aluvial 200 en JN.

ALCALDÍA MAYOR DE BOGOTÁ D.C.

BOGOTÁ

ALCALDÍA MAYOR DE BOGOTÁ D.C.

SECRETARIA DE EDUCACIÓN

SUBSECRETARIA DE ACCESO Y PERMANENCIA

DIRECCIÓN DE CONSTRUCCIÓN Y CONSERVACIÓN DE ESTABLECIMIENTOS EDUCATIVOS

11001-5-21-0313

09 MAR 2021

ARCHIVO

CURADURÍA URBANA No. 5

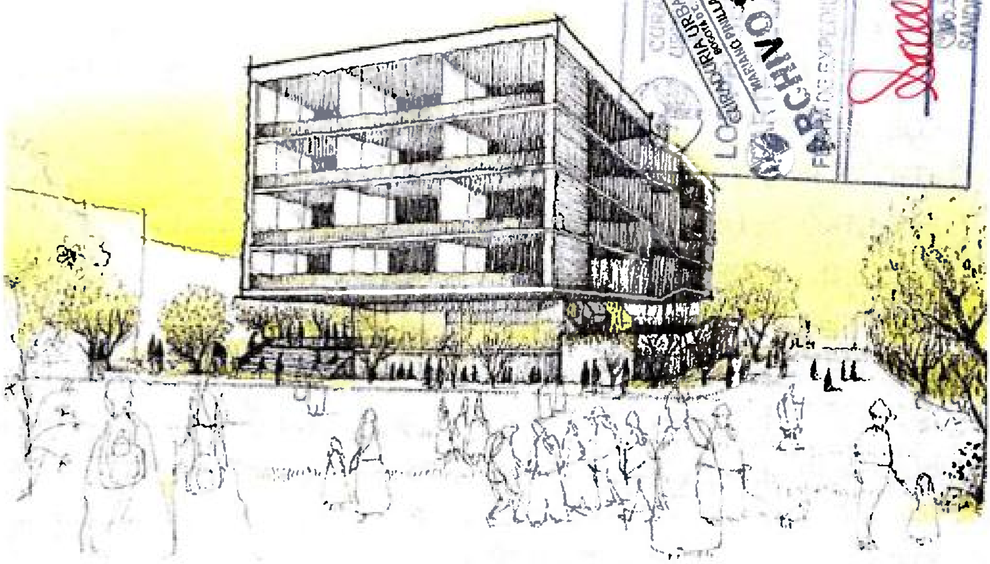
SANDRA CAROLINA ALVARADO

INGENIERA CIVIL

T.P. 25202117215 CND

PROYECTO: COLEGIO BOITÁ

CONTRATO DE CONSULTORÍA 519 DE 27/12/2019



CONSULTOR: MC CONSTRUCCIONES Y CONSULTORÍAS SAS

MC

11001-5 20-0752

CONTENIDO:

MEMORIA ESTRUCTURAL

ING. WILLIAM JAVIER FAJARDO KUDEYRO

M.P. 7620282260 VLL

NOVIEMBRE 27 DE 2020

Luisa Ma Gallego Q.

Revisión estructural independiente

CURADURIA URBANA No 5

ING. MARIANO PINILLA POVEDA

04 DIC. 2020

RECIBIDO PARA ESTUDIO

Dinamico DES.

1

21/12/2022

TABLA DE CONTENIDO

11001-5-20-0753

CURADURIA URBANA No 5
BOGOTA, D.C.
ING. MARIANO PINILLA POVEDA
04 DIC. 2020
RECIBIDO
PARA ESTUDIO

LISTA DE FIGURAS

Pág.

11001-5 20-0752

CURADURIA URBANA No 5
ING. MARIANO PINILLA POVEDA
04 DIC. 2020
RECIBIDO
PARA ESTUDIO

Lista de Tablas

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	23/11/2020	Memoria de Calculo Estructural

MC CONSTRUCCIONES Y CONSULTORÍAS SAS

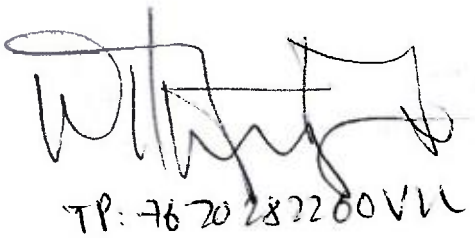
ALCALDÍA MAYOR DE BOGOTÁ D.C.
SECRETARIA DE EDUCACIÓN
SUBSECRETARIA DE ACCESO Y PERMANENCIA
DIRECCIÓN DE CONSTRUCCIÓN Y CONSERVACIÓN DE ESTABLECIMIENTOS EDUCATIVOS

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

MEMORIA DE CALCULO ESTRUCTURAL

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

SANTIAGO DE CALI
NOVIEMBRE 27 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 solicitaciones 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.*

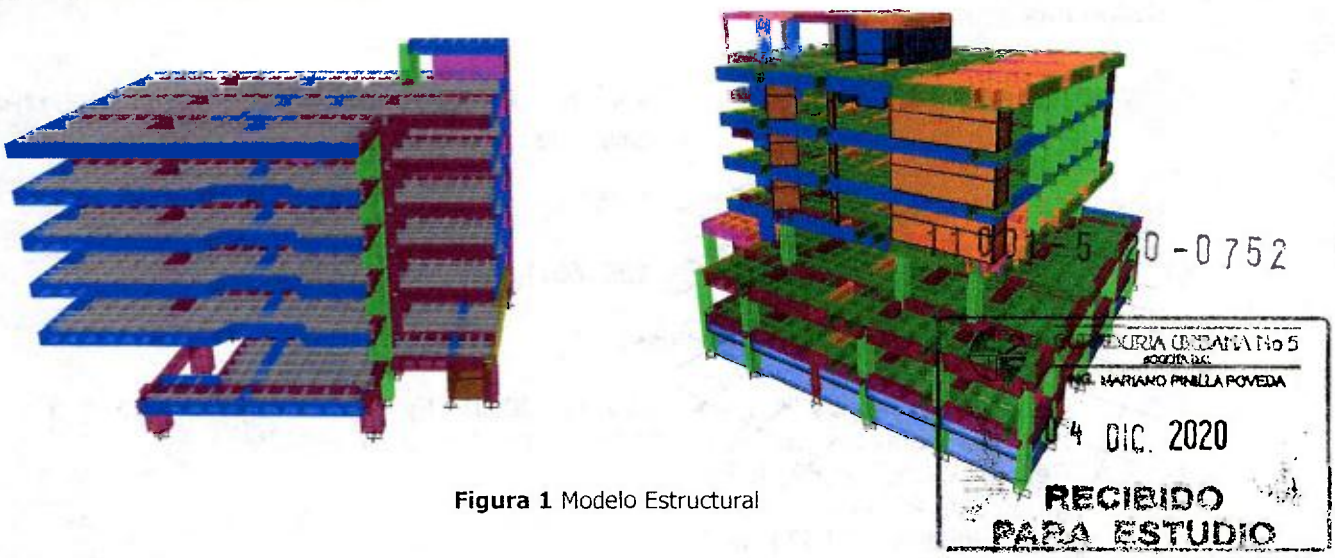


Figura 1 Modelo Estructural

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).

$$E_c = 4700\sqrt{f'_c} \qquad (1) \qquad\qquad E_c = W_c^{1.5} 0{,}043 \sqrt{f'_c} \qquad (2)$$

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 MPa, 3000psi. $E = 4700\sqrt{f'c}$ (Cap, C,8,5, NSR-10) Ec= 21525 MPa
Peso Unitario = 24 kN/m³ Relación de Poisson = 0.2

Vigas aéreas, y losas de entrepiso:

f´c = 27,58 MPa, 4000psi $E = 4700\sqrt{f'c}$ (Cap, C,8,5, NSR-10) Ec= 24855 MPa.
Peso Unitario = 24 kN/m³ Relación de Poisson = 0.2

Columnas, y Muros Pantallas:

f´c = 35 MPa, 5000psi $E = 4700\sqrt{f'c}$ (Cap, C,8,5, NSR-10) Ec= 27805 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 preesfuerzo 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 Secretaria 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		
RECREACIÓN EXTERIOR	A2/A11 A12/A13		B1				

11 0 0 5 - 5 20-0752

CURADURIA URBANA No 5
BOGOTA D.C.
ING. MARIANO PINILLA POVEDA
04 DIC. 2020
RECIBIDO PARA ESTUDIO

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	
RECREACION EXTERIOR	A2/A11 A12/A13		B1			D1	
EDUCACIÓN PRIMARIA							
AULA GRADO 1 - 5	A4		B1		C1	D4	
LABORATORIO DE CIENCIAS	A4		B1		C1	D4	E5
AULA TALLER DE ARTE	A4		B1		C1	D4	E5
AULA TECNOLÓGICA	A4		B1		C1	D4	
BAÑOS	A4	1	B2	2/3/4	C1	D2	
RECREACION EXTERIOR	A2/A13		B1			D1	
EDUCACIÓN BÁSICA SECUNDARIA							
AULAS GRADOS 6 - 9	A4		B1		C1	D4	
LABORATORIO FÍSICA QUIMICA	A4		B1		C1	D4	E5
AULA TALLER DE ARTE	A4		B1		C1	D4	E5
AULA TECNOLOGICA	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	
ATENCION 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	
COORDINACION ACADEMICA 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 ADMINISTRACION Y ENFERMERÍA	A6		B2		C1		

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS RASOS	G/ESCOBAS	VARIOS
SERVICIOS GENERALES							
BODEGA	A3		B1		C1	D3	
ALMACEN	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	

11001-5 20-1752

CURADURIA URBANA No 5
BOGOTÁ D.C.
ING. MARIANO PINILLA POVEDA
04 DIC. 2020
RADICADO
PARA ESTUDIO

DEPENDENCIA	PISOS	OBSERVACIONES	MUROS	OBSERVACIONES	CIELOS RASOS	G/ESCOBAS	VARIOS
RECREACIÓN							
CANCHA MÚLTIPLE	A7						
TIENDA ESCOLAR	A5	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

8

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 ceramica 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 tableta 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

11001-5 20-0752

CURADURIA URBANA No 5
BOGOTÁ D.C.
ING. MARIANO PARRA POVEDA
04 DIC. 2020
RECIBIDO
PARA ESTUDIO

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 aplicara pintura plástica sobre pañete.

Observaciones sobre muros

- 1 Divisiones para cabinas prefabricadas en lámina *cold rolled* con pintura electrostática o en lamina de acero inoxidable.
- 2 Mesones en concreto reforzado con enchape en granito pulido.
- 3 Puertas para cabinas en lamina *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 *(NO LLEVA)*	0.00	kN/m^2
Total, Carga Muerta	**2.00**	**kN/m^2**

Sobre Carga Distribuida

Muros B1: Muros en bloque de concreto a la vista con perforaciones verticales.	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 (NO LLEVA)	0.00	kN/m^2
Total, Carga Muerta	**2.10**	**kN/m^2**

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.	5.40	kN/m

11001-5 20-0752

CURADURIA URBANA No 5
BOGOTA D.C.
ING. MARIANO PINILLA POVEDA
04 DIC. 2020
RECIBIDO
PARA ESTUDIO

N+1.85: Planta Acceso Principal Administración

Uso: ADMINISTRACION, SECRETARIA, RECTORIA, ATENCION A PADRES 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
Total, Carga Muerta	**2.60**	**kN/m^2**
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.	5.40	kN/m

N+3.60: 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/m^2**
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.	5.40	kN/m

10

N+6.10, N+8.70: 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/m^2**
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.	5.40	kN/m

N+10.35, N+12.35: Planta Talleres Primaria y AA Secundaria

Uso: Salon tallleres, 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/m^2**
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.	5.40	kN/m

11001-5 20-0752

N+14.00, N+16.00: 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/m^2**
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.	5.40	kN/m

N+17.65: 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/m^2**
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.	5.40	kN/m

N+19.65 : 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/m^2**

N+21.30 : 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/m^2**

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/m^2**

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/m^2**

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

Planta	Carga		Tabla B.4.2.1-1
N+0.00: Planta Preescolar	5.00	kN/m^2	Salones de Clase
N+1.75: Planta Acceso Principal Administración	5.00	kN/m^2	Oficinas
N+3.60: Planta Comedor	5.00	kN/m^2	Restaurantes
N+6.10, N+8.70: Planta de Basica Primaria	5.00	kN/m^2	Salones de Clase
N+10.35, N+12.35: Planta Talleres Primaria y AA	5.00	kN/m^2	Salones de Clase
N+14.00, N+16.00: Planta AA Secundaria y	5.00	kN/m^2	Salones de Clase
N+17.65: Planta AA Media	5.00	kN/m^2	Salones de Clase
N+19.65 : Zona Recreativa Terraza	5.00	kN/m^2	Areas Recreativas
N+21.30 : Planta Cancha Multiple	5.00	kN/m^2	Areas Recreativas

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/m^2 (100 kgf/m^2). Para cubiertas con una inclinación mayor a 15° este valor puede reducirse a 0.5 kN/m^2 (50 kgf/m^2).

N+19.65 : Zona Recreativa Terraza	1.00	kN/m^2	(B.4.8.3.2) NSR-10
N+21.30 : Planta Cancha Multiple	1.00	kN/m^2	(B.4.8.3.2) NSR-10

12

4. ANÁLISIS SÍSMICO

El método de análisis usado para a 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 Capitulo A.3,

11001-5 20-0752

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.

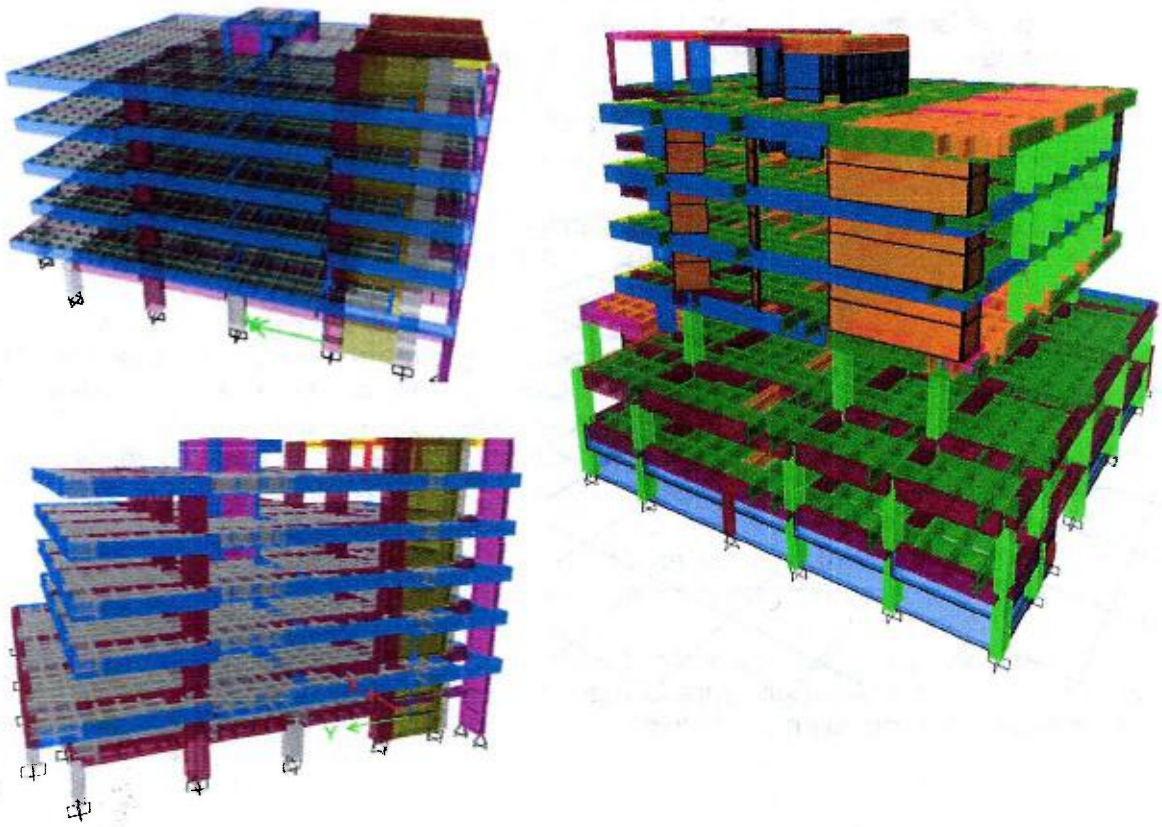


Figura 2 Modelación Estructural.

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.

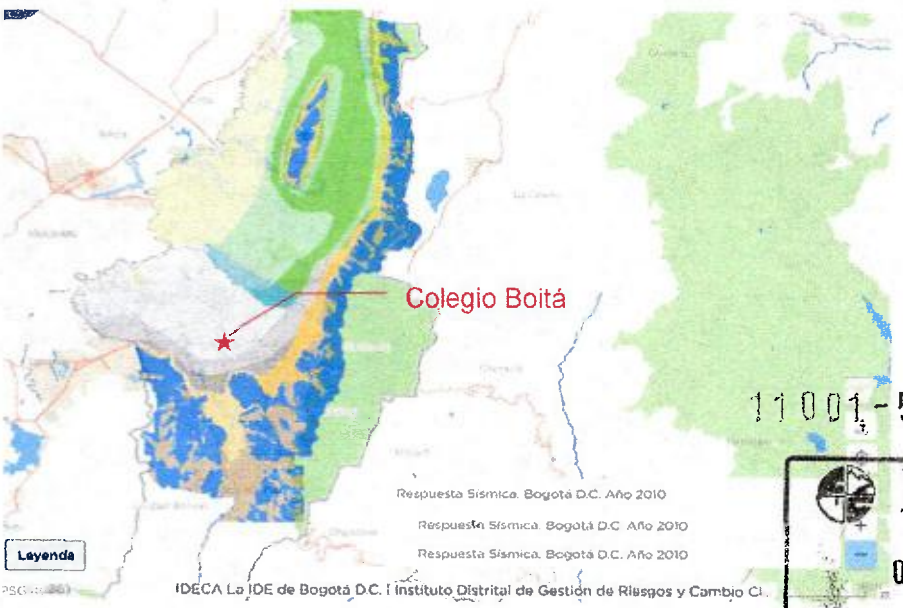


Figura 3 Localización del Proyecto en Mapa de Microzonificación Bogotá D.C

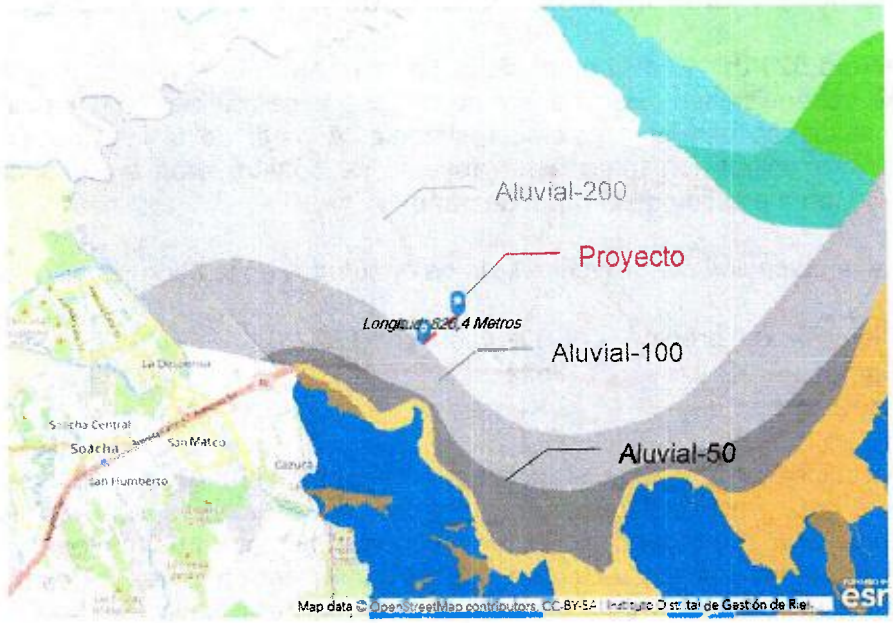


Figura 4 Localización a más de 200m de la Mircozona Aluvial-100

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.

11001-5 20-0752

CURADURIA URBANA No 5
ARQ. MARIANO OSPINA POVEDA
04 DIC. 2020
RECIBIDO
PARA ESTUDIO

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 areno arcillosas compactas		
Piedemonte C	Suelo coluvial y aluvial sur			Gravas areno 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	Cauces 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 areno 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 heterogeneos	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 Rio 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)	TI (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=485ños

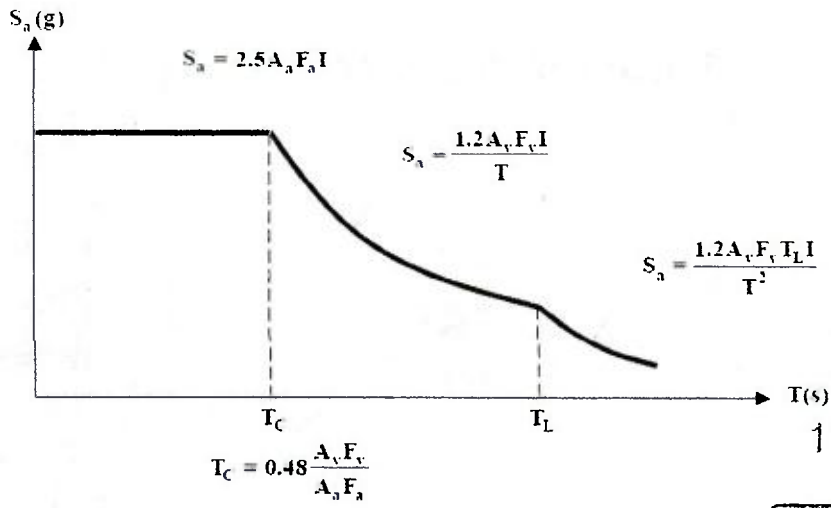


Figura 6 Curva de diseño para un coeficiente de amortiguamiento del 5%

11001-5 20-0752

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

A_0 = Aceleracion 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 = Periodo 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

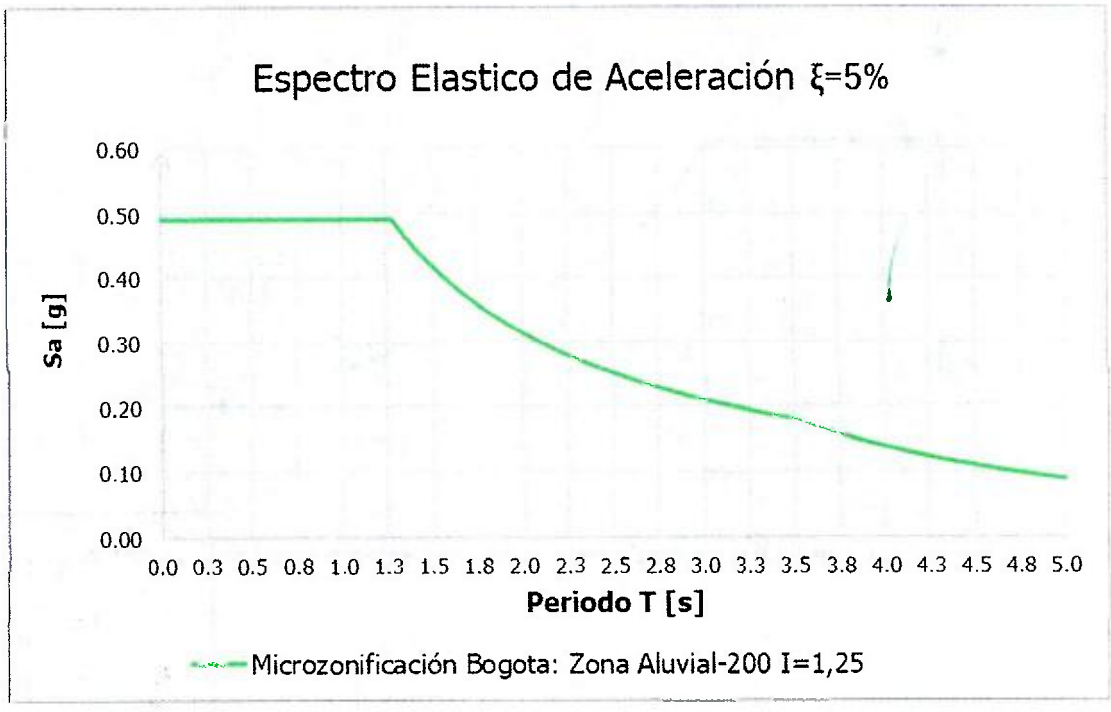


Figura 7 Espectro elástico de diseño i=1.25

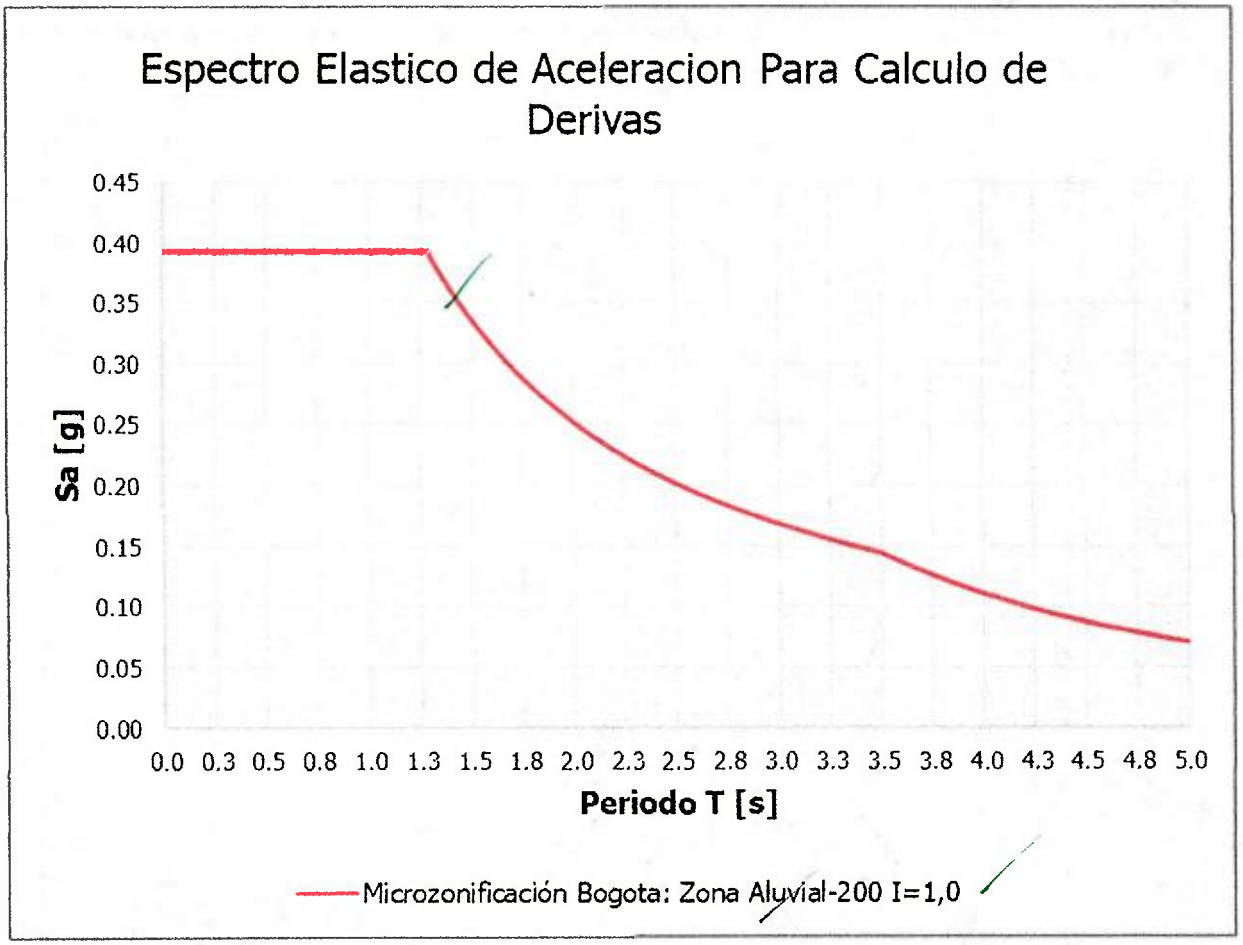


Figura 8 Espectro elástico de aceleración I=1.0

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..

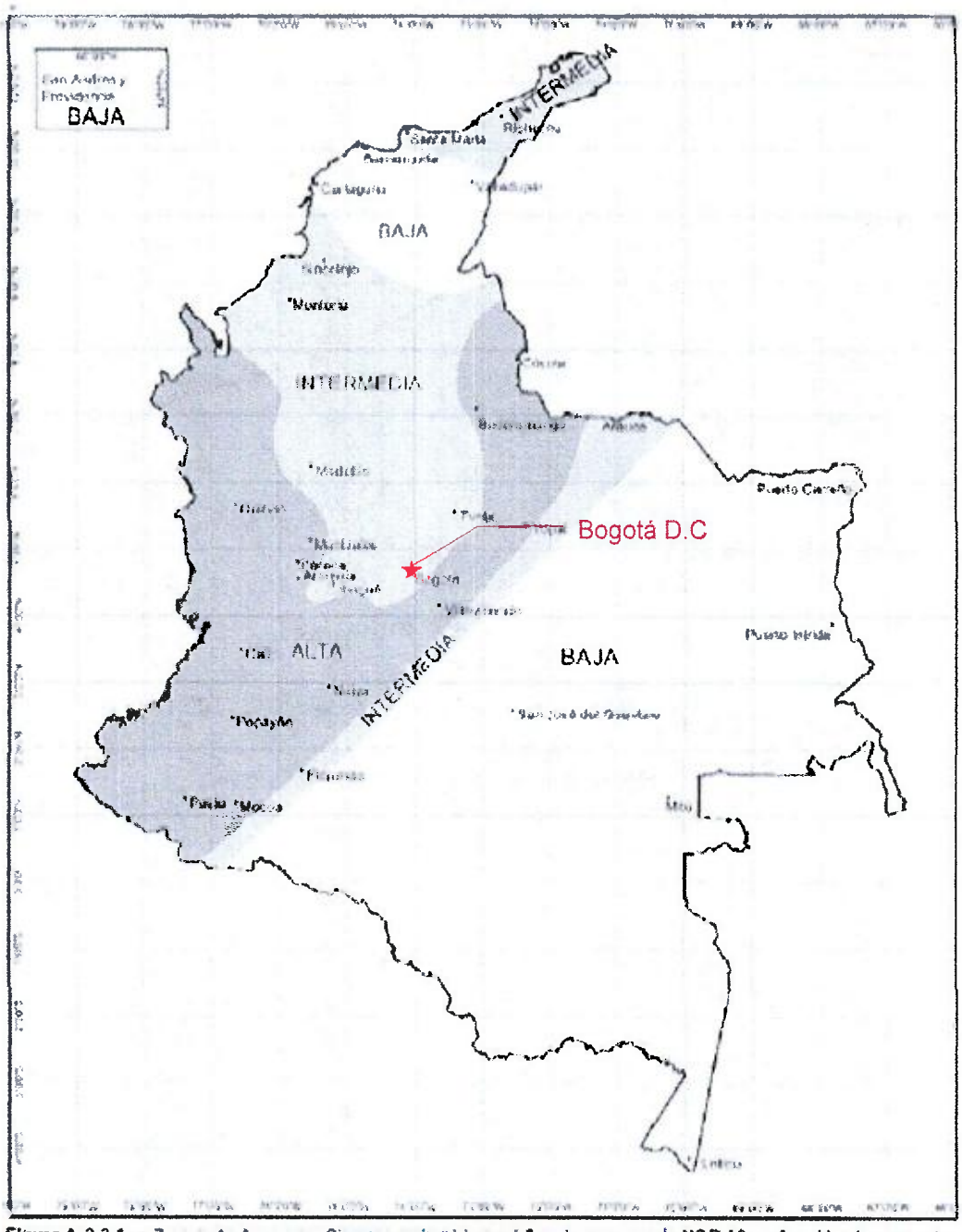


Figura A.2.3-1 — Zonas de Amenaza Sísmica aplicable a edificaciones para la NSR-10 en función de A_a y A_v

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 max.	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 disipacion 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	72 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 sismica intermedia, se permite el uso de sistemas estructurales con capacidad de disipacion de energia moderada **DMO**, y capacidad de discipacion especial de energia **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 Discipación de Energía **DES**

Se toma el coeficiente de reducción **Ro=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

	CHEQUEA	Si

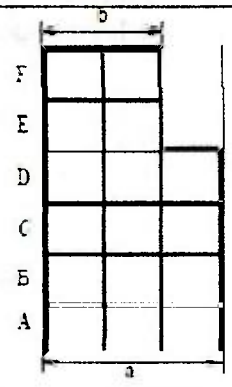
TIPO	CARACTERISTICA	ϕa
1A	Cuando la rigidez ante fuerza horizontal de un piso es menor del 70 por ciento de la rigidez del piso superior o menor del 80 por ciento del promedio de la rigidez de los tres pisos superiores, la estructura se considera irregular.	1

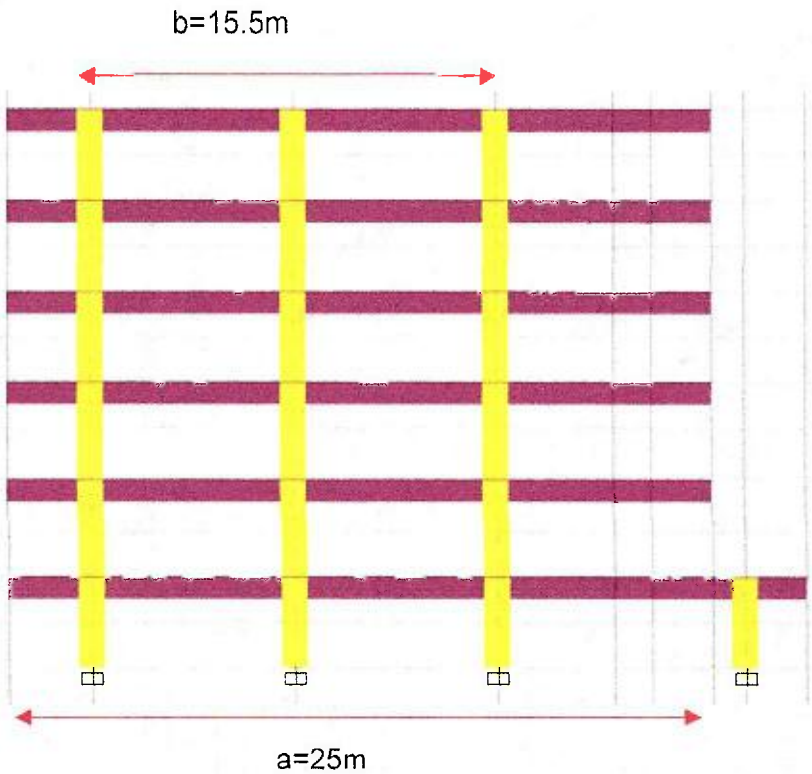
	CHEQUEA	Si

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

	CHEQUEA	NO

TIPO	CARACTERISTICA	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

Tipo 3A — Geométrica — $\phi_a = 0.9$ $a > 1.30\ b$	



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

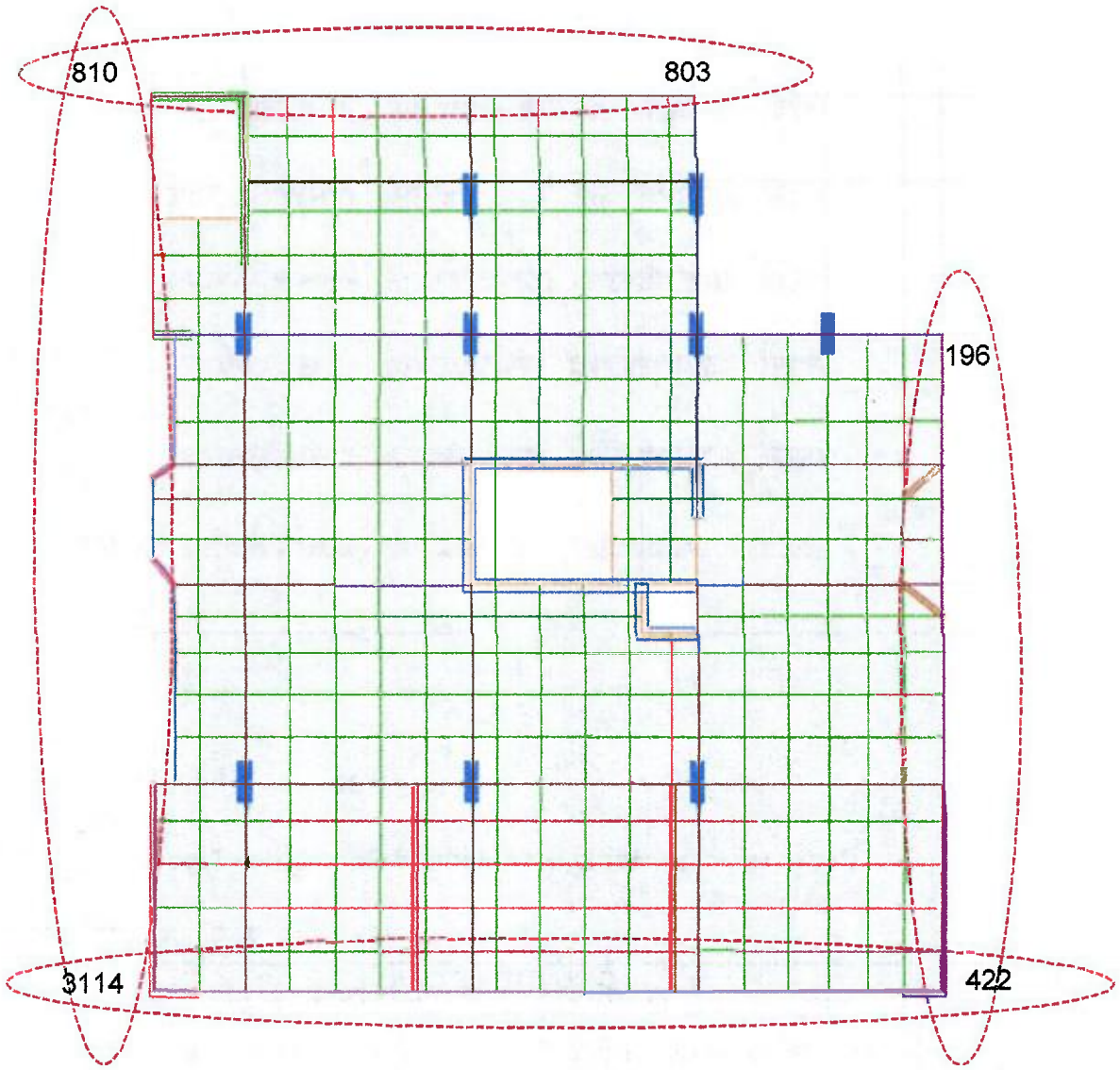
Por lo tanto, presenta irregularidad Geométrica Tipo 3A

		CHEQUEA	SI
TIPO	**CARACTERISTICA**		**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

		CHEQUEA	Si
TIPO	**CARACTERISTICA**		**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



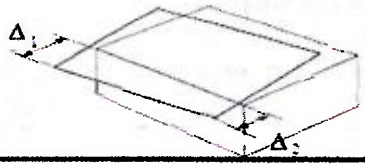
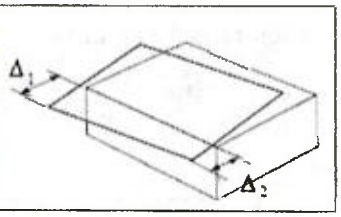
Tipo 1aP — Irregularidad torsional	Tipo 1bP — Irregularidad torsional extrema
$\phi_p = 0.9$	$\phi_p = 0.8$
$1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right) \geq \Delta_1 > 1.2\left(\frac{\Delta_1 + \Delta_2}{2}\right)$	$\Delta_1 > 1.4\left(\frac{\Delta_1 + \Delta_2}{2}\right)$
	

TABLE: Joint Displacements

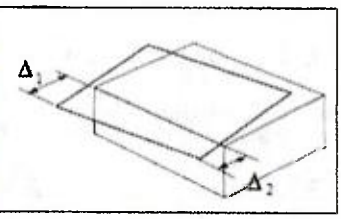
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	803	6517	Ux Max	3.74	1.71
N+20.75a	810	10479	Ux Max	3.75	1.46



ΔXmax	3.75	ΔYmax	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	
ϕp 1 00		ϕp 1.00	

TABLE: Joint Displacements

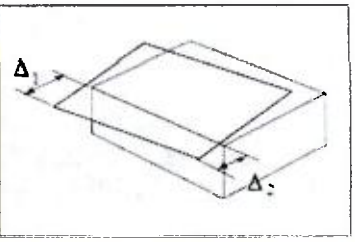
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	803	6517	Uy Max	3.03	3.06
N+20.75a	810	10479	Uy Max	3.04	4.27



ΔXmax	3.042	ΔYmax	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	
ϕp 1.00		ϕp 1.00	

TABLE: Joint Displacements

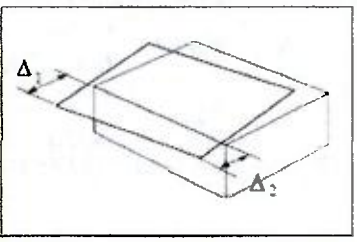
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	810	10479	Ux Max	3.75	1.463
N+20.75a	3114	4173	Ux Max	3.40	1.459



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	
ϕp 1.00		ϕp 1.00	

TABLE: Joint Displacements

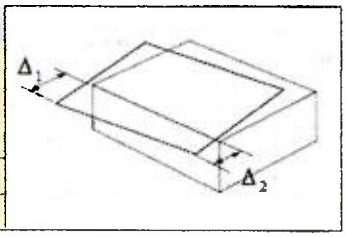
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	810	10479	Uy Max	3.04	4.27
N+20.75a	3114	4173	Uy Max	3.61	4.28



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	
ϕp 1.00		ϕp 1.00	

TABLE: Joint Displacements

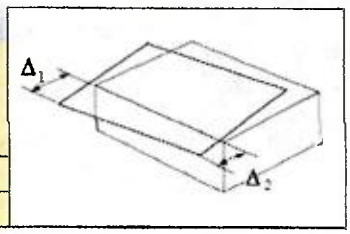
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	3114	4173	Ux Max	3.00	1.38
N+20.75a	422	6464	Ux Max	3.00	2.50



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

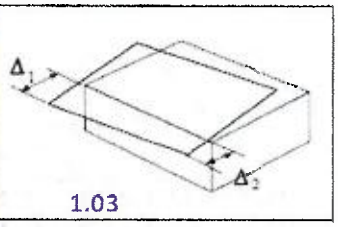
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+20.75a	3114	4173	Uy Max	3.65	4.35
N+20.75a	422	6464	Uy Max	3.65	3.92



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

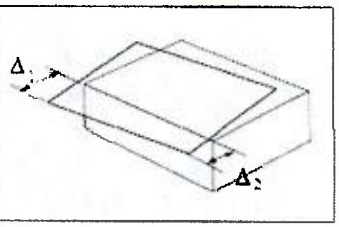


1.03

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

CHEQUEA	NO

TIPO	CARACTERISTICA	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 perpendicualrmente 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

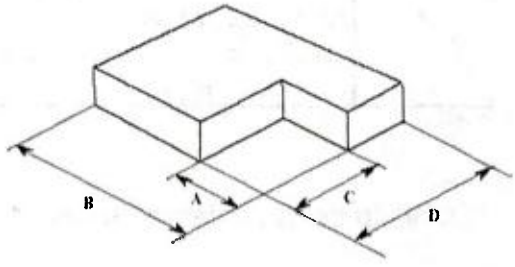
	CHEQUEA	NO

TIPO	CARACTERISTICA	ϕp
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

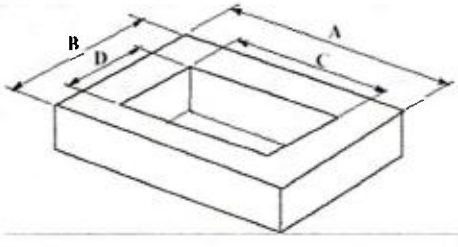


	CHEQUEA	Si

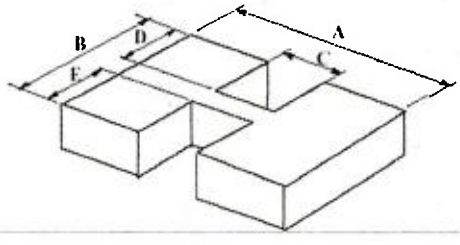
TIPO	CARACTERISTICA	ϕp
3P	Cuando el diafragma tiene discontinuidades apreciables o variaciones en su rigidez, incluyendo las causadas por aberturas, entradas, retrocesos o huecos con áreas mayores al 50% del área bruta del diafragma o existen cambios en la rigidez efectiva del diafragma de mas del 50%, 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) $(C \times D + C \times E) > 0.5\,A \times B$



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

		CHEQUEA	Si
TIPO	**CARACTERISTICA**		**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 cosnidera irregular		1

Cálculo de Coeficiente de Disipación de Energía Edificio A

A continucaicón, se presentan los coeficientes de reducción por las irregularidades, y el calulo del coeficiente de reduccion de capacidad de discipación de energia

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

	CHEQUEA	Si

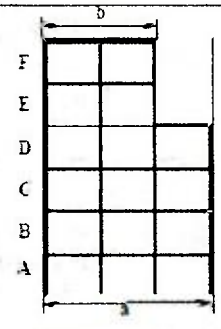
TIPO	CARACTERISTICA	ϕa
1A	Cuando la rigidez ante fuerza horizontal de un piso es menor del 70 por ciento de la rigidez del piso superior o menor del 80 por ciento del promedio de la rigidez de los tres pisos superiores, la estructura se considera irregular.	1

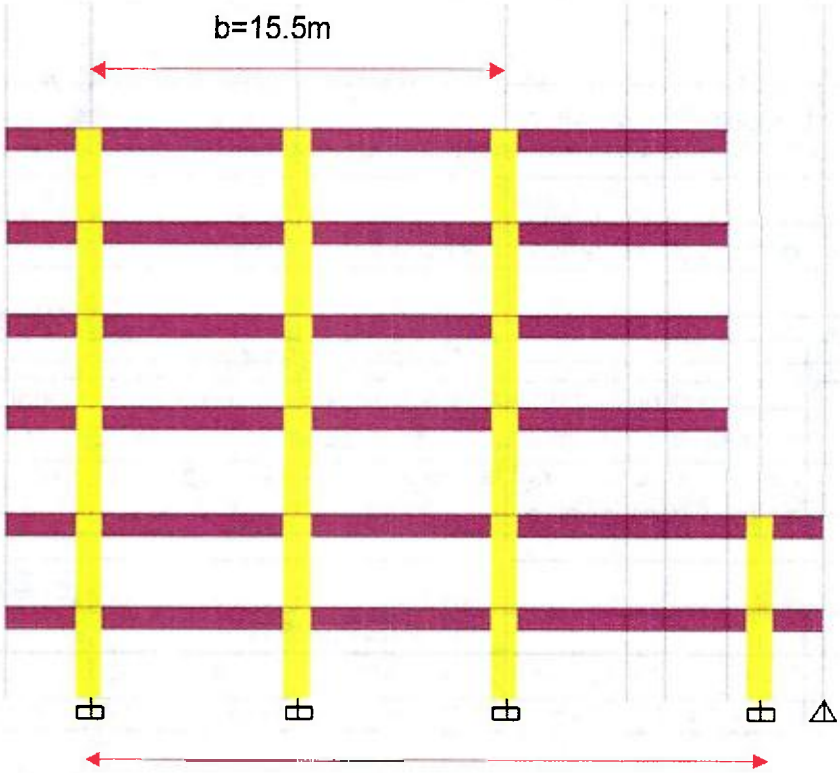
	CHEQUEA	Si

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

	CHEQUEA	NO

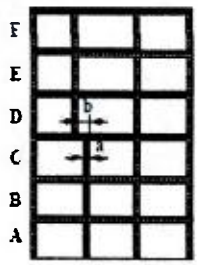
TIPO	CARACTERISTICA	ϕa
3A	Cuando la dimension horizontal del sistema de resistencia sismica, en en cualquier piso es mayor que 1.3 veces la misma dimension de un piso adyacente, la estructura se considera irregular. Se exceptua el caso de los altillos de un solo piso	0.9

Tipo 3A — Geométrica — $\phi_a = 0.9$ $a > 1.30\ b$	



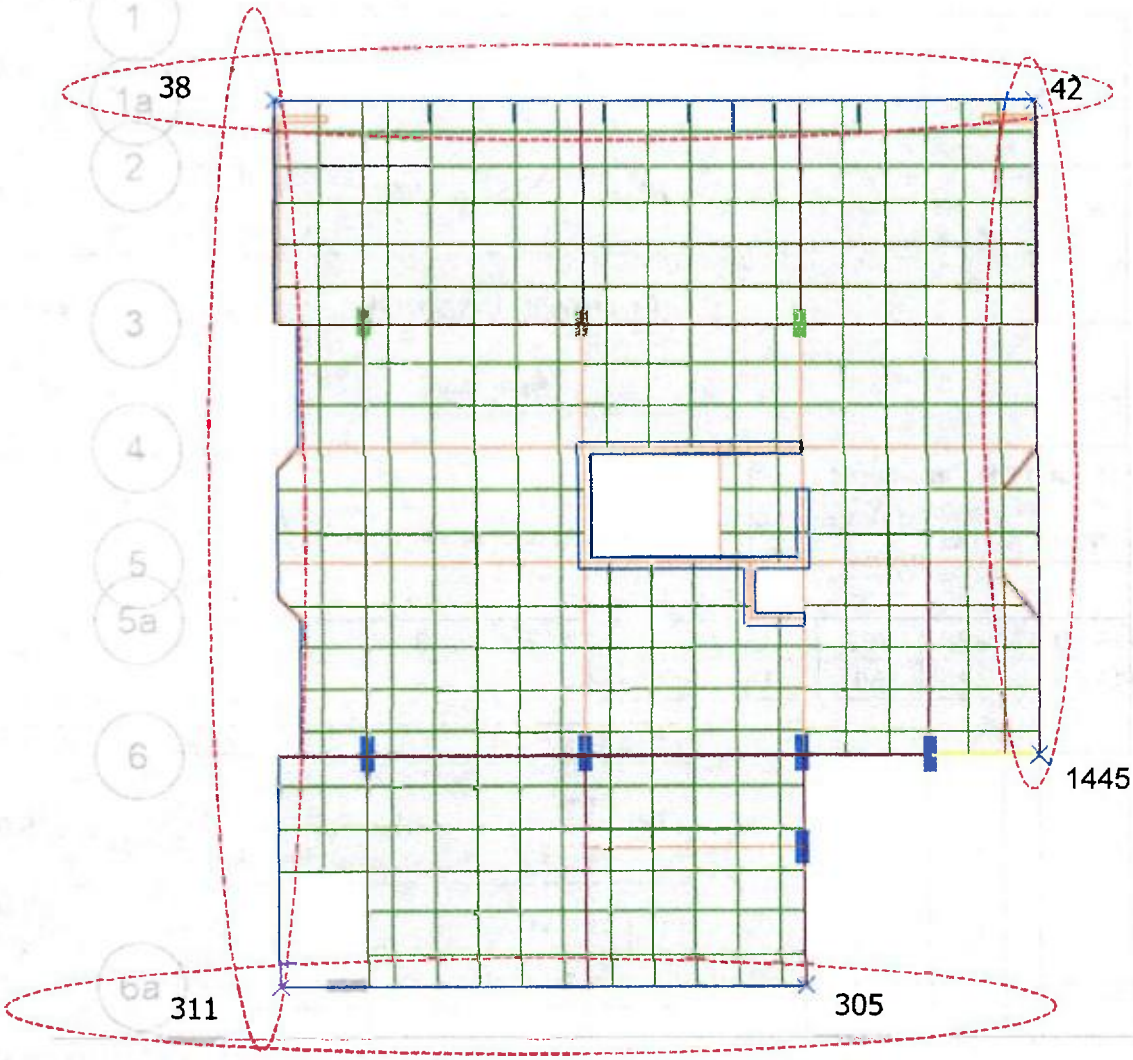
$$\frac{a}{b} = 1.6 : \ a > 1.3b:$$

		CHEQUEA	NO
TIPO	**CARACTERISTICA**		**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.		0.8

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

Chequeo Irregularidades en Planta Tabla A.3.6

Plan View - N+19.00 - Z = 1900 (cm)



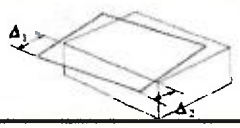
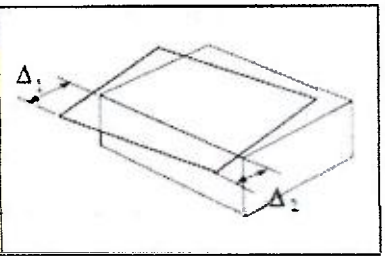
Tipo 1aP — Irregularidad torsional $\phi_p = 0.9$ $1.4\left(\frac{\Delta_1+\Delta_2}{2}\right) \geq \Delta_1 > 1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$	Tipo 1bP — Irregularidad torsional extrema $\phi_p = 0.8$ $\Delta_1 > 1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$
	

TABLE: Joint Displacements

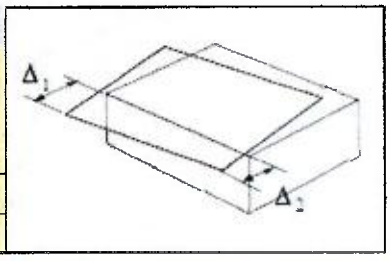
Story	Label	Unique Name	Load Case	Displacement X cm	Displacement Y cm
N+19.00	38	793	Ux	3.888	1.628
N+19.00	42	3601	Ux	3.895	2.197



ΔXmax	3.90	ΔYmax	2.197
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	5.45	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	2.68
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	4.67	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	2.29
No presenta Irregularidad		No presenta Irregularidad	
ϕp=	1.00	ϕp=	1.00

TABLE: Joint Displacements

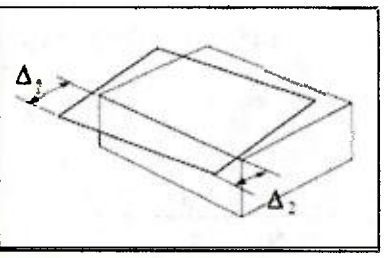
Story	Label	Unique Name	Load Case	Displacement X cm	Displacement Y cm
N+19.00	38	793	Uy	1.78	3.78
N+19.00	42	3601	Uy	1.81	3.41



ΔXmax	1.810	ΔYmax	3.78
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	2.52	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	5.03
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	2.16	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	4.31
No presenta Irregularidad		No presenta Irregularidad	
ϕp=	1.00	ϕp=	1.00

TABLE: Joint Displacements

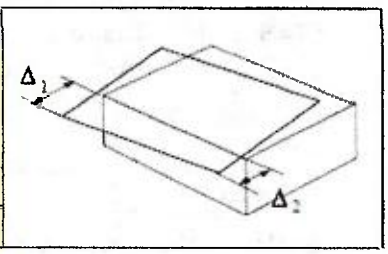
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	311	3592	Ux	3.02	1.638
N+19.00	38	793	Ux	3.89	1.628



ΔXmax	3.89	ΔYmax	1.64
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	4.83	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	2.29
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	4.14	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	1.96
No presenta Irregularidad ϕp= 1.00		No presenta Irregularidad ϕp= 1.00	

TABLE: Joint Displacements

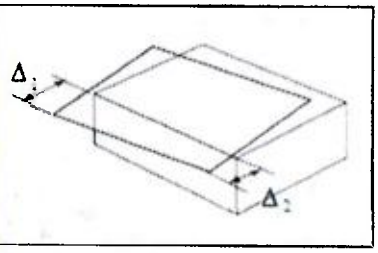
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	311	3592	Uy	1.09	3.79
N+19.00	38	793	Uy	1.78	3.78



ΔXmax	1.78	Δ1Y	3.79
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	2.01	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	5.30
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	1.73	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	4.54
Irregularidad Torsional Tipo 1aP ϕp= 0.90		No presenta Irregularidad ϕp= 1.00	

TABLE: Joint Displacements

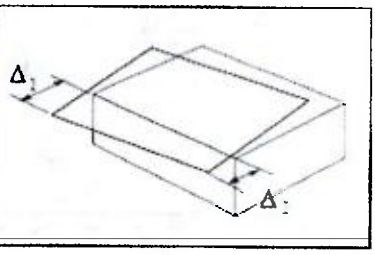
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	305	5145	Ux	3.01	1.60
N+19.00	311	3592	Ux	3.02	1.64



Δ1X	3.02	Δ1Y	1.64
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	4.22	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	2.26
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	3.62	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	1.94
No presenta Irregularidad		No presenta Irregularidad	
ϕp=	1.00	ϕp=	1.00

TABLE: Joint Displacements

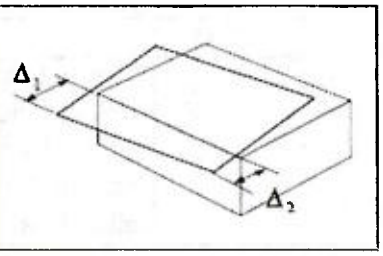
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	305	5145	Uy	1.09	3.54
N+19.00	311	3592	Uy	1.09	3.79



Δ1X	1.09	Δ1Y	3.79
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	1.53	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	5.14
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	1.31	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)=$	4.40
No presenta Irregularidad		No presenta Irregularidad	
ϕp=	1.00	ϕp=	1.00

TABLE: Joint Displacements

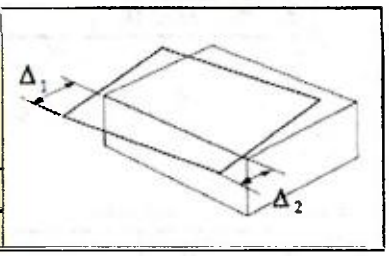
Story	Label	Unique Name	Load Case	Displacement X	Displacement Y
				cm	cm
N+19.00	1445	3603	Ux	2.86	2.19
N+19.00	42	3601	Ux	3.90	2.20



Δ1X	3.90	Δ1Y	2.20
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	4.73	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	3.07
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	4.05	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	2.63
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+19.00	1445	3603	Uy Max	1.26	3.45
N+19.00	204	3601	Uy Max	1.81	3.41



Δ1X	1.81	Δ1Y	3.45
$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	2.15	$1.4\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	4.80
$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	1.84	$1.2\left(\frac{\Delta_1+\Delta_2}{2}\right)$ =	4.12
No presenta Irregularidad		No presenta Irregularidad	
ϕp= 1.00		ϕp= 1.00	

CHEQUEA	NO

TIPO	CARACTERISTICA	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 perpendicualrmente 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

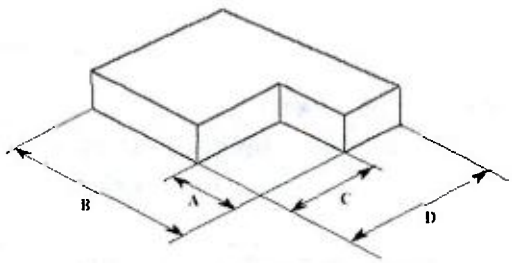
CHEQUEA	NO

TIPO	CARACTERISTICA	ϕp
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 - $\phi_p = 0.9$

$A > 0.15B \quad y \quad C > 0.15D$

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

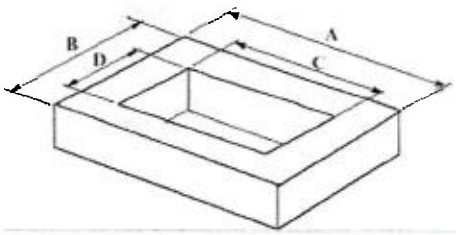


CHEQUEA	Si

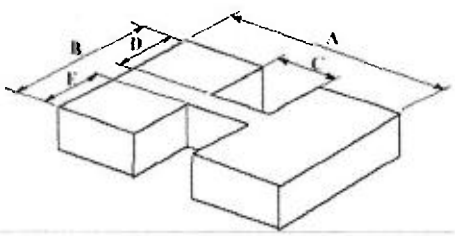
TIPO	CARACTERISTICA	ϕp
3P	Cuando el diafragma tiene discontinuidades apreciables o variaciones en su rigidez, incluyendo las causadas por aberturas, entradas, retrocesos o huecos con áreas mayores al 50% del área bruta del diafragma o existen cambios en la rigidez efectiva del diafragma de mas del 50%, 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) $(C \times D + C \times E) > 0.5\,A \times B$



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

		CHEQUEA	Si
TIPO	**CARACTERISTICA**		**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 cosnidera irregular		1

Cálculo de Coeficiente de Disipación de Energía Edificio B

A continucaicón, se presentan los coeficientes de reducción por las irregularidades, y el calulo del coeficiente de reduccion de capacidad de discipación de energia

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 Ro X-X	7.0	según la tabla A. 3-2 de la NSR-10
Para el sistema estructural utilizado Ro Y-Y	7.0	según la tabla A. 3-3 de la NSR-10

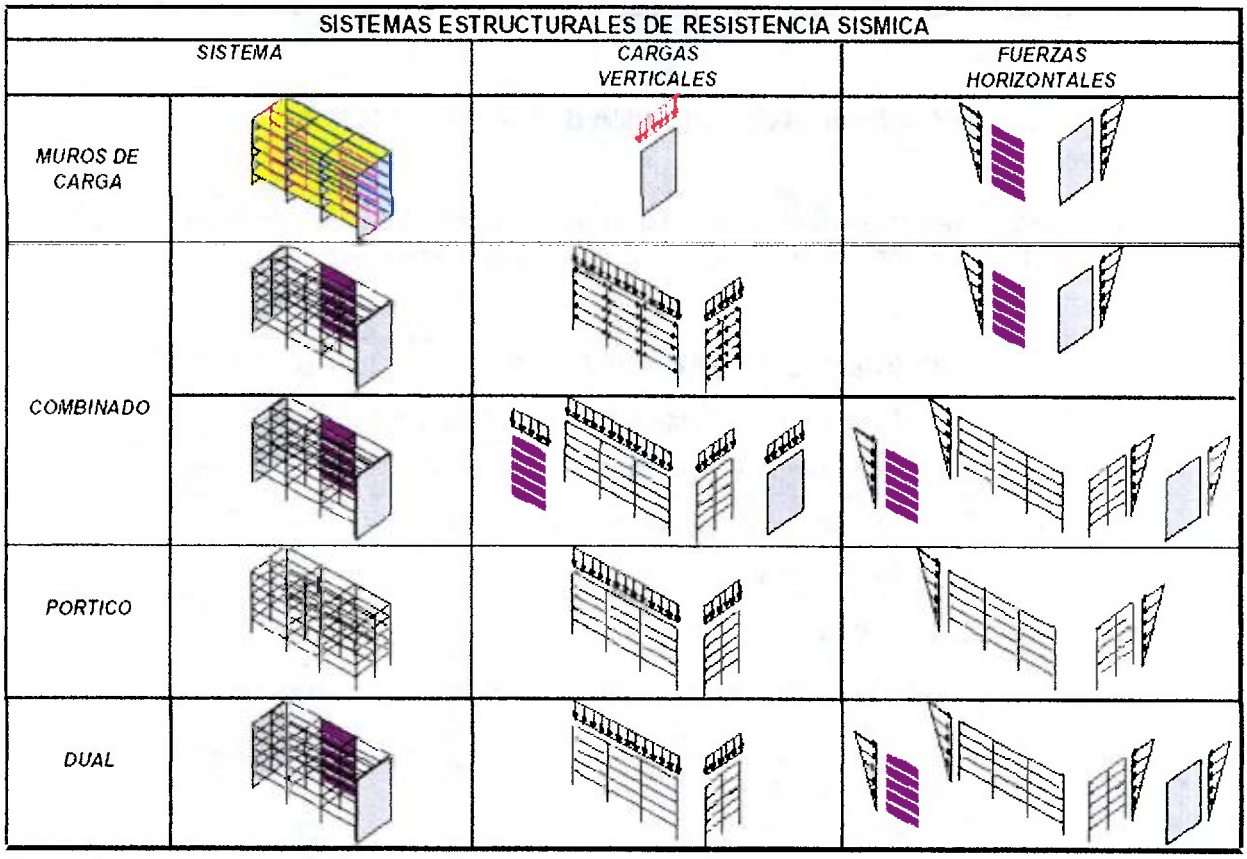


Figura 9 Sistemas Estructurales de resistencia sísmica.

