.40	17.70	0.18	0.00	0.00
N-3.50	B232	563	VC0.5x1	101.3	B.2.4.5-3	11.40	15.40	0.18	0.00	0.00
N-3.50	B232	563	VC0.5x1	101.3	B.2.4.5-3	11.10	15.40	0.07	0.00	0.00
N-3.50	B232	563	VC0.5x1	114.5	B.2.4.5-3	11.10	14.30	0.07	0.00	0.00
N-3.50	B232	563	VC0.5x1	114.5	B.2.4.5-3	10.80	13.20	0.06	0.00	0.00
N-3.50	B232	563	VC0.5x1	151.9	B.2.4.5-3	10.80	10.80	0.06	0.00	0.00
N-3.50	B232	563	VC0.5x1	151.9	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	177.3	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	202.6	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	202.6	B.2.4.5-3	10.20	10.20	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	234.5	B.2.4.5-3	10.60	10.20	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	234.5	B.2.4.5-3	10.40	9.90	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	253.2	B.2.4.5-3	10.80	9.90	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	253.2	B.2.4.5-3	10.70	9.70	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	278.5	B.2.4.5-3	11.40	9.70	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	303.9	B.2.4.5-3	12.30	9.70	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	303.9	B.2.4.5-3	12.10	9.40	0.06	0.00	0.00
N-3.50	B232	563	VC0.5x1	329.2	B.2.4.5-3	12.60	9.40	0.06	0.00	0.00
N-3.50	B232	563	VC0.5x1	354.5	B.2.4.5-3	13.20	9.40	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	354.5	B.2.4.5-3	12.70	9.00	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	379.8	B.2.4.5-3	12.50	9.00	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	405.1	B.2.4.5-3	12.40	9.00	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	405.1	B.2.4.5-3	12.10	8.70	0.07	0.00	0.00
N-3.50	B232	563	VC0.5x1	449.0	B.2.4.7-4	11.60	14.50	0.07	0.00	0.00
N-3.50	B232	563	VC0.5x1	449.0	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	455.8	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	455.8	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	474.5	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	474.5	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	506.4	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	506.4	B.2.4.5-3	10.40	10.40	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	531.8	B.2.4.5-3	10.40	10.40	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	557.1	B.2.4.5-3	10.40	10.40	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	557.1	B.2.4.5-3	10.40	10.40	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	594.5	B.2.4.5-3	10.40	10.40	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	594.5	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	607.7	B.2.4.5-3	10.50	10.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	607.7	B.2.4.5-3	10.80	10.80	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	633.0	B.2.4.5-3	10.80	10.80	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	658.4	B.2.4.5-3	10.80	10.80	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	658.4	B.2.4.5-3	9.50	9.50	0.04	0.00	0.00
N-3.50	B232	563	VC0.5x1	659.0	B.2.4.5-3	3.10	7.40	0.04	0.00	0.00
N-3.50	B235	401	VC0.5x1	0.0	B.2.4.5-3	7.60	4.80	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	26.2	B.2.4.5-3	7.50	4.10	0.11	0.00	0.00
N-3.50	B235	401	VC0.5x1	52.3	B.2.4.5-3	7.40	4.10	0.11	0.00	0.00
N-3.50	B235	401	VC0.5x1	52.3	B.2.4.5-3	5.30	4.20	0.11	0.00	0.00
N-3.50	B235	401	VC0.5x1	97.0	B.2.4.5-8	5.20	4.20	0.11	0.00	0.00
N-3.50	B235	401	VC0.5x1	97.0	B.2.4.5-8	4.30	4.20	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	104.7	B.2.4.5-3	4.20	4.20	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	104.7	B.2.4.5-3	4.20	4.20	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	130.8	B.2.4.5-3	4.20	4.20	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	157.0	B.2.4.5-3	4.20	4.20	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	157.0	B.2.4.5-3	4.40	5.00	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	183.2	B.2.4.5-3	4.40	5.20	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	209.3	B.2.4.5-3	4.40	5.40	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	209.3	B.2.4.5-3	4.40	6.80	0.12	0.00	0.00
N-3.50	B235	401	VC0.5x1	217.0	B.2.4.5-3	4.40	6.80	0.12	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B235	401	VC0.5x1	217.0	B.2.4.5-3	4.50	8.40	0.12	0.00	0.00	0.00
N-3.50	B235	401	VC0.5x1	261.7	B.2.4.5-3	4.50	9.10	0.12	0.00	0.00	0.00
N-3.50	B235	401	VC0.5x1	261.7	B.2.4.5-3	4.10	10.50	0.12	0.00	0.00	0.00
N-3.50	B235	401	VC0.5x1	264.0	B.2.4.5-3	1.80	10.60	0.12	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	50.0	B.2.4.7-4	3.00	3.20	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	50.3	B.2.4.5-3	3.30	3.30	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	50.3	B.2.4.5-3	3.80	3.80	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	75.5	B.2.4.5-3	3.80	3.80	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	100.7	B.2.4.5-3	3.80	3.80	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	100.7	B.2.4.5-3	3.70	3.70	0.06	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	106.5	B.2.4.5-3	3.70	3.70	0.06	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	106.5	B.2.4.5-3	3.70	3.70	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	151.0	B.2.4.5-3	3.70	3.70	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	151.0	B.2.4.5-3	3.90	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	176.2	B.2.4.5-3	4.10	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	201.3	B.2.4.5-3	4.30	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	201.3	B.2.4.5-3	4.50	3.50	0.06	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	226.5	B.2.4.5-3	5.00	3.50	0.06	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	226.5	B.2.4.5-3	5.30	3.50	0.06	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	251.7	B.2.4.5-3	5.00	3.50	0.06	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	251.7	B.2.4.5-3	5.60	3.50	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	276.8	B.2.4.5-3	5.40	3.50	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	302.0	B.2.4.5-3	5.30	3.50	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	302.0	B.2.4.5-3	5.90	3.40	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	334.9	B.2.4.5-3	5.60	3.40	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	334.9	B.2.4.5-3	6.20	3.50	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	339.8	B.2.4.5-3	6.20	3.50	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	339.8	B.2.4.5-3	6.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	346.5	B.2.4.5-3	6.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	346.5	B.2.4.5-3	6.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	352.3	B.2.4.5-3	6.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	352.3	B.2.4.5-3	6.80	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	362.4	B.2.4.5-3	6.70	3.60	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	362.4	B.2.4.5-3	7.30	3.80	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	402.7	B.2.4.5-3	7.40	3.80	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	402.7	B.2.4.5-3	7.00	3.00	0.05	0.00	0.00	0.00
N-3.50	B237	591	VC0.5x1	403.0	B.2.4.5-3	7.00	4.30	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	49.1	B.2.4.7-8	2.90	4.00	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	98.2	B.2.4.7-8	3.80	3.80	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	98.2	B.2.4.7-8	3.70	3.70	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	147.3	B.2.4.7-8	3.70	3.70	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	147.3	B.2.4.7-8	3.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	196.4	B.2.4.7-8	3.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	196.4	B.2.4.7-8	3.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	206.3	B.2.4.7-8	3.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	206.3	B.2.4.7-8	3.70	3.70	0.07	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	240.0	B.2.4.5-8	4.70	3.70	0.07	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	240.0	B.2.4.5-8	4.80	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	245.5	B.2.4.5-8	4.80	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	245.5	B.2.4.5-8	5.40	3.70	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	294.5	B.2.4.5-8	5.10	3.70	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	294.5	B.2.4.5-8	6.00	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	343.6	B.2.4.5-8	5.90	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	343.6	B.2.4.5-8	6.80	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	392.7	B.2.4.5-8	6.70	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	392.7	B.2.4.5-8	7.60	3.60	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	441.8	B.2.4.5-8	7.50	3.60	0.05	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion		At Torsion
									cm	cm ²	cm ² /cm
N-3.50	B238	666	VC0.5x1	441.8	B.2.4.5-8	8.50	3.70	0.05	0.00	0.00	0.00
N-3.50	B238	666	VC0.5x1	490.9	B.2.4.5-8	8.40	5.10	0.05	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	49.1	B.2.4.5-8	2.10	22.60	0.26	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	98.2	B.2.4.5-8	9.00	13.80	0.26	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	98.2	B.2.4.5-8	9.30	13.10	0.19	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	147.3	B.2.4.5-8	9.30	9.30	0.19	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	147.3	B.2.4.5-8	9.50	9.50	0.14	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	196.4	B.2.4.5-8	13.10	9.50	0.15	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	196.4	B.2.4.5-8	13.90	9.70	0.11	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	240.0	B.2.4.5-3	15.40	9.70	0.11	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	240.0	B.2.4.5-3	15.40	9.80	0.03	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	245.5	B.2.4.5-3	15.40	9.80	0.03	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	245.5	B.2.4.5-3	15.40	9.90	0.03	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	294.5	B.2.4.5-3	15.40	9.90	0.03	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	294.5	B.2.4.5-3	15.40	10.10	0.04	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	343.6	B.2.4.5-3	15.40	10.10	0.04	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	343.6	B.2.4.5-3	15.40	10.20	0.06	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	392.7	B.2.4.5-8	15.40	10.20	0.06	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	392.7	B.2.4.5-8	15.40	10.30	0.07	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	441.8	B.2.4.5-8	14.40	10.30	0.07	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	441.8	B.2.4.5-8	14.20	10.40	0.09	0.00	0.00	0.00
N-3.50	B240	1183	VC0.5x1	490.9	B.2.4.5-8	10.20	6.90	0.09	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	49.1	B.2.4.5-8	1.90	21.00	0.23	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	98.2	B.2.4.5-8	8.30	12.80	0.24	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	98.2	B.2.4.5-8	8.40	11.90	0.17	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	147.3	B.2.4.5-8	8.40	8.40	0.17	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	147.3	B.2.4.5-8	8.50	8.50	0.13	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	196.4	B.2.4.5-8	12.20	8.50	0.13	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	196.4	B.2.4.5-8	12.90	8.70	0.10	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	240.0	B.2.4.5-3	15.40	8.70	0.10	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	240.0	B.2.4.5-3	15.40	8.80	0.02	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	245.5	B.2.4.5-3	15.40	8.80	0.02	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	245.5	B.2.4.5-3	15.40	8.80	0.02	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	294.5	B.2.4.5-3	15.40	8.80	0.02	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	294.5	B.2.4.5-3	15.40	8.90	0.04	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	343.6	B.2.4.5-3	15.40	8.90	0.04	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	343.6	B.2.4.5-3	15.40	9.00	0.05	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	392.7	B.2.4.5-8	15.40	9.00	0.05	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	392.7	B.2.4.5-8	15.40	9.10	0.07	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	441.8	B.2.4.5-8	13.70	9.10	0.07	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	441.8	B.2.4.5-8	13.50	9.20	0.09	0.00	0.00	0.00
N-3.50	B257	1214	VC0.5x1	490.9	B.2.4.5-8	9.70	6.30	0.09	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	0.0	B.2.4.7-8	1.60	2.20	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	49.1	B.2.4.7-8	2.90	2.90	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	49.1	B.2.4.7-8	2.80	2.80	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	98.2	B.2.4.7-8	2.80	2.80	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	98.2	B.2.4.7-8	2.80	2.80	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	147.3	B.2.4.7-8	2.80	2.80	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	147.3	B.2.4.7-8	2.70	2.70	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	196.4	B.2.4.7-8	3.00	2.70	0.04	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	196.4	B.2.4.7-8	3.00	2.60	0.04	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	240.0	B.2.4.7-8	3.60	2.60	0.04	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	240.0	B.2.4.5-8	3.80	2.60	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	245.5	B.2.4.5-8	3.80	2.60	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	245.5	B.2.4.5-8	4.20	2.70	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	294.5	B.2.4.5-8	4.00	2.70	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	294.5	B.2.4.5-8	4.60	2.50	0.03	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion		At Torsion
									cm	cm ²	cm ² /cm
N-3.50	B258	884	VC0.5x1	343.6	B.2.4.5-8	4.60	2.50	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	343.6	B.2.4.5-8	5.20	2.50	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	392.7	B.2.4.5-8	5.10	2.50	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	392.7	B.2.4.5-8	5.70	2.40	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	441.8	B.2.4.5-8	5.60	2.40	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	441.8	B.2.4.5-8	6.20	2.30	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	490.9	B.2.4.5-8	6.10	2.30	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	490.9	B.2.4.5-8	6.80	2.30	0.03	0.00	0.00	0.00
N-3.50	B258	884	VC0.5x1	540.0	B.2.4.5-8	6.90	3.70	0.03	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	0.0	B.2.4.7-4	1.20	1.70	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	49.7	B.2.4.5-3	2.50	1.50	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	49.7	B.2.4.7-4	1.90	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	99.3	B.2.4.5-3	3.10	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	99.3	B.2.4.7-4	2.30	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	149.0	B.2.4.5-3	3.00	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	149.0	B.2.4.7-4	2.50	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	198.7	B.2.4.5-3	2.90	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	198.7	B.2.4.7-4	2.60	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	223.5	B.2.4.5-3	2.80	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	223.5	B.2.4.7-4	2.70	1.60	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	248.3	B.2.4.7-4	2.50	1.80	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	248.3	B.2.4.7-4	2.70	1.70	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	298.0	B.2.4.7-4	2.50	2.10	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	298.0	B.2.4.7-4	2.70	2.00	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	347.7	B.2.4.7-4	2.50	2.30	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	347.7	B.2.4.7-4	2.80	2.20	0.00	0.00	0.00	0.00
N-3.50	B60	676	VC0.5x1	397.3	B.2.4.7-4	2.60	2.40	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	50.0	B.2.4.7-4	2.30	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	51.5	B.2.4.7-4	2.30	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	51.5	B.2.4.7-4	2.40	2.30	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	77.3	B.2.4.7-4	2.40	2.20	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	103.0	B.2.4.7-4	2.50	2.00	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	103.0	B.2.4.7-4	2.20	2.20	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	128.8	B.2.4.7-4	2.30	2.00	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	154.5	B.2.4.7-4	2.50	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	154.5	B.2.4.7-4	2.10	2.10	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	180.3	B.2.4.7-4	2.30	1.80	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	206.0	B.2.4.7-4	2.50	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	206.0	B.2.4.7-4	2.00	1.90	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	231.8	B.2.4.7-4	2.30	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	257.5	B.2.4.7-4	2.60	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	257.5	B.2.4.7-4	2.10	1.50	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	283.3	B.2.4.7-4	2.40	1.50	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	309.0	B.2.4.5-3	2.80	1.50	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	309.0	B.2.4.5-3	3.30	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	334.7	B.2.4.5-3	2.60	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	360.5	B.2.4.7-4	2.20	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	360.5	B.2.4.5-3	3.00	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	386.3	B.2.4.7-4	2.50	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	412.0	B.2.4.7-4	2.10	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	412.0	B.2.4.5-3	3.10	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	437.8	B.2.4.7-4	2.40	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	463.5	B.2.4.7-4	2.00	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	463.5	B.2.4.5-3	3.30	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	489.2	B.2.4.7-4	2.40	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	515.0	B.2.4.7-4	1.80	1.70	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	515.0	B.2.4.5-3	3.40	1.60	0.00	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	AI Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B61	689	VC0.5x1	540.8	B.2.4.7-4	2.20	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	566.5	B.2.4.7-4	1.60	1.60	0.00	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	566.5	B.2.4.5-3	3.00	1.60	0.02	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	592.3	B.2.4.7-4	1.70	1.60	0.02	0.00	0.00	0.00
N-3.50	B61	689	VC0.5x1	618.0	B.2.4.7-4	1.20	2.00	0.02	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	0.0	B.2.4.7-4	3.10	2.40	0.05	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	25.2	B.2.4.5-3	4.10	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	50.3	B.2.4.5-3	4.10	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	50.3	B.2.4.5-3	4.10	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	75.5	B.2.4.5-3	4.10	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	100.7	B.2.4.5-3	4.10	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	100.7	B.2.4.5-3	4.20	4.20	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	106.5	B.2.4.5-3	4.20	4.20	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	106.5	B.2.4.5-8	4.60	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	151.0	B.2.4.5-8	4.80	4.10	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	151.0	B.2.4.5-3	5.50	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	176.2	B.2.4.5-3	5.80	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	201.3	B.2.4.5-3	6.10	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	201.3	B.2.4.5-3	6.60	4.00	0.07	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	226.5	B.2.4.5-3	7.30	4.00	0.07	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	226.5	B.2.4.5-3	7.80	4.00	0.07	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	251.7	B.2.4.5-3	7.40	4.00	0.07	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	251.7	B.2.4.5-3	8.40	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	276.8	B.2.4.5-3	8.30	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	302.0	B.2.4.5-3	8.30	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	302.0	B.2.4.5-3	9.30	3.90	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	346.5	B.2.4.5-3	9.40	3.90	0.05	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	346.5	B.2.4.5-3	9.80	3.90	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	352.3	B.2.4.5-3	9.70	3.90	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	352.3	B.2.4.5-3	10.60	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	377.5	B.2.4.5-3	10.50	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	402.7	B.2.4.5-3	10.40	4.00	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	402.7	B.2.4.5-3	11.20	3.40	0.06	0.00	0.00	0.00
N-3.50	B76	700	VC0.5x1	403.0	B.2.4.5-3	11.20	6.00	0.06	0.00	0.00	0.00
N-3.50	B95	702	VC0.5x1	25.5	B.2.4.5-8	5.60	15.40	0.17	12.10	0.05	
N-3.50	B95	702	VC0.5x1	62.5	B.2.4.5-3	8.30	15.40	0.18	12.10	0.05	
N-3.50	B95	702	VC0.5x1	62.5	B.2.4.5-3	13.60	15.40	0.20	13.60	0.05	
N-3.50	B95	702	VC0.5x1	108.1	B.2.4.5-3	13.60	15.40	0.21	13.60	0.05	
N-3.50	B95	702	VC0.5x1	108.1	B.2.4.5-3	12.40	14.50	0.20	14.80	0.06	
N-3.50	B95	702	VC0.5x1	145.5	B.2.4.5-3	12.40	12.40	0.20	14.80	0.06	
N-3.50	B95	702	VC0.5x1	145.5	B.2.4.5-3	11.60	11.60	0.18	14.70	0.03	
N-3.50	B95	702	VC0.5x1	158.7	B.2.4.5-3	11.60	11.60	0.18	14.70	0.03	
N-3.50	B95	702	VC0.5x1	158.7	B.2.4.5-3	11.40	11.40	0.18	13.10	0.05	
N-3.50	B95	702	VC0.5x1	184.0	B.2.4.5-3	11.40	11.40	0.18	13.10	0.05	
N-3.50	B95	702	VC0.5x1	209.4	B.2.4.5-3	11.40	11.40	0.18	13.10	0.05	
N-3.50	B95	702	VC0.5x1	209.4	B.2.4.5-3	11.40	11.40	0.17	13.20	0.05	
N-3.50	B95	702	VC0.5x1	234.7	B.2.4.5-3	11.40	11.40	0.17	13.20	0.05	
N-3.50	B95	702	VC0.5x1	260.0	B.2.4.5-3	8.60	10.40	0.17	13.20	0.05	
N-3.50	B105	1401	VC0.5x1	50.0	B.2.4.7-8	0.30	15.40	0.25	0.00	0.00	
N-3.50	B105	1401	VC0.5x1	62.5	B.2.4.5-8	6.90	15.40	0.25	0.00	0.00	
N-3.50	B105	1401	VC0.5x1	62.5	B.2.4.5-8	7.50	15.40	0.19	0.00	0.00	
N-3.50	B105	1401	VC0.5x1	98.0	B.2.4.5-8	7.50	8.20	0.19	0.00	0.00	
N-3.50	B105	1401	VC0.5x1	98.0	B.2.4.7-8	8.10	7.50	0.15	0.00	0.00	
N-3.50	B105	1401	VC0.5x1	147.0	B.2.4.5-8	15.40	7.50	0.16	0.00	0.00	
N-3.50	B105	1401	VC0.5x1	147.0	B.2.4.5-3	15.40	7.60	0.11	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ²	
N-3.50	B105	1401	VC0.5x1	196.0	B.2.4.5-8	17.30	7.60	0.11	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	196.0	B.2.4.5-8	17.60	7.70	0.07	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	245.0	B.2.4.5-3	20.40	7.70	0.07	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	245.0	B.2.4.5-3	20.70	7.80	0.04	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	294.0	B.2.4.5-3	18.00	7.80	0.04	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	294.0	B.2.4.5-3	17.80	7.90	0.08	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	343.0	B.2.4.5-3	15.40	7.90	0.07	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	343.0	B.2.4.5-3	15.40	8.10	0.15	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	392.0	B.2.4.5-8	13.30	8.10	0.14	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	392.0	B.2.4.5-8	13.30	8.30	0.21	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	441.0	B.2.4.7-8	9.80	13.80	0.21	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	441.0	B.2.4.7-8	10.00	15.20	0.25	0.00	0.00	0.00
N-3.50	B105	1401	VC0.5x1	490.0	B.2.4.7-8	9.30	23.30	0.25	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	0.0	B.2.4.7-8	10.00	21.20	0.32	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	25.8	B.2.4.7-8	8.70	18.30	0.32	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	51.5	B.2.4.5-8	8.60	15.40	0.32	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	51.5	B.2.4.5-8	9.00	15.40	0.27	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	77.3	B.2.4.5-8	9.00	15.40	0.27	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	103.0	B.2.4.5-8	9.00	15.40	0.27	0.00	0.00	0.00
N-3.50	B106	1402	VC0.5x1	103.0	B.2.4.5-8	9.60	15.40	0.04	12.80	0.05	
N-3.50	B106	1402	VC0.5x1	128.8	B.2.4.5-8	9.60	15.40	0.04	12.80	0.05	
N-3.50	B106	1402	VC0.5x1	154.5	B.2.4.5-8	3.10	16.50	0.04	12.80	0.05	
N-3.50	B215	1483	VC0.5x1	49.1	B.2.4.5-8	8.30	5.40	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	77.1	B.2.4.5-8	8.40	4.20	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	77.1	B.2.4.5-8	8.40	4.20	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	98.2	B.2.4.5-8	8.50	4.20	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	98.2	B.2.4.5-8	8.60	4.20	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	135.0	B.2.4.5-8	8.90	4.20	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	135.0	B.2.4.5-8	9.10	4.20	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	147.3	B.2.4.5-8	9.10	4.20	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	147.3	B.2.4.5-8	9.30	4.30	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	196.4	B.2.4.5-8	10.50	4.30	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	196.4	B.2.4.5-8	10.70	4.40	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	231.4	B.2.4.5-8	11.60	4.40	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	231.4	B.2.4.5-8	12.10	4.40	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	240.0	B.2.4.5-8	12.10	4.40	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	240.0	B.2.4.5-8	12.40	4.40	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	245.5	B.2.4.5-8	12.50	4.40	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	245.5	B.2.4.5-8	12.50	4.50	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	270.0	B.2.4.5-8	12.60	4.50	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	270.0	B.2.4.5-8	12.70	4.50	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	294.5	B.2.4.5-8	12.70	4.50	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	294.5	B.2.4.5-8	12.80	4.50	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	343.6	B.2.4.5-8	12.70	4.50	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	343.6	B.2.4.5-8	12.70	4.60	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	385.7	B.2.4.5-8	11.90	4.60	0.08	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	385.7	B.2.4.5-8	11.70	4.60	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	392.7	B.2.4.5-8	11.70	4.60	0.07	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	392.7	B.2.4.5-8	11.70	4.70	0.10	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	441.8	B.2.4.5-8	9.50	4.90	0.10	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	441.8	B.2.4.5-8	9.30	5.10	0.12	0.00	0.00	
N-3.50	B215	1483	VC0.5x1	490.9	B.2.4.7-8	5.70	10.00	0.12	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	As Top Combo	As Top	As Bottom	At Shear	Al Torsion		At Torsion
									cm	cm ²	cm ² /cm
cm	cm ²	cm ² /cm	cm ²	cm ² /cm							
N-3.50	B217	1485	VC0.5x1	49.1	B.2.4.5-8	8.30	5.50	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	98.2	B.2.4.5-8	8.20	4.20	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	98.2	B.2.4.5-8	8.30	4.30	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	147.3	B.2.4.5-8	8.40	4.30	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	147.3	B.2.4.5-8	8.50	4.40	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	196.4	B.2.4.5-8	9.20	4.40	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	196.4	B.2.4.5-8	9.40	4.50	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	240.0	B.2.4.5-8	10.60	4.50	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	240.0	B.2.4.5-8	10.90	4.50	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	245.5	B.2.4.5-8	10.90	4.50	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	245.5	B.2.4.5-8	11.00	4.60	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	294.5	B.2.4.5-8	11.70	4.60	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	294.5	B.2.4.5-8	11.80	4.70	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	324.0	B.2.4.5-8	12.00	4.70	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	324.0	B.2.4.5-8	12.10	4.70	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	343.6	B.2.4.5-8	12.20	4.70	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	343.6	B.2.4.5-8	12.30	4.80	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	360.0	B.2.4.5-8	12.30	4.80	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	360.0	B.2.4.5-8	12.30	4.80	0.07	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	392.7	B.2.4.5-8	12.20	4.80	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	392.7	B.2.4.5-8	12.30	4.90	0.08	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	432.0	B.2.4.5-8	11.70	4.90	0.08	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	432.0	B.2.4.5-8	11.50	4.90	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	441.8	B.2.4.5-8	11.40	4.90	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	441.8	B.2.4.5-8	11.50	4.90	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	450.0	B.2.4.5-8	11.40	4.90	0.06	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	450.0	B.2.4.5-8	11.00	4.90	0.10	0.00	0.00	0.00
N-3.50	B217	1485	VC0.5x1	490.9	B.2.4.5-8	9.50	6.50	0.10	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	50.0	B.2.4.5-3	1.30	22.00	0.32	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	51.5	B.2.4.5-3	8.20	21.60	0.32	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	51.5	B.2.4.5-3	8.70	21.20	0.20	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	77.3	B.2.4.5-3	8.70	15.70	0.20	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	103.0	B.2.4.5-3	8.70	13.80	0.21	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	103.0	B.2.4.5-3	8.70	12.90	0.11	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	128.8	B.2.4.5-3	8.70	8.70	0.11	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	154.5	B.2.4.5-3	8.70	8.70	0.11	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	154.5	B.2.4.5-3	8.60	8.60	0.06	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	180.3	B.2.4.5-3	8.60	8.60	0.06	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	206.0	B.2.4.5-3	8.60	8.60	0.06	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	206.0	B.2.4.5-3	8.50	8.50	0.03	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	231.8	B.2.4.5-3	8.90	8.50	0.03	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	257.5	B.2.4.5-3	10.70	8.50	0.03	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	257.5	B.2.4.5-3	10.80	8.40	0.01	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	283.3	B.2.4.5-3	12.00	8.40	0.01	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	309.0	B.2.4.5-3	13.20	8.40	0.01	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	309.0	B.2.4.5-3	12.60	8.20	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	334.7	B.2.4.5-3	12.00	8.20	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	360.5	B.2.4.5-3	11.50	8.20	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	360.5	B.2.4.5-3	11.30	8.10	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	386.3	B.2.4.5-3	10.70	8.10	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	412.0	B.2.4.5-3	10.10	8.10	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	412.0	B.2.4.5-3	9.90	8.00	0.00	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B219	1486	VC0.5x1	437.8	B.2.4.5-3	9.40	8.00	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	463.5	B.2.4.5-3	9.00	8.00	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	463.5	B.2.4.5-3	8.80	7.90	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	489.2	B.2.4.5-3	8.50	7.90	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	515.0	B.2.4.5-3	8.30	7.90	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	515.0	B.2.4.5-3	8.20	7.80	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	540.8	B.2.4.5-3	8.20	7.80	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	566.5	B.2.4.5-3	8.20	7.80	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	566.5	B.2.4.5-3	8.10	7.80	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	592.3	B.2.4.5-3	8.30	7.80	0.00	0.00	0.00	0.00
N-3.50	B219	1486	VC0.5x1	618.0	B.2.4.5-3	8.50	4.80	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	0.0	B.2.4.5-3	9.10	5.00	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	49.7	B.2.4.5-3	9.40	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	49.7	B.2.4.5-3	9.50	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	99.3	B.2.4.5-3	10.00	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	99.3	B.2.4.5-3	10.10	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	124.2	B.2.4.5-3	10.20	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	124.2	B.2.4.5-3	10.40	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	149.0	B.2.4.5-3	10.50	7.30	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	149.0	B.2.4.5-8	10.60	7.40	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	198.7	B.2.4.5-8	10.80	7.40	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	198.7	B.2.4.5-8	10.80	7.50	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	223.5	B.2.4.5-8	10.70	7.50	0.00	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	223.5	B.2.4.5-8	10.90	7.50	0.05	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	248.3	B.2.4.5-8	9.00	7.50	0.04	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	248.3	B.2.4.5-8	8.50	7.60	0.08	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	298.0	B.2.4.5-8	7.60	7.60	0.08	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	298.0	B.2.4.5-8	7.70	7.70	0.12	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	347.7	B.2.4.5-8	7.70	12.30	0.12	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	347.7	B.2.4.5-8	7.70	13.30	0.21	0.00	0.00	0.00
N-3.50	B220	1487	VC0.5x1	397.3	B.2.4.5-8	1.50	20.40	0.20	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	50.0	B.2.4.5-3	0.60	20.00	0.25	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	62.5	B.2.4.5-3	7.20	17.40	0.25	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	62.5	B.2.4.5-3	7.70	17.30	0.20	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	98.0	B.2.4.5-3	7.70	15.40	0.20	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	98.0	B.2.4.5-3	7.60	14.10	0.11	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	122.5	B.2.4.5-3	7.60	11.60	0.11	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	122.5	B.2.4.5-3	7.60	8.80	0.11	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	147.0	B.2.4.5-3	7.60	7.60	0.11	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	147.0	B.2.4.5-8	7.50	7.50	0.06	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	163.3	B.2.4.5-8	7.50	7.50	0.06	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	163.3	B.2.4.5-8	8.70	7.50	0.12	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	196.0	B.2.4.5-8	12.80	7.50	0.12	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	196.0	B.2.4.5-8	13.80	7.50	0.12	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	245.0	B.2.4.5-3	15.70	7.50	0.12	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	245.0	B.2.4.5-3	16.10	7.40	0.06	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	294.0	B.2.4.5-3	18.50	7.40	0.06	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	294.0	B.2.4.5-3	18.70	7.40	0.04	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	343.0	B.2.4.5-3	20.40	7.40	0.05	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	343.0	B.2.4.5-3	20.50	7.30	0.04	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	392.0	B.2.4.5-3	21.50	7.30	0.04	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	392.0	B.2.4.5-3	21.50	7.30	0.04	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B261	1493	VC0.5x1	441.0	B.2.4.5-3	21.60	7.30	0.04	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	441.0	B.2.4.5-3	21.50	7.30	0.04	0.00	0.00	0.00
N-3.50	B261	1493	VC0.5x1	490.0	B.2.4.5-3	20.70	13.70	0.04	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	0.0	B.2.4.5-3	24.80	15.40	0.28	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	25.8	B.2.4.5-3	18.10	11.10	0.28	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	51.5	B.2.4.5-3	15.40	11.10	0.28	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	51.5	B.2.4.5-8	14.80	11.00	0.36	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	77.3	B.2.4.5-8	11.00	11.00	0.36	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	103.0	B.2.4.5-8	11.00	11.10	0.36	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	103.0	B.2.4.5-8	10.90	13.90	0.32	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	134.8	B.2.4.5-8	10.90	19.20	0.32	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	134.8	B.2.4.5-8	10.90	25.20	0.25	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	154.5	B.2.4.5-8	10.90	28.80	0.24	0.00	0.00	0.00
N-3.50	B265	1494	VC0.5x1	154.5	B.2.4.5-8	10.70	32.00	0.21	21.90	0.08	
N-3.50	B265	1494	VC0.5x1	166.7	B.2.4.7-8	4.70	33.50	0.21	21.90	0.08	
N-3.50	B277	1501	VC0.5x1	50.0	B.2.4.5-8	1.70	21.90	0.31	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	51.5	B.2.4.5-8	8.40	21.50	0.31	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	51.5	B.2.4.5-8	9.30	21.30	0.19	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	77.3	B.2.4.5-8	9.30	16.00	0.19	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	103.0	B.2.4.5-8	9.30	14.50	0.20	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	103.0	B.2.4.5-8	9.20	13.60	0.11	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	128.8	B.2.4.5-8	9.20	9.20	0.11	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	154.5	B.2.4.5-8	9.20	9.20	0.11	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	154.5	B.2.4.5-8	9.10	9.10	0.06	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	180.3	B.2.4.5-8	9.10	9.10	0.06	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	206.0	B.2.4.5-8	9.10	9.10	0.06	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	206.0	B.2.4.5-8	8.90	8.90	0.03	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	231.8	B.2.4.5-3	9.40	8.90	0.03	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	257.5	B.2.4.5-3	11.10	8.90	0.03	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	257.5	B.2.4.5-3	11.20	8.80	0.01	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	283.3	B.2.4.5-3	12.40	8.80	0.01	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	309.0	B.2.4.5-3	13.60	8.80	0.01	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	309.0	B.2.4.5-3	13.10	8.60	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	334.7	B.2.4.5-3	12.70	8.60	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	360.5	B.2.4.5-3	12.30	8.60	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	360.5	B.2.4.5-3	12.20	8.40	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	386.3	B.2.4.5-3	11.80	8.40	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	412.0	B.2.4.5-3	11.40	8.40	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	412.0	B.2.4.5-3	11.30	8.30	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	437.8	B.2.4.5-3	11.00	8.30	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	463.5	B.2.4.5-3	10.80	8.30	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	463.5	B.2.4.5-3	10.60	8.20	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	489.2	B.2.4.5-3	10.50	8.20	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	515.0	B.2.4.5-3	10.50	8.20	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	515.0	B.2.4.5-3	10.40	8.20	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	540.8	B.2.4.5-3	10.60	8.20	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	566.5	B.2.4.5-3	10.70	8.20	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	566.5	B.2.4.5-3	10.70	8.30	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	592.3	B.2.4.5-3	11.00	8.30	0.00	0.00	0.00	
N-3.50	B277	1501	VC0.5x1	618.0	B.2.4.5-3	11.40	6.50	0.00	0.00	0.00	
N-3.50	B281	1502	VC0.5x1	0.0	B.2.4.5-3	12.50	7.10	0.03	0.00	0.00	
N-3.50	B281	1502	VC0.5x1	49.7	B.2.4.5-3	13.80	11.30	0.03	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B281	1502	VC0.5x1	49.7	B.2.4.5-3	13.90	11.40	0.03	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	99.3	B.2.4.5-3	15.30	11.40	0.03	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	99.3	B.2.4.5-3	15.40	11.50	0.02	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	149.0	B.2.4.2-2	15.40	11.50	0.03	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	149.0	B.2.4.2-2	15.40	11.60	0.01	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	198.7	B.2.4.2-2	15.40	11.60	0.01	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	198.7	B.2.4.2-2	15.40	11.60	0.01	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	223.5	B.2.4.2-2	15.40	11.60	0.01	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	223.5	B.2.4.2-2	15.40	11.70	0.12	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	248.3	B.2.4.5-8	13.90	11.70	0.11	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	248.3	B.2.4.5-8	13.10	11.80	0.17	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	298.0	B.2.4.5-8	11.80	11.80	0.17	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	298.0	B.2.4.5-8	12.00	12.00	0.14	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	322.8	B.2.4.5-8	12.00	12.00	0.14	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	322.8	B.2.4.5-8	12.00	13.70	0.14	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	347.7	B.2.4.5-8	12.00	15.40	0.14	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	347.7	B.2.4.5-8	12.10	15.40	0.36	0.00	0.00	0.00
N-3.50	B281	1502	VC0.5x1	397.3	B.2.4.5-8	2.40	31.90	0.36	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	50.0	B.2.4.5-3	2.20	23.60	0.34	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	51.7	B.2.4.5-3	9.20	22.90	0.34	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	51.7	B.2.4.5-3	10.20	22.20	0.35	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	87.5	B.2.4.5-3	10.20	14.00	0.35	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	87.5	B.2.4.5-3	10.20	11.50	0.10	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	103.3	B.2.4.5-3	10.20	10.20	0.11	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	103.3	B.2.4.5-3	10.10	10.10	0.14	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	129.2	B.2.4.5-3	10.10	10.10	0.14	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	155.0	B.2.4.5-3	10.10	10.10	0.14	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	155.0	B.2.4.5-3	9.90	9.90	0.10	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	180.8	B.2.4.5-3	11.90	9.90	0.11	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	206.7	B.2.4.5-3	14.80	9.90	0.11	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	206.7	B.2.4.5-3	14.90	9.80	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	206.8	B.2.4.5-3	14.90	9.80	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	206.8	B.2.4.5-3	14.90	9.80	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	207.5	B.2.4.5-3	14.90	9.80	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	207.5	B.2.4.5-3	14.40	9.70	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	248.2	B.2.4.5-3	14.00	9.70	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	248.2	B.2.4.5-3	13.90	9.70	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	258.3	B.2.4.5-3	13.90	9.70	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	258.3	B.2.4.5-3	13.70	9.50	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	284.2	B.2.4.5-8	13.20	9.50	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	310.0	B.2.4.5-8	12.80	9.50	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	310.0	B.2.4.5-8	12.80	9.40	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	312.4	B.2.4.5-8	12.80	9.40	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	312.4	B.2.4.5-8	12.50	9.40	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	327.5	B.2.4.5-8	12.40	9.40	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	327.5	B.2.4.5-8	11.80	9.30	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	356.0	B.2.4.5-8	11.00	9.30	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	356.0	B.2.4.5-8	10.50	9.30	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	361.7	B.2.4.5-8	10.50	9.30	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	361.7	B.2.4.5-8	10.40	9.20	0.04	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	387.5	B.2.4.5-8	9.40	9.20	0.04	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	413.3	B.2.4.5-3	9.20	9.20	0.03	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B1231	1475	VC0.5x1	413.3	B.2.4.5-3	9.00	9.00	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	416.8	B.2.4.5-3	9.00	9.00	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	416.8	B.2.4.5-3	9.00	9.00	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	447.5	B.2.4.5-3	9.00	9.00	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	447.5	B.2.4.5-3	8.90	8.90	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	462.9	B.2.4.5-3	8.90	8.90	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	462.9	B.2.4.5-3	8.90	8.90	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	465.0	B.2.4.5-3	8.90	8.90	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	465.0	B.2.4.5-3	8.80	8.80	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	490.8	B.2.4.5-3	8.80	8.80	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	516.7	B.2.4.5-3	8.80	8.80	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	516.7	B.2.4.5-3	8.60	8.60	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	522.2	B.2.4.5-3	8.60	8.60	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	522.2	B.2.4.5-3	8.60	8.60	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	567.5	B.2.4.5-3	8.60	8.60	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	567.5	B.2.4.5-8	8.50	8.50	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	568.2	B.2.4.5-8	8.50	8.50	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	568.2	B.2.4.5-8	8.50	8.50	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	568.3	B.2.4.5-8	8.50	8.50	0.01	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	568.3	B.2.4.5-8	8.40	8.40	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	594.2	B.2.4.5-8	8.40	8.40	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	620.0	B.2.4.5-8	8.40	8.40	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	620.0	B.2.4.5-8	8.30	8.30	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	645.8	B.2.4.5-8	8.30	8.30	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	671.7	B.2.4.5-8	8.30	8.30	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	671.7	B.2.4.5-8	8.20	8.20	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	687.5	B.2.4.5-8	8.20	8.20	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	687.5	B.2.4.5-8	8.20	8.20	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	723.3	B.2.4.5-8	8.20	8.20	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	723.3	B.2.4.5-8	8.20	8.20	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	749.2	B.2.4.5-8	8.20	8.20	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	775.0	B.2.4.5-8	8.20	8.20	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	775.0	B.2.4.5-8	8.50	8.50	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	800.8	B.2.4.5-8	8.50	8.50	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	826.7	B.2.4.5-8	8.50	8.50	0.03	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	826.7	B.2.4.5-8	8.40	8.40	0.02	0.00	0.00	0.00
N-3.50	B1231	1475	VC0.5x1	862.5	B.2.4.5-3	2.60	4.10	0.03	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	50.0	B.2.4.5-3	2.70	45.10	0.00	12.50	0.05	
N-3.50	B107	1529	VC0.5x1	75.0	B.2.4.5-3	15.40	30.50	0.00	12.50	0.05	
N-3.50	B107	1529	VC0.5x1	75.0	B.2.4.5-3	15.40	30.70	0.26	11.90	0.05	
N-3.50	B107	1529	VC0.5x1	87.5	B.2.4.5-3	15.40	26.70	0.26	11.90	0.05	
N-3.50	B107	1529	VC0.5x1	87.5	B.2.4.5-3	15.40	24.50	0.31	15.90	0.06	
N-3.50	B107	1529	VC0.5x1	103.3	B.2.4.5-3	15.40	20.30	0.31	15.90	0.06	
N-3.50	B107	1529	VC0.5x1	103.3	B.2.4.5-3	15.40	19.10	0.33	17.50	0.07	
N-3.50	B107	1529	VC0.5x1	129.2	B.2.4.5-3	15.40	15.40	0.34	17.50	0.07	
N-3.50	B107	1529	VC0.5x1	155.0	B.2.4.5-3	15.40	15.40	0.34	17.50	0.07	
N-3.50	B107	1529	VC0.5x1	155.0	B.2.4.5-3	15.40	15.40	0.04	18.50	0.07	
N-3.50	B107	1529	VC0.5x1	156.0	B.2.4.5-3	15.40	15.40	0.04	18.50	0.07	
N-3.50	B107	1529	VC0.5x1	156.0	B.2.4.5-3	15.40	15.40	0.13	16.70	0.06	
N-3.50	B107	1529	VC0.5x1	206.7	B.2.4.5-3	15.40	15.40	0.13	16.70	0.06	
N-3.50	B107	1529	VC0.5x1	206.7	B.2.4.5-3	15.40	15.40	0.04	17.60	0.07	
N-3.50	B107	1529	VC0.5x1	207.5	B.2.4.5-3	15.40	15.40	0.04	17.60	0.07	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B107	1529	VC0.5x1	207.5	B.2.4.5-3	15.40	15.40	0.04	14.90	0.06	
N-3.50	B107	1529	VC0.5x1	258.3	B.2.4.4-4	15.40	15.40	0.04	14.90	0.06	
N-3.50	B107	1529	VC0.5x1	258.3	B.2.4.4-4	15.40	15.40	0.04	15.90	0.06	
N-3.50	B107	1529	VC0.5x1	284.2	B.2.4.4-4	15.40	15.40	0.04	15.90	0.06	
N-3.50	B107	1529	VC0.5x1	310.0	B.2.4.5-3	15.80	15.40	0.04	15.90	0.06	
N-3.50	B107	1529	VC0.5x1	310.0	B.2.4.5-3	15.70	15.40	0.04	16.30	0.06	
N-3.50	B107	1529	VC0.5x1	327.5	B.2.4.5-8	15.90	15.40	0.04	16.30	0.06	
N-3.50	B107	1529	VC0.5x1	327.5	B.2.4.4-4	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	361.7	B.2.4.4-4	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	361.7	B.2.4.4-4	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	387.5	B.2.4.2-2	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	413.3	B.2.4.2-2	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	413.3	B.2.4.2-2	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	447.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	447.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	465.0	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	465.0	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	490.8	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	516.7	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	516.7	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	567.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	567.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	568.3	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	568.3	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	594.2	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	620.0	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	620.0	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	645.8	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	671.7	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	671.7	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	687.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	687.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	723.3	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	723.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	749.2	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	775.0	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	775.0	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	800.8	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	826.7	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	826.7	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	862.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	862.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	878.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	878.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	904.2	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	930.0	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	930.0	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	955.8	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	981.7	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	981.7	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	982.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	
N-3.50	B107	1529	VC0.5x1	982.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B107	1529	VC0.5x1	1033.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1033.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1059.2	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1085.0	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1085.0	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1102.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1102.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1136.7	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1136.7	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1162.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1188.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1188.3	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1222.5	B.2.4.5-8	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1222.5	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1240.0	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1240.0	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1265.8	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1291.7	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1291.7	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1342.5	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1342.5	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1343.3	B.2.4.5-8	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1343.3	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1369.2	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1395.0	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1395.0	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1420.8	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1446.7	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1446.7	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1462.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1462.5	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1498.3	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1498.3	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1524.2	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1550.0	B.2.4.5-3	15.40	15.40	0.00	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1550.0	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1600.6	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1600.6	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1651.3	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1651.3	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1664.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1664.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1701.9	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1701.9	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1752.6	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1752.6	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1784.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1784.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1803.2	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1803.2	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1853.9	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1853.9	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B107	1529	VC0.5x1	1904.5	B.2.4.5-3	15.40	15.40	0.04	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1904.5	B.2.4.5-3	15.40	15.40	0.09	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1948.4	B.2.4.5-3	15.40	15.40	0.09	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1948.4	B.2.4.5-3	15.40	15.40	0.12	0.00	0.00	0.00
N-3.50	B107	1529	VC0.5x1	1949.0	B.2.4.5-3	10.10	15.00	0.12	0.00	0.00	0.00
N-3.50	B650	1548	VC0.5x1	0.0	B.2.4.7-8	2.30	2.10	0.07	15.10	0.06	
N-3.50	B650	1548	VC0.5x1	49.1	B.2.4.5-8	9.50	5.30	0.07	15.10	0.06	
N-3.50	B650	1548	VC0.5x1	49.1	B.2.4.5-8	10.20	5.40	0.04	17.10	0.06	
N-3.50	B650	1548	VC0.5x1	98.2	B.2.4.5-8	15.40	5.40	0.04	17.10	0.06	
N-3.50	B650	1548	VC0.5x1	98.2	B.2.4.5-8	15.40	5.60	0.04	17.10	0.06	
N-3.50	B650	1548	VC0.5x1	147.4	B.2.4.2-2	15.40	5.60	0.04	17.10	0.06	
N-3.50	B650	1548	VC0.5x1	147.4	B.2.4.2-2	15.40	5.70	0.04	16.30	0.06	
N-3.50	B650	1548	VC0.5x1	196.5	B.2.4.5-8	16.30	5.70	0.04	16.30	0.06	
N-3.50	B650	1548	VC0.5x1	196.5	B.2.4.5-8	16.40	5.80	0.04	15.30	0.06	
N-3.50	B650	1548	VC0.5x1	245.6	B.2.4.5-8	16.80	5.80	0.04	15.30	0.06	
N-3.50	B650	1548	VC0.5x1	245.6	B.2.4.5-8	16.70	5.80	0.04	14.90	0.06	
N-3.50	B650	1548	VC0.5x1	277.5	B.2.4.5-8	16.70	5.80	0.04	14.90	0.06	
N-3.50	B650	1548	VC0.5x1	277.5	B.2.4.5-8	16.60	5.70	0.04	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	294.7	B.2.4.5-8	16.10	5.70	0.04	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	294.7	B.2.4.5-8	16.00	5.70	0.04	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	343.8	B.2.4.5-3	15.40	5.70	0.04	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	343.8	B.2.4.5-3	15.40	5.50	0.04	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	392.9	B.2.4.5-8	14.70	5.50	0.04	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	392.9	B.2.4.5-8	14.40	5.40	0.02	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	442.1	B.2.4.5-8	11.40	5.40	0.01	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	442.1	B.2.4.5-8	11.10	5.40	0.05	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	491.2	B.2.4.5-8	8.60	5.40	0.05	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	491.2	B.2.4.5-8	8.30	5.40	0.00	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	495.0	B.2.4.5-8	8.20	5.40	0.00	0.00	0.00	
N-3.50	B650	1548	VC0.5x1	495.0	B.2.4.7-8	8.00	5.50	0.18	21.50	0.08	
N-3.50	B650	1548	VC0.5x1	540.3	B.2.4.7-8	5.90	12.10	0.18	21.50	0.08	
N-3.50	B650	1548	VC0.5x1	540.3	B.2.4.7-8	5.70	13.00	0.12	24.10	0.09	
N-3.50	B650	1548	VC0.5x1	555.0	B.2.4.7-8	5.20	15.40	0.12	24.10	0.09	
N-3.50	B735	1479	VC0.5x1	0.0	B.2.4.5-3	2.50	3.60	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	15.8	B.2.4.5-3	2.40	3.40	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	15.8	B.2.4.5-3	2.30	3.20	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	41.7	B.2.4.5-3	2.20	2.80	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	67.5	B.2.4.5-3	2.10	2.40	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	67.5	B.2.4.5-3	2.10	2.20	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	93.3	B.2.4.5-3	2.00	2.00	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	119.2	B.2.4.5-3	2.00	2.00	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	119.2	B.2.4.5-3	2.00	2.00	0.01	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	120.0	B.2.4.5-3	2.00	2.00	0.01	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	120.0	B.2.4.5-3	2.00	2.00	0.01	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	145.4	B.2.4.5-3	2.00	2.00	0.01	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	170.8	B.2.4.5-3	2.00	2.00	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	170.8	B.2.4.5-3	2.10	2.10	0.01	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	196.7	B.2.4.5-3	2.10	2.10	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	222.5	B.2.4.5-3	2.10	2.10	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	222.5	B.2.4.5-3	2.10	2.10	0.01	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	240.0	B.2.4.5-3	2.10	2.10	0.02	0.00	0.00	
N-3.50	B735	1479	VC0.5x1	240.0	B.2.4.5-3	2.20	2.20	0.02	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B735	1479	VC0.5x1	274.2	B.2.4.5-3	2.20	2.20	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	274.2	B.2.4.5-3	2.30	2.30	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	300.0	B.2.4.5-3	2.30	2.30	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	325.8	B.2.4.5-3	2.30	2.30	0.01	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	325.8	B.2.4.5-3	2.40	2.40	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	360.0	B.2.4.5-3	2.40	2.40	0.01	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	360.0	B.2.4.5-3	2.50	2.50	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	377.5	B.2.4.5-3	2.50	2.50	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	377.5	B.2.4.5-3	2.60	2.60	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	403.3	B.2.4.5-3	2.60	2.60	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	429.2	B.2.4.5-3	2.60	2.60	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	429.2	B.2.4.5-3	2.70	2.70	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	454.6	B.2.4.5-3	2.70	2.70	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	480.0	B.2.4.5-3	2.70	2.70	0.01	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	480.0	B.2.4.5-3	2.80	2.80	0.01	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	480.8	B.2.4.5-3	2.80	2.80	0.01	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	480.8	B.2.4.5-3	2.80	2.80	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	506.7	B.2.4.5-3	2.80	3.20	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	532.5	B.2.4.5-3	2.80	3.50	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	532.5	B.2.4.5-3	2.90	3.70	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	558.3	B.2.4.5-3	2.90	4.10	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	584.2	B.2.4.5-3	3.00	4.40	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	584.2	B.2.4.5-3	3.10	4.50	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	600.0	B.2.4.5-3	3.20	4.60	0.01	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	600.0	B.2.4.5-3	3.40	5.00	0.03	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	635.8	B.2.4.5-3	3.70	5.80	0.02	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	635.8	B.2.4.5-3	3.80	6.10	0.03	0.00	0.00	0.00
N-3.50	B735	1479	VC0.5x1	637.5	B.2.4.5-3	3.90	6.10	0.03	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	0.0	B.2.4.7-4	4.60	20.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	25.8	B.2.4.5-3	9.90	18.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	51.7	B.2.4.5-3	9.90	16.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	51.7	B.2.4.5-3	9.90	15.80	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	80.5	B.2.4.5-3	9.90	15.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	80.5	B.2.4.5-3	9.90	15.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	87.5	B.2.4.5-3	9.90	15.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	87.5	B.2.4.5-3	9.70	15.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	89.2	B.2.4.5-3	9.70	15.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	89.2	B.2.4.5-3	9.70	15.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	103.3	B.2.4.5-3	9.70	15.00	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	103.3	B.2.4.5-3	9.70	13.90	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	140.9	B.2.4.5-3	9.70	10.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	140.9	B.2.4.5-3	9.70	9.70	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	155.0	B.2.4.5-3	9.70	9.70	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	155.0	B.2.4.5-3	9.50	9.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	193.7	B.2.4.5-3	9.50	9.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	193.7	B.2.4.5-3	9.90	9.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	206.7	B.2.4.5-3	10.10	9.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	206.7	B.2.4.5-3	10.20	9.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	207.5	B.2.4.5-3	10.20	9.50	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	207.5	B.2.4.5-3	10.50	9.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	232.9	B.2.4.5-8	12.00	9.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	258.3	B.2.4.5-8	13.70	9.40	0.04	0.00	0.00	0.00

TABLE: Concrete Beam Summary - ACI 318-14

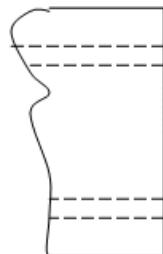
Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B739	1516	VC0.5x1	258.3	B.2.4.5-8	14.00	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	281.8	B.2.4.5-8	14.50	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	281.8	B.2.4.5-8	15.20	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	310.0	B.2.4.5-8	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	310.0	B.2.4.5-8	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	327.5	B.2.4.5-8	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	327.5	B.2.4.5-3	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	361.7	B.2.4.5-8	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	361.7	B.2.4.5-8	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	387.5	B.2.4.5-8	15.40	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	387.5	B.2.4.5-8	14.80	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	413.3	B.2.4.5-8	14.00	9.30	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	413.3	B.2.4.5-8	13.50	9.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	447.5	B.2.4.5-8	10.90	9.40	0.04	0.00	0.00	0.00
N-3.50	B739	1516	VC0.5x1	447.5	B.2.4.5-8	10.10	9.40	0.10	11.80	0.04	
N-3.50	B739	1516	VC0.5x1	465.0	B.2.4.5-3	9.40	9.40	0.10	11.80	0.04	
N-3.50	B739	1516	VC0.5x1	465.0	B.2.4.5-3	9.60	9.60	0.14	12.10	0.05	
N-3.50	B739	1516	VC0.5x1	493.2	B.2.4.5-3	9.60	10.10	0.14	12.10	0.05	
N-3.50	B739	1516	VC0.5x1	493.2	B.2.4.5-3	9.60	14.80	0.10	12.10	0.05	
N-3.50	B739	1516	VC0.5x1	516.7	B.2.4.5-3	9.60	15.40	0.10	12.10	0.05	
N-3.50	B739	1516	VC0.5x1	516.7	B.2.4.5-3	9.80	16.10	0.29	13.40	0.05	
N-3.50	B739	1516	VC0.5x1	542.1	B.2.4.5-3	9.80	23.80	0.29	13.40	0.05	
N-3.50	B739	1516	VC0.5x1	567.5	B.2.4.5-3	9.80	31.90	0.29	13.40	0.05	
N-3.50	B739	1516	VC0.5x1	567.5	B.2.4.5-3	9.90	33.50	0.00	56.40	0.21	
N-3.50	B739	1516	VC0.5x1	568.3	B.2.4.5-3	9.90	33.50	0.00	56.40	0.21	
N-3.50	B739	1516	VC0.5x1	568.3	B.2.4.5-3	9.90	36.80	0.04	58.40	0.22	
N-3.50	B739	1516	VC0.5x1	581.2	B.2.4.5-3	9.90	39.30	0.04	58.40	0.22	
N-3.50	B739	1516	VC0.5x1	581.2	B.2.4.5-3	9.90	46.70	0.00	58.40	0.22	
N-3.50	B739	1516	VC0.5x1	586.0	B.2.4.5-3	9.90	46.90	0.00	58.40	0.22	
N-3.50	B739	1516	VC0.5x1	586.0	B.2.4.5-3	11.60	17.80	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	620.0	B.2.4.5-3	11.60	17.80	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	620.0	B.2.4.5-3	11.70	17.30	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	645.8	B.2.4.5-3	11.70	17.30	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	671.7	B.2.4.5-3	11.70	17.20	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	671.7	B.2.4.5-3	11.60	17.60	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	687.5	B.2.4.5-3	11.60	17.30	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	687.5	B.2.4.5-3	11.80	18.00	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	704.5	B.2.4.5-3	11.80	18.40	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	704.5	B.2.4.5-3	11.60	18.50	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	723.3	B.2.4.5-3	11.60	18.60	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	723.3	B.2.4.5-3	11.90	19.30	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	749.2	B.2.4.5-3	11.90	19.40	0.04	0.00	0.00	
N-3.50	B739	1516	VC0.5x1	775.0	B.2.4.7-4	7.00	19.50	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	0.0	B.2.4.5-3	5.50	4.20	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	45.3	B.2.4.5-3	5.30	4.30	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	45.3	B.2.4.5-3	4.30	4.30	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	94.4	B.2.4.5-3	4.30	4.30	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	94.4	B.2.4.5-3	4.30	4.30	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	143.5	B.2.4.5-3	4.30	4.30	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	143.5	B.2.4.5-3	4.50	4.80	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	192.6	B.2.4.5-3	4.50	4.90	0.04	0.00	0.00	
N-3.50	B284	1607	VC0.5x1	192.6	B.2.4.5-3	5.00	6.70	0.04	0.00	0.00	

TABLE: Concrete Beam Summary - ACI 318-14

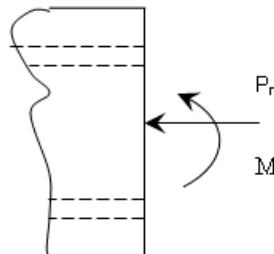
Story	Label	Unique Name	Design Section	Station cm	As Top Combo	As Top cm ²	As Bottom cm ²	At Shear cm ² /cm	Al Torsion		At Torsion cm ² /cm
									cm ²	cm ² /cm	
N-3.50	B284	1607	VC0.5x1	241.8	B.2.4.5-3	5.00	6.90	0.04	0.00	0.00	0.00
N-3.50	B284	1607	VC0.5x1	241.8	B.2.4.5-3	6.20	9.20	0.04	0.00	0.00	0.00
N-3.50	B284	1607	VC0.5x1	277.5	B.2.4.5-3	6.20	9.30	0.04	0.00	0.00	0.00
N-3.50	B284	1607	VC0.5x1	277.5	B.2.4.5-3	3.30	7.30	0.04	0.00	0.00	0.00
N-3.50	B284	1607	VC0.5x1	290.0	B.2.4.5-3	1.90	7.30	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	50.0	B.2.4.7-8	9.40	10.30	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	51.5	B.2.4.5-8	9.50	10.20	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	51.5	B.2.4.7-8	10.40	11.10	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	98.2	B.2.4.5-8	12.60	7.70	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	98.2	B.2.4.5-8	12.50	7.60	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	147.4	B.2.4.5-8	13.40	4.50	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	147.4	B.2.4.5-8	13.30	4.60	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	196.5	B.2.4.5-8	11.90	4.60	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	196.5	B.2.4.5-8	11.80	4.60	0.09	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	245.6	B.2.4.5-8	9.20	4.60	0.08	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	245.6	B.2.4.5-8	9.30	4.70	0.08	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	277.5	B.2.4.5-8	11.00	4.70	0.08	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	277.5	B.2.4.5-8	11.20	4.80	0.14	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	294.7	B.2.4.5-8	11.90	5.90	0.14	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	294.7	B.2.4.7-8	12.10	6.70	0.28	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	343.8	B.2.4.7-8	15.40	15.40	0.28	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	343.8	B.2.4.7-8	15.40	15.50	0.27	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	392.9	B.2.4.7-8	18.30	31.20	0.27	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	392.9	B.2.4.7-8	18.70	32.00	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	395.0	B.2.4.7-8	18.70	32.10	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	395.0	B.2.4.5-3	8.00	4.80	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	442.1	B.2.4.5-3	7.90	4.80	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	442.1	B.2.4.5-3	6.70	4.70	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	491.2	B.2.4.5-3	6.60	4.70	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	491.2	B.2.4.5-3	5.70	4.70	0.04	0.00	0.00	0.00
N-3.50	B285	1525	VC0.5x1	495.0	B.2.4.5-3	5.70	4.30	0.04	0.00	0.00	0.00

6.2 DISEÑO DE COLUMNAS

En el diseño de columnas cargadas axialmente, se deben tener en cuenta las siguientes consideraciones:



Fuerzas



Fuerzas Resultantes

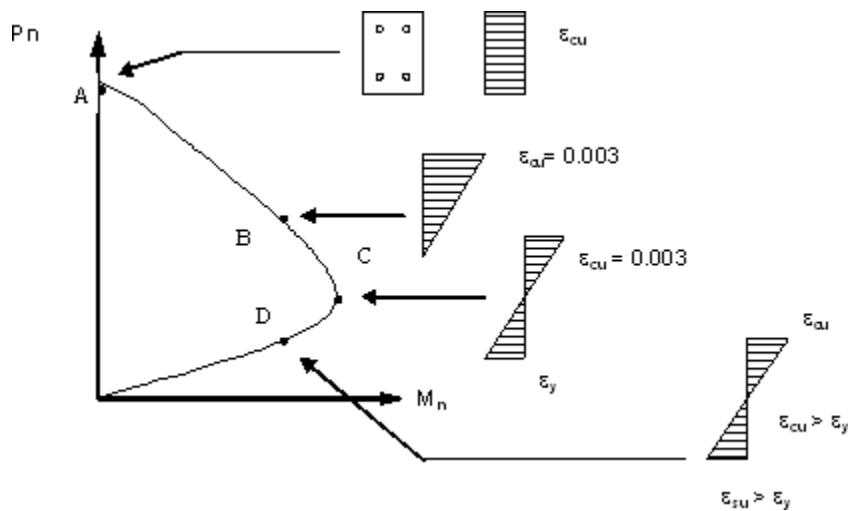
$$P_n = C_s + C_c + T_s$$

$$P_n = A'_s f'_s + 0.85 f'_c ab - A_s f_s$$

P_n : Fuerza resultante en la sección

M_n : Momento resistente e en la sección de las fuerzas alrededor del eje centroidal.

La siguiente figura presenta varias distribuciones de deformaciones y los puntos resultantes en el diagrama de interacción:



Punto A: Compresión axial pura.

Punto B: Primer agrietamiento en una cara y cero tensiones en otra. (columnas cortas).

Punto C: Máxima deformación en el concreto y fluencia en el refuerzo. Falla balanceada. Representa el cambio de falla en compresión para cargas altas por falla en tensión para cargas bajas. Desde el punto C hacia arriba, el concreto falla por compresión antes que el acero falla en tensión; y hacia abajo, fluye primero el acero antes que falle el concreto por compresión.

Punto D: El refuerzo se deforma varias veces la deformación de fluencia ϵ_y , antes de que el concreto se agriete, implica un comportamiento dúctil. Columnas esbeltas.

Máxima carga axial.

Para elementos sometidos a compresión y teniendo en cuenta el momento accidental por desalineamiento de la columna, y a factores como mezcla no homogénea, debido a que la relación A/C es menor en la parte superior de las columnas, que es donde fallan generalmente por sismo, el NSR-10 especifica:

C.10.3.6 — La resistencia axial de diseño ϕP_n de elementos en compresión no debe tomarse mayor que $\phi P_{n\max}$ calculado usando la ecuación (C.10-1) ó (C.10-2).

- Para columnas con espirales de 0.80 veces la máxima carga (**C.10.3.6.1**).

$$P_n = 0.80 \phi [0.85 f' c (A_g - A_{st}) + f_y A_{st}]$$

- Para columnas con estribos de 0.75 veces la carga máxima (**C.10.3.6.2**).

$$\phi P_n = 0.75 \phi [0.85 f' c (A_g - A_{st}) + f_y A_{st}]$$

Diseño:

$$\phi P_n \geq P_u \quad \phi M_n > M_u$$

P_u, M_u: Cargas actuantes mayoradas.

P_n, M_n: Resistencia nominal de la sección.

φ=Factor de reducción de resistencia.

φ = 0.65 Columnas con estribos.

φ = 0.75 Columnas con espirales.

Predimensionamiento de Columnas

Para diseñar una columna se requiere conocer la sección. Para pequeños valores de M, la sección está definida por la capacidad de carga axial.

Para columnas con estribos:

$$A_g \geq \frac{P_u}{0.45(f'c + f_y \rho_t)} \quad \rho_t = \frac{A_{st}}{A_g}$$

Para columnas con espiral

$$A_g \geq \frac{P_u}{0.55(f'c + f_y \rho_t)}$$

Según el C.21.4.1 Requisitos Geométricos para las columnas con capacidad Especial de disipación de energía.

(a) La fuerza axial mayorada en el elemento es mayor que $0.10 f' c^* A_g$

(b) La menor dimensión de la sección del elemento, medida en una línea recta que pasa a través del centroide de la sección, no debe ser menor que **0.30 m**. Las columnas en forma de T, C o I pueden tener una dimensión mínima de **0.25 m**, pero su área no puede ser menor de **0.09 m²**.

(c) La relación entre la dimensión menor de la sección del elemento y la dimensión perpendicular a ella, no debe ser menor que **0.4**.

Esbeltez en columnas

La columna esbelta se deflecta bajo carga lateral, incremento en los momentos, efecto P-Δ, entre otros. Según el ACI 10.12.2 se permite despreciar el efecto de columna esbelta si:

C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:

a) En elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando:

$$\frac{k\ell_u}{r} \leq 22 \quad (\text{C.10-6})$$

b) En elementos a compresión arriostrados contra desplazamientos laterales cuando:

$$\frac{k\ell_u}{r} \leq 34 - 12(M_1/M_2) \leq 40 \quad (\text{C.10-7})$$

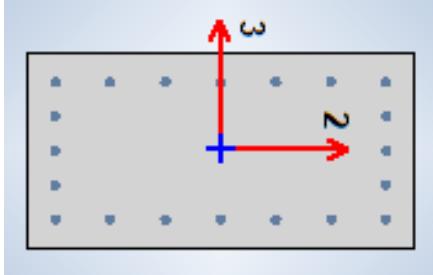
Donde el término M_1/M_2 es positivo si la columna está flectada en curvatura simple y negativo si el elemento tiene curvatura doble. Se permite considerar los elementos a compresión como arriostrados contra desplazamientos laterales cuando los elementos de arriostramiento tienen una rigidez total que restringe los movimientos laterales de ese piso de al menos doce

L_u: Longitud libre de la columna

r: Radio de giro, de 0.3 a 0.25 veces la profundidad de la columna rectangular y circular respectivamente.

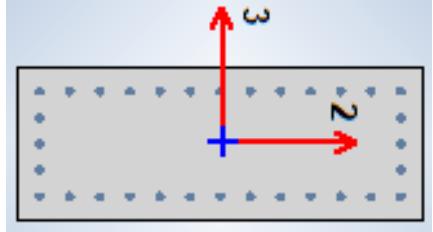
M₁/M₂: Relación de momentos entre los dos extremos de la columna, varía generalmente entre +0.5 y -0.5.

Revisión Columnas Edificio A

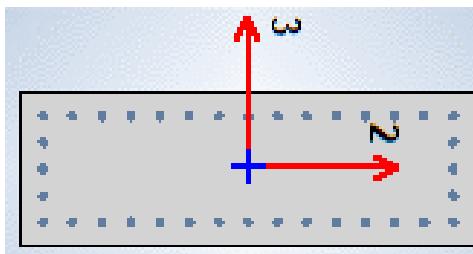
COLUMNAR RECTANGULAR 100*50													
													
Sección:	100 x 50	Ast	28#7										
		Ast	28#7										
		Ast/Asmin	2.17 > 1,0 OK										
		L. max	5 m										
C.21.6.4 — Refuerzo transversal <p>C.21.6.4.1 — El refuerzo transversal en las cantidades que se especifican en C.21.6.4.2 hasta C.21.6.4.4, debe suministrarse en una longitud ℓ_o medida desde cada cara del nudo y a ambos lados de cualquier sección donde pueda ocurrir fluencia por flexión como resultado de desplazamientos laterales inelásticos del pórtico. La longitud ℓ_o no debe ser menor que la mayor de (a), (b) y (c):</p> <ul style="list-style-type: none"> (a) La altura del elemento en la cara del nudo o en la sección donde puede ocurrir fluencia por flexión. (b) Un sexto de la luz libre del elemento, y (c) 450 mm. <table> <tr> <td>a)</td><td>1 m</td></tr> <tr> <td>b)</td><td>0.83 m</td></tr> <tr> <td>c)</td><td>0.45 m</td></tr> </table> <p>Lo: Long. Confinamiento 1.00 m</p>		a)	1 m	b)	0.83 m	c)	0.45 m	SEPARACIÓN ZONA CONFINADA <p>C.21.6.4.3 — La separación del refuerzo transversal a lo largo del eje longitudinal del elemento no debe exceder la menor de (a), (b), y (c):</p> <ul style="list-style-type: none"> (a) La cuarta parte de la dimensión mínima del elemento. (b) Seis veces el diámetro de la barra de refuerzo longitudinal menor, y (c) s_0, según lo definido en la ecuación (C.21-5). $s_0 = 100 + \left(\frac{350 - h_x}{3} \right) \quad (\text{C.21-5})$ <p>El valor de s_0 no debe ser mayor a 150 mm y no es necesario tomarlo menor a 100 mm.</p>					
a)	1 m												
b)	0.83 m												
c)	0.45 m												
SEPARACIÓN ZONA NO CONFINADA <p>C.7.10.5.2 — El espaciamiento vertical de los estribos no debe exceder 16 diámetros de barra longitudinal, 48 diámetros de barra o alambre de los estribos, o la menor dimensión del elemento sometido a compresión.</p> <table> <tr> <td>16*db</td><td>35.52 cm</td></tr> <tr> <td>48*db.estribo</td><td>45.6 cm</td></tr> <tr> <td>bc</td><td>50.0 cm</td></tr> </table> <p>Separación 35.52 cm</p>		16*db	35.52 cm	48*db.estribo	45.6 cm	bc	50.0 cm	<table> <tr> <td>a) B*1/4</td><td>12.50 cm</td></tr> <tr> <td>b) 6*db</td><td>13.32 cm</td></tr> </table> $s_0 = 100 + \left(\frac{350 - h_x}{3} \right) = 19.67 \text{ cm}$ <p>c) So 15.0 cm</p> <p>Separación máxima 12.50 cm</p>		a) B*1/4	12.50 cm	b) 6*db	13.32 cm
16*db	35.52 cm												
48*db.estribo	45.6 cm												
bc	50.0 cm												
a) B*1/4	12.50 cm												
b) 6*db	13.32 cm												

COLUMNAS RECTANGULARES 100*50			
		Ag 5000 cm ² p.min 0.01 p.max 0.040 Ast min 50.0 cm ² Ast max 200.0 cm ² b.min 50 cm Ast 28#7 Ast 108 cm ² Ast/Asmin 2.17 > 1,0 OK L. max 5 m	
Sección:	100 x 50	Ast	28#7
REQUISITOS GEOMÉTRICOS EN DISEÑO DE ELEMENTOS VERTICALES			
Ancho menor: bw	50 cm		
Lado largo: lw	100 cm		
Altura máxima libre: hw	500 cm		
Tabla R18.10.1 — Requisitos que dominan en el diseño de segmentos verticales de muro^[1]			
Altura libre del segmento vertical de muro / longitud del segmento vertical de muro , (h_w/ℓ_w)	Longitud del segmento vertical de muro / Espesor del muro (ℓ_w/b_w)		
	$\ell_w/b_w \leq 2.5$	$2.5 < \ell_w/b_w \leq 6$	$\ell_w/b_w > 6$
$h_w/\ell_w < 2$	Muro	Muro	Muro
$h_w/\ell_w \geq 2$	El machón de muro debe cumplir los requisitos de diseño de columnas, véase 18.10.8.1	El machón de muro debe cumplir los requisitos de columna o requisitos alternos, véase 18.10.8.1	Muro
^[1] h_w es la altura libre, ℓ_w es la longitud horizontal, y b_w es el espesor del alma del segmento de muro.			
$(h_w/\ell_w) = 5.0$ $(h_w/\ell_w) \geq 2$ $(\ell_w/b_w) = 2.0$ $(\ell_w/b_w) < 2.5$			
Se diseña como Columna según R.18.10.1 ACI-318			
C.10.10 - EFECTOS DE ESBELTEZ EN ELEMENTOS SOMETIDOS A COMPRESIÓN			
C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:			
a) en elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando:			
$\frac{K * l}{r} < 22 \quad (\text{C.10-6}) \quad \boxed{\frac{K * l}{r_x} = 8.68 < 22 \text{ OK}}$		$\frac{K * l}{r_y} = 17.36 < 22 \text{ OK}$	
Por lo tanto, se permite ignorar los efectos de esbeltez según C.10.10 de la NSR-10			

REVISION CORTANTE C.21.6.4.4 - NSR-10			
REVISION CORTANTE			
COLUMNA RECTANGULAR 100*50			
f'c	347 kg/cm ²		
fy	4282.8 kg/cm ²		
separación máxima C.21-6.4.3	12.5 cm		
Separación asignada	12.0 cm		
bcx	91 cm		
bcy	42 cm		
Ag	5000.0 cm ²		
Ach	3822.0 cm ²		
		(b) El área total de la sección transversal del refuerzo de estribos cerrados de confinamiento rectangulares, A _{sh} , no debe ser menor que la requerida por las ecuaciones (C.21-7) y (C.21-8).	
		$A_{sh} = 0.3 \frac{sb_c f'_c}{f_{yt}} \left[\left(\frac{A_g}{A_{ch}} \right) - 1 \right]$	(C.21-7)
		$A_{sh} = 0.09 \frac{sb_c f'_c}{f_{yt}}$	(C.21-8)
Ash.x (C.21-7)	8.2 cm ²	Ash.y (C.21-7)	3.8 cm ²
Ash.x (C.21-8)	8.0 cm ²	Ash.y (C.21-8)	3.7 cm ²
Ash.x. Requerido	8.17 cm²	Ash.y. Requerido	3.77 cm²
Nº ganchos usados sentido (x)	5	Nº ganchos usados sentido (y)	1
Diámetro gancho sentido (x)	Gancho#4	Diámetro gancho sentido (y)	Gancho#4
Separación de ganchos en (x)	12.0 cm	Separación de ganchos en (y)	12.0 cm
Asv. adicional ganchos en (x)	6.45 cm ²	Asv. Adicional ganchos en (y)	1.29 cm ²
Diámetro del estribo usado	E#4	Diámetro del estribo usado	E#4
Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²
Asv(x): Asv.estribo+Asv.gancho (x)	9.03 cm²	Asv(y): Asv.estribo+Asv.gancho (y)	3.87 cm²
Ash.x. Requerido	8.17 cm²	Ash.y. Requerido	3.77 cm²
Asv (x) > Ash.x.Requerido	Cumple	Asv (y) > Ash.y.Requerido	Cumple
RESUMEN			
COLUMNA RECTANGULAR 100*50			
Estribo cerrado	E#4		
S1: Separación estribos	12 cm		
Ganchos suplementarios lado largo			
Cantidad Requerida	5		
Diámetro gancho	Gancho#4		
Separación	12 cm		
Ganchos suplementarios lado corto			
Cantidad Requerida	1		
Diámetro gancho	Gancho#4		
Separación	12 cm		

COLUMNAS RECTANGULARES 135*50			
		Ag	6750 cm ²
		p.min	0.01
		p.max	0.040
		Ast min	67.5 cm ²
		Ast max	270.0 cm ²
		b.min	50 cm
Sección: 135 x 50		Ast	32#8
Ast 32#8		Ast	163 cm ²
		Ast/Asmin	2.42 > 1,0 OK
		L. max	5 m
REQUISITOS GEOMÉTRICOS EN DISEÑO DE ELEMENTOS VERTICALES			
Ancho menor: bw	50 cm		
Lado largo: lw	135 cm		
Altura máxima libre: hw	500 cm		
Tabla R18.10.1 — Requisitos que dominan en el diseño de segmentos verticales de muro^[1]			
Altura libre del segmento vertical de muro / longitud del segmento vertical de muro , (h_w/l_w)	Longitud del segmento vertical de muro / Espesor del muro (ℓ_w/b_w)		
	$\ell_w/b_w \leq 2.5$	$2.5 < \ell_w/b_w \leq 6$	$\ell_w/b_w > 6$
$h_w/\ell_w < 2$	Muro	Muro	Muro
$h_w/\ell_w \geq 2$	El machón de muro debe cumplir los requisitos de diseño de columnas, véase 18.10.8.1	El machón de muro debe cumplir los requisitos de columna o requisitos alternos, véase 18.10.8.1	Muro
^[1] h_w es la altura libre, ℓ_w es la longitud horizontal, y b_w es el espesor del alma del segmento de muro.			
$(h_w/\ell_w) = 3.7$ $(h_w/\ell_w) \geq 2$ $(\ell_w/b_w) = 2.7$ $2.5 < (\ell_w/b_w) < 6.0$			
Se diseña como Columna según R.18.10.1 ACI-318			
C.10.10 - EFECTOS DE ESBELTEZ EN ELEMENTOS SOMETIDOS A COMPRESIÓN			
C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:			
a) en elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando:			
$\frac{K * l}{r} < 22$ (C.10-6)		$\frac{K * l}{r_x} = 6.43 < 22$ OK	$\frac{K * l}{r_y} = 17.36 < 22$ OK
Por lo tanto, se permite ignorar los efectos de esbeltez según C.10.10 de la NSR-10			

REVISION CORTANTE C.21.6.4.4 - NSR-10			
REVISION CORTANTE			
COLUMNA RECTANGULAR 135*50			
f'c	347 kg/cm ²		
fy	4282.8 kg/cm ²		
separación máxima C.21-6.4.3	12.5 cm		
Separación asignada	12.0 cm		
bcx	124 cm		
bcy	42.5 cm		
Ag	6750.0 cm ²		
Ach	5270.0 cm ²		
(b) El área total de la sección transversal del refuerzo de estribos cerrados de confinamiento rectangulares, A _{sh} , no debe ser menor que la requerida por las ecuaciones (C.21-7) y (C.21-8).			
		$A_{sh} = 0.3 \frac{s b_c f'_c}{f_y t} \left[\left(\frac{A_g}{A_{ch}} \right) - 1 \right] \quad (\text{C.21-7})$	
		$A_{sh} = 0.09 \frac{s b_c f'_c}{f_y t} \quad (\text{C.21-8})$	
Ash.x (C.21-7)	10.1 cm ²	Ash.y (C.21-7)	3.5 cm ²
Ash.x (C.21-8)	10.2 cm ²	Ash.y (C.21-8)	3.7 cm ²
Ash.x. Requerido	10.24 cm²	Ash.y. Requerido	3.72 cm²
Nº ganchos usados sentido (x)	6	Nº ganchos usados sentido (y)	1
Diámetro gancho sentido (x)	Gancho#4	Diámetro gancho sentido (y)	Gancho#4
Separación de ganchos en (x)	12.0 cm	Separación de ganchos en (y)	12.0 cm
Asv. adicional ganchos en (x)	7.74 cm ²	Asv. Adicional ganchos en (y)	1.29 cm ²
Diámetro del estribo usado	E#4	Diámetro del estribo usado	E#4
Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²
Asv(x): Asv.estribo+Asv.gancho (x)	10.32 cm²	Asv(y): Asv.estribo+Asv.gancho (y)	3.87 cm²
Ash.x. Requerido	10.24 cm²	Ash.y. Requerido	3.72 cm²
Asv (x) > Ash.x.Requerido	Cumple	Asv (y) > Ash.y.Requerido	Cumple
RESUMEN			
COLUMNAR RECTANGULAR 135*50			
Estribo cerrado	E#4		
S1: Separación estribos	12 cm		
Ganchos suplementarios lado largo			
Cantidad Requerida	6		
Diámetro gancho	Gancho#4		
Separación	12 cm		
Ganchos suplementarios lado corto			
Cantidad Requerida	1		
Diámetro gancho	Gancho#4		
Separación	12 cm		

COLUMNAS RECTANGULARES 150x50	
	Ag 7500 cm ² p.min 0.01 p.max 0.040 Ast min 75.0 cm ² Ast max 300.0 cm ² b.s.min 50 cm Ast 36#8 Ast 184 cm ² Ast/Asmin 2.45 > 1.0 ok L. max 5 m
Sección: 150 x 50	
Refuerzo: Ast 36#8	

REQUISITOS GEOMÉTRICOS EN DISEÑO DE ELEMENTOS VERTICALES

Ancho menor: bw 50 cm
 Lado largo: lw 150 cm
 Altura máxima libre: hw 500 cm

Tabla R18.10.1 — Requisitos que dominan en el diseño de segmentos verticales de muro^[1]

Altura libre del segmento vertical de muro / longitud del segmento vertical de muro , (hw/lw)	Longitud del segmento vertical de muro / Espesor del muro (lw/bw)		
	lw/bw ≤ 2.5	2.5 < lw/bw ≤ 6	lw/bw > 6
hw/lw < 2	Muro	Muro	Muro
hw/lw ≥ 2	El machón de muro debe cumplir los requisitos de diseño de columnas, véase 18.10.8.1	El machón de muro debe cumplir los requisitos de columna o requisitos alternos, véase 18.10.8.1	Muro

[1] hw es la altura libre, lw es la longitud horizontal, y bw es el espesor del alma del segmento de muro.

$$\begin{aligned} \left(\frac{h_w}{l_w}\right) &= 3.3 \\ \left(\frac{h_w}{l_w}\right) &\geq 2 \\ \left(\frac{l_w}{b_w}\right) &= 3.0 \\ 2.5 < \left(\frac{l_w}{b_w}\right) &< 6.0 \end{aligned}$$

Se diseña como Columna
según R.18.10.1 ACI-318

C.10.10 EFECTOS DE ESBELTEZ EN ELEMENTOS SOMETIDOS A COMPRESIÓN

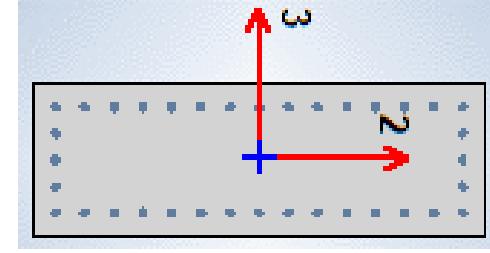
C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:

a) en elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando:

$$\frac{K * l}{r} < 22 \quad (C.10-6) \quad \frac{K * l}{r_x} = 5.79 < 22 \text{ OK} \quad \frac{K * l}{r_y} = 17.36 < 22 \text{ OK}$$

Por lo tanto, se permite ignorar los efectos de esbeltez según C.10.10 de la NSR-10

COLUMNAR RECTANGULAR 150x50			
	Ag 7500 cm ² p.min 0.01 p.max 0.040 Ast min 75.0 cm ² Ast max 300.0 cm ² b.min 50 cm		
Sección: 150 x 50		Ast	36#8
Refuerzo: Ast	36#8	Ast	184 cm ²
Ast/Asmin	2.45 > 1,0 ok	L. max	5 m
C.21.6.4 — Refuerzo transversal		SEPARACION ZONA CONFINADA	
C.21.6.4.1 — El refuerzo transversal en las cantidades que se especifican en C.21.6.4.2 hasta C.21.6.4.4, debe suministrarse en una longitud ℓ_0 , medida desde cada cara del nudo y a ambos lados de cualquier sección donde pueda ocurrir fluencia por flexión como resultado de desplazamientos laterales inelásticos del pórtico. La longitud ℓ_0 no debe ser menor que la mayor de (a), (b) y (c):	C.21.6.4.3 — La separación del refuerzo transversal a lo largo del eje longitudinal del elemento no debe exceder la menor de (a), (b), y (c):		
(a) La altura del elemento en la cara del nudo o en la sección donde puede ocurrir fluencia por flexión. (b) Un sexto de la luz libre del elemento, y (c) 450 mm.	(a) La cuarta parte de la dimensión mínima del elemento. (b) Seis veces el diámetro de la barra de refuerzo longitudinal menor, y (c) s_0 , según lo definido en la ecuación (C.21-5).		
	$s_0 = 100 + \left(\frac{350 - h_x}{3} \right)$ (C.21-5)		
	El valor de s_0 no debe ser mayor a 150 mm y no es necesario tomarlo menor a 100 mm.		
	a) $B^{*1/4}$ 12.50 cm b) 6^{*db} 15.24 cm		
	$s_0 = 100 + \left(\frac{350 - h_x}{3} \right) = 19.67 \text{ cm}$		
	c) So 15.0 cm		
Separación 25.44 cm	Separación máxima 12.50 cm		

REVISION CORTANTE C.21.6.4.4 - NSR-10			
REVISION CORTANTE			
COLUMNA RECTANGULAR 150x50		(b) El área total de la sección transversal del refuerzo de estribos cerrados de confinamiento rectangulares, A_{sh} , no debe ser menor que la requerida por las ecuaciones (C.21-7) y (C.21-8).	
f'_c	347 kg/cm ²		
f_y	4282.8 kg/cm ²		
separación máxima C.21-6.4.3	12.5 cm		
Separación asignada	12.0 cm	$A_{sh} = 0.3 \frac{s b_c f'_c}{f_y t} \left[\left(\frac{A_g}{A_{ch}} \right) - 1 \right]$	(C.21-7)
b_{cx}	141 cm		
b_{cy}	42 cm		
A_g	7500.0 cm ²	$A_{sh} = 0.09 \frac{s b_c f'_c}{f_y t}$	(C.21-8)
A_{ch}	5922.0 cm ²		
Ash.x (C.21-7)	10.9 cm ²	Ash.y (C.21-7)	3.3 cm ²
Ash.x (C.21-8)	12.3 cm ²	Ash.y (C.21-8)	3.7 cm ²
Ash.x. Requerido	12.33 cm²	Ash.y. Requerido	3.67 cm²
Nº ganchos usados sentido (x)	8	Nº ganchos usados sentido (y)	1
Diámetro gancho sentido (x)	G#4	Diámetro gancho sentido (y)	G#4
Separación de ganchos en (x)	12.0 cm	Separación de ganchos en (y)	12.0 cm
Asv. adicional ganchos en (x)	10.32 cm ²	Asv. Adicional ganchos en (y)	1.29 cm ²
Diámetro del estribo usado	E#4	Diámetro del estribo usado	E#4
Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²
Asv(x): Asv.estribo+Asv.gancho (x)	12.9 cm ²	Asv(y): Asv.estribo+Asv.gancho (y)	3.87 cm ²
Ash.x. Requerido	12.33 cm²	Ash.y. Requerido	3.67 cm²
Asv (x) > Ash.x.Requerido	Cumple	Asv (y) > Ash.y.Requerido	Cumple
RESUMEN			
COLUMNA RECTANGULAR 150x50			
Estribo cerrado	E#4		
S1: Separación estribos	12 cm		
Ganchos supplementarios lado largo			
Cantidad Requerida	8		
Diámetro gancho	G#4		
Separación	12 cm		
Ganchos supplementarios lado corto			
Cantidad Requerida	1		
Diámetro gancho	G#4		
Separación	12.0 cm		

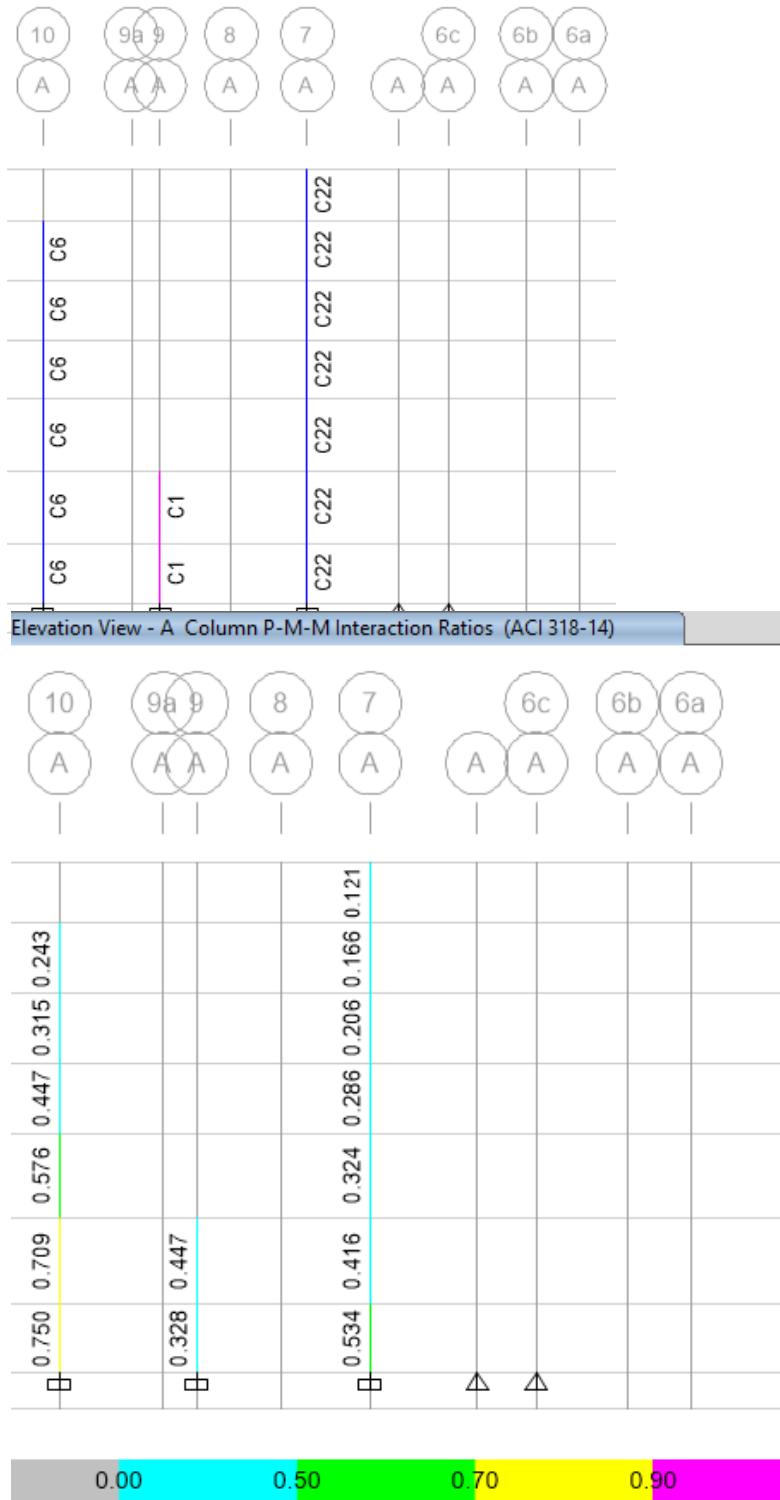


Figura 38 Label e índice de sobre esfuerzo en columnas del eje A, edificio A.