A continucación, se presenta el espectro inelastico de aceleración de diseño reducido, aplicando el coeficiente de capacidad de diiscipacion de energía (Sa/R).

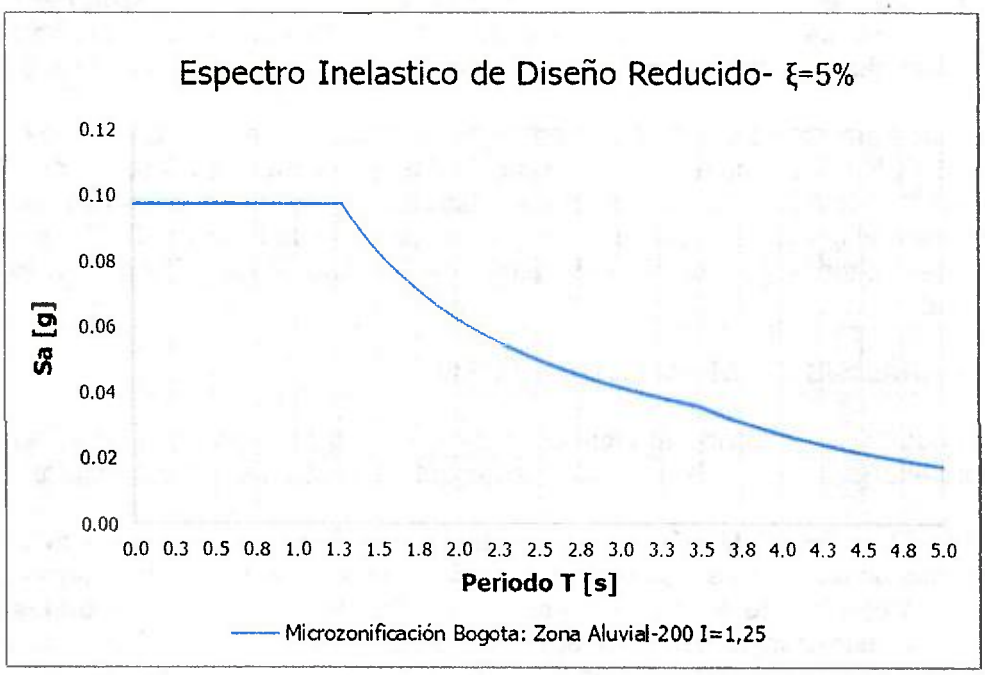


Figura 10 Espectro inelástico de diseño reducido Edificio B (ejes 1 – 6a), R=5.04

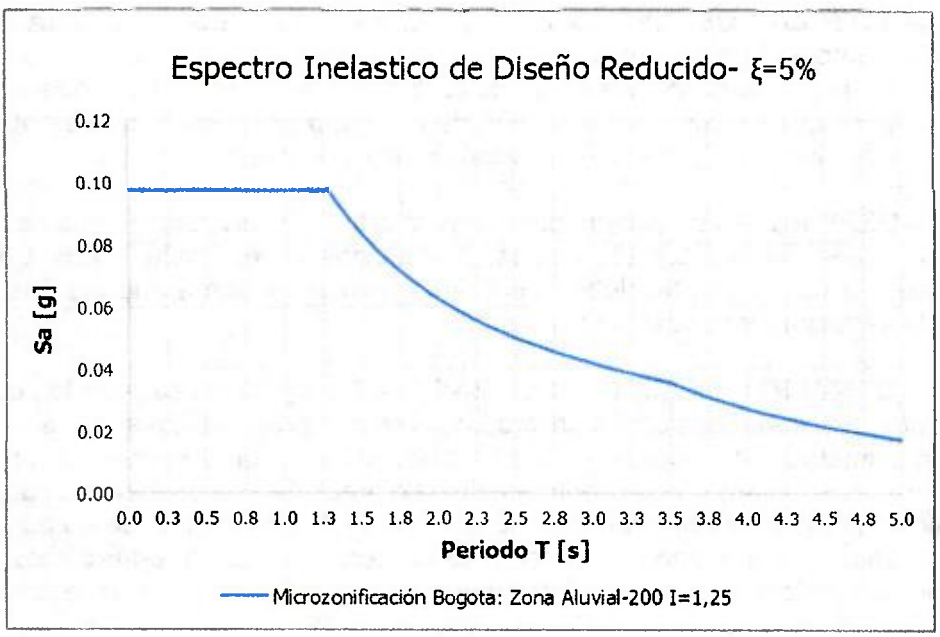


Figura 11 Espectro inelástico de diseño reducido Edificio A (ejes 6c – 10), R=5.04

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 solicitaciones. 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 inerciales que se tuvieron en cuenta durante la elaboración del modelo son:

Carga Permanente:	Peso propio + Sobrecarga
Altura hasta la base de losa más alta	23.05m

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

I = 1.25

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.

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

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	0.515	0.515
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 $C_u T_a$, donde C_u se calcula por medio de la ecuacion A.4.2-2 y T_a se calcula de acuerdo con A.4.2-3.

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

pero C_u no debe ser menor de 1.2.

Cu: 1.25 >1,2

Tomar Cu: 1.25

Cu*Ta:	0.642

Periodo del Primer Cu*Ta

T:	0.642

Sax:	0.492
Say:	0 492

Periodo Modelo Estructural

T:	0.642

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 sisma 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 areno 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 areno 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 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	5960	-188233	-77735	0
Live	0	0	1953	-58802	-27805	0
Sx Max	3443	1211	0	22716	66193	96995
Sy Max	1193	3442	0	64773	22964	57531
Ux Max	2754	969	0	18174	52959	77604
Uy Max	954	2754	0	51823	18373	46030
W	-45	-36	0	590	-716	-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	524	1510	0	28782	10199	25252
Umbx Max	1511	532	0	10100	29414	42616

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

Sentido X: V = 0.492 * W
Sentido Y: V = 0.492 * W

DONDE W = 7771.44 ton

Sentido X: V = 3825.1 ton
Sentido Y: V = 3825.1 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, valor calculado anteriormente.

Sentido X: V_{FHE} = 3825 ton → **90%** V_S = 3443 ton
Sentido Y: V_{FHE} = 3825 ton → **90%** V_S = 3443 ton

Carga	Text	FX	FX
SISMOX	Max	3442.6	1211.2
SISMOY	Max	1193.0	3442.0

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	UX	UY	Sum UX	Sum UY	RZ	Sum RZ
		sec						
Modal	**1**	**0.642**	**5%**	**6%**	**5%**	**6%**	**66%**	**66%**
Modal	**2**	**0.441**	**6%**	**61%**	**10%**	**67%**	**10%**	**76%**
Modal	**3**	**0.396**	**63%**	**9%**	**73%**	**76%**	**0%**	**76%**
Modal	4	0.185	1%	1%	74%	77%	11%	87%
Modal	5	0.125	2%	11%	76%	89%	1%	88%
Modal	6	0.115	11%	3%	86%	92%	0%	88%
Modal	7	0.093	0%	0%	87%	92%	1%	89%
Modal	8	0.074	2%	0%	89%	92%	1%	90%
Modal	9	0.072	0%	0%	89%	92%	0%	90%
Modal	10	0.071	0%	0%	89%	92%	0%	90%
Modal	11	0.067	0%	0%	89%	92%	0%	91%
Modal	12	0.064	1%	0%	90%	92%	1%	91%
Modal	13	0.061	0%	0%	90%	92%	3%	94%
Modal	14	0.06	0%	3%	90%	95%	0%	94%
Modal	15	0.059	0%	0%	91%	95%	0%	94%
Modal	16	0.058	0%	0%	91%	95%	0%	94%
Modal	17	0.056	0%	0%	91%	95%	0%	94%
Modal	18	0.054	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%	96%
Modal	21	0.048	0%	0%	93%	96%	0%	96%
Modal	22	0.047	0%	0%	93%	97%	0%	96%
Modal	23	0.046	1%	0%	94%	97%	0%	96%
Modal	24	0.045	0%	0%	94%	97%	0%	96%
Modal	25	0.045	1%	0%	95%	97%	0%	96%
Modal	26	0.044	0%	0%	95%	97%	0%	96%
Modal	27	0.042	0%	1%	95%	98%	0%	96%
Modal	28	0.04	0%	0%	96%	98%	0%	96%
Modal	29	0.04	0%	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	1%	0%	97%	98%	1%	97%
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%	99%	0%	98%
Modal	37	0.036	0%	0%	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.

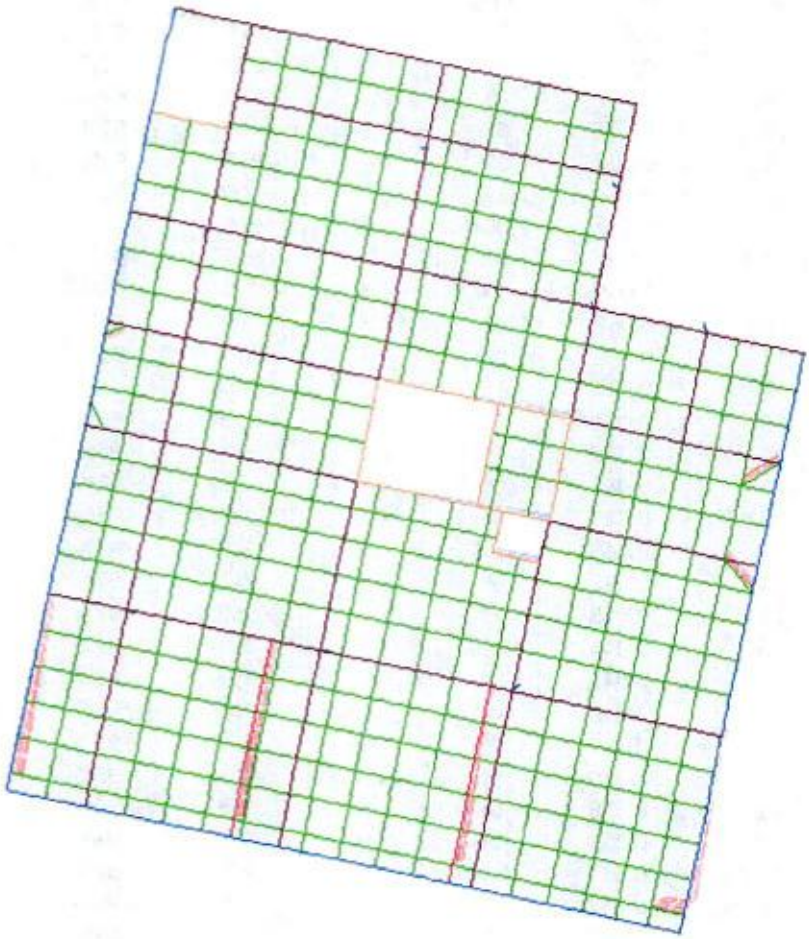


Figura 12 Modo 1 del Edificio A.

Modo 2

Este modo activa un porcentaje de masa del **6%** en la dirección x, y un **61%** en la dirección y. En la dirección rotacional θZ se activa un **10%**. Por lo tanto, en el modo 2 predomina el movimiento traslacional en Y, y rotacional en Z.

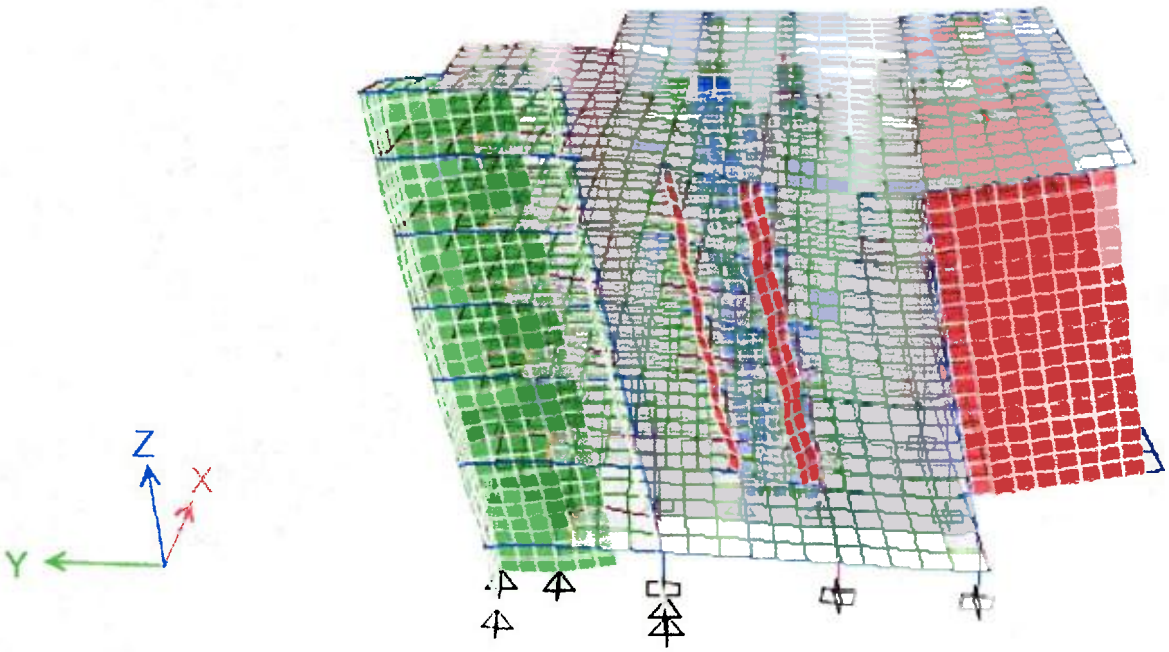


Figura 13 Modo 2 del Edificio A.

Modo 3

Este modo activa un porcentaje de masa del **63%** en la dirección x, y un **9%** 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.

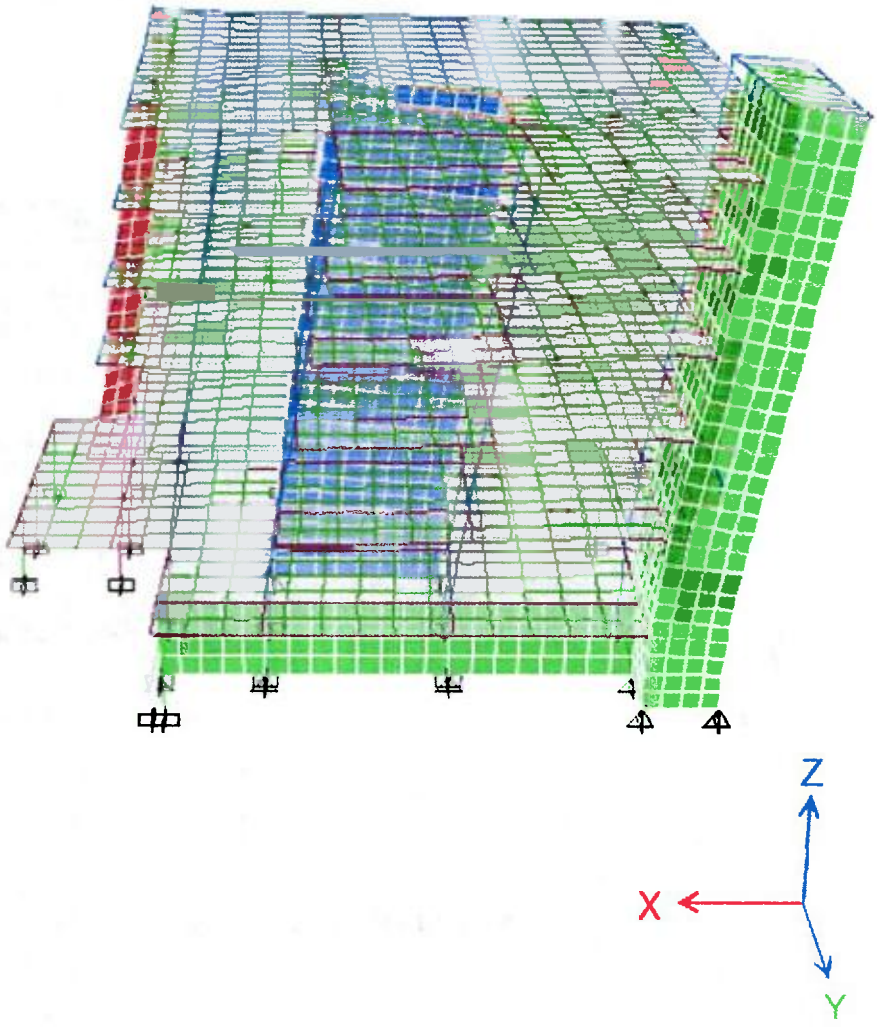


Figura 14 Modo 3 del Edificio A

Edificio B: (Ejes 1 – 6a)

Matriz de Masa

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

Carga Permanente:	Peso propio + Sobrecarga
Altura hasta la base de losa más alta	23.25 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 período fundamental aproximado, T_a, que se obtenga por medio de la ecuación A.4.2-3.

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

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	0.519	0.519
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 $C_u T_a$, 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.

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

pero C_u no debe ser menor de 1.2

Cu: 1.25 >1,2
Tomar Cu: 1.25

Cu*Ta:	0.646

Periodo del Primer Cu*Ta

T:	0 646

⇨

Sax:	0.492
Say:	0.492

Periodo Modelo Estructural

T:	0.572

⇨

Sax:	0.492
Say:	0.492

Periodo Elastico del Suelo

T:	1,25-1,75

⇨ El periodo fundamental de la edificación no coincide con los periodos fundamental, y secundario para el perfil del subsuelo de la microzona. Por lo tanto, no se preveequue sepresente

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 sisma 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 areno 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 areno 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	Fy	Fz	Mx	My	Mz
	tonf	tonf	tonf	tonf-m	tonf-m	tonf-m
Dead	0.0	0.0	7007.5	63210.0	-96661.0	0.0
Live	0.0	0.0	2055.7	17916.5	-30353.7	0.0
Sx	3913.7	1722.2	0.0	31167.1	69740.1	55405.9
Sy	1613.9	3912.8	0.0	69469.1	29822.0	48693.3
Ux	3131.3	1377.9	0.0	24936.2	55797.8	44329.2
Uy	1291.2	3130.6	0.0	55580.9	23860.0	38958.6
W	-42.9	-38.5	0.0	501.5	-624.8	-34.6
Sobre Carga	0.0	0.0	1825.1	14835.8	-26568.9	-0.2
Lr	0.0	0.0	383.6	3349.2	-5147.6	0.0
Granizo	0.0	0.0	72.4	654.1	-966.0	0.0

V = Sa * g * M = Sa * W

Sentido X: V = 0.492 * W
Sentido Y: V = 0.492 * W

DONDE W = 8832.68 ton

Sentido X: V = 4347.4 ton
Sentido Y: V = 4347.4 ton

Análisis Modal

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

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: V_{FHE} = 4347 ton ⟶ **90%** V_S = 3913 ton
Sentido Y: V_{FHE} = 4347 ton ⟶ **90%** V_S = 3913 ton

Carga	Text	FX	FX
SISMOX	Max	3913.7	1722.2
SISMOY	Max	1613.9	3912.8

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.

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, Mj, en cada una de las direcciones de análisis, j, para el número de modos empleados, p, se determina por medio de las siguientes expresiones:

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

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

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	UX	UY	Sum UX	Sum UY	RZ	Sum RZ
		sec						
Modal	1	0.572	3%	0%	3%	0%	61%	61%
Modal	2	0.488	10%	57%	13%	57%	1%	62%
Modal	3	0.431	53%	11%	66%	68%	1%	63%
Modal	4	0.188	1%	0%	66%	68%	4%	66%
Modal	5	0.171	0%	0%	66%	68%	4%	70%
Modal	6	0.141	1%	12%	67%	81%	0%	70%
Modal	7	0.14	0%	0%	67%	81%	0%	70%
Modal	8	0.129	12%	1%	80%	81%	2%	72%
Modal	9	0.12	2%	0%	82%	81%	5%	77%
Modal	10	0.11	0%	1%	82%	82%	3%	80%
Modal	11	0.104	1%	0%	82%	82%	1%	81%
Modal	12	0.099	1%	0%	84%	83%	0%	82%
Modal	13	0.086	3%	0%	86%	83%	0%	82%
Modal	14	0.083	0%	6%	87%	89%	0%	82%
Modal	15	0.074	0%	0%	87%	89%	0%	82%
Modal	16	0.069	0%	0%	87%	89%	0%	82%
Modal	17	0.066	0%	0%	87%	89%	0%	82%
Modal	18	0.065	0%	0%	87%	89%	0%	82%
Modal	19	0.063	0%	0%	87%	89%	0%	82%
Modal	20	0.062	0%	0%	87%	89%	0%	82%
Modal	21	0.061	0%	0%	87%	89%	0%	82%
Modal	22	0.058	0%	0%	87%	89%	0%	82%
Modal	23	0.056	1%	0%	88%	89%	0%	82%
Modal	24	0.053	0%	0%	88%	89%	0%	82%
Modal	25	0.052	0%	0%	88%	89%	0%	82%
Modal	26	0.05	1%	1%	89%	90%	0%	82%
Modal	27	0.048	0%	0%	90%	90%	0%	82%
Modal	28	0.048	2%	1%	92%	91%	0%	83%
Modal	29	0.046	1%	0%	93%	91%	1%	84%
Modal	30	0.045	0%	0%	94%	91%	0%	84%
Modal	31	0.044	0%	0%	94%	92%	0%	84%
Modal	32	0.043	0%	0%	94%	92%	0%	85%
Modal	33	0.042	0%	1%	94%	93%	0%	85%
Modal	34	0.04	0%	0%	94%	93%	0%	85%
Modal	35	0.039	0%	1%	94%	94%	0%	85%
Modal	36	0.038	0%	1%	94%	95%	0%	85%
Modal	37	0.037	0%	0%	94%	95%	0%	85%
Modal	38	0.036	0%	0%	94%	95%	0%	86%
Modal	39	0.036	0%	0%	94%	95%	1%	87%
Modal	40	0.036	0%	0%	94%	95%	0%	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 3% en la dirección x, y un 0% 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.

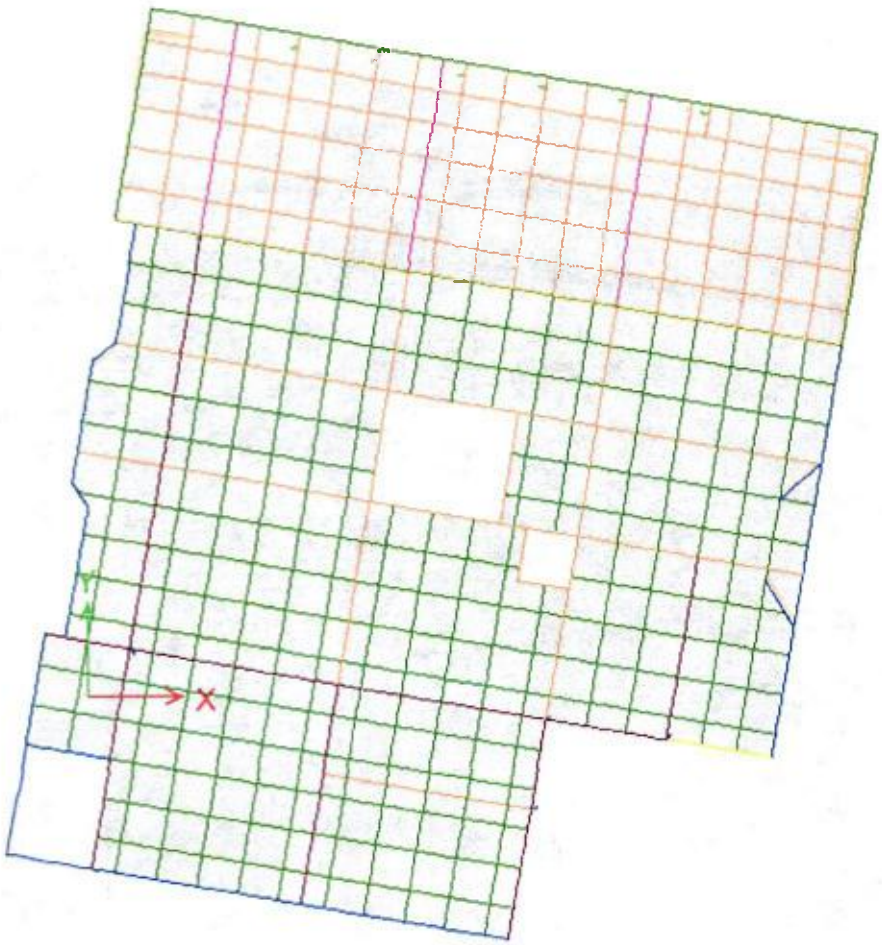


Figura 15 Modo 1 del Edificio B

Modo 2

Este modo activa un porcentaje de masa del 10% en la dirección x, y un 57% en la dirección y. En la dirección rotacional θZ se activa un 1%. Por lo tanto, en el Modo 2 predomina el movimiento traslacional en Y.

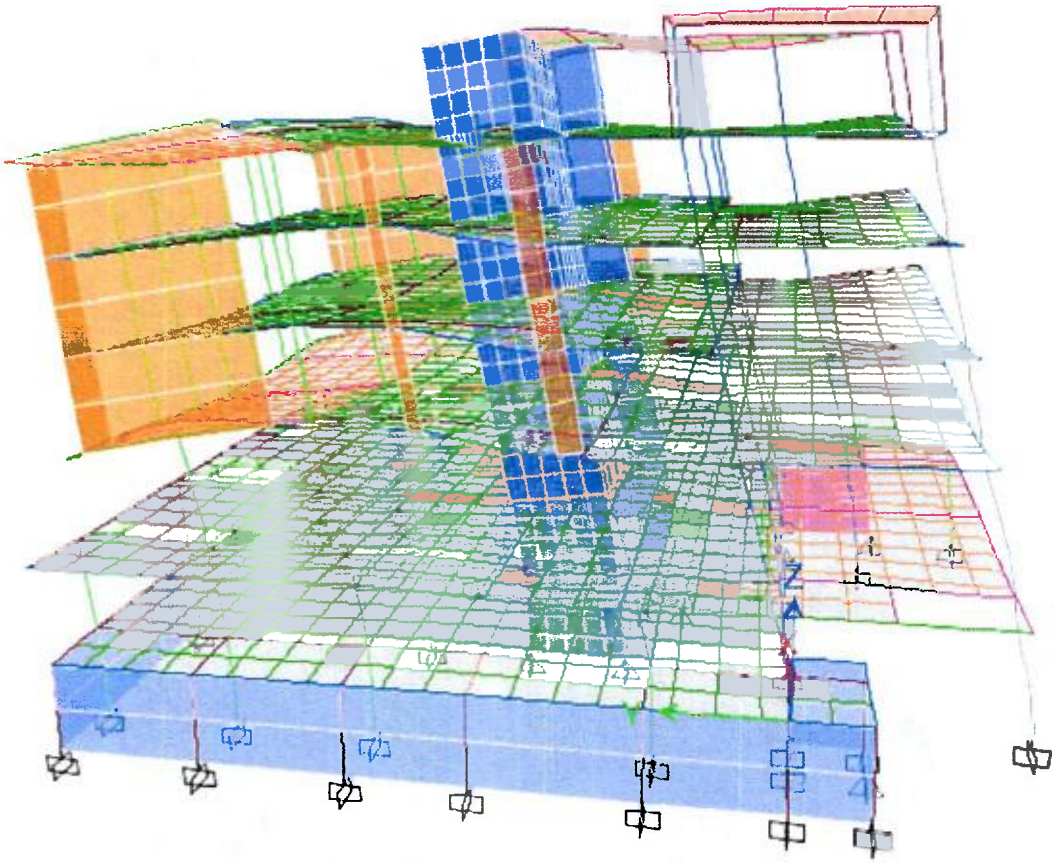


Figura 16 Modo 2 del Edificio B

Modo 3

Este modo activa un porcentaje de masa del 53% en la dirección x, y un 11% en la dirección y. En la dirección rotacional θZ se activa un 1%. Por lo tanto, en el modo 3 predomina el movimiento traslacional en x.

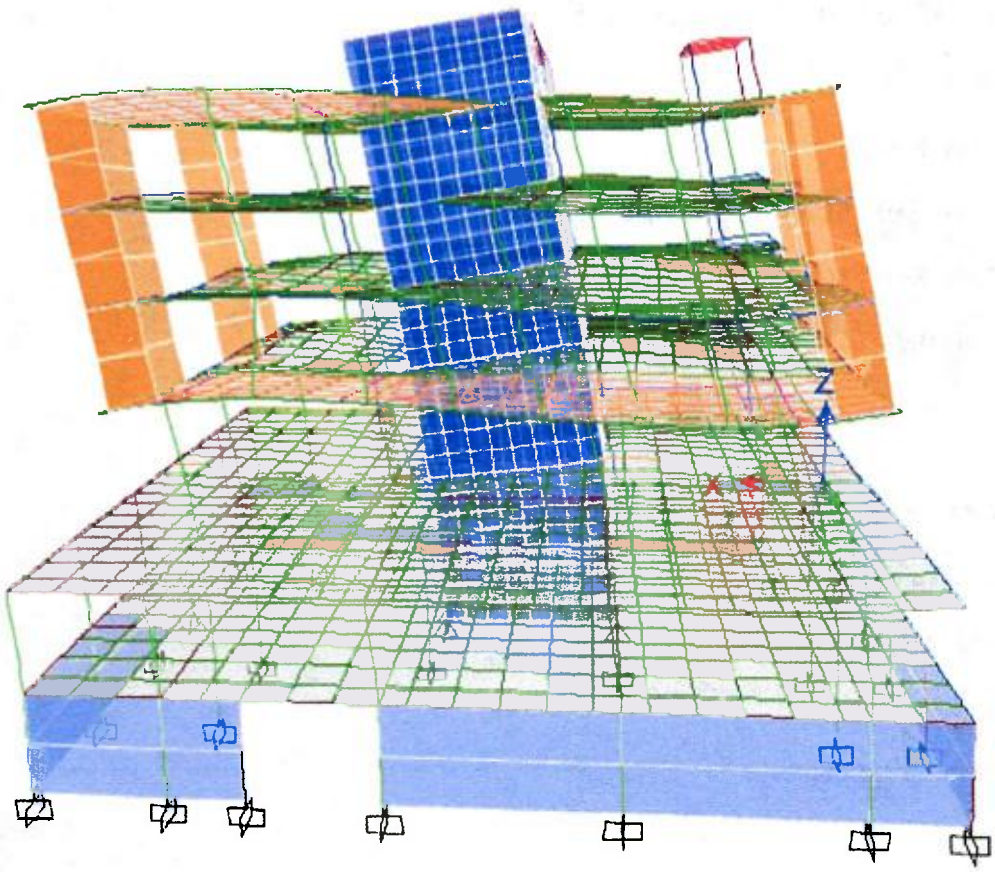


Figura 17 Modo 3 del Edificio B

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)	(B.2.4-1)
1.2 (D+ F + T) + 1.6 (L + H) + 0.5 (Lr ó G ó Le)	(B.2.4-2)
1.2D + 1.6 (Lr ó G ó Le) + (L ó 0.8W)	(B.2.4-3)
1.2D + 1.6W +1.0L + 0.5(Lr ó G ó Le)	(B.2.4-4)
1.2D + 1.0E + 1.0L	(B.2.4-5)
0.9D + 1.6W +1.6H	(B.2.4-6)
0.9D + 1.0E + 1.6H	(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 , Δmax , 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 , δcm, 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.36) 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:

$$\Delta^{i}_{max} = \sqrt{\sum_{j=1}^{2}\left(\delta^{i}_{tot,j} - \delta^{i-1}_{tot,j}\right)^{2}} \qquad \text{(A.6.3-1)}$$

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 , Δmax, 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, Qi, es menor de 0,10 en todos los pisos donde sería aplicable este procedimiento alternativo,

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

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

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 hpi:

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	$1.0\%\ \left(\Delta_{max}^i \le 0.010\ h_{pi}\right)$
de mampostería que cumplen los requisitos de A.6.4.2.3	$0.5\%\ \left(\Delta_{max}^i \le 0.005\ h_{pi}\right)$

Tabla 9. Derivas maximas.

A.6.4.1.1— Cuando se utilicen secciones fisuradas, tanto en concreto reforzado, como en mamposteria y en el caso de estructuras mixtas con acero, las derivas pueden multiplicarse por 0.7 antes de hacer la comparacion con los limites 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 separacion sismica 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 edificacion 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.

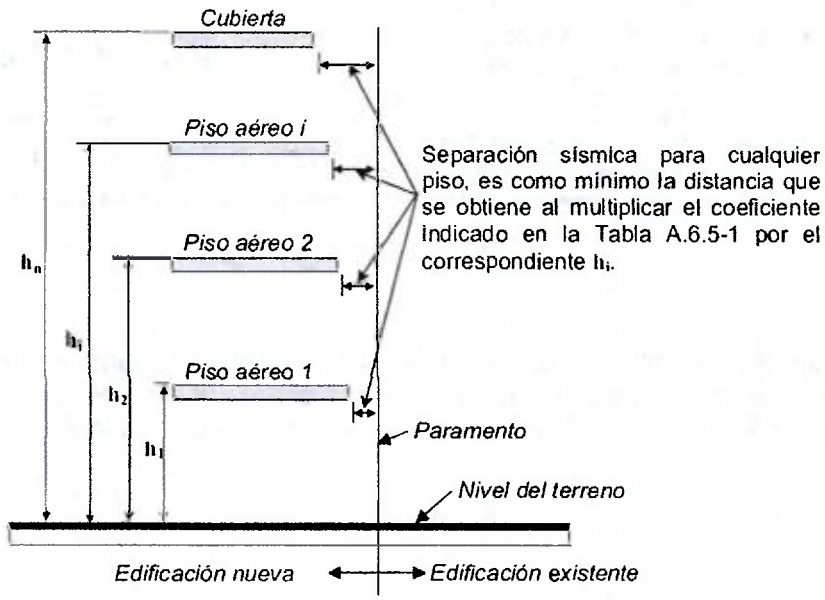


Figura 18 Medicion separacion sismica

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 maximas de piso, obtenidas para la modelacion estrucutral del Edifico B, las cuales no superaron el maximo 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+24.4	Ux	X	0.27%	194
N+24.4	Ux	Y	0.09%	194
N+24.4	Uy	X	0.12%	306
N+24.4	Uy	Y	0.16%	8
N+19.65	Ux	X	0.20%	64
N+19.65	Ux	Y	0.10%	42
N+19.65	Uy	X	0.10%	292
N+19.65	Uy	Y	0.17%	38
N+16.00	Ux	X	0.21%	42
N+16.00	Ux	Y	0.11%	1446
N+16.00	Uy	X	0.11%	42
N+16.00	Uy	Y	0.19%	311
N+12.35	Ux	X	0.22%	161
N+12.35	Ux	Y	0.12%	1446
N+12.35	Uy	X	0.12%	42
N+12.35	Uy	Y	0.21%	305
N+8.70	Ux	X	[illegible]%	34
N+8.70	Ux	Y	0.22%	34
N+8.70	Uy	X	0.12%	36
N+8.70	Uy	Y	0.27%	34
N+3.75	Ux	X	0.15%	273
N+3.75	Ux	Y	0.10%	273
N+3.75	Uy	X	0.10%	273
N+3.75	Uy	Y	0.22%	273
N+0.00	Ux	X	0.14%	19
N+0.00	Ux	Y	0.05%	19
N+0.00	Uy	X	0.04%	19
N+0.00	Uy	Y	0.09%	13
N-1.75	Ux	X	0.06%	43
N-1.75	Ux	Y	0.04%	8
N-1.75	Uy	X	0.03%	8
N-1.75	Uy	Y	0.08%	8

A continuación, se presentan los resultados de las derivas maximas de piso, obtenidas para la modelacion estrucutral del Edifico A, las cuales no superaron el maximo 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)

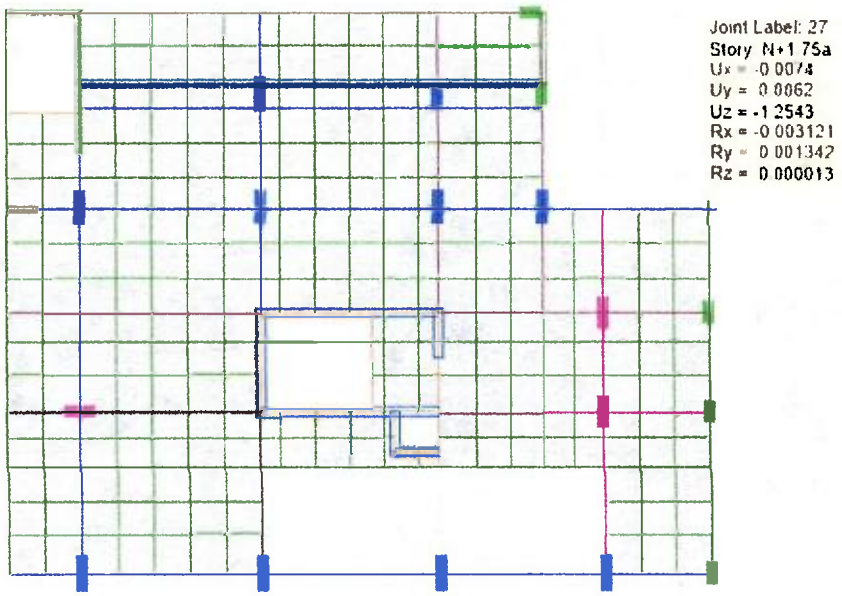
TABLE: Story Drifts

Story	Load Case/Combo	Direction	Drift	Label
N+21.30	Ux Max	X	0.19%	810
N+21.30	Ux Max	Y	0.12%	36
N+21.30	Uy Max	X	0.12%	810
N+21.30	Uy Max	Y	0.17%	32
N+17.65	Ux Max	X	0.20%	803
N+17.65	Ux Max	Y	0.13%	1463
N+17.65	Uy Max	X	0.13%	36
N+17.65	Uy Max	Y	0.18%	810
N+14.00	Ux Max	X	0.21%	810
N+14.00	Ux Max	Y	0.14%	419
N+14.00	Uy Max	X	0.14%	810
N+14.00	Uy Max	Y	0.19%	810
N+10.35	Ux Max	X	0.20%	803
N+10.35	Ux Max	Y	0.15%	419
N+10.35	Uy Max	X	0.15%	810
N+10.35	Uy Max	Y	0.20%	810
N+6.10	Ux Max	X	0.18%	803
N+6.10	Ux Max	Y	0.12%	111
N+6.10	Uy Max	X	0.16%	803
N+6.10	Uy Max	Y	0.20%	304
N+1.85	Ux Max	X	0.07%	53
N+1.85	Ux Max	Y	0.05%	810
N+1.85	Uy Max	X	0.05%	53
N+1.85	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=1.48cm
Deflexión: D+L=1.25cm
1.25cm < 1.48cm
Cumple

Deflexión a Largo Plazo			
ρ=	0.005	$\lambda_\Delta = \frac{\xi}{1+50\rho'}$	
t > 5años ξ=	2		
λΔ=	1.6		
Δmuerta=	0.73 cm	Δmuerta*λΔ=	1.17 cm

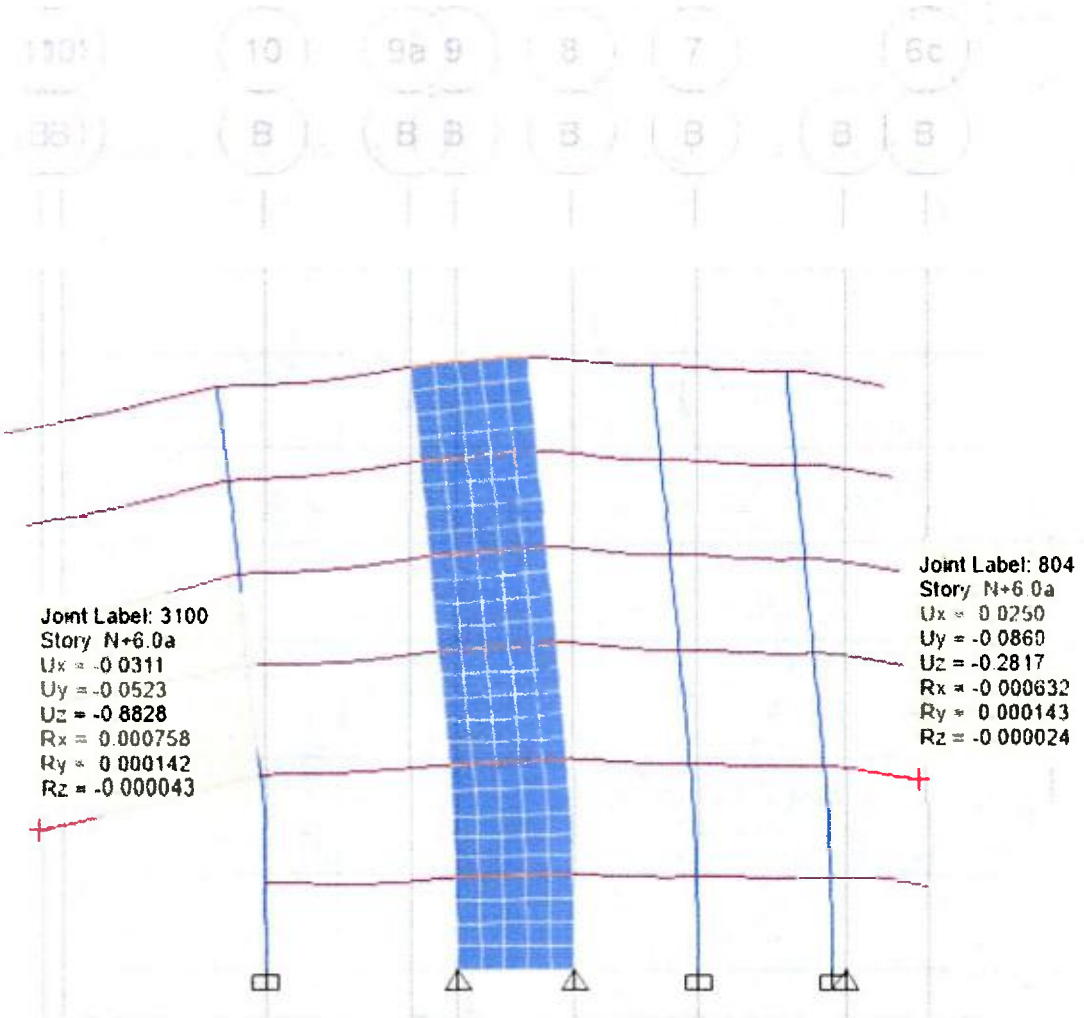


Figura 19 Deflexión en join 3100 (-0.88 cm) y join 804 (-0.28 cm) por cargas muertas

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

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

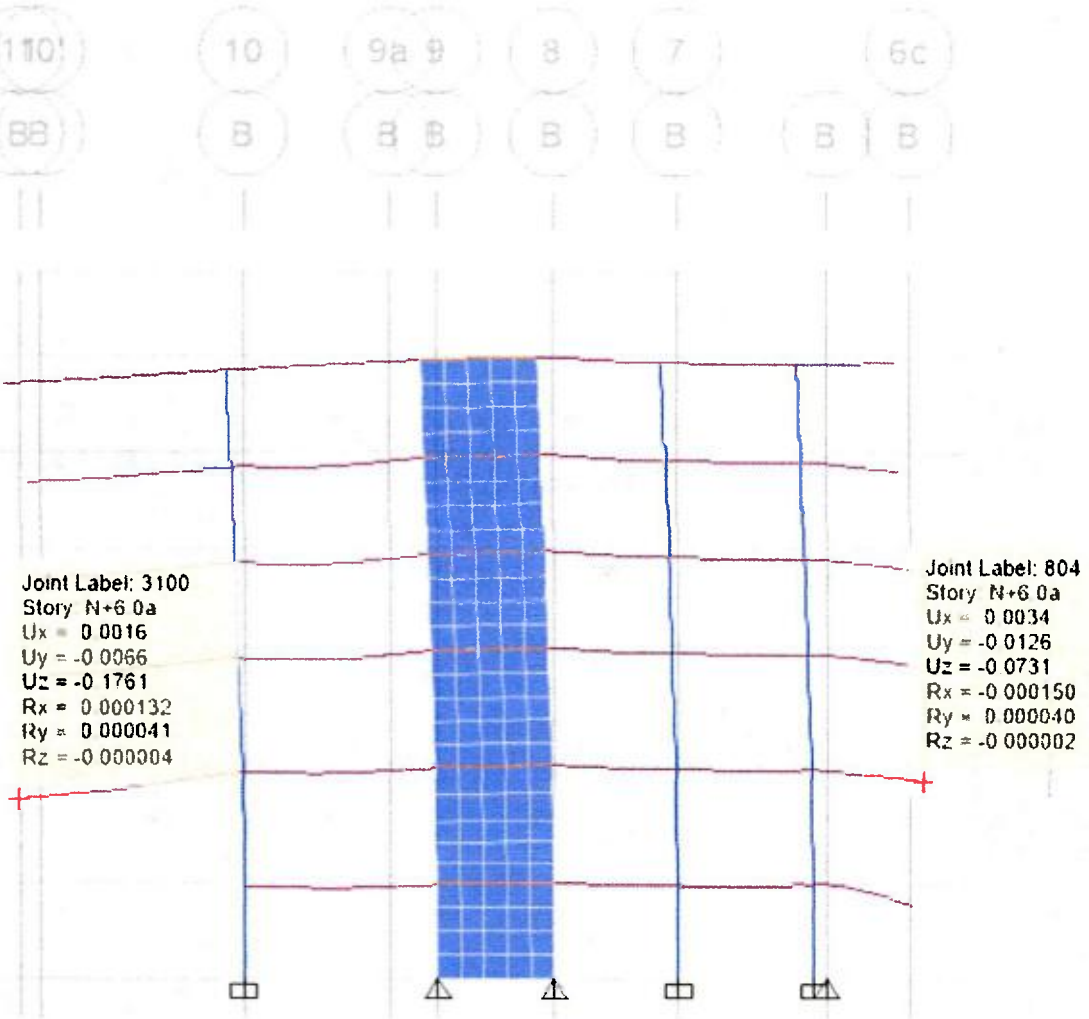


Figura 20 Deflexión en join 3100 (-0.17 cm) y join 804 (-0.07 cm) por cargas vivas

Join 305:

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

Deflexión admisible:

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

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

Join 163:

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

Deflexión admisible:

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

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

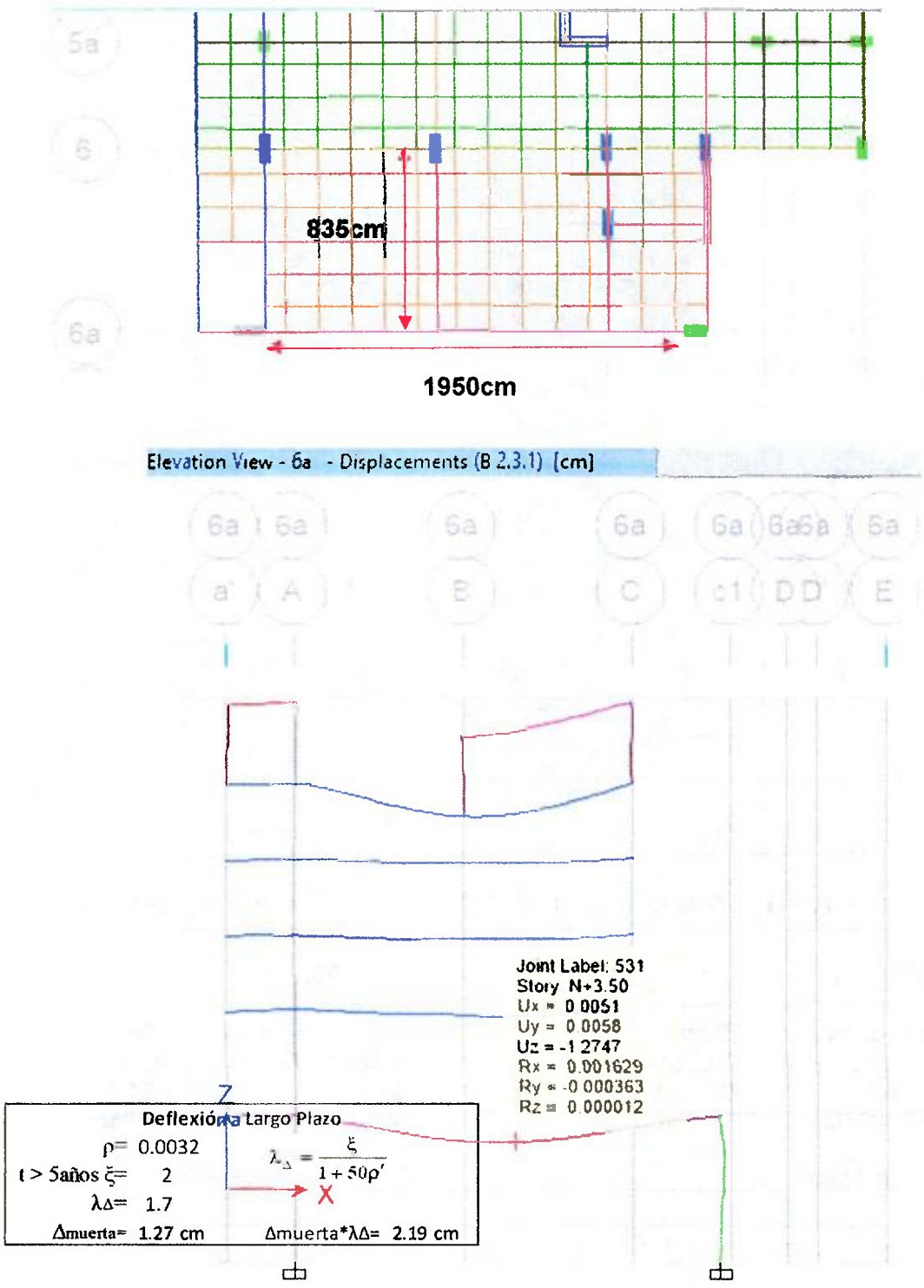


Figura 21 Deflexión en join 531 por cargas muertas -1.27cm

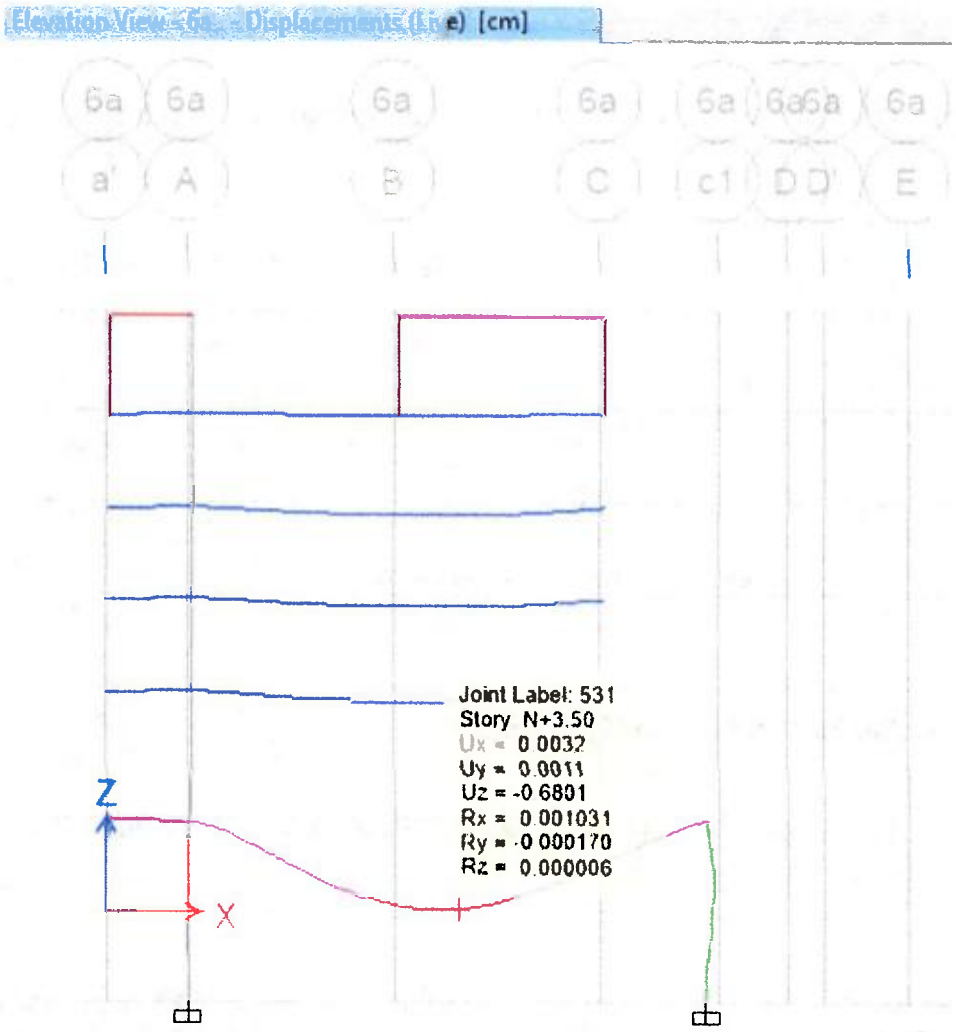


Figura 22 Deflexión en join 531 por carga viva -0.68cm

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

Deflexión admisible:

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

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

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

Deflexión admisible:

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

$1.95cm \leq \frac{l}{240} = \frac{835}{240} = 3.47cm$: *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	$\ell/180$
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)†	$\ell/480$‡
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

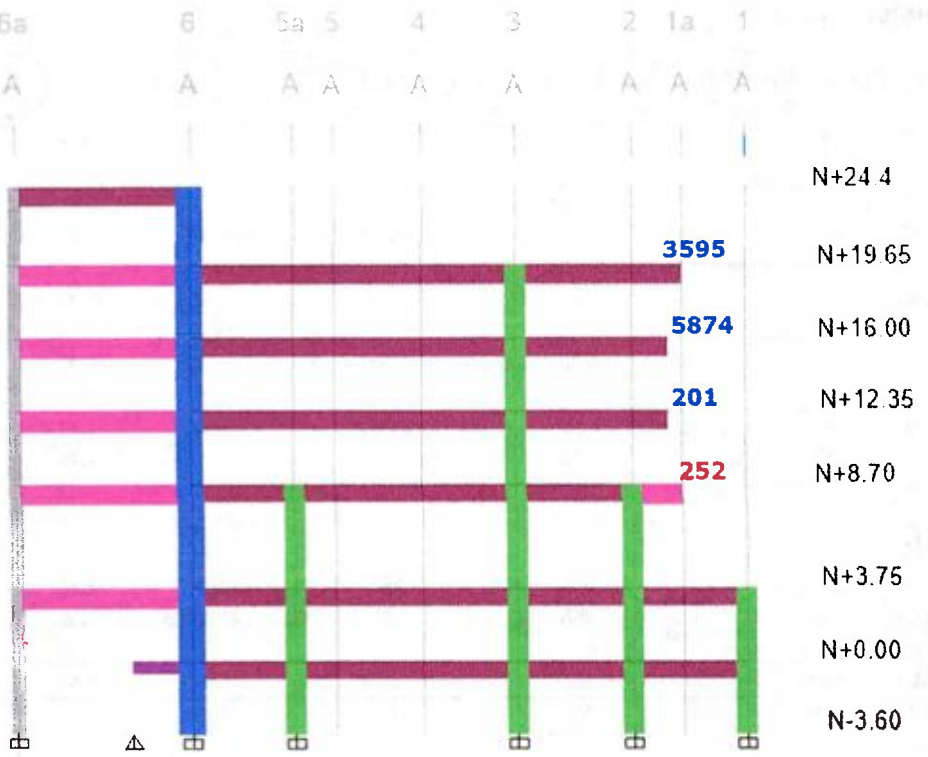
Verificación deflexiones Edificio B (Ejes 1-6ª)

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

Revisión Eje A:

TABLE: Joint Displacements

Story	Unique Name	Output Case	Uz	ΔD+ΔL	Longitud	Revision	Δ adm	(ΔD+ΔL)/Δadm
			cm	cm	cm		cm	
EJE A (3-1)								
N+19.65	3595	Live	-0.0914	-0.70	796	OK, ΔL< L/360	-2.21	
N+19.65	3595	B.2.3.1	-0.6055			OK, ΔD+ΔL< L/480	-1.66	42%
N+16.00	5874	Live	-0.0930	-0.69	726	OK, ΔL< L/360	-2.02	
N+16.00	5874	B.2.3.1	-0.5970			OK, ΔD+ΔL< L/480	-1.51	46%
N+12.35	201	Live	-0.0921	-0.68	726	OK, ΔL< L/360	-2.02	
N+12.35	201	B.2.3.1	-0.5868			OK, ΔD+ΔL< L/480	-1.51	45%
N+8.70	252	Live	-0.0755	-0.59	240	OK, ΔL< L/360	-0.67	
N+8.70	252	B.2.3.1	-0.5146			OK, ΔD+ΔL< L/240	-1.00	59%



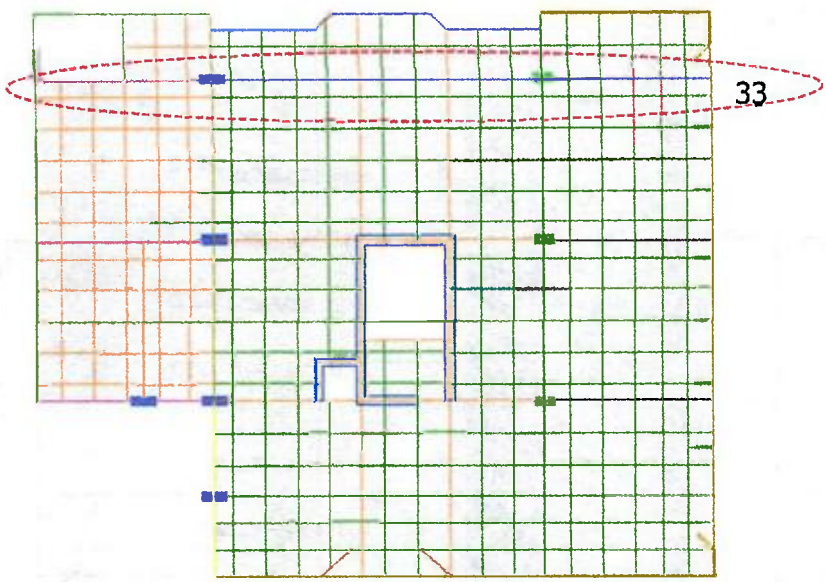


Figura 23 Vigas Voladizos Edificio B, eje B

Revisión Eje B:

TABLE: Joint Displacements

Story	Unique Name	Output Case	Uz	ΔD+ΔL	Longitud	Revision	Δ adm	(ΔD+ΔL)/Δadm
			cm	cm	cm		cm	
EJE B (6-6a)								
N+19.65	5146	Lr	-0.3676	-2 07	835	OK, ΔL< L/360	-2.32	
N+19.65	5146	B.2.3.1	-1.7040			**OK, ΔD+ΔL< L/240**	-3.48	60%
N+16.00	5870	Live	-0.2386	-1.62	835	OK, ΔL< L/360	-2.32	
N+16.00	5870	B.2.3.1	-1.3764			OK, ΔD+ΔL< L/480	-1.74	93%
N+12.35	90	Live	-0.2293	-1.56	835	OK, ΔL< L/360	-2.32	
N+12.35	90	B.2.3.1	-1.3356			OK, ΔD+ΔL< L/480	-1.74	90%
N+8.70	174	Live	-0.3659	-1.69	835	OK, ΔL< L/360	-2.32	
N+8.70	174	B.2.3.1	-1.3216			OK, ΔD+ΔL< L/480	-1.74	97%
N+3.75	2319	Live	-0.6157	-1.96	835	OK, ΔL< L/360	-2.32	
N+3.75	2319	B.2.3.1	-1.3484			**OK, ΔD+ΔL< L/240**	-3.48	56%
EJE B (3-1)								
N+19.65	3596	Live	-0.1050	-0.73	796	OK, ΔL< L/360	-2.21	
N+19.65	3596	B.2.3.1	-0.6256			OK, ΔD+ΔL< L/480	-1.66	44%
N+16.00	5875	Live	-0.1059	-0.72	726	OK, ΔL< L/360	-2.02	
N+16.00	5875	B.2.3.1	-0.6110			OK, ΔD+ΔL< L/480	-1.51	47%
N+12.35	222	Live	-0.1037	-0.69	726	OK, ΔL< L/360	-2.02	
N+12.35	222	B.2.3.1	-0.5882			OK, ΔD+ΔL< L/480	-1.51	46%
N+8.70	253	Live	-0.0831	-0.61	240	OK, ΔL< L/360	-0.67	
N+8.70	253	B.2.3.1	-0.5293			**OK, ΔD+ΔL< L/240**	-1 00	61%

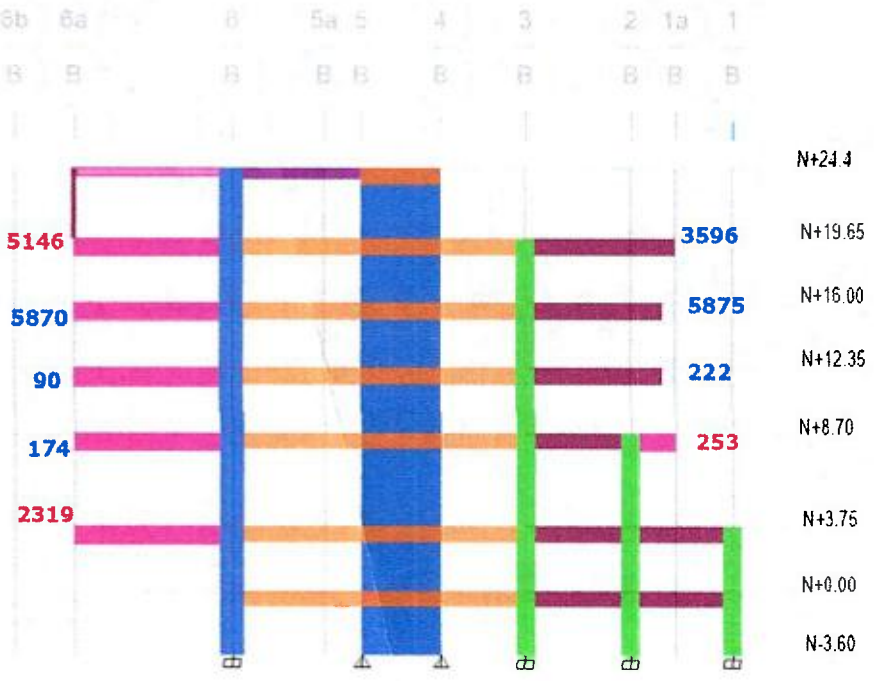


Figura 24 Vigas voladizos Edificio B, eje B.