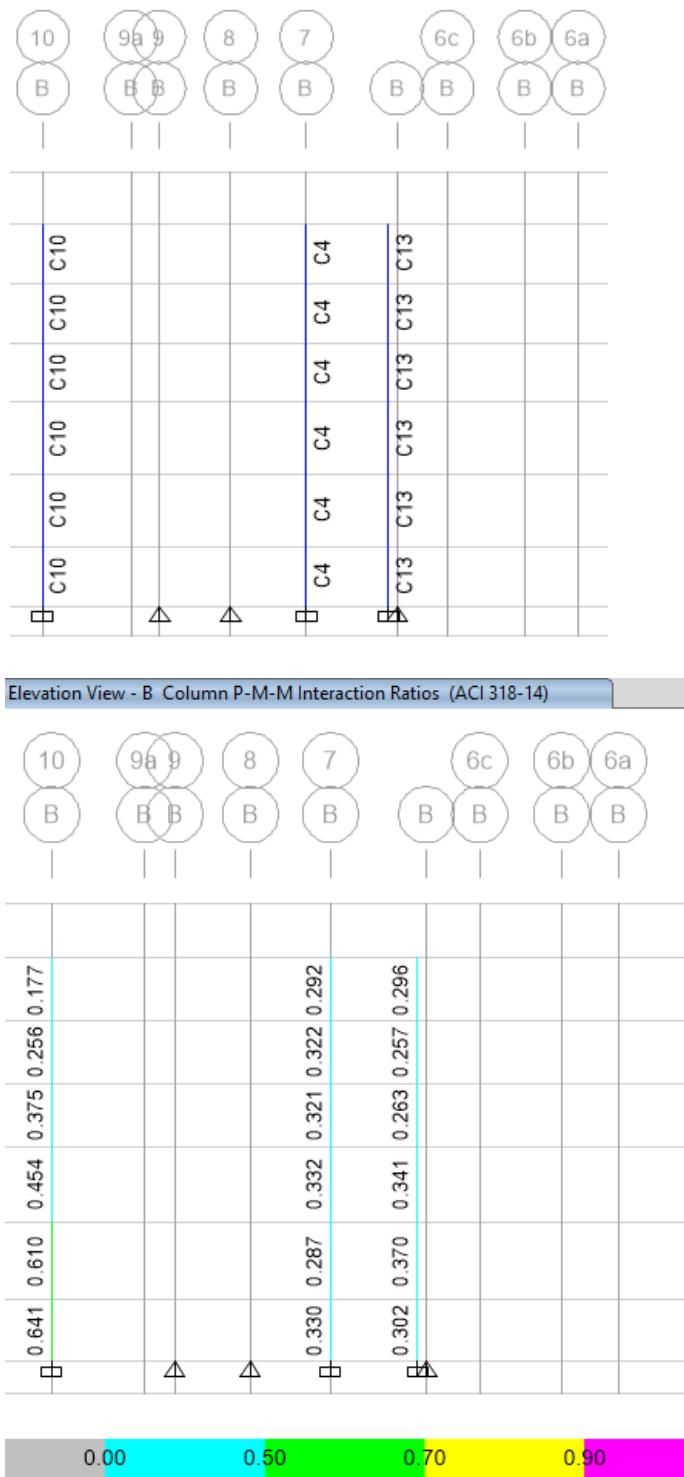


Figura 39 Label e índice de sobre esfuerzo en columnas del eje B, edificio A

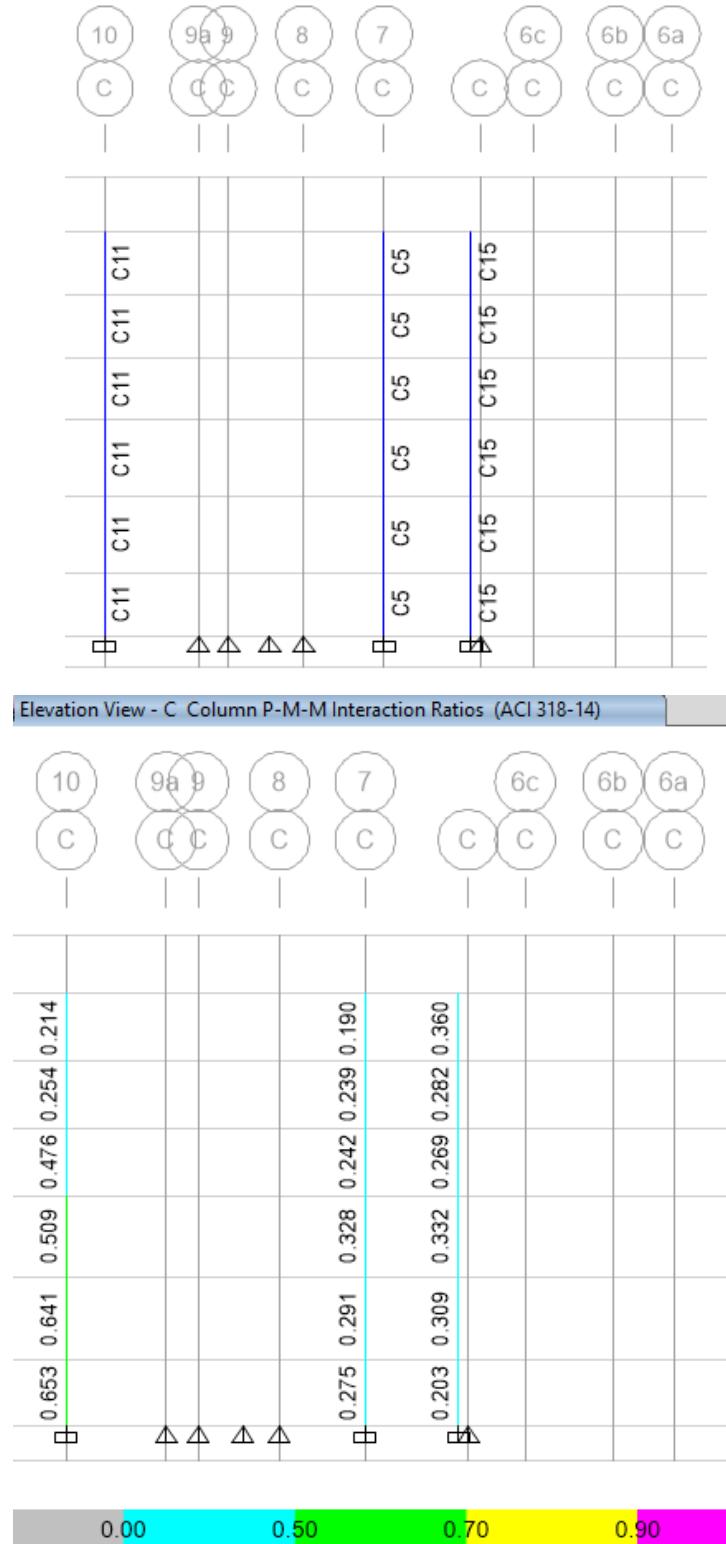


Figura 40 Label e índice de sobre esfuerzo en columnas del eje C, edificio A

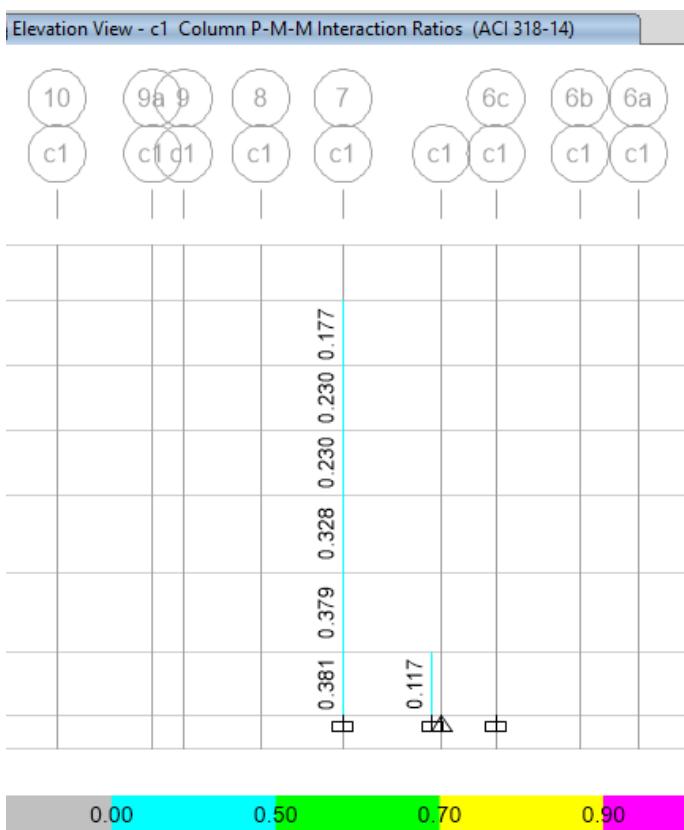
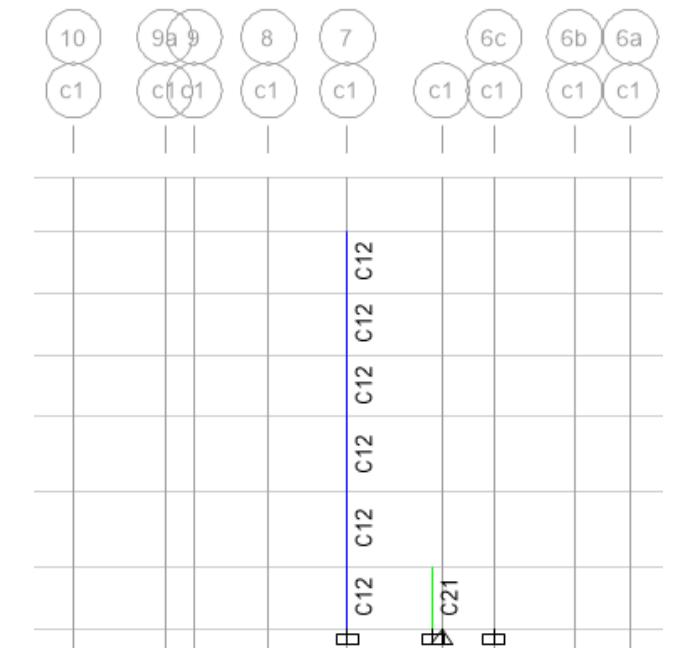


Figura 41 Label e índice de sobre esfuerzo en columnas del eje C1, edificio A

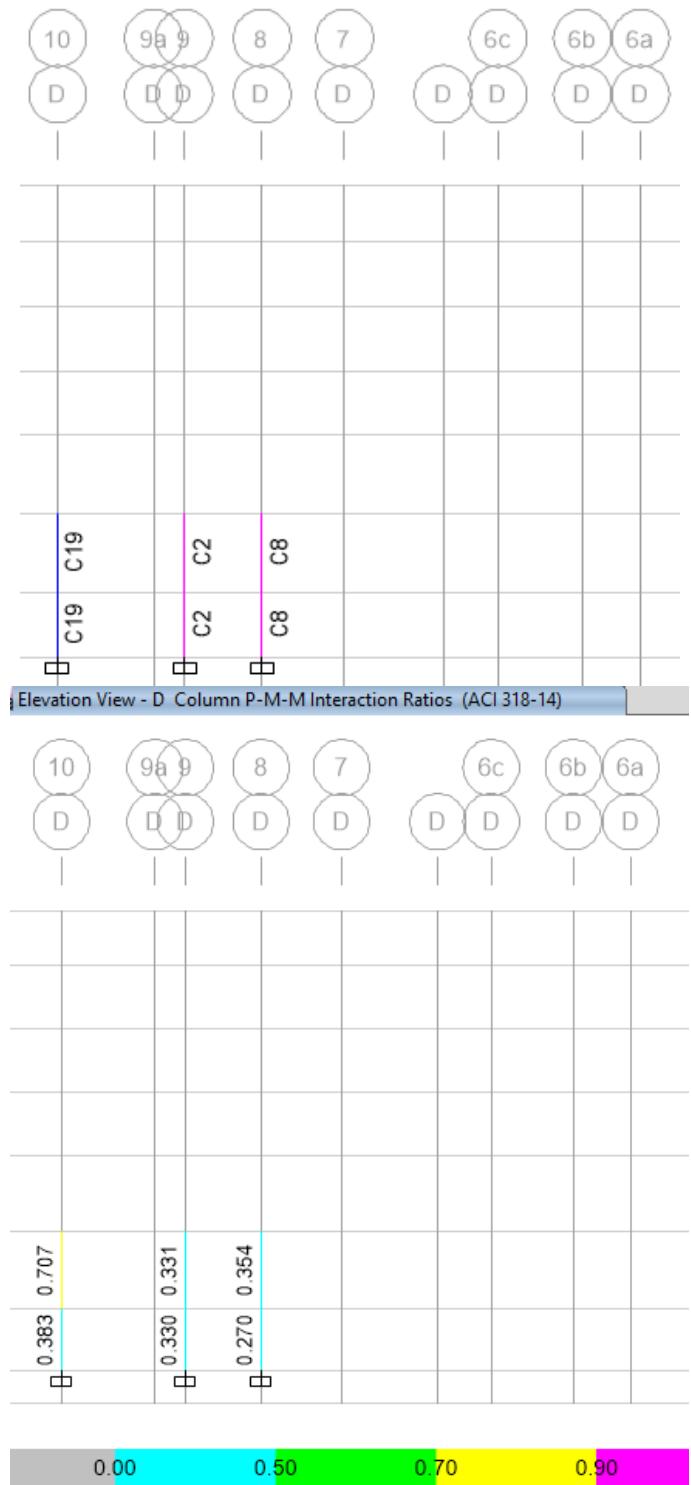


Figura 42 Label e índice de sobre esfuerzo en columnas del eje D edificio A

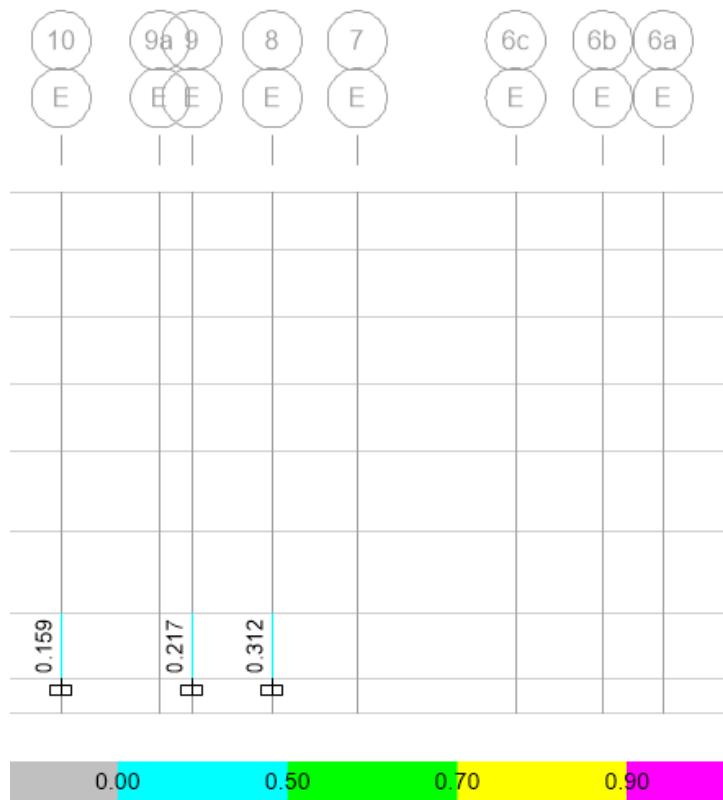
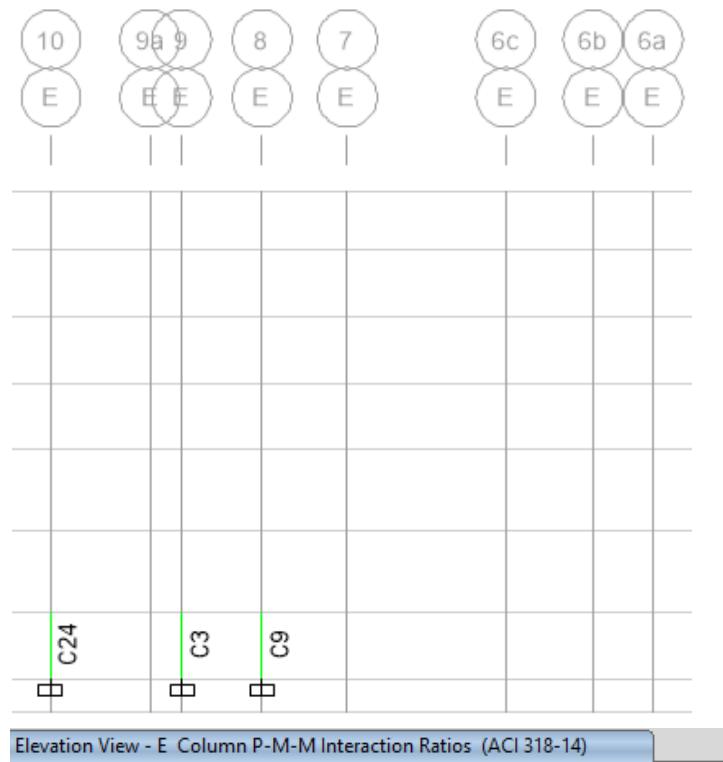


Figura 43 Label e índice de sobre esfuerzo en columnas del eje E, edificio A

Tabla 26 Índice de sobre esfuerzo en columnas Edificio A ejes (6c a 10)

TABLE: Concrete Column Summary - ACI 318-14							
Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+23.75	C22	1114	COL150X50	0	Check	0.121	B.2.4.5-1
N+23.75	C22	1114	COL150X50	105	Check	0.069	B.2.4.5-1
N+23.75	C22	1114	COL150X50	210	Check	0.052	B.2.4.5-8
N+20.75a	C22	6525	COL150X50	0	Check	0.166	B.2.4.5-8
N+20.75a	C22	6525	COL150X50	130	Check	0.076	B.2.4.3-1
N+20.75a	C22	6525	COL150X50	260	Check	0.101	B.2.4.5-8
N+20.75a	C4	6521	COL150X50	0	Check	0.292	B.2.4.5-1
N+20.75a	C4	6521	COL150X50	130	Check	0.055	B.2.4.3-4
N+20.75a	C4	6521	COL150X50	260	Check	0.22	B.2.4.5-1
N+20.75a	C5	6522	COL150X50	0	Check	0.19	B.2.4.5-1
N+20.75a	C5	6522	COL150X50	130	Check	0.036	B.2.4.5-2
N+20.75a	C5	6522	COL150X50	260	Check	0.184	B.2.4.5-8
N+20.75a	C6	6523	COL150X50	0	Check	0.243	B.2.4.5-1
N+20.75a	C6	6523	COL150X50	130	Check	0.135	B.2.4.3-1
N+20.75a	C6	6523	COL150X50	260	Check	0.166	B.2.4.5-1
N+20.75a	C10	6524	COL150X50	0	Check	0.177	B.2.4.5-1
N+20.75a	C10	6524	COL150X50	130	Check	0.112	B.2.4.3-1
N+20.75a	C10	6524	COL150X50	260	Check	0.122	B.2.4.5-8
N+20.75a	C11	6943	COL150X50	0	Check	0.214	B.2.4.5-1
N+20.75a	C11	6943	COL150X50	130	Check	0.119	B.2.4.3-1
N+20.75a	C11	6943	COL150X50	260	Check	0.155	B.2.4.5-1
N+20.75a	C12	6945	COL150X50	0	Check	0.165	B.2.4.5-1
N+20.75a	C12	6945	COL150X50	130	Check	0.069	B.2.4.2-1
N+20.75a	C12	6945	COL150X50	260	Check	0.177	B.2.4.5-1
N+20.75a	C13	1220	COL150X50	0	Check	0.187	B.2.4.5-1
N+20.75a	C13	1220	COL150X50	175	Check	0.098	B.2.4.3-4
N+20.75a	C13	1220	COL150X50	350	Check	0.296	B.2.4.5-1
N+20.75a	C15	1234	COL150X50	0	Check	0.222	B.2.4.5-1
N+20.75a	C15	1234	COL150X50	175	Check	0.081	B.2.4.3-4
N+20.75a	C15	1234	COL150X50	350	Check	0.36	B.2.4.5-1
N+17.25a	C22	5205	COL150X50	0	Check	0.206	B.2.4.5-8
N+17.25a	C22	5205	COL150X50	130	Check	0.142	B.2.4.5-8
N+17.25a	C22	5205	COL150X50	260	Check	0.158	B.2.4.5-8
N+17.25a	C4	5175	COL150X50	0	Check	0.322	B.2.4.5-1
N+17.25a	C4	5175	COL150X50	130	Check	0.104	B.2.4.5-1
N+17.25a	C4	5175	COL150X50	260	Check	0.176	B.2.4.5-1
N+17.25a	C5	5202	COL150X50	0	Check	0.239	B.2.4.5-1
N+17.25a	C5	5202	COL150X50	130	Check	0.08	B.2.4.5-1
N+17.25a	C5	5202	COL150X50	260	Check	0.15	B.2.4.5-8
N+17.25a	C6	5203	COL150X50	0	Check	0.315	B.2.4.5-1
N+17.25a	C6	5203	COL150X50	130	Check	0.268	B.2.4.3-1
N+17.25a	C6	5203	COL150X50	260	Check	0.263	B.2.4.3-1
N+17.25a	C10	5204	COL150X50	0	Check	0.256	B.2.4.5-1
N+17.25a	C10	5204	COL150X50	130	Check	0.233	B.2.4.3-1
N+17.25a	C10	5204	COL150X50	260	Check	0.231	B.2.4.3-1
N+17.25a	C11	6191	COL150X50	0	Check	0.254	B.2.4.5-1
N+17.25a	C11	6191	COL150X50	130	Check	0.248	B.2.4.3-1
N+17.25a	C11	6191	COL150X50	260	Check	0.246	B.2.4.3-1
N+17.25a	C12	6193	COL150X50	0	Check	0.23	B.2.4.5-1
N+17.25a	C12	6193	COL150X50	130	Check	0.125	B.2.4.5-1

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
							cm
N+17.25a	C12	6193	COL150X50	260	Check	0.113	B.2.4.5-1
N+17.25a	C13	1222	COL150X50	0	Check	0.248	B.2.4.5-1
N+17.25a	C13	1222	COL150X50	175	Check	0.134	B.2.4.3-1
N+17.25a	C13	1222	COL150X50	350	Check	0.257	B.2.4.5-1
N+17.25a	C15	1236	COL150X50	0	Check	0.26	B.2.4.5-1
N+17.25a	C15	1236	COL150X50	175	Check	0.077	B.2.4.5-8
N+17.25a	C15	1236	COL150X50	350	Check	0.282	B.2.4.5-8
N+13.75a	C22	4097	COL150X50	0	Check	0.286	B.2.4.5-8
N+13.75a	C22	4097	COL150X50	130	Check	0.217	B.2.4.5-8
N+13.75a	C22	4097	COL150X50	260	Check	0.228	B.2.4.5-8
N+13.75a	C4	4093	COL150X50	0	Check	0.321	B.2.4.5-1
N+13.75a	C4	4093	COL150X50	130	Check	0.139	B.2.4.5-1
N+13.75a	C4	4093	COL150X50	260	Check	0.174	B.2.4.5-1
N+13.75a	C5	4094	COL150X50	0	Check	0.242	B.2.4.5-8
N+13.75a	C5	4094	COL150X50	130	Check	0.115	B.2.4.5-8
N+13.75a	C5	4094	COL150X50	260	Check	0.146	B.2.4.5-8
N+13.75a	C6	4095	COL150X50	0	Check	0.447	B.2.4.5-1
N+13.75a	C6	4095	COL150X50	130	Check	0.406	B.2.4.3-1
N+13.75a	C6	4095	COL150X50	260	Check	0.405	B.2.4.3-1
N+13.75a	C10	4096	COL150X50	0	Check	0.375	B.2.4.3-1
N+13.75a	C10	4096	COL150X50	130	Check	0.365	B.2.4.3-1
N+13.75a	C10	4096	COL150X50	260	Check	0.364	B.2.4.3-1
N+13.75a	C11	1124	COL150X50	0	Check	0.476	B.2.4.5-1
N+13.75a	C11	1124	COL150X50	130	Check	0.408	B.2.4.3-1
N+13.75a	C11	1124	COL150X50	260	Check	0.407	B.2.4.3-1
N+13.75a	C12	4717	COL150X50	0	Check	0.23	B.2.4.5-1
N+13.75a	C12	4717	COL150X50	130	Check	0.185	B.2.4.2-1
N+13.75a	C12	4717	COL150X50	260	Check	0.202	B.2.4.5-1
N+13.75a	C13	1224	COL150X50	0	Check	0.263	B.2.4.5-1
N+13.75a	C13	1224	COL150X50	175	Check	0.195	B.2.4.2-1
N+13.75a	C13	1224	COL150X50	350	Check	0.255	B.2.4.5-8
N+13.75a	C15	1238	COL150X50	0	Check	0.267	B.2.4.5-1
N+13.75a	C15	1238	COL150X50	175	Check	0.12	B.2.4.5-8
N+13.75a	C15	1238	COL150X50	350	Check	0.269	B.2.4.5-8
N+10.25a	C22	2987	COL150X50	0	Check	0.324	B.2.4.5-8
N+10.25a	C22	2987	COL150X50	167.5	Check	0.304	B.2.4.5-8
N+10.25a	C22	2987	COL150X50	335	Check	0.311	B.2.4.5-8
N+10.25a	C4	2981	COL150X50	0	Check	0.332	B.2.4.5-1
N+10.25a	C4	2981	COL150X50	167.5	Check	0.183	B.2.4.5-2
N+10.25a	C4	2981	COL150X50	335	Check	0.209	B.2.4.5-1
N+10.25a	C5	2983	COL150X50	0	Check	0.328	B.2.4.5-8
N+10.25a	C5	2983	COL150X50	167.5	Check	0.17	B.2.4.5-8
N+10.25a	C5	2983	COL150X50	335	Check	0.186	B.2.4.5-8
N+10.25a	C6	2984	COL150X50	0	Check	0.576	B.2.4.2-1
N+10.25a	C6	2984	COL150X50	167.5	Check	0.549	B.2.4.2-1
N+10.25a	C6	2984	COL150X50	335	Check	0.55	B.2.4.2-1
N+10.25a	C10	2986	COL150X50	0	Check	0.454	B.2.4.2-1
N+10.25a	C10	2986	COL150X50	167.5	Check	0.446	B.2.4.2-1
N+10.25a	C10	2986	COL150X50	335	Check	0.45	B.2.4.2-1
N+10.25a	C11	3708	COL150X50	0	Check	0.509	B.2.4.2-1
N+10.25a	C11	3708	COL150X50	167.5	Check	0.5	B.2.4.2-1
N+10.25a	C11	3708	COL150X50	335	Check	0.505	B.2.4.2-1

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
							cm
N+10.25a	C12	3710	COL150X50	0	Check	0.328	B.2.4.5-1
N+10.25a	C12	3710	COL150X50	167.5	Check	0.235	B.2.4.2-1
N+10.25a	C12	3710	COL150X50	335	Check	0.222	B.2.4.2-1
N+10.25a	C13	1226	COL150X50	0	Check	0.341	B.2.4.5-8
N+10.25a	C13	1226	COL150X50	212.5	Check	0.27	B.2.4.2-1
N+10.25a	C13	1226	COL150X50	425	Check	0.307	B.2.4.5-8
N+10.25a	C15	1240	COL150X50	0	Check	0.332	B.2.4.5-8
N+10.25a	C15	1240	COL150X50	212.5	Check	0.165	B.2.4.5-8
N+10.25a	C15	1240	COL150X50	425	Check	0.28	B.2.4.5-8
N+6.0a	C22	5519	COL150X50	0	Check	0.416	B.2.4.5-8
N+6.0a	C22	5519	COL150X50	167.5	Check	0.393	B.2.4.5-8
N+6.0a	C22	5519	COL150X50	335	Check	0.394	B.2.4.5-8
N+6.0a	C4	5	COL150X50	0	Check	0.287	B.2.4.5-8
N+6.0a	C4	5	COL150X50	167.5	Check	0.229	B.2.4.5-2
N+6.0a	C4	5	COL150X50	335	Check	0.227	B.2.4.5-2
N+6.0a	C5	686	COL150X50	0	Check	0.291	B.2.4.5-8
N+6.0a	C5	686	COL150X50	167.5	Check	0.219	B.2.4.5-8
N+6.0a	C5	686	COL150X50	335	Check	0.207	B.2.4.2-1
N+6.0a	C6	5515	COL150X50	0	Check	0.702	B.2.4.2-1
N+6.0a	C6	5515	COL150X50	167.5	Check	0.709	B.2.4.2-1
N+6.0a	C6	5515	COL150X50	335	Check	0.704	B.2.4.2-1
N+6.0a	C10	5516	COL150X50	0	Check	0.604	B.2.4.2-1
N+6.0a	C10	5516	COL150X50	167.5	Check	0.61	B.2.4.2-1
N+6.0a	C10	5516	COL150X50	335	Check	0.6	B.2.4.2-1
N+6.0a	C11	631	COL150X50	0	Check	0.639	B.2.4.2-1
N+6.0a	C11	631	COL150X50	167.5	Check	0.633	B.2.4.2-1
N+6.0a	C11	631	COL150X50	335	Check	0.641	B.2.4.2-1
N+6.0a	C12	2644	COL150X50	0	Check	0.379	B.2.4.5-1
N+6.0a	C12	2644	COL150X50	167.5	Check	0.292	B.2.4.5-8
N+6.0a	C12	2644	COL150X50	335	Check	0.295	B.2.4.5-1
N+6.0a	C13	1228	COL150X50	0	Check	0.37	B.2.4.5-8
N+6.0a	C13	1228	COL150X50	212.5	Check	0.351	B.2.4.5-8
N+6.0a	C13	1228	COL150X50	425	Check	0.35	B.2.4.2-1
N+6.0a	C15	1242	COL150X50	0	Check	0.309	B.2.4.5-8
N+6.0a	C15	1242	COL150X50	212.5	Check	0.215	B.2.4.5-8
N+6.0a	C15	1242	COL150X50	425	Check	0.24	B.2.4.5-8
N+6.0a	C19	8	COL150X50	0	Check	0.489	B.2.4.5-1
N+6.0a	C19	8	COL150X50	167.5	Check	0.388	B.2.4.5-1
N+6.0a	C19	8	COL150X50	335	Check	0.707	B.2.4.5-1
N+6.0a	C8	7	COL135X50	0	Check	0.354	B.2.4.5-1
N+6.0a	C8	7	COL135X50	167.5	Check	0.209	B.2.4.5-1
N+6.0a	C8	7	COL135X50	335	Check	0.207	B.2.4.5-1
N+6.0a	C1	17	COL135X50	0	Check	0.317	B.2.4.5-8
N+6.0a	C1	17	COL135X50	167.5	Check	0.247	B.2.4.2-1
N+6.0a	C1	17	COL135X50	335	Check	0.447	B.2.4.5-8
N+6.0a	C2	19	COL135X50	0	Check	0.331	B.2.4.5-1
N+6.0a	C2	19	COL135X50	167.5	Check	0.263	B.2.4.2-1
N+6.0a	C2	19	COL135X50	335	Check	0.293	B.2.4.5-1
N+1.75a	C22	670	COL150X50	0	Check	0.534	B.2.4.5-8
N+1.75a	C22	670	COL150X50	130	Check	0.484	B.2.4.5-8
N+1.75a	C22	670	COL150X50	260	Check	0.473	B.2.4.5-8
N+1.75a	C4	675	COL150X50	0	Check	0.33	B.2.4.5-8

TABLE: Concrete Column Summary - ACI 318-14

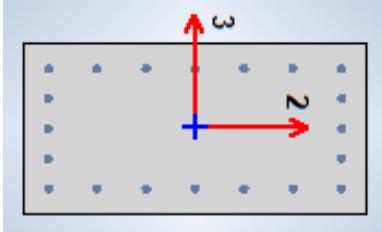
Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
							cm
N+1.75a	C4	675	COL150X50	130	Check	0.285	B.2.4.5-8
N+1.75a	C4	675	COL150X50	260	Check	0.276	B.2.4.5-2
N+1.75a	C5	676	COL150X50	0	Check	0.275	B.2.4.5-8
N+1.75a	C5	676	COL150X50	130	Check	0.255	B.2.4.5-8
N+1.75a	C5	676	COL150X50	260	Check	0.245	B.2.4.2-1
N+1.75a	C6	637	COL150X50	0	Check	0.75	B.2.4.2-1
N+1.75a	C6	637	COL150X50	130	Check	0.743	B.2.4.2-1
N+1.75a	C6	637	COL150X50	260	Check	0.741	B.2.4.2-1
N+1.75a	C10	646	COL150X50	0	Check	0.641	B.2.4.2-1
N+1.75a	C10	646	COL150X50	130	Check	0.635	B.2.4.2-1
N+1.75a	C10	646	COL150X50	260	Check	0.633	B.2.4.2-1
N+1.75a	C11	630	COL150X50	0	Check	0.653	B.2.4.2-1
N+1.75a	C11	630	COL150X50	130	Check	0.643	B.2.4.2-1
N+1.75a	C11	630	COL150X50	260	Check	0.641	B.2.4.2-1
N+1.75a	C12	1131	COL150X50	0	Check	0.38	B.2.4.2-1
N+1.75a	C12	1131	COL150X50	130	Check	0.378	B.2.4.2-1
N+1.75a	C12	1131	COL150X50	260	Check	0.381	B.2.4.2-1
N+1.75a	C13	1229	COL150X50	0	Check	0.302	B.2.4.5-8
N+1.75a	C13	1229	COL150X50	175	Check	0.252	B.2.4.5-8
N+1.75a	C13	1229	COL150X50	350	Check	0.248	B.2.4.2-1
N+1.75a	C15	1243	COL150X50	0	Check	0.203	B.2.4.5-8
N+1.75a	C15	1243	COL150X50	175	Check	0.17	B.2.4.5-8
N+1.75a	C15	1243	COL150X50	350	Check	0.155	B.2.4.5-8
N+1.75a	C19	650	COL150X50	0	Check	0.383	B.2.4.5-1
N+1.75a	C19	650	COL150X50	130	Check	0.379	B.2.4.2-1
N+1.75a	C19	650	COL150X50	260	Check	0.375	B.2.4.2-1
N+1.75a	C21	1257	COL 100X50	0	Check	0.103	B.2.4.7-8
N+1.75a	C21	1257	COL 100X50	175	Check	0.033	B.2.4.5-8
N+1.75a	C21	1257	COL 100X50	350	Check	0.117	B.2.4.5-8
N+1.75a	C24	84	COL 100X50	0	Check	0.159	B.2.4.7-1
N+1.75a	C24	84	COL 100X50	130	Check	0.075	B.2.4.5-1
N+1.75a	C24	84	COL 100X50	260	Check	0.093	B.2.4.5-1
N+1.75a	C25	4364	COL 100X50	0	Check	0.097	B.2.4.5-8
N+1.75a	C25	4364	COL 100X50	175	Check	0.06	B.2.4.5-8
N+1.75a	C25	4364	COL 100X50	350	Check	0.121	B.2.4.5-8
N+1.75a	C3	12	COL 100X50	0	Check	0.217	B.2.4.5-2
N+1.75a	C3	12	COL 100X50	130	Check	0.052	B.2.4.5-1
N+1.75a	C3	12	COL 100X50	260	Check	0.133	B.2.4.5-1
N+1.75a	C8	11	COL135X50	0	Check	0.27	B.2.4.5-1
N+1.75a	C8	11	COL135X50	130	Check	0.265	B.2.4.2-1
N+1.75a	C8	11	COL135X50	260	Check	0.266	B.2.4.2-1
N+1.75a	C1	27	COL135X50	0	Check	0.328	B.2.4.2-1
N+1.75a	C1	27	COL135X50	130	Check	0.327	B.2.4.2-1
N+1.75a	C1	27	COL135X50	260	Check	0.327	B.2.4.2-1
N+1.75a	C2	31	COL135X50	0	Check	0.33	B.2.4.5-1
N+1.75a	C2	31	COL135X50	130	Check	0.314	B.2.4.5-1
N+1.75a	C2	31	COL135X50	260	Check	0.313	B.2.4.2-1
N+1.75a	C9	6	COL 100X50	0	Check	0.273	B.2.4.5-1
N+1.75a	C9	6	COL 100X50	130	Check	0.133	B.2.4.5-8
N+1.75a	C9	6	COL 100X50	260	Check	0.312	B.2.4.2-1

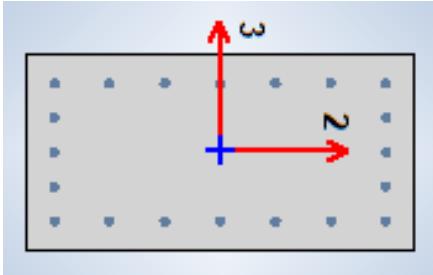
Chequeo de Nodos, Relación b/c.

Tabla 27 Reporte revisión de nudos 6/5 Viga-Columna Edificio A

TABLE: Concrete Joint Summary - ACI 318-14								
Story	Label	Design Section	B/C Major Combo	B/C Major Ratio	B/C Minor Ratio	JS Major Ratio	JS Minor Ratio	Warnings
N+23.75	C22	COL150X50	B.2.4.7-5	0.051	0.064	0.079	0.058	No Message
N+20.75a	C22	COL150X50	B.2.4.7-5	0.133	0.214	0.253	0.237	No Message
N+20.75a	C4	COL150X50	B.2.4.7-1	0.27	0.583	0.345	0.44	No Message
N+20.75a	C5	COL150X50	B.2.4.7-5	0.313	0.642	0.394	0.474	No Message
N+20.75a	C10	COL150X50	B.2.4.7-5	0.239	0.732	0.314	0.583	No Message
N+20.75a	C11	COL150X50	B.2.4.7-5	0.238	0.872	0.314	0.702	No Message
N+20.75a	C12	COL150X50	B.2.4.7-2	0.085	0.914	0.134	0.7	No Message
N+17.25a	C22	COL150X50	B.2.4.7-5	0.126	0.232	0.254	0.276	No Message
N+17.25a	C4	COL150X50	B.2.4.7-1	0.143	0.272	0.284	0.317	No Message
N+17.25a	C5	COL150X50	B.2.4.7-5	0.153	0.325	0.299	0.372	No Message
N+17.25a	C6	COL150X50	B.2.4.7-2	0.146	0.571	0.319	0.782	No Message
N+17.25a	C10	COL150X50	B.2.4.7-5	0.094	0.414	0.194	0.535	No Message
N+17.25a	C11	COL150X50	B.2.4.7-5	0.074	0.431	0.154	0.562	No Message
N+17.25a	C12	COL150X50	B.2.4.7-2	0.046	0.269	0.112	0.312	No Message
N+13.75a	C22	COL150X50	B.2.4.7-5	0.121	0.23	0.25	0.283	No Message
N+13.75a	C4	COL150X50	B.2.4.7-1	0.142	0.271	0.288	0.323	No Message
N+13.75a	C5	COL150X50	B.2.4.7-5	0.148	0.286	0.294	0.334	No Message
N+13.75a	C6	COL150X50	B.2.4.7-2	0.135	0.557	0.317	0.849	No Message
N+13.75a	C10	COL150X50	B.2.4.7-5	0.073	0.441	0.162	0.628	No Message
N+13.75a	C11	COL150X50	B.2.4.7-5	0.055	0.459	0.121	0.666	No Message
N+13.75a	C12	COL150X50	B.2.4.7-2	0.04	0.457	0.098	0.557	No Message
N+10.25a	C22	COL150X50	B.2.4.7-5	0.141	0.23	0.308	0.3	No Message
N+10.25a	C4	COL150X50	B.2.4.7-1	0.136	0.258	0.288	0.327	No Message
N+10.25a	C5	COL150X50	B.2.4.7-5	0.15	0.273	0.312	0.335	No Message
N+10.25a	C6	COL150X50	B.2.4.7-2	0.14	0.529	0.362	0.902	No Message
N+10.25a	C10	COL150X50	B.2.4.7-5	0.104	0.253	0.252	0.387	No Message
N+10.25a	C11	COL150X50	B.2.4.7-5	0.104	0.336	0.258	0.535	No Message
N+10.25a	C12	COL150X50	B.2.4.7-2	0.059	0.249	0.155	0.311	No Message
N+6.0a	C22	COL150X50	B.2.4.7-5	0.1	0.218	0.222	0.297	No Message
N+6.0a	C4	COL150X50	B.2.4.7-1	0.116	0.235	0.254	0.313	No Message
N+6.0a	C5	COL150X50	B.2.4.7-5	0.118	0.164	0.253	0.209	No Message
N+6.0a	C10	COL150X50	B.2.4.7-5	0.052	0.387	0.134	0.656	No Message
N+6.0a	C11	COL150X50	B.2.4.7-5	0.03	0.205	0.077	0.343	No Message
N+6.0a	C12	COL150X50	B.2.4.7-2	0.054	0.303	0.147	0.396	No Message
N+6.0a	C8	COL135X50	B.2.4.7-2	0.286	0.875	0.344	0.635	No Message
N+6.0a	C2	COL135X50	B.2.4.7-2	0.212	0.83	0.265	0.642	No Message
N+1.75a	C22	COL150X50	B.2.4.7-5	0.103	0.196	0.227	0.263	No Message
N+1.75a	C4	COL150X50	B.2.4.7-1	0.085	0.217	0.185	0.289	No Message
N+1.75a	C5	COL150X50	B.2.4.7-5	0.082	0.158	0.172	0.201	No Message
N+1.75a	C6	COL150X50	B.2.4.7-2	0.027	0.143	0.089	0.252	No Message
N+1.75a	C10	COL150X50	B.2.4.7-5	0.028	0.125	0.087	0.207	No Message
N+1.75a	C12	COL150X50	B.2.4.7-2	0.076	0.476	0.163	0.654	No Message
N+1.75a	C19	COL150X50	B.2.4.7-2	0.027	0.175	0.078	0.262	No Message
N+1.75a	C24	COL 100X50	B.2.4.7-1	0.142	0.188	0.13	0.084	No Message
N+1.75a	C3	COL 100X50	B.2.4.7-2	0.346	0.139	0.256	0.062	No Message
N+1.75a	C8	COL135X50	B.2.4.7-2	0.122	0.231	0.237	0.266	No Message
N+1.75a	C1	COL135X50	B.2.4.7-2	0.095	0.368	0.189	0.46	No Message
N+1.75a	C2	COL135X50	B.2.4.7-2	0.065	0.154	0.128	0.186	No Message

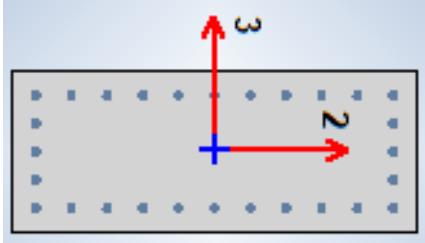
Revisión Columnas Edificio B

COLUMNAS RECTANGULAR 100*50					
		Ag 5000 cm ²			
		p.min 0.01			
		p.max 0.040			
		Ast min 50.0 cm ²			
		Ast max 200.0 cm ²			
		b.min 50 cm			
Sección:	100 x 50	Ast 28#7			
Ast	28#7	Ast/Asmin 108 cm ²	2.17 > 1.0 OK		
		L. max 5 m			
REQUISITOS GEOMETRICOS EN DISEÑO DE ELEMENTOS VERTICALES					
Ancho menor: bw	50 cm				
Lado largo: lw	100 cm				
Altura máxima libre: hw	500 cm				
Tabla R18.10.1 — Requisitos que dominan en el diseño de segmentos verticales de muro^[1]					
Altura libre del segmento vertical de muro / longitud del segmento vertical de muro , (h_w/l_w)	Longitud del segmento vertical de muro / Espesor del muro (ℓ_w/b_w)				
	$\ell_w/b_w \leq 2.5$	$2.5 < \ell_w/b_w \leq 6$	$\ell_w/b_w > 6$		
$h_w/l_w < 2$	Muro	Muro	Muro		
$h_w/l_w \geq 2$	El machón de muro debe cumplir los requisitos de diseño de columnas, véase 18.10.8.1	El machón de muro debe cumplir los requisitos de columna o requisitos alternos, véase 18.10.8.1	Muro		
^[1] h_w es la altura libre, ℓ_w es la longitud horizontal, y b_w es el espesor del alma del segmento de muro.					
$(h_w/l_w) = 5.0$ $(h_w/l_w) >= 2$ $(\ell_w/b_w) = 2.0$ $(\ell_w/b_w) < 2.5$		$\left. \begin{array}{l} \\ \\ \\ \end{array} \right\}$ <p>Se diseña como Columna según R.18.10.1 ACI-318</p>			
C.10.10 - EFECTOS DE ESBELTEZ EN ELEMENTOS SOMETIDOS A COMPRESSION					
C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:					
a) en elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando:					
$\frac{K * l}{r} < 22 \quad (\text{C.10-6}) \rightarrow \frac{K * l}{r_x} = 8.68 < 22 \text{ OK}$		$\frac{K * l}{r_y} = 17.36 < 22 \text{ OK}$			
Por lo tanto, se permite ignorar los efectos de esbeltez según C.10.10 de la NSR-10					

COLUMNAR RECTANGULAR 100*50													
		Ag	5000 cm ²										
		p.min	0.01										
		p.max	0.040										
		Ast min	50.0 cm ²										
		Ast max	200.0 cm ²										
		b.min	50 cm										
		Ast	28#7										
		Ast	108 cm ²										
Sección:	100 x 50	Ast/Asmin	2.17 >1,0 OK										
Ast	28#7	L. max	5 m										
C.21.6.4 — Refuerzo transversal		SEPARACIÓN ZONA CONFINADA											
<p>C.21.6.4.1 — El refuerzo transversal en las cantidades que se especifican en C.21.6.4.2 hasta C.21.6.4.4, debe suministrarse en una longitud ℓ_o medida desde cada cara del nudo y a ambos lados de cualquier sección donde pueda ocurrir fluencia por flexión como resultado de desplazamientos laterales inelásticos del pórtico. La longitud ℓ_o no debe ser menor que la mayor de (a), (b) y (c):</p> <ul style="list-style-type: none"> (a) La altura del elemento en la cara del nudo o en la sección donde puede ocurrir fluencia por flexión. (b) Un sexto de la luz libre del elemento, y (c) 450 mm. <table> <tr> <td>a)</td><td>1 m</td></tr> <tr> <td>b)</td><td>0.83 m</td></tr> <tr> <td>c)</td><td>0.45 m</td></tr> </table>		a)	1 m	b)	0.83 m	c)	0.45 m	<p>C.21.6.4.3 — La separación del refuerzo transversal a lo largo del eje longitudinal del elemento no debe exceder la menor de (a), (b), y (c):</p> <ul style="list-style-type: none"> (a) La cuarta parte de la dimensión mínima del elemento. (b) Seis veces el diámetro de la barra de refuerzo longitudinal menor, y (c) s_0, según lo definido en la ecuación (C.21-5). $s_0 = 100 + \left(\frac{350 - h_x}{3} \right) \quad (\text{C.21-5})$ <p>El valor de s_0 no debe ser mayor a 150 mm y no es necesario tomarlo menor a 100 mm.</p>					
a)	1 m												
b)	0.83 m												
c)	0.45 m												
Lo: Long. Confinamiento 1.00 m													
SEPARACIÓN ZONA NO CONFINADA													
<p>C.7.10.5.2 — El espaciamiento vertical de los estribos no debe exceder 16 diámetros de barra longitudinal, 48 diámetros de barra o alambre de los estribos, o la menor dimensión del elemento sometido a compresión.</p> <table> <tr> <td>16*db</td><td>35.52 cm</td></tr> <tr> <td>48*db.estribo</td><td>45.6 cm</td></tr> <tr> <td>bc</td><td>50.0 cm</td></tr> </table>		16*db	35.52 cm	48*db.estribo	45.6 cm	bc	50.0 cm	<table> <tr> <td>a) B*1/4</td><td>12.50 cm</td></tr> <tr> <td>b) 6*db</td><td>13.32 cm</td></tr> </table> $s_0 = 100 + \left(\frac{350 - h_x}{3} \right) = 19.67 \text{ cm}$		a) B*1/4	12.50 cm	b) 6*db	13.32 cm
16*db	35.52 cm												
48*db.estribo	45.6 cm												
bc	50.0 cm												
a) B*1/4	12.50 cm												
b) 6*db	13.32 cm												
Separación 35.52 cm		Separación máxima 12.50 cm											

REVISION CORTANTE C.21.6.4.4 - NSR-10

REVISION CORTANTE			
COLUMNA RECTANGULAR 100*50			
f' _c	347 kg/cm ²		
f _y	4282.8 kg/cm ²		
separación máxima C.21-6.4.3	12.5 cm		
Separación asignada	12.0 cm		
b _{cx}	91 cm		
b _{cy}	42 cm		
A _g	5000.0 cm ²		
A _{ch}	3822.0 cm ²		
		(b) El área total de la sección transversal del refuerzo de estribos cerrados de confinamiento rectangulares, A _{sh} , no debe ser menor que la requerida por las ecuaciones (C.21-7) y (C.21-8).	
		$A_{sh} = 0.3 \frac{sb_c f'_c}{f_y t} \left[\left(\frac{A_g}{A_{ch}} \right) - 1 \right] \quad (C.21-7)$	
		$A_{sh} = 0.09 \frac{sb_c f'_c}{f_y t} \quad (C.21-8)$	
A _{sh.x} (C.21-7)	8.2 cm ²	A _{sh.y} (C.21-7)	3.8 cm ²
A _{sh.x} (C.21-8)	8.0 cm ²	A _{sh.y} (C.21-8)	3.7 cm ²
A_{sh.x}. Requerido	8.17 cm²	A_{sh.y}. Requerido	3.77 cm²
Nº ganchos usados sentido (x)	5	Nº ganchos usados sentido (y)	1
Diámetro gancho sentido (x)	Gancho#4	Diámetro gancho sentido (y)	Gancho#4
Separación de ganchos en (x)	12.0 cm	Separación de ganchos en (y)	12.0 cm
Asv. adicional ganchos en (x)	6.45 cm ²	Asv. Adicional ganchos en (y)	1.29 cm ²
Diámetro del estribo usado	E#4	Diámetro del estribo usado	E#4
Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²
Asv(x): Asv.estribo+Asv.gancho (x)	9.03 cm ²	Asv(y): Asv.estribo+Asv.gancho (y)	3.87 cm ²
A_{sh.x}. Requerido	8.17 cm²	A_{sh.y}. Requerido	3.77 cm²
Asv (x) > A_{sh.x}.Requerido	Cumple	Asv (y) > A_{sh.y}.Requerido	Cumple
RESUMEN			
COLUMNAR RECTANGULAR 100*50			
Estribo cerrado	E#4		
S1: Separación estribos	12 cm		
Ganchos suplementarios lado largo			
Cantidad Requerida	5		
Diámetro gancho	Gancho#4		
Separación	12 cm		
Ganchos suplementarios lado corto			
Cantidad Requerida	1		
Diámetro gancho	Gancho#4		
Separación	12 cm		

COLUMNAS RECTANGULARES 125x50	
	Ag 6250 cm ² p.min 0.01 p.max 0.040 Ast min 62.5 cm ² Ast max 250.0 cm ² b.min 50 cm Ast 28#8 Ast 143 cm ² Ast/Asmin 2.28 > 1.0 ok L. max 5 m
Sección: 125 x 50	
Refuerzo: Ast 28#8	

REQUISITOS GEOMETRICOS EN DISEÑO DE ELEMENTOS VERTICALES

Ancho menor: b_w 50 cm
 Lado largo: l_w 125 cm
 Altura máxima libre: h_w 500 cm

Tabla R18.10.1 — Requisitos que dominan en el diseño de segmentos verticales de muro^[1]

Altura libre del segmento vertical de muro / longitud del segmento vertical de muro / longitud del segmento vertical de muro , (h_w/l_w)	Longitud del segmento vertical de muro / Espesor del muro (ℓ_w/b_w)		
	$\ell_w/b_w \leq 2.5$	$2.5 < \ell_w/b_w \leq 6$	$\ell_w/b_w > 6$
$h_w/l_w < 2$	Muro	Muro	Muro
$h_w/l_w \geq 2$	El machón de muro debe cumplir los requisitos de diseño de columnas, véase 18.10.8.1	El machón de muro debe cumplir los requisitos de columna o requisitos alternos, véase 18.10.8.1	Muro

[1] h_w es la altura libre, ℓ_w es la longitud horizontal, y b_w es el espesor del alma del segmento de muro.

$$\begin{aligned} (h_w/l_w) &= 4.0 \\ (h_w/l_w) &>= 2 \\ (\ell_w/b_w) &= 2.5 \\ (\ell_w/b_w) &< 2.5 \end{aligned}$$

Se diseña como Columna según R.18.10.1 ACI-318

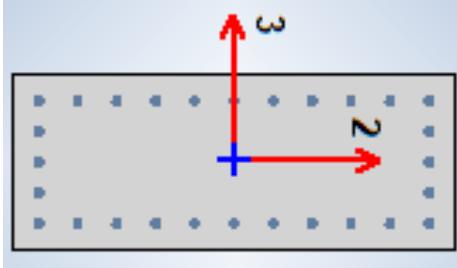
C.10.10 EFECTOS DE ESBELTEZ EN ELEMENTOS SOMETIDOS A COMPRESSION

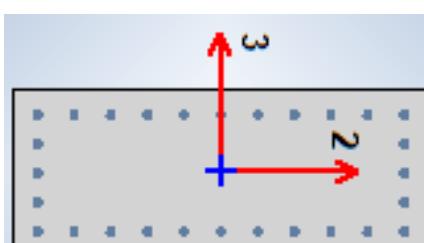
C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:

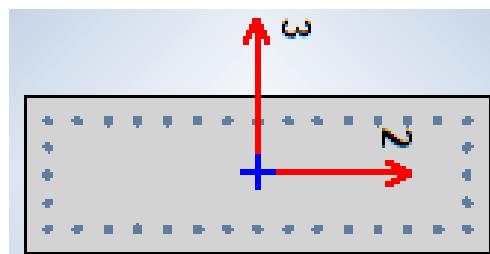
- a) en elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando:

$$\frac{K * l}{r} < 22 \text{ (C.10-6)} \quad \frac{K * l}{r_x} = 6.94 < 22 \text{ OK} \quad \frac{K * l}{r_y} = 17.36 < 22 \text{ OK}$$

Por lo tanto, se permite ignorar los efectos de esbeltez según C.10.10 de la NSR-10

COLUMNAS RECTANGULARES 125x50									
	Ag 6250 cm ² p.min 0.01 p.max 0.040 Ast min 62.5 cm ² Ast max 250.0 cm ² b.min 50 cm	Ast 28#8 Ast 143 cm ² Ast/Asmin 2.28 > 1,0 ok L. max 3.62 m							
Sección: 125 x 50	Refuerzo: Ast 28#8								
C.21.6.4 — Refuerzo transversal	SEPARACION ZONA CONFINADA	C.21.6.4.3 — La separación del refuerzo transversal a lo largo del eje longitudinal del elemento no debe exceder la menor de (a), (b), y (c):							
<p>C.21.6.4.1 — El refuerzo transversal en las cantidades que se especifican en C.21.6.4.2 hasta C.21.6.4.4, debe suministrarse en una longitud ℓ_0, medida desde cada cara del nudo y a ambos lados de cualquier sección donde pueda ocurrir fluencia por flexión como resultado de desplazamientos laterales inelásticos del pórtico. La longitud ℓ_0 no debe ser menor que la mayor de (a), (b) y (c):</p> <ul style="list-style-type: none"> (a) La altura del elemento en la cara del nudo o en la sección donde puede ocurrir fluencia por flexión. (b) Un sexto de la luz libre del elemento, y (c) 450 mm. 	(a) La cuarta parte de la dimensión mínima del elemento.								
<ul style="list-style-type: none"> a) 1.25 m b) 0.83 m c) 0.45 m 	(b) Seis veces el diámetro de la barra de refuerzo longitudinal menor, y								
Lo: Long. Confinamiento 1.25 m	(c) s_0 , según lo definido en la ecuación (C.21-5).								
SEPARACIÓN ZONA NO CONFINADA									
<p>C.7.10.5.2 — El espaciamiento vertical de los estribos no debe exceder 16 diámetros de barra longitudinal, 48 diámetros de barra o alambre de los estribos, o la menor dimensión del elemento sometido a compresión.</p> <table border="0"> <tr> <td>16*db</td> <td>25.44 cm</td> </tr> <tr> <td>48*db.estribo</td> <td>45.6 cm</td> </tr> <tr> <td>bc</td> <td>50.0 cm</td> </tr> </table>	16*db	25.44 cm	48*db.estribo	45.6 cm	bc	50.0 cm	$s_0 = 100 + \left(\frac{350 - h_x}{3} \right)$ = 19.67 cm		
16*db	25.44 cm								
48*db.estribo	45.6 cm								
bc	50.0 cm								
Separación 25.44 cm	Separación máxima 12.50 cm								

REVISION CORTANTE C.21.6.4.4 - NSR-10					
REVISION CORTANTE					
COLUMNA RECTANGULAR 125x50					
f_c	347 kg/cm ²	(b) El área total de la sección transversal del refuerzo de estribos cerrados de confinamiento rectangulares, A_{sh} , no debe ser menor que la requerida por las ecuaciones (C.21-7) y (C.21-8).			
f_y	428.8 kg/cm ²				
separación máxima C.21-6.4.3	12.5 cm				
Separación asignada	12.0 cm				
b_{cx}	116 cm	$A_{sh} = 0.3 \frac{s b_c f'_c}{f_{yt}} \left[\left(\frac{A_g}{A_{ch}} \right) - 1 \right] \quad (C.21-7)$			
b_{cy}	42 cm				
A_g	6250.0 cm ²	$A_{sh} = 0.09 \frac{s b_c f'_c}{f_{yt}} \quad (C.21-8)$			
A_{ch}	4872.0 cm ²				
Ash.x (C.21-7)	9.6 cm ²	Ash.y (C.21-7)	3.5 cm ²		
Ash.x (C.21-8)	10.1 cm ²	Ash.y (C.21-8)	3.7 cm ²		
Ash.x. Requerido	10.14 cm²	Ash.y. Requerido	3.67 cm²		
Nº ganchos usados sentido (x)	6	Nº ganchos usados sentido (y)	1		
Diámetro gancho sentido (x)	G#4	Diámetro gancho sentido (y)	G#4		
Separación de ganchos en (x)	12.0 cm	Separación de ganchos en (y)	12.0 cm		
Asv. adicional ganchos en (x)	7.74 cm ²	Asv. Adicional ganchos en (y)	1.29 cm ²		
Diámetro del estribo usado	E#4	Diámetro del estribo usado	E#4		
Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²		
Asv(x): Asv.estribo+Asv.gancho (x)	10.32 cm²	Asv(y): Asv.estribo+Asv.gancho (y)	3.87 cm²		
Ash.x. Requerido	10.14 cm ²	Ash.y. Requerido	3.67 cm ²		
Asv (x) > Ash.x.Requerido	Cumple	Asv (y) > Ash.y.Requerido	Cumple		
RESUMEN					
COLUMNA RECTANGULAR 125x50					
Estribo cerrado	E#4				
S1: Separación estribos	12 cm				
Ganchos supplementarios lado largo					
Cantidad Requerida	6				
Diámetro gancho	G#4				
Separación	12 cm				
Ganchos supplementarios lado corto					
Cantidad Requerida	1				
Diámetro gancho	G#4				
Separación	12.0 cm				

COLUMNAS RECTANGULARES 150x50				
				
Sección:	150 x 50	A _g	7500 cm ²	
Refuerzo: Ast	36#8	ρ_{min}	0.01	
		ρ_{max}	0.040	
		A _{st min}	75.0 cm ²	
		A _{st max}	300.0 cm ²	
		b _{min}	50 cm	
		A _{st}	36#8	
		A _{st}	184 cm ²	
		A _{st/Asmin}	2.45 > 1.0 ok	
		L. max	5 m	
REQUISITOS GEOMÉTRICOS EN DISEÑO DE ELEMENTOS VERTICALES				
Ancho menor: b _w	50 cm			
Lado largo: l _w	150 cm			
Altura máxima libre: h _w	500 cm			
Tabla R18.10.1 — Requisitos que dominan en el diseño de segmentos verticales de muro^[1]				
Altura libre del segmento vertical de muro / longitud del segmento vertical de muro , (h_w/ℓ_w)	Longitud del segmento vertical de muro / Espesor del muro (ℓ_w/b_w)			
	$\ell_w/b_w \leq 2.5$	$2.5 < \ell_w/b_w \leq 6$	$\ell_w/b_w > 6$	
$h_w/\ell_w < 2$	Muro	Muro	Muro	
$h_w/\ell_w \geq 2$	El machón de muro debe cumplir los requisitos de diseño de columnas, véase 18.10.8.1	El machón de muro debe cumplir los requisitos de columna o requisitos alternos, véase 18.10.8.1	Muro	
^[1] h _w es la altura libre, ℓ_w es la longitud horizontal, y b _w es el espesor del alma del segmento de muro.				
$(h_w/\ell_w) = 3.3$ $(h_w/\ell_w) \geq 2$ $(\ell_w/b_w) = 3.0$ $2.5 < (\ell_w/b_w) < 6.0$				
} Se diseña como Columna según R.18.10.1 ACI-318				
C.10.10 EFECTOS DE ESBELTEZ EN ELEMENTOS SOMETIDOS A COMPRESIÓN				
C.10.10.1 — Se permite ignorar los efectos de esbeltez en los siguientes casos:				
a) en elementos sometidos a compresión no arriostrados contra desplazamientos laterales cuando: $\frac{K * l}{r} < 22 \quad (C.10-6) \quad \frac{K * l}{r_x} = 5.79 < 22 \text{ OK} \quad \frac{K * l}{r_y} = 17.36 < 22 \text{ OK}$				
Por lo tanto, se permite ignorar los efectos de esbeltez según C.10.10 de la NSR-10				

COLUMNAS RECTANGULARES 150x50											
	$A_g = 7500 \text{ cm}^2$ $\rho_{min} = 0.01$ $\rho_{max} = 0.040$ Ast min 75.0 cm^2 Ast max 300.0 cm^2 b.min 50 cm	Ast $36\#8$ Ast 184 cm^2 Ast/Asmin $2.45 > 1.0 \text{ ok}$ L. max 5 m									
Sección: 150×50	Refuerzo: Ast	36#8									
C.21.6.4 — Refuerzo transversal	SEPARACION ZONA CONFINADA	C.21.6.4.1 — El refuerzo transversal en las cantidades que se especifican en C.21.6.4.2 hasta C.21.6.4.4, debe suministrarse en una longitud ℓ_o medida desde cada cara del nudo y a ambos lados de cualquier sección donde pueda ocurrir fluencia por flexión como resultado de desplazamientos laterales inelásticos del pórtico. La longitud ℓ_o no debe ser menor que la mayor de (a), (b) y (c):									
<p>(a) La altura del elemento en la cara del nudo o en la sección donde puede ocurrir fluencia por flexión.</p> <p>(b) Un sexto de la luz libre del elemento, y</p> <p>(c) 450 mm.</p> <table> <tr> <td>a)</td><td>1.50 m</td> </tr> <tr> <td>b)</td><td>0.83 m</td> </tr> <tr> <td>c)</td><td>0.45 m</td> </tr> </table>	a)	1.50 m	b)	0.83 m	c)	0.45 m	<p>(a) La cuarta parte de la dimensión mínima del elemento.</p> <p>(b) Seis veces el diámetro de la barra de refuerzo longitudinal menor, y</p> <p>(c) s_0, según lo definido en la ecuación (C.21-5).</p>	$s_0 = 100 + \left(\frac{350 - h_x}{3} \right) \quad (\text{C.21-5})$	El valor de s_0 no debe ser mayor a 150 mm y no es necesario tomarlo menor a 100 mm.		
a)	1.50 m										
b)	0.83 m										
c)	0.45 m										
Lo: Long. Confinamiento 1.50 m	<table> <tr> <td>a)</td><td>B*1/4</td><td>12.50 cm</td> </tr> <tr> <td>b)</td><td>6*db</td><td>15.24 cm</td> </tr> </table>	a)	B*1/4	12.50 cm	b)	6*db	15.24 cm	$s_0 = 100 + \left(\frac{350 - h_x}{3} \right) = 19.67 \text{ cm}$			
a)	B*1/4	12.50 cm									
b)	6*db	15.24 cm									
<table> <tr> <td>16*db</td><td>25.44 cm</td> </tr> <tr> <td>48*db.estribo</td><td>45.6 cm</td> </tr> <tr> <td>bc</td><td>50.0 cm</td> </tr> </table>	16*db	25.44 cm	48*db.estribo	45.6 cm	bc	50.0 cm	<table> <tr> <td>c) So</td><td>15.0 cm</td> </tr> </table>	c) So	15.0 cm		
16*db	25.44 cm										
48*db.estribo	45.6 cm										
bc	50.0 cm										
c) So	15.0 cm										
Separación 25.44 cm	Separación máxima 12.50 cm										

REVISION CORTANTE C.21.6.4.4 - NSR-10				
REVISION CORTANTE				
COLUMNA RECTANGULAR 150x50				
f_c	347 kg/cm ²			
f_y	4282.8 kg/cm ²			
separación máxima C.21-6.4.3	12.5 cm			
Separación asignada	12.0 cm			
b_{cx}	141 cm			
b_{cy}	42 cm			
A_g	7500.0 cm ²			
A_{ch}	5922.0 cm ²			
			(b) El área total de la sección transversal del refuerzo de estribos cerrados de confinamiento rectangulares, A_{sh} , no debe ser menor que la requerida por las ecuaciones (C.21-7) y (C.21-8).	
			$A_{sh} = 0.3 \frac{s b_c f'_c}{f_{yt}} \left[\left(\frac{A_g}{A_{ch}} \right) - 1 \right] \quad (C.21-7)$	
			$A_{sh} = 0.09 \frac{s b_c f'_c}{f_{yt}} \quad (C.21-8)$	
Ash.x (C.21-7)	10.9 cm ²	Ash.y (C.21-7)	3.3 cm ²	
Ash.x (C.21-8)	12.3 cm ²	Ash.y (C.21-8)	3.7 cm ²	
Ash.x. Requerido	12.33 cm²	Ash.y. Requerido	3.67 cm²	
Nº ganchos usados sentido (x)	8	Nº ganchos usados sentido (y)	1	
Diámetro gancho sentido (x)	G#4	Diámetro gancho sentido (y)	G#4	
Separación de ganchos en (x)	12.0 cm	Separación de ganchos en (y)	12.0 cm	
Asv. adicional ganchos en (x)	10.32 cm ²	Asv. Adicional ganchos en (y)	1.29 cm ²	
Diámetro del estribo usado	E#4	Diámetro del estribo usado	E#4	
Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	Asv.estribo: 2 ramas estribo cerrado	2.58 cm ²	
Asv(x): Asv.estribo+Asv.gancho (x)	12.9 cm²	Asv(y): Asv.estribo+Asv.gancho (y)	3.87 cm²	
Ash.x. Requerido	12.33 cm²	Ash.y. Requerido	3.67 cm²	
Asv (x) > Ash.x.Requerido	Cumple	Asv (y) > Ash.y.Requerido	Cumple	
RESUMEN				
COLUMNA RECTANGULAR 150x50				
Estribo cerrado	E#4			
S1: Separación estribos	12 cm			
Ganchos supplementarios lado largo				
Cantidad Requerida	8			
Diámetro gancho	G#4			
Separación	12 cm			
Ganchos supplementarios lado corto				
Cantidad Requerida	1			
Diámetro gancho	G#4			
Separación	12.0 cm			

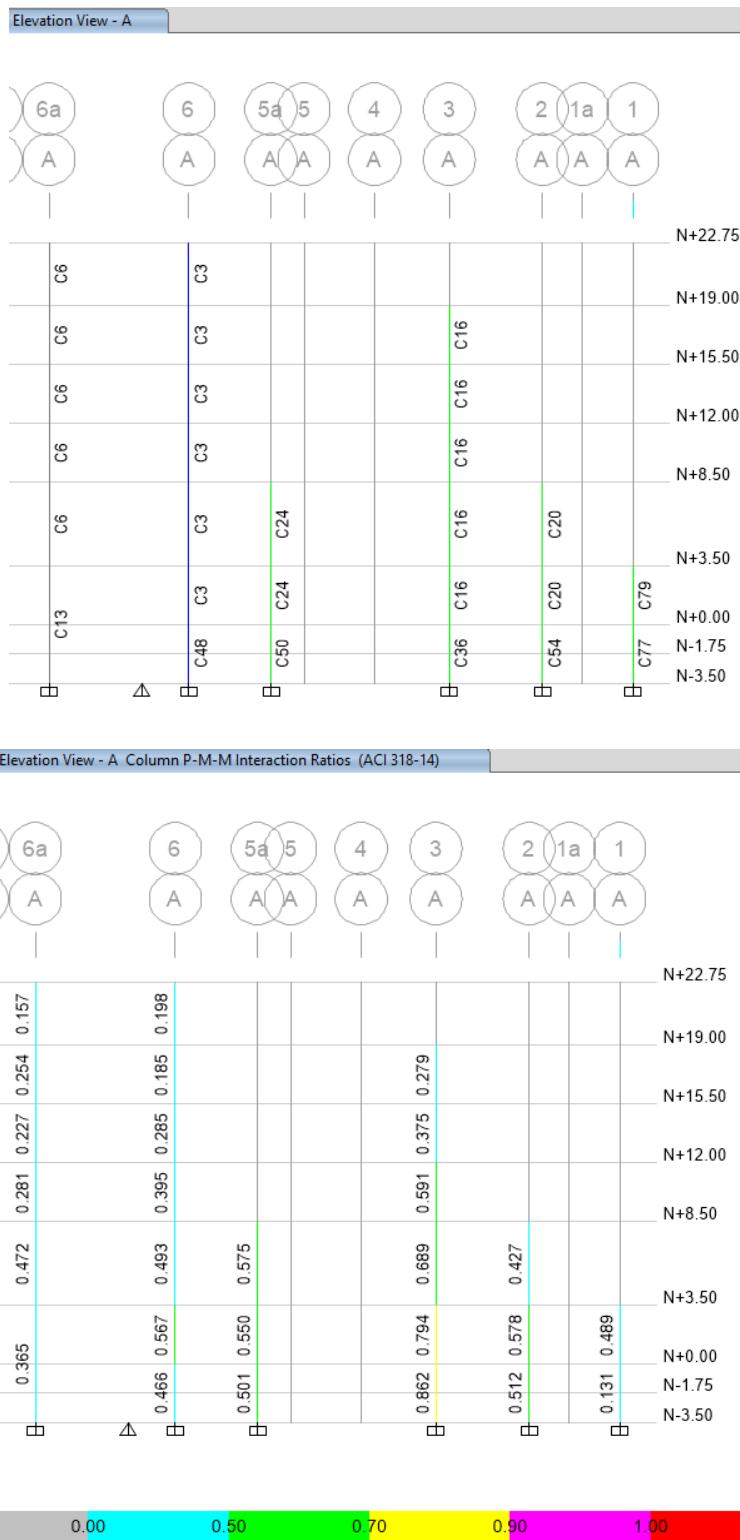


Figura 44 Label e índice de sobre esfuerzo columnas eje A.

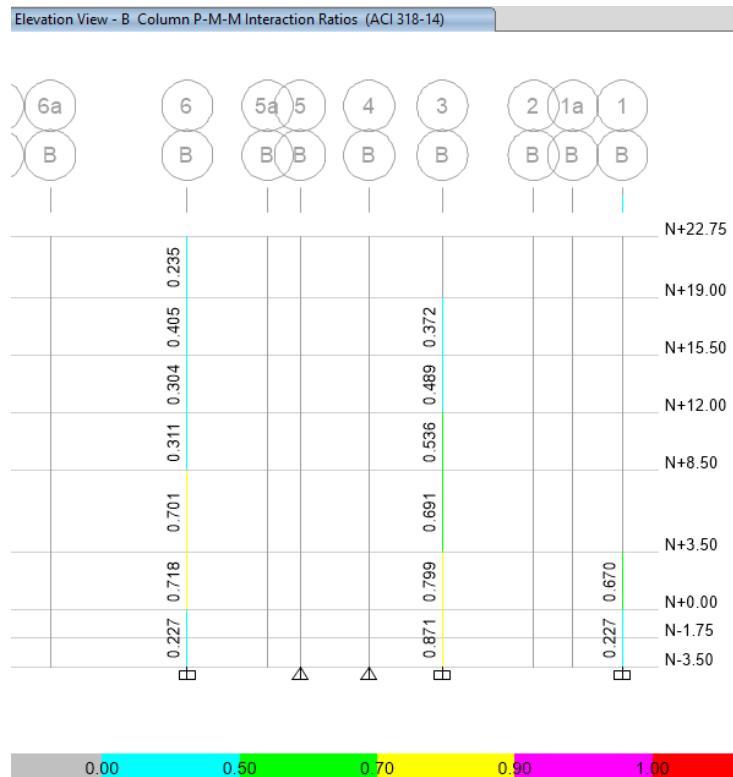
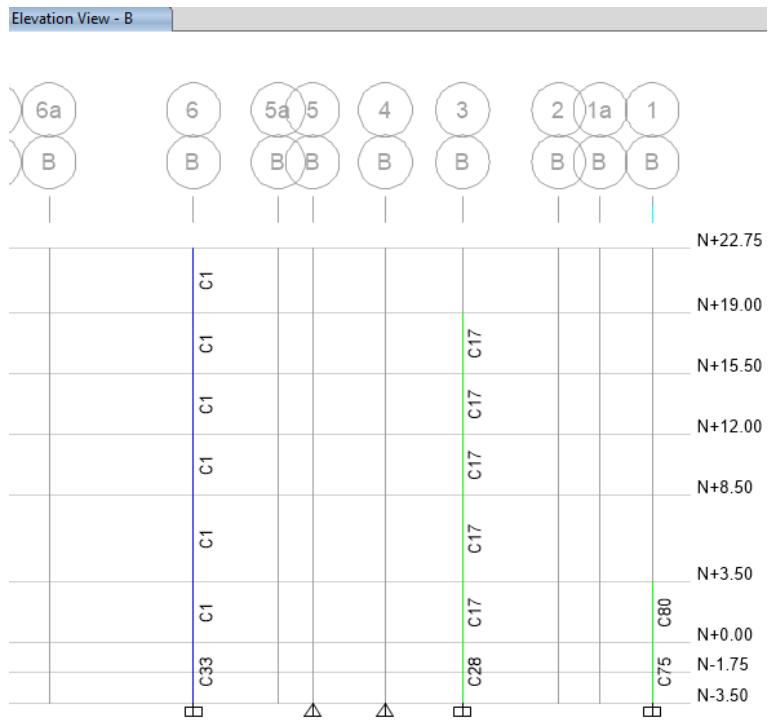


Figura 45 Label e índice de sobre esfuerzo columnas eje B

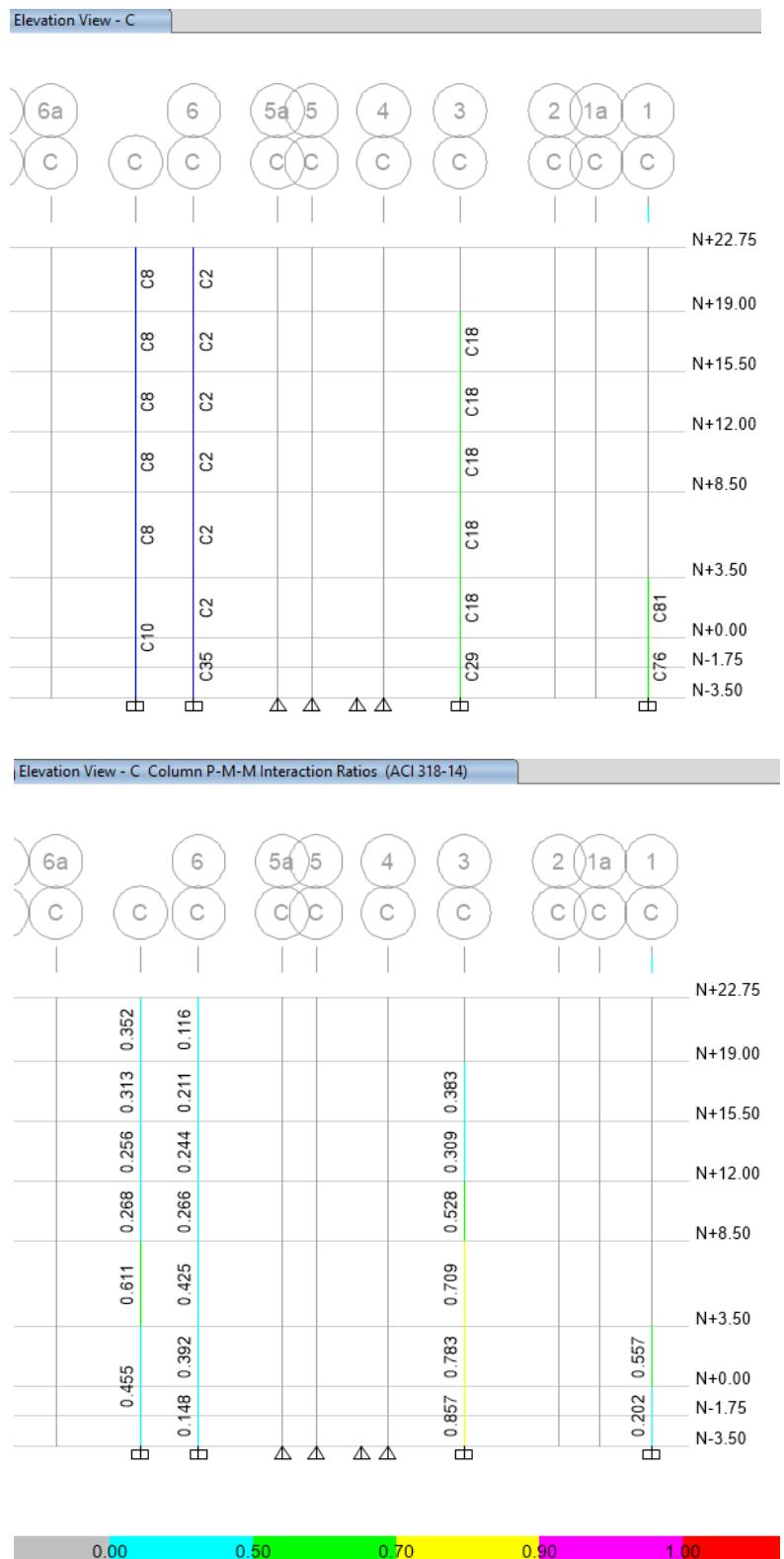


Figura 46 Label e índice de sobre esfuerzo de columnas en eje C

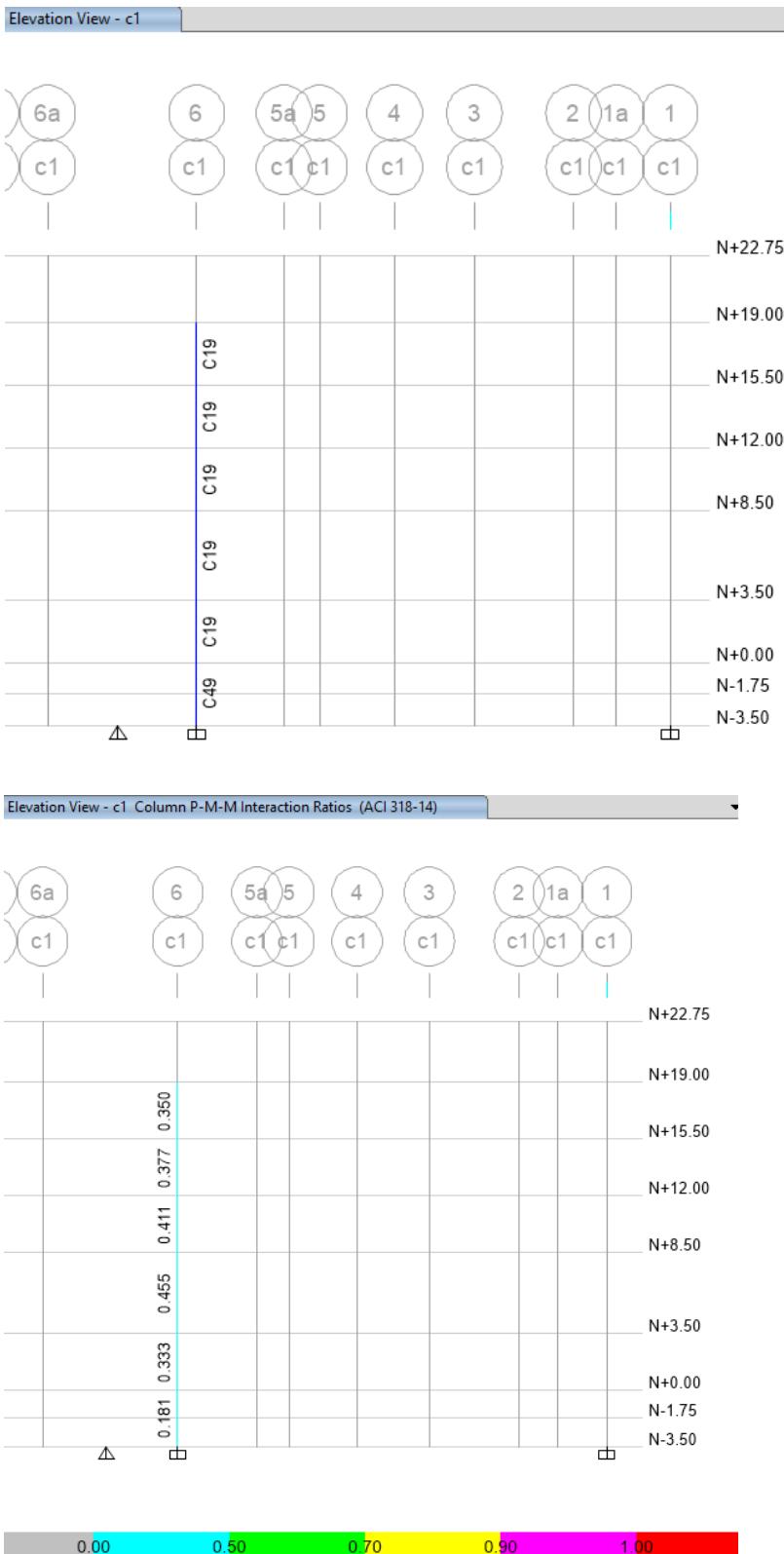
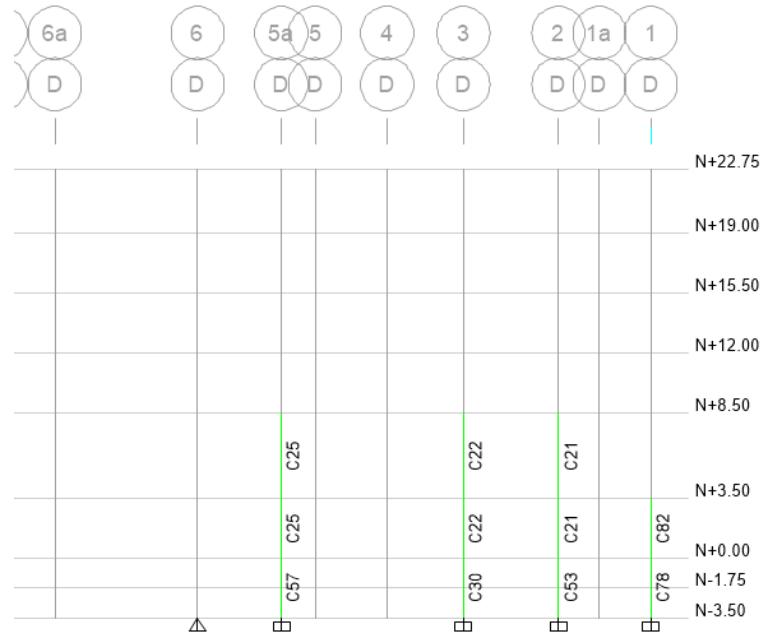


Figura 47 Label e índice de sobre esfuerzo de columnas en eje c1

Elevation View - D



Elevation View - D Column P-M-M Interaction Ratios (ACI 318-14)

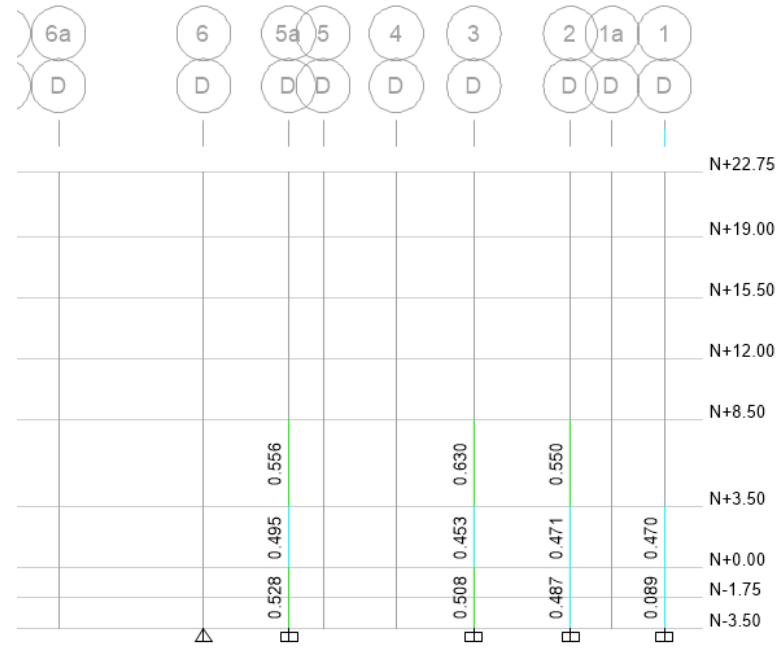


Figura 48 Label e índice de sobre esfuerzo de columnas en eje D

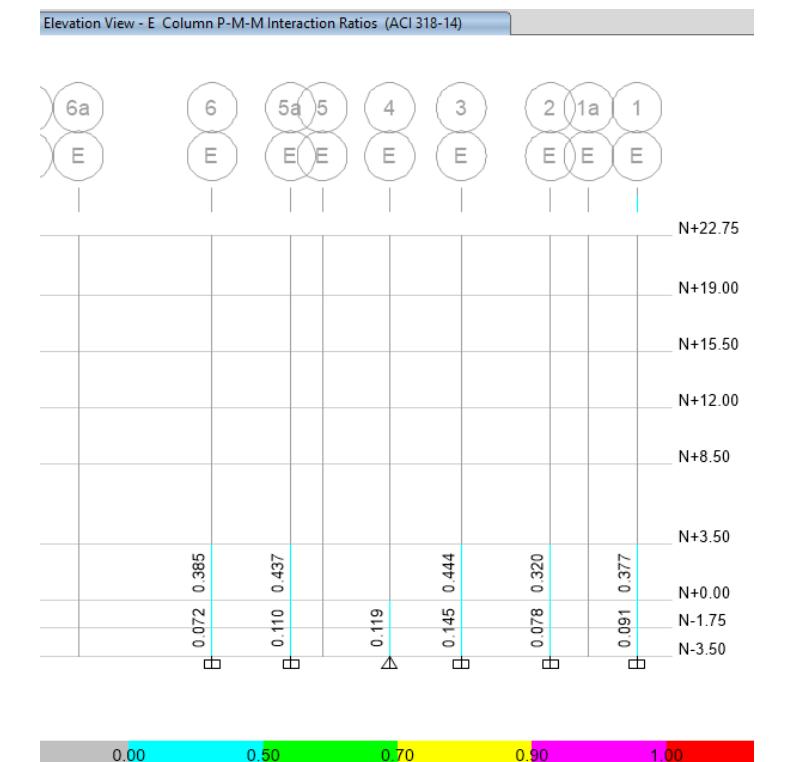
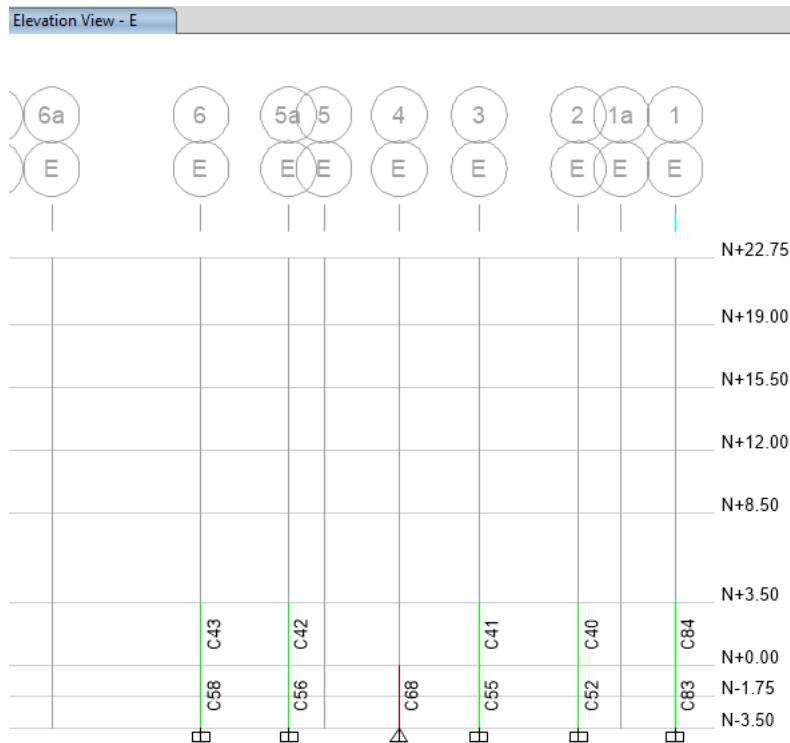