Revisión Eje C:

TABLE Joint Displacements

Story	Unique Name	Output Case	Uz	ΔD+ΔL	Longitud	Revision	Δ adm	(ΔD+ΔL)/Δadm
			cm	cm	cm		cm	
EJE C (6a)								
N+19.65	**5145**	**Live**	**-0.0493**	**-1.16**	495	**OK, ΔL< L/360**	-1.38	
N+19.65	**5145**	**B.2.3.1**	**-1.1070**			**OK, ΔD+ΔL< L/240**	-2.06	56%
N+16.00	5869	Live	-0.1390	-1.03	495	**OK, ΔL< L/360**	-1.38	
N+16.00	5869	B.2.3.1	-0.8922			**OK, ΔD+ΔL< L/480**	-1.03	100%
N+12.35	89	Live	-0.1337	-0.99	495	OK, ΔL< L/360	-1.38	
N+12.35	89	B.2.3.1	-0.8552			OK, ΔD+ΔL< L/480	-1.03	96%
N+8.70	173	Live	-0.1248	-0.94	495	OK, ΔL< L/360	-1.38	
N+8.70	173	B.2.3.1	-0.8173			OK, ΔD+ΔL< L/480	-1.03	91%
N+3.75	2318	Live	-0.2899	-0.91	495	OK, ΔL< L/360	-1.38	
N+3.75	2318	B.2.3.1	-0.6213			OK, ΔD+ΔL< L/480	-1.03	88%
EJE C (3-1)								
N+19.65	3597	Live	-0.1104	-0.83	796	OK, ΔL< L/360	-2.21	
N+19.65	3597	B.2.3.1	-0.7191			OK, ΔD+ΔL< L/480	-1.66	50%
N+16.00	5876	Live	-0.1110	-0.81	726	OK, ΔL< L/360	-2.02	
N+16.00	5876	B.2.3.1	-0.7002			OK, ΔD+ΔL< L/480	-1.51	54%
N+12.35	231	Live	-0.1086	-0.78	726	OK, ΔL< L/360	-2.02	
N+12.35	231	B.2.3.1	-0.6729			OK, ΔD+ΔL< L/480	-1.51	52%
N+8.70	254	Live	-0.0932	-0.64	796	OK, ΔL< L/360	-2.21	
N+8.70	254	B.2.3.1	-0.5507			OK, ΔD+ΔL< L/480	-1.66	39%

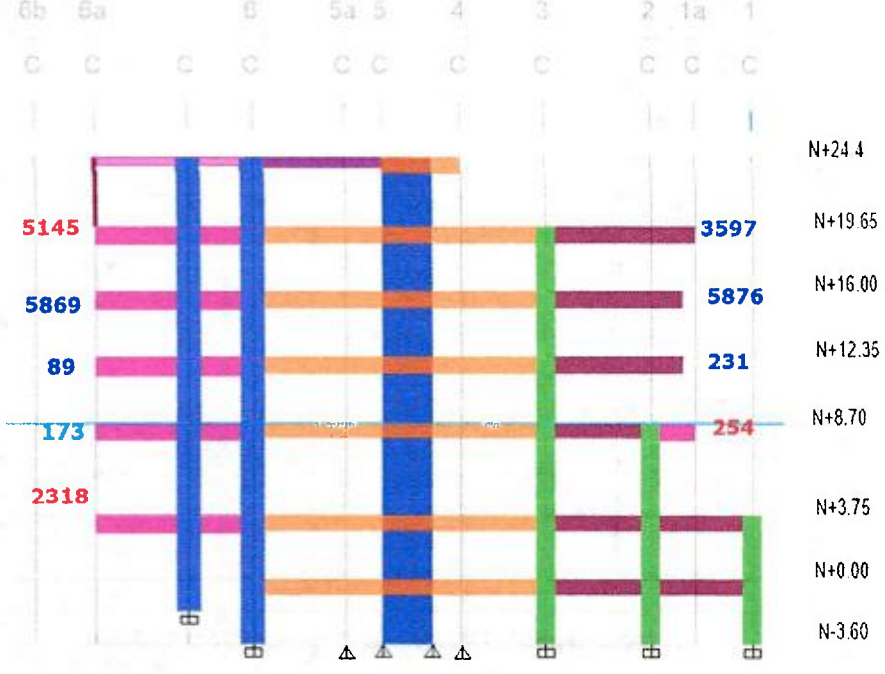


Figura 25 Vigas voladizos Edificio B, eje C

Revisión Eje 6

TABLE: Joint Displacements

Story	Unique Name	Output Case	Uz	ΔD+ΔL	Longitud	Revision	Δ adm	(ΔD+ΔL)/Δadm
			cm	cm	cm		cm	
EJE 6 (a'-A)								
N+19.65	5123	Live	-0.0862	-0.58	325	OK, ΔL< L/360	-0.90	
N+19.65	5123	B.2.3.1	-0.4888			OK, ΔD+ΔL< L/480	-0.68	85%
N+16.00	3972	Live	-0.0757	-0.55	325	OK, ΔL< L/360	-0.90	
N+16.00	3972	B.2.3.1	-0.4724			OK, ΔD+ΔL< L/480	-0.68	81%
N+12.35	2235	Live	-0.0732	-0.51	325	OK, ΔL< L/360	-0.90	
N+12.35	2235	B.2.3.1	-0.4349			OK, ΔD+ΔL< L/480	-0.68	75%
N+8.70	2069	Live	-0.0768	-0.53	325	OK, ΔL< L/360	-0.90	
N+8.70	2069	B.2.3.1	-0.4539			OK, ΔD+ΔL< L/480	-0.68	78%
N+3.75	437	Live	-0.0334	-0.26	325	OK, ΔL< L/360	-0.90	
N+3.75	437	B.2.3.1	-0.2243			OK, ΔD+ΔL< L/480	-0.68	38%
EJE 6 (c'-D)								
N+19.65	3603	Live	-0.3494	-0.93	392	OK, ΔL< L/360	-1.09	
N+19.65	3603	B.2.3.1	-0.5767			OK, ΔD+ΔL< L/240	-1.63	57%
N+16.00	5882	Live	-0.3396	-0.85	392	OK, ΔL< L/360	-1.09	
N+16.00	5882	B.2.3.1	-0.5099			OK, ΔD+ΔL< L/240	-1.63	52%
N+12.35	297	Live	-0.3253	-0.81	392	OK, ΔL< L/360	-1.09	
N+12.35	297	B.2.3.1	-0.4811			OK, ΔD+ΔL< L/480	-0.82	99%
N+8.70	235	Live	-0.2694	-0.58	392	OK, ΔL< L/360	-1.09	
N+8.70	235	B.2.3.1	-0.3121			OK, ΔD+ΔL< L/480	-0.82	71%

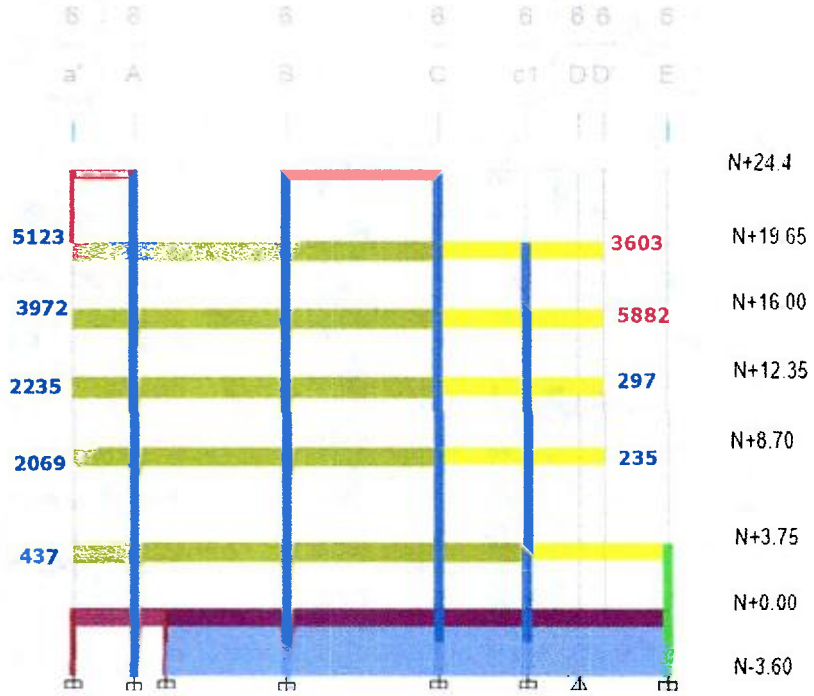


Figura 26 Vigas voladizos edificio B, eje 6

Revisión Eje 3:

TABLE: Joint Displacements

Story	Unique Name	Output Case	Uz cm	ΔD+ΔL cm	Longitud cm	Revision	Δ adm cm	(ΔD+ΔL)/Δadm
EJE 3 (a'-A)								
N+19.65	4676	Live	-0.10	-0.77	325	OK, ΔL< L/360	-0.90	
N+19.65	4676	B.2.3.1	-0.66			OK, ΔD+ΔL< L/240	-13.54	6%
N+16.00	3971	Live	-0.10	-0.74	325	OK, ΔL< L/360	-0.90	
N+16.00	3971	B.2.3.1	-0.64			OK, ΔD+ΔL< L/240	-1.35	55%
N+12.35	2234	Live	-0.10	-0.74	325	OK, ΔL< L/360	-0.90	
N+12.35	2234	B.2.3.1	-0.64			OK, ΔD+ΔL< L/240	-1.35	55%
N+8.70	2068	Live	-0.10	-0.74	325	OK, ΔL< L/360	-0.90	
N+8.70	2068	B.2.3.1	-0.64			OK, ΔD+ΔL< L/240	-1.35	55%
N+3.75	432	Live	-0.11	-0.53	325	OK, ΔL< L/360	-0.90	
N+3.75	432	B.2.3.1	-0.43			OK, ΔD+ΔL< L/480	-0.68	79%
EJE 3 (C-D')								
N+19.65	3602	Live	-0.07	-0.55	841	OK, ΔL< L/360	-2.34	
N+19.65	3602	B.2.3.1	-0.47			OK, ΔD+ΔL< L/480	-1.75	31%
N+16.00	5881	Live	-0.07	-0.53	841	OK, ΔL< L/360	-2.34	
N+16.00	5881	B.2.3.1	-0.46			OK, ΔD+ΔL< L/480	-1.75	30%
N+12.35	291	Live	-0.07	-0.51	841	OK, ΔL< L/360	-2.34	
N+12.35	291	B.2.3.1	-0.44			OK, ΔD+ΔL< L/480	-1.75	29%

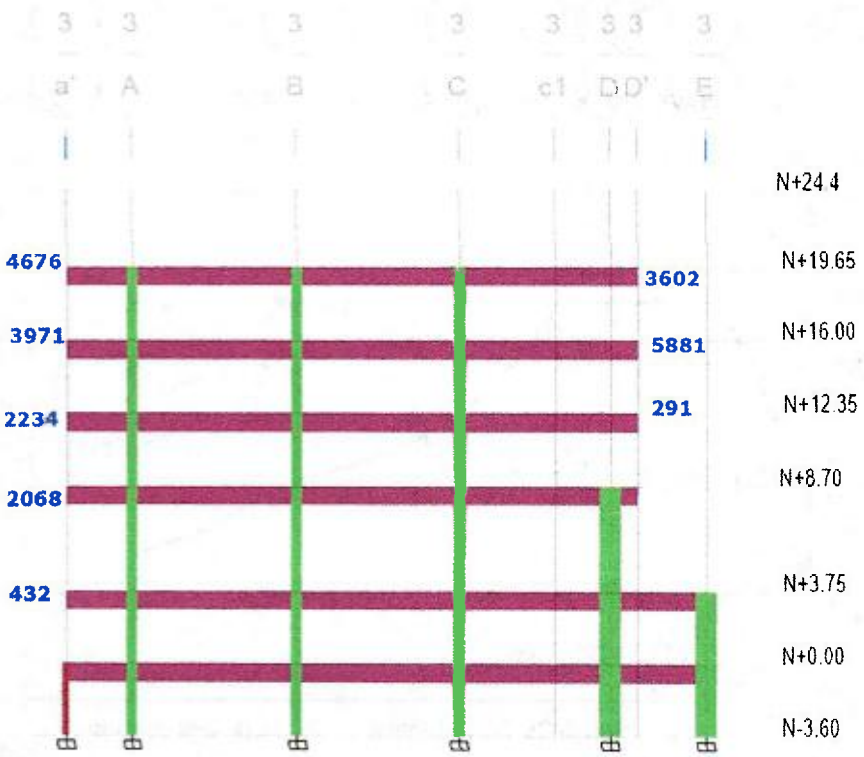


Figura 27 Vigas voladizo edificio B, eje 3

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 critico de 2%, corresponde a un periodo de retorno de 31 años, y está definido mediante **Ad**, 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
PIEDEMONTE A	1.90	2.75	0.14	0.72	3.0	0.10
PIEDEMONTE B	2.20	2.25	0.10	0.51	3.0	0.12
PIEDEMONTE 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

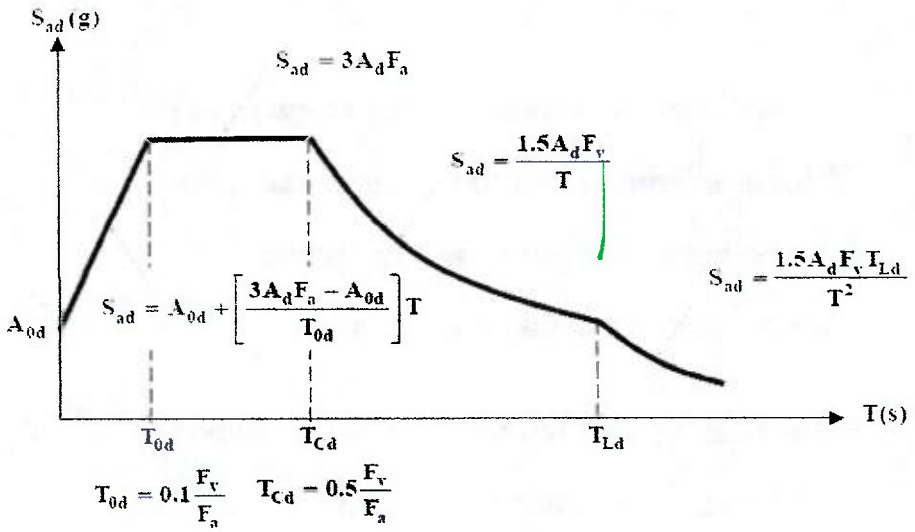


Figura 29 Curva Umbral de daño ξ de 2% del critico

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 aceleracion en la zona de períodos intermedios

S_{ad} = Aceleración espectral de umbral de daño (g)

T = Periodo de vibración (s)

T_{0d} = Período inicial de umbral de daño (s)

T_{Cd} = Período corto de umbral de daño (s)

T_{Ld} = Período 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.

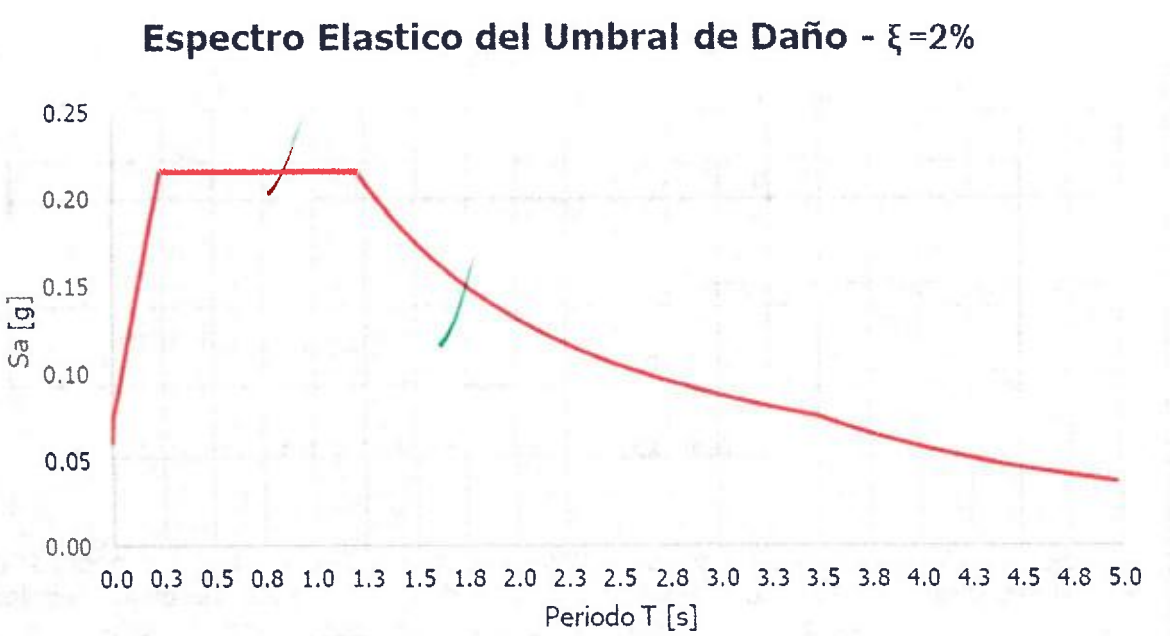


Figura 30 Espectro elástico umbral de daño Aluvial-200

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 hpi:

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	$0.40\% \left(\Delta^{i}_{max} \le 0.0040\, h_{pi}\right)$
de mampostería que cumplen los requisitos de A.12.5.3.2	$0.20\% \left(\Delta^{i}_{max} \le 0.0020\, h_{pi}\right)$

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 elastico 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+24.4	Umby	X	0.06%	306
N+24.4	Umby	Y	0.09%	8
N+24.4	Umbx	X	0.14%	194
N+24.4	Umbx	Y	0.04%	194
N+19.65	Umby	X	0.05%	292
N+19.65	Umby	Y	0.10%	38
N+19.65	Umbx	X	0.11%	64
N+19.65	Umbx	Y	0.05%	42
N+16.00	Umby	X	0.06%	42
N+16.00	Umby	Y	0.10%	311
N+16.00	Umbx	X	0.12%	170
N+16.00	Umbx	Y	0.06%	1446
N+12.35	Umby	X	0.07%	42
N+12.35	Umby	Y	0.11%	305
N+12.35	Umbx	X	0.12%	161
N+12.35	Umbx	Y	0.07%	1446
N+8.70	Umby	X	0.07%	36
N+8.70	Umby	Y	0.15%	34
N+8.70	Umbx	X	0.16%	34
N+8.70	Umbx	Y	0.12%	34
N+3.75	Umby	X	0.05%	273
N+3.75	Umby	Y	0.13%	273
N+3.75	Umbx	X	0.08%	273
N+3.75	Umbx	Y	0.06%	273
N+0.00	Umby	X	0.02%	19
N+0.00	Umby	Y	0.05%	13
N+0.00	Umbx	X	0.08%	19
N+0.00	Umbx	Y	0.03%	19
N-1.75	Umby	X	0.02%	8
N-1.75	Umby	Y	0.05%	8
N-1.75	Umbx	X	0.03%	43
N-1.75	Umbx	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+24.30	Umby Max	X	0.06%	809
N+24.30	Umby Max	Y	0.08%	304
N+24.30	Umbx Max	X	0.10%	809
N+24.30	Umbx Max	Y	0.04%	304
N+21.30	Umby Max	X	0.06%	810
N+21.30	Umby Max	Y	0.10%	32
N+21.30	Umbx Max	X	0.10%	810
N+21.30	Umbx Max	Y	0.07%	36
N+17.65	Umby Max	X	0.07%	36
N+17.65	Umby Max	Y	0.10%	810
N+17.65	Umbx Max	X	0.11%	803
N+17.65	Umbx Max	Y	0.07%	420
N+14.00	Umby Max	X	0.08%	810
N+14.00	Umby Max	Y	0.11%	810
N+14.00	Umbx Max	X	0.11%	810
N+14.00	Umbx Max	Y	0.08%	419
N+10.35	Umby Max	X	0.08%	810
N+10.35	Umby Max	Y	0.11%	810
N+10.35	Umbx Max	X	0.11%	803
N+10.35	Umbx Max	Y	0.09%	419
N+6.10	Umby Max	X	0.09%	803
N+6.10	Umby Max	Y	0.11%	304
N+6.10	Umbx Max	X	0.10%	803
N+6.10	Umbx Max	Y	0.07%	111
N+1.85	Umby Max	X	0.03%	53
N+1.85	Umby Max	Y	0.07%	632
N+1.85	Umbx Max	X	0.04%	53
N+1.85	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 Vu, ocasionados por las reacciones del terreno, los cuales se comparan con el esfuerzo cortante admisible en el concreto ϕvc 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. Después 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 fy = 420 MPa.

Para f´c = 21 MPa y fy = 420 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 db, s > db, o s > 25 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

Relacion de Poisson			0,3	
Longitud pilote:			15	m
Módulo Elasticidad suelo a nivel pilote		Esl	198	Kg/cm2
Módulo Elasticidad suelo bajo nivel pil		Esb	207	Kg/cm2
Módulo Elasticidad suelo promedio pi		Esav	107	Kg/cm2
Relación Módulos 1 (Esl/Esb)		ζ	0,957	
Relación Módulos 2 (Esav/Esl)		ρ	0,539	
Radio medio		rm	10,637	m
Radio pilote		ro	0,75	m
Relación forma		ζ	2,652	
Area total losa		A	635	m2
Cantidad pilotes		n	24	pilotes
Radio promedio losa		rc	26,46	m
Factor interacción losa/pilote		αcp	0,09807	
Rigidez pilotes	Kp		85619	
Rigidez losa	Kr		24000	
Porcentaje losa	X		0,20	
Divid			107264,822	
			0,99730382	
Rigidez Conjunto	Kpr		107323	KN/m
			10,73	Kg/cm3

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

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

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

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

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

$\zeta = \ln(r_m/r_0)$

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

$$K_{pr} = \frac{\left(Kp + Kr\left(1-\alpha cp\right)\right)}{\left(1-\alpha cp^2 + \frac{Kr}{Kp}\right)}$$

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

Kpr: 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: 688m²

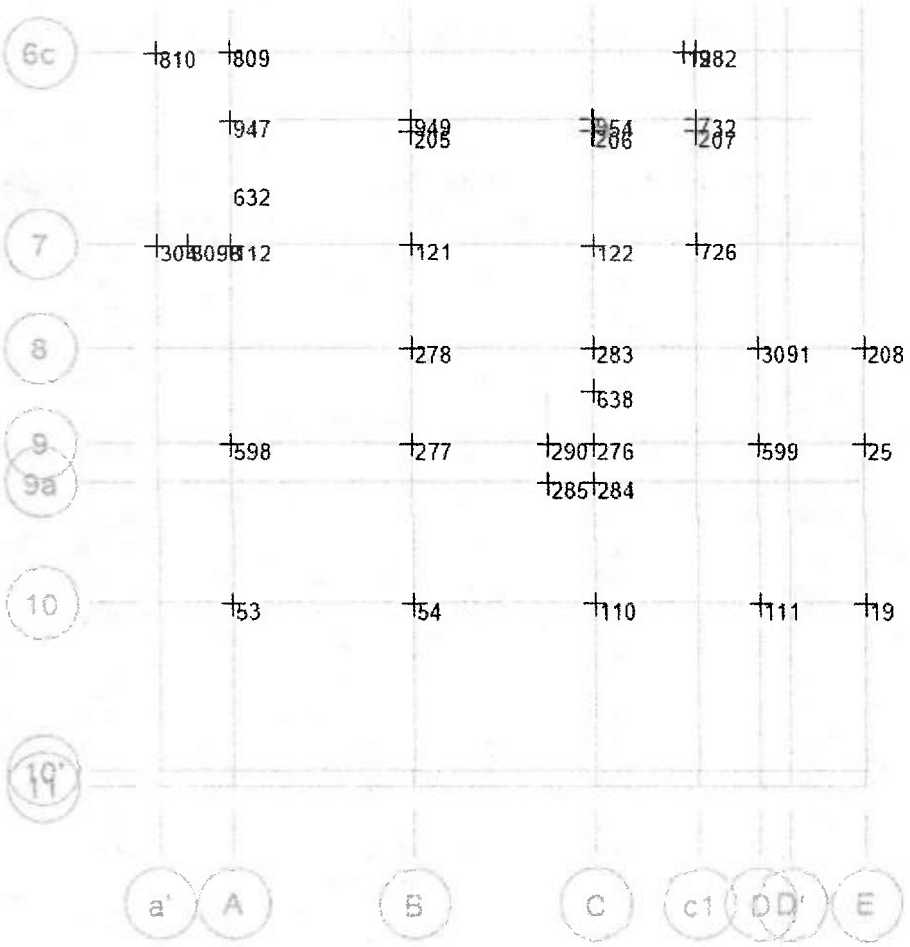


Figura 31 Joint Label base de columnas Edificio A N-1.75

Tabla 18 Reacciones cargas de servicio con sismo en Edificio A

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ tonf	FZ (máx) tonf
N-1.75	53	2165	Env Serv Max	916.6	916.6
N-1.75	53	2165	Env Serv Min	444.2	
N-1.75	54	2166	Env Serv Max	807.0	807.0
N-1.75	54	2166	Env Serv Min	380.1	
N-1.75	110	2167	Env Serv Max	831.8	831.8
N-1.75	110	2167	Env Serv Min	391.7	
N-1.75	111	2168	Env Serv Max	467.8	467.8
N-1.75	111	2168	Env Serv Min	228.8	
N-1.75	112	2177	Env Serv Max	565.2	565.2
N-1.75	112	2177	Env Serv Min	228.8	
N-1.75	121	2178	Env Serv Max	342.9	342.9
N-1.75	121	2178	Env Serv Min	150.2	
N-1.75	122	2179	Env Serv Max	294.1	294.1
N-1.75	122	2179	Env Serv Min	116.5	
N-1.75	276	1207	Env Serv Max	136.2	136.2
N-1.75	276	1207	Env Serv Min	-29.4	
N-1.75	277	8019	Env Serv Max	289.2	289.2
N-1.75	277	8019	Env Serv Min	-11.6	
N-1.75	278	8020	Env Serv Max	188.5	188.5
N-1.75	278	8020	Env Serv Min	-122.7	
N-1.75	283	2162	Env Serv Max	180.8	180.8
N-1.75	283	2162	Env Serv Min	-99.0	
N-1.75	284	8371	Env Serv Max	151.8	151.8
N-1.75	284	8371	Env Serv Min	-8.2	
N-1.75	285	8370	Env Serv Max	224.3	224.3
N-1.75	285	8370	Env Serv Min	27.9	
N-1.75	290	2501	Env Serv Max	159.7	159.7
N-1.75	290	2501	Env Serv Min	-30.6	
N-1.75	304	2171	Env Serv Max	71.0	71.0
N-1.75	304	2171	Env Serv Min	25.2	
N-1.75	598	19	Env Serv Max	336.9	336.9
N-1.75	598	19	Env Serv Min	155.1	
N-1.75	599	21	Env Serv Max	341.6	341.6
N-1.75	599	21	Env Serv Min	158.0	
N-1.75	947	2664	Env Serv Max	244.6	244.6
N-1.75	947	2664	Env Serv Min	66.9	
N-1.75	949	2665	Env Serv Max	41.6	41.6
N-1.75	949	2665	Env Serv Min	16.5	
N-1.75	954	2662	Env Serv Max	26.8	26.8
N-1.75	954	2662	Env Serv Min	10.5	
N-1.75	3091	626	Env Serv Max	275.3	275.3
N-1.75	3091	626	Env Serv Min	115.6	
N-1.75	809	7896	Env Serv Max	134.1	134.1
N-1.75	809	7896	Env Serv Min	-94.2	

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ tonf	FZ (máx) tonf
N-1.75	810	2175	Env Serv Max	40.6	**40.6**
N-1.75	810	2175	Env Serv Min	- 20.7	
N-1.75	3098	2173	Env Serv Max	63.8	**63.8**
N-1.75	3098	2173	Env Serv Min	26.6	
N-1.75	9	109	Env Serv Max	19.4	**19.4**
N-1.75	9	109	Env Serv Min	- 24.4	
N-1.75	726	111	Env Serv Max	439.2	**439.2**
N-1.75	726	111	Env Serv Min	156.7	
N-1.75	732	161	Env Serv Max	29.7	**29.7**
N-1.75	732	161	Env Serv Min	- 8.9	
N-1.75	638	122	Env Serv Max	112.3	**112.3**
N-1.75	638	122	Env Serv Min	- 27.4	
N-1.75	205	2039	Env Serv Max	303.3	**303.3**
N-1.75	205	2039	Env Serv Min	140.5	
N-1.75	206	2137	Env Serv Max	186.3	186.3
N-1.75	206	2137	Env Serv Min	83.1	
N-1.75	207	2222	Env Serv Max	23.8	**23.8**
N-1.75	207	2222	Env Serv Min	6.9	
N-1.75	208	22	Env Serv Max	73.8	**73.8**
N-1.75	208	22	Env Serv Min	27.0	
N-1.75	19	83	Env Serv Max	19.5	**19.5**
N-1.75	19	83	Env Serv Min	9.1	
N-1.75	25	10	Env Serv Max	16.9	**16.9**
N-1.75	25	10	Env Serv Min	8.9	
N-1.75	1282	23	Env Serv Max	34.1	**34.1**
N-1.75	1282	23	Env Serv Min	6.6	

Condición Dinámica: Fz= 8390.4 ton

Condición Dinamica - Servicio Con Sismo

Area Losa	**688 m²**
Peso Concreto Losa Aligerada	1080.2 ton
SobreCarga Losa: 2.6kN/m²*Area	182.53 ton
Carga Viva Losa: 5kN/m²*Area	351.02 ton
Carga Total Cimentación	**1613.7 ton**
Carga SuperEstructura	8390.4 ton
Carga Total Cimentación	1613.7 ton
Fz_diseño	**10004.2 ton**
Qadm	0.96 kg/cm²
	9.6 tof/m²
Capacidad Losa	**6604.8 ton**

Servicio Con Sismo		
Fz_diseño	**10004.2 ton**	**100%**
Aporte Losa	6604.8 ton	66%
Requerido Pilote	3399.4 ton	34%

			Pilotes Usados	
Pilote	**Qadm Dinamico**	**Cantidad Requerida**	**Cantidades**	**Carga**
100cm	137.4 ton	25	**0**	0.0 ton
120cm	177.8 ton	20	**4**	711.1 ton
150cm	246.3 ton	14	**23**	5665.8 ton
			Capacidad Total	**6376.9 ton**

Cumple: 6376.9>3399.4

Aporte Losa	6604.8 ton	**50.9%**
Aporte Pilotes	6376.9 ton	**49.1%**
Total	**12981.70**	**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	892.9	892.9
N-1.75	53	2165	Env Serv SS Min	444.2	
N-1.75	54	2166	Env Serv SS Max	771.6	771.6
N-1.75	54	2166	Env Serv SS Min	380.1	
N-1.75	110	2167	Env Serv SS Max	789.8	789.8
N-1.75	110	2167	Env Serv SS Min	391.7	
N-1.75	111	2168	Env Serv SS Max	449.8	449.8
N-1.75	111	2168	Env Serv SS Min	228.8	
N-1.75	112	2177	Env Serv SS Max	477.9	477.9
N-1.75	112	2177	Env Serv SS Min	228.8	
N-1.75	121	2178	Env Serv SS Max	324.4	324.4
N-1.75	121	2178	Env Serv SS Min	150.2	
N-1.75	122	2179	Env Serv SS Max	285.0	285.0
N-1.75	122	2179	Env Serv SS Min	116.5	
N-1.75	276	1207	Env Serv SS Max	71.3	71.3
N-1.75	276	1207	Env Serv SS Min	24.6	
N-1.75	277	8019	Env Serv SS Max	175.8	175.8
N-1.75	277	8019	Env Serv SS Min	65.4	
N-1.75	278	8020	Env Serv SS Max	42.4	42.4
N-1.75	278	8020	Env Serv SS Min	17.2	
N-1.75	283	2162	Env Serv SS Max	64.9	64.9
N-1.75	283	2162	Env Serv SS Min	10.2	
N-1.75	284	8371	Env Serv SS Max	88.0	88.0
N-1.75	284	8371	Env Serv SS Min	40.7	
N-1.75	285	8370	Env Serv SS Max	153.7	153.7
N-1.75	285	8370	Env Serv SS Min	70.2	
N-1.75	290	2501	Env Serv SS Max	85.3	85.3
N-1.75	290	2501	Env Serv SS Min	29.7	
N-1.75	304	2171	Env Serv SS Max	56.4	56.4
N-1.75	304	2171	Env Serv SS Min	26.3	
N-1.75	598	19	Env Serv SS Max	336.9	336.9
N-1.75	598	19	Env Serv SS Min	155.1	
N-1.75	599	21	Env Serv SS Max	330.3	330.3
N-1.75	599	21	Env Serv SS Min	158.0	
N-1.75	947	2664	Env Serv SS Max	183.1	183.1
N-1.75	947	2664	Env Serv SS Min	88.5	
N-1.75	949	2665	Env Serv SS Max	38.6	38.6
N-1.75	949	2665	Env Serv SS Min	16.5	
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	273.3	273.3

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	Fz	FZ
				tonf	tonf
N-1.75	3091	626	Env Serv SS Min	115.6	
N-1.75	809	7896	Env Serv SS Max	26.1	26.1
N-1.75	809	7896	Env Serv SS Min	8.7	
N-1.75	810	2175	Env Serv SS Max	12.9	12.9
N-1.75	810	2175	Env Serv SS Min	5.4	
N-1.75	3098	2173	Env Serv SS Max	53.6	53.6
N-1.75	3098	2173	Env Serv SS Min	26.6	
N-1.75	9	109	Env Serv SS Max	1.0	1.0
N-1.75	9	109	Env Serv SS Min	- 5.1	
N-1.75	726	111	Env Serv SS Max	439.2	439.2
N-1.75	726	111	Env Serv SS Min	156.7	
N-1.75	732	161	Env Serv SS Max	12.7	12.7
N-1.75	732	161	Env Serv SS Min	4.4	
N-1.75	638	122	Env Serv SS Max	53.4	53.4
N-1.75	638	122	Env Serv SS Min	25.2	
N-1.75	205	2039	Env Serv SS Max	293.5	293.5
N-1.75	205	2039	Env Serv SS Min	140.5	
N-1.75	206	2137	Env Serv SS Max	173.8	173.8
N-1.75	206	2137	Env Serv SS Min	83.1	
N-1.75	207	2222	Env Serv SS Max	18.4	18.4
N-1.75	207	2222	Env Serv SS Min	8.2	
N-1.75	208	22	Env Serv SS Max	73.8	73.8
N-1.75	208	22	Env Serv SS Min	27.0	
N-1.75	19	83	Env Serv SS Max	18.7	18.7
N-1.75	19	83	Env Serv SS Min	9.1	
N-1.75	25	10	Env Serv SS Max	15.2	15.2
N-1.75	25	10	Env Serv SS Min	8.9	
N-1.75	1282	23	Env Serv SS Max	26.6	26.6
N-1.75	1282	23	Env Serv SS Min	10.2	

Condición Estática ΣFz= 7135.1 ton

Condición Estática: Servicio SIN Sismo

Area Losa	**688 m²**
Peso Concreto Losa Aligerada	1080.2 ton
SobreCarga Losa: 2.6kN/m²*Area	182.53 ton
Carga Viva Losa: 5kN/m²*Area	351.02 ton
Carga Total Cimentación	**1613.7 ton**
Carga SuperEstructura	7135.1 ton
Carga Total Cimentación	1613.7 ton
Fz_diseño	**8748.8 ton**
Qadm	0.96 kg/cm²
	9.6 tof/m²
Capacidad Losa	**6604.8 ton**

Servicio Sin Sismo		
Fz_diseño	8748.8 ton	100%
Aporte Losa	**6604.8 ton**	**75%**
Requerido Pilotes	**2144.0 ton**	**25%**

Pilote	Qadm Estatico	Cantidad Requerida	Cantidad Usada	Carga
100cm	66.1 ton	33	**0**	0.0 ton
120cm	80.2 ton	27	**4**	320.9 ton
150cm	102.1 ton	22	**23**	2347.6 ton
			Capacidad Total	**2668.5 ton**

Cumple: 2668.5>2144

Aporte Losa	6604.8 ton	**71%**
Aporte Pilotes	2668.5 ton	**29%**
Total	**9273.33**	**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.

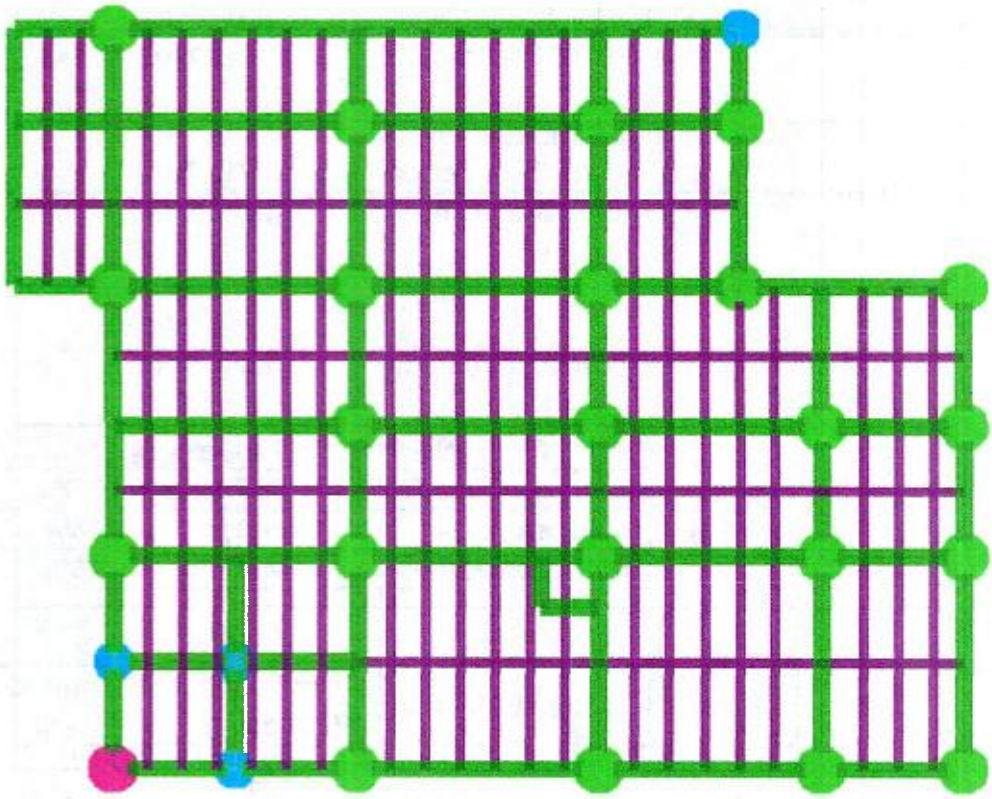


Figura 32 Planta Estructural Cimentación Edificio A N-1.75

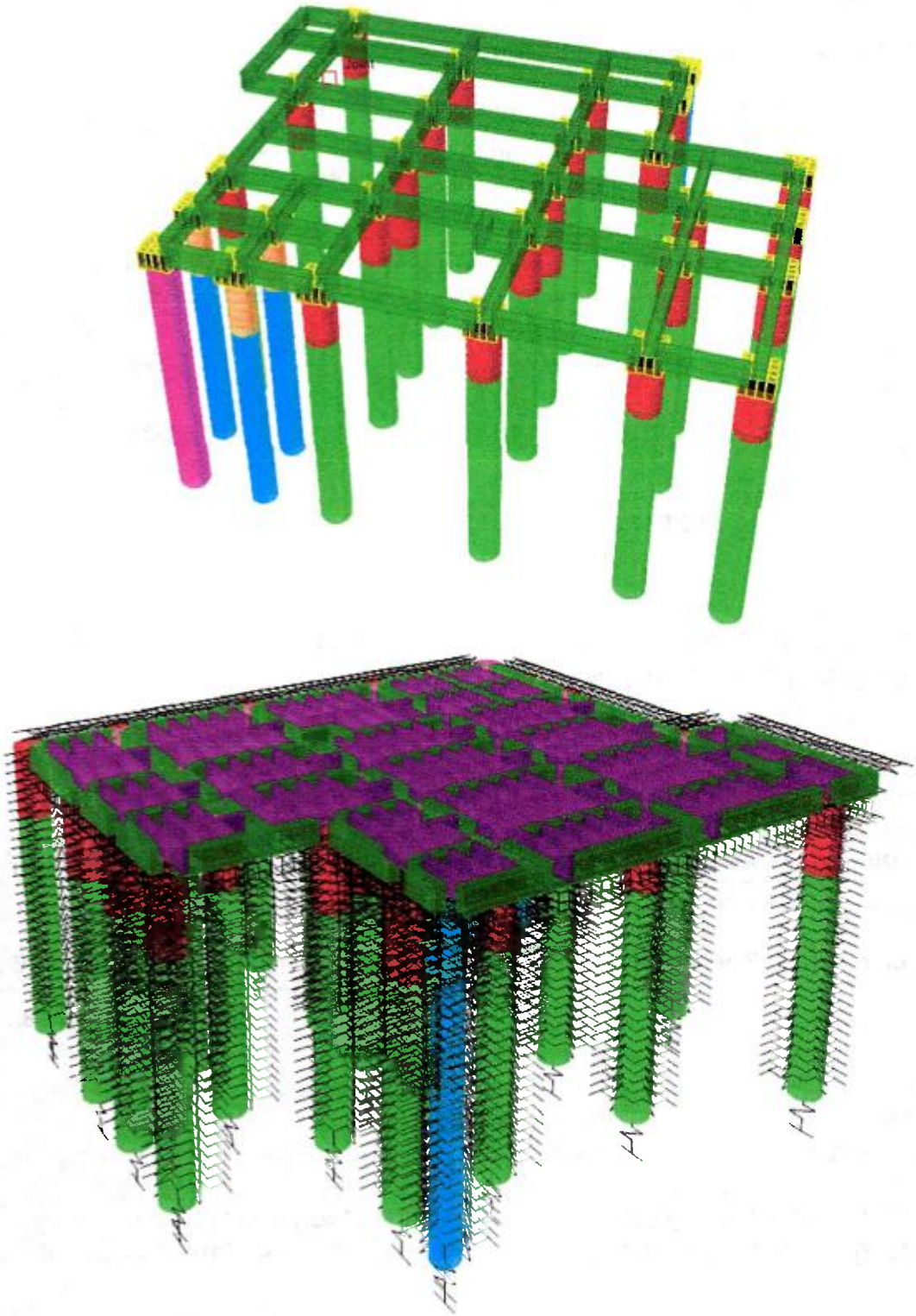


Figura 33 Modelo de Interacción de la Cimentación del Edificio A.

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 maximos admisibles sobre el pilote, o sobre el fuste cuando se trate de pilotes acampanados en su base, son los siguientes:
>
> (a) Esfuerzos de compresion causados por las carga gravitacionales (no incluye efectos de hincado):
>
> $$D + L \leq 0.25 f'_c A_g \qquad \text{(C.15-2)}$$
>
> $$1.2D + 1.6L \leq 0.35 f'_c A_g \qquad \text{(C.15-3)}$$
>
> f'c: 210kg/cm²

D: Carga Muerta Super Estructura: 7771.4 ton
L: Carga Viva Super Estructura: 2343.2 ton

		Pilotes Usados		C.15.11.3	
Pilote	**Area**	**Cantidades**	**Area Total**	**0.25*Ag*f'c**	**0.35*Ag*f'c**
120cm	1.1 m²	**4**	4.5 m²	2375.0 ton	3325.1 ton
150cm	1.8 m²	**23**	40.6 m²	21338.3 ton	29873.6 ton
			Σ=	**23713.3 ton**	**33198.7 ton**