Figura 49 Label e índice de sobre esfuerzo de columnas en eje E

Tabla 28 Índice de sobre esfuerzo en columnas Edificio B ejes (1 a 6^a)

TABLE: Concrete Column Summary - ACI 318-14							
Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+22.75	C1	4969	COL125X50	0	Check	0.235	B.2.4.5-8
N+22.75	C1	4969	COL125X50	157.5	Check	0.128	B.2.4.5-3
N+22.75	C1	4969	COL125X50	315	Check	0.062	B.2.4.3-4
N+22.75	C2	4970	COL125X50	0	Check	0.116	B.2.4.5-3
N+22.75	C2	4970	COL125X50	157.5	Check	0.048	B.2.4.5-3
N+22.75	C2	4970	COL125X50	315	Check	0.051	B.2.4.5-8
N+22.75	C3	78	COL125X50	0	Check	0.198	B.2.4.5-3
N+22.75	C3	78	COL125X50	142.5	Check	0.103	B.2.4.5-3
N+22.75	C3	78	COL125X50	285	Check	0.064	B.2.4.3-3
N+22.75	C8	9087	COL125X50	0	Check	0.352	B.2.4.3-3
N+22.75	C8	9087	COL125X50	167.5	Check	0.100	B.2.4.5-3
N+22.75	C8	9087	COL125X50	335	Check	0.126	B.2.4.3-1
N+22.75	C6	384	COL150X50	0	Check	0.157	B.2.4.5-8
N+22.75	C6	384	COL150X50	142.5	Check	0.065	B.2.4.5-3
N+22.75	C6	384	COL150X50	285	Check	0.080	B.2.4.5-8
N+19.00	C1	4185	COL125X50	0	Check	0.405	B.2.4.5-3
N+19.00	C1	4185	COL125X50	130	Check	0.160	B.2.4.3-4
N+19.00	C1	4185	COL125X50	260	Check	0.280	B.2.4.5-8
N+19.00	C2	4186	COL125X50	0	Check	0.211	B.2.4.5-3
N+19.00	C2	4186	COL125X50	130	Check	0.063	B.2.4.5-3
N+19.00	C2	4186	COL125X50	260	Check	0.132	B.2.4.5-3
N+19.00	C3	82	COL125X50	0	Check	0.185	B.2.4.5-3
N+19.00	C3	82	COL125X50	130	Check	0.147	B.2.4.3-1
N+19.00	C3	82	COL125X50	260	Check	0.149	B.2.4.5-8
N+19.00	C8	182	COL125X50	0	Check	0.313	B.2.4.5-3
N+19.00	C8	182	COL125X50	130	Check	0.046	B.2.4.5-3
N+19.00	C8	182	COL125X50	260	Check	0.263	B.2.4.3-1
N+19.00	C16	513	COL 100X50	0	Check	0.279	B.2.4.5-3
N+19.00	C16	513	COL 100X50	130	Check	0.175	B.2.4.3-1
N+19.00	C16	513	COL 100X50	260	Check	0.174	B.2.4.5-3
N+19.00	C17	515	COL 100X50	0	Check	0.372	B.2.4.5-3
N+19.00	C17	515	COL 100X50	130	Check	0.127	B.2.4.3-3
N+19.00	C17	515	COL 100X50	260	Check	0.265	B.2.4.5-3
N+19.00	C18	517	COL 100X50	0	Check	0.383	B.2.4.5-8
N+19.00	C18	517	COL 100X50	130	Check	0.134	B.2.4.3-3
N+19.00	C18	517	COL 100X50	260	Check	0.307	B.2.4.5-8
N+19.00	C19	56	COL125X50	0	Check	0.350	B.2.4.5-3
N+19.00	C19	56	COL125X50	130	Check	0.118	B.2.4.2-1
N+19.00	C19	56	COL125X50	260	Check	0.244	B.2.4.5-3
N+19.00	C6	386	COL150X50	0	Check	0.210	B.2.4.5-8
N+19.00	C6	386	COL150X50	130	Check	0.135	B.2.4.3-3
N+19.00	C6	386	COL150X50	260	Check	0.254	B.2.4.3-1
N+15.50	C1	3416	COL125X50	0	Check	0.304	B.2.4.5-3
N+15.50	C1	3416	COL125X50	130	Check	0.175	B.2.4.3-1
N+15.50	C1	3416	COL125X50	260	Check	0.177	B.2.4.5-3
N+15.50	C2	3417	COL125X50	0	Check	0.244	B.2.4.5-3
N+15.50	C2	3417	COL125X50	130	Check	0.116	B.2.4.5-3
N+15.50	C2	3417	COL125X50	260	Check	0.136	B.2.4.5-3
N+15.50	C3	83	COL125X50	0	Check	0.285	B.2.4.5-3
N+15.50	C3	83	COL125X50	130	Check	0.255	B.2.4.3-1
N+15.50	C3	83	COL125X50	260	Check	0.253	B.2.4.3-1
N+15.50	C8	64	COL125X50	0	Check	0.256	B.2.4.5-3
N+15.50	C8	64	COL125X50	130	Check	0.094	B.2.4.5-3
N+15.50	C8	64	COL125X50	260	Check	0.122	B.2.4.5-3
N+15.50	C16	3407	COL 100X50	0	Check	0.375	B.2.4.5-3
N+15.50	C16	3407	COL 100X50	130	Check	0.320	B.2.4.3-1
N+15.50	C16	3407	COL 100X50	260	Check	0.317	B.2.4.3-1

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+15.50	C17	3408	COL 100X50	0	Check	0.489	B.2.4.5-3
N+15.50	C17	3408	COL 100X50	130	Check	0.252	B.2.4.3-1
N+15.50	C17	3408	COL 100X50	260	Check	0.275	B.2.4.5-3
N+15.50	C18	3409	COL 100X50	0	Check	0.309	B.2.4.5-8
N+15.50	C18	3409	COL 100X50	130	Check	0.221	B.2.4.5-8
N+15.50	C18	3409	COL 100X50	260	Check	0.228	B.2.4.5-8
N+15.50	C19	70	COL125X50	0	Check	0.377	B.2.4.5-3
N+15.50	C19	70	COL125X50	130	Check	0.215	B.2.4.2-1
N+15.50	C19	70	COL125X50	260	Check	0.241	B.2.4.2-1
N+15.50	C6	518	COL150X50	0	Check	0.227	B.2.4.5-8
N+15.50	C6	518	COL150X50	130	Check	0.119	B.2.4.3-1
N+15.50	C6	518	COL150X50	260	Check	0.152	B.2.4.5-8
N+12.00	C1	79	COL125X50	0	Check	0.311	B.2.4.5-3
N+12.00	C1	79	COL125X50	130	Check	0.289	B.2.4.3-1
N+12.00	C1	79	COL125X50	260	Check	0.287	B.2.4.3-1
N+12.00	C2	80	COL125X50	0	Check	0.266	B.2.4.5-3
N+12.00	C2	80	COL125X50	130	Check	0.182	B.2.4.2-1
N+12.00	C2	80	COL125X50	260	Check	0.180	B.2.4.5-3
N+12.00	C3	85	COL125X50	0	Check	0.395	B.2.4.5-3
N+12.00	C3	85	COL125X50	130	Check	0.363	B.2.4.3-1
N+12.00	C3	85	COL125X50	260	Check	0.364	B.2.4.3-1
N+12.00	C8	25	COL125X50	0	Check	0.268	B.2.4.5-3
N+12.00	C8	25	COL125X50	130	Check	0.134	B.2.4.5-8
N+12.00	C8	25	COL125X50	260	Check	0.149	B.2.4.5-8
N+12.00	C16	66	COL 100X50	0	Check	0.591	B.2.4.5-3
N+12.00	C16	66	COL 100X50	130	Check	0.489	B.2.4.3-1
N+12.00	C16	66	COL 100X50	260	Check	0.488	B.2.4.3-1
N+12.00	C17	67	COL 100X50	0	Check	0.536	B.2.4.5-3
N+12.00	C17	67	COL 100X50	130	Check	0.367	B.2.4.5-8
N+12.00	C17	67	COL 100X50	260	Check	0.378	B.2.4.5-8
N+12.00	C18	72	COL 100X50	0	Check	0.528	B.2.4.5-3
N+12.00	C18	72	COL 100X50	130	Check	0.419	B.2.4.5-8
N+12.00	C18	72	COL 100X50	260	Check	0.412	B.2.4.5-8
N+12.00	C19	101	COL125X50	0	Check	0.411	B.2.4.5-3
N+12.00	C19	101	COL125X50	130	Check	0.323	B.2.4.2-1
N+12.00	C19	101	COL125X50	260	Check	0.329	B.2.4.2-1
N+12.00	C6	530	COL150X50	0	Check	0.281	B.2.4.5-8
N+12.00	C6	530	COL150X50	130	Check	0.159	B.2.4.5-8
N+12.00	C6	530	COL150X50	260	Check	0.178	B.2.4.5-8
N+8.50	C1	217	COL125X50	0	Check	0.701	B.2.4.5-8
N+8.50	C1	217	COL125X50	205	Check	0.562	B.2.4.2-1
N+8.50	C1	217	COL125X50	410	Check	0.560	B.2.4.2-1
N+8.50	C2	240	COL125X50	0	Check	0.425	B.2.4.5-8
N+8.50	C2	240	COL125X50	205	Check	0.331	B.2.4.2-1
N+8.50	C2	240	COL125X50	410	Check	0.344	B.2.4.5-8
N+8.50	C3	87	COL125X50	0	Check	0.493	B.2.4.5-8
N+8.50	C3	87	COL125X50	205	Check	0.456	B.2.4.2-1
N+8.50	C3	87	COL125X50	410	Check	0.454	B.2.4.2-1
N+8.50	C8	24	COL125X50	0	Check	0.611	B.2.4.5-8
N+8.50	C8	24	COL125X50	205	Check	0.317	B.2.4.5-8
N+8.50	C8	24	COL125X50	410	Check	0.343	B.2.4.5-8
N+8.50	C16	122	COL 100X50	0	Check	0.689	B.2.4.5-8
N+8.50	C16	122	COL 100X50	205	Check	0.635	B.2.4.2-1
N+8.50	C16	122	COL 100X50	410	Check	0.645	B.2.4.5-8
N+8.50	C17	130	COL 100X50	0	Check	0.691	B.2.4.5-8
N+8.50	C17	130	COL 100X50	205	Check	0.584	B.2.4.5-8
N+8.50	C17	130	COL 100X50	410	Check	0.617	B.2.4.5-8
N+8.50	C18	131	COL 100X50	0	Check	0.709	B.2.4.5-8
N+8.50	C18	131	COL 100X50	205	Check	0.606	B.2.4.5-8
N+8.50	C18	131	COL 100X50	410	Check	0.630	B.2.4.5-8

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+8.50	C19	105	COL125X50	0	Check	0.455	B.2.4.5-8
N+8.50	C19	105	COL125X50	205	Check	0.404	B.2.4.2-1
N+8.50	C19	105	COL125X50	410	Check	0.401	B.2.4.2-1
N+8.50	C20	81	COL 100X50	0	Check	0.389	B.2.4.5-8
N+8.50	C20	81	COL 100X50	205	Check	0.363	B.2.4.5-8
N+8.50	C20	81	COL 100X50	410	Check	0.427	B.2.4.5-3
N+8.50	C21	225	COL 100X50	0	Check	0.550	B.2.4.5-3
N+8.50	C21	225	COL 100X50	205	Check	0.372	B.2.4.5-8
N+8.50	C21	225	COL 100X50	410	Check	0.459	B.2.4.5-3
N+8.50	C22	248	COL 100X50	0	Check	0.550	B.2.4.5-8
N+8.50	C22	248	COL 100X50	205	Check	0.325	B.2.4.5-3
N+8.50	C22	248	COL 100X50	410	Check	0.630	B.2.4.5-8
N+8.50	C24	294	COL 100X50	0	Check	0.575	B.2.4.5-8
N+8.50	C24	294	COL 100X50	205	Check	0.259	B.2.4.2-1
N+8.50	C24	294	COL 100X50	410	Check	0.509	B.2.4.5-8
N+8.50	C25	313	COL 100X50	0	Check	0.523	B.2.4.5-8
N+8.50	C25	313	COL 100X50	205	Check	0.370	B.2.4.5-3
N+8.50	C25	313	COL 100X50	410	Check	0.556	B.2.4.5-8
N+8.50	C6	538	COL150X50	0	Check	0.472	B.2.4.5-8
N+8.50	C6	538	COL150X50	205	Check	0.238	B.2.4.5-8
N+8.50	C6	538	COL150X50	410	Check	0.256	B.2.4.5-8
N+3.50	C1	213	COL125X50	0	Check	0.712	B.2.4.2-1
N+3.50	C1	213	COL125X50	125	Check	0.718	B.2.4.2-1
N+3.50	C1	213	COL125X50	250	Check	0.712	B.2.4.2-1
N+3.50	C2	214	COL125X50	0	Check	0.392	B.2.4.5-3
N+3.50	C2	214	COL125X50	125	Check	0.381	B.2.4.2-1
N+3.50	C2	214	COL125X50	250	Check	0.380	B.2.4.2-1
N+3.50	C3	89	COL125X50	0	Check	0.567	B.2.4.5-8
N+3.50	C3	89	COL125X50	125	Check	0.564	B.2.4.2-1
N+3.50	C3	89	COL125X50	250	Check	0.564	B.2.4.2-1
N+3.50	C16	203	COL 100X50	0	Check	0.794	B.2.4.2-1
N+3.50	C16	203	COL 100X50	130	Check	0.785	B.2.4.2-1
N+3.50	C16	203	COL 100X50	260	Check	0.792	B.2.4.2-1
N+3.50	C17	204	COL 100X50	0	Check	0.799	B.2.4.5-8
N+3.50	C17	204	COL 100X50	130	Check	0.718	B.2.4.5-8
N+3.50	C17	204	COL 100X50	260	Check	0.721	B.2.4.5-8
N+3.50	C18	205	COL 100X50	0	Check	0.783	B.2.4.5-8
N+3.50	C18	205	COL 100X50	130	Check	0.731	B.2.4.5-8
N+3.50	C18	205	COL 100X50	260	Check	0.729	B.2.4.5-8
N+3.50	C19	109	COL125X50	0	Check	0.329	B.2.4.5-3
N+3.50	C19	109	COL125X50	125	Check	0.316	B.2.4.2-1
N+3.50	C19	109	COL125X50	175	Check	0.317	B.2.4.2-1
N+3.50	C19	109	COL125X50	175	Check	0.333	B.2.4.2-1
N+3.50	C19	109	COL125X50	250	Check	0.333	B.2.4.2-1
N+3.50	C20	3384	COL 100X50	0	Check	0.578	B.2.4.5-8
N+3.50	C20	3384	COL 100X50	130	Check	0.445	B.2.4.5-8
N+3.50	C20	3384	COL 100X50	260	Check	0.450	B.2.4.5-8
N+3.50	C21	3306	COL 100X50	0	Check	0.471	B.2.4.5-8
N+3.50	C21	3306	COL 100X50	130	Check	0.426	B.2.4.5-8
N+3.50	C21	3306	COL 100X50	260	Check	0.426	B.2.4.5-8
N+3.50	C22	206	COL 100X50	0	Check	0.453	B.2.4.5-3
N+3.50	C22	206	COL 100X50	130	Check	0.398	B.2.4.5-3
N+3.50	C22	206	COL 100X50	260	Check	0.402	B.2.4.5-3
N+3.50	C24	3386	COL 100X50	0	Check	0.550	B.2.4.5-8
N+3.50	C24	3386	COL 100X50	130	Check	0.416	B.2.4.2-1
N+3.50	C24	3386	COL 100X50	260	Check	0.415	B.2.4.2-1
N+3.50	C25	3389	COL 100X50	0	Check	0.495	B.2.4.5-3
N+3.50	C25	3389	COL 100X50	130	Check	0.444	B.2.4.2-1
N+3.50	C25	3389	COL 100X50	260	Check	0.446	B.2.4.2-1
N+3.50	C40	3312	COL 100X50	0	Check	0.320	B.2.4.5-8

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+3.50	C40	3312	COL 100X50	130	Check	0.087	B.2.4.5-8
N+3.50	C40	3312	COL 100X50	260	Check	0.190	B.2.4.5-8
N+3.50	C41	3317	COL 100X50	0	Check	0.444	B.2.4.5-8
N+3.50	C41	3317	COL 100X50	130	Check	0.098	B.2.4.5-8
N+3.50	C41	3317	COL 100X50	260	Check	0.250	B.2.4.5-3
N+3.50	C42	3394	COL 100X50	0	Check	0.437	B.2.4.5-8
N+3.50	C42	3394	COL 100X50	130	Check	0.105	B.2.4.5-3
N+3.50	C42	3394	COL 100X50	260	Check	0.260	B.2.4.5-8
N+3.50	C43	3402	COL 100X50	0	Check	0.385	B.2.4.5-3
N+3.50	C43	3402	COL 100X50	125	Check	0.117	B.2.4.5-8
N+3.50	C43	3402	COL 100X50	250	Check	0.244	B.2.4.5-3
N+3.50	C79	199	COL 100X50	0	Check	0.489	B.2.4.5-8
N+3.50	C79	199	COL 100X50	130	Check	0.128	B.2.4.5-8
N+3.50	C79	199	COL 100X50	260	Check	0.221	B.2.4.5-8
N+3.50	C80	200	COL 100X50	0	Check	0.670	B.2.4.5-8
N+3.50	C80	200	COL 100X50	130	Check	0.144	B.2.4.5-8
N+3.50	C80	200	COL 100X50	260	Check	0.402	B.2.4.5-8
N+3.50	C81	201	COL 100X50	0	Check	0.557	B.2.4.5-3
N+3.50	C81	201	COL 100X50	130	Check	0.120	B.2.4.5-8
N+3.50	C81	201	COL 100X50	260	Check	0.360	B.2.4.5-3
N+3.50	C82	202	COL 100X50	0	Check	0.470	B.2.4.5-3
N+3.50	C82	202	COL 100X50	130	Check	0.129	B.2.4.5-3
N+3.50	C82	202	COL 100X50	260	Check	0.234	B.2.4.5-8
N+3.50	C84	3305	COL 100X50	0	Check	0.377	B.2.4.5-8
N+3.50	C84	3305	COL 100X50	130	Check	0.121	B.2.4.7-4
N+3.50	C84	3305	COL 100X50	260	Check	0.167	B.2.4.5-8
N+3.50	C10	1150	COL125X50	0	Check	0.455	B.2.4.5-8
N+3.50	C10	1150	COL125X50	300	Check	0.434	B.2.4.5-8
N+3.50	C10	1150	COL125X50	600	Check	0.435	B.2.4.5-8
N+3.50	C11	4363	COL 100X50	0	Check	0.435	B.2.4.5-3
N+3.50	C11	4363	COL 100X50	300	Check	0.130	B.2.4.5-3
N+3.50	C11	4363	COL 100X50	600	Check	0.662	B.2.4.5-8
N+3.50	C13	548	COL150X50	0	Check	0.340	B.2.4.5-8
N+3.50	C13	548	COL150X50	300	Check	0.309	B.2.4.5-8
N+3.50	C13	548	COL150X50	600	Check	0.365	B.2.4.5-8
N+0.00	C28	1	COL 100X50	0	Check	0.871	B.2.4.5-8
N+0.00	C28	1	COL 100X50	130	Check	0.870	B.2.4.5-8
N+0.00	C28	1	COL 100X50	260	Check	0.869	B.2.4.5-8
N+0.00	C29	2	COL 100X50	0	Check	0.856	B.2.4.5-8
N+0.00	C29	2	COL 100X50	130	Check	0.857	B.2.4.5-8
N+0.00	C29	2	COL 100X50	260	Check	0.855	B.2.4.5-8
N+0.00	C30	3	COL 100X50	0	Check	0.508	B.2.4.2-1
N+0.00	C30	3	COL 100X50	130	Check	0.500	B.2.4.2-1
N+0.00	C30	3	COL 100X50	260	Check	0.503	B.2.4.2-1
N+0.00	C33	4	COL125X50	0	Check	0.227	B.2.4.5-8
N+0.00	C33	4	COL125X50	130	Check	0.203	B.2.4.5-8
N+0.00	C33	4	COL125X50	175	Check	0.201	B.2.4.5-8
N+0.00	C33	4	COL125X50	175	Check	0.218	B.2.4.5-8
N+0.00	C33	4	COL125X50	260	Check	0.216	B.2.4.5-8
N+0.00	C35	5	COL125X50	0	Check	0.148	B.2.4.5-8
N+0.00	C35	5	COL125X50	130	Check	0.116	B.2.4.5-8
N+0.00	C35	5	COL125X50	175	Check	0.111	B.2.4.5-8
N+0.00	C35	5	COL125X50	175	Check	0.090	B.2.4.5-8
N+0.00	C35	5	COL125X50	260	Check	0.085	B.2.4.5-3
N+0.00	C36	26	COL 100X50	0	Check	0.862	B.2.4.2-1
N+0.00	C36	26	COL 100X50	130	Check	0.860	B.2.4.2-1
N+0.00	C36	26	COL 100X50	260	Check	0.858	B.2.4.2-1
N+0.00	C48	91	COL125X50	0	Check	0.466	B.2.4.2-1
N+0.00	C48	91	COL125X50	130	Check	0.464	B.2.4.2-1
N+0.00	C48	91	COL125X50	260	Check	0.462	B.2.4.2-1

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+0.00	C49	117	COL125X50	0	Check	0.181	B.2.4.5-8
N+0.00	C49	117	COL125X50	130	Check	0.159	B.2.4.5-8
N+0.00	C49	117	COL125X50	175	Check	0.156	B.2.4.5-8
N+0.00	C49	117	COL125X50	175	Check	0.167	B.2.4.5-8
N+0.00	C49	117	COL125X50	260	Check	0.164	B.2.4.5-8
N+0.00	C50	19	COL 100X50	0	Check	0.501	B.2.4.2-1
N+0.00	C50	19	COL 100X50	130	Check	0.499	B.2.4.2-1
N+0.00	C50	19	COL 100X50	260	Check	0.500	B.2.4.2-1
N+0.00	C52	153	COL 100X50	0	Check	0.078	B.2.4.5-3
N+0.00	C52	153	COL 100X50	130	Check	0.036	B.2.4.5-3
N+0.00	C52	153	COL 100X50	175	Check	0.041	B.2.4.5-3
N+0.00	C52	153	COL 100X50	175	Check	0.056	B.2.4.5-3
N+0.00	C52	153	COL 100X50	260	Check	0.068	B.2.4.5-3
N+0.00	C53	154	COL 100X50	0	Check	0.487	B.2.4.5-8
N+0.00	C53	154	COL 100X50	130	Check	0.487	B.2.4.5-8
N+0.00	C53	154	COL 100X50	260	Check	0.485	B.2.4.5-8
N+0.00	C54	155	COL 100X50	0	Check	0.512	B.2.4.2-1
N+0.00	C54	155	COL 100X50	130	Check	0.509	B.2.4.5-8
N+0.00	C54	155	COL 100X50	260	Check	0.510	B.2.4.2-1
N+0.00	C55	156	COL 100X50	0	Check	0.145	B.2.4.5-3
N+0.00	C55	156	COL 100X50	130	Check	0.056	B.2.4.5-3
N+0.00	C55	156	COL 100X50	175	Check	0.067	B.2.4.5-3
N+0.00	C55	156	COL 100X50	175	Check	0.069	B.2.4.5-3
N+0.00	C55	156	COL 100X50	260	Check	0.113	B.2.4.5-3
N+0.00	C56	161	COL 100X50	0	Check	0.110	B.2.4.5-3
N+0.00	C56	161	COL 100X50	130	Check	0.046	B.2.4.5-3
N+0.00	C56	161	COL 100X50	175	Check	0.049	B.2.4.5-3
N+0.00	C56	161	COL 100X50	175	Check	0.077	B.2.4.5-3
N+0.00	C56	161	COL 100X50	260	Check	0.094	B.2.4.5-3
N+0.00	C57	163	COL 100X50	0	Check	0.528	B.2.4.2-1
N+0.00	C57	163	COL 100X50	130	Check	0.524	B.2.4.2-1
N+0.00	C57	163	COL 100X50	260	Check	0.527	B.2.4.2-1
N+0.00	C58	164	COL 100X50	0	Check	0.048	B.2.4.7-4
N+0.00	C58	164	COL 100X50	130	Check	0.036	B.2.4.7-8
N+0.00	C58	164	COL 100X50	175	Check	0.046	B.2.4.7-8
N+0.00	C58	164	COL 100X50	175	Check	0.043	B.2.4.5-8
N+0.00	C58	164	COL 100X50	260	Check	0.072	B.2.4.7-8
N+0.00	C60	52	COL50X30	0	Check	0.061	B.2.4.5-3
N+0.00	C60	52	COL50X30	130	Check	0.015	B.2.4.5-8
N+0.00	C60	52	COL50X30	175	Check	0.031	B.2.4.5-8
N+0.00	C60	52	COL50X30	175	Check	0.029	B.2.4.5-8
N+0.00	C60	52	COL50X30	260	Check	0.052	B.2.4.5-3
N+0.00	C61	58	COL50X30	0	Check	0.098	B.2.4.5-3
N+0.00	C61	58	COL50X30	130	Check	0.021	B.2.4.2-1
N+0.00	C61	58	COL50X30	175	Check	0.031	B.2.4.5-8
N+0.00	C61	58	COL50X30	175	Check	0.060	B.2.4.5-8
N+0.00	C61	58	COL50X30	260	Check	0.116	B.2.4.5-3
N+0.00	C62	77	COL50X30	0	Check	0.127	B.2.4.5-3
N+0.00	C62	77	COL50X30	130	Check	0.074	B.2.4.2-1
N+0.00	C62	77	COL50X30	175	Check	0.078	B.2.4.2-1
N+0.00	C62	77	COL50X30	175	Check	0.116	B.2.4.2-1
N+0.00	C62	77	COL50X30	260	Check	0.133	B.2.4.5-3
N+0.00	C63	84	COL50X30	0	Check	0.079	B.2.4.5-3
N+0.00	C63	84	COL50X30	130	Check	0.019	B.2.4.5-3
N+0.00	C63	84	COL50X30	175	Check	0.034	B.2.4.5-8
N+0.00	C63	84	COL50X30	175	Check	0.031	B.2.4.5-8
N+0.00	C63	84	COL50X30	260	Check	0.080	B.2.4.5-3
N+0.00	C64	86	COL50X30	0	Check	0.053	B.2.4.5-3
N+0.00	C64	86	COL50X30	130	Check	0.023	B.2.4.2-1
N+0.00	C64	86	COL50X30	175	Check	0.026	B.2.4.2-1

TABLE: Concrete Column Summary - ACI 318-14

Story	Label	Unique Name	Design Section	Station	Design/Check	PMM Ratio	PMM Combo
				cm			
N+0.00	C64	86	COL50X30	175	Check	0.042	B.2.4.5-8
N+0.00	C64	86	COL50X30	260	Check	0.068	B.2.4.5-3
N+0.00	C65	92	COL50X30	0	Check	0.037	B.2.4.7-8
N+0.00	C65	92	COL50X30	130	Check	0.028	B.2.4.7-8
N+0.00	C65	92	COL50X30	175	Check	0.038	B.2.4.5-8
N+0.00	C65	92	COL50X30	175	Check	0.026	B.2.4.5-8
N+0.00	C65	92	COL50X30	260	Check	0.024	B.2.4.5-8
N+0.00	C66	93	COL50X30	0	Check	0.094	B.2.4.5-8
N+0.00	C66	93	COL50X30	130	Check	0.074	B.2.4.5-8
N+0.00	C66	93	COL50X30	175	Check	0.094	B.2.4.5-8
N+0.00	C66	93	COL50X30	175	Check	0.050	B.2.4.5-8
N+0.00	C66	93	COL50X30	260	Check	0.041	B.2.4.5-8
N+0.00	C67	178	COL50X30	0	Check	0.059	B.2.4.5-8
N+0.00	C67	178	COL50X30	130	Check	0.051	B.2.4.5-8
N+0.00	C67	178	COL50X30	175	Check	0.063	B.2.4.5-8
N+0.00	C67	178	COL50X30	175	Check	0.035	B.2.4.5-8
N+0.00	C67	178	COL50X30	260	Check	0.055	B.2.4.2-1
N+0.00	C68	180	COL50X30	0	Check	0.100	B.2.4.5-3
N+0.00	C68	180	COL50X30	130	Check	0.083	B.2.4.2-1
N+0.00	C68	180	COL50X30	175	Check	0.082	B.2.4.2-1
N+0.00	C68	180	COL50X30	175	Check	0.119	B.2.4.2-1
N+0.00	C68	180	COL50X30	260	Check	0.118	B.2.4.2-1
N+0.00	C75	28	COL 100X50	0	Check	0.224	B.2.4.5-8
N+0.00	C75	28	COL 100X50	130	Check	0.078	B.2.4.5-8
N+0.00	C75	28	COL 100X50	175	Check	0.103	B.2.4.5-8
N+0.00	C75	28	COL 100X50	175	Check	0.141	B.2.4.5-8
N+0.00	C75	28	COL 100X50	260	Check	0.227	B.2.4.5-8
N+0.00	C76	29	COL 100X50	0	Check	0.202	B.2.4.5-8
N+0.00	C76	29	COL 100X50	130	Check	0.094	B.2.4.5-8
N+0.00	C76	29	COL 100X50	175	Check	0.123	B.2.4.5-8
N+0.00	C76	29	COL 100X50	175	Check	0.137	B.2.4.5-8
N+0.00	C76	29	COL 100X50	260	Check	0.198	B.2.4.5-8
N+0.00	C77	30	COL 100X50	0	Check	0.092	B.2.4.5-8
N+0.00	C77	30	COL 100X50	130	Check	0.042	B.2.4.5-8
N+0.00	C77	30	COL 100X50	175	Check	0.054	B.2.4.5-8
N+0.00	C77	30	COL 100X50	175	Check	0.091	B.2.4.5-8
N+0.00	C77	30	COL 100X50	260	Check	0.131	B.2.4.5-8
N+0.00	C78	31	COL 100X50	0	Check	0.089	B.2.4.5-8
N+0.00	C78	31	COL 100X50	130	Check	0.039	B.2.4.5-3
N+0.00	C78	31	COL 100X50	175	Check	0.042	B.2.4.5-3
N+0.00	C78	31	COL 100X50	175	Check	0.049	B.2.4.5-8
N+0.00	C78	31	COL 100X50	260	Check	0.067	B.2.4.5-3
N+0.00	C83	152	COL 100X50	0	Check	0.081	B.2.4.7-8
N+0.00	C83	152	COL 100X50	130	Check	0.054	B.2.4.7-8
N+0.00	C83	152	COL 100X50	175	Check	0.064	B.2.4.7-8
N+0.00	C83	152	COL 100X50	175	Check	0.048	B.2.4.7-4
N+0.00	C83	152	COL 100X50	260	Check	0.091	B.2.4.5-3
N+0.00	C85	41	COL50X30	0	Check	0.035	B.2.4.5-8
N+0.00	C85	41	COL50X30	130	Check	0.031	B.2.4.7-8
N+0.00	C85	41	COL50X30	175	Check	0.039	B.2.4.5-8
N+0.00	C85	41	COL50X30	175	Check	0.022	B.2.4.5-3
N+0.00	C85	41	COL50X30	260	Check	0.026	B.2.4.5-3
N+0.00	C86	181	COL50X30	0	Check	0.100	B.2.4.5-8
N+0.00	C86	181	COL50X30	130	Check	0.056	B.2.4.5-8
N+0.00	C86	181	COL50X30	175	Check	0.052	B.2.4.5-3
N+0.00	C86	181	COL50X30	175	Check	0.085	B.2.4.5-8
N+0.00	C86	181	COL50X30	260	Check	0.111	B.2.4.5-8

Chequeo de Nodos, Relación b/c.

Tabla 29 Reporte revisión de nudos 6/5 Viga-Columna Edificio B

TABLE: Concrete Joint Summary - ACI 318-14									
Story	Label	Unique Name	Design Section	B/C Major Combo	B/C Major Ratio	B/C Minor Ratio	JS Major Ratio	JS Minor Ratio	Warnings
N+19.00	C1	4185	COL125X50	B.2.4.7-5	0.298	0.392	0.502	0.368	No Message
N+19.00	C2	4186	COL125X50	B.2.4.7-5	0.162	0.445	0.255	0.4	No Message
N+19.00	C3	82	COL125X50	B.2.4.7-1	0.157	0.418	0.251	0.396	No Message
N+19.00	C8	182	COL125X50	B.2.4.7-5	0.057	0.218	0.086	0.226	No Message
N+19.00	C6	386	COL150X50	B.2.4.7-5	0.133	0.193	0.366	0.228	No Message
N+15.50	C1	3416	COL125X50	B.2.4.7-5	0.129	0.27	0.217	0.263	No Message
N+15.50	C2	3417	COL125X50	B.2.4.7-5	0.139	0.388	0.224	0.358	No Message
N+15.50	C3	83	COL125X50	B.2.4.7-1	0.171	0.382	0.296	0.394	No Message
N+15.50	C8	64	COL125X50	B.2.4.7-5	0.05	0.194	0.074	0.199	No Message
N+15.50	C16	3407	COL 100X50	B.2.4.7-1	0.367	0.663	0.404	0.425	No Message
N+15.50	C17	3408	COL 100X50	B.2.4.7-1	0.349	0.738	0.351	0.433	No Message
N+15.50	C18	3409	COL 100X50	B.2.4.7-5	0.406	0.652	0.4	0.37	No Message
N+15.50	C19	70	COL125X50	B.2.4.7-1	0.08	0.664	0.162	0.654	No Message
N+15.50	C6	518	COL150X50	B.2.4.7-5	0.066	0.207	0.168	0.253	No Message
N+12.00	C1	79	COL125X50	B.2.4.7-5	0.077	0.269	0.134	0.279	No Message
N+12.00	C2	80	COL125X50	B.2.4.7-5	0.101	0.354	0.17	0.345	No Message
N+12.00	C3	85	COL125X50	B.2.4.7-1	0.17	0.368	0.316	0.411	No Message
N+12.00	C8	25	COL125X50	B.2.4.7-5	0.038	0.197	0.056	0.199	No Message
N+12.00	C16	66	COL 100X50	B.2.4.7-1	0.35	0.73	0.438	0.539	No Message
N+12.00	C17	67	COL 100X50	B.2.4.7-5	0.312	0.662	0.35	0.431	No Message
N+12.00	C18	72	COL 100X50	B.2.4.7-5	0.252	0.648	0.275	0.413	No Message
N+12.00	C19	101	COL125X50	B.2.4.7-1	0.086	0.651	0.181	0.674	No Message
N+12.00	C6	530	COL150X50	B.2.4.7-5	0.058	0.202	0.152	0.253	No Message
N+8.50	C1	217	COL125X50	B.2.4.7-5	0.062	0.189	0.123	0.231	No Message
N+8.50	C2	240	COL125X50	B.2.4.7-5	0.079	0.276	0.147	0.305	No Message
N+8.50	C3	87	COL125X50	B.2.4.7-1	0.149	0.343	0.301	0.43	No Message
N+8.50	C8	24	COL125X50	B.2.4.7-5	0.045	0.201	0.068	0.21	No Message
N+8.50	C16	122	COL 100X50	B.2.4.7-1	0.304	0.728	0.433	0.627	No Message
N+8.50	C17	130	COL 100X50	B.2.4.7-5	0.27	0.849	0.346	0.651	No Message
N+8.50	C18	131	COL 100X50	B.2.4.7-5	0.203	0.502	0.26	0.378	No Message
N+8.50	C19	105	COL125X50	B.2.4.7-1	0.083	0.465	0.19	0.516	No Message
N+8.50	C6	538	COL150X50	B.2.4.7-5	0.062	0.234	0.175	0.319	No Message
N+3.50	C1	213	COL125X50	B.2.4.7-5	0.231	0.377	0.465	0.404	No Message
N+3.50	C2	214	COL125X50	B.2.4.7-5	0.128	0.295	0.23	0.273	No Message
N+3.50	C3	89	COL125X50	B.2.4.7-1	0.151	0.371	0.29	0.381	No Message
N+3.50	C16	203	COL 100X50	B.2.4.7-1	0.251	0.5	0.378	0.452	No Message
N+3.50	C17	204	COL 100X50	B.2.4.7-5	0.3	0.46	0.416	0.376	No Message
N+3.50	C18	205	COL 100X50	B.2.4.7-5	0.297	0.427	0.414	0.35	No Message
N+3.50	C19	109	COL125X50	B.2.4.7-1	0.146	0.371	0.251	0.322	No Message
N+3.50	C20	3384	COL 100X50	B.2.4.7-5	0.263	0.584	0.32	0.419	No Message
N+3.50	C21	3306	COL 100X50	B.2.4.7-5	0.282	0.271	0.33	0.184	No Message
N+3.50	C22	206	COL 100X50	B.2.4.7-1	0.23	0.595	0.275	0.421	No Message
N+3.50	C24	3386	COL 100X50	B.2.4.7-1	0.372	0.644	0.464	0.466	No Message
N+3.50	C25	3389	COL 100X50	B.2.4.7-1	0.167	0.524	0.206	0.386	No Message
N+3.50	C40	3312	COL 100X50	B.2.4.7-1	0.331	0.466	0.229	0.15	No Message
N+3.50	C43	3402	COL 100X50	B.2.4.7-5	0.271	0.595	0.192	0.177	No Message
N+3.50	C82	202	COL 100X50	B.2.4.7-1	0.514	0.501	0.293	0.168	No Message

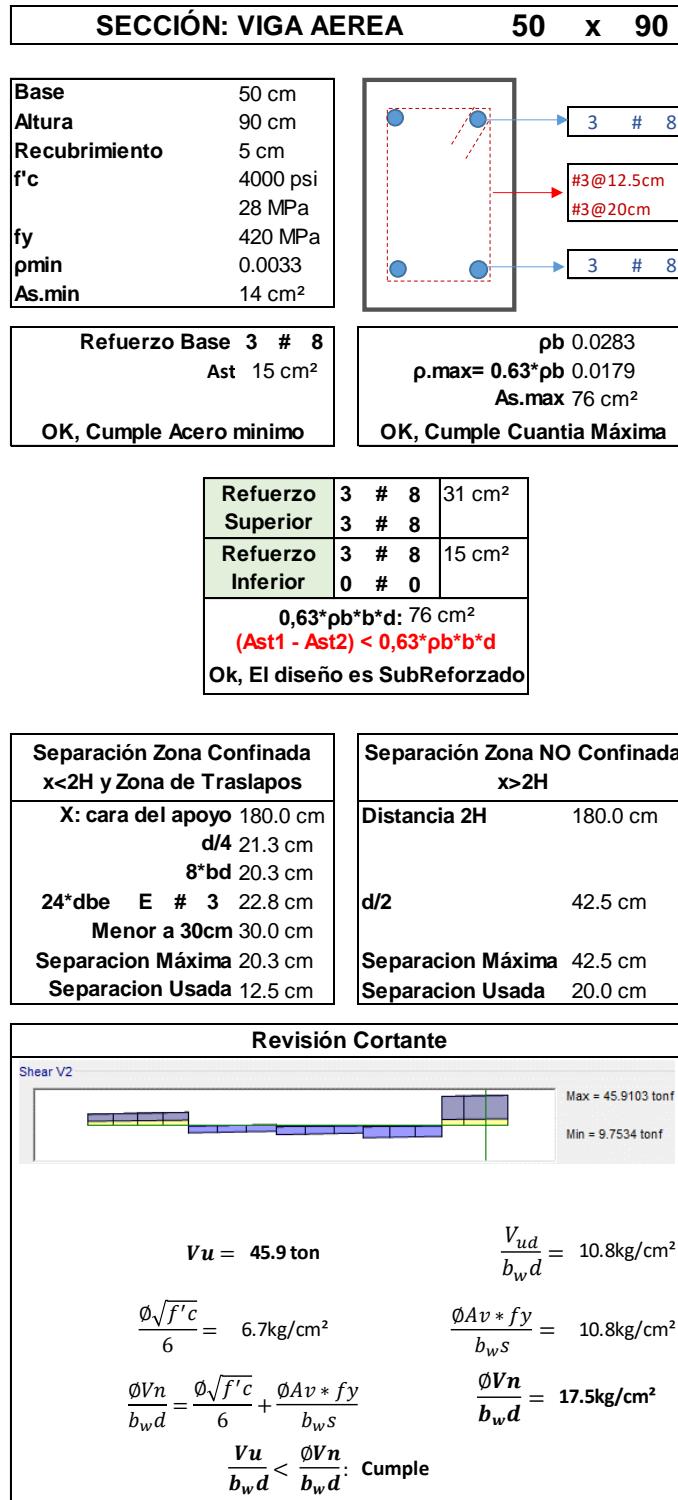
TABLE: Concrete Joint Summary - ACI 318-14

Story	Label	Unique Name	Design Section	B/C Major Combo	B/C Major Ratio	B/C Minor Ratio	JS Major Ratio	JS Minor Ratio	Warnings
N+3.50	C84	3305	COL 100X50	B.2.4.7-5	0.3	0.355	0.203	0.112	No Message
N+3.50	C10	1150	COL125X50	B.2.4.7-5	0.289	0.126	0.464	0.113	No Message
N+3.50	C11	4363	COL 100X50	B.2.4.7-5	0.808		0.524		No Message
N+3.50	C13	548	COL150X50	B.2.4.7-5	0.23	0.212	0.527	0.279	No Message
N+0.00	C28	1	COL 100X50	B.2.4.7-5	0.253	0.443	0.353	0.365	No Message
N+0.00	C29	2	COL 100X50	B.2.4.7-5	0.222	0.415	0.311	0.343	No Message
N+0.00	C30	3	COL 100X50	B.2.4.7-1	0.191	0.427	0.235	0.312	No Message
N+0.00	C33	4	COL125X50	B.2.4.7-5	0.028	0.051	0.066	0.058	No Message
N+0.00	C35	5	COL125X50	B.2.4.7-5	0.038	0.088	0.083	0.09	No Message
N+0.00	C36	26	COL 100X50	B.2.4.7-1	0.161	0.212	0.234	0.186	No Message
N+0.00	C48	91	COL125X50	B.2.4.7-1	0.068	0.225	0.179	0.282	No Message
N+0.00	C49	117	COL125X50	B.2.4.7-5	0.069	0.112	0.139	0.105	No Message
N+0.00	C50	19	COL 100X50	B.2.4.7-1	0.205	0.241	0.253	0.175	No Message
N+0.00	C52	153	COL 100X50	B.2.4.7-1	0.123	0.12	0.13	0.058	No Message
N+0.00	C53	154	COL 100X50	B.2.4.7-5	0.2	0.223	0.237	0.153	No Message
N+0.00	C54	155	COL 100X50	B.2.4.7-5	0.195	0.345	0.239	0.253	No Message
N+0.00	C55	156	COL 100X50	B.2.4.7-1	0.105	0.134	0.112	0.067	No Message
N+0.00	C56	161	COL 100X50	B.2.4.7-1	0.123	0.192	0.134	0.098	No Message
N+0.00	C57	163	COL 100X50	B.2.4.7-1	0.171	0.349	0.21	0.258	No Message
N+0.00	C58	164	COL 100X50	B.2.4.7-5	0.075	0.116	0.079	0.057	No Message
N+0.00	C60	52	COL50X30	B.2.4.7-1	0.549		0.138		No Message
N+0.00	C61	58	COL50X30	B.2.4.7-1	0.613	0.361	0.123	0.131	No Message
N+0.00	C63	84	COL50X30	B.2.4.7-1	0.783		0.196		No Message
N+0.00	C65	92	COL50X30	B.2.4.5-5	0.171	0.068	0.043	0.03	No Message
N+0.00	C66	93	COL50X30	B.2.4.5-5	0.235	0.474	0.057	0.21	No Message
N+0.00	C75	28	COL 100X50	B.2.4.7-5	0.233	0.165	0.27	0.087	No Message
N+0.00	C76	29	COL 100X50	B.2.4.7-5	0.265	0.365	0.313	0.197	No Message
N+0.00	C77	30	COL 100X50	B.2.4.7-5	0.167	0.189	0.181	0.094	No Message
N+0.00	C78	31	COL 100X50	B.2.4.7-1	0.082	0.29	0.07	0.148	No Message
N+0.00	C83	152	COL 100X50	B.2.4.7-5	0.049	0.064	0.05	0.03	No Message
N+0.00	C85	41	COL50X30	B.2.4.5-1	0.392	0.093	0.097	0.136	No Message
N+0.00	C86	181	COL50X30	B.2.4.7-1	0.731		0.187		No Message

6.3 DISEÑO DE VIGAS AÉREAS.

Definición de secciones y refuerzo base:

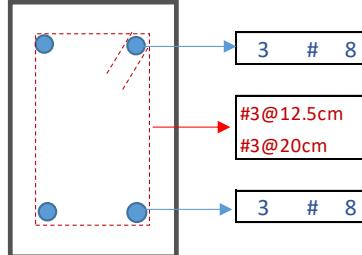
A continuación, se hace una revisión normativa a las secciones de vigas utilizadas en el diseño:



SECCIÓN: VIGA AEREA

40 x 90

Base	40 cm
Altura	90 cm
Recubrimiento	5 cm
f'c	4000 psi 28 MPa
fy	420 MPa
pmin	0.0033
As.min	11 cm ²



Refuerzo Base 3 # 8

Ast. Base: 15 cm²

OK, Cumple Acero minimo

pb 0.0283

p.max= 0.63*pb 0.0179

As.max 61 cm²

OK, Cumple Cantidad Máxima

Refuerzo Superior	3 # 8	31 cm ²
Refuerzo Inferior	3 # 8	15 cm ²
0,63*pb*b*d: 61 cm²		
(Ast1 - Ast2) < 0,63*pb*b*d		

Ok, El diseño es SubReforzado

Separación Zona Confinada x<2H y Zona de Traslapos

X: cara del apoyo 180.0 cm

d/4 21.3 cm

8*bd 20.3 cm

24*dbe E # 3 22.8 cm

Menor a 30cm 30.0 cm

Separacion Máxima 20.3 cm

Separacion Usada 12.5 cm

Separación Zona NO Confinada x>2H

Distancia 2H 180.0 cm

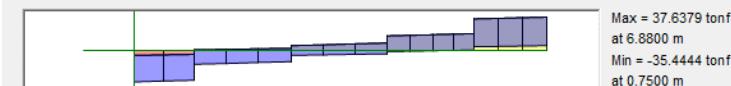
d/2 42.5 cm

Separacion Máxima 42.5 cm

Separacion Usada 20.0 cm

Revisión Cortante

Shear V2



$$Vu = 37.7 \text{ ton}$$

$$\frac{Vu}{b_w d} = 11.1 \text{ kg/cm}^2$$

$$\frac{\phi\sqrt{f'c}}{6} = 6.7 \text{ kg/cm}^2$$

$$\frac{\phi Av * fy}{b_w s} = 13.5 \text{ kg/cm}^2$$

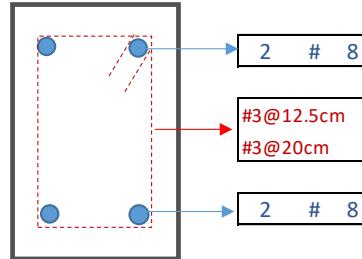
$$\frac{\phi Vn}{b_w d} = \frac{\phi\sqrt{f'c}}{6} + \frac{\phi Av * fy}{b_w s}$$

$$\frac{\phi Vn}{b_w d} = 20.2 \text{ kg/cm}^2$$

$$\frac{Vu}{b_w d} < \frac{\phi Vn}{b_w d}: \text{Cumple}$$

SECCIÓN: VIGA AEREA 30 x 90

Base	30 cm
Altura	90 cm
Recubrimiento	5 cm
f'c	4000 psi 28 MPa
fy	420 MPa
ρmin	0.0033
As.min	8.2 cm ²



Refuerzo Base 2 # 8
Ast. Base: 10 cm²
OK, Cumple Acero minimo

ρb 0.0283
ρ.max = 0.63*ρb 0.0179
As.max 46 cm²
OK, Cumple Cuantia Máxima

Refuerzo Superior	2 # 8	10 cm ²
Refuerzo Inferior	0 # 8	
0.63*ρb*b*d: 46 cm²		
(Ast1 - Ast2) < 0.63*ρb*b*d		

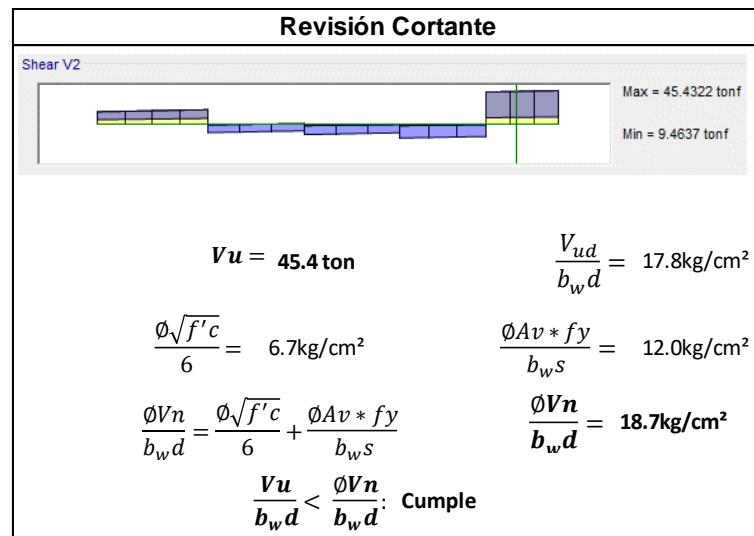
Ok, El diseño es SubReforzado

Separación Zona Confinada x<2H y Zona de Traslapos

X: cara del apoyo 180.0 cm
d/4 21.3 cm
8*bd 20.3 cm
24*dbe E # 3 22.8 cm
Menor a 30cm 30.0 cm
Separacion Máxima 20.3 cm
Separacion Usada 12.5 cm

Separación Zona NO Confinada x>2H

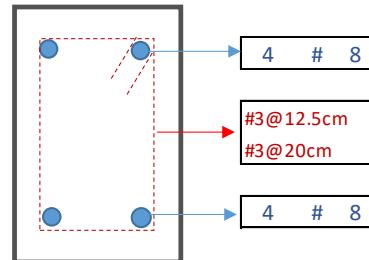
Distancia 2H 180.0 cm
d/2 42.5 cm
Separacion Máxima 42.5 cm
Separacion Usada 20.0 cm



SECCIÓN: VIGA AEREA

60 x 90

Base	60 cm
Altura	90 cm
Recubrimiento	5 cm
f'c	4000 psi
	28 MPa
fy	420 MPa
pmin	0.0033
As.min	16.3 cm ²



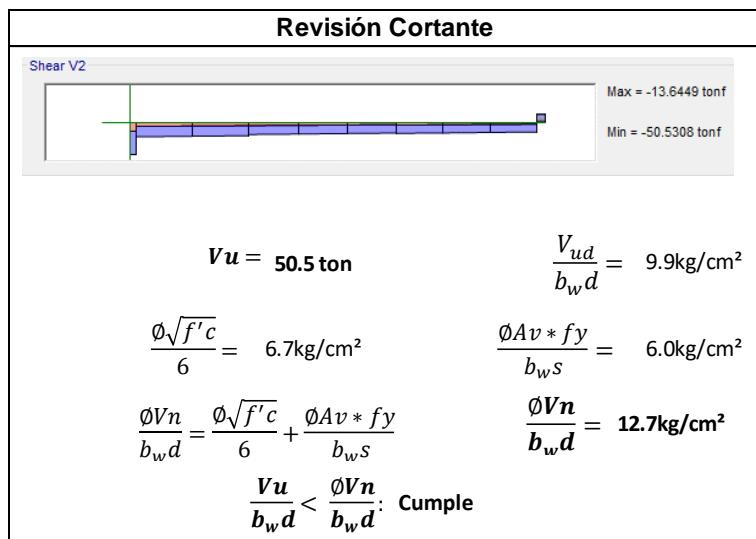
Refuerzo Base	4 # 8
Ast. Base:	20 cm ²
OK, Cumple Acero mínimo	

pb	0.0283
p.max =	0.63*pb 0.0179
	As.max 91 cm ²
OK, Cumple Cuantia Máxima	

Refuerzo Superior	4 # 8	20 cm ²
Refuerzo Inferior	4 # 8	41 cm ²
$0.63*pb*b*d: 91 \text{ cm}^2$ $(Ast1 - Ast2) < 0.63*pb*b*d$ Ok, El diseño es SubReforzado		

Separación Zona Confinada x<2H y Zona de Traslapos	
X: cara del apoyo	180.0 cm
d/4	21.3 cm
8*bd	20.3 cm
24*dbe E # 3	22.8 cm
Menor a 30cm	30.0 cm
Separacion MÁxima	20.3 cm
Separacion Usada	12.5 cm

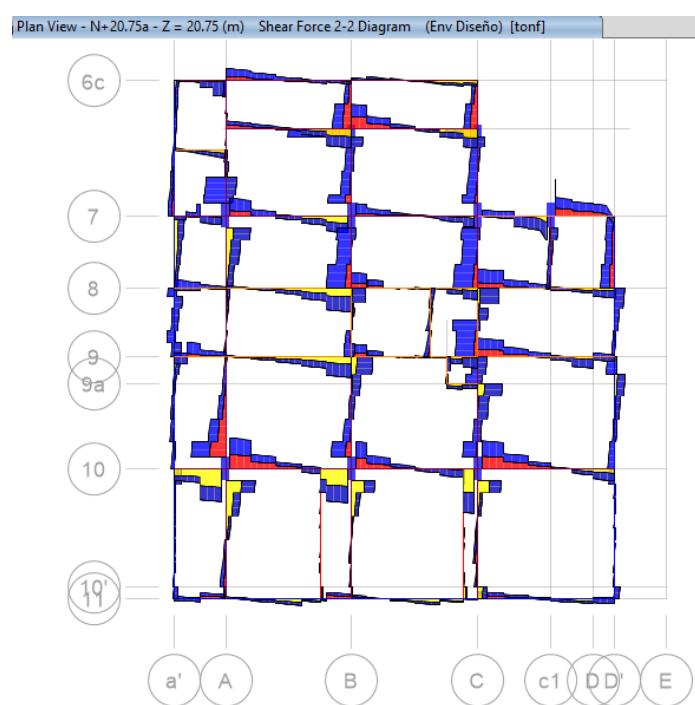
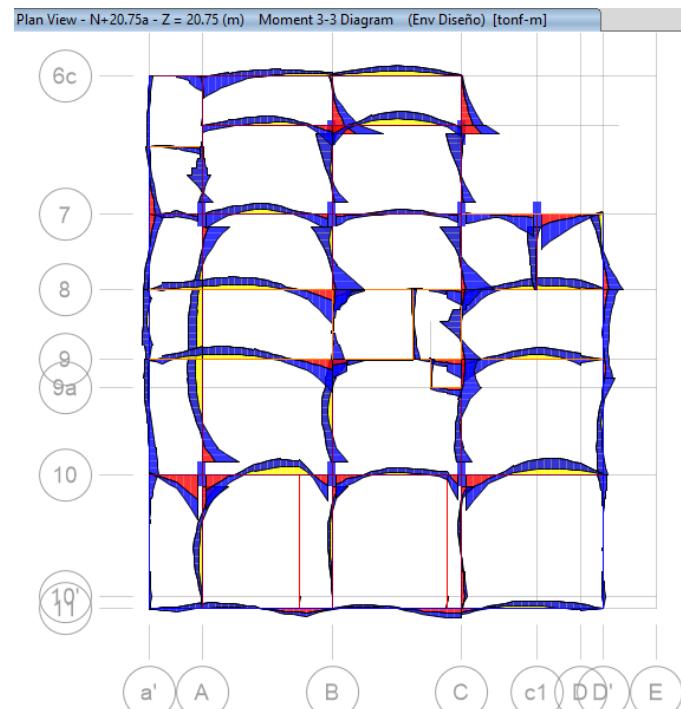
Separación Zona NO Confinada x>2H	
Distancia 2H	180.0 cm
d/2	42.5 cm
Separacion MÁxima	42.5 cm
Separacion Usada	20.0 cm

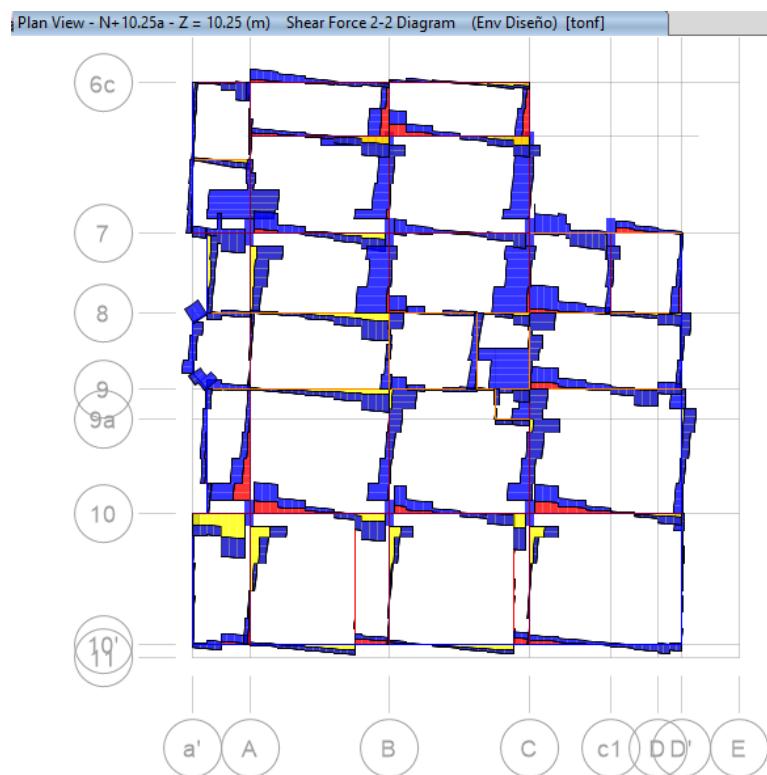
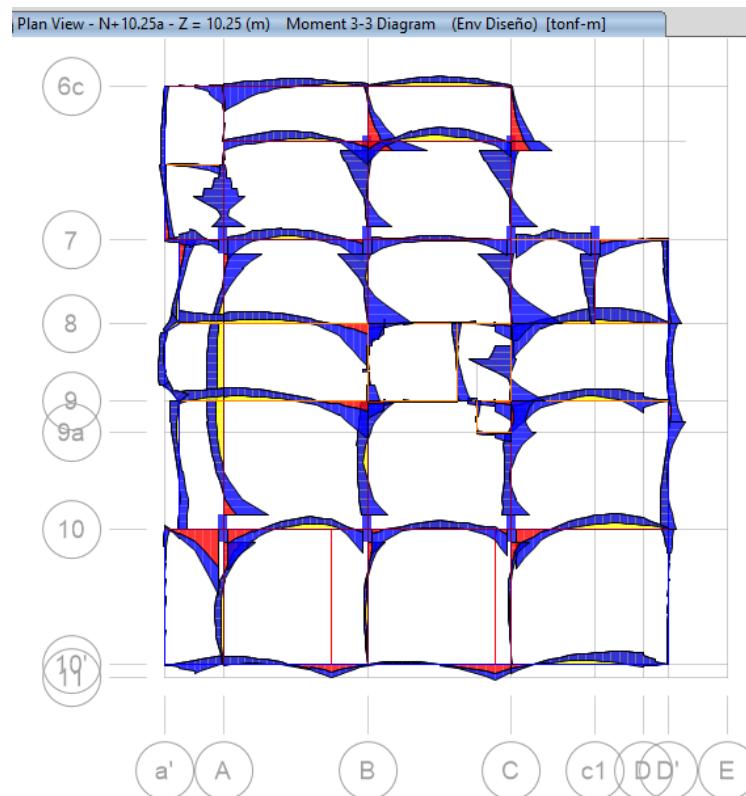


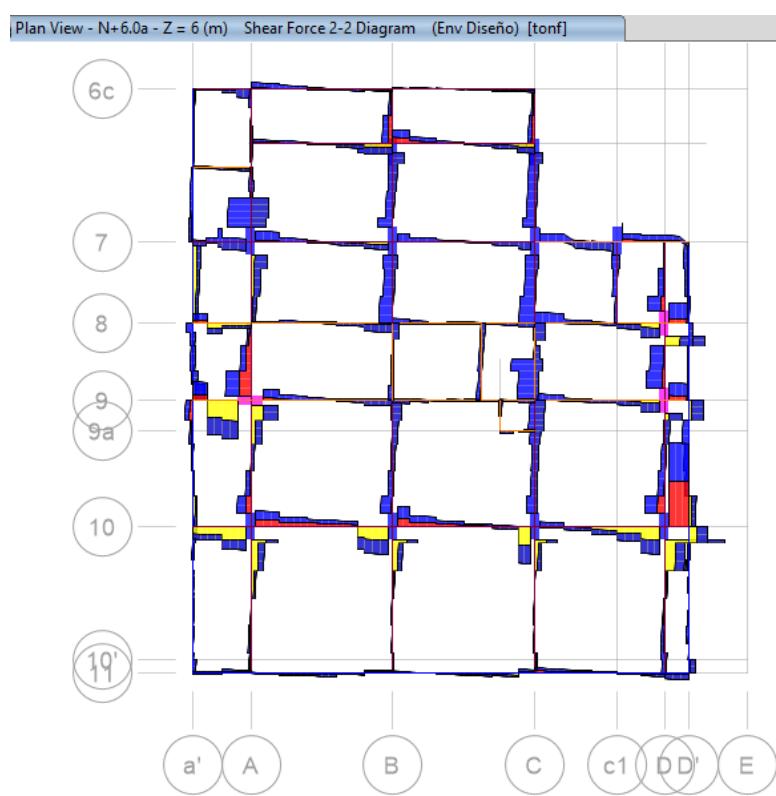
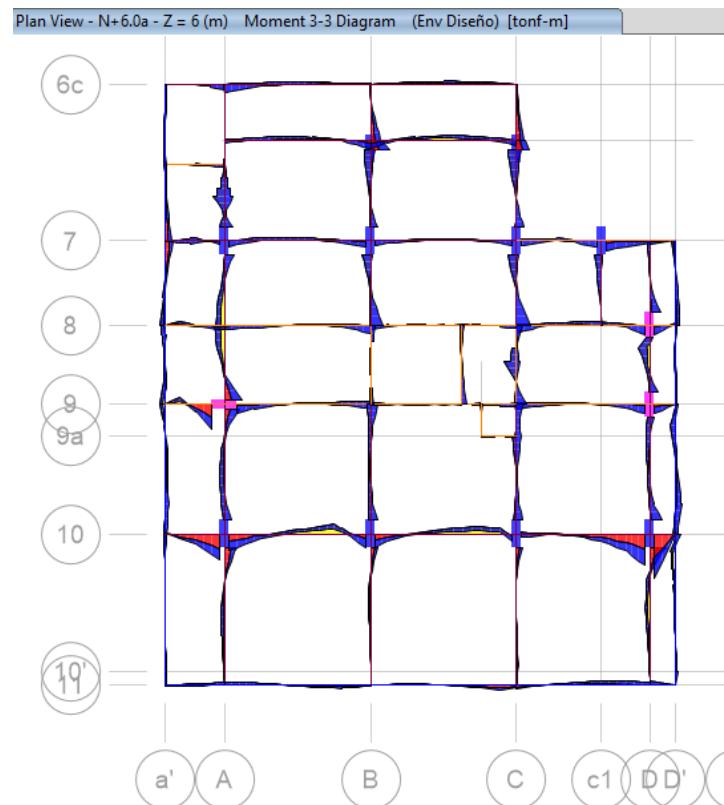
Diseño de Vigas Edificio A

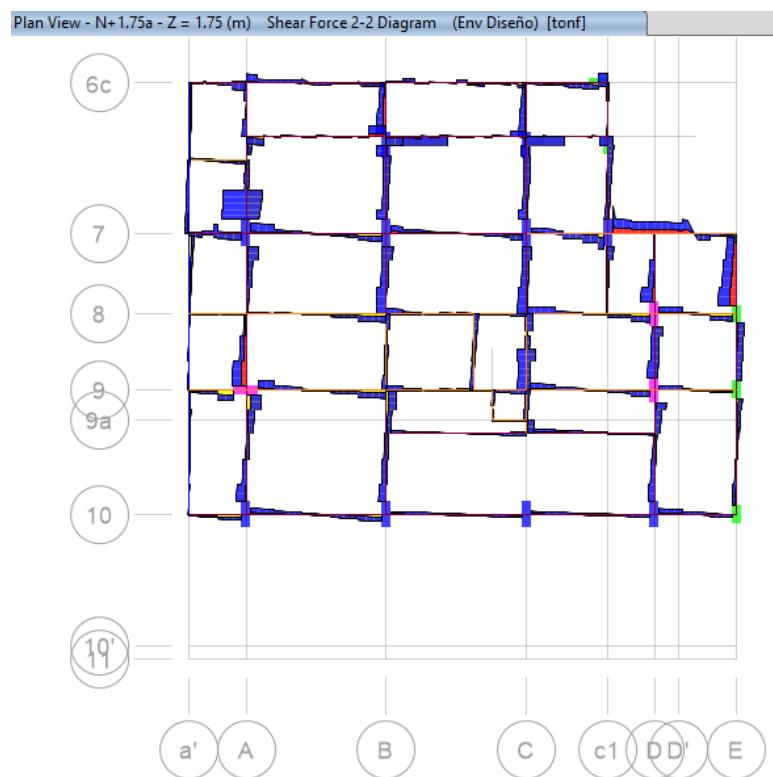
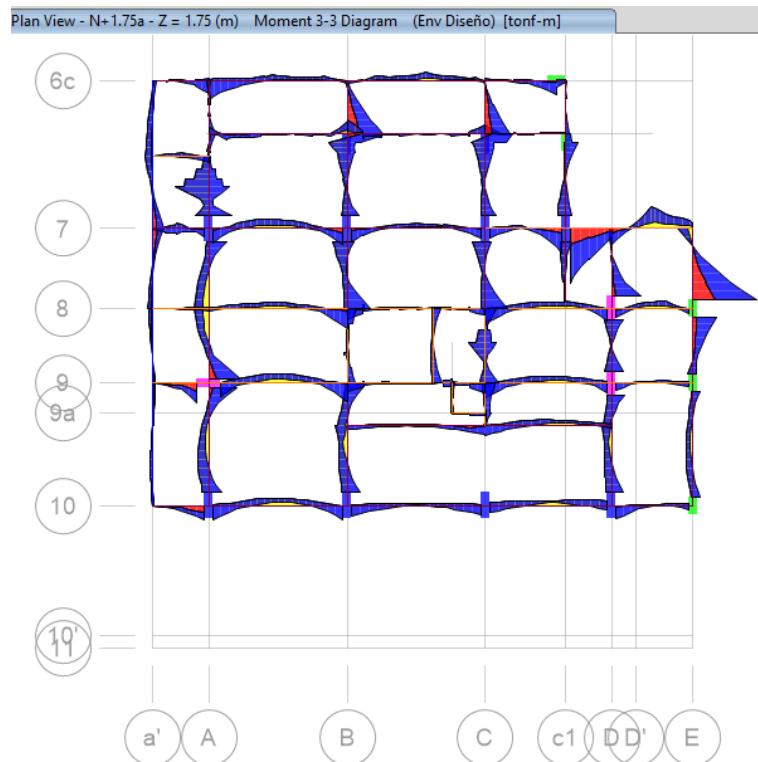
El reporte de diseño de vigas se encuentra en el Anexo 9.1

Diagrama de Esfuerzos Cortante y Momentos





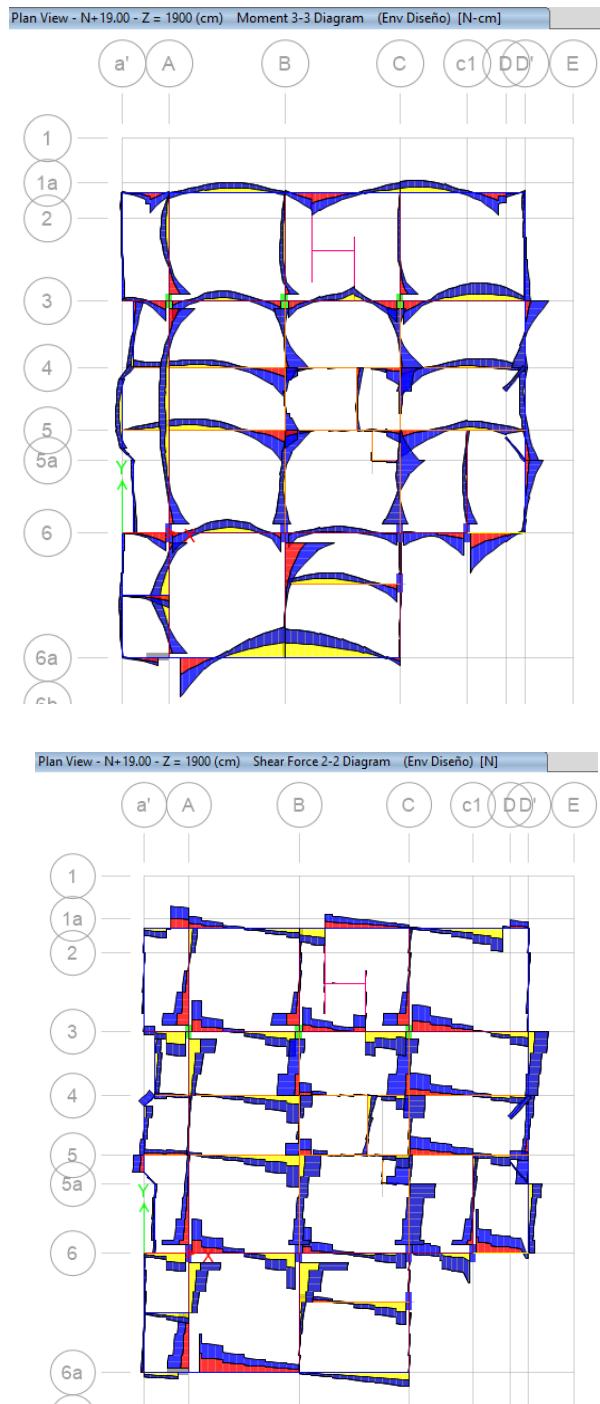




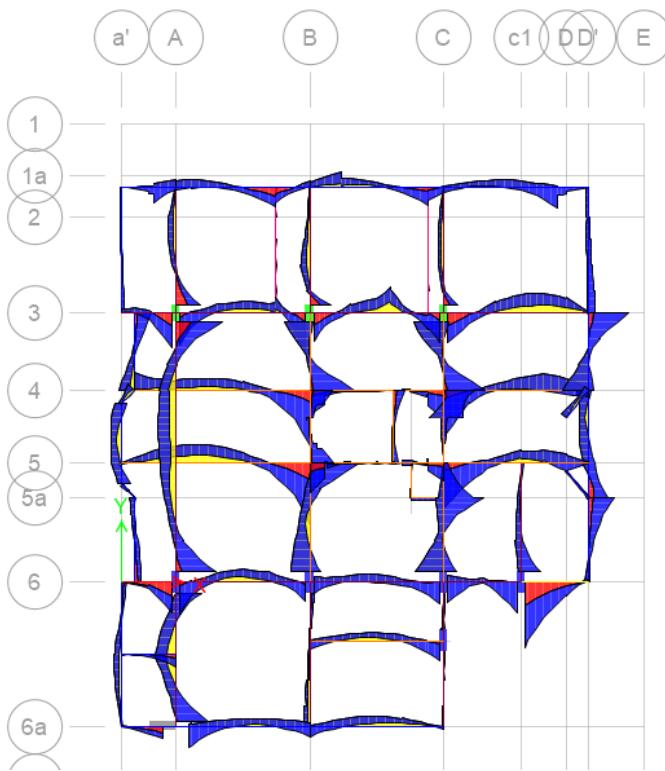
Diseño de Vigas Edificio B

El reporte de diseño de vigas se encuentra en el Anexo 9.1

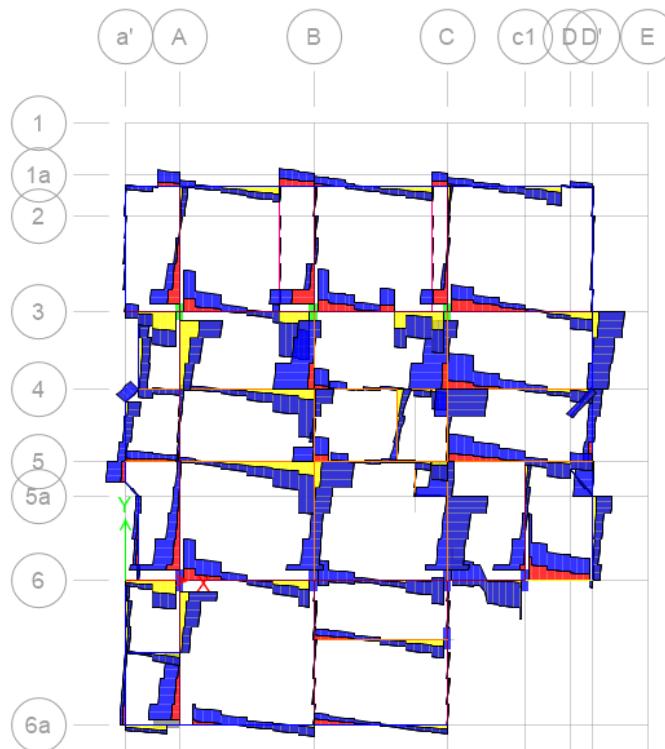
Diagrama de Esfuerzos Cortante y Momentos



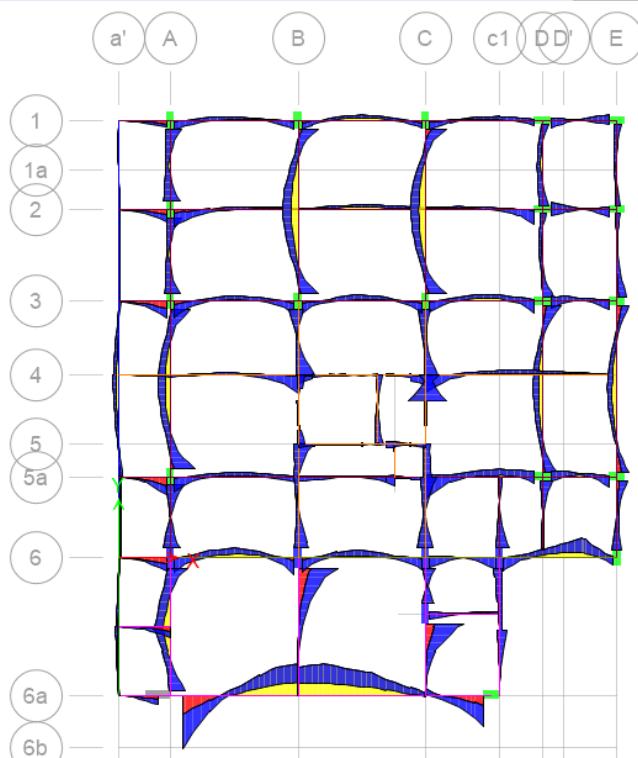
Plan View - N+15.50 - Z = 1550 (cm) Moment 3-3 Diagram (Env Diseño) [N·cm]



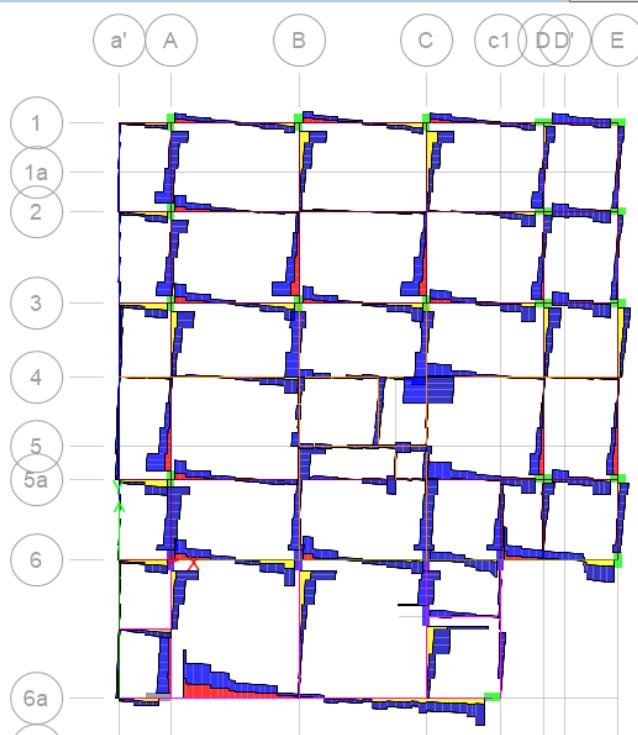
Plan View - N+15.50 - Z = 1550 (cm) Shear Force 2-2 Diagram (Env Diseño) [N]



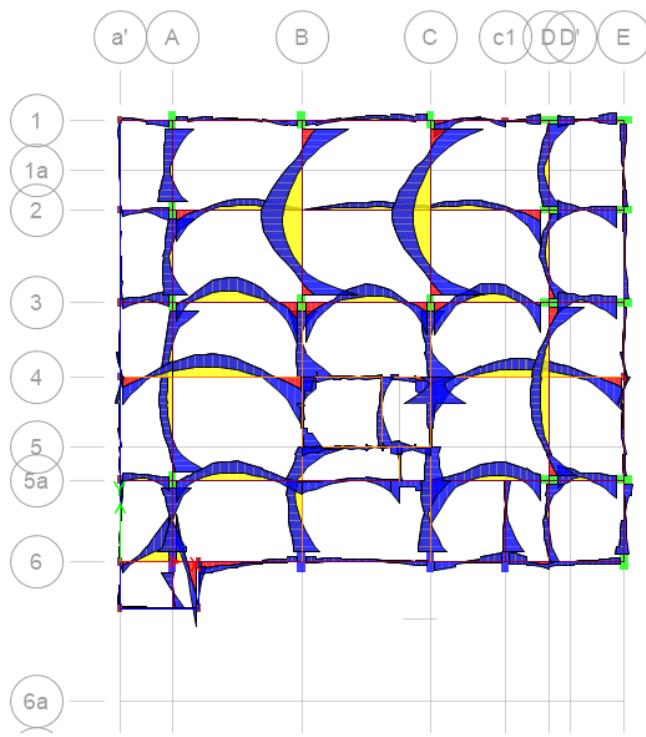
Plan View - N+3.50 - Z = 350 (cm) Moment 3-3 Diagram (Env Diseño) [N-cm]



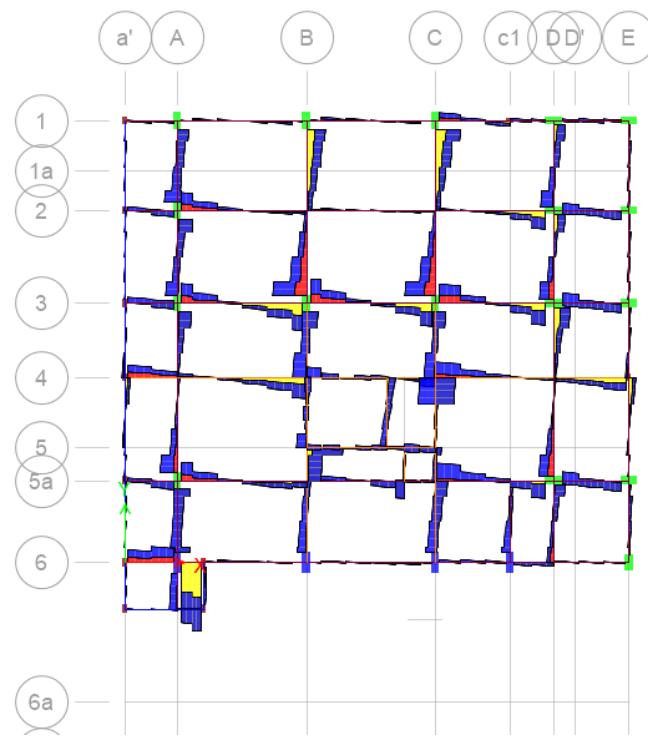
Plan View - N+3.50 - Z = 350 (cm) Shear Force 2-2 Diagram (Env Diseño) [N]



Plan View - N=0.00 - Z = 0 (cm) Moment 3-3 Diagram (Env Diseño) [N-cm]



Plan View - N=0.00 - Z = 0 (cm) Shear Force 2-2 Diagram (Env Diseño) [N]



6.4 DISEÑO DE MUROS ESTRUCTURALES

Diseño Muros Edificio A

A continuación, se muestran la definición de piers para el diseño de los muros de 15cm.

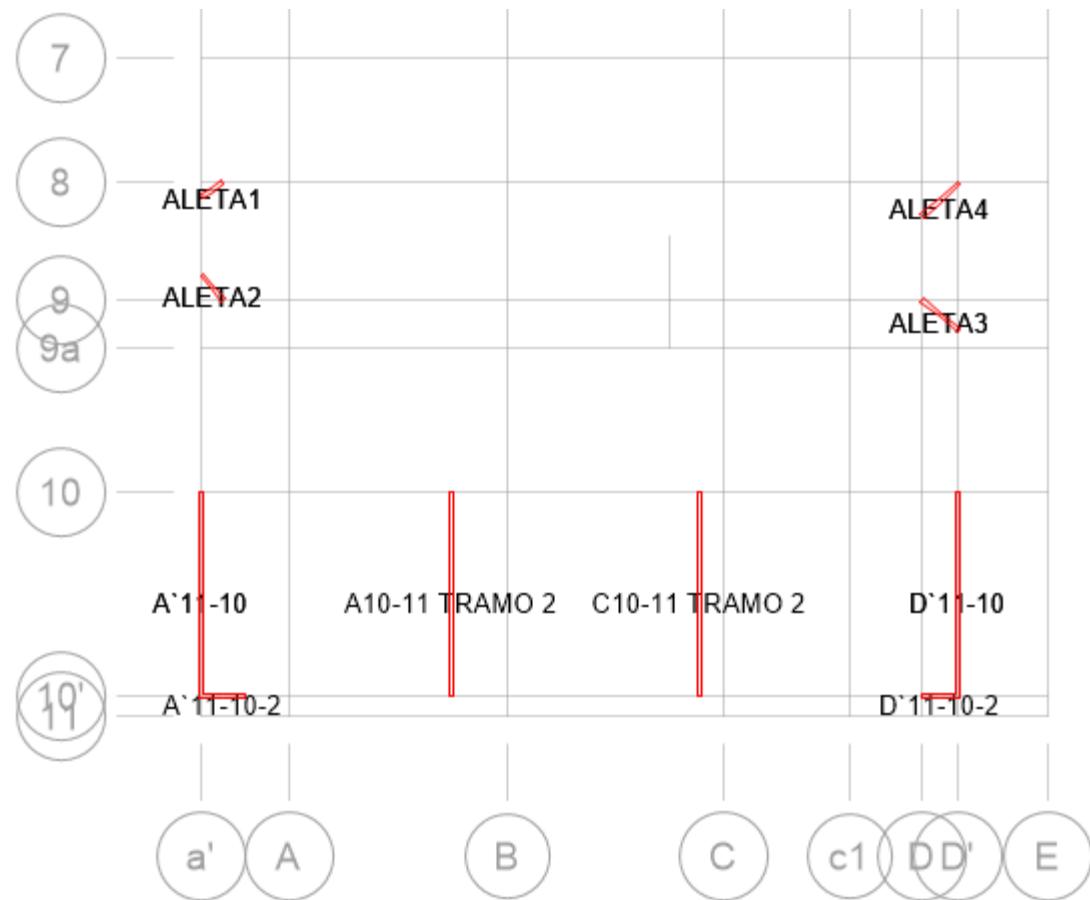


Figura 50 Definición de Pier muros 15cm

Tabla 30 Diseño de muros 15cm Edificio A

TABLE: Shear Wall Pier Design Summary - ACI 318-14							
Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
						cm	
N+20.75a	A`11-10	Top	Uniform	#4	#6	20	0.440
N+20.75a	A`11-10	Bottom	Uniform	#4	#6	20	0.360
N+17.25a	A`11-10	Top	Uniform	#4	#6	20	0.512
N+17.25a	A`11-10	Bottom	Uniform	#4	#6	20	0.390
N+13.75a	A`11-10	Top	Uniform	#4	#6	20	0.570
N+13.75a	A`11-10	Bottom	Uniform	#4	#6	20	0.536
N+10.25a	A`11-10	Top	Uniform	#4	#6	20	0.480
N+10.25a	A`11-10	Bottom	Uniform	#4	#6	20	0.540
N+20.75a	D`11-10	Top	Uniform	#4	#6	20	0.099
N+20.75a	D`11-10	Bottom	Uniform	#4	#6	20	0.108
N+17.25a	D`11-10	Top	Uniform	#4	#6	20	0.135
N+17.25a	D`11-10	Bottom	Uniform	#4	#6	20	0.187
N+13.75a	D`11-10	Top	Uniform	#4	#6	20	0.221
N+13.75a	D`11-10	Bottom	Uniform	#4	#6	20	0.306
N+10.25a	D`11-10	Top	Uniform	#4	#6	20	0.446
N+10.25a	D`11-10	Bottom	Uniform	#4	#6	20	0.965
N+20.75a	A10-11 TRAMO 1	Top	Uniform	#4	#6	20	0.376
N+20.75a	A10-11 TRAMO 1	Bottom	Uniform	#4	#6	20	0.283
N+17.25a	A10-11 TRAMO 1	Top	Uniform	#4	#6	20	0.263
N+17.25a	A10-11 TRAMO 1	Bottom	Uniform	#4	#6	20	0.456
N+10.25a	A10-11 TRAMO 2	Top	Uniform	#4	#6	20	0.279
N+10.25a	A10-11 TRAMO 2	Bottom	Uniform	#4	#6	20	0.522
N+20.75a	C10-11 TRAMO 1	Top	Uniform	#4	#6	20	0.564
N+20.75a	C10-11 TRAMO 1	Bottom	Uniform	#4	#6	20	0.468
N+17.25a	C10-11 TRAMO 1	Top	Uniform	#4	#6	20	0.407
N+17.25a	C10-11 TRAMO 1	Bottom	Uniform	#4	#6	20	0.686
N+10.25a	C10-11 TRAMO 2	Top	Uniform	#4	#6	20	0.460
N+10.25a	C10-11 TRAMO 2	Bottom	Uniform	#4	#6	20	0.607
N+20.75a	ALETA1	Top	Uniform	#4	#6	20	0.749
N+20.75a	ALETA1	Bottom	Uniform	#4	#6	20	0.621
N+17.25a	ALETA1	Top	Uniform	#4	#6	20	0.592
N+17.25a	ALETA1	Bottom	Uniform	#4	#6	20	0.601
N+13.75a	ALETA1	Top	Uniform	#4	#6	20	0.609
N+13.75a	ALETA1	Bottom	Uniform	#4	#6	20	0.574
N+10.25a	ALETA1	Top	Uniform	#5	#6	5	0.426
N+10.25a	ALETA1	Bottom	Uniform	#5	#6	5	0.556
N+20.75a	ALETA2	Top	Uniform	#4	#6	20	0.338
N+20.75a	ALETA2	Bottom	Uniform	#4	#6	20	0.270

TABLE: Shear Wall Pier Design Summary - ACI 318-14

Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
						cm	
N+17.25a	ALETA2	Top	Uniform	#4	#6	20	0.298
N+17.25a	ALETA2	Bottom	Uniform	#4	#6	20	0.311
N+13.75a	ALETA2	Top	Uniform	#4	#6	20	0.396
N+13.75a	ALETA2	Bottom	Uniform	#4	#6	20	0.501
N+10.25a	ALETA2	Top	Uniform	#5	#6	5	0.460
N+10.25a	ALETA2	Bottom	Uniform	#5	#6	5	0.899
N+20.75a	A`11-10-2	Top	Uniform	#4	#6	20	0.295
N+20.75a	A`11-10-2	Bottom	Uniform	#4	#6	20	0.199
N+17.25a	A`11-10-2	Top	Uniform	#4	#6	20	0.240
N+17.25a	A`11-10-2	Bottom	Uniform	#4	#6	20	0.353
N+13.75a	A`11-10-2	Top	Uniform	#4	#6	20	0.239
N+13.75a	A`11-10-2	Bottom	Uniform	#4	#6	20	0.288
N+10.25a	A`11-10-2	Top	Uniform	#4	#6	20	0.294
N+10.25a	A`11-10-2	Bottom	Uniform	#4	#6	20	0.727
N+20.75a	D`11-10-2	Top	Uniform	#4	#6	20	0.262
N+20.75a	D`11-10-2	Bottom	Uniform	#4	#6	20	0.249
N+17.25a	D`11-10-2	Top	Uniform	#4	#6	20	0.286
N+17.25a	D`11-10-2	Bottom	Uniform	#4	#6	20	0.494
N+13.75a	D`11-10-2	Top	Uniform	#4	#6	20	0.452
N+13.75a	D`11-10-2	Bottom	Uniform	#4	#6	20	0.443
N+10.25a	D`11-10-2	Top	Uniform	#4	#6	20	0.432
N+10.25a	D`11-10-2	Bottom	Uniform	#4	#6	20	0.592
N+20.75a	ALETA3	Top	Uniform	#4	#6	20	0.266
N+20.75a	ALETA3	Bottom	Uniform	#4	#6	20	0.232
N+17.25a	ALETA3	Top	Uniform	#4	#6	20	0.297
N+17.25a	ALETA3	Bottom	Uniform	#4	#6	20	0.305
N+13.75a	ALETA3	Top	Uniform	#4	#6	20	0.418
N+13.75a	ALETA3	Bottom	Uniform	#4	#6	20	0.458
N+10.25a	ALETA3	Top	Uniform	#5	#6	5	0.380
N+10.25a	ALETA3	Bottom	Uniform	#5	#6	5	0.598
N+20.75a	ALETA4	Top	Uniform	#4	#6	20	0.621
N+20.75a	ALETA4	Bottom	Uniform	#4	#6	20	0.380
N+17.25a	ALETA4	Top	Uniform	#4	#6	20	0.437
N+17.25a	ALETA4	Bottom	Uniform	#4	#6	20	0.493
N+13.75a	ALETA4	Top	Uniform	#4	#6	20	0.506
N+13.75a	ALETA4	Bottom	Uniform	#4	#6	20	0.428
N+10.25a	ALETA4	Top	Uniform	#5	#6	5	0.369
N+10.25a	ALETA4	Bottom	Uniform	#5	#6	5	0.518

A continuación, se muestran la definición de piers para el diseño de los muros de 25cm.