D+L= 10115 ton
1.2D+1.6L= 13075 ton

(C.15-2) D+L < 0.25*Ag*f'c: **10114.5927 ton < 23713.3 ton** Cumple
(C.15-2) 1.2D+1.6 L < 0.25*Ag*f'c: **13074.77188 ton < 33198.7 to** 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	Warnings
				cm				cm²	
N-1.75	C15	572	P150R3	0	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75	C15	572	P150R3	25	Check	0.092	B.2.4.5-1	122.32	No Message
N-1.75	C15	572	P150R3	50	Check	0.092	B.2.4.5-1	122.32	No Message
N-1.75	C17	573	P150R3	0	Check	0.099	B.2.4.5-1	122.32	No Message
N-1.75	C17	573	P150R3	25	Check	0.098	B.2.4.5-1	122.32	No Message
N-1.75	C17	573	P150R3	50	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75	C18	574	P150R3	0	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75	C18	574	P150R3	25	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75	C18	574	P150R3	50	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75	C20	575	P150R3	0	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75	C20	575	P150R3	25	Check	0.095	B.2.4.5-1	122.32	No Message
N-1.75	C20	575	P150R3	50	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75	C21	576	P150R3	0	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75	C21	576	P150R3	25	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75	C21	576	P150R3	50	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75	C23	577	P150R3	0	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75	C23	577	P150R3	25	Check	0.092	B.2.4.5-1	122.32	No Message
N-1.75	C23	577	P150R3	50	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75	C25	578	P150R3	0	Check	0.094	B.2.4.5-1	122.32	No Message
N-1.75	C25	578	P150R3	25	Check	0.096	B.2.4.5-1	122.32	No Message
N-1.75	C25	578	P150R3	50	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75	C26	579	P150R3	0	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75	C26	579	P150R3	25	Check	0.099	B.2.4.5-1	122.32	No Message
N-1.75	C26	579	P150R3	50	Check	0.1	B.2.4.5-1	122.32	No Message
N-1.75	C27	580	P150R3	0	Check	0.1	B.2.4.5-1	122.32	No Message
N-1.75	C27	580	P150R3	25	Check	0.101	B.2.4.5-1	122.32	No Message
N-1.75	C27	580	P150R3	50	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75	C28	581	P150R3	0	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75	C28	581	P150R3	25	Check	0.103	B.2.4.5-1	122.32	No Message
N-1.75	C28	581	P150R3	50	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75	C29	582	P150R3	0	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75	C29	582	P150R3	25	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75	C29	582	P150R3	50	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75	C30	583	P150R3	0	Check	0.104	B.2.4.5-1	122.32	No Message
N-1.75	C30	583	P150R3	25	Check	0.103	B.2.4.5-1	122.32	No Message
N-1.75	C30	583	P150R3	50	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75	C31	584	P150R3	0	Check	0.102	B.2.4.5-1	122.32	No Message
N-1.75	C31	584	P150R3	25	Check	0.099	B.2.4.5-1	122.32	No Message
N-1.75	C31	584	P150R3	50	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75	C32	585	P150R3	0	Check	0.097	B.2.4.5-1	122.32	No Message
N-1.75	C32	585	P150R3	25	Check	0.093	B.2.4.5-1	122.32	No Message
N-1.75	C32	585	P150R3	50	Check	0.09	B.2.4.5-1	122.32	No Message
N-1.75	C33	586	P150R3	0	Check	0.09	B.2.4.5-1	122.32	No Message
N-1.75	C33	586	P150R3	25	Check	0.09	B.2.4.5-1	122.32	No Message
N-1.75	C33	586	P150R3	50	Check	0.098	B.2.4.5-1	122.32	No Message
N-1.75	C34	587	P150R2	0	Check	0.091	B.2.4.5-1	188.45	No Message
N-1.75	C34	587	P150R2	25	Check	0.1	B.2.4.5-1	188.45	No Message
N-1.75	C34	587	P150R2	50	Check	0.11	B.2.4.5-1	188.45	No Message
N-1.75	C35	588	P150R2	0	Check	0.11	B.2.4.5-1	188.45	No Message
N-1.75	C35	588	P150R2	25	Check	0.123	B.2.4.5-1	188.45	No Message
N-1.75	C35	588	P150R2	50	Check	0.137	B.2.4.5-1	188.45	No Message
N-1.75	C36	589	P150R2	0	Check	0.137	B.2.4.5-1	188.45	No Message
N-1.75	C36	589	P150R2	25	Check	0.152	B.2.4.5-1	188.45	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C37	590	P150R2	0	Check	0.164	B.2.4.5-1	188.45	No Message
N-1.75	C37	590	P150R2	25	Check	0.177	B.2.4.5-1	188.45	No Message
N-1.75	C37	590	P150R2	50	Check	0.192	B.2.4.5-1	188.45	No Message
N-1.75	C38	591	P150R2	0	Check	0.192	B.2.4.5-1	188.45	No Message
N-1.75	C38	591	P150R2	25	Check	0.212	B.2.4.5-1	188.45	No Message
N-1.75	C38	591	P150R2	50	Check	0.233	B.2.4.5-1	188.45	No Message
N-1.75	C39	592	P150R2	0	Check	0.233	B.2.4.5-1	188.45	No Message
N-1.75	C39	592	P150R2	25	Check	0.26	B.2.4.5-1	188.45	No Message
N-1.75	C39	592	P150R2	50	Check	0.293	B.2.4.5-1	188.45	No Message
N-1.75	C40	593	P150R2	0	Check	0.293	B.2.4.5-1	188.45	No Message
N-1.75	C40	593	P150R2	25	Check	0.329	B.2.4.5-1	188.45	No Message
N-1.75	C40	593	P150R2	50	Check	0.364	B.2.4.5-1	188.45	No Message
N-1.75	C41	594	P150R2	0	Check	0.364	B.2.4.5-1	188.45	No Message
N-1.75	C41	594	P150R2	25	Check	0.402	B.2.4.5-1	188.45	No Message
N-1.75	C41	594	P150R2	50	Check	0.44	B.2.4.5-1	188.45	No Message
N-1.75	C42	595	P150R2	0	Check	0.44	B.2.4.5-1	188.45	No Message
N-1.75	C42	595	P150R2	25	Check	0.479	B.2.4.5-1	188.45	No Message
N-1.75	C42	595	P150R2	50	Check	0.519	B.2.4.5-1	188.45	No Message
N-1.75	C43	596	P150R2	0	Check	0.519	B.2.4.5-1	188.45	No Message
N-1.75	C43	596	P150R2	25	Check	0.56	B.2.4.5-1	188.45	No Message
N-1.75	C43	596	P150R2	50	Check	0.602	B.2.4.5-1	188.45	No Message
N-1.75	C44	597	P150R2	0	Check	0.602	B.2.4.5-1	188.45	No Message
N-1.75	C44	597	P150R2	25	Check	0.645	B.2.4.5-8	188.45	No Message
N-1.75	C44	597	P150R2	50	Check	0.69	B.2.4.5-8	188.45	No Message
N-1.75	C45	598	P150R2	0	Check	0.69	B.2.4.5-8	188.45	No Message
N-1.75	C45	598	P150R2	25	Check	0.736	B.2.4.5-8	188.45	No Message
N-1.75	C45	598	P150R2	50	Check	0.782	B.2.4.5-8	188.45	No Message
N-1.75	C46	599	P150R2	0	Check	0.782	B.2.4.5-8	188.45	No Message
N-1.75	C46	599	P150R2	25	Check	0.828	B.2.4.5-8	188.45	No Message
N-1.75	C46	599	P150R2	50	Check	0.875	B.2.4.5-8	188.45	No Message
N-1.75	C47	600	P150R2	0	Check	0.875	B.2.4.5-8	188.45	No Message
N-1.75	C47	600	P150R2	25	Check	0.922	B.2.4.5-8	188.45	No Message
N-1.75	C47	600	P150R2	50	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75	C48	601	P150R2	0	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75	C48	601	P150R2	0.1	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75	C48	601	P150R2	0.2	Check	0.97	B.2.4.5-8	188.45	No Message
N-1.75	C49	602	P150R1	0	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C49	602	P150R1	25	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C49	602	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C50	603	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C50	603	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C50	603	P150R1	50	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75	C51	604	P150R1	0	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75	C51	604	P150R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C51	604	P150R1	50	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C52	605	P150R1	0	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C52	605	P150R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C52	605	P150R1	50	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C53	606	P150R1	0	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C53	606	P150R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C53	606	P150R1	50	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75	C54	607	P150R1	0	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75	C54	607	P150R1	25	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75	C54	607	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C55	608	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C55	608	P150R1	25	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C56	609	P150R1	0	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C56	609	P150R1	25	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C56	609	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C57	610	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C57	610	P150R1	25	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75	C57	610	P150R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C58	611	P150R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C58	611	P150R1	25	Check	0.072	B.2.4.7-2	61.16	No Message
N-1.75	C58	611	P150R1	50	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C59	612	P150R1	0	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C59	612	P150R1	25	Check	0.092	B.2.4.7-2	61.16	No Message
N-1.75	C59	612	P150R1	50	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75	C60	613	P150R1	0	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75	C60	613	P150R1	25	Check	0.111	B.2.4.7-2	61.16	No Message
N-1.75	C60	613	P150R1	50	Check	0.121	B.2.4.7-2	61.16	No Message
N-1.75	C61	614	P150R1	0	Check	0.121	B.2.4.7-2	61.16	No Message
N-1.75	C61	614	P150R1	25	Check	0.13	B.2.4.7-2	61.16	No Message
N-1.75	C61	614	P150R1	50	Check	0.139	B.2.4.7-2	61.16	No Message
N-1.75	C62	615	P150R1	0	Check	0.139	B.2.4.7-2	61.16	No Message
N-1.75	C62	615	P150R1	25	Check	0.147	B.2.4.7-2	61.16	No Message
N-1.75	C62	615	P150R1	50	Check	0.155	B.2.4.7-8	61.16	No Message
N-1.75	C63	616	P150R1	0	Check	0.155	B.2.4.7-8	61.16	No Message
N-1.75	C63	616	P150R1	25	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75	C63	616	P150R1	50	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75	C64	617	P150R1	0	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75	C64	617	P150R1	25	Check	0.206	B.2.4.7-2	61.16	No Message
N-1.75	C64	617	P150R1	50	Check	0.223	B.2.4.7-2	61.16	No Message
N-1.75	C65	618	P150R1	0	Check	0.223	B.2.4.7-2	61.16	No Message
N-1.75	C65	618	P150R1	25	Check	0.241	B.2.4.7-2	61.16	No Message
N-1.75	C65	618	P150R1	50	Check	0.259	B.2.4.7-2	61.16	No Message
N-1.75	C66	619	P150R1	0	Check	0.259	B.2.4.7-2	61.16	No Message
N-1.75	C66	619	P150R1	25	Check	0.277	B.2.4.7-2	61.16	No Message
N-1.75	C66	619	P150R1	50	Check	0.302	B.2.4.5-2	61.16	No Message
N-1.75	C67	620	P150R1	0	Check	0.302	B.2.4.5-2	61.16	No Message
N-1.75	C67	620	P150R1	25	Check	0.33	B.2.4.5-2	61.16	No Message
N-1.75	C67	620	P150R1	50	Check	0.358	B.2.4.5-2	61.16	No Message
N-1.75	C68	621	P150R1	0	Check	0.358	B.2.4.5-2	61.16	No Message
N-1.75	C68	621	P150R1	25	Check	0.387	B.2.4.5-2	61.16	No Message
N-1.75	C68	621	P150R1	50	Check	0.416	B.2.4.5-2	61.16	No Message
N-1.75	C69	622	P150R1	0	Check	0.416	B.2.4.5-2	61.16	No Message
N-1.75	C69	622	P150R1	25	Check	0.446	B.2.4.5-2	61.16	No Message
N-1.75	C69	622	P150R1	50	Check	0.476	B.2.4.5-2	61.16	No Message
N-1.75	C70	623	P150R1	0	Check	0.476	B.2.4.5-2	61.16	No Message
N-1.75	C70	623	P150R1	25	Check	0.507	B.2.4.5-1	61.16	No Message
N-1.75	C70	623	P150R1	50	Check	0.542	B.2.4.5-1	61.16	No Message
N-1.75	C71	624	P150R4	0	Check	0.29	B.2.4.5-1	122.32	No Message
N-1.75	C71	624	P150R4	25	Check	0.309	B.2.4.5-1	122.32	No Message
N-1.75	C71	624	P150R4	50	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75	C72	625	P150R4	0	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75	C72	625	P150R4	25	Check	0.346	B.2.4.5-1	122.32	No Message
N-1.75	C72	625	P150R4	50	Check	0.365	B.2.4.5-1	122.32	No Message
N-1.75	C73	626	P150R4	0	Check	0.365	B.2.4.5-1	122.32	No Message
N-1.75	C73	626	P150R4	25	Check	0.384	B.2.4.5-1	122.32	No Message
N-1.75	C73	626	P150R4	50	Check	0.403	B.2.4.5-1	122.32	No Message
N-1.75	C74	627	P150R4	0	Check	0.403	B.2.4.5-1	122.32	No Message
N-1.75	C74	627	P150R4	25	Check	0.422	B.2.4.5-1	122.32	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C75	628	P150R4	0	Check	0.443	B.2.4.5-1	122.32	No Message
N-1.75	C75	628	P150R4	25	Check	0.463	B.2.4.5-1	122.32	No Message
N-1.75	C75	628	P150R4	50	Check	0.484	B.2.4.5-1	122.32	No Message
N-1.75	C76	629	P150R4	0	Check	0.484	B.2.4.5-1	122.32	No Message
N-1.75	C76	629	P150R4	25	Check	0.505	B.2.4.5-1	122.32	No Message
N-1.75	C76	629	P150R4	50	Check	0.527	B.2.4.5-1	122.32	No Message
N-1.75	C77	630	P150R4	0	Check	0.527	B.2.4.5-1	122.32	No Message
N-1.75	C77	630	P150R4	25	Check	0.548	B.2.4.5-1	122.32	No Message
N-1.75	C77	630	P150R4	50	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75	C78	631	P150R4	0	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75	C78	631	P150R4	0.1	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75	C78	631	P150R4	0.2	Check	0.569	B.2.4.5-1	122.32	No Message
N-1.75	C79	632	P150R1	0	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75	C79	632	P150R1	25	Check	0.037	B.2.4.5-8	61.16	No Message
N-1.75	C79	632	P150R1	50	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75	C80	633	P150R1	0	Check	0.039	B.2.4.5-8	61.16	No Message
N-1.75	C80	633	P150R1	25	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75	C80	633	P150R1	50	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75	C81	634	P150R1	0	Check	0.038	B.2.4.5-8	61.16	No Message
N-1.75	C81	634	P150R1	25	Check	0.037	B.2.4.5-8	61.16	No Message
N-1.75	C81	634	P150R1	50	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75	C82	635	P150R1	0	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75	C82	635	P150R1	25	Check	0.036	B.2.4.5-8	61.16	No Message
N-1.75	C82	635	P150R1	50	Check	0.035	B.2.4.5-8	61.16	No Message
N-1.75	C83	636	P150R1	0	Check	0.035	B.2.4.5-8	61.16	No Message
N-1.75	C83	636	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C83	636	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C84	637	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C84	637	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C84	637	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C85	638	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C85	638	P150R1	25	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C85	638	P150R1	50	Check	0.039	B.2.4.7-8	61.16	No Message
N-1.75	C86	639	P150R1	0	Check	0.039	B.2.4.7-8	61.16	No Message
N-1.75	C86	639	P150R1	25	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75	C86	639	P150R1	50	Check	0.059	B.2.4.7-8	61.16	No Message
N-1.75	C87	640	P150R1	0	Check	0.059	B.2.4.7-8	61.16	No Message
N-1.75	C87	640	P150R1	25	Check	0.069	B.2.4.7-8	61.16	No Message
N-1.75	C87	640	P150R1	50	Check	0.08	B.2.4.7-8	61.16	No Message
N-1.75	C88	641	P150R1	0	Check	0.08	B.2.4.7-8	61.16	No Message
N-1.75	C88	641	P150R1	25	Check	0.091	B.2.4.7-8	61.16	No Message
N-1.75	C88	641	P150R1	50	Check	0.102	B.2.4.7-8	61.16	No Message
N-1.75	C89	642	P150R1	0	Check	0.102	B.2.4.7-8	61.16	No Message
N-1.75	C89	642	P150R1	25	Check	0.113	B.2.4.7-8	61.16	No Message
N-1.75	C89	642	P150R1	50	Check	0.124	B.2.4.7-8	61.16	No Message
N-1.75	C90	643	P150R1	0	Check	0.124	B.2.4.7-8	61.16	No Message
N-1.75	C90	643	P150R1	25	Check	0.135	B.2.4.7-8	61.16	No Message
N-1.75	C90	643	P150R1	50	Check	0.146	B.2.4.7-8	61.16	No Message
N-1.75	C91	644	P150R1	0	Check	0.146	B.2.4.7-8	61.16	No Message
N-1.75	C91	644	P150R1	25	Check	0.157	B.2.4.7-8	61.16	No Message
N-1.75	C91	644	P150R1	50	Check	0.168	B.2.4.7-8	61.16	No Message
N-1.75	C92	645	P150R1	0	Check	0.168	B.2.4.7-8	61.16	No Message
N-1.75	C92	645	P150R1	25	Check	0.178	B.2.4.7-8	61.16	No Message
N-1.75	C92	645	P150R1	50	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75	C93	646	P150R1	0	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75	C93	646	P150R1	25	Check	0.204	B.2.4.7-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C94	647	P150R1	0	Check	0.217	B.2.4.7-8	61.16	No Message
N-1.75	C94	647	P150R1	25	Check	0.23	B.2.4.7-8	61.16	No Message
N-1.75	C94	647	P150R1	50	Check	0.243	B.2.4.7-8	61.16	No Message
N-1.75	C95	648	P150R1	0	Check	0.243	B.2.4.7-8	61.16	No Message
N-1.75	C95	648	P150R1	25	Check	0.255	B.2.4.7-8	61.16	No Message
N-1.75	C95	648	P150R1	50	Check	0.268	B.2.4.7-8	61.16	No Message
N-1.75	C96	649	P150R1	0	Check	0.268	B.2.4.7-8	61.16	No Message
N-1.75	C96	649	P150R1	25	Check	0.279	B.2.4.7-8	61.16	No Message
N-1.75	C96	649	P150R1	50	Check	0.292	B.2.4.7-8	61.16	No Message
N-1.75	C97	650	P150R1	0	Check	0.292	B.2.4.7-8	61.16	No Message
N-1.75	C97	650	P150R1	25	Check	0.306	B.2.4.5-8	61.16	No Message
N-1.75	C97	650	P150R1	50	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75	C98	651	P150R1	0	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75	C98	651	P150R1	25	Check	0.341	B.2.4.5-8	61.16	No Message
N-1.75	C98	651	P150R1	50	Check	0.361	B.2.4.5-1	61.16	No Message
N-1.75	C99	652	P150R1	0	Check	0.361	B.2.4.5-1	61.16	No Message
N-1.75	C99	652	P150R1	25	Check	0.383	B.2.4.5-1	61.16	No Message
N-1.75	C99	652	P150R1	50	Check	0.405	B.2.4.5-1	61.16	No Message
N-1.75	C100	653	P150R1	0	Check	0.405	B.2.4.5-1	61.16	No Message
N-1.75	C100	653	P150R1	25	Check	0.426	B.2.4.5-1	61.16	No Message
N-1.75	C100	653	P150R1	50	Check	0.448	B.2.4.5-1	61.16	No Message
N-1.75	C101	654	P150R4	0	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75	C101	654	P150R4	25	Check	0.251	B.2.4.5-1	122.32	No Message
N-1.75	C101	654	P150R4	50	Check	0.262	B.2.4.5-1	122.32	No Message
N-1.75	C102	655	P150R4	0	Check	0.262	B.2.4.5-1	122.32	No Message
N-1.75	C102	655	P150R4	25	Check	0.273	B.2.4.5-1	122.32	No Message
N-1.75	C102	655	P150R4	50	Check	0.287	B.2.4.5-8	122.32	No Message
N-1.75	C103	656	P150R4	0	Check	0.287	B.2.4.5-8	122.32	No Message
N-1.75	C103	656	P150R4	25	Check	0.3	B.2.4.5-8	122.32	No Message
N-1.75	C103	656	P150R4	50	Check	0.314	B.2.4.5-8	122.32	No Message
N-1.75	C104	657	P150R4	0	Check	0.314	B.2.4.5-8	122.32	No Message
N-1.75	C104	657	P150R4	25	Check	0.327	B.2.4.5-8	122.32	No Message
N-1.75	C104	657	P150R4	50	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75	C105	658	P150R4	0	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75	C105	658	P150R4	25	Check	0.36	B.2.4.5-8	122.32	No Message
N-1.75	C105	658	P150R4	50	Check	0.378	B.2.4.5-8	122.32	No Message
N-1.75	C106	659	P150R4	0	Check	0.378	B.2.4.5-8	122.32	No Message
N-1.75	C106	659	P150R4	25	Check	0.397	B.2.4.5-8	122.32	No Message
N-1.75	C106	659	P150R4	50	Check	0.417	B.2.4.5-8	122.32	No Message
N-1.75	C107	660	P150R4	0	Check	0.417	B.2.4.5-8	122.32	No Message
N-1.75	C107	660	P150R4	25	Check	0.438	B.2.4.5-8	122.32	No Message
N-1.75	C107	660	P150R4	50	Check	0.46	B.2.4.5-8	122.32	No Message
N-1.75	C108	661	P150R4	0	Check	0.46	B.2.4.5-8	122.32	No Message
N-1.75	C108	661	P150R4	0.1	Check	0.46	B.2.4.5-8	122.32	No Message
N-1.75	C108	661	P150R4	0.2	Check	0.461	B.2.4.5-8	122.32	No Message
N-1.75	C109	662	P150R1	0	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75	C109	662	P150R1	25	Check	0.055	B.2.4.7-8	61.16	No Message
N-1.75	C109	662	P150R1	50	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75	C110	663	P150R1	0	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75	C110	663	P150R1	25	Check	0.074	B.2.4.7-8	61.16	No Message
N-1.75	C110	663	P150R1	50	Check	0.083	B.2.4.7-8	61.16	No Message
N-1.75	C111	664	P150R1	0	Check	0.083	B.2.4.7-8	61.16	No Message
N-1.75	C111	664	P150R1	25	Check	0.091	B.2.4.7-8	61.16	No Message
N-1.75	C111	664	P150R1	50	Check	0.1	B.2.4.7-8	61.16	No Message
N-1.75	C112	665	P150R1	0	Check	0.1	B.2.4.7-8	61.16	No Message
N-1.75	C112	665	P150R1	25	Check	0.108	B.2.4.7-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C113	666	P150R1	0	Check	0.116	B.2.4.7-8	61.16	No Message
N-1.75	C113	666	P150R1	25	Check	0.125	B.2.4.7-8	61.16	No Message
N-1.75	C113	666	P150R1	50	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75	C114	667	P150R1	0	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75	C114	667	P150R1	25	Check	0.142	B.2.4.7-8	61.16	No Message
N-1.75	C114	667	P150R1	50	Check	0.15	B.2.4.7-8	61.16	No Message
N-1.75	C115	668	P150R1	0	Check	0.15	B.2.4.7-8	61.16	No Message
N-1.75	C115	668	P150R1	25	Check	0.16	B.2.4.7-8	61.16	No Message
N-1.75	C115	668	P150R1	50	Check	0.169	B.2.4.7-8	61.16	No Message
N-1.75	C116	669	P150R1	0	Check	0.169	B.2.4.7-8	61.16	No Message
N-1.75	C116	669	P150R1	25	Check	0.18	B.2.4.7-8	61.16	No Message
N-1.75	C116	669	P150R1	50	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75	C117	670	P150R1	0	Check	0.19	B.2.4.7-8	61.16	No Message
N-1.75	C117	670	P150R1	25	Check	0.202	B.2.4.7-8	61.16	No Message
N-1.75	C117	670	P150R1	50	Check	0.213	B.2.4.7-8	61.16	No Message
N-1.75	C118	671	P150R1	0	Check	0.213	B.2.4.7-8	61.16	No Message
N-1.75	C118	671	P150R1	25	Check	0.225	B.2.4.7-8	61.16	No Message
N-1.75	C118	671	P150R1	50	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75	C119	672	P150R1	0	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75	C119	672	P150R1	25	Check	0.25	B.2.4.7-8	61.16	No Message
N-1.75	C119	672	P150R1	50	Check	0.263	B.2.4.7-8	61.16	No Message
N-1.75	C120	673	P150R1	0	Check	0.263	B.2.4.7-8	61.16	No Message
N-1.75	C120	673	P150R1	25	Check	0.278	B.2.4.5-8	61.16	No Message
N-1.75	C120	673	P150R1	50	Check	0.293	B.2.4.5-8	61.16	No Message
N-1.75	C121	674	P150R1	0	Check	0.293	B.2.4.5-8	61.16	No Message
N-1.75	C121	674	P150R1	25	Check	0.308	B.2.4.5-8	61.16	No Message
N-1.75	C121	674	P150R1	50	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75	C122	675	P150R1	0	Check	0.324	B.2.4.5-8	61.16	No Message
N-1.75	C122	675	P150R1	25	Check	0.34	B.2.4.5-8	61.16	No Message
N-1.75	C122	675	P150R1	50	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75	C123	676	P150R1	0	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75	C123	676	P150R1	25	Check	0.371	B.2.4.5-8	61.16	No Message
N-1.75	C123	676	P150R1	50	Check	0.387	B.2.4.5-8	61.16	No Message
N-1.75	C124	677	P150R1	0	Check	0.387	B.2.4.5-8	61.16	No Message
N-1.75	C124	677	P150R1	25	Check	0.402	B.2.4.5-8	61.16	No Message
N-1.75	C124	677	P150R1	50	Check	0.417	B.2.4.5-8	61.16	No Message
N-1.75	C125	678	P150R1	0	Check	0.417	B.2.4.5-8	61.16	No Message
N-1.75	C125	678	P150R1	25	Check	0.432	B.2.4.5-8	61.16	No Message
N-1.75	C125	678	P150R1	50	Check	0.446	B.2.4.5-8	61.16	No Message
N-1.75	C126	679	P150R1	0	Check	0.446	B.2.4.5-8	61.16	No Message
N-1.75	C126	679	P150R1	25	Check	0.46	B.2.4.5-8	61.16	No Message
N-1.75	C126	679	P150R1	50	Check	0.475	B.2.4.5-8	61.16	No Message
N-1.75	C127	680	P150R1	0	Check	0.475	B.2.4.5-8	61.16	No Message
N-1.75	C127	680	P150R1	25	Check	0.489	B.2.4.5-8	61.16	No Message
N-1.75	C127	680	P150R1	50	Check	0.503	B.2.4.5-8	61.16	No Message
N-1.75	C128	681	P150R1	0	Check	0.503	B.2.4.5-8	61.16	No Message
N-1.75	C128	681	P150R1	25	Check	0.517	B.2.4.5-8	61.16	No Message
N-1.75	C128	681	P150R1	50	Check	0.532	B.2.4.5-8	61.16	No Message
N-1.75	C129	682	P150R1	0	Check	0.532	B.2.4.5-8	61.16	No Message
N-1.75	C129	682	P150R1	25	Check	0.546	B.2.4.5-8	61.16	No Message
N-1.75	C129	682	P150R1	50	Check	0.56	B.2.4.5-8	61.16	No Message
N-1.75	C130	683	P150R1	0	Check	0.56	B.2.4.5-8	61.16	No Message
N-1.75	C130	683	P150R1	25	Check	0.573	B.2.4.5-8	61.16	No Message
N-1.75	C130	683	P150R1	50	Check	0.586	B.2.4.5-8	61.16	No Message
N-1.75	C131	684	P150R4	0	Check	0.296	B.2.4.5-8	122.32	No Message
N-1.75	C131	684	P150R4	25	Check	0.302	B.2.4.5-8	122.32	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C132	685	P150R4	0	Check	0.309	B.2.4.5-8	122.32	No Message
N-1.75	C132	685	P150R4	25	Check	0.315	B.2.4.5-8	122.32	No Message
N-1.75	C132	685	P150R4	50	Check	0.322	B.2.4.5-8	122.32	No Message
N-1.75	C133	686	P150R4	0	Check	0.322	B.2.4.5-8	122.32	No Message
N-1.75	C133	686	P150R4	25	Check	0.327	B.2.4.5-8	122.32	No Message
N-1.75	C133	686	P150R4	50	Check	0.333	B.2.4.5-8	122.32	No Message
N-1.75	C134	687	P150R4	0	Check	0.333	B.2.4.5-8	122.32	No Message
N-1.75	C134	687	P150R4	25	Check	0.338	B.2.4.5-8	122.32	No Message
N-1.75	C134	687	P150R4	50	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75	C135	688	P150R4	0	Check	0.343	B.2.4.5-8	122.32	No Message
N-1.75	C135	688	P150R4	25	Check	0.349	B.2.4.5-8	122.32	No Message
N-1.75	C135	688	P150R4	50	Check	0.356	B.2.4.5-8	122.32	No Message
N-1.75	C136	689	P150R4	0	Check	0.356	B.2.4.5-8	122.32	No Message
N-1.75	C136	689	P150R4	25	Check	0.364	B.2.4.5-8	122.32	No Message
N-1.75	C136	689	P150R4	50	Check	0.372	B.2.4.5-8	122.32	No Message
N-1.75	C137	690	P150R4	0	Check	0.372	B.2.4.5-8	122.32	No Message
N-1.75	C137	690	P150R4	25	Check	0.381	B.2.4.5-8	122.32	No Message
N-1.75	C137	690	P150R4	50	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75	C138	691	P150R4	0	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75	C138	691	P150R4	0.1	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75	C138	691	P150R4	0.2	Check	0.391	B.2.4.5-8	122.32	No Message
N-1.75	C139	692	P150R1	0	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C139	692	P150R1	25	Check	0.019	B.2.4.5-8	61.16	No Message
N-1.75	C139	692	P150R1	50	Check	0.018	B.2.4.5-8	61.16	No Message
N-1.75	C140	693	P150R1	0	Check	0.018	B.2.4.5-8	61.16	No Message
N-1.75	C140	693	P150R1	25	Check	0.018	B.2.4.5-8	61.16	No Message
N-1.75	C140	693	P150R1	50	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75	C141	694	P150R1	0	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75	C141	694	P150R1	25	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75	C141	694	P150R1	50	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75	C142	695	P150R1	0	Check	0.017	B.2.4.5-8	61.16	No Message
N-1.75	C142	695	P150R1	25	Check	0.017	B.2.4.5-1	61.16	No Message
N-1.75	C142	695	P150R1	50	Check	0.018	B.2.4.5-1	61.16	No Message
N-1.75	C143	696	P150R1	0	Check	0.018	B.2.4.5-1	61.16	No Message
N-1.75	C143	696	P150R1	25	Check	0.022	B.2.4.7-2	61.16	No Message
N-1.75	C143	696	P150R1	50	Check	0.028	B.2.4.7-8	61.16	No Message
N-1.75	C144	697	P150R1	0	Check	0.028	B.2.4.7-8	61.16	No Message
N-1.75	C144	697	P150R1	25	Check	0.036	B.2.4.7-8	61.16	No Message
N-1.75	C144	697	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C145	698	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C145	698	P150R1	25	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75	C145	698	P150R1	50	Check	0.063	B.2.4.7-2	61.16	No Message
N-1.75	C146	699	P150R1	0	Check	0.063	B.2.4.7-2	61.16	No Message
N-1.75	C146	699	P150R1	25	Check	0.073	B.2.4.7-2	61.16	No Message
N-1.75	C146	699	P150R1	50	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C147	700	P150R1	0	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C147	700	P150R1	25	Check	0.092	B.2.4.7-2	61.16	No Message
N-1.75	C147	700	P150R1	50	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75	C148	701	P150R1	0	Check	0.102	B.2.4.7-2	61.16	No Message
N-1.75	C148	701	P150R1	25	Check	0.112	B.2.4.7-2	61.16	No Message
N-1.75	C148	701	P150R1	50	Check	0.122	B.2.4.7-2	61.16	No Message
N-1.75	C149	702	P150R1	0	Check	0.122	B.2.4.7-2	61.16	No Message
N-1.75	C149	702	P150R1	25	Check	0.132	B.2.4.7-2	61.16	No Message
N-1.75	C149	702	P150R1	50	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75	C150	703	P150R1	0	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75	C150	703	P150R1	25	Check	0.152	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C151	704	P150R1	0	Check	0.162	B.2.4.7-2	61.16	No Message
N-1.75	C151	704	P150R1	25	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75	C151	704	P150R1	50	Check	0.182	B.2.4.7-2	61.16	No Message
N-1.75	C152	705	P150R1	0	Check	0.182	B.2.4.7-2	61.16	No Message
N-1.75	C152	705	P150R1	25	Check	0.191	B.2.4.7-2	61.16	No Message
N-1.75	C152	705	P150R1	50	Check	0.202	B.2.4.7-8	61.16	No Message
N-1.75	C153	706	P150R1	0	Check	0.202	B.2.4.7-8	61.16	No Message
N-1.75	C153	706	P150R1	25	Check	0.213	B.2.4.7-8	61.16	No Message
N-1.75	C153	706	P150R1	50	Check	0.227	B.2.4.5-8	61.16	No Message
N-1.75	C154	707	P150R1	0	Check	0.227	B.2.4.5-8	61.16	No Message
N-1.75	C154	707	P150R1	25	Check	0.24	B.2.4.5-8	61.16	No Message
N-1.75	C154	707	P150R1	50	Check	0.254	B.2.4.5-8	61.16	No Message
N-1.75	C155	708	P150R1	0	Check	0.254	B.2.4.5-8	61.16	No Message
N-1.75	C155	708	P150R1	25	Check	0.267	B.2.4.5-8	61.16	No Message
N-1.75	C155	708	P150R1	50	Check	0.28	B.2.4.5-8	61.16	No Message
N-1.75	C156	709	P150R1	0	Check	0.28	B.2.4.5-8	61.16	No Message
N-1.75	C156	709	P150R1	25	Check	0.293	B.2.4.5-8	61.16	No Message
N-1.75	C156	709	P150R1	50	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75	C157	710	P150R1	0	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75	C157	710	P150R1	25	Check	0.316	B.2.4.5-8	61.16	No Message
N-1.75	C157	710	P150R1	50	Check	0.328	B.2.4.5-8	61.16	No Message
N-1.75	C158	711	P150R1	0	Check	0.328	B.2.4.5-8	61.16	No Message
N-1.75	C158	711	P150R1	25	Check	0.337	B.2.4.5-8	61.16	No Message
N-1.75	C158	711	P150R1	50	Check	0.347	B.2.4.5-8	61.16	No Message
N-1.75	C159	712	P150R1	0	Check	0.347	B.2.4.5-8	61.16	No Message
N-1.75	C159	712	P150R1	25	Check	0.356	B.2.4.5-8	61.16	No Message
N-1.75	C159	712	P150R1	50	Check	0.366	B.2.4.5-8	61.16	No Message
N-1.75	C160	713	P150R1	0	Check	0.366	B.2.4.5-8	61.16	No Message
N-1.75	C160	713	P150R1	25	Check	0.376	B.2.4.5-8	61.16	No Message
N-1.75	C160	713	P150R1	50	Check	0.386	B.2.4.5-8	61.16	No Message
N-1.75	C161	714	P150R4	0	Check	0.2	B.2.4.5-8	122.32	No Message
N-1.75	C161	714	P150R4	25	Check	0.204	B.2.4.5-8	122.32	No Message
N-1.75	C161	714	P150R4	50	Check	0.208	B.2.4.5-8	122.32	No Message
N-1.75	C162	715	P150R4	0	Check	0.208	B.2.4.5-8	122.32	No Message
N-1.75	C162	715	P150R4	25	Check	0.212	B.2.4.5-8	122.32	No Message
N-1.75	C162	715	P150R4	50	Check	0.217	B.2.4.5-8	122.32	No Message
N-1.75	C163	716	P150R4	0	Check	0.217	B.2.4.5-8	122.32	No Message
N-1.75	C163	716	P150R4	25	Check	0.221	B.2.4.5-8	122.32	No Message
N-1.75	C163	716	P150R4	50	Check	0.225	B.2.4.5-8	122.32	No Message
N-1.75	C164	717	P150R4	0	Check	0.225	B.2.4.5-8	122.32	No Message
N-1.75	C164	717	P150R4	25	Check	0.229	B.2.4.5-8	122.32	No Message
N-1.75	C164	717	P150R4	50	Check	0.233	B.2.4.5-8	122.32	No Message
N-1.75	C165	718	P150R4	0	Check	0.233	B.2.4.5-8	122.32	No Message
N-1.75	C165	718	P150R4	25	Check	0.237	B.2.4.5-8	122.32	No Message
N-1.75	C165	718	P150R4	50	Check	0.248	B.2.4.5-1	122.32	No Message
N-1.75	C166	719	P150R4	0	Check	0.248	B.2.4.5-1	122.32	No Message
N-1.75	C166	719	P150R4	25	Check	0.264	B.2.4.5-1	122.32	No Message
N-1.75	C166	719	P150R4	50	Check	0.281	B.2.4.5-1	122.32	No Message
N-1.75	C167	720	P150R4	0	Check	0.281	B.2.4.5-1	122.32	No Message
N-1.75	C167	720	P150R4	25	Check	0.3	B.2.4.5-1	122.32	No Message
N-1.75	C167	720	P150R4	50	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75	C168	721	P150R4	0	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75	C168	721	P150R4	0.1	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75	C168	721	P150R4	0.2	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75	C169	722	P150R1	0	Check	0.026	B.2.4.5-2	61.16	No Message
N-1.75	C169	722	P150R1	25	Check	0.026	B.2.4.5-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C170	723	P150R1	0	Check	0.025	B.2.4.5-2	61.16	No Message
N-1.75	C170	723	P150R1	25	Check	0.024	B.2.4.5-2	61.16	No Message
N-1.75	C170	723	P150R1	50	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75	C171	724	P150R1	0	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75	C171	724	P150R1	25	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75	C171	724	P150R1	50	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75	C172	725	P150R1	0	Check	0.023	B.2.4.5-2	61.16	No Message
N-1.75	C172	725	P150R1	25	Check	0.022	B.2.4.5-2	61.16	No Message
N-1.75	C172	725	P150R1	50	Check	0.022	B.2.4.5-2	61.16	No Message
N-1.75	C173	726	P150R1	0	Check	0.022	B.2.4.5-2	61.16	No Message
N-1.75	C173	726	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C173	726	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C174	727	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C174	727	P150R1	25	Check	0.026	B.2.4.7-1	61.16	No Message
N-1.75	C174	727	P150R1	50	Check	0.032	B.2.4.7-1	61.16	No Message
N-1.75	C175	728	P150R1	0	Check	0.032	B.2.4.7-1	61.16	No Message
N-1.75	C175	728	P150R1	25	Check	0.04	B.2.4.7-1	61.16	No Message
N-1.75	C175	728	P150R1	50	Check	0.048	B.2.4.7-1	61.16	No Message
N-1.75	C176	729	P150R1	0	Check	0.048	B.2.4.7-1	61.16	No Message
N-1.75	C176	729	P150R1	25	Check	0.057	B.2.4.7-1	61.16	No Message
N-1.75	C176	729	P150R1	50	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75	C177	730	P150R1	0	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75	C177	730	P150R1	25	Check	0.074	B.2.4.7-1	61.16	No Message
N-1.75	C177	730	P150R1	50	Check	0.082	B.2.4.7-1	61.16	No Message
N-1.75	C178	731	P150R1	0	Check	0.082	B.2.4.7-1	61.16	No Message
N-1.75	C178	731	P150R1	25	Check	0.092	B.2.4.7-1	61.16	No Message
N-1.75	C178	731	P150R1	50	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75	C179	732	P150R1	0	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75	C179	732	P150R1	25	Check	0.111	B.2.4.7-1	61.16	No Message
N-1.75	C179	732	P150R1	50	Check	0.12	B.2.4.7-1	61.16	No Message
N-1.75	C180	733	P150R1	0	Check	0.12	B.2.4.7-1	61.16	No Message
N-1.75	C180	733	P150R1	25	Check	0.129	B.2.4.7-1	61.16	No Message
N-1.75	C180	733	P150R1	50	Check	0.139	B.2.4.7-1	61.16	No Message
N-1.75	C181	734	P150R1	0	Check	0.139	B.2.4.7-1	61.16	No Message
N-1.75	C181	734	P150R1	25	Check	0.148	B.2.4.7-1	61.16	No Message
N-1.75	C181	734	P150R1	50	Check	0.157	B.2.4.7-1	61.16	No Message
N-1.75	C182	735	P150R1	0	Check	0.157	B.2.4.7-1	61.16	No Message
N-1.75	C182	735	P150R1	25	Check	0.166	B.2.4.7-1	61.16	No Message
N-1.75	C182	735	P150R1	50	Check	0.177	B.2.4.7-8	61.16	No Message
N-1.75	C183	736	P150R1	0	Check	0.177	B.2.4.7-8	61.16	No Message
N-1.75	C183	736	P150R1	25	Check	0.188	B.2.4.7-8	61.16	No Message
N-1.75	C183	736	P150R1	50	Check	0.198	B.2.4.7-8	61.16	No Message
N-1.75	C184	737	P150R1	0	Check	0.198	B.2.4.7-8	61.16	No Message
N-1.75	C184	737	P150R1	25	Check	0.208	B.2.4.7-8	61.16	No Message
N-1.75	C184	737	P150R1	50	Check	0.218	B.2.4.7-8	61.16	No Message
N-1.75	C185	738	P150R1	0	Check	0.218	B.2.4.7-8	61.16	No Message
N-1.75	C185	738	P150R1	25	Check	0.228	B.2.4.7-8	61.16	No Message
N-1.75	C185	738	P150R1	50	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75	C186	739	P150R1	0	Check	0.237	B.2.4.7-8	61.16	No Message
N-1.75	C186	739	P150R1	25	Check	0.245	B.2.4.5-8	61.16	No Message
N-1.75	C186	739	P150R1	50	Check	0.256	B.2.4.5-8	61.16	No Message
N-1.75	C187	740	P150R1	0	Check	0.256	B.2.4.5-8	61.16	No Message
N-1.75	C187	740	P150R1	25	Check	0.265	B.2.4.5-8	61.16	No Message
N-1.75	C187	740	P150R1	50	Check	0.275	B.2.4.5-8	61.16	No Message
N-1.75	C188	741	P150R1	0	Check	0.275	B.2.4.5-8	61.16	No Message
N-1.75	C188	741	P150R1	25	Check	0.283	B.2.4.5-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C189	742	P150R1	0	Check	0.291	B.2.4.5-8	61.16	No Message
N-1.75	C189	742	P150R1	25	Check	0.3	B.2.4.5-8	61.16	No Message
N-1.75	C189	742	P150R1	50	Check	0.309	B.2.4.5-8	61.16	No Message
N-1.75	C190	743	P150R1	0	Check	0.309	B.2.4.5-8	61.16	No Message
N-1.75	C190	743	P150R1	25	Check	0.317	B.2.4.5-8	61.16	No Message
N-1.75	C190	743	P150R1	50	Check	0.325	B.2.4.5-8	61.16	No Message
N-1.75	C191	744	P150R4	0	Check	0.17	B.2.4.5-8	122.32	No Message
N-1.75	C191	744	P150R4	25	Check	0.173	B.2.4.5-8	122.32	No Message
N-1.75	C191	744	P150R4	50	Check	0.176	B.2.4.5-8	122.32	No Message
N-1.75	C192	745	P150R4	0	Check	0.176	B.2.4.5-8	122.32	No Message
N-1.75	C192	745	P150R4	25	Check	0.178	B.2.4.5-8	122.32	No Message
N-1.75	C192	745	P150R4	50	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75	C193	746	P150R4	0	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75	C193	746	P150R4	25	Check	0.183	B.2.4.5-8	122.32	No Message
N-1.75	C193	746	P150R4	50	Check	0.185	B.2.4.5-8	122.32	No Message
N-1.75	C194	747	P150R4	0	Check	0.185	B.2.4.5-8	122.32	No Message
N-1.75	C194	747	P150R4	25	Check	0.187	B.2.4.5-8	122.32	No Message
N-1.75	C194	747	P150R4	50	Check	0.189	B.2.4.5-8	122.32	No Message
N-1.75	C195	748	P150R4	0	Check	0.189	B.2.4.5-8	122.32	No Message
N-1.75	C195	748	P150R4	25	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75	C195	748	P150R4	50	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75	C196	749	P150R4	0	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75	C196	749	P150R4	25	Check	0.217	B.2.4.5-1	122.32	No Message
N-1.75	C196	749	P150R4	50	Check	0.232	B.2.4.5-1	122.32	No Message
N-1.75	C197	750	P150R4	0	Check	0.232	B.2.4.5-1	122.32	No Message
N-1.75	C197	750	P150R4	25	Check	0.249	B.2.4.5-1	122.32	No Message
N-1.75	C197	750	P150R4	50	Check	0.266	B.2.4.5-1	122.32	No Message
N-1.75	C198	751	P150R4	0	Check	0.266	B.2.4.5-1	122.32	No Message
N-1.75	C198	751	P150R4	0.1	Check	0.266	B.2.4.5-1	122.32	No Message
N-1.75	C198	751	P150R4	0.2	Check	0.267	B.2.4.5-1	122.32	No Message
N-1.75	C199	752	P150R1	0	Check	0.039	B.2.4.5-2	61.16	No Message
N-1.75	C199	752	P150R1	25	Check	0.039	B.2.4.5-2	61.16	No Message
N-1.75	C199	752	P150R1	50	Check	0.038	B.2.4.5-2	61.16	No Message
N-1.75	C200	753	P150R1	0	Check	0.038	B.2.4.5-2	61.16	No Message
N-1.75	C200	753	P150R1	25	Check	0.037	B.2.4.5-2	61.16	No Message
N-1.75	C200	753	P150R1	50	Check	0.036	B.2.4.5-2	61.16	No Message
N-1.75	C201	754	P150R1	0	Check	0.036	B.2.4.5-2	61.16	No Message
N-1.75	C201	754	P150R1	25	Check	0.036	B.2.4.5-2	61.16	No Message
N-1.75	C201	754	P150R1	50	Check	0.042	B.2.4.7-1	61.16	No Message
N-1.75	C202	755	P150R1	0	Check	0.042	B.2.4.7-1	61.16	No Message
N-1.75	C202	755	P150R1	25	Check	0.051	B.2.4.7-1	61.16	No Message
N-1.75	C202	755	P150R1	50	Check	0.061	B.2.4.7-1	61.16	No Message
N-1.75	C203	756	P150R1	0	Check	0.061	B.2.4.7-1	61.16	No Message
N-1.75	C203	756	P150R1	25	Check	0.071	B.2.4.7-1	61.16	No Message
N-1.75	C203	756	P150R1	50	Check	0.081	B.2.4.7-1	61.16	No Message
N-1.75	C204	757	P150R1	0	Check	0.081	B.2.4.7-1	61.16	No Message
N-1.75	C204	757	P150R1	25	Check	0.091	B.2.4.7-1	61.16	No Message
N-1.75	C204	757	P150R1	50	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75	C205	758	P150R1	0	Check	0.101	B.2.4.7-1	61.16	No Message
N-1.75	C205	758	P150R1	25	Check	0.111	B.2.4.7-1	61.16	No Message
N-1.75	C205	758	P150R1	50	Check	0.122	B.2.4.7-1	61.16	No Message
N-1.75	C206	759	P150R1	0	Check	0.122	B.2.4.7-1	61.16	No Message
N-1.75	C206	759	P150R1	25	Check	0.132	B.2.4.7-1	61.16	No Message
N-1.75	C206	759	P150R1	50	Check	0.142	B.2.4.7-1	61.16	No Message
N-1.75	C207	760	P150R1	0	Check	0.142	B.2.4.7-1	61.16	No Message
N-1.75	C207	760	P150R1	25	Check	0.152	B.2.4.7-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C208	761	P150R1	0	Check	0.162	B.2.4.7-1	61.16	No Message
N-1.75	C208	761	P150R1	25	Check	0.171	B.2.4.7-1	61.16	No Message
N-1.75	C208	761	P150R1	50	Check	0.181	B.2.4.7-1	61.16	No Message
N-1.75	C209	762	P150R1	0	Check	0.181	B.2.4.7-1	61.16	No Message
N-1.75	C209	762	P150R1	25	Check	0.189	B.2.4.7-1	61.16	No Message
N-1.75	C209	762	P150R1	50	Check	0.198	B.2.4.7-1	61.16	No Message
N-1.75	C210	763	P150R1	0	Check	0.198	B.2.4.7-1	61.16	No Message
N-1.75	C210	763	P150R1	25	Check	0.206	B.2.4.7-1	61.16	No Message
N-1.75	C210	763	P150R1	50	Check	0.213	B.2.4.7-1	61.16	No Message
N-1.75	C211	764	P150R1	0	Check	0.213	B.2.4.7-1	61.16	No Message
N-1.75	C211	764	P150R1	25	Check	0.22	B.2.4.7-1	61.16	No Message
N-1.75	C211	764	P150R1	50	Check	0.226	B.2.4.7-1	61.16	No Message
N-1.75	C212	765	P150R1	0	Check	0.226	B.2.4.7-1	61.16	No Message
N-1.75	C212	765	P150R1	25	Check	0.233	B.2.4.7-1	61.16	No Message
N-1.75	C212	765	P150R1	50	Check	0.24	B.2.4.7-1	61.16	No Message
N-1.75	C213	766	P150R1	0	Check	0.24	B.2.4.7-1	61.16	No Message
N-1.75	C213	766	P150R1	25	Check	0.246	B.2.4.7-1	61.16	No Message
N-1.75	C213	766	P150R1	50	Check	0.252	B.2.4.7-1	61.16	No Message
N-1.75	C214	767	P150R1	0	Check	0.252	B.2.4.7-1	61.16	No Message
N-1.75	C214	767	P150R1	25	Check	0.256	B.2.4.7-1	61.16	No Message
N-1.75	C214	767	P150R1	50	Check	0.261	B.2.4.7-1	61.16	No Message
N-1.75	C215	768	P150R1	0	Check	0.261	B.2.4.7-1	61.16	No Message
N-1.75	C215	768	P150R1	25	Check	0.265	B.2.4.7-1	61.16	No Message
N-1.75	C215	768	P150R1	50	Check	0.275	B.2.4.7-1	61.16	No Message
N-1.75	C216	769	P150R1	0	Check	0.275	B.2.4.7-1	61.16	No Message
N-1.75	C216	769	P150R1	25	Check	0.286	B.2.4.7-1	61.16	No Message
N-1.75	C216	769	P150R1	50	Check	0.302	B.2.4.5-8	61.16	No Message
N-1.75	C217	770	P150R4	0	Check	0.16	B.2.4.5-8	122.32	No Message
N-1.75	C217	770	P150R4	25	Check	0.17	B.2.4.5-8	122.32	No Message
N-1.75	C217	770	P150R4	50	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75	C218	771	P150R4	0	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75	C218	771	P150R4	25	Check	0.192	B.2.4.5-8	122.32	No Message
N-1.75	C218	771	P150R4	50	Check	0.203	B.2.4.5-1	122.32	No Message
N-1.75	C219	772	P150R4	0	Check	0.203	B.2.4.5-1	122.32	No Message
N-1.75	C219	772	P150R4	25	Check	0.216	B.2.4.5-1	122.32	No Message
N-1.75	C219	772	P150R4	50	Check	0.229	B.2.4.5-1	122.32	No Message
N-1.75	C220	773	P150R4	0	Check	0.229	B.2.4.5-1	122.32	No Message
N-1.75	C220	773	P150R4	25	Check	0.243	B.2.4.5-1	122.32	No Message
N-1.75	C220	773	P150R4	50	Check	0.257	B.2.4.5-1	122.32	No Message
N-1.75	C221	774	P150R4	0	Check	0.257	B.2.4.5-1	122.32	No Message
N-1.75	C221	774	P150R4	25	Check	0.272	B.2.4.5-1	122.32	No Message
N-1.75	C221	774	P150R4	50	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75	C222	775	P150R4	0	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75	C222	775	P150R4	25	Check	0.303	B.2.4.5-1	122.32	No Message
N-1.75	C222	775	P150R4	50	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75	C223	776	P150R4	0	Check	0.32	B.2.4.5-1	122.32	No Message
N-1.75	C223	776	P150R4	25	Check	0.34	B.2.4.5-1	122.32	No Message
N-1.75	C223	776	P150R4	50	Check	0.363	B.2.4.5-1	122.32	No Message
N-1.75	C224	777	P150R4	0	Check	0.363	B.2.4.5-1	122.32	No Message
N-1.75	C224	777	P150R4	25	Check	0.388	B.2.4.5-1	122.32	No Message
N-1.75	C224	777	P150R4	50	Check	0.416	B.2.4.5-1	122.32	No Message
N-1.75	C225	778	P150R4	0	Check	0.416	B.2.4.5-1	122.32	No Message
N-1.75	C225	778	P150R4	25	Check	0.447	B.2.4.5-1	122.32	No Message
N-1.75	C225	778	P150R4	50	Check	0.478	B.2.4.5-1	122.32	No Message
N-1.75	C226	779	P150R4	0	Check	0.478	B.2.4.5-1	122.32	No Message
N-1.75	C226	779	P150R4	25	Check	0.511	B.2.4.5-1	122.32	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C227	780	P150R4	0	Check	0.545	B.2.4.5-1	122.32	No Message
N-1.75	C227	780	P150R4	25	Check	0.579	B.2.4.5-1	122.32	No Message
N-1.75	C227	780	P150R4	50	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75	C228	781	P150R4	0	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75	C228	781	P150R4	0.1	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75	C228	781	P150R4	0.2	Check	0.614	B.2.4.5-1	122.32	No Message
N-1.75	C229	782	P150R1	0	Check	0.049	B.2.4.5-1	61.16	No Message
N-1.75	C229	782	P150R1	25	Check	0.048	B.2.4.5-1	61.16	No Message
N-1.75	C229	782	P150R1	50	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75	C230	783	P150R1	0	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75	C230	783	P150R1	25	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75	C230	783	P150R1	50	Check	0.046	B.2.4.5-1	61.16	No Message
N-1.75	C231	784	P150R1	0	Check	0.046	B.2.4.5-1	61.16	No Message
N-1.75	C231	784	P150R1	25	Check	0.045	B.2.4.5-1	61.16	No Message
N-1.75	C231	784	P150R1	50	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C232	785	P150R1	0	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C232	785	P150R1	25	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C232	785	P150R1	50	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C233	786	P150R1	0	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C233	786	P150R1	25	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C233	786	P150R1	50	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75	C234	787	P150R1	0	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75	C234	787	P150R1	25	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C234	787	P150R1	50	Check	0.073	B.2.4.7-2	61.16	No Message
N-1.75	C235	788	P150R1	0	Check	0.073	B.2.4.7-2	61.16	No Message
N-1.75	C235	788	P150R1	25	Check	0.084	B.2.4.7-2	61.16	No Message
N-1.75	C235	788	P150R1	50	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75	C236	789	P150R1	0	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75	C236	789	P150R1	25	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C236	789	P150R1	50	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75	C237	790	P150R1	0	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75	C237	790	P150R1	25	Check	0.128	B.2.4.7-2	61.16	No Message
N-1.75	C237	790	P150R1	50	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75	C238	791	P150R1	0	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75	C238	791	P150R1	25	Check	0.148	B.2.4.7-2	61.16	No Message
N-1.75	C238	791	P150R1	50	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75	C239	792	P150R1	0	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75	C239	792	P150R1	25	Check	0.168	B.2.4.7-2	61.16	No Message
N-1.75	C239	792	P150R1	50	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75	C240	793	P150R1	0	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75	C240	793	P150R1	25	Check	0.184	B.2.4.7-2	61.16	No Message
N-1.75	C240	793	P150R1	50	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75	C241	794	P150R1	0	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75	C241	794	P150R1	25	Check	0.199	B.2.4.7-2	61.16	No Message
N-1.75	C241	794	P150R1	50	Check	0.206	B.2.4.7-2	61.16	No Message
N-1.75	C242	795	P150R1	0	Check	0.206	B.2.4.7-2	61.16	No Message
N-1.75	C242	795	P150R1	25	Check	0.211	B.2.4.7-2	61.16	No Message
N-1.75	C242	795	P150R1	50	Check	0.216	B.2.4.7-2	61.16	No Message
N-1.75	C243	796	P150R1	0	Check	0.216	B.2.4.7-2	61.16	No Message
N-1.75	C243	796	P150R1	25	Check	0.219	B.2.4.7-2	61.16	No Message
N-1.75	C243	796	P150R1	50	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75	C244	797	P150R1	0	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75	C244	797	P150R1	25	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75	C244	797	P150R1	50	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75	C245	798	P150R1	0	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75	C245	798	P150R1	25	Check	0.237	B.2.4.7-2	61.16	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C246	799	P150R1	0	Check	0.252	B.2.4.7-2	61.16	No Message
N-1.75	C246	799	P150R1	25	Check	0.267	B.2.4.7-2	61.16	No Message
N-1.75	C246	799	P150R1	50	Check	0.282	B.2.4.7-2	61.16	No Message
N-1.75	C247	800	P150R1	0	Check	0.282	B.2.4.7-2	61.16	No Message
N-1.75	C247	800	P150R1	25	Check	0.299	B.2.4.7-2	61.16	No Message
N-1.75	C247	800	P150R1	50	Check	0.315	B.2.4.7-2	61.16	No Message
N-1.75	C248	801	P150R1	0	Check	0.315	B.2.4.7-2	61.16	No Message
N-1.75	C248	801	P150R1	25	Check	0.337	B.2.4.5-2	61.16	No Message
N-1.75	C248	801	P150R1	50	Check	0.364	B.2.4.5-2	61.16	No Message
N-1.75	C249	802	P150R1	0	Check	0.364	B.2.4.5-2	61.16	No Message
N-1.75	C249	802	P150R1	25	Check	0.392	B.2.4.5-2	61.16	No Message
N-1.75	C249	802	P150R1	50	Check	0.42	B.2.4.5-2	61.16	No Message
N-1.75	C250	803	P150R1	0	Check	0.42	B.2.4.5-2	61.16	No Message
N-1.75	C250	803	P150R1	25	Check	0.449	B.2.4.5-2	61.16	No Message
N-1.75	C250	803	P150R1	50	Check	0.477	B.2.4.5-2	61.16	No Message
N-1.75	C251	804	P150R4	0	Check	0.255	B.2.4.5-2	122.32	No Message
N-1.75	C251	804	P150R4	25	Check	0.271	B.2.4.5-1	122.32	No Message
N-1.75	C251	804	P150R4	50	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75	C252	805	P150R4	0	Check	0.287	B.2.4.5-1	122.32	No Message
N-1.75	C252	805	P150R4	25	Check	0.303	B.2.4.5-1	122.32	No Message
N-1.75	C252	805	P150R4	50	Check	0.321	B.2.4.5-1	122.32	No Message
N-1.75	C253	806	P150R4	0	Check	0.321	B.2.4.5-1	122.32	No Message
N-1.75	C253	806	P150R4	25	Check	0.346	B.2.4.5-1	122.32	No Message
N-1.75	C253	806	P150R4	50	Check	0.378	B.2.4.5-1	122.32	No Message
N-1.75	C254	807	P150R4	0	Check	0.378	B.2.4.5-1	122.32	No Message
N-1.75	C254	807	P150R4	25	Check	0.412	B.2.4.5-1	122.32	No Message
N-1.75	C254	807	P150R4	50	Check	0.447	B.2.4.5-1	122.32	No Message
N-1.75	C255	808	P150R4	0	Check	0.447	B.2.4.5-1	122.32	No Message
N-1.75	C255	808	P150R4	25	Check	0.485	B.2.4.5-1	122.32	No Message
N-1.75	C255	808	P150R4	50	Check	0.524	B.2.4.5-1	122.32	No Message
N-1.75	C256	809	P150R4	0	Check	0.524	B.2.4.5-1	122.32	No Message
N-1.75	C256	809	P150R4	25	Check	0.565	B.2.4.5-1	122.32	No Message
N-1.75	C256	809	P150R4	50	Check	0.605	B.2.4.5-1	122.32	No Message
N-1.75	C257	810	P150R4	0	Check	0.605	B.2.4.5-1	122.32	No Message
N-1.75	C257	810	P150R4	25	Check	0.647	B.2.4.5-1	122.32	No Message
N-1.75	C257	810	P150R4	50	Check	0.689	B.2.4.5-1	122.32	No Message
N-1.75	C258	811	P150R4	0	Check	0.689	B.2.4.5-1	122.32	No Message
N-1.75	C258	811	P150R4	0.1	Check	0.69	B.2.4.5-1	122.32	No Message
N-1.75	C258	811	P150R4	0.2	Check	0.69	B.2.4.5-1	122.32	No Message
N-1.75	C259	812	P150R1	0	Check	0.064	B.2.4.5-8	61.16	No Message
N-1.75	C259	812	P150R1	25	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75	C259	812	P150R1	50	Check	0.062	B.2.4.5-8	61.16	No Message
N-1.75	C260	813	P150R1	0	Check	0.062	B.2.4.5-8	61.16	No Message
N-1.75	C260	813	P150R1	25	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75	C260	813	P150R1	50	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75	C261	814	P150R1	0	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75	C261	814	P150R1	25	Check	0.06	B.2.4.5-8	61.16	No Message
N-1.75	C261	814	P150R1	50	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75	C262	815	P150R1	0	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75	C262	815	P150R1	25	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75	C262	815	P150R1	50	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C263	816	P150R1	0	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C263	816	P150R1	25	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C263	816	P150R1	50	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C264	817	P150R1	0	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C264	817	P150R1	25	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C265	818	P150R1	0	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C265	818	P150R1	25	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C265	818	P150R1	50	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C266	819	P150R1	0	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C266	819	P150R1	25	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C266	819	P150R1	50	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75	C267	820	P150R1	0	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75	C267	820	P150R1	25	Check	0.06	B.2.4.5-8	61.16	No Message
N-1.75	C267	820	P150R1	50	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75	C268	821	P150R1	0	Check	0.061	B.2.4.5-8	61.16	No Message
N-1.75	C268	821	P150R1	25	Check	0.062	B.2.4.5-8	61.16	No Message
N-1.75	C268	821	P150R1	50	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75	C269	822	P150R1	0	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75	C269	822	P150R1	25	Check	0.063	B.2.4.5-8	61.16	No Message
N-1.75	C269	822	P150R1	50	Check	0.064	B.2.4.5-8	61.16	No Message
N-1.75	C270	823	P150R1	0	Check	0.064	B.2.4.5-8	61.16	No Message
N-1.75	C270	823	P150R1	25	Check	0.065	B.2.4.5-8	61.16	No Message
N-1.75	C270	823	P150R1	50	Check	0.066	B.2.4.5-1	61.16	No Message
N-1.75	C271	824	P150R1	0	Check	0.066	B.2.4.5-1	61.16	No Message
N-1.75	C271	824	P150R1	25	Check	0.067	B.2.4.5-1	61.16	No Message
N-1.75	C271	824	P150R1	50	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75	C272	825	P150R1	0	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75	C272	825	P150R1	25	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75	C272	825	P150R1	50	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75	C273	826	P150R1	0	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75	C273	826	P150R1	25	Check	0.08	B.2.4.7-8	61.16	No Message
N-1.75	C273	826	P150R1	50	Check	0.094	B.2.4.7-8	61.16	No Message
N-1.75	C274	827	P150R1	0	Check	0.094	B.2.4.7-8	61.16	No Message
N-1.75	C274	827	P150R1	25	Check	0.113	B.2.4.7-8	61.16	No Message
N-1.75	C274	827	P150R1	50	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75	C275	828	P150R1	0	Check	0.133	B.2.4.7-8	61.16	No Message
N-1.75	C275	828	P150R1	25	Check	0.155	B.2.4.7-8	61.16	No Message
N-1.75	C275	828	P150R1	50	Check	0.178	B.2.4.7-8	61.16	No Message
N-1.75	C276	829	P150R1	0	Check	0.178	B.2.4.7-8	61.16	No Message
N-1.75	C276	829	P150R1	25	Check	0.203	B.2.4.7-8	61.16	No Message
N-1.75	C276	829	P150R1	50	Check	0.229	B.2.4.7-8	61.16	No Message
N-1.75	C277	830	P150R1	0	Check	0.229	B.2.4.7-8	61.16	No Message
N-1.75	C277	830	P150R1	25	Check	0.255	B.2.4.7-8	61.16	No Message
N-1.75	C277	830	P150R1	50	Check	0.281	B.2.4.7-8	61.16	No Message
N-1.75	C278	831	P150R1	0	Check	0.281	B.2.4.7-8	61.16	No Message
N-1.75	C278	831	P150R1	25	Check	0.309	B.2.4.7-8	61.16	No Message
N-1.75	C278	831	P150R1	50	Check	0.351	B.2.4.5-8	61.16	No Message
N-1.75	C279	832	P150R1	0	Check	0.351	B.2.4.5-8	61.16	No Message
N-1.75	C279	832	P150R1	25	Check	0.397	B.2.4.5-8	61.16	No Message
N-1.75	C279	832	P150R1	50	Check	0.443	B.2.4.5-8	61.16	No Message
N-1.75	C280	833	P150R1	0	Check	0.443	B.2.4.5-8	61.16	No Message
N-1.75	C280	833	P150R1	25	Check	0.492	B.2.4.5-8	61.16	No Message
N-1.75	C280	833	P150R1	50	Check	0.54	B.2.4.5-8	61.16	No Message
N-1.75	C281	834	P150R1	0	Check	0.54	B.2.4.5-8	61.16	No Message
N-1.75	C281	834	P150R1	25	Check	0.591	B.2.4.5-8	61.16	No Message
N-1.75	C281	834	P150R1	50	Check	0.642	B.2.4.5-8	61.16	No Message
N-1.75	C282	835	P150R4	0	Check	0.344	B.2.4.5-8	122.32	No Message
N-1.75	C282	835	P150R4	25	Check	0.372	B.2.4.5-8	122.32	No Message
N-1.75	C282	835	P150R4	50	Check	0.4	B.2.4.5-8	122.32	No Message
N-1.75	C283	836	P150R4	0	Check	0.4	B.2.4.5-8	122.32	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C283	836	P150R4	50	Check	0.457	B.2.4.5-8	122.32	No Message
N-1.75	C284	837	P150R4	0	Check	0.457	B.2.4.5-8	122.32	No Message
N-1.75	C284	837	P150R4	25	Check	0.487	B.2.4.5-8	122.32	No Message
N-1.75	C284	837	P150R4	50	Check	0.517	B.2.4.5-8	122.32	No Message
N-1.75	C285	838	P150R4	0	Check	0.517	B.2.4.5-8	122.32	No Message
N-1.75	C285	838	P150R4	25	Check	0.548	B.2.4.5-8	122.32	No Message
N-1.75	C285	838	P150R4	50	Check	0.579	B.2.4.5-8	122.32	No Message
N-1.75	C286	839	P150R4	0	Check	0.579	B.2.4.5-8	122.32	No Message
N-1.75	C286	839	P150R4	25	Check	0.61	B.2.4.5-8	122.32	No Message
N-1.75	C286	839	P150R4	50	Check	0.641	B.2.4.5-8	122.32	No Message
N-1.75	C287	840	P150R4	0	Check	0.641	B.2.4.5-8	122.32	No Message
N-1.75	C287	840	P150R4	25	Check	0.672	B.2.4.5-8	122.32	No Message
N-1.75	C287	840	P150R4	50	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75	C288	841	P150R4	0	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75	C288	841	P150R4	0.1	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75	C288	841	P150R4	0.2	Check	0.703	B.2.4.5-8	122.32	No Message
N-1.75	C289	842	P150R1	0	Check	0.06	B.2.4.5-8	61.16	No Message
N-1.75	C289	842	P150R1	25	Check	0.059	B.2.4.5-8	61.16	No Message
N-1.75	C289	842	P150R1	50	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C290	843	P150R1	0	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C290	843	P150R1	25	Check	0.058	B.2.4.5-8	61.16	No Message
N-1.75	C290	843	P150R1	50	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C291	844	P150R1	0	Check	0.057	B.2.4.5-8	61.16	No Message
N-1.75	C291	844	P150R1	25	Check	0.056	B.2.4.5-8	61.16	No Message
N-1.75	C291	844	P150R1	50	Check	0.055	B.2.4.5-8	61.16	No Message
N-1.75	C292	845	P150R1	0	Check	0.055	B.2.4.5-8	61.16	No Message
N-1.75	C292	845	P150R1	25	Check	0.055	B.2.4.5-8	61.16	No Message
N-1.75	C292	845	P150R1	50	Check	0.054	B.2.4.5-8	61.16	No Message
N-1.75	C293	846	P150R1	0	Check	0.054	B.2.4.5-8	61.16	No Message
N-1.75	C293	846	P150R1	25	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C293	846	P150R1	50	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C294	847	P150R1	0	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C294	847	P150R1	25	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75	C294	847	P150R1	50	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75	C295	848	P150R1	0	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75	C295	848	P150R1	25	Check	0.052	B.2.4.5-8	61.16	No Message
N-1.75	C295	848	P150R1	50	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C296	849	P150R1	0	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C296	849	P150R1	25	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C296	849	P150R1	50	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C297	850	P150R1	0	Check	0.053	B.2.4.5-8	61.16	No Message
N-1.75	C297	850	P150R1	25	Check	0.054	B.2.4.5-1	61.16	No Message
N-1.75	C297	850	P150R1	50	Check	0.055	B.2.4.5-1	61.16	No Message
N-1.75	C298	851	P150R1	0	Check	0.055	B.2.4.5-1	61.16	No Message
N-1.75	C298	851	P150R1	25	Check	0.056	B.2.4.5-1	61.16	No Message
N-1.75	C298	851	P150R1	50	Check	0.058	B.2.4.5-1	61.16	No Message
N-1.75	C299	852	P150R1	0	Check	0.058	B.2.4.5-1	61.16	No Message
N-1.75	C299	852	P150R1	25	Check	0.059	B.2.4.5-1	61.16	No Message
N-1.75	C299	852	P150R1	50	Check	0.06	B.2.4.5-1	61.16	No Message
N-1.75	C300	853	P150R1	0	Check	0.06	B.2.4.5-1	61.16	No Message
N-1.75	C300	853	P150R1	25	Check	0.062	B.2.4.5-1	61.16	No Message
N-1.75	C300	853	P150R1	50	Check	0.065	B.2.4.7-2	61.16	No Message
N-1.75	C301	854	P150R1	0	Check	0.065	B.2.4.7-2	61.16	No Message
N-1.75	C301	854	P150R1	25	Check	0.072	B.2.4.7-2	61.16	No Message
N-1.75	C301	854	P150R1	50	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75	C302	855	P150R1	0	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C302	855	P150R1	50	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75	C303	856	P150R1	0	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75	C303	856	P150R1	25	Check	0.107	B.2.4.7-2	61.16	No Message
N-1.75	C303	856	P150R1	50	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75	C304	857	P150R1	0	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75	C304	857	P150R1	25	Check	0.135	B.2.4.7-2	61.16	No Message
N-1.75	C304	857	P150R1	50	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75	C305	858	P150R1	0	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75	C305	858	P150R1	25	Check	0.167	B.2.4.7-2	61.16	No Message
N-1.75	C305	858	P150R1	50	Check	0.187	B.2.4.7-8	61.16	No Message
N-1.75	C306	859	P150R1	0	Check	0.187	B.2.4.7-8	61.16	No Message
N-1.75	C306	859	P150R1	25	Check	0.209	B.2.4.7-8	61.16	No Message
N-1.75	C306	859	P150R1	50	Check	0.233	B.2.4.7-8	61.16	No Message
N-1.75	C307	860	P150R1	0	Check	0.233	B.2.4.7-8	61.16	No Message
N-1.75	C307	860	P150R1	25	Check	0.258	B.2.4.7-8	61.16	No Message
N-1.75	C307	860	P150R1	50	Check	0.283	B.2.4.7-8	61.16	No Message
N-1.75	C308	861	P150R1	0	Check	0.283	B.2.4.7-8	61.16	No Message
N-1.75	C308	861	P150R1	25	Check	0.309	B.2.4.7-8	61.16	No Message
N-1.75	C308	861	P150R1	50	Check	0.344	B.2.4.5-8	61.16	No Message
N-1.75	C309	862	P150R1	0	Check	0.344	B.2.4.5-8	61.16	No Message
N-1.75	C309	862	P150R1	25	Check	0.386	B.2.4.5-8	61.16	No Message
N-1.75	C309	862	P150R1	50	Check	0.427	B.2.4.5-8	61.16	No Message
N-1.75	C310	863	P150R1	0	Check	0.427	B.2.4.5-8	61.16	No Message
N-1.75	C310	863	P150R1	25	Check	0.471	B.2.4.5-8	61.16	No Message
N-1.75	C310	863	P150R1	50	Check	0.515	B.2.4.5-8	61.16	No Message
N-1.75	C311	864	P150R1	0	Check	0.515	B.2.4.5-8	61.16	No Message
N-1.75	C311	864	P150R1	25	Check	0.56	B.2.4.5-8	61.16	No Message
N-1.75	C311	864	P150R1	50	Check	0.605	B.2.4.5-8	61.16	No Message
N-1.75	C312	865	P150R4	0	Check	0.324	B.2.4.5-8	122.32	No Message
N-1.75	C312	865	P150R4	25	Check	0.349	B.2.4.5-8	122.32	No Message
N-1.75	C312	865	P150R4	50	Check	0.374	B.2.4.5-8	122.32	No Message
N-1.75	C313	866	P150R4	0	Check	0.374	B.2.4.5-8	122.32	No Message
N-1.75	C313	866	P150R4	25	Check	0.399	B.2.4.5-8	122.32	No Message
N-1.75	C313	866	P150R4	50	Check	0.424	B.2.4.5-8	122.32	No Message
N-1.75	C314	867	P150R4	0	Check	0.424	B.2.4.5-8	122.32	No Message
N-1.75	C314	867	P150R4	25	Check	0.45	B.2.4.5-8	122.32	No Message
N-1.75	C314	867	P150R4	50	Check	0.476	B.2.4.5-8	122.32	No Message
N-1.75	C315	868	P150R4	0	Check	0.476	B.2.4.5-8	122.32	No Message
N-1.75	C315	868	P150R4	25	Check	0.503	B.2.4.5-8	122.32	No Message
N-1.75	C315	868	P150R4	50	Check	0.53	B.2.4.5-8	122.32	No Message
N-1.75	C316	869	P150R4	0	Check	0.53	B.2.4.5-8	122.32	No Message
N-1.75	C316	869	P150R4	25	Check	0.557	B.2.4.5-8	122.32	No Message
N-1.75	C316	869	P150R4	50	Check	0.584	B.2.4.5-8	122.32	No Message
N-1.75	C317	870	P150R4	0	Check	0.584	B.2.4.5-8	122.32	No Message
N-1.75	C317	870	P150R4	25	Check	0.611	B.2.4.5-8	122.32	No Message
N-1.75	C317	870	P150R4	50	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75	C318	871	P150R4	0	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75	C318	871	P150R4	0.1	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75	C318	871	P150R4	0.2	Check	0.638	B.2.4.5-8	122.32	No Message
N-1.75	C319	872	P150R1	0	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75	C319	872	P150R1	25	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75	C319	872	P150R1	50	Check	0.041	B.2.4.5-1	61.16	No Message
N-1.75	C320	873	P150R1	0	Check	0.041	B.2.4.5-1	61.16	No Message
N-1.75	C320	873	P150R1	25	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75	C320	873	P150R1	50	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75	C321	874	P150R1	0	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C321	874	P150R1	50	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C322	875	P150R1	0	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C322	875	P150R1	25	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C322	875	P150R1	50	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C323	876	P150R1	0	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C323	876	P150R1	25	Check	0.048	B.2.4.7-2	61.16	No Message
N-1.75	C323	876	P150R1	50	Check	0.058	B.2.4.7-2	61.16	No Message
N-1.75	C324	877	P150R1	0	Check	0.058	B.2.4.7-2	61.16	No Message
N-1.75	C324	877	P150R1	25	Check	0.068	B.2.4.7-2	61.16	No Message
N-1.75	C324	877	P150R1	50	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75	C325	878	P150R1	0	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75	C325	878	P150R1	25	Check	0.089	B.2.4.7-2	61.16	No Message
N-1.75	C325	878	P150R1	50	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75	C326	879	P150R1	0	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75	C326	879	P150R1	25	Check	0.11	B.2.4.7-2	61.16	No Message
N-1.75	C326	879	P150R1	50	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75	C327	880	P150R1	0	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75	C327	880	P150R1	25	Check	0.13	B.2.4.7-2	61.16	No Message
N-1.75	C327	880	P150R1	50	Check	0.14	B.2.4.7-2	61.16	No Message
N-1.75	C328	881	P150R1	0	Check	0.14	B.2.4.7-2	61.16	No Message
N-1.75	C328	881	P150R1	25	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75	C328	881	P150R1	50	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75	C329	882	P150R1	0	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75	C329	882	P150R1	25	Check	0.167	B.2.4.7-2	61.16	No Message
N-1.75	C329	882	P150R1	50	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75	C330	883	P150R1	0	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75	C330	883	P150R1	25	Check	0.185	B.2.4.7-2	61.16	No Message
N-1.75	C330	883	P150R1	50	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75	C331	884	P150R1	0	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75	C331	884	P150R1	25	Check	0.201	B.2.4.7-2	61.16	No Message
N-1.75	C331	884	P150R1	50	Check	0.208	B.2.4.7-2	61.16	No Message
N-1.75	C332	885	P150R1	0	Check	0.208	B.2.4.7-2	61.16	No Message
N-1.75	C332	885	P150R1	25	Check	0.213	B.2.4.7-2	61.16	No Message
N-1.75	C332	885	P150R1	50	Check	0.218	B.2.4.7-2	61.16	No Message
N-1.75	C333	886	P150R1	0	Check	0.218	B.2.4.7-2	61.16	No Message
N-1.75	C333	886	P150R1	25	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75	C333	886	P150R1	50	Check	0.24	B.2.4.7-2	61.16	No Message
N-1.75	C334	887	P150R1	0	Check	0.24	B.2.4.7-2	61.16	No Message
N-1.75	C334	887	P150R1	25	Check	0.253	B.2.4.7-2	61.16	No Message
N-1.75	C334	887	P150R1	50	Check	0.265	B.2.4.7-2	61.16	No Message
N-1.75	C335	888	P150R1	0	Check	0.265	B.2.4.7-2	61.16	No Message
N-1.75	C335	888	P150R1	25	Check	0.278	B.2.4.7-2	61.16	No Message
N-1.75	C335	888	P150R1	50	Check	0.29	B.2.4.7-2	61.16	No Message
N-1.75	C336	889	P150R1	0	Check	0.29	B.2.4.7-2	61.16	No Message
N-1.75	C336	889	P150R1	25	Check	0.301	B.2.4.7-2	61.16	No Message
N-1.75	C336	889	P150R1	50	Check	0.318	B.2.4.5-2	61.16	No Message
N-1.75	C337	890	P150R1	0	Check	0.318	B.2.4.5-2	61.16	No Message
N-1.75	C337	890	P150R1	25	Check	0.337	B.2.4.5-1	61.16	No Message
N-1.75	C337	890	P150R1	50	Check	0.356	B.2.4.5-1	61.16	No Message
N-1.75	C338	891	P150R1	0	Check	0.356	B.2.4.5-1	61.16	No Message
N-1.75	C338	891	P150R1	25	Check	0.375	B.2.4.5-1	61.16	No Message
N-1.75	C338	891	P150R1	50	Check	0.395	B.2.4.5-1	61.16	No Message
N-1.75	C339	892	P150R1	0	Check	0.395	B.2.4.5-1	61.16	No Message
N-1.75	C339	892	P150R1	25	Check	0.414	B.2.4.5-1	61.16	No Message
N-1.75	C339	892	P150R1	50	Check	0.434	B.2.4.5-1	61.16	No Message
N-1.75	C340	893	P150R1	0	Check	0.434	B.2.4.5-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C340	893	P150R1	50	Check	0.489	B.2.4.5-8	61.16	No Message
N-1.75	C341	894	P150R4	0	Check	0.261	B.2.4.5-8	122.32	No Message
N-1.75	C341	894	P150R4	25	Check	0.279	B.2.4.5-8	122.32	No Message
N-1.75	C341	894	P150R4	50	Check	0.298	B.2.4.5-8	122.32	No Message
N-1.75	C342	895	P150R4	0	Check	0.298	B.2.4.5-8	122.32	No Message
N-1.75	C342	895	P150R4	25	Check	0.317	B.2.4.5-8	122.32	No Message
N-1.75	C342	895	P150R4	50	Check	0.338	B.2.4.5-8	122.32	No Message
N-1.75	C343	896	P150R4	0	Check	0.338	B.2.4.5-8	122.32	No Message
N-1.75	C343	896	P150R4	25	Check	0.362	B.2.4.5-8	122.32	No Message
N-1.75	C343	896	P150R4	50	Check	0.388	B.2.4.5-8	122.32	No Message
N-1.75	C344	897	P150R4	0	Check	0.388	B.2.4.5-8	122.32	No Message
N-1.75	C344	897	P150R4	25	Check	0.414	B.2.4.5-8	122.32	No Message
N-1.75	C344	897	P150R4	50	Check	0.44	B.2.4.5-8	122.32	No Message
N-1.75	C345	898	P150R4	0	Check	0.44	B.2.4.5-8	122.32	No Message
N-1.75	C345	898	P150R4	25	Check	0.474	B.2.4.5-1	122.32	No Message
N-1.75	C345	898	P150R4	50	Check	0.51	B.2.4.5-1	122.32	No Message
N-1.75	C346	899	P150R4	0	Check	0.51	B.2.4.5-1	122.32	No Message
N-1.75	C346	899	P150R4	25	Check	0.547	B.2.4.5-1	122.32	No Message
N-1.75	C346	899	P150R4	50	Check	0.584	B.2.4.5-1	122.32	No Message
N-1.75	C347	900	P150R4	0	Check	0.584	B.2.4.5-1	122.32	No Message
N-1.75	C347	900	P150R4	25	Check	0.622	B.2.4.5-1	122.32	No Message
N-1.75	C347	900	P150R4	50	Check	0.66	B.2.4.5-1	122.32	No Message
N-1.75	C348	901	P150R4	0	Check	0.66	B.2.4.5-1	122.32	No Message
N-1.75	C348	901	P150R4	0.1	Check	0.661	B.2.4.5-1	122.32	No Message
N-1.75	C348	901	P150R4	0.2	Check	0.661	B.2.4.5-1	122.32	No Message
N-1.75	C349	902	P150R1	0	Check	0.032	B.2.4.5-2	61.16	No Message
N-1.75	C349	902	P150R1	25	Check	0.031	B.2.4.5-2	61.16	No Message
N-1.75	C349	902	P150R1	50	Check	0.03	B.2.4.5-2	61.16	No Message
N-1.75	C350	903	P150R1	0	Check	0.03	B.2.4.5-2	61.16	No Message
N-1.75	C350	903	P150R1	25	Check	0.03	B.2.4.5-2	61.16	No Message
N-1.75	C350	903	P150R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C351	904	P150R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C351	904	P150R1	25	Check	0.038	B.2.4.7-1	61.16	No Message
N-1.75	C351	904	P150R1	50	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75	C352	905	P150R1	0	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75	C352	905	P150R1	25	Check	0.056	B.2.4.7-1	61.16	No Message
N-1.75	C352	905	P150R1	50	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75	C353	906	P150R1	0	Check	0.065	B.2.4.7-1	61.16	No Message
N-1.75	C353	906	P150R1	25	Check	0.074	B.2.4.7-1	61.16	No Message
N-1.75	C353	906	P150R1	50	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C354	907	P150R1	0	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C354	907	P150R1	25	Check	0.091	B.2.4.7-2	61.16	No Message
N-1.75	C354	907	P150R1	50	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75	C355	908	P150R1	0	Check	0.1	B.2.4.7-2	61.16	No Message
N-1.75	C355	908	P150R1	25	Check	0.109	B.2.4.7-2	61.16	No Message
N-1.75	C355	908	P150R1	50	Check	0.118	B.2.4.7-2	61.16	No Message
N-1.75	C356	909	P150R1	0	Check	0.118	B.2.4.7-2	61.16	No Message
N-1.75	C356	909	P150R1	25	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C356	909	P150R1	50	Check	0.136	B.2.4.7-2	61.16	No Message
N-1.75	C357	910	P150R1	0	Check	0.136	B.2.4.7-2	61.16	No Message
N-1.75	C357	910	P150R1	25	Check	0.145	B.2.4.7-2	61.16	No Message
N-1.75	C357	910	P150R1	50	Check	0.154	B.2.4.7-2	61.16	No Message
N-1.75	C358	911	P150R1	0	Check	0.154	B.2.4.7-2	61.16	No Message
N-1.75	C358	911	P150R1	25	Check	0.163	B.2.4.7-2	61.16	No Message
N-1.75	C358	911	P150R1	50	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75	C359	912	P150R1	0	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C359	912	P150R1	50	Check	0.189	B.2.4.7-2	61.16	No Message
N-1.75	C360	913	P150R1	0	Check	0.189	B.2.4.7-2	61.16	No Message
N-1.75	C360	913	P150R1	25	Check	0.198	B.2.4.7-2	61.16	No Message
N-1.75	C360	913	P150R1	50	Check	0.207	B.2.4.7-2	61.16	No Message
N-1.75	C361	914	P150R1	0	Check	0.207	B.2.4.7-2	61.16	No Message
N-1.75	C361	914	P150R1	25	Check	0.215	B.2.4.7-2	61.16	No Message
N-1.75	C361	914	P150R1	50	Check	0.224	B.2.4.7-1	61.16	No Message
N-1.75	C362	915	P150R1	0	Check	0.224	B.2.4.7-1	61.16	No Message
N-1.75	C362	915	P150R1	25	Check	0.236	B.2.4.7-1	61.16	No Message
N-1.75	C362	915	P150R1	50	Check	0.248	B.2.4.7-1	61.16	No Message
N-1.75	C363	916	P150R1	0	Check	0.248	B.2.4.7-1	61.16	No Message
N-1.75	C363	916	P150R1	25	Check	0.26	B.2.4.7-1	61.16	No Message
N-1.75	C363	916	P150R1	50	Check	0.272	B.2.4.7-1	61.16	No Message
N-1.75	C364	917	P150R1	0	Check	0.272	B.2.4.7-1	61.16	No Message
N-1.75	C364	917	P150R1	25	Check	0.284	B.2.4.7-1	61.16	No Message
N-1.75	C364	917	P150R1	50	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75	C365	918	P150R1	0	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75	C365	918	P150R1	25	Check	0.313	B.2.4.5-1	61.16	No Message
N-1.75	C365	918	P150R1	50	Check	0.33	B.2.4.5-1	61.16	No Message
N-1.75	C366	919	P150R1	0	Check	0.33	B.2.4.5-1	61.16	No Message
N-1.75	C366	919	P150R1	25	Check	0.346	B.2.4.5-1	61.16	No Message
N-1.75	C366	919	P150R1	50	Check	0.362	B.2.4.5-1	61.16	No Message
N-1.75	C367	920	P150R4	0	Check	0.188	B.2.4.5-1	122.32	No Message
N-1.75	C367	920	P150R4	25	Check	0.196	B.2.4.5-1	122.32	No Message
N-1.75	C367	920	P150R4	50	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75	C368	921	P150R4	0	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75	C368	921	P150R4	25	Check	0.213	B.2.4.5-1	122.32	No Message
N-1.75	C368	921	P150R4	50	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75	C369	922	P150R4	0	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75	C369	922	P150R4	25	Check	0.231	B.2.4.5-1	122.32	No Message
N-1.75	C369	922	P150R4	50	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75	C370	923	P150R4	0	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75	C370	923	P150R4	25	Check	0.249	B.2.4.5-1	122.32	No Message
N-1.75	C370	923	P150R4	50	Check	0.259	B.2.4.5-1	122.32	No Message
N-1.75	C371	924	P150R4	0	Check	0.259	B.2.4.5-1	122.32	No Message
N-1.75	C371	924	P150R4	25	Check	0.267	B.2.4.5-1	122.32	No Message
N-1.75	C371	924	P150R4	50	Check	0.276	B.2.4.5-1	122.32	No Message
N-1.75	C372	925	P150R4	0	Check	0.276	B.2.4.5-1	122.32	No Message
N-1.75	C372	925	P150R4	25	Check	0.285	B.2.4.5-1	122.32	No Message
N-1.75	C372	925	P150R4	50	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75	C373	926	P150R4	0	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75	C373	926	P150R4	25	Check	0.306	B.2.4.5-1	122.32	No Message
N-1.75	C373	926	P150R4	50	Check	0.323	B.2.4.5-1	122.32	No Message
N-1.75	C374	927	P150R4	0	Check	0.323	B.2.4.5-1	122.32	No Message
N-1.75	C374	927	P150R4	25	Check	0.342	B.2.4.5-1	122.32	No Message
N-1.75	C374	927	P150R4	50	Check	0.362	B.2.4.5-1	122.32	No Message
N-1.75	C375	928	P150R4	0	Check	0.362	B.2.4.5-1	122.32	No Message
N-1.75	C375	928	P150R4	25	Check	0.382	B.2.4.5-1	122.32	No Message
N-1.75	C375	928	P150R4	50	Check	0.404	B.2.4.5-1	122.32	No Message
N-1.75	C376	929	P150R4	0	Check	0.404	B.2.4.5-1	122.32	No Message
N-1.75	C376	929	P150R4	25	Check	0.427	B.2.4.5-1	122.32	No Message
N-1.75	C376	929	P150R4	50	Check	0.453	B.2.4.5-1	122.32	No Message
N-1.75	C377	930	P150R4	0	Check	0.453	B.2.4.5-1	122.32	No Message
N-1.75	C377	930	P150R4	25	Check	0.479	B.2.4.5-1	122.32	No Message
N-1.75	C377	930	P150R4	50	Check	0.505	B.2.4.5-1	122.32	No Message
N-1.75	C378	931	P150R4	0	Check	0.505	B.2.4.5-1	122.32	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C378	931	P150R4	0.2	Check	0.506	B.2.4.5-1	122.32	No Message
N-1.75	C379	932	P150R1	0	Check	0.022	B.2.4.5-8	61.16	No Message
N-1.75	C379	932	P150R1	25	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C379	932	P150R1	50	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C380	933	P150R1	0	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C380	933	P150R1	25	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C380	933	P150R1	50	Check	0.019	B.2.4.5-8	61.16	No Message
N-1.75	C381	934	P150R1	0	Check	0.019	B.2.4.5-8	61.16	No Message
N-1.75	C381	934	P150R1	25	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75	C381	934	P150R1	50	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75	C382	935	P150R1	0	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75	C382	935	P150R1	25	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75	C382	935	P150R1	50	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75	C383	936	P150R1	0	Check	0.019	B.2.4.5-2	61.16	No Message
N-1.75	C383	936	P150R1	25	Check	0.022	B.2.4.7-1	61.16	No Message
N-1.75	C383	936	P150R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C384	937	P150R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C384	937	P150R1	25	Check	0.036	B.2.4.7-1	61.16	No Message
N-1.75	C384	937	P150R1	50	Check	0.044	B.2.4.7-1	61.16	No Message
N-1.75	C385	938	P150R1	0	Check	0.044	B.2.4.7-1	61.16	No Message
N-1.75	C385	938	P150R1	25	Check	0.052	B.2.4.7-1	61.16	No Message
N-1.75	C385	938	P150R1	50	Check	0.06	B.2.4.7-1	61.16	No Message
N-1.75	C386	939	P150R1	0	Check	0.06	B.2.4.7-1	61.16	No Message
N-1.75	C386	939	P150R1	25	Check	0.068	B.2.4.7-1	61.16	No Message
N-1.75	C386	939	P150R1	50	Check	0.077	B.2.4.7-1	61.16	No Message
N-1.75	C387	940	P150R1	0	Check	0.077	B.2.4.7-1	61.16	No Message
N-1.75	C387	940	P150R1	25	Check	0.086	B.2.4.7-1	61.16	No Message
N-1.75	C387	940	P150R1	50	Check	0.095	B.2.4.7-1	61.16	No Message
N-1.75	C388	941	P150R1	0	Check	0.095	B.2.4.7-1	61.16	No Message
N-1.75	C388	941	P150R1	25	Check	0.105	B.2.4.7-1	61.16	No Message
N-1.75	C388	941	P150R1	50	Check	0.115	B.2.4.7-1	61.16	No Message
N-1.75	C389	942	P150R1	0	Check	0.115	B.2.4.7-1	61.16	No Message
N-1.75	C389	942	P150R1	25	Check	0.125	B.2.4.7-1	61.16	No Message
N-1.75	C389	942	P150R1	50	Check	0.135	B.2.4.7-1	61.16	No Message
N-1.75	C390	943	P150R1	0	Check	0.135	B.2.4.7-1	61.16	No Message
N-1.75	C390	943	P150R1	25	Check	0.146	B.2.4.7-1	61.16	No Message
N-1.75	C390	943	P150R1	50	Check	0.156	B.2.4.7-1	61.16	No Message
N-1.75	C391	944	P150R1	0	Check	0.156	B.2.4.7-1	61.16	No Message
N-1.75	C391	944	P150R1	25	Check	0.167	B.2.4.7-1	61.16	No Message
N-1.75	C391	944	P150R1	50	Check	0.177	B.2.4.7-1	61.16	No Message
N-1.75	C392	945	P150R1	0	Check	0.177	B.2.4.7-1	61.16	No Message
N-1.75	C392	945	P150R1	25	Check	0.187	B.2.4.7-1	61.16	No Message
N-1.75	C392	945	P150R1	50	Check	0.197	B.2.4.7-1	61.16	No Message
N-1.75	C393	946	P150R1	0	Check	0.197	B.2.4.7-1	61.16	No Message
N-1.75	C393	946	P150R1	25	Check	0.207	B.2.4.7-1	61.16	No Message
N-1.75	C393	946	P150R1	50	Check	0.216	B.2.4.7-1	61.16	No Message
N-1.75	C394	947	P150R1	0	Check	0.216	B.2.4.7-1	61.16	No Message
N-1.75	C394	947	P150R1	25	Check	0.225	B.2.4.7-1	61.16	No Message
N-1.75	C394	947	P150R1	50	Check	0.234	B.2.4.7-1	61.16	No Message
N-1.75	C395	948	P150R1	0	Check	0.234	B.2.4.7-1	61.16	No Message
N-1.75	C395	948	P150R1	25	Check	0.241	B.2.4.7-1	61.16	No Message
N-1.75	C395	948	P150R1	50	Check	0.249	B.2.4.5-1	61.16	No Message
N-1.75	C396	949	P150R1	0	Check	0.249	B.2.4.5-1	61.16	No Message
N-1.75	C396	949	P150R1	25	Check	0.258	B.2.4.5-8	61.16	No Message
N-1.75	C396	949	P150R1	50	Check	0.269	B.2.4.5-8	61.16	No Message
N-1.75	C397	950	P150R1	0	Check	0.269	B.2.4.5-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C397	950	P150R1	50	Check	0.289	B.2.4.5-8	61.16	No Message
N-1.75	C398	951	P150R1	0	Check	0.289	B.2.4.5-8	61.16	No Message
N-1.75	C398	951	P150R1	25	Check	0.297	B.2.4.5-8	61.16	No Message
N-1.75	C398	951	P150R1	50	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75	C399	952	P150R1	0	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75	C399	952	P150R1	25	Check	0.312	B.2.4.5-8	61.16	No Message
N-1.75	C399	952	P150R1	50	Check	0.321	B.2.4.5-8	61.16	No Message
N-1.75	C400	953	P150R1	0	Check	0.321	B.2.4.5-8	61.16	No Message
N-1.75	C400	953	P150R1	25	Check	0.328	B.2.4.5-8	61.16	No Message
N-1.75	C400	953	P150R1	50	Check	0.335	B.2.4.5-8	61.16	No Message
N-1.75	C401	954	P150R4	0	Check	0.172	B.2.4.5-8	122.32	No Message
N-1.75	C401	954	P150R4	25	Check	0.175	B.2.4.5-8	122.32	No Message
N-1.75	C401	954	P150R4	50	Check	0.177	B.2.4.5-8	122.32	No Message
N-1.75	C402	955	P150R4	0	Check	0.177	B.2.4.5-8	122.32	No Message
N-1.75	C402	955	P150R4	25	Check	0.179	B.2.4.5-8	122.32	No Message
N-1.75	C402	955	P150R4	50	Check	0.18	B.2.4.5-8	122.32	No Message
N-1.75	C403	956	P150R4	0	Check	0.18	B.2.4.5-8	122.32	No Message
N-1.75	C403	956	P150R4	25	Check	0.181	B.2.4.5-8	122.32	No Message
N-1.75	C403	956	P150R4	50	Check	0.182	B.2.4.5-8	122.32	No Message
N-1.75	C404	957	P150R4	0	Check	0.182	B.2.4.5-8	122.32	No Message
N-1.75	C404	957	P150R4	25	Check	0.183	B.2.4.5-8	122.32	No Message
N-1.75	C404	957	P150R4	50	Check	0.184	B.2.4.5-8	122.32	No Message
N-1.75	C405	958	P150R4	0	Check	0.184	B.2.4.5-8	122.32	No Message
N-1.75	C405	958	P150R4	25	Check	0.188	B.2.4.5-1	122.32	No Message
N-1.75	C405	958	P150R4	50	Check	0.194	B.2.4.5-1	122.32	No Message
N-1.75	C406	959	P150R4	0	Check	0.194	B.2.4.5-1	122.32	No Message
N-1.75	C406	959	P150R4	25	Check	0.202	B.2.4.5-1	122.32	No Message
N-1.75	C406	959	P150R4	50	Check	0.212	B.2.4.5-1	122.32	No Message
N-1.75	C407	960	P150R4	0	Check	0.212	B.2.4.5-1	122.32	No Message
N-1.75	C407	960	P150R4	25	Check	0.223	B.2.4.5-1	122.32	No Message
N-1.75	C407	960	P150R4	50	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75	C408	961	P150R4	0	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75	C408	961	P150R4	0.1	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75	C408	961	P150R4	0.2	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75	C409	962	P150R1	0	Check	0.015	B.2.4.5-8	61.16	No Message
N-1.75	C409	962	P150R1	25	Check	0.015	B.2.4.5-8	61.16	No Message
N-1.75	C409	962	P150R1	50	Check	0.014	B.2.4.5-8	61.16	No Message
N-1.75	C410	963	P150R1	0	Check	0.014	B.2.4.5-8	61.16	No Message
N-1.75	C410	963	P150R1	25	Check	0.013	B.2.4.5-8	61.16	No Message
N-1.75	C410	963	P150R1	50	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75	C411	964	P150R1	0	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75	C411	964	P150R1	25	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75	C411	964	P150R1	50	Check	0.015	B.2.4.7-2	61.16	No Message
N-1.75	C412	965	P150R1	0	Check	0.015	B.2.4.7-2	61.16	No Message
N-1.75	C412	965	P150R1	25	Check	0.021	B.2.4.7-2	61.16	No Message
N-1.75	C412	965	P150R1	50	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75	C413	966	P150R1	0	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75	C413	966	P150R1	25	Check	0.037	B.2.4.7-2	61.16	No Message
N-1.75	C413	966	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C414	967	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C414	967	P150R1	25	Check	0.053	B.2.4.7-2	61.16	No Message
N-1.75	C414	967	P150R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C415	968	P150R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C415	968	P150R1	25	Check	0.07	B.2.4.7-2	61.16	No Message
N-1.75	C415	968	P150R1	50	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75	C416	969	P150R1	0	Check	0.079	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C416	969	P150R1	50	Check	0.099	B.2.4.7-2	61.16	No Message