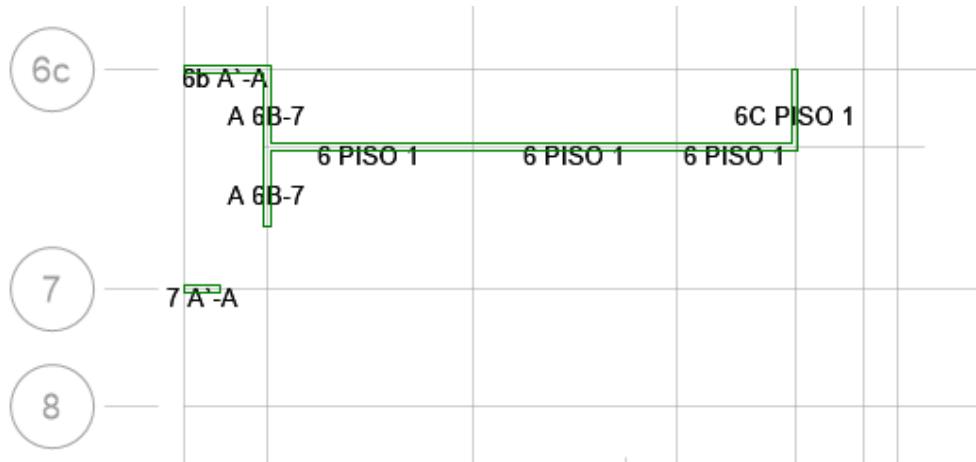


Figura 51 Definición de Pier muros 25cm

Tabla 31 Diseño de Muros 25cm Edificio A.

TABLE: Shear Wall Pier Design Summary - ACI 318-14

Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing		D/C Ratio
						cm	cm	
N+23.75	A 6B-7	Top	Uniform	#4	#8		20	0.227
N+23.75	A 6B-7	Bottom	Uniform	#4	#8		20	0.284
N+20.75a	A 6B-7	Top	Uniform	#4	#8		20	0.364
N+20.75a	A 6B-7	Bottom	Uniform	#4	#8		20	0.359
N+17.25a	A 6B-7	Top	Uniform	#4	#8		20	0.317
N+17.25a	A 6B-7	Bottom	Uniform	#4	#8		20	0.274
N+13.75a	A 6B-7	Top	Uniform	#4	#8		20	0.298
N+13.75a	A 6B-7	Bottom	Uniform	#4	#8		20	0.254
N+10.25a	A 6B-7	Top	Uniform	#4	#8		20	0.259
N+10.25a	A 6B-7	Bottom	Uniform	#4	#8		20	0.334
N+6.0a	A 6B-7	Top	Uniform	#4	#8		20	0.276
N+6.0a	A 6B-7	Bottom	Uniform	#4	#8		20	0.384
N+1.75a	A 6B-7	Top	Uniform	#4	#8		20	0.231
N+1.75a	A 6B-7	Bottom	Uniform	#4	#8		20	0.467
N+23.75	7 A'-A	Top	Uniform	#4	#8		20	0.172
N+23.75	7 A'-A	Bottom	Uniform	#4	#8		20	0.248
N+20.75a	7 A'-A	Top	Uniform	#4	#8		20	0.278
N+20.75a	7 A'-A	Bottom	Uniform	#4	#8		20	0.25
N+17.25a	7 A'-A	Top	Uniform	#4	#8		20	0.315
N+17.25a	7 A'-A	Bottom	Uniform	#4	#8		20	0.319
N+13.75a	7 A'-A	Top	Uniform	#4	#8		20	0.375
N+13.75a	7 A'-A	Bottom	Uniform	#4	#8		20	0.384
N+10.25a	7 A'-A	Top	Uniform	#4	#8		20	0.412
N+10.25a	7 A'-A	Bottom	Uniform	#4	#8		20	0.436
N+6.0a	7 A'-A	Top	Uniform	#4	#8		20	0.512
N+6.0a	7 A'-A	Bottom	Uniform	#4	#8		20	0.51
N+1.75a	7 A'-A	Top	Uniform	#4	#8		20	0.562

TABLE: Shear Wall Pier Design Summary - ACI 318-14

Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
							cm
N+1.75a	7 A`-A	Bottom	Uniform	#4	#8	20	0.568
N+1.75a	6C PISO 1	Top	Uniform	#4	#8	20	0.182
N+1.75a	6C PISO 1	Bottom	Uniform	#4	#8	20	0.465
N+1.75a	6 PISO 1	Top	Uniform	#4	#8	20	0.1
N+1.75a	6 PISO 1	Bottom	Uniform	#4	#8	20	0.111
N+23.75	6b A`-A	Top	Uniform	#4	#8	20	0.189
N+23.75	6b A`-A	Bottom	Uniform	#4	#8	20	0.101
N+20.75a	6b A`-A	Top	Uniform	#4	#8	20	0.041
N+20.75a	6b A`-A	Bottom	Uniform	#4	#8	20	0.079
N+17.25a	6b A`-A	Top	Uniform	#4	#8	20	0.095
N+17.25a	6b A`-A	Bottom	Uniform	#4	#8	20	0.124
N+13.75a	6b A`-A	Top	Uniform	#4	#8	20	0.175
N+13.75a	6b A`-A	Bottom	Uniform	#4	#8	20	0.27
N+10.25a	6b A`-A	Top	Uniform	#4	#8	20	0.292
N+10.25a	6b A`-A	Bottom	Uniform	#4	#8	20	0.635
N+6.0a	6b A`-A	Top	Uniform	#5	#8	10	0.271
N+6.0a	6b A`-A	Bottom	Uniform	#5	#8	10	0.506
N+1.75a	6b A`-A	Top	Uniform	#5	#8	10	0.526
N+1.75a	6b A`-A	Bottom	Uniform	#5	#8	10	0.631

A continuación, se muestran la definición de piers para el diseño de los muros de 40cm.

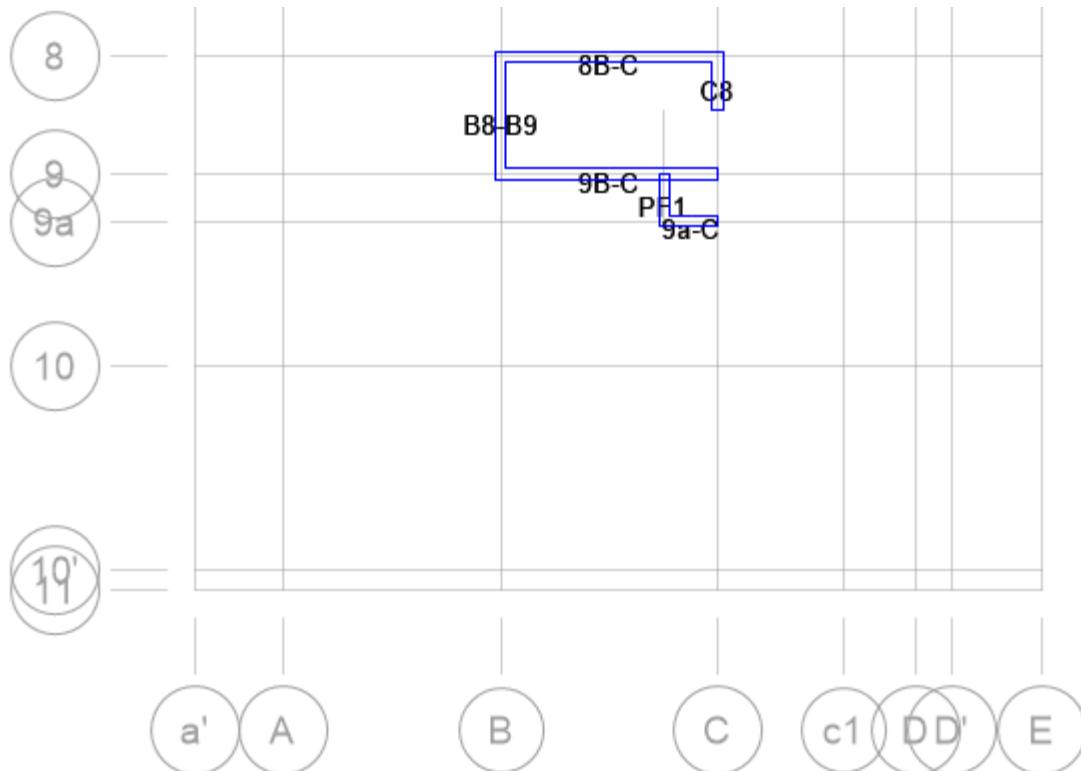


Figura 52 Definición de Pier muros 40cm

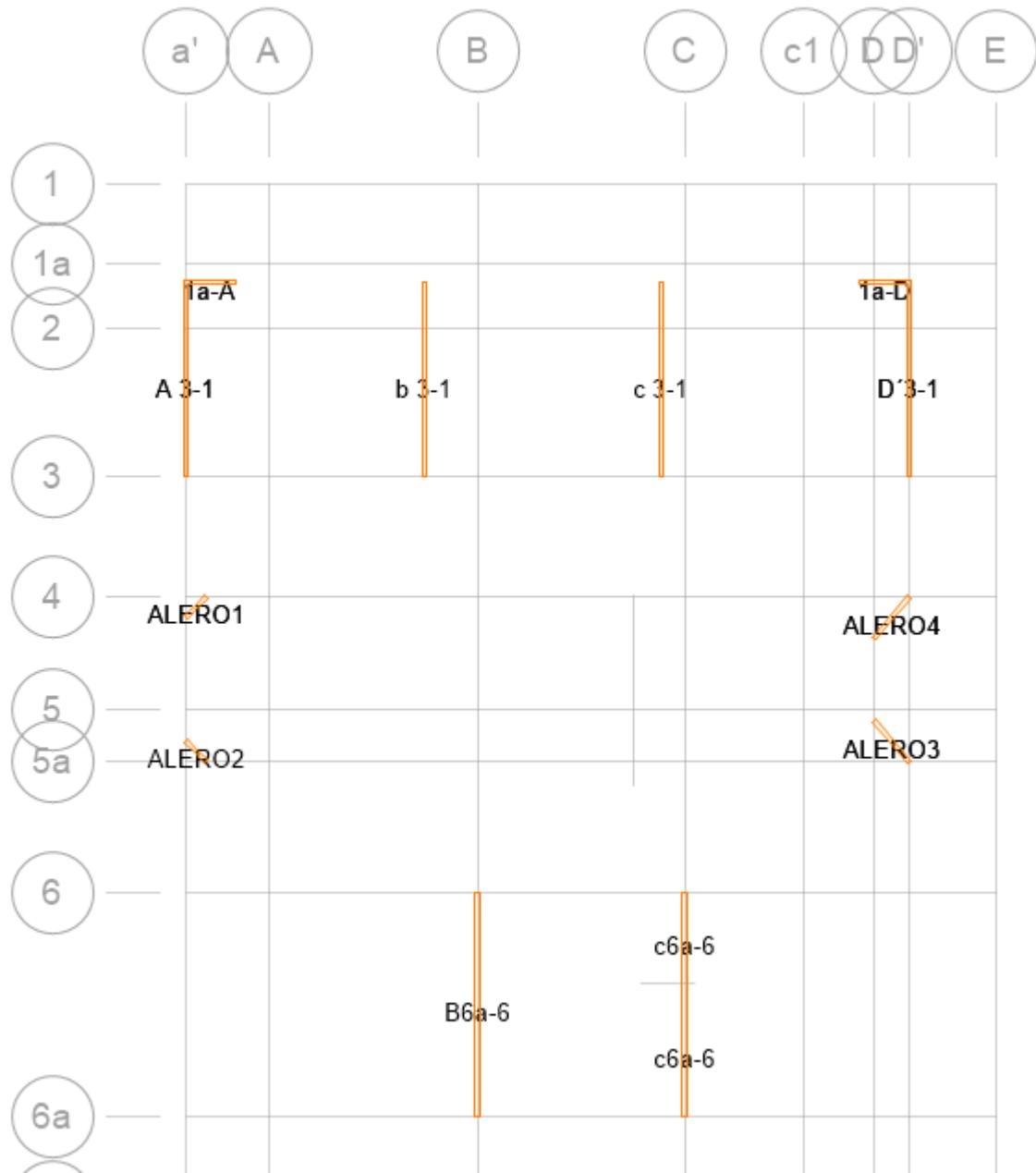
Tabla 32 Diseño de Muros 40cm Punto Fijo Edificio A

TABLE: Shear Wall Pier Design Summary - ACI 318-14							
Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
N+20.75a	9B-C	Top	Uniform	#5	#8	20	0.196
N+20.75a	9B-C	Bottom	Uniform	#5	#8	20	0.092
N+17.25a	9B-C	Top	Uniform	#5	#8	20	0.144
N+17.25a	9B-C	Bottom	Uniform	#5	#8	20	0.157
N+13.75a	9B-C	Top	Uniform	#5	#8	20	0.149
N+13.75a	9B-C	Bottom	Uniform	#5	#8	20	0.17
N+10.25a	9B-C	Top	Uniform	#5	#8	20	0.228
N+10.25a	9B-C	Bottom	Uniform	#5	#8	20	0.341
N+6.0a	9B-C	Top	Uniform	#5	#8	20	0.293
N+6.0a	9B-C	Bottom	Uniform	#5	#8	20	0.337
N+1.75a	9B-C	Top	Uniform	#5	#8	20	0.331
N+1.75a	9B-C	Bottom	Uniform	#5	#8	20	0.376
N+20.75a	8B-C	Top	Uniform	#5	#8	20	0.756
N+20.75a	8B-C	Bottom	Uniform	#5	#8	20	0.628
N+17.25a	8B-C	Top	Uniform	#5	#8	20	0.595
N+17.25a	8B-C	Bottom	Uniform	#5	#8	20	0.682
N+13.75a	8B-C	Top	Uniform	#5	#8	20	0.483
N+13.75a	8B-C	Bottom	Uniform	#5	#8	20	0.656
N+10.25a	8B-C	Top	Uniform	#5	#8	10	0.328
N+10.25a	8B-C	Bottom	Uniform	#5	#8	10	0.581
N+6.0a	8B-C	Top	Uniform	#5	#8	10	0.385
N+6.0a	8B-C	Bottom	Uniform	#5	#8	10	0.6
N+1.75a	8B-C	Top	Uniform	#5	#8	10	0.435
N+1.75a	8B-C	Bottom	Uniform	#5	#8	10	0.604
N+20.75a	B8-B9	Top	Uniform	#5	#8	20	0.833
N+20.75a	B8-B9	Bottom	Uniform	#5	#8	20	0.651
N+17.25a	B8-B9	Top	Uniform	#5	#8	20	0.524
N+17.25a	B8-B9	Bottom	Uniform	#5	#8	20	0.653
N+13.75a	B8-B9	Top	Uniform	#5	#8	20	0.491
N+13.75a	B8-B9	Bottom	Uniform	#5	#8	20	0.683
N+10.25a	B8-B9	Top	Uniform	#5	#8	20	0.469
N+10.25a	B8-B9	Bottom	Uniform	#5	#8	20	0.735
N+6.0a	B8-B9	Top	Uniform	#5	#8	10	0.346
N+6.0a	B8-B9	Bottom	Uniform	#5	#8	10	0.63
N+1.75a	B8-B9	Top	Uniform	#5	#8	10	0.534

TABLE: Shear Wall Pier Design Summary - ACI 318-14

Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
						cm	
N+1.75a	B8-B9	Bottom	Uniform	#5	#8	10	0.827
N+20.75a	B8-B9	Top	Uniform	#5	#8	20	0.833
N+20.75a	B8-B9	Bottom	Uniform	#5	#8	20	0.651
N+17.25a	B8-B9	Top	Uniform	#5	#8	20	0.524
N+17.25a	B8-B9	Bottom	Uniform	#5	#8	20	0.653
N+13.75a	B8-B9	Top	Uniform	#5	#8	20	0.491
N+13.75a	B8-B9	Bottom	Uniform	#5	#8	20	0.683
N+10.25a	B8-B9	Top	Uniform	#5	#8	20	0.469
N+10.25a	B8-B9	Bottom	Uniform	#5	#8	20	0.735
N+6.0a	B8-B9	Top	Uniform	#5	#8	10	0.346
N+6.0a	B8-B9	Bottom	Uniform	#5	#8	10	0.63
N+1.75a	B8-B9	Top	Uniform	#5	#8	10	0.534
N+1.75a	B8-B9	Bottom	Uniform	#5	#8	10	0.827
N+20.75a	PF1	Top	Uniform	#5	#8	20	0.152
N+20.75a	PF1	Bottom	Uniform	#5	#8	20	0.057
N+17.25a	PF1	Top	Uniform	#5	#8	20	0.097
N+17.25a	PF1	Bottom	Uniform	#5	#8	20	0.138
N+13.75a	PF1	Top	Uniform	#5	#8	20	0.142
N+13.75a	PF1	Bottom	Uniform	#5	#8	20	0.176
N+10.25a	PF1	Top	Uniform	#5	#8	20	0.204
N+10.25a	PF1	Bottom	Uniform	#5	#8	20	0.313
N+6.0a	PF1	Top	Uniform	#5	#8	20	0.317
N+6.0a	PF1	Bottom	Uniform	#5	#8	20	0.339
N+1.75a	PF1	Top	Uniform	#5	#8	20	0.347
N+1.75a	PF1	Bottom	Uniform	#5	#8	20	0.378
N+20.75a	9a-C	Top	Uniform	#5	#8	20	0.309
N+20.75a	9a-C	Bottom	Uniform	#5	#8	20	0.151
N+17.25a	9a-C	Top	Uniform	#5	#8	20	0.189
N+17.25a	9a-C	Bottom	Uniform	#5	#8	20	0.177
N+13.75a	9a-C	Top	Uniform	#5	#8	20	0.25
N+13.75a	9a-C	Bottom	Uniform	#5	#8	20	0.24
N+10.25a	9a-C	Top	Uniform	#5	#8	20	0.264
N+10.25a	9a-C	Bottom	Uniform	#5	#8	20	0.391
N+6.0a	9a-C	Top	Uniform	#5	#8	20	0.377
N+6.0a	9a-C	Bottom	Uniform	#5	#8	20	0.436
N+1.75a	9a-C	Top	Uniform	#5	#8	20	0.471
N+1.75a	9a-C	Bottom	Uniform	#5	#8	20	0.748

Diseño Muros Edificio B



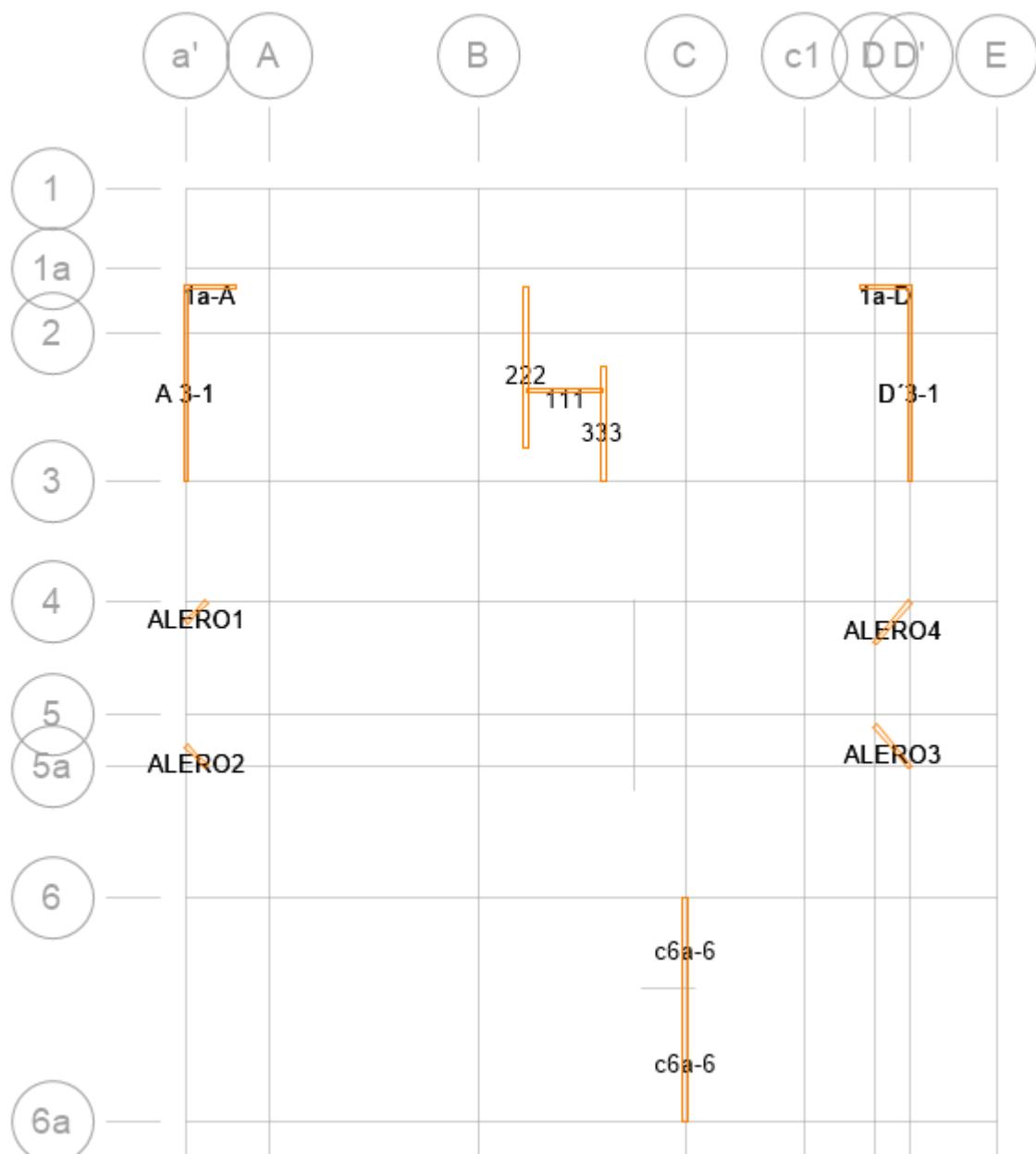


Figura 53 Definición Piers Muros 15cm Edificio B

Tabla 33 Diseño de Muros 15cm Edificio B.

TABLE: Shear Wall Pier Design Summary - ACI 318-14								
Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio	cm
N+15.50	B6a-6	Top	Uniform	#4	#6	20	0.169	
N+15.50	B6a-6	Bottom	Uniform	#4	#6	20	0.441	
N+12.00	B6a-6	Top	Uniform	#4	#6	20	0.244	
N+12.00	B6a-6	Bottom	Uniform	#4	#6	20	0.584	
N+19.00	c6a-6	Top	Uniform	#4	#6	20	0.668	
N+19.00	c6a-6	Bottom	Uniform	#4	#6	20	0.427	
N+15.50	c6a-6	Top	Uniform	#4	#6	20	0.222	
N+15.50	c6a-6	Bottom	Uniform	#4	#6	20	0.339	
N+12.00	c6a-6	Top	Uniform	#4	#6	20	0.328	
N+12.00	c6a-6	Bottom	Uniform	#4	#6	20	0.419	
N+19.00	D'3-1	Top	Uniform	#4	#6	20	0.492	
N+19.00	D'3-1	Bottom	Uniform	#4	#6	20	0.204	
N+15.50	D'3-1	Top	Uniform	#4	#6	20	0.271	
N+15.50	D'3-1	Bottom	Uniform	#4	#6	20	0.229	
N+12.00	D'3-1	Top	Uniform	#4	#6	20	0.211	
N+12.00	D'3-1	Bottom	Uniform	#4	#6	20	0.331	
N+19.00	ALER01	Top	Uniform	#4	#6	20	0.968	
N+19.00	ALER01	Bottom	Uniform	#4	#6	20	0.755	
N+15.50	ALER01	Top	Uniform	#4	#6	20	0.727	
N+15.50	ALER01	Bottom	Uniform	#4	#6	20	0.711	
N+12.00	ALER01	Top	Uniform	#5	#6	5	0.342	
N+12.00	ALER01	Bottom	Uniform	#5	#6	5	0.439	
N+19.00	ALER02	Top	Uniform	#4	#6	20	0.673	
N+19.00	ALER02	Bottom	Uniform	#4	#6	20	0.564	
N+15.50	ALER02	Top	Uniform	#4	#6	20	0.481	
N+15.50	ALER02	Bottom	Uniform	#4	#6	20	0.434	
N+12.00	ALER02	Top	Uniform	#5	#6	5	0.49	
N+12.00	ALER02	Bottom	Uniform	#5	#6	5	0.292	
N+19.00	ALER03	Top	Uniform	#4	#6	20	0.312	
N+19.00	ALER03	Bottom	Uniform	#4	#6	20	0.218	
N+15.50	ALER03	Top	Uniform	#4	#6	20	0.307	
N+15.50	ALER03	Bottom	Uniform	#4	#6	20	0.275	
N+12.00	ALER03	Top	Uniform	#5	#6	5	0.296	
N+12.00	ALER03	Bottom	Uniform	#5	#6	5	0.354	
N+19.00	ALER04	Top	Uniform	#4	#6	20	0.689	
N+19.00	ALER04	Bottom	Uniform	#4	#6	20	0.533	
N+15.50	ALER04	Top	Uniform	#4	#6	20	0.593	
N+15.50	ALER04	Bottom	Uniform	#4	#6	20	0.582	
N+12.00	ALER04	Top	Uniform	#5	#6	5	0.219	
N+12.00	ALER04	Bottom	Uniform	#5	#6	5	0.3	
N+19.00	1a-D	Top	Uniform	#4	#6	20	0.437	
N+19.00	1a-D	Bottom	Uniform	#4	#6	20	0.284	
N+15.50	1a-D	Top	Uniform	#4	#6	20	0.312	
N+15.50	1a-D	Bottom	Uniform	#4	#6	20	0.238	
N+12.00	1a-D	Top	Uniform	#4	#6	20	0.205	
N+12.00	1a-D	Bottom	Uniform	#4	#6	20	0.723	
N+15.50	c 3-1	Top	Uniform	#4	#6	20	0.363	
N+15.50	c 3-1	Bottom	Uniform	#4	#6	20	0.538	

TABLE: Shear Wall Pier Design Summary - ACI 318-14

Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
							cm
N+12.00	c 3-1	Top	Uniform	#4	#6	20	0.355
N+12.00	c 3-1	Bottom	Uniform	#4	#6	20	0.858
N+15.50	b 3-1	Top	Uniform	#4	#6	20	0.444
N+15.50	b 3-1	Bottom	Uniform	#4	#6	20	0.395
N+12.00	b 3-1	Top	Uniform	#4	#6	20	0.313
N+12.00	b 3-1	Bottom	Uniform	#4	#6	20	0.676
N+19.00	A 3-1	Top	Uniform	#4	#6	20	0.265
N+19.00	A 3-1	Bottom	Uniform	#4	#6	20	0.175
N+15.50	A 3-1	Top	Uniform	#4	#6	20	0.242
N+15.50	A 3-1	Bottom	Uniform	#4	#6	20	0.223
N+12.00	A 3-1	Top	Uniform	#4	#6	20	0.313
N+12.00	A 3-1	Bottom	Uniform	#4	#6	20	0.637
N+19.00	1a-A	Top	Uniform	#4	#6	20	0.351
N+19.00	1a-A	Bottom	Uniform	#4	#6	20	0.152
N+15.50	1a-A	Top	Uniform	#4	#6	20	0.191
N+15.50	1a-A	Bottom	Uniform	#4	#6	20	0.113
N+12.00	1a-A	Top	Uniform	#4	#6	20	0.255
N+12.00	1a-A	Bottom	Uniform	#4	#6	20	0.773
N+19.00	111	Top	Uniform	#4	#6	20	0.339
N+19.00	111	Bottom	Uniform	#4	#6	20	0.365
N+19.00	222	Top	Uniform	#4	#6	20	0.267
N+19.00	222	Bottom	Uniform	#4	#6	20	0.182
N+19.00	333	Top	Uniform	#4	#6	20	0.494
N+19.00	333	Bottom	Uniform	#4	#6	20	0.346

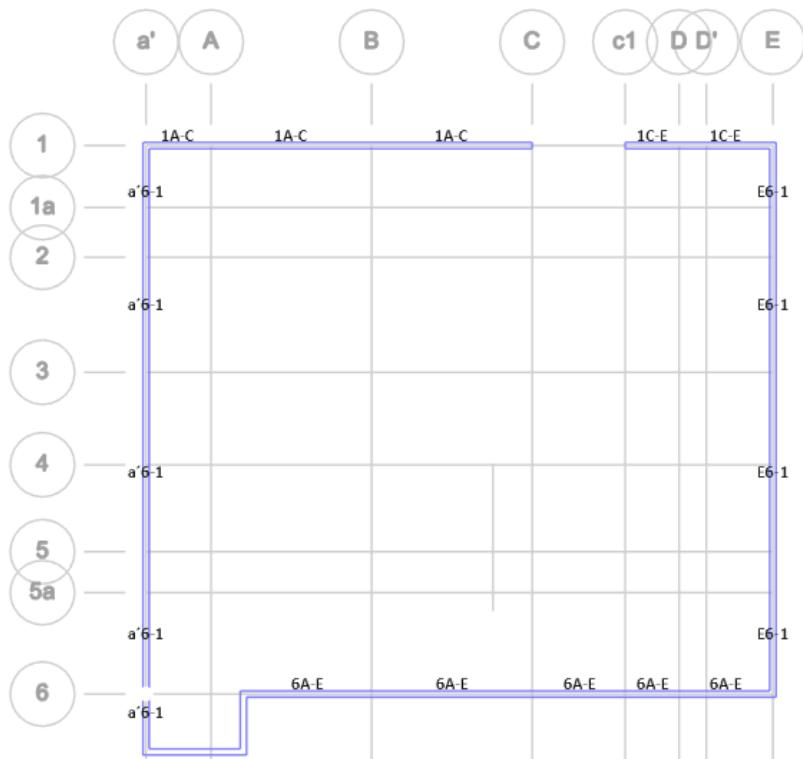


Figura 54 Definición Piers Muro sótano 30cm

Tabla 34 Diseño de Muros 25cm Edificio B.

TABLE: Shear Wall Pier Design Summary - ACI 318-14							
Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing cm	D/C Ratio
N+0.00	1A-C	Top	Uniform	#5	#8	20	0.138
N+0.00	1A-C	Bottom	Uniform	#5	#8	20	0.061
N-1.75	1A-C	Top	Uniform	#5	#8	20	0.073
N-1.75	1A-C	Bottom	Uniform	#5	#8	20	0.103
N+0.00	1C-E	Top	Uniform	#5	#8	20	0.084
N+0.00	1C-E	Bottom	Uniform	#5	#8	20	0.056
N-1.75	1C-E	Top	Uniform	#5	#8	20	0.038
N-1.75	1C-E	Bottom	Uniform	#5	#8	20	0.086
N+0.00	a'-1	Top	Uniform	#5	#8	20	0.317
N+0.00	a'-1	Bottom	Uniform	#5	#8	20	0.05
N-1.75	a'-1	Top	Uniform	#5	#8	20	0.027
N-1.75	a'-1	Bottom	Uniform	#5	#8	20	0.138
N+0.00	E6-1	Top	Uniform	#5	#8	20	0.065
N+0.00	E6-1	Bottom	Uniform	#5	#8	20	0.033
N-1.75	E6-1	Top	Uniform	#5	#8	20	0.035
N-1.75	E6-1	Bottom	Uniform	#5	#8	20	0.059
N+0.00	6A-E	Top	Uniform	#5	#8	20	0.145
N+0.00	6A-E	Bottom	Uniform	#5	#8	20	0.13
N-1.75	6A-E	Top	Uniform	#5	#8	20	0.135
N-1.75	6A-E	Bottom	Uniform	#5	#8	20	0.153

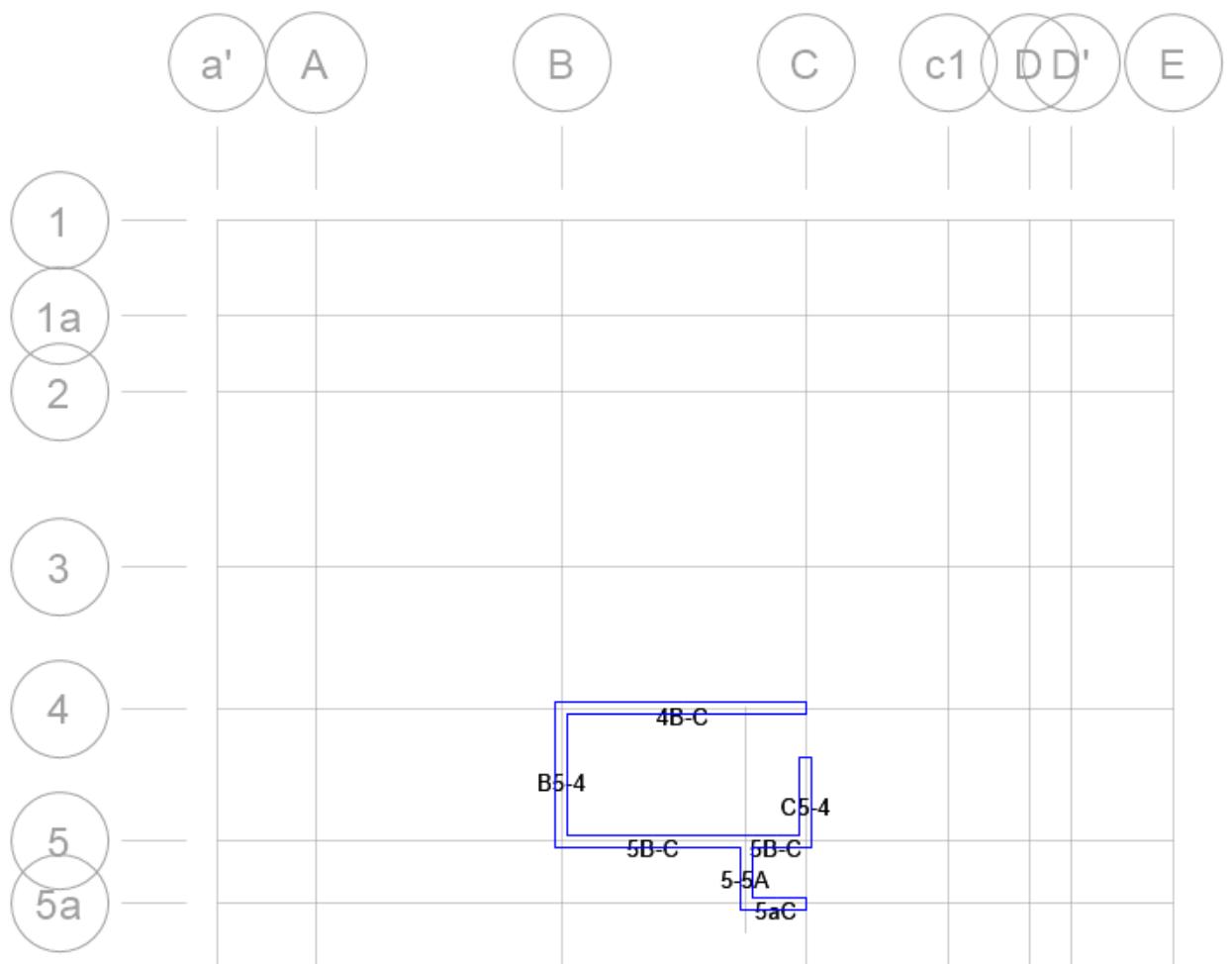


Figura 55 Definición Piers Muros 40cm Edificio B.

Tabla 35 Diseño de Muros 40cm Edificio B.