N-1.75	C417	970	P150R1	0	Check	0.099	B.2.4.7-2	61.16	No Message
N-1.75	C417	970	P150R1	25	Check	0.109	B.2.4.7-2	61.16	No Message
N-1.75	C417	970	P150R1	50	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75	C418	971	P150R1	0	Check	0.12	B.2.4.7-2	61.16	No Message
N-1.75	C418	971	P150R1	25	Check	0.131	B.2.4.7-2	61.16	No Message
N-1.75	C418	971	P150R1	50	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75	C419	972	P150R1	0	Check	0.142	B.2.4.7-2	61.16	No Message
N-1.75	C419	972	P150R1	25	Check	0.153	B.2.4.7-2	61.16	No Message
N-1.75	C419	972	P150R1	50	Check	0.164	B.2.4.7-2	61.16	No Message
N-1.75	C420	973	P150R1	0	Check	0.164	B.2.4.7-2	61.16	No Message
N-1.75	C420	973	P150R1	25	Check	0.175	B.2.4.7-2	61.16	No Message
N-1.75	C420	973	P150R1	50	Check	0.186	B.2.4.7-2	61.16	No Message
N-1.75	C421	974	P150R1	0	Check	0.186	B.2.4.7-2	61.16	No Message
N-1.75	C421	974	P150R1	25	Check	0.199	B.2.4.5-2	61.16	No Message
N-1.75	C421	974	P150R1	50	Check	0.212	B.2.4.5-2	61.16	No Message
N-1.75	C422	975	P150R1	0	Check	0.212	B.2.4.5-2	61.16	No Message
N-1.75	C422	975	P150R1	25	Check	0.224	B.2.4.5-2	61.16	No Message
N-1.75	C422	975	P150R1	50	Check	0.237	B.2.4.5-2	61.16	No Message
N-1.75	C423	976	P150R1	0	Check	0.237	B.2.4.5-2	61.16	No Message
N-1.75	C423	976	P150R1	25	Check	0.248	B.2.4.5-2	61.16	No Message
N-1.75	C423	976	P150R1	50	Check	0.26	B.2.4.5-2	61.16	No Message
N-1.75	C424	977	P150R1	0	Check	0.26	B.2.4.5-2	61.16	No Message
N-1.75	C424	977	P150R1	25	Check	0.271	B.2.4.5-2	61.16	No Message
N-1.75	C424	977	P150R1	50	Check	0.282	B.2.4.5-2	61.16	No Message
N-1.75	C425	978	P150R1	0	Check	0.282	B.2.4.5-2	61.16	No Message
N-1.75	C425	978	P150R1	25	Check	0.292	B.2.4.5-1	61.16	No Message
N-1.75	C425	978	P150R1	50	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75	C426	979	P150R1	0	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75	C426	979	P150R1	25	Check	0.309	B.2.4.5-1	61.16	No Message
N-1.75	C426	979	P150R1	50	Check	0.317	B.2.4.5-1	61.16	No Message
N-1.75	C427	980	P150R1	0	Check	0.317	B.2.4.5-1	61.16	No Message
N-1.75	C427	980	P150R1	25	Check	0.327	B.2.4.5-8	61.16	No Message
N-1.75	C427	980	P150R1	50	Check	0.338	B.2.4.5-8	61.16	No Message
N-1.75	C428	981	P150R1	0	Check	0.338	B.2.4.5-8	61.16	No Message
N-1.75	C428	981	P150R1	25	Check	0.347	B.2.4.5-8	61.16	No Message
N-1.75	C428	981	P150R1	50	Check	0.357	B.2.4.5-8	61.16	No Message
N-1.75	C429	982	P150R1	0	Check	0.357	B.2.4.5-8	61.16	No Message
N-1.75	C429	982	P150R1	25	Check	0.364	B.2.4.5-8	61.16	No Message
N-1.75	C429	982	P150R1	50	Check	0.372	B.2.4.5-8	61.16	No Message
N-1.75	C430	983	P150R4	0	Check	0.191	B.2.4.5-8	122.32	No Message
N-1.75	C430	983	P150R4	25	Check	0.194	B.2.4.5-8	122.32	No Message
N-1.75	C430	983	P150R4	50	Check	0.197	B.2.4.5-8	122.32	No Message
N-1.75	C431	984	P150R4	0	Check	0.197	B.2.4.5-8	122.32	No Message
N-1.75	C431	984	P150R4	25	Check	0.2	B.2.4.5-8	122.32	No Message
N-1.75	C431	984	P150R4	50	Check	0.204	B.2.4.5-8	122.32	No Message
N-1.75	C432	985	P150R4	0	Check	0.204	B.2.4.5-8	122.32	No Message
N-1.75	C432	985	P150R4	25	Check	0.207	B.2.4.5-8	122.32	No Message
N-1.75	C432	985	P150R4	50	Check	0.21	B.2.4.5-8	122.32	No Message
N-1.75	C433	986	P150R4	0	Check	0.21	B.2.4.5-8	122.32	No Message
N-1.75	C433	986	P150R4	25	Check	0.214	B.2.4.5-8	122.32	No Message
N-1.75	C433	986	P150R4	50	Check	0.219	B.2.4.5-8	122.32	No Message
N-1.75	C434	987	P150R4	0	Check	0.219	B.2.4.5-8	122.32	No Message
N-1.75	C434	987	P150R4	25	Check	0.224	B.2.4.5-8	122.32	No Message
N-1.75	C434	987	P150R4	50	Check	0.231	B.2.4.5-1	122.32	No Message
N-1.75	C435	988	P150R4	0	Check	0.231	B.2.4.5-1	122.32	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C435	988	P150R4	50	Check	0.255	B.2.4.5-1	122.32	No Message
N-1.75	C436	989	P150R4	0	Check	0.255	B.2.4.5-1	122.32	No Message
N-1.75	C436	989	P150R4	25	Check	0.269	B.2.4.5-1	122.32	No Message
N-1.75	C436	989	P150R4	50	Check	0.284	B.2.4.5-1	122.32	No Message
N-1.75	C437	990	P150R4	0	Check	0.284	B.2.4.5-1	122.32	No Message
N-1.75	C437	990	P150R4	25	Check	0.3	B.2.4.5-1	122.32	No Message
N-1.75	C437	990	P150R4	50	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75	C438	991	P150R4	0	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75	C438	991	P150R4	0.1	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75	C438	991	P150R4	0.2	Check	0.317	B.2.4.5-1	122.32	No Message
N-1.75	C439	992	P120R1	0	Check	0.024	B.2.4.7-8	61.16	No Message
N-1.75	C439	992	P120R1	25	Check	0.028	B.2.4.7-8	61.16	No Message
N-1.75	C439	992	P120R1	50	Check	0.034	B.2.4.7-8	61.16	No Message
N-1.75	C440	993	P120R1	0	Check	0.036	B.2.4.7-8	61.16	No Message
N-1.75	C440	993	P120R1	25	Check	0.042	B.2.4.7-8	61.16	No Message
N-1.75	C440	993	P120R1	50	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75	C441	994	P120R1	0	Check	0.048	B.2.4.7-8	61.16	No Message
N-1.75	C441	994	P120R1	25	Check	0.053	B.2.4.7-8	61.16	No Message
N-1.75	C441	994	P120R1	50	Check	0.057	B.2.4.7-8	61.16	No Message
N-1.75	C442	995	P120R1	0	Check	0.057	B.2.4.7-8	61.16	No Message
N-1.75	C442	995	P120R1	25	Check	0.061	B.2.4.7-8	61.16	No Message
N-1.75	C442	995	P120R1	50	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75	C443	996	P120R1	0	Check	0.065	B.2.4.7-8	61.16	No Message
N-1.75	C443	996	P120R1	25	Check	0.069	B.2.4.7-8	61.16	No Message
N-1.75	C443	996	P120R1	50	Check	0.072	B.2.4.7-8	61.16	No Message
N-1.75	C444	997	P120R1	0	Check	0.072	B.2.4.7-8	61.16	No Message
N-1.75	C444	997	P120R1	25	Check	0.075	B.2.4.7-8	61.16	No Message
N-1.75	C444	997	P120R1	50	Check	0.079	B.2.4.7-8	61.16	No Message
N-1.75	C445	998	P120R1	0	Check	0.079	B.2.4.7-8	61.16	No Message
N-1.75	C445	998	P120R1	25	Check	0.083	B.2.4.7-1	61.16	No Message
N-1.75	C445	998	P120R1	50	Check	0.088	B.2.4.7-1	61.16	No Message
N-1.75	C446	999	P120R1	0	Check	0.088	B.2.4.7-1	61.16	No Message
N-1.75	C446	999	P120R1	25	Check	0.093	B.2.4.7-1	61.16	No Message
N-1.75	C446	999	P120R1	50	Check	0.099	B.2.4.7-1	61.16	No Message
N-1.75	C447	1000	P120R1	0	Check	0.099	B.2.4.7-1	61.16	No Message
N-1.75	C447	1000	P120R1	25	Check	0.106	B.2.4.5-1	61.16	No Message
N-1.75	C447	1000	P120R1	50	Check	0.114	B.2.4.5-1	61.16	No Message
N-1.75	C448	1001	P120R1	0	Check	0.114	B.2.4.5-1	61.16	No Message
N-1.75	C448	1001	P120R1	25	Check	0.122	B.2.4.5-1	61.16	No Message
N-1.75	C448	1001	P120R1	50	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75	C449	1002	P120R1	0	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75	C449	1002	P120R1	25	Check	0.14	B.2.4.5-1	61.16	No Message
N-1.75	C449	1002	P120R1	50	Check	0.15	B.2.4.5-1	61.16	No Message
N-1.75	C450	1003	P120R1	0	Check	0.15	B.2.4.5-1	61.16	No Message
N-1.75	C450	1003	P120R1	25	Check	0.16	B.2.4.5-1	61.16	No Message
N-1.75	C450	1003	P120R1	50	Check	0.17	B.2.4.5-1	61.16	No Message
N-1.75	C451	1004	P120R1	0	Check	0.17	B.2.4.5-1	61.16	No Message
N-1.75	C451	1004	P120R1	25	Check	0.18	B.2.4.5-1	61.16	No Message
N-1.75	C451	1004	P120R1	50	Check	0.191	B.2.4.5-1	61.16	No Message
N-1.75	C452	1005	P120R1	0	Check	0.191	B.2.4.5-1	61.16	No Message
N-1.75	C452	1005	P120R1	25	Check	0.201	B.2.4.5-1	61.16	No Message
N-1.75	C452	1005	P120R1	50	Check	0.212	B.2.4.5-1	61.16	No Message
N-1.75	C453	1006	P120R1	0	Check	0.212	B.2.4.5-1	61.16	No Message
N-1.75	C453	1006	P120R1	25	Check	0.223	B.2.4.5-1	61.16	No Message
N-1.75	C453	1006	P120R1	50	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75	C454	1007	P120R1	0	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C454	1007	P120R1	50	Check	0.254	B.2.4.5-1	61.16	No Message
N-1.75	C455	1008	P120R1	0	Check	0.254	B.2.4.5-1	61.16	No Message
N-1.75	C455	1008	P120R1	25	Check	0.264	B.2.4.5-1	61.16	No Message
N-1.75	C455	1008	P120R1	50	Check	0.273	B.2.4.5-1	61.16	No Message
N-1.75	C456	1009	P120R1	0	Check	0.273	B.2.4.5-1	61.16	No Message
N-1.75	C456	1009	P120R1	25	Check	0.282	B.2.4.5-1	61.16	No Message
N-1.75	C456	1009	P120R1	50	Check	0.29	B.2.4.5-1	61.16	No Message
N-1.75	C457	1010	P120R1	0	Check	0.29	B.2.4.5-1	61.16	No Message
N-1.75	C457	1010	P120R1	25	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75	C457	1010	P120R1	50	Check	0.303	B.2.4.5-1	61.16	No Message
N-1.75	C458	1011	P120R1	0	Check	0.303	B.2.4.5-1	61.16	No Message
N-1.75	C458	1011	P120R1	25	Check	0.309	B.2.4.5-1	61.16	No Message
N-1.75	C458	1011	P120R1	50	Check	0.315	B.2.4.5-1	61.16	No Message
N-1.75	C459	1012	P120R1	0	Check	0.315	B.2.4.5-1	61.16	No Message
N-1.75	C459	1012	P120R1	25	Check	0.321	B.2.4.5-1	61.16	No Message
N-1.75	C459	1012	P120R1	50	Check	0.328	B.2.4.5-1	61.16	No Message
N-1.75	C460	1013	P120R1	0	Check	0.328	B.2.4.5-1	61.16	No Message
N-1.75	C460	1013	P120R1	25	Check	0.333	B.2.4.5-1	61.16	No Message
N-1.75	C460	1013	P120R1	50	Check	0.339	B.2.4.5-1	61.16	No Message
N-1.75	C461	1014	P120R1	0	Check	0.339	B.2.4.5-1	61.16	No Message
N-1.75	C461	1014	P120R1	25	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75	C461	1014	P120R1	50	Check	0.346	B.2.4.5-8	61.16	No Message
N-1.75	C462	1015	P120R1	0	Check	0.346	B.2.4.5-8	61.16	No Message
N-1.75	C462	1015	P120R1	25	Check	0.351	B.2.4.5-8	61.16	No Message
N-1.75	C462	1015	P120R1	50	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75	C463	1016	P120R1	0	Check	0.355	B.2.4.5-8	61.16	No Message
N-1.75	C463	1016	P120R1	25	Check	0.359	B.2.4.5-8	61.16	No Message
N-1.75	C463	1016	P120R1	50	Check	0.363	B.2.4.5-8	61.16	No Message
N-1.75	C464	1017	P120R1	0	Check	0.363	B.2.4.5-8	61.16	No Message
N-1.75	C464	1017	P120R1	25	Check	0.366	B.2.4.5-8	61.16	No Message
N-1.75	C464	1017	P120R1	50	Check	0.371	B.2.4.5-8	61.16	No Message
N-1.75	C465	1018	P120R1	0	Check	0.371	B.2.4.5-8	61.16	No Message
N-1.75	C465	1018	P120R1	25	Check	0.375	B.2.4.5-8	61.16	No Message
N-1.75	C465	1018	P120R1	50	Check	0.384	B.2.4.5-8	61.16	No Message
N-1.75	C466	1019	P120R1	0	Check	0.384	B.2.4.5-8	61.16	No Message
N-1.75	C466	1019	P120R1	25	Check	0.404	B.2.4.5-1	61.16	No Message
N-1.75	C466	1019	P120R1	50	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75	C467	1020	P120R1	0	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75	C467	1020	P120R1	25	Check	0.45	B.2.4.5-1	61.16	No Message
N-1.75	C467	1020	P120R1	50	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75	C468	1021	P120R1	0	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75	C468	1021	P120R1	0.1	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75	C468	1021	P120R1	0.2	Check	0.478	B.2.4.5-1	61.16	No Message
N-1.75	C469	1022	P150R1	0	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75	C469	1022	P150R1	25	Check	0.013	B.2.4.5-1	61.16	No Message
N-1.75	C469	1022	P150R1	50	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75	C470	1023	P150R1	0	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75	C470	1023	P150R1	25	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75	C470	1023	P150R1	50	Check	0.017	B.2.4.7-2	61.16	No Message
N-1.75	C471	1024	P150R1	0	Check	0.017	B.2.4.7-2	61.16	No Message
N-1.75	C471	1024	P150R1	25	Check	0.025	B.2.4.7-2	61.16	No Message
N-1.75	C471	1024	P150R1	50	Check	0.034	B.2.4.7-2	61.16	No Message
N-1.75	C472	1025	P150R1	0	Check	0.034	B.2.4.7-2	61.16	No Message
N-1.75	C472	1025	P150R1	25	Check	0.042	B.2.4.7-2	61.16	No Message
N-1.75	C472	1025	P150R1	50	Check	0.05	B.2.4.7-2	61.16	No Message
N-1.75	C473	1026	P150R1	0	Check	0.05	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C473	1026	P150R1	50	Check	0.067	B.2.4.7-2	61.16	No Message
N-1.75	C474	1027	P150R1	0	Check	0.067	B.2.4.7-2	61.16	No Message
N-1.75	C474	1027	P150R1	25	Check	0.076	B.2.4.7-2	61.16	No Message
N-1.75	C474	1027	P150R1	50	Check	0.086	B.2.4.7-2	61.16	No Message
N-1.75	C475	1028	P150R1	0	Check	0.086	B.2.4.7-2	61.16	No Message
N-1.75	C475	1028	P150R1	25	Check	0.096	B.2.4.7-2	61.16	No Message
N-1.75	C475	1028	P150R1	50	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C476	4565	P150R1	0	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C476	4565	P150R1	25	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75	C476	4565	P150R1	50	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C477	4566	P150R1	0	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C477	4566	P150R1	25	Check	0.14	B.2.4.5-2	61.16	No Message
N-1.75	C477	4566	P150R1	50	Check	0.153	B.2.4.5-2	61.16	No Message
N-1.75	C478	4567	P150R1	0	Check	0.153	B.2.4.5-2	61.16	No Message
N-1.75	C478	4567	P150R1	25	Check	0.166	B.2.4.5-2	61.16	No Message
N-1.75	C478	4567	P150R1	50	Check	0.18	B.2.4.5-2	61.16	No Message
N-1.75	C479	4568	P150R1	0	Check	0.18	B.2.4.5-2	61.16	No Message
N-1.75	C479	4568	P150R1	25	Check	0.193	B.2.4.5-2	61.16	No Message
N-1.75	C479	4568	P150R1	50	Check	0.207	B.2.4.5-2	61.16	No Message
N-1.75	C480	4569	P150R1	0	Check	0.207	B.2.4.5-2	61.16	No Message
N-1.75	C480	4569	P150R1	25	Check	0.221	B.2.4.5-1	61.16	No Message
N-1.75	C480	4569	P150R1	50	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75	C481	4570	P150R1	0	Check	0.234	B.2.4.5-1	61.16	No Message
N-1.75	C481	4570	P150R1	25	Check	0.248	B.2.4.5-1	61.16	No Message
N-1.75	C481	4570	P150R1	50	Check	0.261	B.2.4.5-1	61.16	No Message
N-1.75	C482	4571	P150R1	0	Check	0.261	B.2.4.5-1	61.16	No Message
N-1.75	C482	4571	P150R1	25	Check	0.274	B.2.4.5-1	61.16	No Message
N-1.75	C482	4571	P150R1	50	Check	0.287	B.2.4.5-1	61.16	No Message
N-1.75	C483	4572	P150R1	0	Check	0.287	B.2.4.5-1	61.16	No Message
N-1.75	C483	4572	P150R1	25	Check	0.299	B.2.4.5-1	61.16	No Message
N-1.75	C483	4572	P150R1	50	Check	0.311	B.2.4.5-1	61.16	No Message
N-1.75	C484	4573	P150R1	0	Check	0.311	B.2.4.5-1	61.16	No Message
N-1.75	C484	4573	P150R1	25	Check	0.321	B.2.4.5-1	61.16	No Message
N-1.75	C484	4573	P150R1	50	Check	0.332	B.2.4.5-1	61.16	No Message
N-1.75	C485	4574	P150R1	0	Check	0.332	B.2.4.5-1	61.16	No Message
N-1.75	C485	4574	P150R1	25	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75	C485	4574	P150R1	50	Check	0.35	B.2.4.5-1	61.16	No Message
N-1.75	C486	4575	P150R1	0	Check	0.35	B.2.4.5-1	61.16	No Message
N-1.75	C486	4575	P150R1	25	Check	0.359	B.2.4.5-1	61.16	No Message
N-1.75	C486	4575	P150R1	50	Check	0.367	B.2.4.5-1	61.16	No Message
N-1.75	C487	4576	P150R1	0	Check	0.367	B.2.4.5-1	61.16	No Message
N-1.75	C487	4576	P150R1	25	Check	0.373	B.2.4.5-1	61.16	No Message
N-1.75	C487	4576	P150R1	50	Check	0.379	B.2.4.5-1	61.16	No Message
N-1.75	C488	4577	P150R1	0	Check	0.379	B.2.4.5-1	61.16	No Message
N-1.75	C488	4577	P150R1	25	Check	0.383	B.2.4.5-1	61.16	No Message
N-1.75	C488	4577	P150R1	50	Check	0.387	B.2.4.5-1	61.16	No Message
N-1.75	C489	4578	P150R1	0	Check	0.387	B.2.4.5-1	61.16	No Message
N-1.75	C489	4578	P150R1	25	Check	0.389	B.2.4.5-1	61.16	No Message
N-1.75	C489	4578	P150R1	50	Check	0.39	B.2.4.5-1	61.16	No Message
N-1.75	C490	4579	P150R4	0	Check	0.196	B.2.4.5-1	122.32	No Message
N-1.75	C490	4579	P150R4	25	Check	0.195	B.2.4.5-1	122.32	No Message
N-1.75	C490	4579	P150R4	50	Check	0.195	B.2.4.5-1	122.32	No Message
N-1.75	C491	4580	P150R4	0	Check	0.195	B.2.4.5-1	122.32	No Message
N-1.75	C491	4580	P150R4	25	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75	C491	4580	P150R4	50	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75	C492	4581	P150R4	0	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C492	4581	P150R4	50	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75	C493	4582	P150R4	0	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75	C493	4582	P150R4	25	Check	0.188	B.2.4.5-1	122.32	No Message
N-1.75	C493	4582	P150R4	50	Check	0.185	B.2.4.5-1	122.32	No Message
N-1.75	C494	4583	P150R4	0	Check	0.185	B.2.4.5-1	122.32	No Message
N-1.75	C494	4583	P150R4	25	Check	0.183	B.2.4.5-1	122.32	No Message
N-1.75	C494	4583	P150R4	50	Check	0.183	B.2.4.5-1	122.32	No Message
N-1.75	C495	4584	P150R4	0	Check	0.183	B.2.4.5-1	122.32	No Message
N-1.75	C495	4584	P150R4	25	Check	0.185	B.2.4.5-1	122.32	No Message
N-1.75	C495	4584	P150R4	50	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75	C496	4585	P150R4	0	Check	0.19	B.2.4.5-1	122.32	No Message
N-1.75	C496	4585	P150R4	25	Check	0.198	B.2.4.5-1	122.32	No Message
N-1.75	C496	4585	P150R4	50	Check	0.208	B.2.4.5-1	122.32	No Message
N-1.75	C497	4586	P150R4	0	Check	0.208	B.2.4.5-1	122.32	No Message
N-1.75	C497	4586	P150R4	25	Check	0.221	B.2.4.5-1	122.32	No Message
N-1.75	C497	4586	P150R4	50	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75	C498	4587	P150R4	0	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75	C498	4587	P150R4	0.1	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75	C498	4587	P150R4	0.2	Check	0.235	B.2.4.5-1	122.32	No Message
N-1.75	C499	4588	P150R1	0	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75	C499	4588	P150R1	25	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C499	4588	P150R1	50	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C500	4589	P150R1	0	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75	C500	4589	P150R1	25	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75	C500	4589	P150R1	50	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C501	4590	P150R1	0	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C501	4590	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C501	4590	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C502	4591	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C502	4591	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C502	4591	P150R1	50	Check	0.025	B.2.4.7-2	61.16	No Message
N-1.75	C503	4592	P150R1	0	Check	0.025	B.2.4.7-2	61.16	No Message
N-1.75	C503	4592	P150R1	25	Check	0.032	B.2.4.7-2	61.16	No Message
N-1.75	C503	4592	P150R1	50	Check	0.039	B.2.4.7-2	61.16	No Message
N-1.75	C504	4593	P150R1	0	Check	0.039	B.2.4.7-2	61.16	No Message
N-1.75	C504	4593	P150R1	25	Check	0.047	B.2.4.7-2	61.16	No Message
N-1.75	C504	4593	P150R1	50	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75	C505	4594	P150R1	0	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75	C505	4594	P150R1	25	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C505	4594	P150R1	50	Check	0.07	B.2.4.7-2	61.16	No Message
N-1.75	C506	4595	P150R1	0	Check	0.07	B.2.4.7-2	61.16	No Message
N-1.75	C506	4595	P150R1	25	Check	0.078	B.2.4.7-2	61.16	No Message
N-1.75	C506	4595	P150R1	50	Check	0.087	B.2.4.7-2	61.16	No Message
N-1.75	C507	4596	P150R1	0	Check	0.087	B.2.4.7-2	61.16	No Message
N-1.75	C507	4596	P150R1	25	Check	0.097	B.2.4.7-2	61.16	No Message
N-1.75	C507	4596	P150R1	50	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C508	4597	P150R1	0	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C508	4597	P150R1	25	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75	C508	4597	P150R1	50	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C509	4598	P150R1	0	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C509	4598	P150R1	25	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75	C509	4598	P150R1	50	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75	C510	4599	P150R1	0	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75	C510	4599	P150R1	25	Check	0.16	B.2.4.7-2	61.16	No Message
N-1.75	C510	4599	P150R1	50	Check	0.171	B.2.4.7-2	61.16	No Message
N-1.75	C511	4600	P150R1	0	Check	0.171	B.2.4.7-2	61.16	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C511	4600	P150R1	50	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75	C512	4601	P150R1	0	Check	0.193	B.2.4.7-2	61.16	No Message
N-1.75	C512	4601	P150R1	25	Check	0.203	B.2.4.7-2	61.16	No Message
N-1.75	C512	4601	P150R1	50	Check	0.214	B.2.4.7-2	61.16	No Message
N-1.75	C513	4602	P150R1	0	Check	0.214	B.2.4.7-2	61.16	No Message
N-1.75	C513	4602	P150R1	25	Check	0.224	B.2.4.7-2	61.16	No Message
N-1.75	C513	4602	P150R1	50	Check	0.234	B.2.4.7-2	61.16	No Message
N-1.75	C514	4603	P150R1	0	Check	0.234	B.2.4.7-2	61.16	No Message
N-1.75	C514	4603	P150R1	25	Check	0.244	B.2.4.7-2	61.16	No Message
N-1.75	C514	4603	P150R1	50	Check	0.253	B.2.4.7-2	61.16	No Message
N-1.75	C515	4604	P150R1	0	Check	0.253	B.2.4.7-2	61.16	No Message
N-1.75	C515	4604	P150R1	25	Check	0.262	B.2.4.7-2	61.16	No Message
N-1.75	C515	4604	P150R1	50	Check	0.272	B.2.4.7-2	61.16	No Message
N-1.75	C516	4605	P150R1	0	Check	0.272	B.2.4.7-2	61.16	No Message
N-1.75	C516	4605	P150R1	25	Check	0.28	B.2.4.7-2	61.16	No Message
N-1.75	C516	4605	P150R1	50	Check	0.288	B.2.4.7-2	61.16	No Message
N-1.75	C517	4606	P150R1	0	Check	0.288	B.2.4.7-2	61.16	No Message
N-1.75	C517	4606	P150R1	25	Check	0.295	B.2.4.7-2	61.16	No Message
N-1.75	C517	4606	P150R1	50	Check	0.301	B.2.4.7-2	61.16	No Message
N-1.75	C518	4607	P150R1	0	Check	0.301	B.2.4.7-2	61.16	No Message
N-1.75	C518	4607	P150R1	25	Check	0.307	B.2.4.7-2	61.16	No Message
N-1.75	C518	4607	P150R1	50	Check	0.312	B.2.4.7-2	61.16	No Message
N-1.75	C519	4608	P150R1	0	Check	0.312	B.2.4.7-2	61.16	No Message
N-1.75	C519	4608	P150R1	25	Check	0.315	B.2.4.7-2	61.16	No Message
N-1.75	C519	4608	P150R1	50	Check	0.318	B.2.4.7-2	61.16	No Message
N-1.75	C520	4609	P150R1	0	Check	0.318	B.2.4.7-2	61.16	No Message
N-1.75	C520	4609	P150R1	25	Check	0.321	B.2.4.5-2	61.16	No Message
N-1.75	C520	4609	P150R1	50	Check	0.325	B.2.4.5-2	61.16	No Message
N-1.75	C521	4610	P150R4	0	Check	0.168	B.2.4.5-1	122.32	No Message
N-1.75	C521	4610	P150R4	25	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75	C521	4610	P150R4	50	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75	C522	4611	P150R4	0	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75	C522	4611	P150R4	25	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75	C522	4611	P150R4	50	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75	C523	4612	P150R4	0	Check	0.169	B.2.4.5-1	122.32	No Message
N-1.75	C523	4612	P150R4	25	Check	0.17	B.2.4.5-1	122.32	No Message
N-1.75	C523	4612	P150R4	50	Check	0.171	B.2.4.5-1	122.32	No Message
N-1.75	C524	4613	P150R4	0	Check	0.171	B.2.4.5-1	122.32	No Message
N-1.75	C524	4613	P150R4	25	Check	0.171	B.2.4.5-1	122.32	No Message
N-1.75	C524	4613	P150R4	50	Check	0.172	B.2.4.5-1	122.32	No Message
N-1.75	C525	4614	P150R4	0	Check	0.172	B.2.4.5-1	122.32	No Message
N-1.75	C525	4614	P150R4	25	Check	0.173	B.2.4.5-1	122.32	No Message
N-1.75	C525	4614	P150R4	50	Check	0.176	B.2.4.5-1	122.32	No Message
N-1.75	C526	4615	P150R4	0	Check	0.176	B.2.4.5-1	122.32	No Message
N-1.75	C526	4615	P150R4	25	Check	0.181	B.2.4.5-1	122.32	No Message
N-1.75	C526	4615	P150R4	50	Check	0.186	B.2.4.5-1	122.32	No Message
N-1.75	C527	4616	P150R4	0	Check	0.186	B.2.4.5-1	122.32	No Message
N-1.75	C527	4616	P150R4	25	Check	0.193	B.2.4.5-1	122.32	No Message
N-1.75	C527	4616	P150R4	50	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75	C528	4617	P150R4	0	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75	C528	4617	P150R4	0.1	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75	C528	4617	P150R4	0.2	Check	0.201	B.2.4.5-1	122.32	No Message
N-1.75	C529	4618	P150R1	0	Check	0.022	B.2.4.5-1	61.16	No Message
N-1.75	C529	4618	P150R1	25	Check	0.021	B.2.4.5-1	61.16	No Message
N-1.75	C529	4618	P150R1	50	Check	0.021	B.2.4.5-1	61.16	No Message
N-1.75	C530	4619	P150R1	0	Check	0.021	B.2.4.5-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C530	4619	P150R1	50	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75	C531	4620	P150R1	0	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75	C531	4620	P150R1	25	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75	C531	4620	P150R1	50	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75	C532	4621	P150R1	0	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75	C532	4621	P150R1	25	Check	0.019	B.2.4.5-1	61.16	No Message
N-1.75	C532	4621	P150R1	50	Check	0.02	B.2.4.5-1	61.16	No Message
N-1.75	C533	4622	P150R1	0	Check	0.02	B.2.4.5-1	61.16	No Message
N-1.75	C533	4622	P150R1	25	Check	0.022	B.2.4.7-2	61.16	No Message
N-1.75	C533	4622	P150R1	50	Check	0.028	B.2.4.7-2	61.16	No Message
N-1.75	C534	4623	P150R1	0	Check	0.028	B.2.4.7-2	61.16	No Message
N-1.75	C534	4623	P150R1	25	Check	0.035	B.2.4.7-2	61.16	No Message
N-1.75	C534	4623	P150R1	50	Check	0.043	B.2.4.7-2	61.16	No Message
N-1.75	C535	4624	P150R1	0	Check	0.043	B.2.4.7-2	61.16	No Message
N-1.75	C535	4624	P150R1	25	Check	0.051	B.2.4.7-2	61.16	No Message
N-1.75	C535	4624	P150R1	50	Check	0.059	B.2.4.7-2	61.16	No Message
N-1.75	C536	4625	P150R1	0	Check	0.059	B.2.4.7-2	61.16	No Message
N-1.75	C536	4625	P150R1	25	Check	0.068	B.2.4.7-2	61.16	No Message
N-1.75	C536	4625	P150R1	50	Check	0.076	B.2.4.7-2	61.16	No Message
N-1.75	C537	4626	P150R1	0	Check	0.076	B.2.4.7-2	61.16	No Message
N-1.75	C537	4626	P150R1	25	Check	0.086	B.2.4.7-2	61.16	No Message
N-1.75	C537	4626	P150R1	50	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75	C538	4627	P150R1	0	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75	C538	4627	P150R1	25	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C538	4627	P150R1	50	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75	C539	4628	P150R1	0	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75	C539	4628	P150R1	25	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C539	4628	P150R1	50	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75	C540	4629	P150R1	0	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75	C540	4629	P150R1	25	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75	C540	4629	P150R1	50	Check	0.16	B.2.4.7-2	61.16	No Message
N-1.75	C541	4630	P150R1	0	Check	0.16	B.2.4.7-2	61.16	No Message
N-1.75	C541	4630	P150R1	25	Check	0.172	B.2.4.7-2	61.16	No Message
N-1.75	C541	4630	P150R1	50	Check	0.183	B.2.4.7-2	61.16	No Message
N-1.75	C542	4631	P150R1	0	Check	0.183	B.2.4.7-2	61.16	No Message
N-1.75	C542	4631	P150R1	25	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75	C542	4631	P150R1	50	Check	0.205	B.2.4.7-2	61.16	No Message
N-1.75	C543	4632	P150R1	0	Check	0.205	B.2.4.7-2	61.16	No Message
N-1.75	C543	4632	P150R1	25	Check	0.216	B.2.4.7-2	61.16	No Message
N-1.75	C543	4632	P150R1	50	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75	C544	4633	P150R1	0	Check	0.227	B.2.4.7-2	61.16	No Message
N-1.75	C544	4633	P150R1	25	Check	0.237	B.2.4.7-2	61.16	No Message
N-1.75	C544	4633	P150R1	50	Check	0.249	B.2.4.7-2	61.16	No Message
N-1.75	C545	4634	P150R1	0	Check	0.249	B.2.4.7-2	61.16	No Message
N-1.75	C545	4634	P150R1	25	Check	0.261	B.2.4.5-2	61.16	No Message
N-1.75	C545	4634	P150R1	50	Check	0.274	B.2.4.5-2	61.16	No Message
N-1.75	C546	4635	P150R1	0	Check	0.274	B.2.4.5-2	61.16	No Message
N-1.75	C546	4635	P150R1	25	Check	0.286	B.2.4.5-2	61.16	No Message
N-1.75	C546	4635	P150R1	50	Check	0.298	B.2.4.5-2	61.16	No Message
N-1.75	C547	4636	P150R1	0	Check	0.298	B.2.4.5-2	61.16	No Message
N-1.75	C547	4636	P150R1	25	Check	0.309	B.2.4.5-2	61.16	No Message
N-1.75	C547	4636	P150R1	50	Check	0.32	B.2.4.5-2	61.16	No Message
N-1.75	C548	4637	P150R1	0	Check	0.32	B.2.4.5-2	61.16	No Message
N-1.75	C548	4637	P150R1	25	Check	0.329	B.2.4.5-2	61.16	No Message
N-1.75	C548	4637	P150R1	50	Check	0.338	B.2.4.5-2	61.16	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C549	4638	P150R1	50	Check	0.356	B.2.4.5-2	61.16	No Message
N-1.75	C550	4639	P150R1	0	Check	0.356	B.2.4.5-2	61.16	No Message
N-1.75	C550	4639	P150R1	25	Check	0.363	B.2.4.5-2	61.16	No Message
N-1.75	C550	4639	P150R1	50	Check	0.37	B.2.4.5-2	61.16	No Message
N-1.75	C551	4640	P150R4	0	Check	0.192	B.2.4.5-2	122.32	No Message
N-1.75	C551	4640	P150R4	25	Check	0.195	B.2.4.5-2	122.32	No Message
N-1.75	C551	4640	P150R4	50	Check	0.197	B.2.4.5-2	122.32	No Message
N-1.75	C552	4641	P150R4	0	Check	0.197	B.2.4.5-2	122.32	No Message
N-1.75	C552	4641	P150R4	25	Check	0.199	B.2.4.5-1	122.32	No Message
N-1.75	C552	4641	P150R4	50	Check	0.202	B.2.4.5-1	122.32	No Message
N-1.75	C553	4642	P150R4	0	Check	0.202	B.2.4.5-1	122.32	No Message
N-1.75	C553	4642	P150R4	25	Check	0.205	B.2.4.5-1	122.32	No Message
N-1.75	C553	4642	P150R4	50	Check	0.207	B.2.4.5-1	122.32	No Message
N-1.75	C554	4643	P150R4	0	Check	0.207	B.2.4.5-1	122.32	No Message
N-1.75	C554	4643	P150R4	25	Check	0.21	B.2.4.5-1	122.32	No Message
N-1.75	C554	4643	P150R4	50	Check	0.213	B.2.4.5-1	122.32	No Message
N-1.75	C555	4644	P150R4	0	Check	0.213	B.2.4.5-1	122.32	No Message
N-1.75	C555	4644	P150R4	25	Check	0.215	B.2.4.5-1	122.32	No Message
N-1.75	C555	4644	P150R4	50	Check	0.218	B.2.4.5-1	122.32	No Message
N-1.75	C556	4645	P150R4	0	Check	0.218	B.2.4.5-1	122.32	No Message
N-1.75	C556	4645	P150R4	25	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75	C556	4645	P150R4	50	Check	0.228	B.2.4.5-1	122.32	No Message
N-1.75	C557	4646	P150R4	0	Check	0.228	B.2.4.5-1	122.32	No Message
N-1.75	C557	4646	P150R4	25	Check	0.234	B.2.4.5-1	122.32	No Message
N-1.75	C557	4646	P150R4	50	Check	0.239	B.2.4.5-1	122.32	No Message
N-1.75	C558	4647	P150R4	0	Check	0.239	B.2.4.5-1	122.32	No Message
N-1.75	C558	4647	P150R4	0.1	Check	0.239	B.2.4.5-1	122.32	No Message
N-1.75	C558	4647	P150R4	0.2	Check	0.24	B.2.4.5-1	122.32	No Message
N-1.75	C559	4648	P150R1	0	Check	0.026	B.2.4.5-1	61.16	No Message
N-1.75	C559	4648	P150R1	25	Check	0.026	B.2.4.5-1	61.16	No Message
N-1.75	C559	4648	P150R1	50	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75	C560	4649	P150R1	0	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75	C560	4649	P150R1	25	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C560	4649	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C561	4650	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C561	4650	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C561	4650	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C562	4651	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C562	4651	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C562	4651	P150R1	50	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C563	4652	P150R1	0	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C563	4652	P150R1	25	Check	0.023	B.2.4.5-1	61.16	No Message
N-1.75	C563	4652	P150R1	50	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C564	4653	P150R1	0	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C564	4653	P150R1	25	Check	0.025	B.2.4.5-1	61.16	No Message
N-1.75	C564	4653	P150R1	50	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75	C565	4654	P150R1	0	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75	C565	4654	P150R1	25	Check	0.035	B.2.4.7-2	61.16	No Message
N-1.75	C565	4654	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C566	4655	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C566	4655	P150R1	25	Check	0.054	B.2.4.7-2	61.16	No Message
N-1.75	C566	4655	P150R1	50	Check	0.064	B.2.4.7-2	61.16	No Message
N-1.75	C567	4656	P150R1	0	Check	0.064	B.2.4.7-2	61.16	No Message
N-1.75	C567	4656	P150R1	25	Check	0.074	B.2.4.7-2	61.16	No Message
N-1.75	C567	4656	P150R1	50	Check	0.084	B.2.4.7-2	61.16	No Message
N-1.75	C568	4657	P150R1	0	Check	0.084	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C568	4657	P150R1	50	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C569	4658	P150R1	0	Check	0.106	B.2.4.7-2	61.16	No Message
N-1.75	C569	4658	P150R1	25	Check	0.117	B.2.4.7-2	61.16	No Message
N-1.75	C569	4658	P150R1	50	Check	0.128	B.2.4.7-2	61.16	No Message
N-1.75	C570	4659	P150R1	0	Check	0.128	B.2.4.7-2	61.16	No Message
N-1.75	C570	4659	P150R1	25	Check	0.139	B.2.4.7-2	61.16	No Message
N-1.75	C570	4659	P150R1	50	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75	C571	4660	P150R1	0	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75	C571	4660	P150R1	25	Check	0.162	B.2.4.7-2	61.16	No Message
N-1.75	C571	4660	P150R1	50	Check	0.173	B.2.4.7-2	61.16	No Message
N-1.75	C572	4661	P150R1	0	Check	0.173	B.2.4.7-2	61.16	No Message
N-1.75	C572	4661	P150R1	25	Check	0.183	B.2.4.7-2	61.16	No Message
N-1.75	C572	4661	P150R1	50	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75	C573	4662	P150R1	0	Check	0.194	B.2.4.7-2	61.16	No Message
N-1.75	C573	4662	P150R1	25	Check	0.204	B.2.4.7-2	61.16	No Message
N-1.75	C573	4662	P150R1	50	Check	0.213	B.2.4.7-2	61.16	No Message
N-1.75	C574	4663	P150R1	0	Check	0.213	B.2.4.7-2	61.16	No Message
N-1.75	C574	4663	P150R1	25	Check	0.222	B.2.4.7-2	61.16	No Message
N-1.75	C574	4663	P150R1	50	Check	0.231	B.2.4.7-2	61.16	No Message
N-1.75	C575	4664	P150R1	0	Check	0.231	B.2.4.7-2	61.16	No Message
N-1.75	C575	4664	P150R1	25	Check	0.238	B.2.4.7-2	61.16	No Message
N-1.75	C575	4664	P150R1	50	Check	0.245	B.2.4.7-2	61.16	No Message
N-1.75	C576	4665	P150R1	0	Check	0.245	B.2.4.7-2	61.16	No Message
N-1.75	C576	4665	P150R1	25	Check	0.251	B.2.4.7-2	61.16	No Message
N-1.75	C576	4665	P150R1	50	Check	0.257	B.2.4.7-2	61.16	No Message
N-1.75	C577	4666	P150R1	0	Check	0.257	B.2.4.7-2	61.16	No Message
N-1.75	C577	4666	P150R1	25	Check	0.262	B.2.4.7-2	61.16	No Message
N-1.75	C577	4666	P150R1	50	Check	0.268	B.2.4.7-2	61.16	No Message
N-1.75	C578	4667	P150R1	0	Check	0.268	B.2.4.7-2	61.16	No Message
N-1.75	C578	4667	P150R1	25	Check	0.271	B.2.4.7-2	61.16	No Message
N-1.75	C578	4667	P150R1	50	Check	0.274	B.2.4.7-2	61.16	No Message
N-1.75	C579	4668	P150R1	0	Check	0.274	B.2.4.7-2	61.16	No Message
N-1.75	C579	4668	P150R1	25	Check	0.275	B.2.4.7-2	61.16	No Message
N-1.75	C579	4668	P150R1	50	Check	0.276	B.2.4.7-2	61.16	No Message
N-1.75	C580	4669	P150R1	0	Check	0.276	B.2.4.7-2	61.16	No Message
N-1.75	C580	4669	P150R1	25	Check	0.274	B.2.4.7-2	61.16	No Message
N-1.75	C580	4669	P150R1	50	Check	0.272	B.2.4.7-2	61.16	No Message
N-1.75	C581	4670	P150R4	0	Check	0.141	B.2.4.7-2	122.32	No Message
N-1.75	C581	4670	P150R4	25	Check	0.138	B.2.4.7-2	122.32	No Message
N-1.75	C581	4670	P150R4	50	Check	0.135	B.2.4.7-2	122.32	No Message
N-1.75	C582	4671	P150R4	0	Check	0.135	B.2.4.7-2	122.32	No Message
N-1.75	C582	4671	P150R4	25	Check	0.134	B.2.4.5-2	122.32	No Message
N-1.75	C582	4671	P150R4	50	Check	0.134	B.2.4.5-2	122.32	No Message
N-1.75	C583	4672	P150R4	0	Check	0.134	B.2.4.5-2	122.32	No Message
N-1.75	C583	4672	P150R4	25	Check	0.134	B.2.4.5-2	122.32	No Message
N-1.75	C583	4672	P150R4	50	Check	0.135	B.2.4.5-2	122.32	No Message
N-1.75	C584	4673	P150R4	0	Check	0.135	B.2.4.5-2	122.32	No Message
N-1.75	C584	4673	P150R4	25	Check	0.137	B.2.4.5-2	122.32	No Message
N-1.75	C584	4673	P150R4	50	Check	0.14	B.2.4.5-2	122.32	No Message
N-1.75	C585	4674	P150R4	0	Check	0.14	B.2.4.5-2	122.32	No Message
N-1.75	C585	4674	P150R4	25	Check	0.144	B.2.4.5-2	122.32	No Message
N-1.75	C585	4674	P150R4	50	Check	0.15	B.2.4.5-2	122.32	No Message
N-1.75	C586	4675	P150R4	0	Check	0.15	B.2.4.5-2	122.32	No Message
N-1.75	C586	4675	P150R4	25	Check	0.156	B.2.4.5-2	122.32	No Message
N-1.75	C586	4675	P150R4	50	Check	0.165	B.2.4.5-2	122.32	No Message
N-1.75	C587	4676	P150R4	0	Check	0.165	B.2.4.5-2	122.32	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C587	4676	P150R4	50	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75	C588	4677	P150R4	0	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75	C588	4677	P150R4	0.1	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75	C588	4677	P150R4	0.2	Check	0.186	B.2.4.5-2	122.32	No Message
N-1.75	C589	4678	P150R1	0	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75	C589	4678	P150R1	25	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75	C589	4678	P150R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C590	4679	P150R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C590	4679	P150R1	25	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C590	4679	P150R1	50	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C591	4680	P150R1	0	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C591	4680	P150R1	25	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C591	4680	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C592	4681	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C592	4681	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C592	4681	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C593	4682	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C593	4682	P150R1	25	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C593	4682	P150R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C594	4683	P150R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C594	4683	P150R1	25	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C594	4683	P150R1	50	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C595	4684	P150R1	0	Check	0.036	B.2.4.5-1	61.16	No Message
N-1.75	C595	4684	P150R1	25	Check	0.038	B.2.4.5-1	61.16	No Message
N-1.75	C595	4684	P150R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C596	4685	P150R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C596	4685	P150R1	25	Check	0.04	B.2.4.5-1	61.16	No Message
N-1.75	C596	4685	P150R1	50	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75	C597	4686	P150R1	0	Check	0.042	B.2.4.5-1	61.16	No Message
N-1.75	C597	4686	P150R1	25	Check	0.044	B.2.4.7-2	61.16	No Message
N-1.75	C597	4686	P150R1	50	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75	C598	4687	P150R1	0	Check	0.052	B.2.4.7-2	61.16	No Message
N-1.75	C598	4687	P150R1	25	Check	0.06	B.2.4.7-2	61.16	No Message
N-1.75	C598	4687	P150R1	50	Check	0.071	B.2.4.7-2	61.16	No Message
N-1.75	C599	4688	P150R1	0	Check	0.071	B.2.4.7-2	61.16	No Message
N-1.75	C599	4688	P150R1	25	Check	0.082	B.2.4.7-2	61.16	No Message
N-1.75	C599	4688	P150R1	50	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75	C600	4689	P150R1	0	Check	0.093	B.2.4.7-2	61.16	No Message
N-1.75	C600	4689	P150R1	25	Check	0.103	B.2.4.7-2	61.16	No Message
N-1.75	C600	4689	P150R1	50	Check	0.114	B.2.4.7-2	61.16	No Message
N-1.75	C601	4690	P150R1	0	Check	0.114	B.2.4.7-2	61.16	No Message
N-1.75	C601	4690	P150R1	25	Check	0.124	B.2.4.7-2	61.16	No Message
N-1.75	C601	4690	P150R1	50	Check	0.134	B.2.4.7-2	61.16	No Message
N-1.75	C602	4691	P150R1	0	Check	0.134	B.2.4.7-2	61.16	No Message
N-1.75	C602	4691	P150R1	25	Check	0.145	B.2.4.7-2	61.16	No Message
N-1.75	C602	4691	P150R1	50	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75	C603	4692	P150R1	0	Check	0.158	B.2.4.7-2	61.16	No Message
N-1.75	C603	4692	P150R1	25	Check	0.173	B.2.4.7-2	61.16	No Message
N-1.75	C603	4692	P150R1	50	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75	C604	4693	P150R1	0	Check	0.188	B.2.4.7-2	61.16	No Message
N-1.75	C604	4693	P150R1	25	Check	0.202	B.2.4.7-2	61.16	No Message
N-1.75	C604	4693	P150R1	50	Check	0.217	B.2.4.7-2	61.16	No Message
N-1.75	C605	4694	P150R1	0	Check	0.217	B.2.4.7-2	61.16	No Message
N-1.75	C605	4694	P150R1	25	Check	0.231	B.2.4.7-2	61.16	No Message
N-1.75	C605	4694	P150R1	50	Check	0.247	B.2.4.7-2	61.16	No Message
N-1.75	C606	4695	P150R1	0	Check	0.247	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C606	4695	P150R1	50	Check	0.281	B.2.4.7-2	61.16	No Message
N-1.75	C607	4696	P150R1	0	Check	0.281	B.2.4.7-2	61.16	No Message
N-1.75	C607	4696	P150R1	25	Check	0.298	B.2.4.7-2	61.16	No Message
N-1.75	C607	4696	P150R1	50	Check	0.321	B.2.4.5-2	61.16	No Message
N-1.75	C608	4697	P150R1	0	Check	0.321	B.2.4.5-2	61.16	No Message
N-1.75	C608	4697	P150R1	25	Check	0.348	B.2.4.5-2	61.16	No Message
N-1.75	C608	4697	P150R1	50	Check	0.376	B.2.4.5-2	61.16	No Message
N-1.75	C609	4698	P150R1	0	Check	0.376	B.2.4.5-2	61.16	No Message
N-1.75	C609	4698	P150R1	25	Check	0.404	B.2.4.5-2	61.16	No Message
N-1.75	C609	4698	P150R1	50	Check	0.433	B.2.4.5-2	61.16	No Message
N-1.75	C610	4699	P150R1	0	Check	0.433	B.2.4.5-2	61.16	No Message
N-1.75	C610	4699	P150R1	25	Check	0.462	B.2.4.5-1	61.16	No Message
N-1.75	C610	4699	P150R1	50	Check	0.491	B.2.4.5-1	61.16	No Message
N-1.75	C611	4700	P150R1	0	Check	0.491	B.2.4.5-1	61.16	No Message
N-1.75	C611	4700	P150R1	25	Check	0.522	B.2.4.5-1	61.16	No Message
N-1.75	C611	4700	P150R1	50	Check	0.556	B.2.4.5-1	61.16	No Message
N-1.75	C612	4701	P150R4	0	Check	0.298	B.2.4.5-1	122.32	No Message
N-1.75	C612	4701	P150R4	25	Check	0.316	B.2.4.5-1	122.32	No Message
N-1.75	C612	4701	P150R4	50	Check	0.335	B.2.4.5-1	122.32	No Message
N-1.75	C613	4702	P150R4	0	Check	0.335	B.2.4.5-1	122.32	No Message
N-1.75	C613	4702	P150R4	25	Check	0.353	B.2.4.5-1	122.32	No Message
N-1.75	C613	4702	P150R4	50	Check	0.371	B.2.4.5-1	122.32	No Message
N-1.75	C614	4703	P150R4	0	Check	0.371	B.2.4.5-1	122.32	No Message
N-1.75	C614	4703	P150R4	25	Check	0.389	B.2.4.5-1	122.32	No Message
N-1.75	C614	4703	P150R4	50	Check	0.408	B.2.4.5-1	122.32	No Message
N-1.75	C615	4704	P150R4	0	Check	0.408	B.2.4.5-1	122.32	No Message
N-1.75	C615	4704	P150R4	25	Check	0.428	B.2.4.5-1	122.32	No Message
N-1.75	C615	4704	P150R4	50	Check	0.448	B.2.4.5-1	122.32	No Message
N-1.75	C616	4705	P150R4	0	Check	0.448	B.2.4.5-1	122.32	No Message
N-1.75	C616	4705	P150R4	25	Check	0.469	B.2.4.5-1	122.32	No Message
N-1.75	C616	4705	P150R4	50	Check	0.489	B.2.4.5-1	122.32	No Message
N-1.75	C617	4706	P150R4	0	Check	0.489	B.2.4.5-1	122.32	No Message
N-1.75	C617	4706	P150R4	25	Check	0.509	B.2.4.5-1	122.32	No Message
N-1.75	C617	4706	P150R4	50	Check	0.529	B.2.4.5-1	122.32	No Message
N-1.75	C618	4707	P150R4	0	Check	0.529	B.2.4.5-1	122.32	No Message
N-1.75	C618	4707	P150R4	0.1	Check	0.529	B.2.4.5-1	122.32	No Message
N-1.75	C618	4707	P150R4	0.2	Check	0.529	B.2.4.5-1	122.32	No Message
N-1.75	C619	4708	P150R1	0	Check	0.015	B.2.4.5-1	61.16	No Message
N-1.75	C619	4708	P150R1	25	Check	0.014	B.2.4.5-1	61.16	No Message
N-1.75	C619	4708	P150R1	50	Check	0.014	B.2.4.5-1	61.16	No Message
N-1.75	C620	4709	P150R1	0	Check	0.015	B.2.4.5-1	61.16	No Message
N-1.75	C620	4709	P150R1	25	Check	0.014	B.2.4.5-1	61.16	No Message
N-1.75	C620	4709	P150R1	50	Check	0.014	B.2.4.5-1	61.16	No Message
N-1.75	C621	4710	P150R1	0	Check	0.014	B.2.4.5-1	61.16	No Message
N-1.75	C621	4710	P150R1	25	Check	0.015	B.2.4.5-1	61.16	No Message
N-1.75	C621	4710	P150R1	50	Check	0.017	B.2.4.7-2	61.16	No Message
N-1.75	C622	4711	P150R1	0	Check	0.017	B.2.4.7-2	61.16	No Message
N-1.75	C622	4711	P150R1	25	Check	0.023	B.2.4.7-2	61.16	No Message
N-1.75	C622	4711	P150R1	50	Check	0.031	B.2.4.7-2	61.16	No Message
N-1.75	C623	4712	P150R1	0	Check	0.031	B.2.4.7-2	61.16	No Message
N-1.75	C623	4712	P150R1	25	Check	0.04	B.2.4.7-2	61.16	No Message
N-1.75	C623	4712	P150R1	50	Check	0.048	B.2.4.7-2	61.16	No Message
N-1.75	C624	4713	P150R1	0	Check	0.048	B.2.4.7-2	61.16	No Message
N-1.75	C624	4713	P150R1	25	Check	0.057	B.2.4.7-2	61.16	No Message
N-1.75	C624	4713	P150R1	50	Check	0.066	B.2.4.7-2	61.16	No Message
N-1.75	C625	4714	P150R1	0	Check	0.066	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C625	4714	P150R1	50	Check	0.085	B.2.4.7-2	61.16	No Message
N-1.75	C626	4715	P150R1	0	Check	0.085	B.2.4.7-2	61.16	No Message
N-1.75	C626	4715	P150R1	25	Check	0.095	B.2.4.7-2	61.16	No Message
N-1.75	C626	4715	P150R1	50	Check	0.105	B.2.4.7-2	61.16	No Message
N-1.75	C627	4716	P150R1	0	Check	0.105	B.2.4.7-2	61.16	No Message
N-1.75	C627	4716	P150R1	25	Check	0.116	B.2.4.7-2	61.16	No Message
N-1.75	C627	4716	P150R1	50	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C628	4717	P150R1	0	Check	0.127	B.2.4.7-2	61.16	No Message
N-1.75	C628	4717	P150R1	25	Check	0.138	B.2.4.7-2	61.16	No Message
N-1.75	C628	4717	P150R1	50	Check	0.15	B.2.4.7-2	61.16	No Message
N-1.75	C629	4718	P150R1	0	Check	0.15	B.2.4.7-2	61.16	No Message
N-1.75	C629	4718	P150R1	25	Check	0.163	B.2.4.5-2	61.16	No Message
N-1.75	C629	4718	P150R1	50	Check	0.178	B.2.4.5-2	61.16	No Message
N-1.75	C630	4719	P150R1	0	Check	0.178	B.2.4.5-2	61.16	No Message
N-1.75	C630	4719	P150R1	25	Check	0.194	B.2.4.5-2	61.16	No Message
N-1.75	C630	4719	P150R1	50	Check	0.21	B.2.4.5-2	61.16	No Message
N-1.75	C631	4720	P150R1	0	Check	0.21	B.2.4.5-2	61.16	No Message
N-1.75	C631	4720	P150R1	25	Check	0.226	B.2.4.5-2	61.16	No Message
N-1.75	C631	4720	P150R1	50	Check	0.242	B.2.4.5-2	61.16	No Message
N-1.75	C632	4721	P150R1	0	Check	0.242	B.2.4.5-2	61.16	No Message
N-1.75	C632	4721	P150R1	25	Check	0.259	B.2.4.5-2	61.16	No Message
N-1.75	C632	4721	P150R1	50	Check	0.275	B.2.4.5-1	61.16	No Message
N-1.75	C633	4722	P150R1	0	Check	0.275	B.2.4.5-1	61.16	No Message
N-1.75	C633	4722	P150R1	25	Check	0.292	B.2.4.5-1	61.16	No Message
N-1.75	C633	4722	P150R1	50	Check	0.308	B.2.4.5-1	61.16	No Message
N-1.75	C634	4723	P150R1	0	Check	0.308	B.2.4.5-1	61.16	No Message
N-1.75	C634	4723	P150R1	25	Check	0.324	B.2.4.5-1	61.16	No Message
N-1.75	C634	4723	P150R1	50	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75	C635	4724	P150R1	0	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75	C635	4724	P150R1	25	Check	0.358	B.2.4.5-1	61.16	No Message
N-1.75	C635	4724	P150R1	50	Check	0.375	B.2.4.5-1	61.16	No Message
N-1.75	C636	4725	P150R1	0	Check	0.375	B.2.4.5-1	61.16	No Message
N-1.75	C636	4725	P150R1	25	Check	0.391	B.2.4.5-1	61.16	No Message
N-1.75	C636	4725	P150R1	50	Check	0.408	B.2.4.5-1	61.16	No Message
N-1.75	C637	4726	P150R1	0	Check	0.408	B.2.4.5-1	61.16	No Message
N-1.75	C637	4726	P150R1	25	Check	0.423	B.2.4.5-1	61.16	No Message
N-1.75	C637	4726	P150R1	50	Check	0.439	B.2.4.5-1	61.16	No Message
N-1.75	C638	4727	P150R1	0	Check	0.439	B.2.4.5-1	61.16	No Message
N-1.75	C638	4727	P150R1	25	Check	0.453	B.2.4.5-1	61.16	No Message
N-1.75	C638	4727	P150R1	50	Check	0.467	B.2.4.5-1	61.16	No Message
N-1.75	C639	4728	P150R1	0	Check	0.467	B.2.4.5-1	61.16	No Message
N-1.75	C639	4728	P150R1	25	Check	0.479	B.2.4.5-1	61.16	No Message
N-1.75	C639	4728	P150R1	50	Check	0.491	B.2.4.5-1	61.16	No Message
N-1.75	C640	4729	P150R1	0	Check	0.491	B.2.4.5-1	61.16	No Message
N-1.75	C640	4729	P150R1	25	Check	0.501	B.2.4.5-1	61.16	No Message
N-1.75	C640	4729	P150R1	50	Check	0.512	B.2.4.5-1	61.16	No Message
N-1.75	C641	4730	P150R1	0	Check	0.512	B.2.4.5-1	61.16	No Message
N-1.75	C641	4730	P150R1	25	Check	0.522	B.2.4.5-1	61.16	No Message
N-1.75	C641	4730	P150R1	50	Check	0.531	B.2.4.5-1	61.16	No Message
N-1.75	C642	4731	P150R4	0	Check	0.275	B.2.4.5-1	122.32	No Message
N-1.75	C642	4731	P150R4	25	Check	0.279	B.2.4.5-1	122.32	No Message
N-1.75	C642	4731	P150R4	50	Check	0.283	B.2.4.5-1	122.32	No Message
N-1.75	C643	4732	P150R4	0	Check	0.283	B.2.4.5-1	122.32	No Message
N-1.75	C643	4732	P150R4	25	Check	0.286	B.2.4.5-1	122.32	No Message
N-1.75	C643	4732	P150R4	50	Check	0.289	B.2.4.5-1	122.32	No Message
N-1.75	C644	4733	P150R4	0	Check	0.289	B.2.4.5-1	122.32	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C644	4733	P150R4	50	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75	C645	4734	P150R4	0	Check	0.295	B.2.4.5-1	122.32	No Message
N-1.75	C645	4734	P150R4	25	Check	0.298	B.2.4.5-1	122.32	No Message
N-1.75	C645	4734	P150R4	50	Check	0.302	B.2.4.5-1	122.32	No Message
N-1.75	C646	4735	P150R4	0	Check	0.302	B.2.4.5-1	122.32	No Message
N-1.75	C646	4735	P150R4	25	Check	0.304	B.2.4.5-1	122.32	No Message
N-1.75	C646	4735	P150R4	50	Check	0.307	B.2.4.5-1	122.32	No Message
N-1.75	C647	4736	P150R4	0	Check	0.307	B.2.4.5-1	122.32	No Message
N-1.75	C647	4736	P150R4	25	Check	0.311	B.2.4.5-8	122.32	No Message
N-1.75	C647	4736	P150R4	50	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75	C648	4737	P150R4	0	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75	C648	4737	P150R4	0.1	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75	C648	4737	P150R4	0.2	Check	0.318	B.2.4.5-8	122.32	No Message
N-1.75	C649	4738	P150R1	0	Check	0.009	B.2.4.5-1	61.16	No Message
N-1.75	C649	4738	P150R1	25	Check	0.008	B.2.4.5-1	61.16	No Message
N-1.75	C649	4738	P150R1	50	Check	0.008	B.2.4.5-1	61.16	No Message
N-1.75	C650	4739	P150R1	0	Check	0.008	B.2.4.5-1	61.16	No Message
N-1.75	C650	4739	P150R1	25	Check	0.009	B.2.4.5-1	61.16	No Message
N-1.75	C650	4739	P150R1	50	Check	0.013	B.2.4.7-2	61.16	No Message
N-1.75	C651	4740	P150R1	0	Check	0.013	B.2.4.7-2	61.16	No Message
N-1.75	C651	4740	P150R1	25	Check	0.022	B.2.4.7-2	61.16	No Message
N-1.75	C651	4740	P150R1	50	Check	0.03	B.2.4.7-2	61.16	No Message
N-1.75	C652	4741	P150R1	0	Check	0.03	B.2.4.7-2	61.16	No Message
N-1.75	C652	4741	P150R1	25	Check	0.039	B.2.4.7-2	61.16	No Message
N-1.75	C652	4741	P150R1	50	Check	0.047	B.2.4.7-2	61.16	No Message
N-1.75	C653	4742	P150R1	0	Check	0.047	B.2.4.7-2	61.16	No Message
N-1.75	C653	4742	P150R1	25	Check	0.056	B.2.4.7-2	61.16	No Message
N-1.75	C653	4742	P150R1	50	Check	0.066	B.2.4.5-2	61.16	No Message
N-1.75	C654	4743	P150R1	0	Check	0.066	B.2.4.5-2	61.16	No Message
N-1.75	C654	4743	P150R1	25	Check	0.076	B.2.4.5-2	61.16	No Message
N-1.75	C654	4743	P150R1	50	Check	0.087	B.2.4.5-2	61.16	No Message
N-1.75	C655	4744	P150R1	0	Check	0.087	B.2.4.5-2	61.16	No Message
N-1.75	C655	4744	P150R1	25	Check	0.099	B.2.4.5-2	61.16	No Message
N-1.75	C655	4744	P150R1	50	Check	0.111	B.2.4.5-2	61.16	No Message
N-1.75	C656	4745	P150R1	0	Check	0.111	B.2.4.5-2	61.16	No Message
N-1.75	C656	4745	P150R1	25	Check	0.123	B.2.4.5-2	61.16	No Message
N-1.75	C656	4745	P150R1	50	Check	0.136	B.2.4.5-2	61.16	No Message
N-1.75	C657	4746	P150R1	0	Check	0.136	B.2.4.5-2	61.16	No Message
N-1.75	C657	4746	P150R1	25	Check	0.148	B.2.4.5-2	61.16	No Message
N-1.75	C657	4746	P150R1	50	Check	0.162	B.2.4.5-1	61.16	No Message
N-1.75	C658	4747	P150R1	0	Check	0.162	B.2.4.5-1	61.16	No Message
N-1.75	C658	4747	P150R1	25	Check	0.175	B.2.4.5-1	61.16	No Message
N-1.75	C658	4747	P150R1	50	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75	C659	4748	P150R1	0	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75	C659	4748	P150R1	25	Check	0.203	B.2.4.5-1	61.16	No Message
N-1.75	C659	4748	P150R1	50	Check	0.217	B.2.4.5-1	61.16	No Message
N-1.75	C660	4749	P150R1	0	Check	0.217	B.2.4.5-1	61.16	No Message
N-1.75	C660	4749	P150R1	25	Check	0.231	B.2.4.5-1	61.16	No Message
N-1.75	C660	4749	P150R1	50	Check	0.244	B.2.4.5-1	61.16	No Message
N-1.75	C661	4750	P150R1	0	Check	0.244	B.2.4.5-1	61.16	No Message
N-1.75	C661	4750	P150R1	25	Check	0.258	B.2.4.5-1	61.16	No Message
N-1.75	C661	4750	P150R1	50	Check	0.271	B.2.4.5-1	61.16	No Message
N-1.75	C662	4751	P150R1	0	Check	0.271	B.2.4.5-1	61.16	No Message
N-1.75	C662	4751	P150R1	25	Check	0.284	B.2.4.5-1	61.16	No Message
N-1.75	C662	4751	P150R1	50	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75	C663	4752	P150R1	0	Check	0.297	B.2.4.5-1	61.16	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C663	4752	P150R1	50	Check	0.32	B.2.4.5-1	61.16	No Message
N-1.75	C664	4753	P150R1	0	Check	0.32	B.2.4.5-1	61.16	No Message
N-1.75	C664	4753	P150R1	25	Check	0.331	B.2.4.5-1	61.16	No Message
N-1.75	C664	4753	P150R1	50	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75	C665	4754	P150R1	0	Check	0.341	B.2.4.5-1	61.16	No Message
N-1.75	C665	4754	P150R1	25	Check	0.35	B.2.4.5-1	61.16	No Message
N-1.75	C665	4754	P150R1	50	Check	0.358	B.2.4.5-1	61.16	No Message
N-1.75	C666	4755	P150R1	0	Check	0.358	B.2.4.5-1	61.16	No Message
N-1.75	C666	4755	P150R1	25	Check	0.365	B.2.4.5-1	61.16	No Message
N-1.75	C666	4755	P150R1	50	Check	0.371	B.2.4.5-1	61.16	No Message
N-1.75	C667	4756	P150R1	0	Check	0.371	B.2.4.5-1	61.16	No Message
N-1.75	C667	4756	P150R1	25	Check	0.377	B.2.4.5-1	61.16	No Message
N-1.75	C667	4756	P150R1	50	Check	0.384	B.2.4.5-1	61.16	No Message
N-1.75	C668	4757	P150R1	0	Check	0.384	B.2.4.5-1	61.16	No Message
N-1.75	C668	4757	P150R1	25	Check	0.388	B.2.4.5-1	61.16	No Message
N-1.75	C668	4757	P150R1	50	Check	0.392	B.2.4.5-1	61.16	No Message
N-1.75	C669	4758	P150R1	0	Check	0.392	B.2.4.5-1	61.16	No Message
N-1.75	C669	4758	P150R1	25	Check	0.394	B.2.4.5-1	61.16	No Message
N-1.75	C669	4758	P150R1	50	Check	0.396	B.2.4.5-1	61.16	No Message
N-1.75	C670	4759	P150R1	0	Check	0.396	B.2.4.5-1	61.16	No Message
N-1.75	C670	4759	P150R1	25	Check	0.396	B.2.4.5-1	61.16	No Message
N-1.75	C670	4759	P150R1	50	Check	0.396	B.2.4.5-2	61.16	No Message
N-1.75	C671	4760	P150R4	0	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C671	4760	P150R4	25	Check	0.199	B.2.4.5-2	122.32	No Message
N-1.75	C671	4760	P150R4	50	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C672	4761	P150R4	0	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C672	4761	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C672	4761	P150R4	50	Check	0.201	B.2.4.5-2	122.32	No Message
N-1.75	C673	4762	P150R4	0	Check	0.201	B.2.4.5-2	122.32	No Message
N-1.75	C673	4762	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C673	4762	P150R4	50	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C674	4763	P150R4	0	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C674	4763	P150R4	25	Check	0.198	B.2.4.5-2	122.32	No Message
N-1.75	C674	4763	P150R4	50	Check	0.197	B.2.4.5-2	122.32	No Message
N-1.75	C675	4764	P150R4	0	Check	0.197	B.2.4.5-2	122.32	No Message
N-1.75	C675	4764	P150R4	25	Check	0.196	B.2.4.5-2	122.32	No Message
N-1.75	C675	4764	P150R4	50	Check	0.196	B.2.4.5-2	122.32	No Message
N-1.75	C676	4765	P150R4	0	Check	0.196	B.2.4.5-2	122.32	No Message
N-1.75	C676	4765	P150R4	25	Check	0.199	B.2.4.1	122.32	No Message
N-1.75	C676	4765	P150R4	50	Check	0.207	B.2.4.1	122.32	No Message
N-1.75	C677	4766	P150R4	0	Check	0.207	B.2.4.1	122.32	No Message
N-1.75	C677	4766	P150R4	25	Check	0.219	B.2.4.5-2	122.32	No Message
N-1.75	C677	4766	P150R4	50	Check	0.235	B.2.4.5-2	122.32	No Message
N-1.75	C678	4767	P150R4	0	Check	0.235	B.2.4.5-2	122.32	No Message
N-1.75	C678	4767	P150R4	0.1	Check	0.235	B.2.4.5-2	122.32	No Message
N-1.75	C678	4767	P150R4	0.2	Check	0.235	B.2.4.5-2	122.32	No Message
N-1.75	C679	4768	P150R1	0	Check	0.012	B.2.4.5-1	61.16	No Message
N-1.75	C679	4768	P150R1	25	Check	0.011	B.2.4.5-1	61.16	No Message
N-1.75	C679	4768	P150R1	50	Check	0.011	B.2.4.5-1	61.16	No Message
N-1.75	C680	4769	P150R1	0	Check	0.011	B.2.4.5-1	61.16	No Message
N-1.75	C680	4769	P150R1	25	Check	0.011	B.2.4.5-1	61.16	No Message
N-1.75	C680	4769	P150R1	50	Check	0.012	B.2.4.7-2	61.16	No Message
N-1.75	C681	4770	P150R1	0	Check	0.012	B.2.4.7-2	61.16	No Message
N-1.75	C681	4770	P150R1	25	Check	0.02	B.2.4.7-2	61.16	No Message
N-1.75	C681	4770	P150R1	50	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75	C682	4771	P150R1	0	Check	0.029	B.2.4.7-2	61.16	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C682	4771	P150R1	50	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C683	4772	P150R1	0	Check	0.045	B.2.4.7-2	61.16	No Message
N-1.75	C683	4772	P150R1	25	Check	0.053	B.2.4.7-2	61.16	No Message
N-1.75	C683	4772	P150R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C684	4773	P150R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C684	4773	P150R1	25	Check	0.07	B.2.4.7-1	61.16	No Message
N-1.75	C684	4773	P150R1	50	Check	0.079	B.2.4.7-1	61.16	No Message
N-1.75	C685	4774	P150R1	0	Check	0.079	B.2.4.7-1	61.16	No Message
N-1.75	C685	4774	P150R1	25	Check	0.089	B.2.4.7-1	61.16	No Message
N-1.75	C685	4774	P150R1	50	Check	0.098	B.2.4.7-1	61.16	No Message
N-1.75	C686	4775	P150R1	0	Check	0.098	B.2.4.7-1	61.16	No Message
N-1.75	C686	4775	P150R1	25	Check	0.108	B.2.4.7-1	61.16	No Message
N-1.75	C686	4775	P150R1	50	Check	0.118	B.2.4.7-1	61.16	No Message
N-1.75	C687	4776	P150R1	0	Check	0.118	B.2.4.7-1	61.16	No Message
N-1.75	C687	4776	P150R1	25	Check	0.13	B.2.4.5-1	61.16	No Message
N-1.75	C687	4776	P150R1	50	Check	0.143	B.2.4.5-1	61.16	No Message
N-1.75	C688	4777	P150R1	0	Check	0.143	B.2.4.5-1	61.16	No Message
N-1.75	C688	4777	P150R1	25	Check	0.155	B.2.4.5-1	61.16	No Message
N-1.75	C688	4777	P150R1	50	Check	0.168	B.2.4.5-1	61.16	No Message
N-1.75	C689	4778	P150R1	0	Check	0.168	B.2.4.5-1	61.16	No Message
N-1.75	C689	4778	P150R1	25	Check	0.181	B.2.4.5-1	61.16	No Message
N-1.75	C689	4778	P150R1	50	Check	0.195	B.2.4.5-1	61.16	No Message
N-1.75	C690	4779	P150R1	0	Check	0.195	B.2.4.5-1	61.16	No Message
N-1.75	C690	4779	P150R1	25	Check	0.209	B.2.4.5-1	61.16	No Message
N-1.75	C690	4779	P150R1	50	Check	0.223	B.2.4.5-1	61.16	No Message
N-1.75	C691	4780	P150R1	0	Check	0.223	B.2.4.5-1	61.16	No Message
N-1.75	C691	4780	P150R1	25	Check	0.236	B.2.4.5-1	61.16	No Message
N-1.75	C691	4780	P150R1	50	Check	0.25	B.2.4.5-1	61.16	No Message
N-1.75	C692	4781	P150R1	0	Check	0.25	B.2.4.5-1	61.16	No Message
N-1.75	C692	4781	P150R1	25	Check	0.263	B.2.4.5-1	61.16	No Message
N-1.75	C692	4781	P150R1	50	Check	0.276	B.2.4.5-1	61.16	No Message
N-1.75	C693	4782	P150R1	0	Check	0.276	B.2.4.5-1	61.16	No Message
N-1.75	C693	4782	P150R1	25	Check	0.289	B.2.4.5-1	61.16	No Message
N-1.75	C693	4782	P150R1	50	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75	C694	4783	P150R1	0	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75	C694	4783	P150R1	25	Check	0.312	B.2.4.5-1	61.16	No Message
N-1.75	C694	4783	P150R1	50	Check	0.324	B.2.4.5-1	61.16	No Message
N-1.75	C695	4784	P150R1	0	Check	0.324	B.2.4.5-1	61.16	No Message
N-1.75	C695	4784	P150R1	25	Check	0.334	B.2.4.5-1	61.16	No Message
N-1.75	C695	4784	P150R1	50	Check	0.345	B.2.4.5-1	61.16	No Message
N-1.75	C696	4785	P150R1	0	Check	0.345	B.2.4.5-1	61.16	No Message
N-1.75	C696	4785	P150R1	25	Check	0.357	B.2.4.5-1	61.16	No Message
N-1.75	C696	4785	P150R1	50	Check	0.369	B.2.4.5-1	61.16	No Message
N-1.75	C697	4786	P150R1	0	Check	0.369	B.2.4.5-1	61.16	No Message
N-1.75	C697	4786	P150R1	25	Check	0.38	B.2.4.5-1	61.16	No Message
N-1.75	C697	4786	P150R1	50	Check	0.391	B.2.4.5-1	61.16	No Message
N-1.75	C698	4787	P150R1	0	Check	0.391	B.2.4.5-1	61.16	No Message
N-1.75	C698	4787	P150R1	25	Check	0.4	B.2.4.5-1	61.16	No Message
N-1.75	C698	4787	P150R1	50	Check	0.41	B.2.4.5-1	61.16	No Message
N-1.75	C699	4788	P150R1	0	Check	0.41	B.2.4.5-1	61.16	No Message
N-1.75	C699	4788	P150R1	25	Check	0.417	B.2.4.5-1	61.16	No Message
N-1.75	C699	4788	P150R1	50	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75	C700	4789	P150R1	0	Check	0.425	B.2.4.5-1	61.16	No Message
N-1.75	C700	4789	P150R1	25	Check	0.431	B.2.4.5-1	61.16	No Message
N-1.75	C700	4789	P150R1	50	Check	0.436	B.2.4.5-1	61.16	No Message
N-1.75	C701	4790	P150R4	0	Check	0.222	B.2.4.5-1	122.32	No Message
N-1.75	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 cm	Design/Check	PMM Ratio	PMM Combo	As cm²	Warnings
N-1.75	C701	4790	P150R4	50	Check	0.225	B.2.4.5-1	122.32	No Message
N-1.75	C702	4791	P150R4	0	Check	0.225	B.2.4.5-1	122.32	No Message
N-1.75	C702	4791	P150R4	25	Check	0.225	B.2.4.5-1	122.32	No Message
N-1.75	C702	4791	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C703	4792	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C703	4792	P150R4	25	Check	0.225	B.2.4.5-2	122.32	No Message
N-1.75	C703	4792	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C704	4793	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C704	4793	P150R4	25	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C704	4793	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C705	4794	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C705	4794	P150R4	25	Check	0.225	B.2.4.5-2	122.32	No Message
N-1.75	C705	4794	P150R4	50	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C706	4795	P150R4	0	Check	0.226	B.2.4.5-2	122.32	No Message
N-1.75	C706	4795	P150R4	25	Check	0.23	B.2.4.5-2	122.32	No Message
N-1.75	C706	4795	P150R4	50	Check	0.239	B.2.4.5-2	122.32	No Message
N-1.75	C707	4796	P150R4	0	Check	0.239	B.2.4.5-2	122.32	No Message
N-1.75	C707	4796	P150R4	25	Check	0.253	B.2.4.5-2	122.32	No Message
N-1.75	C707	4796	P150R4	50	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75	C708	4797	P150R4	0	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75	C708	4797	P150R4	0.1	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75	C708	4797	P150R4	0.2	Check	0.269	B.2.4.5-2	122.32	No Message
N-1.75	C709	4798	P150R1	0	Check	0.009	B.2.4.1	61.16	No Message
N-1.75	C709	4798	P150R1	25	Check	0.008	B.2.4.1	61.16	No Message
N-1.75	C709	4798	P150R1	50	Check	0.008	B.2.4.5-2	61.16	No Message
N-1.75	C710	4799	P150R1	0	Check	0.009	B.2.4.5-2	61.16	No Message
N-1.75	C710	4799	P150R1	25	Check	0.009	B.2.4.5-2	61.16	No Message
N-1.75	C710	4799	P150R1	50	Check	0.012	B.2.4.7-1	61.16	No Message
N-1.75	C711	4800	P150R1	0	Check	0.012	B.2.4.7-1	61.16	No Message
N-1.75	C711	4800	P150R1	25	Check	0.02	B.2.4.7-1	61.16	No Message
N-1.75	C711	4800	P150R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C712	4801	P150R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C712	4801	P150R1	25	Check	0.038	B.2.4.7-1	61.16	No Message
N-1.75	C712	4801	P150R1	50	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75	C713	4802	P150R1	0	Check	0.047	B.2.4.7-1	61.16	No Message
N-1.75	C713	4802	P150R1	25	Check	0.057	B.2.4.5-1	61.16	No Message
N-1.75	C713	4802	P150R1	50	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75	C714	4803	P150R1	0	Check	0.068	B.2.4.5-1	61.16	No Message
N-1.75	C714	4803	P150R1	25	Check	0.079	B.2.4.5-1	61.16	No Message
N-1.75	C714	4803	P150R1	50	Check	0.09	B.2.4.5-1	61.16	No Message
N-1.75	C715	4804	P150R1	0	Check	0.09	B.2.4.5-1	61.16	No Message
N-1.75	C715	4804	P150R1	25	Check	0.101	B.2.4.5-1	61.16	No Message
N-1.75	C715	4804	P150R1	50	Check	0.113	B.2.4.5-1	61.16	No Message
N-1.75	C716	4805	P150R1	0	Check	0.113	B.2.4.5-1	61.16	No Message
N-1.75	C716	4805	P150R1	25	Check	0.125	B.2.4.5-1	61.16	No Message
N-1.75	C716	4805	P150R1	50	Check	0.137	B.2.4.5-1	61.16	No Message
N-1.75	C717	4806	P150R1	0	Check	0.137	B.2.4.5-1	61.16	No Message
N-1.75	C717	4806	P150R1	25	Check	0.15	B.2.4.5-1	61.16	No Message
N-1.75	C717	4806	P150R1	50	Check	0.163	B.2.4.5-1	61.16	No Message
N-1.75	C718	4807	P150R1	0	Check	0.163	B.2.4.5-1	61.16	No Message
N-1.75	C718	4807	P150R1	25	Check	0.176	B.2.4.5-1	61.16	No Message
N-1.75	C718	4807	P150R1	50	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75	C719	4808	P150R1	0	Check	0.189	B.2.4.5-1	61.16	No Message
N-1.75	C719	4808	P150R1	25	Check	0.202	B.2.4.5-1	61.16	No Message
N-1.75	C719	4808	P150R1	50	Check	0.215	B.2.4.5-1	61.16	No Message
N-1.75	C720	4809	P150R1	0	Check	0.215	B.2.4.5-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C720	4809	P150R1	50	Check	0.239	B.2.4.5-1	61.16	No Message
N-1.75	C721	4810	P150R1	0	Check	0.239	B.2.4.5-1	61.16	No Message
N-1.75	C721	4810	P150R1	25	Check	0.251	B.2.4.5-1	61.16	No Message
N-1.75	C721	4810	P150R1	50	Check	0.262	B.2.4.5-1	61.16	No Message
N-1.75	C722	4811	P150R1	0	Check	0.262	B.2.4.5-1	61.16	No Message
N-1.75	C722	4811	P150R1	25	Check	0.273	B.2.4.5-1	61.16	No Message
N-1.75	C722	4811	P150R1	50	Check	0.283	B.2.4.5-1	61.16	No Message
N-1.75	C723	4812	P150R1	0	Check	0.283	B.2.4.5-1	61.16	No Message
N-1.75	C723	4812	P150R1	25	Check	0.292	B.2.4.5-1	61.16	No Message
N-1.75	C723	4812	P150R1	50	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75	C724	4813	P150R1	0	Check	0.301	B.2.4.5-1	61.16	No Message
N-1.75	C724	4813	P150R1	25	Check	0.308	B.2.4.5-1	61.16	No Message
N-1.75	C724	4813	P150R1	50	Check	0.315	B.2.4.5-1	61.16	No Message
N-1.75	C725	4814	P150R1	0	Check	0.315	B.2.4.5-1	61.16	No Message
N-1.75	C725	4814	P150R1	25	Check	0.32	B.2.4.5-1	61.16	No Message
N-1.75	C725	4814	P150R1	50	Check	0.329	B.2.4.5-1	61.16	No Message
N-1.75	C726	4815	P150R1	0	Check	0.329	B.2.4.5-1	61.16	No Message
N-1.75	C726	4815	P150R1	25	Check	0.336	B.2.4.5-1	61.16	No Message
N-1.75	C726	4815	P150R1	50	Check	0.343	B.2.4.5-1	61.16	No Message
N-1.75	C727	4816	P150R1	0	Check	0.343	B.2.4.5-1	61.16	No Message
N-1.75	C727	4816	P150R1	25	Check	0.348	B.2.4.5-1	61.16	No Message
N-1.75	C727	4816	P150R1	50	Check	0.355	B.2.4.5-1	61.16	No Message
N-1.75	C728	4817	P150R1	0	Check	0.355	B.2.4.5-1	61.16	No Message
N-1.75	C728	4817	P150R1	25	Check	0.36	B.2.4.5-1	61.16	No Message
N-1.75	C728	4817	P150R1	50	Check	0.366	B.2.4.5-1	61.16	No Message
N-1.75	C729	4818	P150R1	0	Check	0.366	B.2.4.5-1	61.16	No Message
N-1.75	C729	4818	P150R1	25	Check	0.369	B.2.4.5-1	61.16	No Message
N-1.75	C729	4818	P150R1	50	Check	0.372	B.2.4.5-1	61.16	No Message
N-1.75	C730	4819	P150R1	0	Check	0.372	B.2.4.5-1	61.16	No Message
N-1.75	C730	4819	P150R1	25	Check	0.377	B.2.4.5-2	61.16	No Message
N-1.75	C730	4819	P150R1	50	Check	0.384	B.2.4.5-2	61.16	No Message
N-1.75	C731	4820	P150R4	0	Check	0.192	B.2.4.5-2	122.32	No Message
N-1.75	C731	4820	P150R4	25	Check	0.195	B.2.4.5-2	122.32	No Message
N-1.75	C731	4820	P150R4	50	Check	0.198	B.2.4.5-2	122.32	No Message
N-1.75	C732	4821	P150R4	0	Check	0.198	B.2.4.5-2	122.32	No Message
N-1.75	C732	4821	P150R4	25	Check	0.2	B.2.4.5-2	122.32	No Message
N-1.75	C732	4821	P150R4	50	Check	0.202	B.2.4.5-2	122.32	No Message
N-1.75	C733	4822	P150R4	0	Check	0.202	B.2.4.5-2	122.32	No Message
N-1.75	C733	4822	P150R4	25	Check	0.204	B.2.4.5-2	122.32	No Message
N-1.75	C733	4822	P150R4	50	Check	0.205	B.2.4.5-2	122.32	No Message
N-1.75	C734	4823	P150R4	0	Check	0.205	B.2.4.5-2	122.32	No Message
N-1.75	C734	4823	P150R4	25	Check	0.216	B.2.4.1	122.32	No Message
N-1.75	C734	4823	P150R4	50	Check	0.227	B.2.4.1	122.32	No Message
N-1.75	C735	4824	P150R4	0	Check	0.227	B.2.4.1	122.32	No Message
N-1.75	C735	4824	P150R4	25	Check	0.237	B.2.4.1	122.32	No Message
N-1.75	C735	4824	P150R4	50	Check	0.248	B.2.4.1	122.32	No Message
N-1.75	C736	4825	P150R4	0	Check	0.248	B.2.4.1	122.32	No Message
N-1.75	C736	4825	P150R4	25	Check	0.26	B.2.4.1	122.32	No Message
N-1.75	C736	4825	P150R4	50	Check	0.28	B.2.4.5-1	122.32	No Message
N-1.75	C737	4826	P150R4	0	Check	0.28	B.2.4.5-1	122.32	No Message
N-1.75	C737	4826	P150R4	25	Check	0.304	B.2.4.5-1	122.32	No Message
N-1.75	C737	4826	P150R4	50	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75	C738	4827	P150R4	0	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75	C738	4827	P150R4	0.1	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75	C738	4827	P150R4	0.2	Check	0.328	B.2.4.5-1	122.32	No Message
N-1.75	C739	104	P120R1	0	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C739	104	P120R1	50	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C740	105	P120R1	0	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C740	105	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C740	105	P120R1	50	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C741	106	P120R1	0	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C741	106	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C741	106	P120R1	50	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C742	107	P120R1	0	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C742	107	P120R1	25	Check	0.02	B.2.4.5-8	61.16	No Message
N-1.75	C742	107	P120R1	50	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C743	109	P120R1	0	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C743	109	P120R1	25	Check	0.021	B.2.4.5-8	61.16	No Message
N-1.75	C743	109	P120R1	50	Check	0.022	B.2.4.5-8	61.16	No Message
N-1.75	C744	110	P120R1	0	Check	0.022	B.2.4.5-8	61.16	No Message
N-1.75	C744	110	P120R1	25	Check	0.023	B.2.4.5-8	61.16	No Message
N-1.75	C744	110	P120R1	50	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C745	118	P120R1	0	Check	0.024	B.2.4.5-1	61.16	No Message
N-1.75	C745	118	P120R1	25	Check	0.027	B.2.4.7-8	61.16	No Message
N-1.75	C745	118	P120R1	50	Check	0.032	B.2.4.7-8	61.16	No Message
N-1.75	C746	123	P120R1	0	Check	0.032	B.2.4.7-8	61.16	No Message
N-1.75	C746	123	P120R1	25	Check	0.038	B.2.4.7-8	61.16	No Message
N-1.75	C746	123	P120R1	50	Check	0.045	B.2.4.7-8	61.16	No Message
N-1.75	C747	126	P120R1	0	Check	0.045	B.2.4.7-8	61.16	No Message
N-1.75	C747	126	P120R1	25	Check	0.052	B.2.4.7-8	61.16	No Message
N-1.75	C747	126	P120R1	50	Check	0.06	B.2.4.7-8	61.16	No Message
N-1.75	C748	127	P120R1	0	Check	0.06	B.2.4.7-8	61.16	No Message
N-1.75	C748	127	P120R1	25	Check	0.067	B.2.4.7-8	61.16	No Message
N-1.75	C748	127	P120R1	50	Check	0.076	B.2.4.7-8	61.16	No Message
N-1.75	C749	128	P120R1	0	Check	0.076	B.2.4.7-8	61.16	No Message
N-1.75	C749	128	P120R1	25	Check	0.084	B.2.4.7-8	61.16	No Message
N-1.75	C749	128	P120R1	50	Check	0.092	B.2.4.7-8	61.16	No Message
N-1.75	C750	141	P120R1	0	Check	0.092	B.2.4.7-8	61.16	No Message
N-1.75	C750	141	P120R1	25	Check	0.1	B.2.4.7-8	61.16	No Message
N-1.75	C750	141	P120R1	50	Check	0.109	B.2.4.7-8	61.16	No Message
N-1.75	C751	146	P120R1	0	Check	0.109	B.2.4.7-8	61.16	No Message
N-1.75	C751	146	P120R1	25	Check	0.116	B.2.4.7-8	61.16	No Message
N-1.75	C751	146	P120R1	50	Check	0.124	B.2.4.7-8	61.16	No Message
N-1.75	C752	154	P120R1	0	Check	0.124	B.2.4.7-8	61.16	No Message
N-1.75	C752	154	P120R1	25	Check	0.131	B.2.4.7-8	61.16	No Message
N-1.75	C752	154	P120R1	50	Check	0.138	B.2.4.7-8	61.16	No Message
N-1.75	C753	155	P120R1	0	Check	0.138	B.2.4.7-8	61.16	No Message
N-1.75	C753	155	P120R1	25	Check	0.144	B.2.4.7-8	61.16	No Message
N-1.75	C753	155	P120R1	50	Check	0.151	B.2.4.7-8	61.16	No Message
N-1.75	C754	156	P120R1	0	Check	0.151	B.2.4.7-8	61.16	No Message
N-1.75	C754	156	P120R1	25	Check	0.157	B.2.4.7-8	61.16	No Message
N-1.75	C754	156	P120R1	50	Check	0.163	B.2.4.7-8	61.16	No Message
N-1.75	C755	161	P120R1	0	Check	0.163	B.2.4.7-8	61.16	No Message
N-1.75	C755	161	P120R1	25	Check	0.169	B.2.4.5-2	61.16	No Message
N-1.75	C755	161	P120R1	50	Check	0.181	B.2.4.5-8	61.16	No Message
N-1.75	C756	162	P120R1	0	Check	0.181	B.2.4.5-8	61.16	No Message
N-1.75	C756	162	P120R1	25	Check	0.195	B.2.4.5-8	61.16	No Message
N-1.75	C756	162	P120R1	50	Check	0.209	B.2.4.5-8	61.16	No Message
N-1.75	C757	163	P120R1	0	Check	0.209	B.2.4.5-8	61.16	No Message
N-1.75	C757	163	P120R1	25	Check	0.222	B.2.4.5-8	61.16	No Message
N-1.75	C757	163	P120R1	50	Check	0.235	B.2.4.5-8	61.16	No Message
N-1.75	C758	164	P120R1	0	Check	0.235	B.2.4.5-8	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C758	164	P120R1	50	Check	0.26	B.2.4.5-8	61.16	No Message
N-1.75	C759	165	P120R1	0	Check	0.26	B.2.4.5-8	61.16	No Message
N-1.75	C759	165	P120R1	25	Check	0.272	B.2.4.5-8	61.16	No Message
N-1.75	C759	165	P120R1	50	Check	0.283	B.2.4.5-8	61.16	No Message
N-1.75	C760	166	P120R1	0	Check	0.283	B.2.4.5-8	61.16	No Message
N-1.75	C760	166	P120R1	25	Check	0.294	B.2.4.5-8	61.16	No Message
N-1.75	C760	166	P120R1	50	Check	0.305	B.2.4.5-8	61.16	No Message
N-1.75	C761	167	P120R2	0	Check	0.19	B.2.4.5-8	101.94	No Message
N-1.75	C761	167	P120R2	25	Check	0.196	B.2.4.5-8	101.94	No Message
N-1.75	C761	167	P120R2	50	Check	0.201	B.2.4.5-8	101.94	No Message
N-1.75	C762	168	P120R2	0	Check	0.201	B.2.4.5-8	101.94	No Message
N-1.75	C762	168	P120R2	25	Check	0.206	B.2.4.5-8	101.94	No Message
N-1.75	C762	168	P120R2	50	Check	0.21	B.2.4.5-8	101.94	No Message
N-1.75	C763	169	P120R2	0	Check	0.21	B.2.4.5-8	101.94	No Message
N-1.75	C763	169	P120R2	25	Check	0.215	B.2.4.5-8	101.94	No Message
N-1.75	C763	169	P120R2	50	Check	0.225	B.2.4.5-8	101.94	No Message
N-1.75	C764	170	P120R2	0	Check	0.225	B.2.4.5-8	101.94	No Message
N-1.75	C764	170	P120R2	25	Check	0.239	B.2.4.5-1	101.94	No Message
N-1.75	C764	170	P120R2	50	Check	0.265	B.2.4.5-1	101.94	No Message
N-1.75	C765	171	P120R2	0	Check	0.265	B.2.4.5-1	101.94	No Message
N-1.75	C765	171	P120R2	25	Check	0.296	B.2.4.5-1	101.94	No Message
N-1.75	C765	171	P120R2	50	Check	0.328	B.2.4.5-1	101.94	No Message
N-1.75	C766	172	P120R2	0	Check	0.328	B.2.4.5-1	101.94	No Message
N-1.75	C766	172	P120R2	25	Check	0.362	B.2.4.5-1	101.94	No Message
N-1.75	C766	172	P120R2	50	Check	0.396	B.2.4.5-1	101.94	No Message
N-1.75	C767	173	P120R2	0	Check	0.396	B.2.4.5-1	101.94	No Message
N-1.75	C767	173	P120R2	25	Check	0.431	B.2.4.5-1	101.94	No Message
N-1.75	C767	173	P120R2	50	Check	0.466	B.2.4.5-1	101.94	No Message
N-1.75	C768	174	P120R2	0	Check	0.466	B.2.4.5-1	101.94	No Message
N-1.75	C768	174	P120R2	0.1	Check	0.466	B.2.4.5-1	101.94	No Message
N-1.75	C768	174	P120R2	0.2	Check	0.467	B.2.4.5-1	101.94	No Message
N-1.75	C769	175	P120R1	0	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75	C769	175	P120R1	25	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C769	175	P120R1	50	Check	0.03	B.2.4.5-1	61.16	No Message
N-1.75	C770	176	P120R1	0	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C770	176	P120R1	25	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75	C770	176	P120R1	50	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C771	177	P120R1	0	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C771	177	P120R1	25	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C771	177	P120R1	50	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C772	183	P120R1	0	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C772	183	P120R1	25	Check	0.031	B.2.4.5-1	61.16	No Message
N-1.75	C772	183	P120R1	50	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75	C773	187	P120R1	0	Check	0.032	B.2.4.5-1	61.16	No Message
N-1.75	C773	187	P120R1	25	Check	0.033	B.2.4.5-1	61.16	No Message
N-1.75	C773	187	P120R1	50	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C774	188	P120R1	0	Check	0.035	B.2.4.5-1	61.16	No Message
N-1.75	C774	188	P120R1	25	Check	0.037	B.2.4.5-1	61.16	No Message
N-1.75	C774	188	P120R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C775	189	P120R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C775	189	P120R1	25	Check	0.041	B.2.4.5-1	61.16	No Message
N-1.75	C775	189	P120R1	50	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C776	190	P120R1	0	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C776	190	P120R1	25	Check	0.047	B.2.4.5-1	61.16	No Message
N-1.75	C776	190	P120R1	50	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75	C777	192	P120R1	0	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75	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	Warnings
				cm				cm^2	
N-1.75	C777	192	P120R1	50	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C778	193	P120R1	0	Check	0.062	B.2.4.7-2	61.16	No Message
N-1.75	C778	193	P120R1	25	Check	0.069	B.2.4.7-2	61.16	No Message
N-1.75	C778	193	P120R1	50	Check	0.078	B.2.4.7-2	61.16	No Message
N-1.75	C779	194	P120R1	0	Check	0.078	B.2.4.7-2	61.16	No Message
N-1.75	C779	194	P120R1	25	Check	0.087	B.2.4.7-2	61.16	No Message
N-1.75	C779	194	P120R1	50	Check	0.097	B.2.4.7-2	61.16	No Message
N-1.75	C780	195	P120R1	0	Check	0.097	B.2.4.7-2	61.16	No Message
N-1.75	C780	195	P120R1	25	Check	0.105	B.2.4.7-2	61.16	No Message
N-1.75	C780	195	P120R1	50	Check	0.114	B.2.4.7-2	61.16	No Message
N-1.75	C781	196	P120R1	0	Check	0.114	B.2.4.7-2	61.16	No Message
N-1.75	C781	196	P120R1	25	Check	0.122	B.2.4.7-2	61.16	No Message
N-1.75	C781	196	P120R1	50	Check	0.129	B.2.4.7-8	61.16	No Message
N-1.75	C782	197	P120R1	0	Check	0.129	B.2.4.7-8	61.16	No Message
N-1.75	C782	197	P120R1	25	Check	0.136	B.2.4.7-8	61.16	No Message
N-1.75	C782	197	P120R1	50	Check	0.142	B.2.4.7-8	61.16	No Message
N-1.75	C783	199	P120R1	0	Check	0.142	B.2.4.7-8	61.16	No Message
N-1.75	C783	199	P120R1	25	Check	0.146	B.2.4.7-8	61.16	No Message
N-1.75	C783	199	P120R1	50	Check	0.15	B.2.4.7-8	61.16	No Message
N-1.75	C784	200	P120R1	0	Check	0.15	B.2.4.7-8	61.16	No Message
N-1.75	C784	200	P120R1	25	Check	0.15	B.2.4.7-2	61.16	No Message
N-1.75	C784	200	P120R1	50	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75	C785	201	P120R1	0	Check	0.151	B.2.4.7-2	61.16	No Message
N-1.75	C785	201	P120R1	25	Check	0.149	B.2.4.7-2	61.16	No Message
N-1.75	C785	201	P120R1	50	Check	0.147	B.2.4.7-2	61.16	No Message
N-1.75	C786	202	P120R1	0	Check	0.147	B.2.4.7-2	61.16	No Message
N-1.75	C786	202	P120R1	25	Check	0.161	B.2.4.7-2	61.16	No Message
N-1.75	C786	202	P120R1	50	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75	C787	203	P120R1	0	Check	0.177	B.2.4.7-2	61.16	No Message
N-1.75	C787	203	P120R1	25	Check	0.196	B.2.4.5-2	61.16	No Message
N-1.75	C787	203	P120R1	50	Check	0.221	B.2.4.5-2	61.16	No Message
N-1.75	C788	205	P120R1	0	Check	0.221	B.2.4.5-2	61.16	No Message
N-1.75	C788	205	P120R1	25	Check	0.247	B.2.4.5-1	61.16	No Message
N-1.75	C788	205	P120R1	50	Check	0.274	B.2.4.5-1	61.16	No Message
N-1.75	C789	206	P120R1	0	Check	0.274	B.2.4.5-1	61.16	No Message
N-1.75	C789	206	P120R1	25	Check	0.303	B.2.4.5-1	61.16	No Message
N-1.75	C789	206	P120R1	50	Check	0.331	B.2.4.5-1	61.16	No Message
N-1.75	C790	207	P120R1	0	Check	0.331	B.2.4.5-1	61.16	No Message
N-1.75	C790	207	P120R1	25	Check	0.36	B.2.4.5-1	61.16	No Message
N-1.75	C790	207	P120R1	50	Check	0.39	B.2.4.5-1	61.16	No Message
N-1.75	C791	208	P120R2	0	Check	0.244	B.2.4.5-1	101.94	No Message
N-1.75	C791	208	P120R2	25	Check	0.263	B.2.4.5-1	101.94	No Message
N-1.75	C791	208	P120R2	50	Check	0.283	B.2.4.5-1	101.94	No Message
N-1.75	C792	209	P120R2	0	Check	0.283	B.2.4.5-1	101.94	No Message
N-1.75	C792	209	P120R2	25	Check	0.304	B.2.4.5-1	101.94	No Message
N-1.75	C792	209	P120R2	50	Check	0.329	B.2.4.5-1	101.94	No Message
N-1.75	C793	211	P120R2	0	Check	0.329	B.2.4.5-1	101.94	No Message
N-1.75	C793	211	P120R2	25	Check	0.356	B.2.4.5-1	101.94	No Message
N-1.75	C793	211	P120R2	50	Check	0.386	B.2.4.5-1	101.94	No Message
N-1.75	C794	212	P120R2	0	Check	0.386	B.2.4.5-1	101.94	No Message
N-1.75	C794	212	P120R2	25	Check	0.423	B.2.4.5-1	101.94	No Message
N-1.75	C794	212	P120R2	50	Check	0.46	B.2.4.5-1	101.94	No Message
N-1.75	C795	213	P120R2	0	Check	0.46	B.2.4.5-1	101.94	No Message
N-1.75	C795	213	P120R2	25	Check	0.501	B.2.4.5-1	101.94	No Message
N-1.75	C795	213	P120R2	50	Check	0.549	B.2.4.5-8	101.94	No Message
N-1.75	C796	214	P120R2	0	Check	0.549	B.2.4.5-8	101.94	No Message
N-1.75	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	Warnings
				cm				cm²	
N-1.75	C796	214	P120R2	50	Check	0.658	B.2.4.5-8	101.94	No Message
N-1.75	C797	215	P120R2	0	Check	0.658	B.2.4.5-8	101.94	No Message
N-1.75	C797	215	P120R2	25	Check	0.715	B.2.4.5-8	101.94	No Message
N-1.75	C797	215	P120R2	50	Check	0.772	B.2.4.5-8	101.94	No Message
N-1.75	C798	217	P120R2	0	Check	0.772	B.2.4.5-8	101.94	No Message
N-1.75	C798	217	P120R2	0.1	Check	0.772	B.2.4.5-8	101.94	No Message
N-1.75	C798	217	P120R2	0.2	Check	0.773	B.2.4.5-8	101.94	No Message
N-1.75	C799	220	P120R1	0	Check	0.006	B.2.4.1	61.16	No Message
N-1.75	C799	220	P120R1	25	Check	0.005	B.2.4.1	61.16	No Message
N-1.75	C799	220	P120R1	50	Check	0.006	B.2.4.5-2	61.16	No Message
N-1.75	C800	221	P120R1	0	Check	0.006	B.2.4.5-2	61.16	No Message
N-1.75	C800	221	P120R1	25	Check	0.007	B.2.4.5-2	61.16	No Message
N-1.75	C800	221	P120R1	50	Check	0.011	B.2.4.7-1	61.16	No Message
N-1.75	C801	223	P120R1	0	Check	0.011	B.2.4.7-1	61.16	No Message
N-1.75	C801	223	P120R1	25	Check	0.015	B.2.4.7-1	61.16	No Message
N-1.75	C801	223	P120R1	50	Check	0.02	B.2.4.7-1	61.16	No Message
N-1.75	C802	224	P120R1	0	Check	0.02	B.2.4.7-1	61.16	No Message
N-1.75	C802	224	P120R1	25	Check	0.025	B.2.4.7-1	61.16	No Message
N-1.75	C802	224	P120R1	50	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C803	225	P120R1	0	Check	0.029	B.2.4.7-1	61.16	No Message
N-1.75	C803	225	P120R1	25	Check	0.034	B.2.4.5-1	61.16	No Message
N-1.75	C803	225	P120R1	50	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C804	226	P120R1	0	Check	0.039	B.2.4.5-1	61.16	No Message
N-1.75	C804	226	P120R1	25	Check	0.044	B.2.4.5-1	61.16	No Message
N-1.75	C804	226	P120R1	50	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75	C805	227	P120R1	0	Check	0.05	B.2.4.5-1	61.16	No Message
N-1.75	C805	227	P120R1	25	Check	0.056	B.2.4.5-1	61.16	No Message
N-1.75	C805	227	P120R1	50	Check	0.062	B.2.4.5-1	61.16	No Message
N-1.75	C806	229	P120R1	0	Check	0.062	B.2.4.5-1	61.16	No Message
N-1.75	C806	229	P120R1	25	Check	0.069	B.2.4.5-1	61.16	No Message
N-1.75	C806	229	P120R1	50	Check	0.077	B.2.4.5-1	61.16	No Message
N-1.75	C807	230	P120R1	0	Check	0.077	B.2.4.5-1	61.16	No Message
N-1.75	C807	230	P120R1	25	Check	0.085	B.2.4.5-1	61.16	No Message
N-1.75	C807	230	P120R1	50	Check	0.093	B.2.4.5-1	61.16	No Message
N-1.75	C808	231	P120R1	0	Check	0.093	B.2.4.5-1	61.16	No Message
N-1.75	C808	231	P120R1	25	Check	0.102	B.2.4.5-1	61.16	No Message
N-1.75	C808	231	P120R1	50	Check	0.111	B.2.4.5-1	61.16	No Message
N-1.75	C809	232	P120R1	0	Check	0.111	B.2.4.5-1	61.16	No Message
N-1.75	C809	232	P120R1	25	Check	0.121	B.2.4.5-1	61.16	No Message
N-1.75	C809	232	P120R1	50	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75	C810	234	P120R1	0	Check	0.131	B.2.4.5-1	61.16	No Message
N-1.75	C810	234	P120R1	25	Check	0.141	B.2.4.5-1	61.16	No Message
N-1.75	C810	234	P120R1	50	Check	0.151	B.2.4.5-1	61.16	No Message
N-1.75	C811	235	P120R1	0	Check	0.151	B.2.4.5-1	61.16	No Message
N-1.75	C811	235	P120R1	25	Check	0.161	B.2.4.5-1	61.16	No Message
N-1.75	C811	235	P120R1	50	Check	0.171	B.2.4.5-1	61.16	No Message
N-1.75	C812	236	P120R1	0	Check	0.171	B.2.4.5-1	61.16	No Message
N-1.75	C812	236	P120R1	25	Check	0.181	B.2.4.5-1	61.16	No Message
N-1.75	C812	236	P120R1	50	Check	0.191	B.2.4.5-8	61.16	No Message
N-1.75	C813	237	P120R1	0	Check	0.191	B.2.4.5-8	61.16	No Message
N-1.75	C813	237	P120R1	25	Check	0.2	B.2.4.5-8	61.16	No Message
N-1.75	C813	237	P120R1	50	Check	0.21	B.2.4.5-8	61.16	No Message
N-1.75	C814	239	P120R1	0	Check	0.21	B.2.4.5-8	61.16	No Message
N-1.75	C814	239	P120R1	25	Check	0.218	B.2.4.5-8	61.16	No Message
N-1.75	C814	239	P120R1	50	Check	0.226	B.2.4.5-8	61.16	No Message
N-1.75	C815	240	P120R1	0	Check	0.226	B.2.4.5-8	61.16	No Message

Vigas Principales de Cimentación:

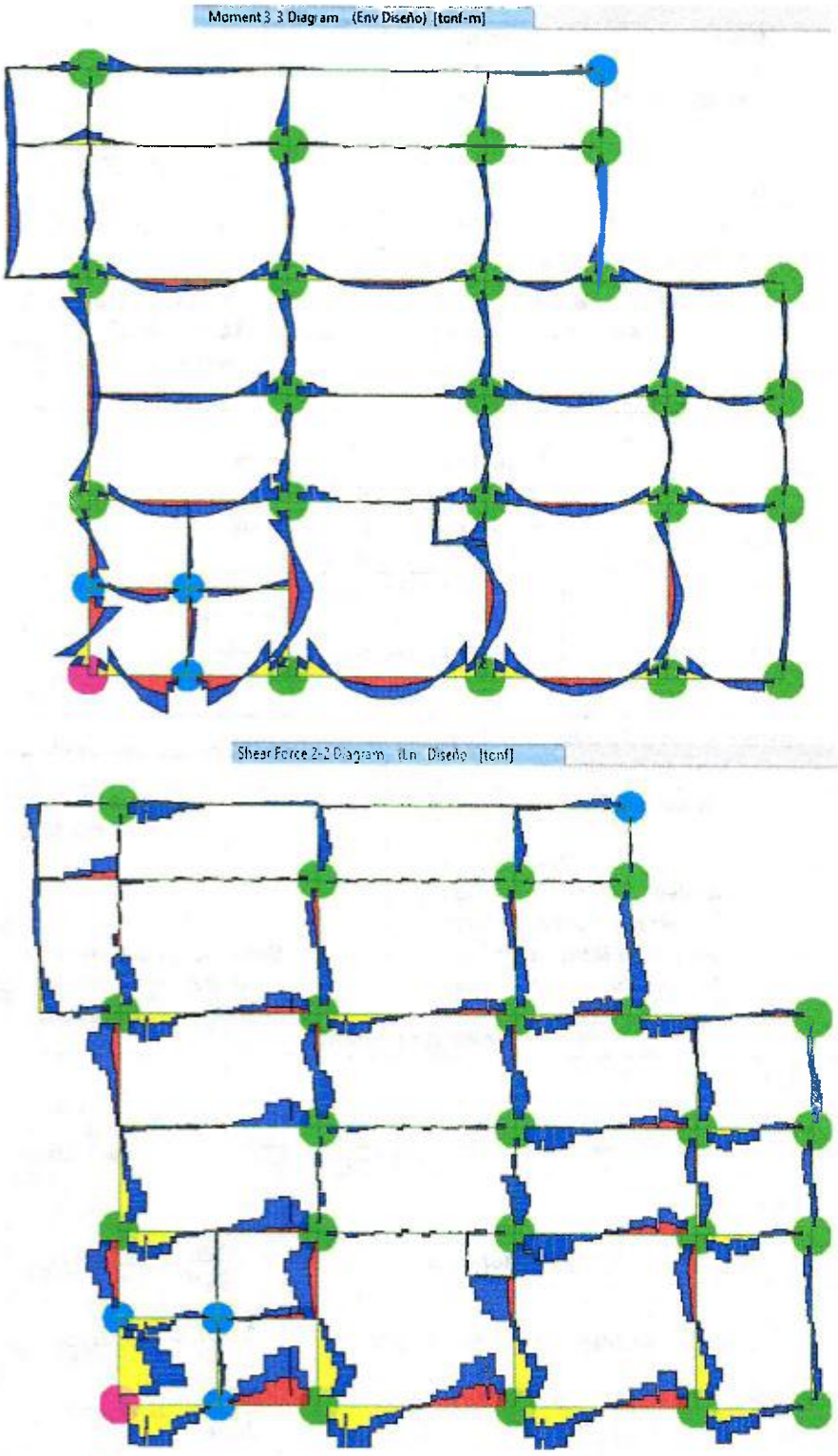
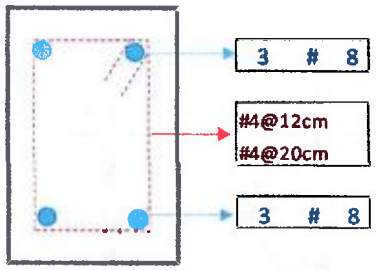


Figura 34 Diagramas de Momento Flector y Cortante Cimentación A

SECCIÓN: VIGA CIMENTACION 50 x 100

Base	50 cm
Altura	100 cm
Recubrimiento	7.5 cm
f'c	3000 psi
	21 MPa
fy	420 MPa
pmin	0.0033
As.min	15.3 cm²