TABLE: Shear Wall Pier Design Summary - ACI 318-14							
Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
						cm	
N+22.75	5aC	Top	Uniform	#5	#8	20	0.183
N+22.75	5aC	Bottom	Uniform	#5	#8	20	0.524
N+19.00	5aC	Top	Uniform	#5	#8	20	0.333
N+19.00	5aC	Bottom	Uniform	#5	#8	20	0.364
N+15.50	5aC	Top	Uniform	#5	#8	20	0.364
N+15.50	5aC	Bottom	Uniform	#5	#8	20	0.385
N+12.00	5aC	Top	Uniform	#5	#8	20	0.364
N+12.00	5aC	Bottom	Uniform	#5	#8	20	0.531
N+8.50	5aC	Top	Uniform	#5	#8	20	0.393
N+8.50	5aC	Bottom	Uniform	#5	#8	20	0.899
N+3.50	5aC	Top	Uniform	#5	#8	10	0.415
N+3.50	5aC	Bottom	Uniform	#5	#8	10	0.624
N+0.00	5aC	Top	Uniform	#5	#8	10	0.446
N+0.00	5aC	Bottom	Uniform	#5	#8	10	0.448
N-1.75	5aC	Top	Uniform	#5	#8	10	0.554
N-1.75	5aC	Bottom	Uniform	#5	#8	10	0.57
N+22.75	5B-C	Top	Uniform	#5	#8	20	0.03
N+22.75	5B-C	Bottom	Uniform	#5	#8	20	0.091
N+19.00	5B-C	Top	Uniform	#5	#8	20	0.235
N+19.00	5B-C	Bottom	Uniform	#5	#8	20	0.183
N+15.50	5B-C	Top	Uniform	#5	#8	20	0.134
N+15.50	5B-C	Bottom	Uniform	#5	#8	20	0.168
N+12.00	5B-C	Top	Uniform	#5	#8	20	0.176
N+12.00	5B-C	Bottom	Uniform	#5	#8	20	0.202
N+8.50	5B-C	Top	Uniform	#5	#8	20	0.238
N+8.50	5B-C	Bottom	Uniform	#5	#8	20	0.463
N+3.50	5B-C	Top	Uniform	#5	#8	20	0.28
N+3.50	5B-C	Bottom	Uniform	#5	#8	20	0.538
N+0.00	5B-C	Top	Uniform	#5	#8	20	0.436
N+0.00	5B-C	Bottom	Uniform	#5	#8	20	0.485
N-1.75	5B-C	Top	Uniform	#5	#8	20	0.488
N-1.75	5B-C	Bottom	Uniform	#5	#8	20	0.558
N+22.75	4B-C	Top	Uniform	#5	#8	20	0.108
N+22.75	4B-C	Bottom	Uniform	#5	#8	20	0.51
N+19.00	4B-C	Top	Uniform	#5	#8	20	0.398
N+19.00	4B-C	Bottom	Uniform	#5	#8	20	0.388
N+15.50	4B-C	Top	Uniform	#5	#8	20	0.315
N+15.50	4B-C	Bottom	Uniform	#5	#8	20	0.331
N+12.00	4B-C	Top	Uniform	#5	#8	20	0.311
N+12.00	4B-C	Bottom	Uniform	#5	#8	20	0.344
N+8.50	4B-C	Top	Uniform	#5	#8	20	0.382
N+8.50	4B-C	Bottom	Uniform	#5	#8	20	0.676
N+3.50	4B-C	Top	Uniform	#5	#8	20	0.516
N+3.50	4B-C	Bottom	Uniform	#5	#8	20	0.782
N+0.00	4B-C	Top	Uniform	#5	#8	20	0.478
N+0.00	4B-C	Bottom	Uniform	#5	#8	20	0.584
N-1.75	4B-C	Top	Uniform	#5	#8	20	0.608
N-1.75	4B-C	Bottom	Uniform	#5	#8	20	0.726
N+22.75	5-5A	Top	Uniform	#5	#8	20	0.105

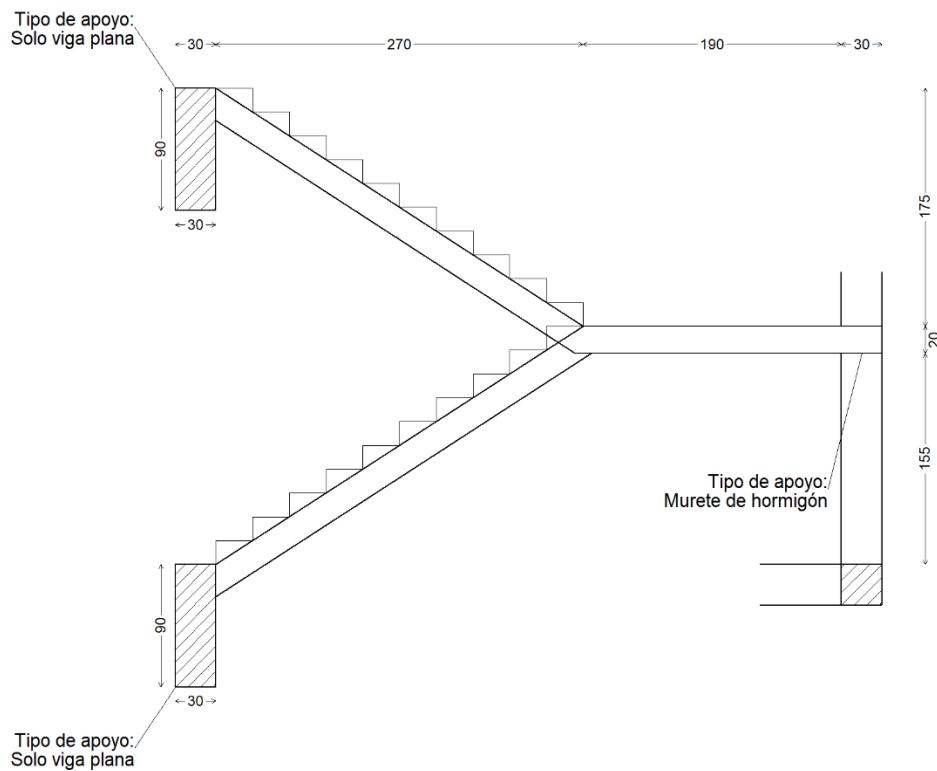
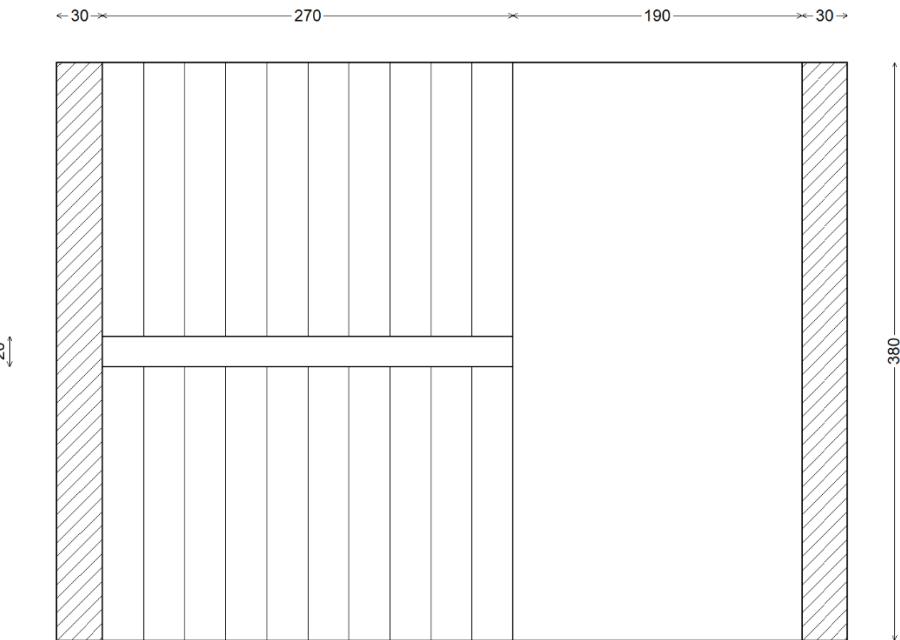
TABLE: Shear Wall Pier Design Summary - ACI 318-14

Story	Pier Label	Station	Design Type	Edge Rebar	End Rebar	Rebar Spacing	D/C Ratio
							cm
N+22.75	5-5A	Bottom	Uniform	#5	#8	20	0.043
N+19.00	5-5A	Top	Uniform	#5	#8	20	0.167
N+19.00	5-5A	Bottom	Uniform	#5	#8	20	0.116
N+15.50	5-5A	Top	Uniform	#5	#8	20	0.165
N+15.50	5-5A	Bottom	Uniform	#5	#8	20	0.159
N+12.00	5-5A	Top	Uniform	#5	#8	20	0.2
N+12.00	5-5A	Bottom	Uniform	#5	#8	20	0.199
N+8.50	5-5A	Top	Uniform	#5	#8	20	0.417
N+8.50	5-5A	Bottom	Uniform	#5	#8	20	1.068
N+3.50	5-5A	Top	Uniform	#5	#8	20	0.331
N+3.50	5-5A	Bottom	Uniform	#5	#8	20	0.645
N+0.00	5-5A	Top	Uniform	#5	#8	20	0.312
N+0.00	5-5A	Bottom	Uniform	#5	#8	20	0.61
N-1.75	5-5A	Top	Uniform	#5	#8	20	0.334
N-1.75	5-5A	Bottom	Uniform	#5	#8	20	0.691
N+22.75	B5-4	Top	Uniform	#5	#8	20	0.032
N+22.75	B5-4	Bottom	Uniform	#5	#8	20	0.59
N+19.00	B5-4	Top	Uniform	#5	#8	20	0.537
N+19.00	B5-4	Bottom	Uniform	#5	#8	20	0.558
N+15.50	B5-4	Top	Uniform	#5	#8	20	0.506
N+15.50	B5-4	Bottom	Uniform	#5	#8	20	0.558
N+12.00	B5-4	Top	Uniform	#5	#8	20	0.433
N+12.00	B5-4	Bottom	Uniform	#5	#8	20	0.374
N+8.50	B5-4	Top	Uniform	#5	#8	20	0.477
N+8.50	B5-4	Bottom	Uniform	#5	#8	20	0.885
N+3.50	B5-4	Top	Uniform	#5	#8	10	0.441
N+3.50	B5-4	Bottom	Uniform	#5	#8	10	0.65
N+0.00	B5-4	Top	Uniform	#5	#8	10	0.531
N+0.00	B5-4	Bottom	Uniform	#5	#8	10	0.618
N-1.75	B5-4	Top	Uniform	#5	#8	10	0.613
N-1.75	B5-4	Bottom	Uniform	#5	#8	10	0.711
N+22.75	C5-4	Top	Uniform	#5	#8	20	0.163
N+22.75	C5-4	Bottom	Uniform	#5	#8	20	0.533
N+19.00	C5-4	Top	Uniform	#5	#8	20	0.657
N+19.00	C5-4	Bottom	Uniform	#5	#8	20	0.556
N+15.50	C5-4	Top	Uniform	#5	#8	20	0.645
N+15.50	C5-4	Bottom	Uniform	#5	#8	20	0.551
N+12.00	C5-4	Top	Uniform	#5	#8	20	0.629
N+12.00	C5-4	Bottom	Uniform	#5	#8	20	0.386
N+8.50	C5-4	Top	Uniform	#5	#8	20	0.7
N+8.50	C5-4	Bottom	Uniform	#5	#8	20	1.029
N+3.50	C5-4	Top	Uniform	#5	#8	10	0.398
N+3.50	C5-4	Bottom	Uniform	#5	#8	10	0.57
N+0.00	C5-4	Top	Uniform	#5	#8	10	0.462
N+0.00	C5-4	Bottom	Uniform	#5	#8	10	0.539
N-1.75	C5-4	Top	Uniform	#5	#8	10	0.554
N-1.75	C5-4	Bottom	Uniform	#5	#8	10	0.655

6.5 DISEÑO DE ESCALERAS

Escalera Principal:

Planta (escala 1:50)



Canto de la viga del apoyo superior: 0.90 m
Canto de la viga del apoyo inferior: 0.90 m

2. Materiales

Hormigón = $f'c=280$
Acero = Grado 60 (Latinoamérica)
Acciones: NSR-10

3. Cargas

Peso propio losa (espesor x 2.5 t/m³) = 0.500 t/m²
Peldañoado = 0.400 t/m²
Barandillas = 0.300 t/m
Sobrecarga de uso = 0.500 t/m²

4. Resultado del cálculo y armaduras

4.1. Armadura longitudinal

Momento de cálculo inferior = 10.02 t·m
Momento de cálculo superior (negativos) = 6.26 t·m

- Tramo superior

Armadura inferior Ø5/8" c/ 0.150 m.
Armadura superior Ø5/8" c/ 0.150 m.

- Tramo inferior

Armadura inferior Ø5/8" c/ 0.150 m.
Armadura superior Ø5/8" c/ 0.150 m.
Arranque inferior en apoyo Ø5/8" c/ 0.150 m.

- Descansillo

Armadura inferior en descansillo Ø5/8" c/ 0.150 m.
Armadura superior en descansillo Ø5/8" c/ 0.150 m.

4.2. Armadura transversal

+ en tramos inclinados: barras rectas con patillas en los extremos

- Tramo superior

Armadura superior Ø1/2" c/ 0.200 m.
Armadura inferior Ø1/2" c/ 0.200 m.

- Tramo inferior

Armadura superior Ø1/2" c/ 0.200 m.
Armadura inferior Ø1/2" c/ 0.200 m.

+ en descansillos: barras rectas con patillas en los extremos

Momento de cálculo de armadura transversal superior = 8.11 t·m

Armadura superior Ø5/8" c/ 0.150 m.

Armadura inferior Ø1/2" c/ 0.200 m.

4.3. Armadura del apoyo intermedio

Armadura del murete de hormigón Ø8 c/ 0.200 m.

Armadura transversal del murete de hormigón Ø8 c/ 0.200 m.

Nota: La medición no incluye las barras del apoyo intermedio.

5. Opciones de cálculo

5.1. Posición de las armaduras

- a) La armadura transversal envuelve a la longitudinal.
- b) Recubrimiento geométrico = distancia de los paramentos exteriores a la armadura más próxima = 0.025 m.
- c) La armadura transversal en los tramos inclinados está formada por: barras rectas con patillas en los extremos

5.2. Cuantías mínimas en losas

- a) Cuantías geométricas

Cara inferior = 0.0009

Cara superior = 0.0000

Cara tracción = 0.0000

Total = 0.0018

- b) Cuantía mecánica mínima 0.04

- c) Se aplica la reducción de cuantía mecánica mínima

- d) Porcentaje de armadura en una dirección respecto a la necesaria en la otra

Si se necesita en ésta = 20 %

Si no se necesita en ésta = 20 %

5.3. Recubrimiento en losas

Recubrimiento superior (cm) = 3.5

Recubrimiento inferior (cm) = 2.5

Recubrimiento lateral (cm) = 2.5

6. PELDAÑEADO

Huella = 0.270 m

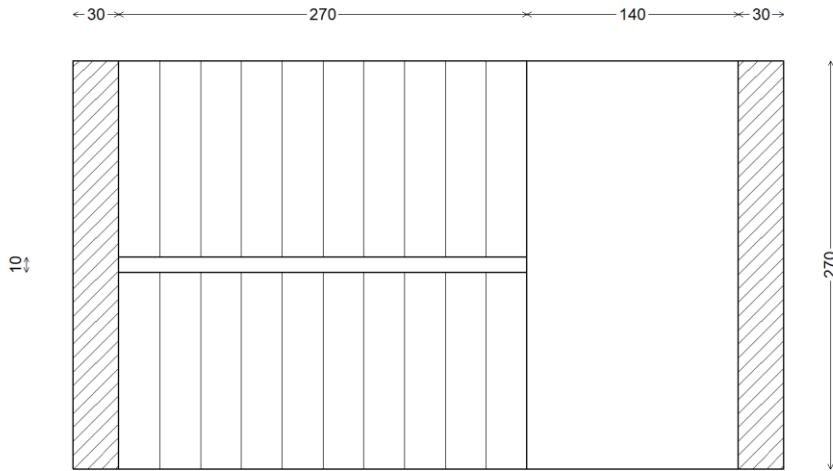
Contrahuella = 0.175 m

Número de peldaños = 10

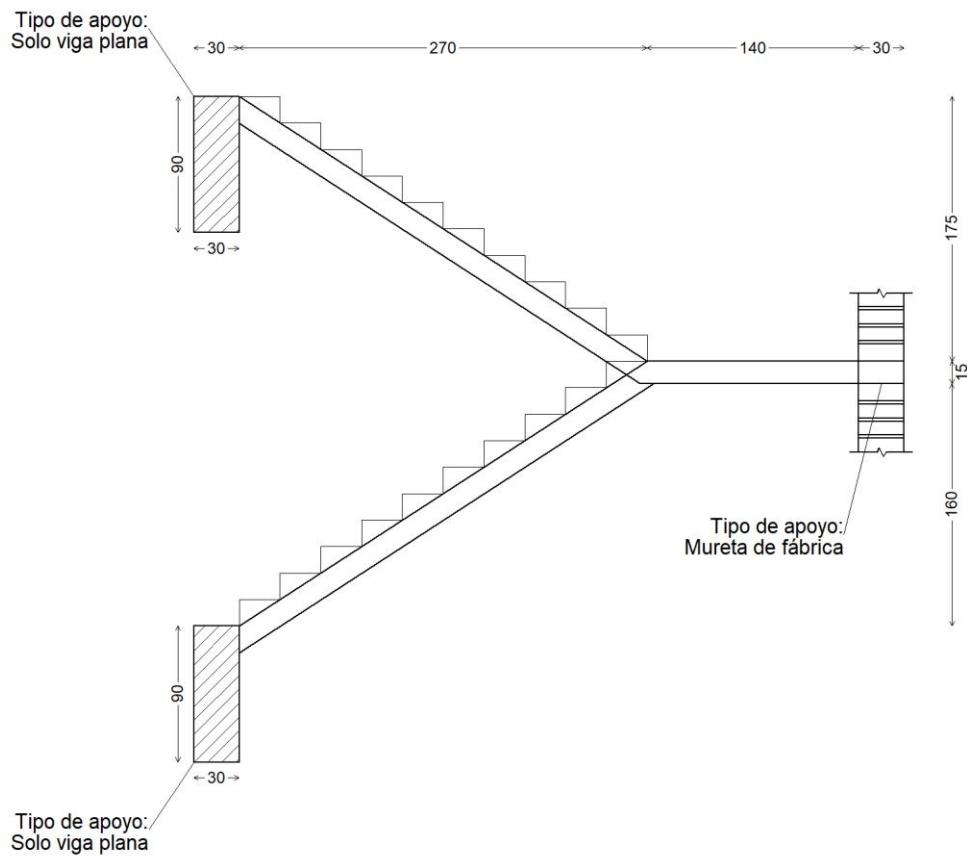
Escalera de Servicio:

1. Geometría

Planta (escala 1:50)



Sección acotada (escala 1:50)



Canto de la viga del apoyo superior: 0.90 m
Canto de la viga del apoyo inferior: 0.90 m

2. Materiales

Hormigón = $f'c=280$

Acero = Grado 60 (Latinoamérica)

Acciones: NSR-10

3. Cargas

Peso propio losa (espesor x 2.5 t/m³) = 0.375 t/m²

Peldañoado = 0.400 t/m²

Barandillas = 0.300 t/m

Sobrecarga de uso = 0.500 t/m²

4. Resultado del cálculo y armaduras

4.1. Armadura longitudinal

Momento de cálculo inferior = 5.66 t·m

Momento de cálculo superior (negativos) = 3.54 t·m

- Tramo superior

Armadura inferior Ø5/8" c/ 0.150 m.

Armadura superior Ø5/8" c/ 0.150 m.

- Tramo inferior

Armadura inferior Ø5/8" c/ 0.150 m.

Armadura superior Ø5/8" c/ 0.150 m.

Arranque inferior en apoyo Ø5/8" c/ 0.150 m.

- Descansillo

Armadura inferior en descansillo Ø5/8" c/ 0.150 m.

Armadura superior en descansillo Ø5/8" c/ 0.150 m.

4.2. Armadura transversal

+ en tramos inclinados: barras rectas con patillas en los extremos

- Tramo superior

Armadura superior Ø1/2" c/ 0.200 m.

Armadura inferior Ø1/2" c/ 0.200 m.

- Tramo inferior

Armadura superior Ø1/2" c/ 0.200 m.

Armadura inferior Ø1/2" c/ 0.200 m.

+ en descansillos: barras rectas con patillas en los extremos

Momento de cálculo de armadura transversal superior = 3.36 t·m

Armadura superior Ø5/8" c/ 0.150 m.

Armadura inferior Ø1/2" c/ 0.200 m.

5. Opciones de cálculo

5.1. Posición de las armaduras

- a) La armadura transversal envuelve a la longitudinal.
- b) Recubrimiento geométrico = distancia de los paramentos exteriores a la armadura más próxima = 0.025 m.
- c) La armadura transversal en los tramos inclinados está formada por: barras rectas con patillas en los extremos

5.2. Cuantías mínimas en losas

- a) Cuantías geométricas
 - Cara inferior = 0.0009
 - Cara superior = 0.0000
 - Cara tracción = 0.0000
 - Total = 0.0018
- b) Cuantía mecánica mínima 0.04
- c) Se aplica la reducción de cuantía mecánica mínima
- d) Porcentaje de armadura en una dirección respecto a la necesaria en la otra
 - Si se necesita en ésta = 20 %
 - Si no se necesita en ésta = 20 %

5.3. Recubrimiento en losas

Recubrimiento superior (cm) = 3.5
Recubrimiento inferior (cm) = 2.5
Recubrimiento lateral (cm) = 2.5

6. PELDAÑEADO

Huella = 0.270 m
Contrahuella = 0.175 m
Número de peldaños = 10

6.6 DISEÑO DE ELEMENTOS DE ACERO

Diseño de elementos de Acero a Flexión (F.2.6.1)

En cada punto a lo largo de la longitud de la viga, se debe satisfacer la siguiente ecuación:

$$M_u \leq \phi_b M_n \quad \phi_b = 0.90$$

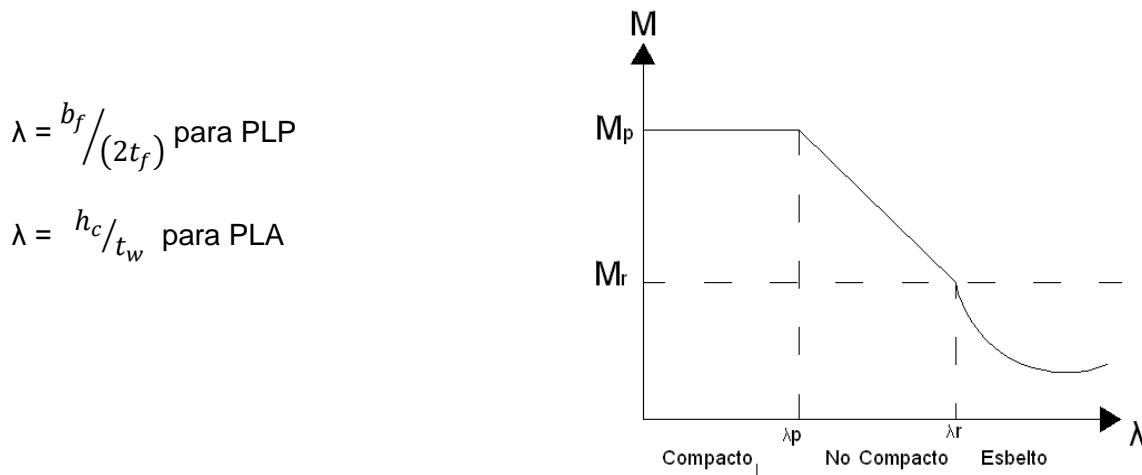
Donde M_u , es el momento bajo cargas mayoradas (del análisis estructural) y M_n es la resistencia nominal de flexión de la viga.

M_u : Resistencia a flexión de vigas, calculada con base en PLP, PLA, PLT o momento plástico de la sección M_p .

$$M_p = ZF_y \leq 1.5 M_y$$

En general, la resistencia M_n basada en PLP y PLA depende de dos variables: Relación ancho-espesor de la aleta o el alma.

El NSR-10 usa el símbolo “ λ ” para la relación ancho-espesor. Para una sección de ala ancha, los valores para λ se definen como $b_f/(2t_f)$ para PLP y h_c/t_f para PLA. Para determinar M_n con base en PLP y PLA, el valor λ se compara con λ_p y λ_r .



Procedimiento Diseño elástico:

1. Hallar los diagramas de M_u y V_u
2. Seleccionar el perfil más liviano que cumpla $\phi M_p \geq M_u$
3. Verificar la sección compacta PLP y PLA
4. Verificar espaciamiento L_b de soportes laterales PLT, para que $M_n = M_p$

5. Verificar $\phi V_n \geq V_u$

6. Verificar las deflexiones. $\delta_{máx} < \frac{L}{360}$ por carga viva de servicio. L: longitud libre de la viga.

Diseño Acero elementos en Flexo Compresión.

Ecuación de Interacción: (F.2.8.1.1 Y F.2.8.1.2)

Hallada ajustando la curva a los resultados de las soluciones exactas. La ecuación para elementos simétricos bajo flexión biaxial.

$$\begin{aligned}\frac{P_u}{\phi P_n} \geq 0.2 \quad & \frac{P_u}{\phi P_n} + \frac{8}{9} \left[\frac{M_{ux}}{\phi_b M_{nx}} + \frac{M_{uy}}{\phi_b M_{ny}} \right] \leq 1.0 \\ \frac{P_u}{\phi P_n} < 0.2 \quad & \frac{P_u}{2\phi P_n} + \left[\frac{M_{ux}}{\phi_b M_{nx}} + \frac{M_{uy}}{\phi_b M_{ny}} \right] \leq 1.0\end{aligned}$$

C_b Debería basarse en la forma del momento elástico de segundo orden entre soportes laterales. Existen 2 formas:

Si la forma del diagrama de momento de segundo orden es conocida

$$C_b = \frac{12.5 M_{max}}{2.5 M_{max} + 3M_A + 4M_B + 3M_C}$$

$M_{max} + M_A + M_B + M_C$ = Momento de segundo orden

Si la forma del diagrama de momentos de segundo orden es desconocida, usar $C_b = 1.0$ que es conservativo.

Una vez introducido el modelo computacional con todos los requerimientos antes mencionados, se realizan las iteraciones necesarias hasta que el diseño esté terminado.

7. DISEÑO ELEMENTOS NO ESTRUCTURALES

En los capítulos A.3.3 y el A.3.6, de la NSR-10 se especifica al respecto:

A.3.6.1 — GENERALIDADES — Todos los elementos estructurales deben diseñarse para los efectos de los movimientos sísmicos de diseño que actúen sobre ellos, adicionalmente a todas las cargas que los puedan afectar, tal como lo prescribe el Título B de este Reglamento.

A.3.6.1.1 — Elementos del sistema de resistencia sísmica — Solamente los elementos que pertenezcan al sistema estructural de resistencia sísmica pueden contribuir a la resistencia sísmica de la edificación y deben diseñarse de acuerdo con los requisitos propios de su material estructural y para el grado de capacidad de disipación de energía requerido, además de los requisitos adicionales dados en la presente sección.

A.3.6.1.2 — Elementos estructurales que no hacen parte del sistema de resistencia sísmica — Los elementos estructurales que no formen parte del sistema estructural de resistencia sísmica, deben investigarse con el fin de determinar si pueden mantener su capacidad de resistir cargas verticales cuando se ven sometidos a los desplazamientos horizontales y a las derivas, causados por los movimientos sísmicos de diseño, pero sólo hay necesidad de que cumplan los requisitos del grado de capacidad de disipación de energía mínimo para su material estructural. Sus anclajes y amarres al sistema de resistencia sísmica deben cumplir los requisitos dados en la presente sección y en el Capítulo A.8.

A.3.3.9 — USO DEL COEFICIENTE DE SOBRERRESISTENCIA Ω_0 — Cuando los requisitos para el material estructural y el grado de disipación de energía requieren que los elementos frágiles o las conexiones entre elementos se diseñen para fuerzas sísmicas, E, amplificadas por el coeficiente de sobrerresistencia, Ω_0 , éste debe emplearse de la siguiente manera para obtener las fuerzas de diseño que incluyen los efectos sísmicos:

$$E = \frac{\Omega_0 F_s}{R} \pm 0.5 A_s F_a D \quad (\text{A.3.3-2})$$

Donde F_s corresponde a las fuerzas sísmicas obtenidas del análisis, R es el coeficiente de capacidad de disipación de energía correspondiente al sistema estructural de resistencia sísmica $R=\Phi_a.\Phi_p.\Phi_r.R_o$, y D corresponde a la carga muerta que actúa sobre el elemento tal como se define en el Título B del Reglamento y el signo de la parte derecha de la ecuación es el que conduce al mayor valor de E , dependiendo del signo de F_s .

Definición de materiales, elementos y cargas

Cargas

La carga muerta a tener en cuenta será el peso propio del elemento tal como se especifica en el capítulo B, no se incluye viva ni viento, por ser elementos no estructurales, y la fuerza sísmica se determina de acuerdo al A.3.3.9.

Refuerzo:

El refuerzo para el diseño a momento flector como a cortante vertical debe tener un esfuerzo de fluencia igual:

Para barras $>1/4"$ $f_y = 420 \text{ MPa} = 4200 \text{ kgf/cm}^2$ o $f_y = 60.000 \text{ psi}$

Mampostería No Estructural:

FICHA TECNICA

REF.

BSE-I2

BLOQUE SEMIESTRUCTURAL I2 CM



DESCRIPCION GENERAL: bloque de concreto vibrocompactado, optima resistencia a la compresión para la construcción de mampostería arquitectónica, edificios, vivienda, de uso interior o exterior.

ESPECIFICACIONES											
DIMENSIONES	Ancho	Alto	Largo	Pared	Tabique						
	12 cm	19 cm	39 cm	2,2 cm	2,2 cm						
COLOR	Gris										
TEXTURA	Lisa - Rustica										
PESO SECO	9,35-9,65 kg										
RENDIMIENTO	12,5 un/m ²										
MÓDULO DE ROTURA-Promedio	6 Mpa mínimo										
MÓDULO DE ROTURA-Unidad	5 Mpa mínimo										
ABSORCIÓN DE AGUA-Promedio (Aa%)	12% máximo										
TOLERANCIAS	LONGITUD	±2 mm									
	ALTO	1% máximo									
	ANCHO	1% máximo									
USO Y APLICACIÓN	Mampostería no estructural										
NORMATIVIDAD APLICADA	NTC 4026 - NTC 4076 - NTC 4024										

- Sistema: Mampostería reforzada
- Unidad de mampostería Bloque concreto a la vista.
- Relación área neta / área bruta de las unidades de mampostería: 1,0
- Ancho equivalente 5,0 cm
- Altura de la unidad de mampostería 6.5 cm
- Resistencia unidad de mampostería f'cu : 160 Kg/cm²
- Factor de corrección por absorción Kp : 0.8
- Mortero de pega Tipo M
- Resistencia mortero de pega f'cp : 180 Kg/cm²
- Rm [NSR-10 Ecuación D.3-1] 120.0 Kg/cm²
- Resistencia mortero de inyección f'cr : 210 Kg/cm²
- f' m cuando hay celdas con mortero de inyección 100.0 Kgf/cm² = 10 MPa
- Modulo de elasticidad de la mampostería Em = 75000 Kgf/cm² = 7500 MPa
- Relación de Poisson v = 0.25

La fuerza sísmica se ve afectada por los siguientes factores.

$$E = \frac{\Omega_0 F_s}{R_o} \pm 0.5 A_a \cdot F_a \cdot D \quad (\text{A.3.3-2})$$

De acuerdo al A.3.3.9, se debe usar un coeficiente de sobrerresistencia R_o , según la tabla A.3.1 Sistema estructural de muros de carga, para muros de mampostería confinada $R_o = 2.0$ y $\Omega_0 = 2.5$, para muros de mampostería parcialmente reforzada de bloque de perforación vertical, $R_o = 2.0$ y $\Omega_0 = 2.5$, para sistema combinado tabla A.3.2 $R_o = 5.0$ y $\Omega_0 = 2.0$, para sistema pórtico resistente a momento tabla A.3.2 $R_o = 7.0$ y $\Omega_0 = 2.5$. Para el cálculo del espectro afectado por el coeficiente de sobre resistencia, usado en el diseño de elementos no estructurales queda:

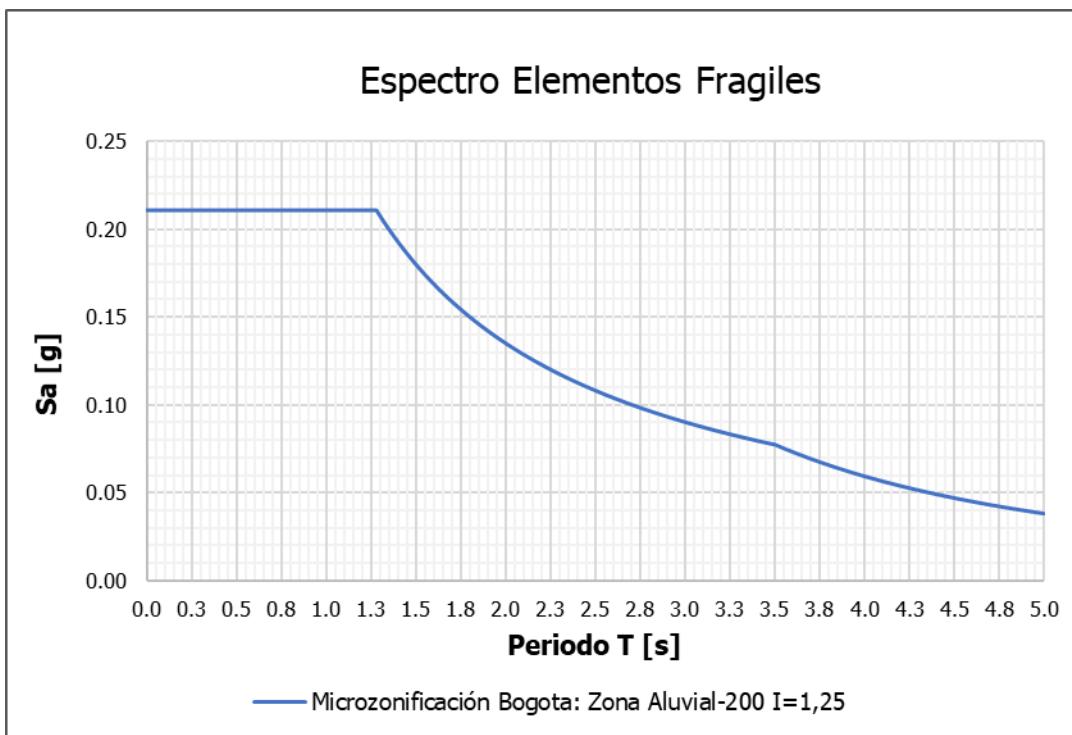


Figura 56. Espectro de respuesta de elementos frágiles.

Para el diseño de los elementos no estructurales la carga por metro de un muro debe ser

$$F_{hs} = 0.23 \times 20 \text{kN/m}^3 \times 2.6 \text{m} \times 1 \text{m} \times 0.12 \text{m} = 1.44 \text{kN/m}$$

$$V_s = 1.44 \text{kN/m} / 2 = 0.7176 \text{ kN/m}$$

$$M_s = 1.44 \text{kN/m} \times 2.6 \text{m} / 4 = 0.936 \text{ kN-m / m}$$

D.5.6 — RESISTENCIA A FLEXIÓN SIN CARGA AXIAL

D.5.6.1 — GENERAL — Cuando la sección del muro esta sometida a momento flector sin la presencia de carga axial, se debe cumplir la siguiente condición:

$$M_u \leq \phi M_n \quad (\text{D.5.6-1})$$

D.5.6.2 — SECCIONES SOLO CON REFUERZO A TRACCIÓN — Cuando la sección del muro esta simplemente reforzada, y su cuantía es menor del 75% de la cuantía para condiciones balanceadas, la resistencia nominal a flexión M_n , se puede obtener por medio de la ecuación (D.5.6-2).

$$M_n = A_s f_y \left(d - \frac{a}{2} \right) \quad (\text{D.5.6-2})$$

y

$$a = \frac{A_s f_y}{0.80 f'_{in} b} \quad (\text{D.5.6-3})$$

Se utilizará un muro parcialmente reforzado con dovelas #3 cada 1.2 metro.

$$a = \frac{0.000071m^2 * 420\,000 kPa}{0.8 * 10\,000 kPa * 1.2m} = 0.00311m$$

$$\phi M_n = 0.8 * 0.000071m^2 * 420\,000 kPa \left(0.06m - \frac{0.00311m}{2} \right) = 1.39 kN - m/m$$

0.936 kN-m /m < 1.39 kN-m/m: CUMPLE

D.5.7.4 — RESISTENCIA A CORTANTE EN LA DIRECCIÓN PERPENDICULAR AL PLANO DEL MURO — Se debe cumplir la siguiente condición con respecto a la fuerza cortante que actúa en la dirección perpendicular al plano del muro:

$$V_u \leq \phi V_n \quad (\text{D.5.7-6})$$

donde:

$$V_n = \frac{1}{6} A_{mv} \sqrt{f'_m} \quad (\text{D.5.7-7})$$

donde A_{mv} está definido en D.5.4.5.1 y el valor del coeficiente de reducción de resistencia, ϕ , está dado en D.5.1.5.1.

$$\phi V_n = 0.6 * \frac{1}{6} * 0.08m * \sqrt{10 MPa} * \frac{1000 kPa}{MPa} * 1m = 25.3 kN - m$$

0.7176 kN/m < 25.3kN-m: CUMPLE

8. REQUISITOS DE PROTECCIÓN CONTRA FUEGO

En el capítulo J del NSR-10, se establecen los requisitos de resistencia y protección de edificaciones contra incendios:

J.1.1.1- Toda edificación deberá cumplir con los mismos requisitos de protección contra incendios establecidos en el presente capítulo, correspondientes al uso de la edificación y a su grupo de ocupación, de acuerdo con la clasificación dada en J.1.1.2. En consecuencia, el propósito del Título J es el de establecer dichos requisitos con base en las siguientes premisas:

- a) Reducir en todo lo posible el riesgo contra incendios en edificaciones.
- b) Evitar la propagación del fuego tanto dentro de las edificaciones como hacia estructuras aledañas.
- c) Facilitar las tareas de evacuación de los ocupantes de las edificaciones en caso de incendio.
- d) Facilitar el proceso de extinción de incendio en las edificaciones.
- e) Minimizar el riesgo de colapso de la estructura durante las labores de evacuación y extinción.

8.1 GRUPO DE OCUPACIÓN DE LA EDIFICACIÓN

La clasificación de la estructura por grupo de ocupación se realiza de acuerdo a la tabla J.1.1-1 que se presenta a continuación:

Grupos y Subgrupos de ocupación	Clasificación	Sección del Reglamento
A	ALMACENAMIENTO	K.2.2
A-1	Riesgo moderado	
A-2	Riesgo bajo	
C	COMERCIAL	K.2.3
C-1	Servicios	
C-2	Bienes	
E	ESPECIALES	K.2.4
F	FABRIL E INDUSTRIAL	K.2.5
F-1	Riesgo moderado	
F-2	Riesgo bajo	
I	INSTITUCIONAL	K.2.6
I-1	Reclusión	
I-2	Salud o incapacidad	
I-3	Educación	
I-4	Seguridad pública	
I-5	Servicio público	

Tabla 36. Grupos y subgrupos de ocupación (J.1.1-1 NSR-10).

En este proyecto la edificación será un centro educativo, por lo que el grupo y subgrupos de ocupación será: I-3, y se deberá seguir las disposiciones presentes en K.2.6 de la NSR-10.

J.3.3.1 - Categoría de riesgo de las edificaciones - con el fin de evaluar la resistencia requerida al fuego todas las edificaciones se clasificarán, en función de los grupos de ocupación definidos

en la tabla J.1.1-1, en una categoría de riesgo de pérdida de vidas humanas o amenaza de combustión.

Debido a que el grupo de ocupación según J.1.1-1 es (I-3), la clasificación de la estructura corresponde a la categoría II, la cual se definen a continuación:

J.3.3.1.2 — Categoría II — Esta categoría comprende edificaciones de riesgo intermedio, tales como:

- (a) Edificios para cualquier ocupación, de más de 10 pisos, que dispongan de sistemas de alarma contra incendio, visuales y sonoros e independientes entre sí, que sean probados por lo menos cada 60 días y cuenten con rociadores de agua automáticos a satisfacción de la autoridad competente.
- (b) Grupos de Ocupación (I-1), (I-3), (I-5), (C-1), (C-2), (E), (L), (M), (R-2) y (R-3). Entre otros anclianatos, bares, restaurantes, cárceles, oficinas, centros comerciales, guarderías, colegios, universidades, hoteles, museos, teatros, salas de cine y salones de reunión.

8.2 CLASIFICACIÓN EN UNA CATEGORÍA DE RIESGO

J.3.3.2 — CLASIFICACIÓN DE LAS EDIFICACIONES EN UNA CATEGORÍA DE RIESGO — Toda edificación debe clasificarse en una de las categorías de riesgo definidas en J.3.3.1. Dependiendo del grupo de uso de la edificación bajo estudio, esta clasificación se hace en función del área construida, de acuerdo con la tabla J.3.3.-1, o en función del potencial combustible, de acuerdo con la tabla J.3.3.-2, estimado con base en las especificaciones contenidas en los numerales J.3.4.2 y J.3.4.3.

Grupos y subgrupos de ocupación	Área total construida, A_T m ²	Número de pisos						
		1	2	3	4	5	6	≥ 7
(C-1)	$A_T > 1500$	III	III	II	II	II	I	
	$A_T < 1500$	III	III	III	II	II	II	I
(C-2)	$A_T > 500$	II	I	I	I	I	I	
	$A_T < 500$			II	I	I	I	I
(E)	Sin límite	III	III	III	II	II	II	I
		III	II	II	I	I	I	I
(I-2), (I-4)	$A_T > 1000$	III	II	II	I	I	I	
	$500 < A_T < 1000$	III	III	II	II	I	I	I
	$A_T < 500$	III	III	III	II	II	M	I
(I-3)	$A_T > 1000$	II	II	I	I	I	I	I
	$A_T < 1000$		III	II	II	I	I	I
(L-1), (L-2), (L-3), (L-4)	$A_T > 1000$	II	I	I	I	I	I	I
		II	II	I	I	I	I	I
(L-5), (I-1), (I-5)	$500 < A_T < 1000$	II	II	I	I	I	I	I
	$A_T < 500$	III	III	II	II	I	I	I
(R-1), (R-2)	Unidades > 140 m ²				II	I	I	I
	Unidades ≤ 140 m ²				III	II	II	I
(R-3)	$A_T > 5000$	III	II	I	I	I	I	I
	$A_T < 5000$	III	II	II	II	I	I	I

Notas: (1). En edificios para vivienda, el límite de 140 m² por unidad corresponde al promedio aritmético de las áreas de todas las unidades, sin tener en cuenta las zonas comunes.

Tabla 37. Categorización de las edificaciones contra el fuego (Tabla J.3.3-1 NSR-10)

Los elementos de concreto como columnas, vigas viguetas y losas deberán tener como mínimo **dos horas** de resistencia al fuego. Esta exigencia se encuentra normalizada según la clasificación y clasificación descrita anteriormente. A continuación, se presenta la siguiente tabla donde se especifica la resistencia en horas para esta edificación.

Elementos de la construcción	Categoría según la clasificación dada en J.3.3.1		
	I	II	III
Muros Cortafuego	3	2 ½	2
Muros de cerramiento de escaleras, ascensores, buitrones, ductos para basuras y corredores de evacuación	2	2	1 ½
Muros divisorios entre unidades	2	1 ½	1
Muros interiores no portantes	½	¼	-
Columnas, vigas, viguetas, losas, y muros portantes de cualquier material, y estructuras metálicas en celosía	2	1 ½	1
Cubiertas	1	1	½
Escaleras interiores no encerradas con muros	2	1½	1

Tabla 38. Resistencia requerida al fuego normalizado NTC 1480 (Tabla J.3.4-3).

8.3 EVALUACIÓN DE LA PROVISIÓN DE RESISTENCIA CONTRA FUEGO

Elementos de concreto

- Dimensión mínima de columnas:

Tipo de agregado	Resistencia al fuego en horas				
	1	1 ½	2 ¹	3 ¹	4 ²
Silíceo	200	230	250	310	360
Carbonato	200	230	250	300	310
Liviano	200	220	230	270	310

Tabla 39. Dimensión mínima de columnas de concreto, en mm (Tabla J.3.5-1).

La columna de menor dimensión en la propuesta de reforzamiento es de 500mm
Cumple.

- Espesor Mínimo de Muros y losas

Tipo de agregado	Resistencia al fuego en horas				
	1	1 ½	2	3	4
Silíceo	90	110	130	160	180
Carbonato	80	100	120	150	170
Finos Livianos	70	80	100	120	140
Gruesos Livianos	60	80	90	110	130

Tabla 40. Espesor mínimo de losas y muros, en mm (Tabla J.3.5-2).

El muro estructural de menor espesor es de 150mm.

Cumple.

- Recubrimiento en vigas de concreto.

Tipo de agregado	Ancho de viga, mm.	Resistencia al fuego en horas				
		1	1 ½	2	3	4
Expansión restringida	130	20	20	20	30	30
	180	20	20	20	20	20
	≥ 250	20	20	20	20	20
Expansión no restringida	130	20	30	30	--	--
	180	20	20	20	40	80
	≥ 250	20	20	20	30	40

Tabla 41. Recubrimiento mínimo en vigas de concreto, en mm (tabla J.3.5-5).

El recubrimiento empleado en el diseño de vigas es de 50mm.

Cumple.

Por lo tanto, el presente diseño para el reforzamiento estructural, cumple con las provisiones de resistencia contra el fuego presentes en el Capítulo J del NSR-10.

Uso de Muros Livianos NO Estructurales:



La placa de yeso marca Gyplac se fabrica en Colombia por Gyplac S.A., resuelve los más variados requerimientos de la construcción, brindando óptimas respuestas en paredes divisorias, cielos rasos y revestimientos. Su aplicación es recomendada en todo tipo de obras, nuevas o de remodelación, en viviendas individuales, en propiedad horizontal, en hotelería, salud, establecimientos educacionales, centros comerciales, y otras aplicaciones.

RESISTENCIA AL FUEGO

El desempeño de las placas de yeso ante la acción del fuego es muy óptimo, el yeso en su estado natural posee dos moléculas de agua en suspensión. En el proceso de fabricación se le extrae una molécula y media, que luego se le vuelve a incorporar para formar la pasta de yeso que queda contenida dentro las dos láminas de papel de varias capas que constituyen la placa de yeso, por lo tanto se trata de un yeso dihidratado, vale decir que el yeso que forma el núcleo de la placa se encuentra como estaba originalmente, con sus dos moléculas de agua en suspensión, que hará que la placa de yeso contribuya con un buen desempeño de resistencia al fuego.

La evaporación del agua de cristalización contenida en las moléculas del yeso, permite una dispersión notable del calor al cual está sometido el elemento conformado por placas de yeso Gyplac RF durante un incendio, preservando las estructuras y retrasando así el rápido aumento de las temperaturas.

Por sus propiedades naturales disipa el fuego y la transferencia de calor, el yeso en su estado natural contiene 21% de agua aproximadamente, que comienza a evaporarse al ser calentado, retardando la transferencia de calor. El núcleo de yeso permanece incombustible pero se encoge por la pérdida de agua y aparece el agrietamiento, para prevenilo se agregan fibras resistentes a altas temperaturas y aditivos que se expanden por efecto del calor, neutralizando los efectos devastadores del fuego.

El diseño de soluciones resistentes al fuego se establece mediante pruebas que se realizan en laboratorios especializados, que cuentan con los hornos de pruebas para tal fin. De estos ensayos surgen los diseños de cada solución constructiva según la necesidad. Estos diseños estarán conformados por materiales determinados, bajo una especificación precisa. Cuando se eligen diseños para cumplir con ciertos estándares de desempeño contra el fuego, se debe asegurar que cada componente del diseño seleccionado es el determinado y que está en un todo coincidente con lo especificado en el ensayo y que todo el sistema ha sido construido de acuerdo a los requerimientos del ensayo.

Las propiedades físicas de la placa de yeso Gyplac RF, asociadas con otros elementos, dan como resultado un sistema con características de prestación determinadas a priori, mediante los ensayos de laboratorio. El sistema permite obtener distintas resistencias al fuego variando la configuración de cada solución constructiva, es decir cambiando el número de placas de yeso RF, el espesor de las mismas, el tipo de estructuras utilizadas en los bastidores e incorporando materiales aislantes en su interior. La calidad y cantidad de los materiales que conforman la solución constructiva son predeterminadas según sea la necesidad de respuesta, basándose siempre en pruebas experimentales de laboratorio cuyos resultados generarán certificados de resistencia al fuego que serán entregados por los organismos correspondientes.

9. ANEXOS

9.1 REPORTE DE DISEÑO DE VIGAS AÉREAS

9.2 DISEÑO DE RAMPAS

9.3 DISEÑO DE ELEMENTOS DE ACERO

9.4 REPORTE EDIFICIO A

9.5 REPORTE EDIFICIO B

9.6 CONEXIONES CUBIERTA METALICA

9.7 CERRAMIENTOS

9.8 SOPORTE PARED

9.9 SOPORTE TECHO

9.10 CORTASOLES FACHADA