Refuerzo Base 3 # 8
Ast. Base: 15.3 cm²

OK, Cumple Acero minimo

ρb 0.0213
ρ.max= 0.63*ρb 0.0134
As.max 62 cm²

Refuerzo Superior	3 # 8	26 cm²
	2 # 8	
Refuerzo Inferior	3 # 8	41 cm²
	5 # 8	

0,63*ρb*b*d: 62 cm²
(Ast1 - Ast2) < 0,63*ρb*b*d
Ok, El diseño es SubReforzado

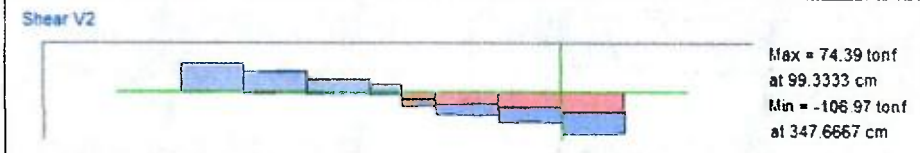
Separación Zona Confinada x<2H y Zona de Traslapos

X: cara del apoyo	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

Revisión Cortante



$Vu = 107.0$ ton

$\frac{V_{ud}}{b_w d} = 23.1 kg/cm^2$

$\frac{\emptyset\sqrt{f'c}}{6} = 5.84 kg/cm^2$ Av: 3 ramas

$\frac{\emptyset Av * fy}{b_w s} = 20.4 kg/cm^2$

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

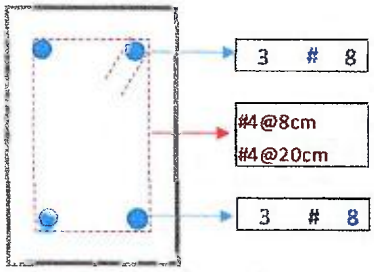
$\frac{\emptyset Vn}{b_w d} = 26.2 kg/cm^2$

$\emptyset Vn = 121.3$ ton

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

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
ρmin	0.0033
As.min	15.3 cm²



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

ρb 0.0213
ρ.max= 0.63*ρb 0.0134
As.max 62 cm²

Refuerzo Superior	3 # 8 2 # 8	26 cm²
Refuerzo Inferior	3 # 8 10 # 8	66 cm²

0,63*ρb*b*d: 62 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	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

$Vu =$ 212.0 ton

$\frac{V_{ud}}{b_w d} =$ 45.9kg/cm²

$\frac{\emptyset\sqrt{f'c}}{6} =$ 5.84kg/cm² Av: 5 ramas

$\frac{\emptyset Av * fy}{b_w s} =$ 51.0kg/cm²

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

$\frac{\emptyset Vn}{b_w d} =$ 56.9kg/cm²

$\emptyset Vn =$ 262.8 ton

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

Label Vigas de Cimentación Edificio A

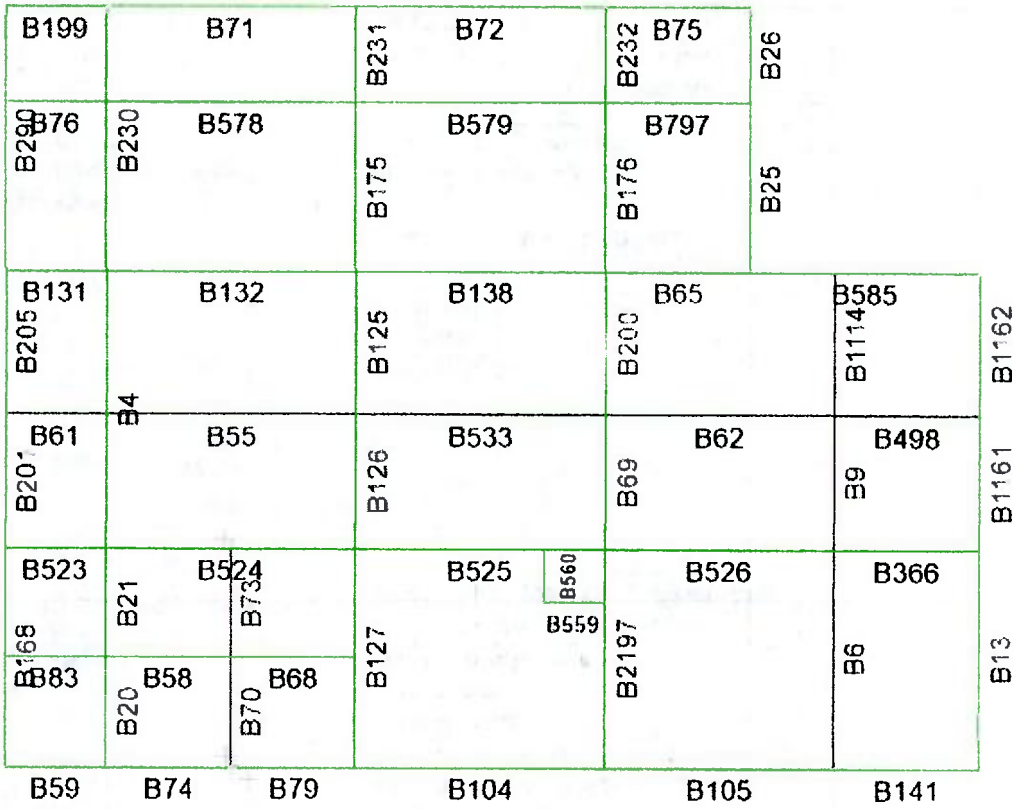


Tabla 21 Reporte de diseño de vigas de cimentación Edificio A

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B104	VCIM 50x100	206.7	B.2.4.5-8	19.8	19.80	0.35	17.50	0.02
N-1.75	B104	VCIM 50x100	221.4	B.2.4.5-8	19.8	19.80	0.35	17.50	0.02
N-1.75	B104	VCIM 50x100	221.4	B.2.4.5-8	19.6	19.60	0.30	17.50	0.03
N-1.75	B104	VCIM 50x100	258.3	B.2.4.5-8	25.9	19.60	0.30	17.50	0.03
N-1.75	B104	VCIM 50x100	258.3	B.2.4.5-8	26.2	19.40	0.26	17.50	0.03
N-1.75	B104	VCIM 50x100	284.2	B.2.4.5-8	30.7	19.40	0.26	17.50	0.03
N-1.75	B104	VCIM 50x100	310	B.2.4.5-8	35.3	19.40	0.27	17.50	0.03
N-1.75	B104	VCIM 50x100	310	B.2.4.5-8	35.7	19.30	0.21	17.50	0.04
N-1.75	B104	VCIM 50x100	332.1	B.2.4.5-8	38.4	19.30	0.21	17.50	0.04
N-1.75	B104	VCIM 50x100	332.1	B.2.4.5-8	38.5	19.20	0.14	17.50	0.02
N-1.75	B104	VCIM 50x100	361.7	B.2.4.5-8	39.8	19.20	0.14	17.50	0.02
N-1.75	B104	VCIM 50x100	361.7	B.2.4.5-8	39.7	19.10	0.11	17.50	0.01
N-1.75	B104	VCIM 50x100	387.5	B.2.4.5-8	40	19.10	0.11	17.50	0.01
N-1.75	B104	VCIM 50x100	413.3	B.2.4.5-8	40.3	19.10	0.11	17.50	0.01
N-1.75	B104	VCIM 50x100	413.3	B.2.4.5-8	40.2	19.00	0.08	17.50	0.01
N-1.75	B104	VCIM 50x100	442.9	B.2.4.5-8	39.5	19.00	0.08	17.50	0.01
N-1.75	B104	VCIM 50x100	442.9	B.2.4.5-8	39.4	19.00	0.17	16.00	0.05
N-1.75	B104	VCIM 50x100	465	B.2.4.5-8	36.7	19.00	0.17	16.00	0.05
N-1.75	B104	VCIM 50x100	465	B.2.4.5-8	36.1	18.90	0.23	16.70	0.05
N-1.75	B104	VCIM 50x100	490.8	B.2.4.5-8	31.4	18.90	0.23	16.70	0.05
N-1.75	B104	VCIM 50x100	516.7	B.2.4.5-8	26.9	18.90	0.22	16.70	0.05
N-1.75	B104	VCIM 50x100	516.7	B.2.4.5-8	26.3	18.80	0.27	17.50	0.04
N-1.75	B104	VCIM 50x100	553.6	B.2.4.5-8	18.8	18.80	0.27	17.50	0.04
N-1.75	B104	VCIM 50x100	553.6	B.2.4.5-8	18.8	18.80	0.34	17.50	0.02
N-1.75	B104	VCIM 50x100	568.3	B.2.4.5-8	18.8	18.80	0.34	17.50	0.02
N-1.75	B105	VCIM 50x100	224.5	B.2.4.5-1	18.8	17.90	0.23	17.50	0.03
N-1.75	B105	VCIM 50x100	249.4	B.2.4.5-1	23.4	17.90	0.23	17.50	0.03
N-1.75	B105	VCIM 50x100	249.4	B.2.4.5-1	24	17.90	0.20	17.50	0.04
N-1.75	B105	VCIM 50x100	299.3	B.2.4.5-8	32	17.90	0.20	17.50	0.04
N-1.75	B105	VCIM 50x100	299.3	B.2.4.5-8	32.4	17.90	0.14	17.40	0.04
N-1.75	B105	VCIM 50x100	336.8	B.2.4.5-8	36.7	17.90	0.14	17.40	0.04
N-1.75	B105	VCIM 50x100	336.8	B.2.4.5-8	36.5	17.90	0.13	17.50	0.01
N-1.75	B105	VCIM 50x100	349.2	B.2.4.5-8	36.6	17.90	0.13	17.50	0.01
N-1.75	B105	VCIM 50x100	349.2	B.2.4.5-8	36.6	17.90	0.17	17.50	0.02
N-1.75	B105	VCIM 50x100	399.1	B.2.4.5-8	34.7	17.90	0.17	17.50	0.02
N-1.75	B105	VCIM 50x100	399.1	B.2.4.5-8	34.6	18.00	0.22	17.50	0.02
N-1.75	B105	VCIM 50x100	449	B.2.4.5-8	30.2	18.00	0.22	17.50	0.02
N-1.75	B105	VCIM 50x100	449	B.2.4.5-8	29.8	18.10	0.36	17.50	0.02
N-1.75	B105	VCIM 50x100	475	B.2.4.5-8	23.7	18.10	0.36	17.50	0.02
N-1.75	B105	VCIM 50x100	501	B.2.4.5-8	18.1	18.10	0.36	17.50	0.02
N-1.75	B105	VCIM 50x100	553	B.2.4.5-8	18.1	18.10	0.28	17.50	0.04
N-1.75	B105	VCIM 50x100	561.3	B.2.4.5-8	18.1	18.10	0.28	17.50	0.04
N-1.75	B125	VCIM 50x100	75	B.2.4.7-8	15.4	15.40	0.30	17.50	0.01
N-1.75	B125	VCIM 50x100	99.3	B.2.4.7-8	15.4	14.30	0.30	17.50	0.01
N-1.75	B125	VCIM 50x100	99.3	B.2.4.7-8	15.4	13.10	0.31	17.50	0.02
N-1.75	B125	VCIM 50x100	149	B.2.4.5-8	15.4	6.90	0.31	17.50	0.02
N-1.75	B125	VCIM 50x100	149	B.2.4.5-8	15.4	6.70	0.27	17.50	0.02

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B125	VCIM 50x100	198.7	B.2.4.5-1	15.4	6.70	0.28	17.50	0.02
N-1.75	B125	VCIM 50x100	198.7	B.2.4.5-3	15.4	6.50	0.24	17.50	0.02
N-1.75	B125	VCIM 50x100	223.5	B.2.4.5-3	15.4	6.50	0.24	17.50	0.02
N-1.75	B125	VCIM 50x100	223.5	B.2.4.5-3	15.4	6.40	0.23	17.50	0.02
N-1.75	B125	VCIM 50x100	248.3	B.2.4.5-3	15.4	6.40	0.22	17.50	0.02
N-1.75	B125	VCIM 50x100	248.3	B.2.4.5-3	15.4	6.20	0.28	17.50	0.02
N-1.75	B125	VCIM 50x100	298	B.2.4.5-8	11.4	7.60	0.27	17.50	0.02
N-1.75	B125	VCIM 50x100	298	B.2.4.5-8	10.7	8.00	0.31	17.50	0.02
N-1.75	B125	VCIM 50x100	347.7	B.2.4.7-8	8	15.40	0.31	17.50	0.02
N-1.75	B125	VCIM 50x100	347.7	B.2.4.7-8	7.6	15.50	0.27	17.50	0.02
N-1.75	B125	VCIM 50x100	372	B.2.4.7-8	6.4	19.20	0.27	17.50	0.02
N-1.75	B126	VCIM 50x100	75	B.2.4.5-8	6.6	31.80	0.32	0.00	0.00
N-1.75	B126	VCIM 50x100	84	B.2.4.5-8	15.4	31.80	0.32	0.00	0.00
N-1.75	B126	VCIM 50x100	84	B.2.4.5-3	15.4	34.70	0.31	17.50	0.02
N-1.75	B126	VCIM 50x100	105	B.2.4.5-3	15.4	34.50	0.31	17.50	0.02
N-1.75	B126	VCIM 50x100	105	B.2.4.5-3	15.4	24.70	0.26	17.50	0.02
N-1.75	B126	VCIM 50x100	131.3	B.2.4.5-3	15.4	22.80	0.26	17.50	0.02
N-1.75	B126	VCIM 50x100	157.5	B.2.4.5-3	15.4	20.90	0.26	17.50	0.02
N-1.75	B126	VCIM 50x100	157.5	B.2.4.5-3	15.4	15.40	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	168	B.2.4.5-3	15.4	15.40	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	168	B.2.4.5-1	14.7	14.70	0.30	17.50	0.02
N-1.75	B126	VCIM 50x100	210	B.2.4.5-1	14.7	14.70	0.30	17.50	0.02
N-1.75	B126	VCIM 50x100	210	B.2.4.5-1	15.2	15.20	0.33	17.50	0.02
N-1.75	B126	VCIM 50x100	252	B.2.4.5-1	15.2	15.20	0.33	17.50	0.02
N-1.75	B126	VCIM 50x100	252	B.2.4.5-2	11.1	11.10	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	262.5	B.2.4.5-2	11.1	11.10	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	262.5	B.2.4.5-2	11.1	11.10	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	288.8	B.2.4.5-2	11.1	11.40	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	315	B.2.4.5-2	11.1	11.90	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	315	B.2.4.7-8	12.3	15.30	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	336	B.2.4.7-8	12.4	15.40	0.32	17.50	0.02
N-1.75	B126	VCIM 50x100	336	B.2.4.7-8	12.5	13.10	0.32	0.00	0.00
N-1.75	B126	VCIM 50x100	345	B.2.4.7-8	12.5	13.10	0.32	0.00	0.00
N-1.75	B127	VCIM 50x100	75	B.2.4.7-8	0.3	24.20	0.35	0.00	0.00
N-1.75	B127	VCIM 50x100	105.8	B.2.4.5-8	12.2	15.60	0.35	0.00	0.00
N-1.75	B127	VCIM 50x100	105.8	B.2.4.5-8	12.5	15.40	0.36	0.00	0.00
N-1.75	B127	VCIM 50x100	132.3	B.2.4.5-8	12.5	12.50	0.37	0.00	0.00
N-1.75	B127	VCIM 50x100	158.8	B.2.4.5-8	15.4	12.50	0.37	0.00	0.00
N-1.75	B127	VCIM 50x100	158.8	B.2.4.7-8	15.4	12.70	0.27	0.00	0.00
N-1.75	B127	VCIM 50x100	185.2	B.2.4.5-8	19.7	12.70	0.27	0.00	0.00
N-1.75	B127	VCIM 50x100	211.7	B.2.4.5-8	25.6	12.70	0.27	0.00	0.00
N-1.75	B127	VCIM 50x100	211.7	B.2.4.5-8	26.4	13.00	0.18	17.50	0.01
N-1.75	B127	VCIM 50x100	238.2	B.2.4.5-8	30.1	13.00	0.18	17.50	0.01
N-1.75	B127	VCIM 50x100	264.6	B.2.4.5-8	33.8	13.00	0.18	17.50	0.01
N-1.75	B127	VCIM 50x100	264.6	B.2.4.5-8	34.4	13.30	0.11	17.50	0.02
N-1.75	B127	VCIM 50x100	291.1	B.2.4.5-8	36.3	13.30	0.11	17.50	0.02
N-1.75	B127	VCIM 50x100	317.5	B.2.4.5-8	38.3	13.30	0.12	17.50	0.02
N-1.75	B127	VCIM 50x100	317.5	B.2.4.5-8	38.6	13.50	0.07	17.50	0.02
N-1.75	B127	VCIM 50x100	344	B.2.4.5-1	39.6	13.50	0.08	17.50	0.02
N-1.75	B127	VCIM 50x100	344	B.2.4.5-1	39.3	13.60	0.12	17.50	0.02
N-1.75	B127	VCIM 50x100	370.5	B.2.4.5-1	35.4	13.60	0.12	17.50	0.02
N-1.75	B127	VCIM 50x100	370.5	B.2.4.5-1	34.5	13.80	0.18	17.50	0.02

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B127	VCIM 50x100	396.9	B.2.4.5-1	29.2	13.80	0.18	17.50	0.02
N-1.75	B127	VCIM 50x100	423.4	B.2.4.5-1	24	13.80	0.17	17.50	0.02
N-1.75	B127	VCIM 50x100	423.4	B.2.4.5-1	23.3	14.00	0.24	17.50	0.02
N-1.75	B127	VCIM 50x100	449.8	B.2.4.5-1	17.1	14.00	0.24	17.50	0.02
N-1.75	B127	VCIM 50x100	476.3	B.2.4.5-3	15.4	14.00	0.24	17.50	0.02
N-1.75	B127	VCIM 50x100	476.3	B.2.4.5-8	15.4	14.30	0.33	17.50	0.03
N-1.75	B127	VCIM 50x100	502.8	B.2.4.5-8	14.3	14.30	0.33	17.50	0.03
N-1.75	B127	VCIM 50x100	529.2	B.2.4.5-8	14.3	14.30	0.33	17.50	0.03
N-1.75	B127	VCIM 50x100	582.2	B.2.4.5-8	14.6	31.30	0.33	17.50	0.02
N-1.75	B127	VCIM 50x100	613	B.2.4.7-8	2.8	41.50	0.32	17.50	0.02
N-1.75	B131	VCIM 50x100	0	B.2.4.5-1	4.1	3.40	0.18	17.50	0.01
N-1.75	B131	VCIM 50x100	26.2	B.2.4.5-8	8.2	8.20	0.18	17.50	0.01
N-1.75	B131	VCIM 50x100	52.3	B.2.4.5-8	8.2	8.20	0.18	17.50	0.01
N-1.75	B131	VCIM 50x100	52.3	B.2.4.5-8	8.1	11.90	0.21	17.50	0.01
N-1.75	B131	VCIM 50x100	67.5	B.2.4.5-8	8.1	12.00	0.21	17.50	0.01
N-1.75	B131	VCIM 50x100	67.5	B.2.4.5-8	8.3	8.30	0.24	17.50	0.01
N-1.75	B131	VCIM 50x100	104.7	B.2.4.5-8	8.3	8.30	0.24	17.50	0.01
N-1.75	B131	VCIM 50x100	104.7	B.2.4.5-1	8.4	8.40	0.21	17.50	0.01
N-1.75	B131	VCIM 50x100	135	B.2.4.5-1	8.4	8.40	0.21	17.50	0.01
N-1.75	B131	VCIM 50x100	135	B.2.4.5-1	7.7	7.70	0.19	17.50	0.02
N-1.75	B131	VCIM 50x100	157	B.2.4.5-1	7.7	7.70	0.19	17.50	0.02
N-1.75	B131	VCIM 50x100	157	B.2.4.5-1	7.7	7.70	0.17	17.50	0.02
N-1.75	B131	VCIM 50x100	183.2	B.2.4.5-1	7.7	10.20	0.17	17.50	0.02
N-1.75	B131	VCIM 50x100	209.3	B.2.4.5-1	7.7	13.50	0.17	17.50	0.02
N-1.75	B131	VCIM 50x100	209.3	B.2.4.5-1	7.5	15.40	0.25	16.60	0.04
N-1.75	B131	VCIM 50x100	239	B.2.4.5-2	2.2	18.00	0.25	16.60	0.04
N-1.75	B132	VCIM 50x100	75	B.2.4.5-2	2.9	32.50	0.30	17.50	0.05
N-1.75	B132	VCIM 50x100	103.3	B.2.4.5-2	13.9	24.00	0.31	17.50	0.05
N-1.75	B132	VCIM 50x100	103.3	B.2.4.5-2	13.8	22.20	0.08	17.50	0.05
N-1.75	B132	VCIM 50x100	110.7	B.2.4.5-2	13.8	21.60	0.08	17.50	0.05
N-1.75	B132	VCIM 50x100	110.7	B.2.4.5-2	13.8	17.60	0.29	17.50	0.01
N-1.75	B132	VCIM 50x100	155	B.2.4.5-2	13.8	13.80	0.29	17.50	0.01
N-1.75	B132	VCIM 50x100	155	B.2.4.5-2	13.7	13.70	0.23	0.00	0.00
N-1.75	B132	VCIM 50x100	180.8	B.2.4.5-2	13.7	13.70	0.23	0.00	0.00
N-1.75	B132	VCIM 50x100	206.7	B.2.4.5-3	15.4	13.70	0.24	0.00	0.00
N-1.75	B132	VCIM 50x100	206.7	B.2.4.5-3	15.4	13.60	0.12	0.00	0.00
N-1.75	B132	VCIM 50x100	221.4	B.2.4.4-4	15.4	13.60	0.12	0.00	0.00
N-1.75	B132	VCIM 50x100	221.4	B.2.4.5-1	15.9	13.40	0.06	0.00	0.00
N-1.75	B132	VCIM 50x100	258.3	B.2.4.5-1	17.9	13.40	0.06	0.00	0.00
N-1.75	B132	VCIM 50x100	258.3	B.2.4.5-1	18	13.30	0.05	0.00	0.00
N-1.75	B132	VCIM 50x100	284.2	B.2.4.5-1	19	13.30	0.05	0.00	0.00
N-1.75	B132	VCIM 50x100	310	B.2.4.5-1	20.1	13.30	0.05	0.00	0.00
N-1.75	B132	VCIM 50x100	310	B.2.4.5-1	20.2	13.20	0.03	0.00	0.00
N-1.75	B132	VCIM 50x100	332.1	B.2.4.5-1	20.7	13.20	0.03	0.00	0.00
N-1.75	B132	VCIM 50x100	332.1	B.2.4.5-1	20.4	13.10	0.01	0.00	0.00
N-1.75	B132	VCIM 50x100	361.7	B.2.4.5-1	19.9	13.10	0.01	0.00	0.00
N-1.75	B132	VCIM 50x100	361.7	B.2.4.5-1	19.8	13.00	0.02	0.00	0.00
N-1.75	B132	VCIM 50x100	387.5	B.2.4.5-1	19.2	13.00	0.02	0.00	0.00
N-1.75	B132	VCIM 50x100	413.3	B.2.4.5-1	18.6	13.00	0.01	0.00	0.00
N-1.75	B132	VCIM 50x100	413.3	B.2.4.5-1	18.4	13.00	0.02	0.00	0.00
N-1.75	B132	VCIM 50x100	442.9	B.2.4.5-1	17.7	13.00	0.02	0.00	0.00
N-1.75	B132	VCIM 50x100	442.9	B.2.4.5-1	17.3	12.90	0.05	17.50	0.01

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B132	VCIM 50x100	465	B.2.4.5-1	16	12.90	0.05	17.50	0.01
N-1.75	B132	VCIM 50x100	465	B.2.4.5-1	15.6	12.80	0.08	0.00	0.00
N-1.75	B132	VCIM 50x100	490.8	B.2.4.4-4	15.4	12.80	0.07	0.00	0.00
N-1.75	B132	VCIM 50x100	516.7	B.2.4.5-1	15.4	12.80	0.07	0.00	0.00
N-1.75	B132	VCIM 50x100	516.7	B.2.4.5-1	14.9	12.70	0.08	0.00	0.00
N-1.75	B132	VCIM 50x100	553.6	B.2.4.5-2	12.7	12.70	0.08	0.00	0.00
N-1.75	B132	VCIM 50x100	553.6	B.2.4.5-2	12.7	12.70	0.11	17.50	0.01
N-1.75	B132	VCIM 50x100	568.3	B.2.4.5-2	12.7	12.70	0.11	17.50	0.01
N-1.75	B132	VCIM 50x100	568.3	B.2.4.5-2	12.6	12.60	0.23	17.50	0.02
N-1.75	B132	VCIM 50x100	594.2	B.2.4.5-2	12.6	12.60	0.23	17.50	0.02
N-1.75	B132	VCIM 50x100	620	B.2.4.5-2	12.6	13.70	0.23	17.50	0.02
N-1.75	B132	VCIM 50x100	620	B.2.4.5-2	12.6	14.90	0.27	17.50	0.02
N-1.75	B132	VCIM 50x100	664.3	B.2.4.5-2	12.6	22.50	0.26	17.50	0.02
N-1.75	B132	VCIM 50x100	664.3	B.2.4.5-2	12.5	26.30	0.06	17.50	0.04
N-1.75	B132	VCIM 50x100	671.7	B.2.4.5-2	12.5	26.90	0.06	17.50	0.04
N-1.75	B132	VCIM 50x100	671.7	B.2.4.5-2	12.5	28.60	0.25	17.50	0.04
N-1.75	B132	VCIM 50x100	700	B.2.4.5-1	1.5	36.10	0.25	17.50	0.04
N-1.75	B138	VCIM 50x100	75	B.2.4.5-8	1.6	31.30	0.22	17.50	0.04
N-1.75	B138	VCIM 50x100	103.3	B.2.4.5-8	11.1	24.50	0.22	17.50	0.04
N-1.75	B138	VCIM 50x100	103.3	B.2.4.5-8	11.1	22.90	0.04	17.50	0.04
N-1.75	B138	VCIM 50x100	110.7	B.2.4.5-8	11.1	22.40	0.05	17.50	0.04
N-1.75	B138	VCIM 50x100	110.7	B.2.4.5-8	11.2	19.00	0.24	17.50	0.01
N-1.75	B138	VCIM 50x100	155	B.2.4.5-8	11.2	11.60	0.24	17.50	0.01
N-1.75	B138	VCIM 50x100	155	B.2.4.5-8	11.2	11.20	0.20	17.50	0.01
N-1.75	B138	VCIM 50x100	180.8	B.2.4.5-8	11.2	11.20	0.21	17.50	0.01
N-1.75	B138	VCIM 50x100	206.7	B.2.4.5-8	11.2	11.20	0.21	17.50	0.01
N-1.75	B138	VCIM 50x100	206.7	B.2.4.5-8	11.1	11.10	0.09	17.50	0.01
N-1.75	B138	VCIM 50x100	221.4	B.2.4.5-8	11.1	11.10	0.09	17.50	0.01
N-1.75	B138	VCIM 50x100	221.4	B.2.4.5-8	11.8	11.10	0.06	0.00	0.00
N-1.75	B138	VCIM 50x100	258.3	B.2.4.5-8	15.4	11.10	0.06	0.00	0.00
N-1.75	B138	VCIM 50x100	258.3	B.2.4.5-3	15.4	11.10	0.05	0.00	0.00
N-1.75	B138	VCIM 50x100	284.2	B.2.4.2-2	15.4	11.10	0.05	0.00	0.00
N-1.75	B138	VCIM 50x100	310	B.2.4.4-4	15.4	11.10	0.05	0.00	0.00
N-1.75	B138	VCIM 50x100	310	B.2.4.5-8	15.7	11.10	0.03	0.00	0.00
N-1.75	B138	VCIM 50x100	332.1	B.2.4.5-8	16.7	11.10	0.03	0.00	0.00
N-1.75	B138	VCIM 50x100	332.1	B.2.4.5-8	16.8	11.10	0.00	0.00	0.00
N-1.75	B138	VCIM 50x100	361.7	B.2.4.5-8	16.9	11.10	0.00	0.00	0.00
N-1.75	B138	VCIM 50x100	361.7	B.2.4.5-8	17	11.10	0.00	0.00	0.00
N-1.75	B138	VCIM 50x100	387.5	B.2.4.5-8	16.9	11.10	0.00	0.00	0.00
N-1.75	B138	VCIM 50x100	413.3	B.2.4.5-8	16.8	11.10	0.00	0.00	0.00
N-1.75	B138	VCIM 50x100	413.3	B.2.4.5-8	16.8	11.20	0.01	0.00	0.00
N-1.75	B138	VCIM 50x100	442.9	B.2.4.5-8	16.5	11.20	0.01	0.00	0.00
N-1.75	B138	VCIM 50x100	442.9	B.2.4.5-8	16.4	11.40	0.04	0.00	0.00
N-1.75	B138	VCIM 50x100	465	B.2.4.5-8	15.4	11.40	0.04	0.00	0.00
N-1.75	B138	VCIM 50x100	465	B.2.4.4-4	15.4	11.50	0.06	0.00	0.00
N-1.75	B138	VCIM 50x100	490.8	B.2.4.2-2	15.4	11.50	0.06	0.00	0.00
N-1.75	B138	VCIM 50x100	516.7	B.2.4.5-3	15.4	11.50	0.06	0.00	0.00
N-1.75	B138	VCIM 50x100	516.7	B.2.4.5-3	15.4	11.60	0.07	0.00	0.00
N-1.75	B138	VCIM 50x100	553.6	B.2.4.5-2	12.6	11.60	0.07	0.00	0.00
N-1.75	B138	VCIM 50x100	553.6	B.2.4.5-1	11.8	11.70	0.09	0.00	0.00
N-1.75	B138	VCIM 50x100	568.3	B.2.4.5-2	11.7	11.70	0.09	0.00	0.00
N-1.75	B138	VCIM 50x100	568.3	B.2.4.5-2	11.8	11.80	0.18	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B138	VCIM 50x100	594.2	B.2.4.5-2	11.8	11.80	0.18	0.00	0.00
N-1.75	B138	VCIM 50x100	620	B.2.4.5-2	11.8	11.80	0.18	0.00	0.00
N-1.75	B138	VCIM 50x100	620	B.2.4.5-2	12	12.00	0.20	0.00	0.00
N-1.75	B138	VCIM 50x100	664.3	B.2.4.5-2	12	15.60	0.19	0.00	0.00
N-1.75	B138	VCIM 50x100	664.3	B.2.4.5-2	12	18.30	0.05	17.50	0.03
N-1.75	B138	VCIM 50x100	671.7	B.2.4.5-2	12	18.60	0.05	17.50	0.03
N-1.75	B138	VCIM 50x100	671.7	B.2.4.5-2	12.1	19.90	0.19	17.50	0.03
N-1.75	B138	VCIM 50x100	700	B.2.4.5-2	2.8	25.40	0.19	17.50	0.03
N-1.75	B523	VCIM 50x100	0	B.2.4.5-1	4.9	3.50	0.33	0.00	0.00
N-1.75	B523	VCIM 50x100	26.2	B.2.4.5-1	12.1	12.10	0.34	0.00	0.00
N-1.75	B523	VCIM 50x100	52.3	B.2.4.5-1	12.1	12.10	0.34	0.00	0.00
N-1.75	B523	VCIM 50x100	52.3	B.2.4.5-1	12.5	12.50	0.32	0.00	0.00
N-1.75	B523	VCIM 50x100	78.5	B.2.4.5-1	12.5	12.50	0.33	0.00	0.00
N-1.75	B523	VCIM 50x100	104.7	B.2.4.5-1	12.5	12.50	0.33	0.00	0.00
N-1.75	B523	VCIM 50x100	104.7	B.2.4.5-1	12.9	12.90	0.27	0.00	0.00
N-1.75	B523	VCIM 50x100	130.8	B.2.4.5-1	12.9	12.90	0.27	0.00	0.00
N-1.75	B523	VCIM 50x100	157	B.2.4.5-1	12.9	15.40	0.27	0.00	0.00
N-1.75	B523	VCIM 50x100	157	B.2.4.5-1	13.1	15.40	0.30	0.00	0.00
N-1.75	B523	VCIM 50x100	183.2	B.2.4.5-1	13.1	19.20	0.30	0.00	0.00
N-1.75	B523	VCIM 50x100	209.3	B.2.4.5-1	13.1	24.70	0.30	0.00	0.00
N-1.75	B523	VCIM 50x100	209.3	B.2.4.5-1	13	27.50	0.30	17.50	0.02
N-1.75	B523	VCIM 50x100	239	B.2.4.7-1	3	33.60	0.29	17.50	0.02
N-1.75	B524	VCIM 50x100	75	B.2.4.5-2	2.8	26.50	0.26	17.50	0.02
N-1.75	B524	VCIM 50x100	103.3	B.2.4.5-3	15.4	20.80	0.26	17.50	0.02
N-1.75	B524	VCIM 50x100	103.3	B.2.4.5-3	15.4	19.40	0.11	17.50	0.02
N-1.75	B524	VCIM 50x100	110.7	B.2.4.5-3	15.4	19.10	0.11	17.50	0.02
N-1.75	B524	VCIM 50x100	110.7	B.2.4.5-3	15.4	16.20	0.25	0.00	0.00
N-1.75	B524	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.26	0.00	0.00
N-1.75	B524	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.23	0.00	0.00
N-1.75	B524	VCIM 50x100	180.8	B.2.4.5-3	15.4	15.40	0.23	0.00	0.00
N-1.75	B524	VCIM 50x100	206.7	B.2.4.5-3	15.4	15.40	0.23	0.00	0.00
N-1.75	B524	VCIM 50x100	206.7	B.2.4.5-3	15.4	15.40	0.14	0.00	0.00
N-1.75	B524	VCIM 50x100	221.4	B.2.4.5-3	15.4	15.40	0.14	0.00	0.00
N-1.75	B524	VCIM 50x100	221.4	B.2.4.5-1	15.6	15.40	0.11	0.00	0.00
N-1.75	B524	VCIM 50x100	258.3	B.2.4.5-1	17.9	15.40	0.12	0.00	0.00
N-1.75	B524	VCIM 50x100	258.3	B.2.4.5-1	18.3	15.40	0.11	0.00	0.00
N-1.75	B524	VCIM 50x100	284.2	B.2.4.5-1	19.8	15.40	0.11	0.00	0.00
N-1.75	B524	VCIM 50x100	310	B.2.4.5-1	21.4	15.40	0.11	0.00	0.00
N-1.75	B524	VCIM 50x100	310	B.2.4.5-1	21.7	15.40	0.09	0.00	0.00
N-1.75	B524	VCIM 50x100	332.1	B.2.4.5-1	22.6	15.40	0.09	0.00	0.00
N-1.75	B524	VCIM 50x100	332.1	B.2.4.5-1	23	15.40	0.07	17.50	0.02
N-1.75	B524	VCIM 50x100	361.7	B.2.4.5-1	23.6	15.40	0.07	17.50	0.02
N-1.75	B524	VCIM 50x100	361.7	B.2.4.5-1	23.8	15.40	0.06	17.50	0.02
N-1.75	B524	VCIM 50x100	387.5	B.2.4.5-1	24.2	15.40	0.07	17.50	0.02
N-1.75	B524	VCIM 50x100	387.5	B.2.4.5-1	26.2	15.40	0.05	17.50	0.02
N-1.75	B524	VCIM 50x100	413.3	B.2.4.5-1	26.2	15.40	0.05	17.50	0.02
N-1.75	B524	VCIM 50x100	413.3	B.2.4.5-1	26.2	15.40	0.05	17.50	0.02
N-1.75	B524	VCIM 50x100	442.9	B.2.4.5-1	26	15.40	0.05	17.50	0.02
N-1.75	B524	VCIM 50x100	442.9	B.2.4.5-1	26.1	15.40	0.06	17.50	0.03
N-1.75	B524	VCIM 50x100	465	B.2.4.5-1	24.8	15.40	0.06	17.50	0.03
N-1.75	B524	VCIM 50x100	465	B.2.4.5-1	24.4	15.40	0.09	17.50	0.03
N-1.75	B524	VCIM 50x100	490.8	B.2.4.5-1	21.9	15.40	0.08	17.50	0.03

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B524	VCIM 50x100	516.7	B.2.4.5-1	19.5	15.40	0.08	17.50	0.03
N-1.75	B524	VCIM 50x100	516.7	B.2.4.5-1	19.1	15.40	0.10	17.50	0.03
N-1.75	B524	VCIM 50x100	553.6	B.2.4.5-3	15.4	15.40	0.09	17.50	0.03
N-1.75	B524	VCIM 50x100	553.6	B.2.4.5-3	15.4	15.40	0.15	17.50	0.03
N-1.75	B524	VCIM 50x100	568.3	B.2.4.5-3	15.4	15.40	0.15	17.50	0.03
N-1.75	B524	VCIM 50x100	664.3	B.2.4.5-3	15.4	38.90	0.09	17.50	0.02
N-1.75	B524	VCIM 50x100	671.7	B.2.4.5-3	15.4	39.70	0.09	17.50	0.02
N-1.75	B525	VCIM 50x100	75	B.2.4.7-2	8.2	32.20	0.10	0.00	0.00
N-1.75	B525	VCIM 50x100	96.9	B.2.4.5-3	15.4	32.20	0.10	0.00	0.00
N-1.75	B525	VCIM 50x100	96.9	B.2.4.5-3	15.4	31.30	0.10	17.50	0.01
N-1.75	B525	VCIM 50x100	103.3	B.2.4.5-3	15.4	31.30	0.10	17.50	0.01
N-1.75	B525	VCIM 50x100	103.3	B.2.4.5-3	15.4	29.40	0.10	17.50	0.01
N-1.75	B525	VCIM 50x100	110.7	B.2.4.5-3	15.4	29.30	0.10	17.50	0.01
N-1.75	B525	VCIM 50x100	110.7	B.2.4.5-3	15.4	22.60	0.13	17.50	0.01
N-1.75	B525	VCIM 50x100	155	B.2.4.5-3	15.4	20.40	0.13	17.50	0.01
N-1.75	B525	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.11	17.50	0.01
N-1.75	B525	VCIM 50x100	193.8	B.2.4.5-3	15.4	15.40	0.11	17.50	0.01
N-1.75	B525	VCIM 50x100	193.8	B.2.4.5-1	13.1	13.10	0.10	17.50	0.01
N-1.75	B525	VCIM 50x100	206.7	B.2.4.5-1	13.1	13.10	0.10	17.50	0.01
N-1.75	B525	VCIM 50x100	206.7	B.2.4.5-1	12.7	12.70	0.12	17.50	0.01
N-1.75	B525	VCIM 50x100	221.4	B.2.4.5-1	12.7	12.70	0.12	17.50	0.01
N-1.75	B525	VCIM 50x100	221.4	B.2.4.5-1	13.2	13.20	0.12	17.50	0.01
N-1.75	B525	VCIM 50x100	258.3	B.2.4.5-1	13.2	13.20	0.12	17.50	0.01
N-1.75	B525	VCIM 50x100	258.3	B.2.4.5-1	13.5	13.50	0.11	17.50	0.01
N-1.75	B525	VCIM 50x100	290.6	B.2.4.5-1	13.5	13.50	0.11	17.50	0.01
N-1.75	B525	VCIM 50x100	290.6	B.2.4.5-1	10.4	10.40	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	310	B.2.4.5-1	10.4	10.40	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	310	B.2.4.5-1	10.3	10.30	0.13	17.50	0.02
N-1.75	B525	VCIM 50x100	332.1	B.2.4.5-1	10.3	10.30	0.13	17.50	0.02
N-1.75	B525	VCIM 50x100	332.1	B.2.4.5-1	10.6	10.60	0.13	17.50	0.02
N-1.75	B525	VCIM 50x100	361.7	B.2.4.5-1	10.6	10.60	0.13	17.50	0.02
N-1.75	B525	VCIM 50x100	361.7	B.2.4.5-1	10.8	10.80	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	387.5	B.2.4.5-1	10.8	10.80	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	387.5	B.2.4.5-1	11.7	11.70	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	413.3	B.2.4.5-1	11.7	11.70	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	413.3	B.2.4.5-1	11.5	11.50	0.13	17.50	0.04
N-1.75	B525	VCIM 50x100	442.9	B.2.4.5-1	11.5	11.50	0.13	17.50	0.04
N-1.75	B525	VCIM 50x100	442.9	B.2.4.5-1	11	11.00	0.13	17.50	0.04
N-1.75	B525	VCIM 50x100	465	B.2.4.5-1	11	11.00	0.13	17.50	0.04
N-1.75	B525	VCIM 50x100	465	B.2.4.5-1	11.2	11.20	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	484.4	B.2.4.5-1	11.2	11.20	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	484.4	B.2.4.5-1	15.3	15.30	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	516.7	B.2.4.5-1	15.3	15.30	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	516.7	B.2.4.5-1	15.1	15.10	0.11	17.50	0.04
N-1.75	B525	VCIM 50x100	553.6	B.2.4.5-1	15.1	15.10	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	553.6	B.2.4.5-1	14.7	14.70	0.11	17.50	0.04
N-1.75	B525	VCIM 50x100	568.3	B.2.4.5-1	14.7	14.70	0.11	17.50	0.04
N-1.75	B525	VCIM 50x100	568.3	B.2.4.5-1	14.9	14.90	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	581.3	B.2.4.5-1	14.9	14.90	0.10	17.50	0.04
N-1.75	B525	VCIM 50x100	581.3	B.2.4.5-3	15.4	15.40	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	586	B.2.4.5-3	15.4	15.40	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	586	B.2.4.5-3	15.4	15.40	0.11	17.50	0.02

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B525	VCIM 50x100	620	B.2.4.5-3	15.4	15.90	0.11	17.50	0.02
N-1.75	B525	VCIM 50x100	620	B.2.4.5-3	15.4	22.80	0.12	17.50	0.02
N-1.75	B525	VCIM 50x100	664.3	B.2.4.5-3	15.4	24.70	0.12	17.50	0.02
N-1.75	B525	VCIM 50x100	664.3	B.2.4.5-3	15.4	29.80	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	671.7	B.2.4.5-3	15.4	29.80	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	671.7	B.2.4.5-3	15.4	31.60	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	678.1	B.2.4.5-3	15.4	31.60	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	678.1	B.2.4.5-1	14.5	31.30	0.10	17.50	0.02
N-1.75	B525	VCIM 50x100	700	B.2.4.7-2	8.6	31.30	0.10	17.50	0.02
N-1.75	B526	VCIM 50x100	99.8	B.2.4.5-3	15.4	32.50	0.18	23.40	0.09
N-1.75	B526	VCIM 50x100	112.3	B.2.4.5-3	15.4	30.10	0.18	23.40	0.09
N-1.75	B526	VCIM 50x100	199.6	B.2.4.5-3	15.4	15.40	0.23	17.50	0.04
N-1.75	B526	VCIM 50x100	224.5	B.2.4.5-1	19.7	15.40	0.23	17.50	0.04
N-1.75	B526	VCIM 50x100	224.5	B.2.4.5-1	21.1	15.40	0.10	0.00	0.00
N-1.75	B526	VCIM 50x100	249.4	B.2.4.5-1	23.2	15.40	0.10	0.00	0.00
N-1.75	B526	VCIM 50x100	249.4	B.2.4.5-1	23.6	15.40	0.09	0.00	0.00
N-1.75	B526	VCIM 50x100	299.3	B.2.4.5-1	27.9	15.40	0.10	0.00	0.00
N-1.75	B526	VCIM 50x100	299.3	B.2.4.5-1	28.1	15.40	0.08	0.00	0.00
N-1.75	B526	VCIM 50x100	336.8	B.2.4.5-1	30.4	15.40	0.08	0.00	0.00
N-1.75	B526	VCIM 50x100	336.8	B.2.4.5-1	30.2	15.40	0.04	0.00	0.00
N-1.75	B526	VCIM 50x100	349.2	B.2.4.5-1	29.9	15.40	0.04	0.00	0.00
N-1.75	B526	VCIM 50x100	349.2	B.2.4.5-1	29.7	15.40	0.07	0.00	0.00
N-1.75	B526	VCIM 50x100	399.1	B.2.4.5-1	27.3	15.40	0.07	0.00	0.00
N-1.75	B526	VCIM 50x100	399.1	B.2.4.5-1	27	15.40	0.08	0.00	0.00
N-1.75	B526	VCIM 50x100	449	B.2.4.5-1	23.8	15.40	0.08	0.00	0.00
N-1.75	B526	VCIM 50x100	449	B.2.4.5-1	23.2	15.40	0.19	0.00	0.00
N-1.75	B526	VCIM 50x100	475	B.2.4.5-1	18.7	15.40	0.19	0.00	0.00
N-1.75	B526	VCIM 50x100	501	B.2.4.5-3	15.4	15.40	0.19	0.00	0.00
N-1.75	B526	VCIM 50x100	501	B.2.4.5-3	15.4	15.40	0.22	0.00	0.00
N-1.75	B526	VCIM 50x100	527	B.2.4.5-3	15.4	15.40	0.22	0.00	0.00
N-1.75	B526	VCIM 50x100	553	B.2.4.5-3	15.4	15.40	0.22	0.00	0.00
N-1.75	B526	VCIM 50x100	553	B.2.4.5-3	15.4	15.40	0.08	0.00	0.00
N-1.75	B526	VCIM 50x100	561.3	B.2.4.5-3	15.4	15.40	0.08	0.00	0.00
N-1.75	B526	VCIM 50x100	605	B.2.4.5-3	15.4	25.10	0.29	17.50	0.03
N-1.75	B526	VCIM 50x100	634	B.2.4.5-1	3	32.60	0.29	17.50	0.03
N-1.75	B533	VCIM 50x100	75	B.2.4.7-1	9.3	24.40	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	96.9	B.2.4.5-2	11.6	24.30	0.08	0.00	0.00
N-1.75	B533	VCIM 50x100	96.9	B.2.4.5-2	12	22.70	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	103.3	B.2.4.5-2	12	22.70	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	103.3	B.2.4.5-2	11.9	21.00	0.08	0.00	0.00
N-1.75	B533	VCIM 50x100	110.7	B.2.4.5-2	11.9	21.00	0.08	0.00	0.00
N-1.75	B533	VCIM 50x100	110.7	B.2.4.5-2	12	15.80	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	155	B.2.4.5-2	12	15.40	0.11	0.00	0.00
N-1.75	B533	VCIM 50x100	155	B.2.4.5-2	12.2	12.20	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	193.8	B.2.4.5-2	12.2	12.20	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	193.8	B.2.4.5-2	8.7	8.70	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	206.7	B.2.4.5-2	8.7	8.70	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	206.7	B.2.4.5-2	8.3	8.30	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	221.4	B.2.4.5-2	8.3	8.30	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	221.4	B.2.4.5-2	8.7	8.70	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	258.3	B.2.4.5-2	8.7	8.70	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	258.3	B.2.4.5-2	8.9	8.90	0.09	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B533	VCIM 50x100	290.6	B.2.4.5-2	8.9	8.90	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	290.6	B.2.4.5-2	6.9	6.90	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	310	B.2.4.5-2	6.9	6.90	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	310	B.2.4.5-2	6.9	6.90	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	332.1	B.2.4.5-2	6.9	6.90	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	332.1	B.2.4.5-2	7	7.00	0.11	0.00	0.00
N-1.75	B533	VCIM 50x100	361.7	B.2.4.5-2	7	7.00	0.11	0.00	0.00
N-1.75	B533	VCIM 50x100	361.7	B.2.4.5-2	7	7.00	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	387.5	B.2.4.5-2	7	7.00	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	387.5	B.2.4.5-2	7.2	7.20	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	413.3	B.2.4.5-2	7.2	7.20	0.08	0.00	0.00
N-1.75	B533	VCIM 50x100	413.3	B.2.4.5-2	7.2	7.20	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	442.9	B.2.4.5-2	7.2	7.20	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	442.9	B.2.4.5-2	7	7.00	0.11	0.00	0.00
N-1.75	B533	VCIM 50x100	465	B.2.4.5-2	7	7.00	0.11	0.00	0.00
N-1.75	B533	VCIM 50x100	465	B.2.4.5-2	7.1	7.10	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	484.4	B.2.4.5-2	7.1	7.10	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	484.4	B.2.4.5-2	9	9.00	0.08	0.00	0.00
N-1.75	B533	VCIM 50x100	516.7	B.2.4.5-2	9	9.00	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	516.7	B.2.4.5-2	8.9	8.90	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	553.6	B.2.4.5-2	8.9	8.90	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	553.6	B.2.4.5-2	8.6	8.60	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	568.3	B.2.4.5-2	8.6	8.60	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	568.3	B.2.4.5-2	8.9	8.90	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	581.3	B.2.4.5-2	8.9	8.90	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	581.3	B.2.4.5-1	11.7	11.70	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	620	B.2.4.5-1	11.7	11.70	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	620	B.2.4.5-1	11.6	15.40	0.11	0.00	0.00
N-1.75	B533	VCIM 50x100	664.3	B.2.4.5-1	11.6	15.40	0.10	0.00	0.00
N-1.75	B533	VCIM 50x100	664.3	B.2.4.5-1	11.6	18.60	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	671.7	B.2.4.5-1	11.6	18.60	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	671.7	B.2.4.5-1	11.5	20.00	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	678.1	B.2.4.5-1	11.5	20.00	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	678.1	B.2.4.5-1	11.5	21.60	0.09	0.00	0.00
N-1.75	B533	VCIM 50x100	700	B.2.4.7-1	9.2	21.60	0.09	0.00	0.00
N-1.75	B559	VCIM 50x100	0	B.2.4.5-8	5.4	15.20	0.18	21.00	0.08
N-1.75	B559	VCIM 50x100	34	B.2.4.5-1	8	15.30	0.18	21.00	0.08
N-1.75	B559	VCIM 50x100	34	B.2.4.5-1	8.5	15.40	0.18	21.20	0.08
N-1.75	B559	VCIM 50x100	78.3	B.2.4.5-1	8.5	15.40	0.18	21.20	0.08
N-1.75	B559	VCIM 50x100	78.3	B.2.4.5-8	9.3	17.70	0.19	20.50	0.08
N-1.75	B559	VCIM 50x100	85.7	B.2.4.5-8	9.3	17.80	0.19	20.50	0.08
N-1.75	B559	VCIM 50x100	85.7	B.2.4.5-8	9.2	18.30	0.18	20.10	0.08
N-1.75	B559	VCIM 50x100	94.5	B.2.4.5-8	9.2	18.30	0.18	20.10	0.08
N-1.75	B559	VCIM 50x100	94.5	B.2.4.5-1	6.2	18.90	0.18	17.50	0.02
N-1.75	B559	VCIM 50x100	137.3	B.2.4.5-1	6.2	17.70	0.19	17.50	0.02
N-1.75	B559	VCIM 50x100	137.3	B.2.4.5-1	7	15.40	0.18	17.50	0.02
N-1.75	B559	VCIM 50x100	163.2	B.2.4.5-1	7	15.30	0.18	17.50	0.02
N-1.75	B559	VCIM 50x100	189	B.2.4.7-2	4.7	14.50	0.19	17.50	0.02
N-1.75	B560	VCIM 50x100	0	B.2.4.5-8	2.8	15.40	0.21	17.50	0.01
N-1.75	B560	VCIM 50x100	9.2	B.2.4.5-8	6.4	15.40	0.21	17.50	0.01
N-1.75	B560	VCIM 50x100	9.2	B.2.4.5-8	6	14.10	0.20	17.50	0.01
N-1.75	B560	VCIM 50x100	35.7	B.2.4.5-8	6	13.50	0.20	17.50	0.01

TABLE: Concret

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B560	VCIM 50x100	62.2	B.2.4.5-8	6	12.90	0.20	17.50	0.01
N-1.75	B560	VCIM 50x100	62.2	B.2.4.5-8	5.7	10.70	0.21	17.50	0.01
N-1.75	B560	VCIM 50x100	84	B.2.4.5-8	5.7	10.70	0.21	17.50	0.01
N-1.75	B560	VCIM 50x100	84	B.2.4.5-8	5.9	11.30	0.21	17.50	0.01
N-1.75	B560	VCIM 50x100	115.1	B.2.4.5-8	5.9	11.10	0.21	17.50	0.01
N-1.75	B560	VCIM 50x100	115.1	B.2.4.5-8	5.6	10.50	0.20	17.50	0.01
N-1.75	B560	VCIM 50x100	141.5	B.2.4.5-8	5.6	10.60	0.20	17.50	0.01
N-1.75	B560	VCIM 50x100	168	B.2.4.7-2	4.1	10.70	0.20	17.50	0.01
N-1.75	B578	VCIM 50x100	0	B.2.4.5-1	6.7	24.70	0.10	17.50	0.03
N-1.75	B578	VCIM 50x100	25.8	B.2.4.5-1	13.5	23.40	0.10	17.50	0.03
N-1.75	B578	VCIM 50x100	51.7	B.2.4.5-1	13.5	22.00	0.10	17.50	0.03
N-1.75	B578	VCIM 50x100	51.7	B.2.4.5-1	14.3	15.40	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	96.9	B.2.4.5-1	14.3	15.40	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	96.9	B.2.4.5-1	10.1	10.10	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	103.3	B.2.4.5-1	10.1	10.10	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	103.3	B.2.4.5-1	9.6	9.60	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	110.7	B.2.4.5-1	9.6	9.60	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	110.7	B.2.4.5-1	10.6	10.60	0.08	17.50	0.03
N-1.75	B578	VCIM 50x100	155	B.2.4.5-1	10.6	10.60	0.08	17.50	0.03
N-1.75	B578	VCIM 50x100	155	B.2.4.5-1	11.6	11.60	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	193.8	B.2.4.5-1	11.6	11.60	0.09	17.50	0.03
N-1.75	B578	VCIM 50x100	193.8	B.2.4.5-1	7.3	7.30	0.09	17.50	0.02
N-1.75	B578	VCIM 50x100	206.7	B.2.4.5-1	7.3	7.30	0.09	17.50	0.02
N-1.75	B578	VCIM 50x100	206.7	B.2.4.5-1	7.2	7.20	0.08	17.50	0.02
N-1.75	B578	VCIM 50x100	221.4	B.2.4.5-1	7.2	7.20	0.08	17.50	0.02
N-1.75	B578	VCIM 50x100	221.4	B.2.4.5-1	8.1	8.10	0.11	17.50	0.02
N-1.75	B578	VCIM 50x100	258.3	B.2.4.5-1	8.1	8.10	0.10	17.50	0.02
N-1.75	B578	VCIM 50x100	258.3	B.2.4.5-1	8.7	8.70	0.10	17.50	0.02
N-1.75	B578	VCIM 50x100	290.6	B.2.4.5-1	8.7	8.70	0.09	17.50	0.02
N-1.75	B578	VCIM 50x100	290.6	B.2.4.5-1	6.1	6.10	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	310	B.2.4.5-1	6.1	6.10	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	310	B.2.4.5-1	6.3	6.30	0.07	0.00	0.00
N-1.75	B578	VCIM 50x100	332.1	B.2.4.5-1	6.3	6.30	0.07	0.00	0.00
N-1.75	B578	VCIM 50x100	332.1	B.2.4.5-1	6.9	6.90	0.11	0.00	0.00
N-1.75	B578	VCIM 50x100	361.7	B.2.4.5-1	6.9	6.90	0.11	0.00	0.00
N-1.75	B578	VCIM 50x100	361.7	B.2.4.5-1	7.2	7.20	0.10	0.00	0.00
N-1.75	B578	VCIM 50x100	387.5	B.2.4.5-1	7.2	7.20	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	387.5	B.2.4.5-1	6.2	6.20	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	413.3	B.2.4.5-1	6.2	6.20	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	413.3	B.2.4.5-1	6.5	6.50	0.07	0.00	0.00
N-1.75	B578	VCIM 50x100	442.9	B.2.4.5-1	6.5	6.50	0.07	0.00	0.00
N-1.75	B578	VCIM 50x100	442.9	B.2.4.5-1	6.9	6.90	0.11	0.00	0.00
N-1.75	B578	VCIM 50x100	465	B.2.4.5-1	6.9	6.90	0.11	0.00	0.00
N-1.75	B578	VCIM 50x100	465	B.2.4.5-1	7.1	7.10	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	484.4	B.2.4.5-1	7.1	7.10	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	484.4	B.2.4.5-8	7.6	7.60	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	516.7	B.2.4.5-8	7.6	7.60	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	516.7	B.2.4.5-1	7.8	7.80	0.08	0.00	0.00
N-1.75	B578	VCIM 50x100	553.6	B.2.4.5-1	7.8	7.80	0.08	0.00	0.00
N-1.75	B578	VCIM 50x100	553.6	B.2.4.5-1	7.9	7.90	0.11	0.00	0.00
N-1.75	B578	VCIM 50x100	568.3	B.2.4.5-1	7.9	7.90	0.11	0.00	0.00
N-1.75	B578	VCIM 50x100	568.3	B.2.4.5-1	8.1	8.10	0.09	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B578	VCIM 50x100	581.3	B.2.4.5-1	8.1	8.10	0.09	0.00	0.00
N-1.75	B578	VCIM 50x100	581.3	B.2.4.5-8	11	11.00	0.10	17.50	0.01
N-1.75	B578	VCIM 50x100	620	B.2.4.5-8	11	11.00	0.09	17.50	0.01
N-1.75	B578	VCIM 50x100	620	B.2.4.5-8	10.6	10.60	0.11	17.50	0.02
N-1.75	B578	VCIM 50x100	664.3	B.2.4.5-8	10.6	10.60	0.10	17.50	0.02
N-1.75	B578	VCIM 50x100	664.3	B.2.4.5-8	10.2	10.70	0.09	17.50	0.02
N-1.75	B578	VCIM 50x100	671.7	B.2.4.5-8	10.2	10.70	0.09	17.50	0.02
N-1.75	B578	VCIM 50x100	671.7	B.2.4.5-8	10.5	11.40	0.09	17.50	0.01
N-1.75	B578	VCIM 50x100	678.1	B.2.4.5-8	10.5	11.40	0.09	17.50	0.01
N-1.75	B578	VCIM 50x100	678.1	B.2.4.5-1	14	14.80	0.09	17.50	0.01
N-1.75	B578	VCIM 50x100	700	B.2.4.5-1	7.2	14.90	0.09	17.50	0.01
N-1.75	B579	VCIM 50x100	75	B.2.4.5-1	8.9	15.40	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	96.9	B.2.4.5-1	11	15.40	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	96.9	B.2.4.5-1	7.3	13.60	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	103.3	B.2.4.5-1	7.3	13.60	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	103.3	B.2.4.5-1	6.8	12.60	0.06	17.50	0.02
N-1.75	B579	VCIM 50x100	110.7	B.2.4.5-1	6.8	12.50	0.06	17.50	0.02
N-1.75	B579	VCIM 50x100	110.7	B.2.4.5-1	7.6	10.60	0.07	17.50	0.01
N-1.75	B579	VCIM 50x100	155	B.2.4.5-1	7.6	9.40	0.07	17.50	0.01
N-1.75	B579	VCIM 50x100	155	B.2.4.5-1	8.3	8.30	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	193.8	B.2.4.5-1	8.3	8.30	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	193.8	B.2.4.5-8	3.8	3.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	206.7	B.2.4.5-8	3.8	3.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	206.7	B.2.4.5-8	3.2	3.10	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	221.4	B.2.4.5-8	3.5	3.10	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	221.4	B.2.4.5-8	5	3.80	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	258.3	B.2.4.5-8	4.5	3.80	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	258.3	B.2.4.5-1	4.4	4.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	290.6	B.2.4.5-1	4.4	4.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	290.6	B.2.4.5-1	2.7	2.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	310	B.2.4.5-1	2.8	2.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	310	B.2.4.5-1	2.6	2.30	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	332.1	B.2.4.5-1	3.2	2.30	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	332.1	B.2.4.5-8	3.3	2.00	0.08	0.00	0.00
N-1.75	B579	VCIM 50x100	361.7	B.2.4.5-1	2.6	2.00	0.08	0.00	0.00
N-1.75	B579	VCIM 50x100	361.7	B.2.4.5-1	2	1.80	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	387.5	B.2.4.5-1	1.9	1.80	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	387.5	B.2.4.5-1	2.8	2.80	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	413.3	B.2.4.5-1	2.8	2.80	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	413.3	B.2.4.5-1	3	2.60	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	442.9	B.2.4.5-1	3.7	2.60	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	442.9	B.2.4.5-1	3.2	2.10	0.08	0.00	0.00
N-1.75	B579	VCIM 50x100	465	B.2.4.5-1	2.7	2.10	0.08	0.00	0.00
N-1.75	B579	VCIM 50x100	465	B.2.4.5-1	2.7	2.00	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	484.4	B.2.4.5-1	2.7	2.00	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	484.4	B.2.4.5-1	4.4	4.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	516.7	B.2.4.5-1	4.4	4.40	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	516.7	B.2.4.5-1	4.6	4.00	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	553.6	B.2.4.5-1	5.2	4.00	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	553.6	B.2.4.5-1	4.1	3.40	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	568.3	B.2.4.5-1	3.9	3.40	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	568.3	B.2.4.5-1	4.4	3.60	0.06	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B579	VCIM 50x100	581.3	B.2.4.5-1	4.4	3.60	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	581.3	B.2.4.5-1	7	7.00	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	620	B.2.4.5-1	7	7.00	0.06	0.00	0.00
N-1.75	B579	VCIM 50x100	620	B.2.4.5-1	6.5	6.70	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	664.3	B.2.4.5-1	6.5	7.50	0.07	0.00	0.00
N-1.75	B579	VCIM 50x100	664.3	B.2.4.5-1	6	9.00	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	671.7	B.2.4.5-1	6	9.00	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	671.7	B.2.4.5-1	6.3	9.60	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	678.1	B.2.4.5-1	6.3	9.60	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	678.1	B.2.4.5-1	8.7	12.00	0.06	17.50	0.01
N-1.75	B579	VCIM 50x100	700	B.2.4.5-1	6.6	12.10	0.06	17.50	0.01
N-1.75	B175	VCIM 50x100	75	B.2.4.7-8	7.7	16.70	0.16	0.00	0.00
N-1.75	B175	VCIM 50x100	89	B.2.4.5-8	8.4	15.40	0.16	0.00	0.00
N-1.75	B175	VCIM 50x100	89	B.2.4.5-8	8.2	15.40	0.19	0.00	0.00
N-1.75	B175	VCIM 50x100	133.5	B.2.4.7-8	8.5	9.40	0.19	0.00	0.00
N-1.75	B175	VCIM 50x100	133.5	B.2.4.7-8	8.3	8.30	0.18	0.00	0.00
N-1.75	B175	VCIM 50x100	178	B.2.4.5-8	10.5	7.90	0.18	0.00	0.00
N-1.75	B175	VCIM 50x100	178	B.2.4.5-8	10.5	7.70	0.16	0.00	0.00
N-1.75	B175	VCIM 50x100	222.5	B.2.4.5-8	12.2	7.70	0.16	0.00	0.00
N-1.75	B175	VCIM 50x100	222.5	B.2.4.5-8	12.3	7.40	0.14	0.00	0.00
N-1.75	B175	VCIM 50x100	267	B.2.4.5-8	15.4	7.40	0.14	0.00	0.00
N-1.75	B175	VCIM 50x100	267	B.2.4.5-8	15.4	7.10	0.14	0.00	0.00
N-1.75	B175	VCIM 50x100	311.5	B.2.4.5-8	13.7	7.10	0.14	0.00	0.00
N-1.75	B175	VCIM 50x100	311.5	B.2.4.5-8	13.1	6.90	0.16	0.00	0.00
N-1.75	B175	VCIM 50x100	356	B.2.4.5-8	9	6.90	0.16	0.00	0.00
N-1.75	B175	VCIM 50x100	356	B.2.4.5-8	8.2	6.60	0.18	0.00	0.00
N-1.75	B175	VCIM 50x100	400.5	B.2.4.5-8	6.6	11.80	0.18	0.00	0.00
N-1.75	B175	VCIM 50x100	400.5	B.2.4.5-8	6.4	12.40	0.19	0.00	0.00
N-1.75	B175	VCIM 50x100	445	B.2.4.5-8	6.4	15.70	0.19	0.00	0.00
N-1.75	B175	VCIM 50x100	445	B.2.4.5-8	6.3	16.40	0.15	0.00	0.00
N-1.75	B175	VCIM 50x100	459	B.2.4.7-8	1.1	17.60	0.15	0.00	0.00
N-1.75	B176	VCIM 50x100	75	B.2.4.7-8	6.4	15.50	0.14	0.00	0.00
N-1.75	B176	VCIM 50x100	89	B.2.4.7-8	6.5	15.40	0.14	0.00	0.00
N-1.75	B176	VCIM 50x100	89	B.2.4.7-8	6.5	15.40	0.17	0.00	0.00
N-1.75	B176	VCIM 50x100	133.5	B.2.4.7-8	7	8.50	0.17	0.00	0.00
N-1.75	B176	VCIM 50x100	133.5	B.2.4.7-8	7	7.50	0.16	0.00	0.00
N-1.75	B176	VCIM 50x100	178	B.2.4.5-8	8.5	5.80	0.16	0.00	0.00
N-1.75	B176	VCIM 50x100	178	B.2.4.5-8	8.6	5.70	0.14	0.00	0.00
N-1.75	B176	VCIM 50x100	222.5	B.2.4.5-1	11.1	5.70	0.14	0.00	0.00
N-1.75	B176	VCIM 50x100	222.5	B.2.4.5-1	11.5	5.60	0.13	0.00	0.00
N-1.75	B176	VCIM 50x100	267	B.2.4.5-8	15.4	5.60	0.13	0.00	0.00
N-1.75	B176	VCIM 50x100	267	B.2.4.5-8	15.2	5.60	0.13	0.00	0.00
N-1.75	B176	VCIM 50x100	311.5	B.2.4.5-8	12.8	5.60	0.13	0.00	0.00
N-1.75	B176	VCIM 50x100	311.5	B.2.4.5-8	12.4	5.50	0.14	0.00	0.00
N-1.75	B176	VCIM 50x100	356	B.2.4.5-8	8.8	5.50	0.14	0.00	0.00
N-1.75	B176	VCIM 50x100	356	B.2.4.5-8	8.3	5.40	0.16	0.00	0.00
N-1.75	B176	VCIM 50x100	400.5	B.2.4.5-8	5.4	9.20	0.16	0.00	0.00
N-1.75	B176	VCIM 50x100	400.5	B.2.4.5-8	5.3	9.80	0.17	0.00	0.00
N-1.75	B176	VCIM 50x100	445	B.2.4.5-8	5.3	15.40	0.16	0.00	0.00
N-1.75	B176	VCIM 50x100	445	B.2.4.5-8	5.2	15.40	0.13	0.00	0.00
N-1.75	B176	VCIM 50x100	459	B.2.4.7-8	0.6	15.40	0.13	0.00	0.00
N-1.75	B199	VCIM 50x100	0	B.2.4.7-2	1.9	3.70	0.15	17.50	0.05

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B199	VCIM 50x100	26.2	B.2.4.5-8	5.5	5.50	0.15	17.50	0.05
N-1.75	B199	VCIM 50x100	52.3	B.2.4.5-8	5.5	5.50	0.15	17.50	0.05
N-1.75	B199	VCIM 50x100	52.3	B.2.4.5-8	5.4	5.40	0.15	17.50	0.05
N-1.75	B199	VCIM 50x100	78.5	B.2.4.5-8	5.4	5.40	0.15	17.50	0.05
N-1.75	B199	VCIM 50x100	78.5	B.2.4.5-1	8.7	8.70	0.15	17.50	0.06
N-1.75	B199	VCIM 50x100	104.7	B.2.4.5-1	8.7	8.70	0.16	17.50	0.06
N-1.75	B199	VCIM 50x100	104.7	B.2.4.5-1	8.2	8.20	0.14	17.20	0.06
N-1.75	B199	VCIM 50x100	130.8	B.2.4.5-1	8.2	8.20	0.15	17.20	0.06
N-1.75	B199	VCIM 50x100	157	B.2.4.5-1	8.2	8.20	0.15	17.20	0.06
N-1.75	B199	VCIM 50x100	209.3	B.2.4.7-1	13.6	18.00	0.15	25.30	0.10
N-1.75	B199	VCIM 50x100	235.5	B.2.4.7-1	14.6	18.60	0.15	17.50	0.04
N-1.75	B199	VCIM 50x100	239	B.2.4.7-1	14.6	18.60	0.15	17.50	0.04
N-1.75	B231	VCIM 50x100	75	B.2.4.5-8	2.7	27.80	0.23	0.00	0.00
N-1.75	B231	VCIM 50x100	98.7	B.2.4.5-8	11	24.60	0.23	0.00	0.00
N-1.75	B231	VCIM 50x100	98.7	B.2.4.5-8	10.8	23.60	0.26	0.00	0.00
N-1.75	B231	VCIM 50x100	148	B.2.4.5-8	10.8	15.40	0.26	0.00	0.00
N-1.75	B231	VCIM 50x100	148	B.2.4.5-8	10.5	15.40	0.22	0.00	0.00
N-1.75	B231	VCIM 50x100	197.3	B.2.4.5-8	10.5	10.80	0.23	0.00	0.00
N-1.75	B231	VCIM 50x100	197.3	B.2.4.5-8	10.3	10.30	0.25	0.00	0.00
N-1.75	B231	VCIM 50x100	246.7	B.2.4.5-8	10.3	10.30	0.25	0.00	0.00
N-1.75	B231	VCIM 50x100	246.7	B.2.4.5-8	9.9	9.90	0.27	0.00	0.00
N-1.75	B231	VCIM 50x100	296	B.2.4.5-8	4.1	2.90	0.27	0.00	0.00
N-1.75	B232	VCIM 50x100	75	B.2.4.5-8	2.3	21.70	0.19	17.50	0.01
N-1.75	B232	VCIM 50x100	98.7	B.2.4.5-8	8.8	19.10	0.19	17.50	0.01
N-1.75	B232	VCIM 50x100	98.7	B.2.4.5-8	8.7	18.30	0.21	17.50	0.02
N-1.75	B232	VCIM 50x100	148	B.2.4.5-8	8.7	15.30	0.21	17.50	0.02
N-1.75	B232	VCIM 50x100	148	B.2.4.5-8	8.5	14.50	0.19	17.50	0.02
N-1.75	B232	VCIM 50x100	197.3	B.2.4.5-8	8.5	8.50	0.19	17.50	0.02
N-1.75	B232	VCIM 50x100	197.3	B.2.4.5-8	8.2	8.20	0.21	17.50	0.02
N-1.75	B232	VCIM 50x100	246.7	B.2.4.5-8	8.2	8.20	0.21	17.50	0.02
N-1.75	B232	VCIM 50x100	246.7	B.2.4.5-8	7.9	7.90	0.22	17.50	0.02
N-1.75	B232	VCIM 50x100	296	B.2.4.5-8	4.2	2.80	0.22	17.50	0.02
N-1.75	B230	VCIM 50x100	75	B.2.4.7-8	5.5	15.40	0.09	17.50	0.03
N-1.75	B230	VCIM 50x100	89	B.2.4.5-8	6.3	15.40	0.09	17.50	0.03
N-1.75	B230	VCIM 50x100	89	B.2.4.5-8	6.4	15.40	0.23	17.50	0.03
N-1.75	B230	VCIM 50x100	133.5	B.2.4.5-8	6.4	7.40	0.23	17.50	0.03
N-1.75	B230	VCIM 50x100	133.5	B.2.4.5-8	6.8	7.00	0.19	17.50	0.03
N-1.75	B230	VCIM 50x100	178	B.2.4.5-8	6.8	6.80	0.19	17.50	0.03
N-1.75	B230	VCIM 50x100	178	B.2.4.5-8	7.2	7.40	0.18	17.50	0.03
N-1.75	B230	VCIM 50x100	222.5	B.2.4.7-8	12.8	14.40	0.18	17.50	0.03
N-1.75	B230	VCIM 50x100	222.5	B.2.4.7-8	14	15.40	0.09	17.50	0.03
N-1.75	B230	VCIM 50x100	235	B.2.4.7-8	14.7	15.40	0.09	17.50	0.03
N-1.75	B230	VCIM 50x100	235	B.2.4.5-8	14	9.20	0.06	17.50	0.01
N-1.75	B230	VCIM 50x100	267	B.2.4.5-8	14.1	8.70	0.06	17.50	0.01
N-1.75	B230	VCIM 50x100	267	B.2.4.5-8	12.3	8.50	0.11	17.50	0.01
N-1.75	B230	VCIM 50x100	311.5	B.2.4.5-8	9.7	10.80	0.10	17.50	0.01
N-1.75	B230	VCIM 50x100	311.5	B.2.4.7-8	7.3	14.00	0.08	17.50	0.01
N-1.75	B230	VCIM 50x100	334.7	B.2.4.7-8	7.2	14.20	0.08	17.50	0.01
N-1.75	B230	VCIM 50x100	334.7	B.2.4.5-8	8.2	15.40	0.07	17.50	0.01
N-1.75	B230	VCIM 50x100	356	B.2.4.5-8	8.2	15.40	0.07	17.50	0.01
N-1.75	B230	VCIM 50x100	356	B.2.4.5-8	7.9	13.50	0.07	17.50	0.01
N-1.75	B230	VCIM 50x100	400.5	B.2.4.5-8	7.9	12.20	0.07	17.50	0.01

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B230	VCIM 50x100	400.5	B.2.4.5-8	7.4	9.60	0.07	17.50	0.01
N-1.75	B230	VCIM 50x100	434.3	B.2.4.5-8	7.4	9.50	0.07	17.50	0.01
N-1.75	B230	VCIM 50x100	434.3	B.2.4.5-8	8	9.30	0.07	0.00	0.00
N-1.75	B230	VCIM 50x100	445	B.2.4.5-8	8	9.30	0.07	0.00	0.00
N-1.75	B230	VCIM 50x100	445	B.2.4.5-8	7.6	7.60	0.07	0.00	0.00
N-1.75	B230	VCIM 50x100	489.5	B.2.4.5-8	7.6	7.60	0.07	0.00	0.00
N-1.75	B230	VCIM 50x100	489.5	B.2.4.5-8	7.6	7.20	0.06	0.00	0.00
N-1.75	B230	VCIM 50x100	534	B.2.4.5-8	8.4	7.20	0.06	0.00	0.00
N-1.75	B230	VCIM 50x100	534	B.2.4.5-8	7.2	6.40	0.08	17.50	0.04
N-1.75	B230	VCIM 50x100	583.3	B.2.4.5-8	6.4	6.40	0.07	17.50	0.04
N-1.75	B230	VCIM 50x100	583.3	B.2.4.5-8	5.9	5.90	0.08	17.50	0.04
N-1.75	B230	VCIM 50x100	632.7	B.2.4.5-8	5.9	5.90	0.08	17.50	0.04
N-1.75	B230	VCIM 50x100	632.7	B.2.4.5-8	6.2	6.20	0.06	17.50	0.04
N-1.75	B230	VCIM 50x100	682	B.2.4.5-8	6.2	6.20	0.06	17.50	0.04
N-1.75	B230	VCIM 50x100	682	B.2.4.5-8	6.6	5.70	0.07	17.50	0.04
N-1.75	B230	VCIM 50x100	731.3	B.2.4.5-8	7.5	5.70	0.07	17.50	0.04
N-1.75	B230	VCIM 50x100	731.3	B.2.4.5-8	10	6.80	0.07	0.00	0.00
N-1.75	B230	VCIM 50x100	755	B.2.4.5-8	10.1	6.30	0.07	0.00	0.00
N-1.75	B290	VCIM 50x100	0	B.2.4.7-2	1	36.90	0.26	0.00	0.00
N-1.75	B290	VCIM 50x100	44.5	B.2.4.5-1	12.1	24.50	0.27	0.00	0.00
N-1.75	B290	VCIM 50x100	44.5	B.2.4.5-1	11.8	23.80	0.22	0.00	0.00
N-1.75	B290	VCIM 50x100	89	B.2.4.5-1	11.8	15.40	0.22	0.00	0.00
N-1.75	B290	VCIM 50x100	89	B.2.4.5-1	11.6	15.40	0.15	17.50	0.01
N-1.75	B290	VCIM 50x100	133.5	B.2.4.5-1	11.6	11.60	0.15	17.50	0.01
N-1.75	B290	VCIM 50x100	133.5	B.2.4.5-1	11.6	11.60	0.09	17.50	0.02
N-1.75	B290	VCIM 50x100	178	B.2.4.5-1	11.6	11.60	0.10	17.50	0.02
N-1.75	B290	VCIM 50x100	178	B.2.4.5-1	11.6	11.60	0.05	17.50	0.02
N-1.75	B290	VCIM 50x100	222.5	B.2.4.5-1	11.6	11.60	0.05	17.50	0.02
N-1.75	B290	VCIM 50x100	222.5	B.2.4.5-1	11.8	11.80	0.04	17.50	0.03
N-1.75	B290	VCIM 50x100	267	B.2.4.5-1	12	11.80	0.04	17.50	0.03
N-1.75	B290	VCIM 50x100	267	B.2.4.5-1	12.2	12.00	0.02	17.50	0.01
N-1.75	B290	VCIM 50x100	311.5	B.2.4.5-1	14	12.00	0.02	17.50	0.01
N-1.75	B290	VCIM 50x100	311.5	B.2.4.5-1	14.2	12.20	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	356	B.2.4.5-3	15.4	12.20	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	356	B.2.4.5-3	15.4	12.50	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	400.5	B.2.4.5-3	15.4	12.50	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	400.5	B.2.4.5-3	15.4	12.80	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	445	B.2.4.5-3	15.4	12.80	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	445	B.2.4.5-3	15.4	13.20	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	489.5	B.2.4.5-3	15.4	13.20	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	489.5	B.2.4.5-3	15.4	13.50	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	534	B.2.4.5-3	15.4	13.50	0.01	17.50	0.01
N-1.75	B290	VCIM 50x100	534	B.2.4.5-2	16.1	13.50	0.03	17.50	0.04
N-1.75	B290	VCIM 50x100	583.3	B.2.4.5-2	15.4	13.50	0.03	17.50	0.04
N-1.75	B290	VCIM 50x100	583.3	B.2.4.5-3	15.4	13.20	0.03	17.50	0.04
N-1.75	B290	VCIM 50x100	632.7	B.2.4.5-3	15.4	13.20	0.03	17.50	0.04
N-1.75	B290	VCIM 50x100	632.7	B.2.4.5-3	15.4	12.80	0.04	17.50	0.04
N-1.75	B290	VCIM 50x100	682	B.2.4.5-3	15.4	12.80	0.03	17.50	0.04
N-1.75	B290	VCIM 50x100	682	B.2.4.5-3	15.4	12.50	0.05	17.50	0.04
N-1.75	B290	VCIM 50x100	731.3	B.2.4.5-8	13.8	12.50	0.05	17.50	0.04
N-1.75	B290	VCIM 50x100	731.3	B.2.4.5-8	13.6	12.20	0.06	17.50	0.03
N-1.75	B290	VCIM 50x100	780.7	B.2.4.5-1	12.2	12.20	0.06	17.50	0.03

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B290	VCIM 50x100	780.7	B.2.4.5-1	12	12.00	0.09	17.50	0.03
N-1.75	B290	VCIM 50x100	830	B.2.4.7-2	1.4	4.50	0.09	17.50	0.03
N-1.75	B69	VCIM 50x100	75	B.2.4.7-2	9.9	15.40	0.22	17.50	0.02
N-1.75	B69	VCIM 50x100	105	B.2.4.7-2	8.5	10.30	0.23	17.50	0.02
N-1.75	B69	VCIM 50x100	105	B.2.4.5-2	8.3	9.60	0.22	17.50	0.02
N-1.75	B69	VCIM 50x100	131.3	B.2.4.5-2	7.3	6.00	0.22	17.50	0.02
N-1.75	B69	VCIM 50x100	157.5	B.2.4.5-2	8.3	6.00	0.23	17.50	0.02
N-1.75	B69	VCIM 50x100	157.5	B.2.4.5-2	8.8	6.20	0.17	17.50	0.03
N-1.75	B69	VCIM 50x100	183.8	B.2.4.5-2	11.9	6.20	0.17	17.50	0.03
N-1.75	B69	VCIM 50x100	210	B.2.4.5-3	15.4	8.00	0.17	17.50	0.03
N-1.75	B69	VCIM 50x100	230	B.2.4.5-2	13.2	13.30	0.15	17.50	0.02
N-1.75	B69	VCIM 50x100	262.5	B.2.4.5-2	12.8	13.40	0.15	17.50	0.02
N-1.75	B69	VCIM 50x100	262.5	B.2.4.7-1	9.7	15.40	0.17	17.50	0.02
N-1.75	B69	VCIM 50x100	288.8	B.2.4.7-1	9.4	15.40	0.17	17.50	0.02
N-1.75	B69	VCIM 50x100	315	B.2.4.7-1	9.2	15.40	0.17	17.50	0.02
N-1.75	B69	VCIM 50x100	315	B.2.4.7-1	8.9	15.90	0.15	17.50	0.02
N-1.75	B69	VCIM 50x100	325	B.2.4.7-1	8.9	15.90	0.15	17.50	0.02
N-1.75	B69	VCIM 50x100	325	B.2.4.7-1	8.2	15.40	0.16	0.00	0.00
N-1.75	B69	VCIM 50x100	345	B.2.4.7-1	8.2	15.40	0.16	0.00	0.00
N-1.75	B200	VCIM 50x100	75	B.2.4.7-8	12.1	15.00	0.25	17.50	0.02
N-1.75	B200	VCIM 50x100	99.3	B.2.4.5-8	11.8	11.50	0.25	17.50	0.02
N-1.75	B200	VCIM 50x100	99.3	B.2.4.5-8	11.9	10.60	0.27	17.50	0.02
N-1.75	B200	VCIM 50x100	149	B.2.4.5-8	12.2	4.30	0.27	17.50	0.02
N-1.75	B200	VCIM 50x100	149	B.2.4.5-8	12.2	4.40	0.24	17.50	0.02
N-1.75	B200	VCIM 50x100	198.7	B.2.4.5-1	13.4	4.40	0.24	17.50	0.02
N-1.75	B200	VCIM 50x100	198.7	B.2.4.5-1	13.9	4.50	0.20	17.50	0.02
N-1.75	B200	VCIM 50x100	223.5	B.2.4.5-3	15.4	4.50	0.21	17.50	0.02
N-1.75	B200	VCIM 50x100	223.5	B.2.4.5-3	15.4	4.50	0.20	17.50	0.02
N-1.75	B200	VCIM 50x100	248.3	B.2.4.5-2	15.3	4.50	0.19	17.50	0.02
N-1.75	B200	VCIM 50x100	248.3	B.2.4.5-2	15	4.60	0.24	17.50	0.02
N-1.75	B200	VCIM 50x100	298	B.2.4.5-2	10.2	5.10	0.24	17.50	0.02
N-1.75	B200	VCIM 50x100	298	B.2.4.5-2	9.8	5.60	0.27	17.50	0.02
N-1.75	B200	VCIM 50x100	347.7	B.2.4.7-8	6.2	14.70	0.27	17.50	0.02
N-1.75	B200	VCIM 50x100	347.7	B.2.4.7-8	6	15.40	0.24	17.50	0.02
N-1.75	B200	VCIM 50x100	372	B.2.4.7-8	4.9	15.40	0.24	17.50	0.02
N-1.75	B797	VCIM 50x100	75	B.2.4.5-1	4.1	9.60	0.12	17.50	0.02
N-1.75	B797	VCIM 50x100	89.8	B.2.4.5-1	5.7	9.60	0.12	17.50	0.02
N-1.75	B797	VCIM 50x100	89.8	B.2.4.5-1	4.8	8.30	0.12	17.50	0.01
N-1.75	B797	VCIM 50x100	99.8	B.2.4.5-1	4.8	8.30	0.12	17.50	0.01
N-1.75	B797	VCIM 50x100	99.8	B.2.4.5-1	4.7	7.70	0.11	17.50	0.02
N-1.75	B797	VCIM 50x100	112.3	B.2.4.5-1	4.7	7.50	0.11	17.50	0.02
N-1.75	B797	VCIM 50x100	112.3	B.2.4.5-1	4.7	4.70	0.11	17.50	0.01
N-1.75	B797	VCIM 50x100	149.7	B.2.4.5-1	4.7	4.70	0.11	17.50	0.01
N-1.75	B797	VCIM 50x100	149.7	B.2.4.5-1	4.6	4.60	0.12	17.50	0.01
N-1.75	B797	VCIM 50x100	179.6	B.2.4.5-1	4.6	4.60	0.12	17.50	0.01
N-1.75	B797	VCIM 50x100	179.6	B.2.4.5-1	5.8	3.80	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	199.6	B.2.4.5-1	5.9	3.80	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	199.6	B.2.4.5-1	6.7	3.70	0.11	0.00	0.00
N-1.75	B797	VCIM 50x100	224.5	B.2.4.5-1	7.5	3.70	0.11	0.00	0.00
N-1.75	B797	VCIM 50x100	224.5	B.2.4.5-1	8.1	3.50	0.14	0.00	0.00
N-1.75	B797	VCIM 50x100	249.4	B.2.4.5-1	7.5	3.50	0.14	0.00	0.00
N-1.75	B797	VCIM 50x100	249.4	B.2.4.5-1	7.6	3.40	0.12	0.00	0.00

TABLE: Concrete Beam Longitudinal Reinforcing

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B797	VCIM 50x100	269.4	B.2.4.5-1	7.6	3.40	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	269.4	B.2.4.5-2	6.6	4.30	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	299.3	B.2.4.5-2	6.9	4.30	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	299.3	B.2.4.5-1	8.6	4.10	0.11	0.00	0.00
N-1.75	B797	VCIM 50x100	336.8	B.2.4.5-1	9.3	4.10	0.11	0.00	0.00
N-1.75	B797	VCIM 50x100	336.8	B.2.4.5-1	8.6	4.40	0.13	17.50	0.01
N-1.75	B797	VCIM 50x100	349.2	B.2.4.5-1	8.5	4.50	0.13	17.50	0.01
N-1.75	B797	VCIM 50x100	349.2	B.2.4.5-1	9.5	4.90	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	359.2	B.2.4.5-1	9.5	4.90	0.12	0.00	0.00
N-1.75	B797	VCIM 50x100	359.2	B.2.4.5-1	9.4	6.00	0.12	17.50	0.01
N-1.75	B797	VCIM 50x100	374	B.2.4.5-1	9.4	6.50	0.12	17.50	0.01
N-1.75	B65	VCIM 50x100	75	B.2.4.5-2	3	17.30	0.24	16.90	0.03
N-1.75	B65	VCIM 50x100	99.8	B.2.4.5-1	8.4	15.40	0.24	16.90	0.03
N-1.75	B65	VCIM 50x100	99.8	B.2.4.5-1	8.4	13.10	0.16	16.80	0.03
N-1.75	B65	VCIM 50x100	112.3	B.2.4.5-1	8.4	10.90	0.16	16.80	0.03
N-1.75	B65	VCIM 50x100	112.3	B.2.4.5-1	8.5	8.50	0.21	0.00	0.00
N-1.75	B65	VCIM 50x100	149.7	B.2.4.5-1	13	8.50	0.21	0.00	0.00
N-1.75	B65	VCIM 50x100	149.7	B.2.4.5-1	13.8	8.60	0.18	0.00	0.00
N-1.75	B65	VCIM 50x100	199.6	B.2.4.5-1	17.7	8.60	0.18	0.00	0.00
N-1.75	B65	VCIM 50x100	199.6	B.2.4.5-1	18.4	8.70	0.12	0.00	0.00
N-1.75	B65	VCIM 50x100	224.5	B.2.4.5-1	21	8.70	0.12	0.00	0.00
N-1.75	B65	VCIM 50x100	224.5	B.2.4.5-1	21.3	8.80	0.11	17.50	0.01
N-1.75	B65	VCIM 50x100	249.4	B.2.4.5-1	18.9	8.80	0.11	17.50	0.01
N-1.75	B65	VCIM 50x100	249.4	B.2.4.5-1	18.3	8.80	0.18	17.50	0.02
N-1.75	B65	VCIM 50x100	299.3	B.2.4.5-2	14.3	8.80	0.17	17.50	0.02
N-1.75	B65	VCIM 50x100	299.3	B.2.4.5-2	13.4	8.90	0.21	17.50	0.02
N-1.75	B65	VCIM 50x100	336.8	B.2.4.5-1	8.9	9.10	0.21	17.50	0.02
N-1.75	B65	VCIM 50x100	336.8	B.2.4.5-1	8.8	13.40	0.15	16.30	0.03
N-1.75	B65	VCIM 50x100	349.2	B.2.4.5-1	8.8	15.40	0.15	16.30	0.03
N-1.75	B65	VCIM 50x100	349.2	B.2.4.5-1	8.9	15.40	0.25	16.40	0.03
N-1.75	B65	VCIM 50x100	374	B.2.4.5-2	3.5	18.60	0.25	16.40	0.03
N-1.75	B2197	VCIM 50x100	158.8	B.2.4.5-8	19.7	8.50	0.26	17.50	0.04
N-1.75	B2197	VCIM 50x100	185.2	B.2.4.5-8	26.4	8.50	0.26	17.50	0.04
N-1.75	B2197	VCIM 50x100	211.7	B.2.4.5-8	33.5	8.50	0.27	17.50	0.04
N-1.75	B2197	VCIM 50x100	211.7	B.2.4.5-8	34.2	8.50	0.10	17.50	0.04
N-1.75	B2197	VCIM 50x100	238.2	B.2.4.5-8	37.4	8.50	0.10	17.50	0.04
N-1.75	B2197	VCIM 50x100	264.6	B.2.4.5-8	40.8	8.50	0.10	17.50	0.04
N-1.75	B2197	VCIM 50x100	264.6	B.2.4.5-8	41	8.60	0.01	17.50	0.04
N-1.75	B2197	VCIM 50x100	291.1	B.2.4.5-8	40.9	8.60	0.01	17.50	0.04
N-1.75	B2197	VCIM 50x100	317.5	B.2.4.5-8	40.8	8.60	0.01	17.50	0.04
N-1.75	B2197	VCIM 50x100	317.5	B.2.4.5-8	40.6	8.60	0.03	17.50	0.04
N-1.75	B2197	VCIM 50x100	344	B.2.4.5-1	39.3	8.60	0.02	17.50	0.04
N-1.75	B2197	VCIM 50x100	344	B.2.4.5-1	37.3	8.60	0.29	17.50	0.04
N-1.75	B2197	VCIM 50x100	370.5	B.2.4.5-1	29.5	8.60	0.29	17.50	0.04
N-1.75	B2197	VCIM 50x100	520	B.2.4.5-8	8.8	47.40	0.07	19.00	0.07
N-1.75	B2197	VCIM 50x100	529.2	B.2.4.5-8	8.8	46.10	0.07	19.00	0.07
N-1.75	B2197	VCIM 50x100	582.2	B.2.4.5-8	8.7	23.10	0.26	17.50	0.03
N-1.75	B2197	VCIM 50x100	613	B.2.4.7-2	1.2	15.90	0.26	17.50	0.03
N-1.75	B71	VCIM 50x100	75	B.2.4.7-1	15.3	31.20	0.31	17.50	0.03
N-1.75	B71	VCIM 50x100	103.3	B.2.4.5-3	15.4	25.90	0.31	17.50	0.03
N-1.75	B71	VCIM 50x100	103.3	B.2.4.5-3	15.4	24.80	0.03	17.50	0.03
N-1.75	B71	VCIM 50x100	110.7	B.2.4.5-3	15.4	24.30	0.03	17.50	0.03

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B71	VCIM 50x100	110.7	B.2.4.5-3	15.4	22.50	0.24	17.50	0.03
N-1.75	B71	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.24	17.50	0.03
N-1.75	B71	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.14	17.50	0.03
N-1.75	B71	VCIM 50x100	180.8	B.2.4.5-3	15.4	15.40	0.14	17.50	0.03
N-1.75	B71	VCIM 50x100	206.7	B.2.4.5-3	15.4	15.40	0.14	17.50	0.03
N-1.75	B71	VCIM 50x100	206.7	B.2.4.5-3	15.4	15.40	0.04	17.50	0.04
N-1.75	B71	VCIM 50x100	221.4	B.2.4.5-3	15.4	15.40	0.05	17.50	0.04
N-1.75	B71	VCIM 50x100	221.4	B.2.4.5-3	15.4	15.40	0.03	17.50	0.04
N-1.75	B71	VCIM 50x100	258.3	B.2.4.5-3	15.4	15.40	0.03	17.50	0.04
N-1.75	B71	VCIM 50x100	258.3	B.2.4.5-1	15.1	15.10	0.02	17.50	0.05
N-1.75	B71	VCIM 50x100	284.2	B.2.4.5-1	15.1	15.10	0.02	17.50	0.05
N-1.75	B71	VCIM 50x100	310	B.2.4.5-3	15.4	15.10	0.02	17.50	0.05
N-1.75	B71	VCIM 50x100	310	B.2.4.5-3	15.4	14.80	0.01	17.50	0.05
N-1.75	B71	VCIM 50x100	332.1	B.2.4.5-3	15.4	14.80	0.01	17.50	0.05
N-1.75	B71	VCIM 50x100	332.1	B.2.4.5-3	15.4	14.40	0.02	17.50	0.03
N-1.75	B71	VCIM 50x100	361.7	B.2.4.5-3	15.4	14.40	0.02	17.50	0.03
N-1.75	B71	VCIM 50x100	361.7	B.2.4.5-3	15.4	14.10	0.01	17.50	0.03
N-1.75	B71	VCIM 50x100	387.5	B.2.4.5-3	15.4	14.10	0.01	17.50	0.03
N-1.75	B71	VCIM 50x100	413.3	B.2.4.5-3	15.4	14.10	0.01	17.50	0.03
N-1.75	B71	VCIM 50x100	413.3	B.2.4.5-8	15.4	13.80	0.01	17.50	0.04
N-1.75	B71	VCIM 50x100	442.9	B.2.4.5-8	15.2	13.80	0.01	17.50	0.04
N-1.75	B71	VCIM 50x100	442.9	B.2.4.5-8	14.6	13.40	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	465	B.2.4.5-1	14.2	13.40	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	465	B.2.4.5-8	13.9	13.20	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	490.8	B.2.4.5-1	13.2	13.20	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	516.7	B.2.4.5-1	13.2	13.20	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	516.7	B.2.4.5-1	12.8	12.80	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	553.6	B.2.4.5-1	12.8	12.80	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	553.6	B.2.4.5-1	12.5	12.50	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	568.3	B.2.4.5-1	12.5	12.50	0.01	17.50	0.02
N-1.75	B71	VCIM 50x100	568.3	B.2.4.5-1	12.3	12.30	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	594.2	B.2.4.5-1	12.3	12.30	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	620	B.2.4.5-1	12.3	12.30	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	620	B.2.4.5-1	12	12.00	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	664.3	B.2.4.5-1	12	12.00	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	664.3	B.2.4.5-1	11.7	11.70	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	671.7	B.2.4.5-1	11.7	11.70	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	671.7	B.2.4.5-1	11.5	11.50	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	697.5	B.2.4.5-1	11.5	11.50	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	723.3	B.2.4.5-1	11.5	11.50	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	723.3	B.2.4.5-8	11.3	11.30	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	749.2	B.2.4.5-8	11.3	11.30	0.02	17.50	0.02
N-1.75	B71	VCIM 50x100	775	B.2.4.5-1	3.4	8.40	0.02	17.50	0.02
N-1.75	B72	VCIM 50x100	0	B.2.4.5-1	3	8.10	0.04	17.50	0.02
N-1.75	B72	VCIM 50x100	25.8	B.2.4.5-1	4.1	7.30	0.04	17.50	0.02
N-1.75	B72	VCIM 50x100	51.7	B.2.4.5-1	4.1	6.40	0.04	17.50	0.02
N-1.75	B72	VCIM 50x100	51.7	B.2.4.5-1	3.9	6.20	0.02	17.50	0.02
N-1.75	B72	VCIM 50x100	77.5	B.2.4.5-1	3.9	5.40	0.02	17.50	0.02
N-1.75	B72	VCIM 50x100	103.3	B.2.4.5-1	3.9	4.50	0.02	17.50	0.02
N-1.75	B72	VCIM 50x100	103.3	B.2.4.5-1	3.8	4.30	0.02	17.50	0.02
N-1.75	B72	VCIM 50x100	110.7	B.2.4.5-1	3.8	4.20	0.02	17.50	0.02
N-1.75	B72	VCIM 50x100	110.7	B.2.4.5-1	3.7	3.70	0.02	17.50	0.01

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B72	VCIM 50x100	155	B.2.4.5-1	3.7	3.70	0.02	17.50	0.01
N-1.75	B72	VCIM 50x100	155	B.2.4.5-8	3.5	3.50	0.02	17.50	0.01
N-1.75	B72	VCIM 50x100	180.8	B.2.4.5-8	3.5	3.50	0.02	17.50	0.01
N-1.75	B72	VCIM 50x100	206.7	B.2.4.5-8	3.5	3.50	0.02	17.50	0.01
N-1.75	B72	VCIM 50x100	206.7	B.2.4.5-8	3.5	3.50	0.02	17.50	0.01
N-1.75	B72	VCIM 50x100	221.4	B.2.4.5-1	3.5	3.50	0.02	17.50	0.01
N-1.75	B72	VCIM 50x100	221.4	B.2.4.5-1	3.5	3.40	0.01	0.00	0.00
N-1.75	B72	VCIM 50x100	258.3	B.2.4.5-8	3.8	3.40	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	258.3	B.2.4.5-8	3.7	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	284.2	B.2.4.5-8	3.9	3.20	0.01	0.00	0.00
N-1.75	B72	VCIM 50x100	310	B.2.4.5-8	4.1	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	310	B.2.4.5-8	4.1	3.20	0.01	0.00	0.00
N-1.75	B72	VCIM 50x100	332.1	B.2.4.5-8	4.2	3.20	0.01	0.00	0.00
N-1.75	B72	VCIM 50x100	332.1	B.2.4.5-8	4.2	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	361.7	B.2.4.5-8	4.3	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	361.7	B.2.4.5-8	4.3	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	387.5	B.2.4.5-8	4.3	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	413.3	B.2.4.5-8	4.4	3.10	0.01	0.00	0.00
N-1.75	B72	VCIM 50x100	413.3	B.2.4.5-8	4.4	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	442.9	B.2.4.5-8	4.5	3.10	0.01	0.00	0.00
N-1.75	B72	VCIM 50x100	442.9	B.2.4.5-8	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	465	B.2.4.5-8	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	465	B.2.4.5-8	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	490.8	B.2.4.5-8	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	516.7	B.2.4.5-8	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	516.7	B.2.4.5-8	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	553.6	B.2.4.5-1	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	553.6	B.2.4.5-1	4.7	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	568.3	B.2.4.5-1	4.6	3.10	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	568.3	B.2.4.5-1	4.6	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	594.2	B.2.4.5-1	4.4	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	620	B.2.4.5-1	4.3	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	620	B.2.4.5-1	4.3	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	664.3	B.2.4.5-1	3.9	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	664.3	B.2.4.5-1	3.7	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	671.7	B.2.4.5-1	3.7	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	671.7	B.2.4.5-1	3.7	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	697.5	B.2.4.5-1	3.3	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	723.3	B.2.4.5-1	3.2	3.20	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	723.3	B.2.4.5-1	3.3	3.30	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	749.2	B.2.4.5-1	3.3	3.30	0.02	0.00	0.00
N-1.75	B72	VCIM 50x100	775	B.2.4.5-2	2.3	3.60	0.02	0.00	0.00
N-1.75	B498	VCIM 50x100	75	B.2.4.5-1	2.4	26.40	0.34	17.50	0.02
N-1.75	B498	VCIM 50x100	100.7	B.2.4.5-1	10.4	20.00	0.34	17.50	0.02
N-1.75	B498	VCIM 50x100	132	B.2.4.5-1	10.4	10.40	0.25	17.50	0.01
N-1.75	B498	VCIM 50x100	151	B.2.4.5-1	10.4	10.40	0.25	17.50	0.01
N-1.75	B498	VCIM 50x100	151	B.2.4.5-1	10.3	10.30	0.28	17.50	0.01
N-1.75	B498	VCIM 50x100	176.2	B.2.4.5-1	10.3	10.30	0.28	17.50	0.01
N-1.75	B498	VCIM 50x100	201.3	B.2.4.5-1	13.5	10.30	0.28	17.50	0.01
N-1.75	B498	VCIM 50x100	201.3	B.2.4.5-1	14.4	10.30	0.24	17.50	0.01
N-1.75	B498	VCIM 50x100	244.3	B.2.4.5-1	16.6	10.30	0.24	17.50	0.01
N-1.75	B498	VCIM 50x100	244.3	B.2.4.5-1	17	10.30	0.31	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B498	VCIM 50x100	251.7	B.2.4.5-1	17	10.30	0.31	0.00	0.00
N-1.75	B498	VCIM 50x100	251.7	B.2.4.5-1	17	10.20	0.34	0.00	0.00
N-1.75	B498	VCIM 50x100	276.8	B.2.4.5-1	16.7	10.20	0.33	0.00	0.00
N-1.75	B498	VCIM 50x100	302	B.2.4.5-1	16.5	10.20	0.33	0.00	0.00
N-1.75	B498	VCIM 50x100	302	B.2.4.5-1	16.3	10.10	0.36	0.00	0.00
N-1.75	B498	VCIM 50x100	327.2	B.2.4.5-3	15.4	10.10	0.36	0.00	0.00
N-1.75	B498	VCIM 50x100	352.3	B.2.4.5-3	15.4	10.10	0.36	0.00	0.00
N-1.75	B498	VCIM 50x100	352.3	B.2.4.5-3	15.4	10.00	0.31	0.00	0.00
N-1.75	B498	VCIM 50x100	356.5	B.2.4.5-3	15.4	10.00	0.31	0.00	0.00
N-1.75	B55	VCIM 50x100	0	B.2.4.5-2	2.3	5.10	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	25.8	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	51.7	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	51.7	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	77.5	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	103.3	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	103.3	B.2.4.5-3	15.4	15.40	0.05	0.00	0.00
N-1.75	B55	VCIM 50x100	110.7	B.2.4.5-3	15.4	15.40	0.05	0.00	0.00
N-1.75	B55	VCIM 50x100	110.7	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	155	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	180.8	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	206.7	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	206.7	B.2.4.5-3	15.4	15.40	0.06	0.00	0.00
N-1.75	B55	VCIM 50x100	221.4	B.2.4.5-3	15.4	15.40	0.06	0.00	0.00
N-1.75	B55	VCIM 50x100	221.4	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	258.3	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	258.3	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	284.2	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	310	B.2.4.5-3	15.4	15.40	0.07	0.00	0.00
N-1.75	B55	VCIM 50x100	310	B.2.4.5-3	15.4	15.40	0.06	0.00	0.00
N-1.75	B55	VCIM 50x100	332.1	B.2.4.5-3	15.4	15.40	0.06	0.00	0.00
N-1.75	B55	VCIM 50x100	332.1	B.2.4.5-3	15.4	15.40	0.05	17.50	0.01
N-1.75	B55	VCIM 50x100	361.7	B.2.4.5-3	15.4	15.40	0.06	17.50	0.01
N-1.75	B55	VCIM 50x100	361.7	B.2.4.5-3	15.4	15.40	0.05	17.50	0.01
N-1.75	B55	VCIM 50x100	387.5	B.2.4.5-3	15.4	15.40	0.05	17.50	0.01
N-1.75	B55	VCIM 50x100	413.3	B.2.4.5-2	15.8	15.40	0.06	17.50	0.01
N-1.75	B55	VCIM 50x100	413.3	B.2.4.5-2	15.9	15.40	0.05	17.50	0.01
N-1.75	B55	VCIM 50x100	442.9	B.2.4.5-2	16.1	15.40	0.05	17.50	0.01
N-1.75	B55	VCIM 50x100	442.9	B.2.4.5-2	16.1	15.40	0.02	17.50	0.02
N-1.75	B55	VCIM 50x100	465	B.2.4.5-3	15.4	15.40	0.02	17.50	0.02
N-1.75	B55	VCIM 50x100	465	B.2.4.5-3	15.4	15.40	0.02	17.50	0.02
N-1.75	B55	VCIM 50x100	490.8	B.2.4.5-3	15.4	15.40	0.02	17.50	0.02
N-1.75	B55	VCIM 50x100	516.7	B.2.4.5-3	15.4	15.40	0.02	17.50	0.02
N-1.75	B55	VCIM 50x100	516.7	B.2.4.5-3	15.4	15.40	0.03	17.50	0.02
N-1.75	B55	VCIM 50x100	553.6	B.2.4.5-3	15.4	15.40	0.03	17.50	0.02
N-1.75	B55	VCIM 50x100	553.6	B.2.4.5-3	15.4	15.40	0.10	17.50	0.03
N-1.75	B55	VCIM 50x100	568.3	B.2.4.5-3	15.4	15.40	0.10	17.50	0.03
N-1.75	B55	VCIM 50x100	568.3	B.2.4.5-3	15.4	15.40	0.29	17.50	0.03
N-1.75	B55	VCIM 50x100	594.2	B.2.4.5-3	15.4	15.40	0.28	17.50	0.03
N-1.75	B55	VCIM 50x100	620	B.2.4.5-3	15.4	15.40	0.28	17.50	0.03
N-1.75	B55	VCIM 50x100	620	B.2.4.5-3	15.4	15.40	0.34	17.50	0.03
N-1.75	B55	VCIM 50x100	664.3	B.2.4.5-3	15.4	28.80	0.34	17.50	0.03

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B55	VCIM 50x100	664.3	B.2.4.5-3	15.4	33.90	0.03	17.50	0.04
N-1.75	B55	VCIM 50x100	671.7	B.2.4.5-3	15.4	34.50	0.02	17.50	0.04
N-1.75	B55	VCIM 50x100	671.7	B.2.4.5-3	15.4	36.80	0.31	17.50	0.04
N-1.75	B55	VCIM 50x100	700	B.2.4.7-1	8.1	46.10	0.31	17.50	0.04
N-1.75	B61	VCIM 50x100	0	B.2.4.5-2	1.4	2.60	0.04	17.50	0.02
N-1.75	B61	VCIM 50x100	26.2	B.2.4.5-1	2.1	2.60	0.04	17.50	0.02
N-1.75	B61	VCIM 50x100	52.3	B.2.4.5-1	2.1	2.40	0.04	17.50	0.02
N-1.75	B61	VCIM 50x100	52.3	B.2.4.5-1	2.4	2.70	0.04	17.50	0.02
N-1.75	B61	VCIM 50x100	78.5	B.2.4.5-1	2.4	2.70	0.04	17.50	0.02
N-1.75	B61	VCIM 50x100	104.7	B.2.4.5-1	2.4	2.60	0.04	17.50	0.02
N-1.75	B61	VCIM 50x100	104.7	B.2.4.5-1	2.7	2.90	0.03	17.50	0.01
N-1.75	B61	VCIM 50x100	130.8	B.2.4.5-1	2.7	3.00	0.04	17.50	0.01
N-1.75	B61	VCIM 50x100	157	B.2.4.5-1	2.7	3.00	0.04	17.50	0.01
N-1.75	B61	VCIM 50x100	157	B.2.4.5-1	2.8	3.20	0.04	17.50	0.01
N-1.75	B61	VCIM 50x100	183.2	B.2.4.5-1	2.8	3.30	0.04	17.50	0.01
N-1.75	B61	VCIM 50x100	209.3	B.2.4.5-1	2.8	3.50	0.03	17.50	0.01
N-1.75	B61	VCIM 50x100	209.3	B.2.4.5-1	2.9	3.80	0.04	0.00	0.00
N-1.75	B61	VCIM 50x100	239	B.2.4.5-1	2.9	4.10	0.04	0.00	0.00
N-1.75	B61	VCIM 50x100	239	B.2.4.5-1	3	4.20	0.04	0.00	0.00
N-1.75	B61	VCIM 50x100	276.5	B.2.4.5-1	3	4.60	0.04	0.00	0.00
N-1.75	B61	VCIM 50x100	276.5	B.2.4.5-1	3	4.70	0.04	0.00	0.00
N-1.75	B61	VCIM 50x100	314	B.2.4.5-2	2.3	5.10	0.04	0.00	0.00
N-1.75	B62	VCIM 50x100	75	B.2.4.7-1	10.4	38.10	0.28	17.50	0.04
N-1.75	B62	VCIM 50x100	99.8	B.2.4.5-3	15.4	31.00	0.28	17.50	0.04
N-1.75	B62	VCIM 50x100	99.8	B.2.4.5-1	15.3	28.50	0.13	17.50	0.04
N-1.75	B62	VCIM 50x100	112.3	B.2.4.5-1	15.3	26.40	0.13	17.50	0.04
N-1.75	B62	VCIM 50x100	112.3	B.2.4.5-1	15.2	21.50	0.30	17.50	0.03
N-1.75	B62	VCIM 50x100	149.7	B.2.4.5-1	15.2	15.20	0.30	17.50	0.03
N-1.75	B62	VCIM 50x100	149.7	B.2.4.5-1	15.1	15.10	0.27	17.50	0.03
N-1.75	B62	VCIM 50x100	199.6	B.2.4.5-1	15.1	15.10	0.27	17.50	0.03
N-1.75	B62	VCIM 50x100	199.6	B.2.4.5-1	15	15.00	0.17	17.50	0.03
N-1.75	B62	VCIM 50x100	224.5	B.2.4.5-3	15.4	15.00	0.17	17.50	0.03
N-1.75	B62	VCIM 50x100	224.5	B.2.4.5-1	15.4	14.90	0.07	17.50	0.02
N-1.75	B62	VCIM 50x100	249.4	B.2.4.5-1	17.2	14.90	0.07	17.50	0.02
N-1.75	B62	VCIM 50x100	249.4	B.2.4.5-1	17.6	14.80	0.07	17.50	0.02
N-1.75	B62	VCIM 50x100	299.3	B.2.4.5-1	21.1	14.80	0.07	17.50	0.02
N-1.75	B62	VCIM 50x100	299.3	B.2.4.5-1	21.3	14.70	0.05	17.50	0.02
N-1.75	B62	VCIM 50x100	336.8	B.2.4.5-1	23.2	14.70	0.06	17.50	0.02
N-1.75	B62	VCIM 50x100	336.8	B.2.4.5-1	23.1	14.60	0.02	0.00	0.00
N-1.75	B62	VCIM 50x100	349.2	B.2.4.5-1	23	14.60	0.02	0.00	0.00
N-1.75	B62	VCIM 50x100	349.2	B.2.4.5-1	22.8	14.50	0.04	0.00	0.00
N-1.75	B62	VCIM 50x100	399.1	B.2.4.5-1	21.4	14.50	0.04	0.00	0.00
N-1.75	B62	VCIM 50x100	399.1	B.2.4.5-1	21.2	14.50	0.05	0.00	0.00
N-1.75	B62	VCIM 50x100	449	B.2.4.5-1	19.1	14.50	0.05	0.00	0.00
N-1.75	B62	VCIM 50x100	449	B.2.4.5-1	18.6	14.30	0.14	17.50	0.02
N-1.75	B62	VCIM 50x100	475	B.2.4.5-3	15.4	14.30	0.14	17.50	0.02
N-1.75	B62	VCIM 50x100	501	B.2.4.5-3	15.4	14.30	0.13	17.50	0.02
N-1.75	B62	VCIM 50x100	501	B.2.4.5-1	15.3	14.20	0.16	17.50	0.02
N-1.75	B62	VCIM 50x100	527	B.2.4.5-1	14.2	14.20	0.16	17.50	0.02
N-1.75	B62	VCIM 50x100	553	B.2.4.5-1	14.2	14.20	0.16	17.50	0.02
N-1.75	B62	VCIM 50x100	553	B.2.4.5-1	14.2	14.20	0.06	17.50	0.02
N-1.75	B62	VCIM 50x100	561.3	B.2.4.5-1	14.2	14.20	0.06	17.50	0.02

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B62	VCIM 50x100	561.3	B.2.4.5-1	14	14.00	0.27	17.50	0.03
N-1.75	B62	VCIM 50x100	605	B.2.4.5-1	14	18.70	0.26	17.50	0.03
N-1.75	B62	VCIM 50x100	605	B.2.4.5-1	13.9	19.70	0.23	17.50	0.03
N-1.75	B62	VCIM 50x100	634	B.2.4.5-1	2.9	25.50	0.23	17.50	0.03
N-1.75	B585	VCIM 50x100	104	B.2.4.5-3	15.4	29.10	0.15	22.60	0.09
N-1.75	B585	VCIM 50x100	112.3	B.2.4.5-3	15.4	28.10	0.15	22.60	0.09
N-1.75	B585	VCIM 50x100	112.3	B.2.4.5-3	15.4	25.20	0.26	17.50	0.01
N-1.75	B585	VCIM 50x100	156	B.2.4.5-3	15.4	15.40	0.26	17.50	0.01
N-1.75	B585	VCIM 50x100	156	B.2.4.5-3	15.4	15.40	0.20	17.50	0.02
N-1.75	B585	VCIM 50x100	182	B.2.4.5-3	15.4	15.40	0.20	17.50	0.02
N-1.75	B585	VCIM 50x100	208	B.2.4.5-3	15.4	15.40	0.20	17.50	0.02
N-1.75	B585	VCIM 50x100	208	B.2.4.5-1	15.4	15.40	0.17	17.50	0.03
N-1.75	B585	VCIM 50x100	234	B.2.4.5-1	15.4	15.40	0.17	17.50	0.03
N-1.75	B585	VCIM 50x100	260	B.2.4.5-3	15.4	15.40	0.18	17.50	0.03
N-1.75	B585	VCIM 50x100	260	B.2.4.5-1	15.1	15.10	0.12	17.50	0.01
N-1.75	B585	VCIM 50x100	310.3	B.2.4.5-3	15.4	15.10	0.12	17.50	0.01
N-1.75	B585	VCIM 50x100	310.3	B.2.4.5-3	15.4	14.90	0.12	17.50	0.02
N-1.75	B585	VCIM 50x100	360.7	B.2.4.2-2	15.4	14.90	0.12	17.50	0.02
N-1.75	B585	VCIM 50x100	360.7	B.2.4.2-2	15.4	14.80	0.13	17.50	0.02
N-1.75	B585	VCIM 50x100	392	B.2.4.5-1	15.7	14.80	0.13	17.50	0.02
N-1.75	B585	VCIM 50x100	392	B.2.4.5-1	15.5	14.70	0.15	0.00	0.00
N-1.75	B585	VCIM 50x100	411	B.2.4.2-2	15.4	14.70	0.15	0.00	0.00
N-1.75	B585	VCIM 50x100	411	B.2.4.2-2	15.4	14.60	0.16	0.00	0.00
N-1.75	B585	VCIM 50x100	461.3	B.2.4.5-3	15.4	14.60	0.15	0.00	0.00
N-1.75	B585	VCIM 50x100	461.3	B.2.4.5-3	15.4	14.50	0.16	0.00	0.00
N-1.75	B585	VCIM 50x100	504.3	B.2.4.5-3	15.4	14.50	0.16	0.00	0.00
N-1.75	B585	VCIM 50x100	504.3	B.2.4.5-3	15.4	14.50	0.16	0.00	0.00
N-1.75	B585	VCIM 50x100	511.7	B.2.4.5-3	15.4	14.50	0.16	0.00	0.00
N-1.75	B585	VCIM 50x100	511.7	B.2.4.5-3	15.4	14.40	0.19	0.00	0.00
N-1.75	B585	VCIM 50x100	562	B.2.4.5-1	14.4	14.40	0.19	0.00	0.00
N-1.75	B585	VCIM 50x100	562	B.2.4.5-1	14.3	14.30	0.20	0.00	0.00
N-1.75	B585	VCIM 50x100	612.3	B.2.4.5-1	14.3	14.30	0.20	0.00	0.00
N-1.75	B585	VCIM 50x100	612.3	B.2.4.5-1	14.2	14.20	0.15	0.00	0.00
N-1.75	B585	VCIM 50x100	616.5	B.2.4.5-1	14.2	14.20	0.15	0.00	0.00
N-1.75	B585	VCIM 50x100	616.5	B.2.4.5-1	14.2	14.20	0.19	17.50	0.02
N-1.75	B585	VCIM 50x100	638	B.2.4.5-1	5.1	10.60	0.19	17.50	0.02
N-1.75	B168	VCIM 50x100	0	B.2.4.5-8	7	3.90	0.01	17.90	0.07
N-1.75	B168	VCIM 50x100	37.5	B.2.4.5-8	10.3	2.40	0.01	17.90	0.07
N-1.75	B168	VCIM 50x100	37.5	B.2.4.5-8	10.5	2.40	0.00	17.60	0.07
N-1.75	B168	VCIM 50x100	75	B.2.4.5-8	13	2.40	0.00	17.60	0.07
N-1.75	B168	VCIM 50x100	75	B.2.4.5-8	13.2	2.50	0.00	16.60	0.06
N-1.75	B168	VCIM 50x100	105.8	B.2.4.5-8	14.4	2.50	0.00	16.60	0.06
N-1.75	B168	VCIM 50x100	105.8	B.2.4.5-8	14.4	2.60	0.00	15.00	0.06
N-1.75	B168	VCIM 50x100	132.3	B.2.4.5-8	14.6	2.60	0.00	15.00	0.06
N-1.75	B168	VCIM 50x100	158.8	B.2.4.5-8	14.9	2.60	0.00	15.00	0.06
N-1.75	B168	VCIM 50x100	158.8	B.2.4.5-8	14.9	2.60	0.00	15.40	0.05
N-1.75	B168	VCIM 50x100	185.2	B.2.4.5-8	14.3	2.60	0.00	15.40	0.05
N-1.75	B168	VCIM 50x100	211.7	B.2.4.5-8	13.8	2.60	0.00	15.40	0.05
N-1.75	B168	VCIM 50x100	211.7	B.2.4.5-8	13.7	2.50	0.00	16.50	0.04
N-1.75	B168	VCIM 50x100	238.2	B.2.4.5-8	12.7	2.50	0.00	16.50	0.04
N-1.75	B168	VCIM 50x100	264.6	B.2.4.5-8	11.7	2.50	0.00	16.50	0.04
N-1.75	B168	VCIM 50x100	264.6	B.2.4.5-8	11.6	2.50	0.00	17.00	0.04

TABLE: Co... B... D... ... A... 08-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B168	VCIM 50x100	269	B.2.4.5-8	11.5	2.50	0.00	17.00	0.04
N-1.75	B168	VCIM 50x100	269	B.2.4.5-8	11.4	2.50	0.00	17.20	0.04
N-1.75	B168	VCIM 50x100	306.5	B.2.4.5-8	9.7	2.50	0.00	17.20	0.04
N-1.75	B168	VCIM 50x100	306.5	B.2.4.5-8	9.6	2.50	0.00	17.50	0.04
N-1.75	B168	VCIM 50x100	344	B.2.4.5-8	7.8	2.50	0.00	17.50	0.04
N-1.75	B168	VCIM 50x100	344	B.2.4.5-8	8.5	2.50	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	381.5	B.2.4.5-8	7.5	2.50	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	381.5	B.2.4.5-8	7.3	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	419	B.2.4.5-8	6.3	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	419	B.2.4.5-8	6.1	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	423.4	B.2.4.5-8	6.1	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	423.4	B.2.4.5-8	6	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	449.8	B.2.4.5-8	5.2	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	476.3	B.2.4.5-8	4.5	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	476.3	B.2.4.5-8	4.5	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	502.8	B.2.4.5-8	3.7	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	529.2	B.2.4.5-8	2.9	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	529.2	B.2.4.5-8	3	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	555.7	B.2.4.5-8	2.4	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	582.2	B.2.4.5-8	2.4	2.40	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	582.2	B.2.4.5-8	2.5	2.50	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	613	B.2.4.5-8	2.5	2.50	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	613	B.2.4.5-8	2.6	2.60	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	650.5	B.2.4.5-8	2.6	2.70	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	650.5	B.2.4.5-8	2.7	2.90	0.00	0.00	0.00
N-1.75	B168	VCIM 50x100	688	B.2.4.7-8	1.4	3.90	0.00	0.00	0.00
N-1.75	B201	VCIM 50x100	0	B.2.4.7-2	1.4	3.60	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	37.5	B.2.4.5-2	3	3.00	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	37.5	B.2.4.5-2	2.9	2.90	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	75	B.2.4.5-2	2.9	2.90	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	75	B.2.4.5-1	2.8	2.80	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	105	B.2.4.5-1	2.8	2.80	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	105	B.2.4.5-1	2.7	2.70	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	131.2	B.2.4.5-1	2.7	2.70	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	157.5	B.2.4.5-1	2.7	2.70	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	157.5	B.2.4.5-1	2.7	2.70	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	183.7	B.2.4.5-1	2.7	2.70	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	210	B.2.4.5-1	2.9	2.70	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	210	B.2.4.5-1	3.2	2.60	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	236.2	B.2.4.5-1	3.9	2.60	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	262.5	B.2.4.5-1	4.6	2.60	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	262.5	B.2.4.5-1	4.5	2.50	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	288.7	B.2.4.5-1	5.2	2.50	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	315	B.2.4.5-1	6	2.50	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	315	B.2.4.5-1	5.9	2.40	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	341.2	B.2.4.5-1	6.6	2.40	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	367.5	B.2.4.5-1	7.2	2.40	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	367.5	B.2.4.5-1	7.3	2.40	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	393.7	B.2.4.5-1	7.8	2.40	0.05	17.50	0.03
N-1.75	B201	VCIM 50x100	420	B.2.4.5-1	8.4	4.40	0.05	17.50	0.03
N-1.75	B205	VCIM 50x100	0	B.2.4.5-1	9.5	4.90	0.24	17.50	0.01
N-1.75	B205	VCIM 50x100	49.7	B.2.4.5-1	11.4	11.40	0.24	17.50	0.01

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B205	VCIM 50x100	49.7	B.2.4.5-1	11.3	11.30	0.23	0.00	0.00
N-1.75	B205	VCIM 50x100	99.3	B.2.4.5-1	11.3	11.30	0.23	0.00	0.00
N-1.75	B205	VCIM 50x100	99.3	B.2.4.5-1	11.2	11.20	0.22	0.00	0.00
N-1.75	B205	VCIM 50x100	149	B.2.4.5-1	11.2	11.20	0.22	0.00	0.00
N-1.75	B205	VCIM 50x100	149	B.2.4.5-1	11.1	11.10	0.20	0.00	0.00
N-1.75	B205	VCIM 50x100	198.7	B.2.4.5-1	11.1	11.10	0.21	0.00	0.00
N-1.75	B205	VCIM 50x100	198.7	B.2.4.5-1	11.2	11.20	0.20	0.00	0.00
N-1.75	B205	VCIM 50x100	223.5	B.2.4.5-1	11.2	11.20	0.20	0.00	0.00
N-1.75	B205	VCIM 50x100	223.5	B.2.4.5-1	11.2	11.20	0.17	17.50	0.01
N-1.75	B205	VCIM 50x100	248.3	B.2.4.5-1	11.2	11.20	0.17	17.50	0.01
N-1.75	B205	VCIM 50x100	248.3	B.2.4.5-1	11.2	11.20	0.17	17.50	0.01
N-1.75	B205	VCIM 50x100	298	B.2.4.5-1	11.2	11.20	0.17	17.50	0.01
N-1.75	B205	VCIM 50x100	298	B.2.4.5-1	11.3	11.30	0.21	17.50	0.02
N-1.75	B205	VCIM 50x100	347.7	B.2.4.5-1	11.3	15.40	0.20	17.50	0.02
N-1.75	B205	VCIM 50x100	347.7	B.2.4.5-1	11.5	15.40	0.25	17.50	0.02
N-1.75	B205	VCIM 50x100	397.3	B.2.4.5-1	11.5	22.60	0.25	17.50	0.02
N-1.75	B205	VCIM 50x100	397.3	B.2.4.5-1	11.9	23.30	0.28	17.50	0.03
N-1.75	B205	VCIM 50x100	447	B.2.4.7-2	0.8	36.60	0.28	17.50	0.03
N-1.75	B366	VCIM 50x100	132	B.2.4.5-1	13.3	14.60	0.30	0.00	0.00
N-1.75	B366	VCIM 50x100	151	B.2.4.5-1	13.3	13.30	0.30	0.00	0.00
N-1.75	B366	VCIM 50x100	151	B.2.4.5-1	13.3	13.30	0.34	0.00	0.00
N-1.75	B366	VCIM 50x100	176.2	B.2.4.5-1	13.3	13.30	0.34	0.00	0.00
N-1.75	B366	VCIM 50x100	201.3	B.2.4.5-1	13.3	13.30	0.34	0.00	0.00
N-1.75	B366	VCIM 50x100	201.3	B.2.4.5-1	13.4	13.20	0.29	0.00	0.00
N-1.75	B366	VCIM 50x100	244.3	B.2.4.5-1	17.6	13.20	0.29	0.00	0.00
N-1.75	B25	VCIM 50x100	75	B.2.4.7-2	8	28.30	0.26	17.50	0.04
N-1.75	B25	VCIM 50x100	89	B.2.4.5-2	11.7	25.70	0.26	17.50	0.04
N-1.75	B25	VCIM 50x100	89	B.2.4.5-2	11.3	24.60	0.30	17.50	0.04
N-1.75	B25	VCIM 50x100	133.5	B.2.4.5-2	11.3	15.40	0.30	17.50	0.04
N-1.75	B25	VCIM 50x100	133.5	B.2.4.5-2	10.8	15.40	0.27	17.50	0.03
N-1.75	B25	VCIM 50x100	178	B.2.4.5-2	10.8	10.80	0.27	17.50	0.03
N-1.75	B25	VCIM 50x100	178	B.2.4.5-2	10.4	10.40	0.23	17.50	0.02
N-1.75	B25	VCIM 50x100	222.5	B.2.4.5-2	10.4	10.40	0.23	17.50	0.02
N-1.75	B25	VCIM 50x100	222.5	B.2.4.5-2	10.1	10.00	0.19	17.50	0.02
N-1.75	B25	VCIM 50x100	267	B.2.4.5-1	14	10.00	0.19	17.50	0.02
N-1.75	B25	VCIM 50x100	267	B.2.4.5-1	13.8	9.80	0.21	17.50	0.02
N-1.75	B25	VCIM 50x100	311.5	B.2.4.5-1	14.9	9.80	0.21	17.50	0.02
N-1.75	B25	VCIM 50x100	311.5	B.2.4.5-1	14.9	9.70	0.24	17.50	0.03
N-1.75	B25	VCIM 50x100	356	B.2.4.5-8	15.1	9.70	0.24	17.50	0.03
N-1.75	B25	VCIM 50x100	356	B.2.4.5-8	15.1	9.70	0.27	17.50	0.03
N-1.75	B25	VCIM 50x100	400.5	B.2.4.5-2	14	9.70	0.27	17.50	0.03
N-1.75	B25	VCIM 50x100	400.5	B.2.4.5-2	14	9.80	0.29	17.50	0.03
N-1.75	B25	VCIM 50x100	445	B.2.4.5-2	12.2	15.40	0.29	17.50	0.03
N-1.75	B25	VCIM 50x100	445	B.2.4.5-2	12.2	15.40	0.27	17.50	0.03
N-1.75	B25	VCIM 50x100	459	B.2.4.5-2	11.7	15.40	0.27	17.50	0.03
N-1.75	B26	VCIM 50x100	75	B.2.4.7-2	3.6	8.30	0.11	0.00	0.00
N-1.75	B26	VCIM 50x100	98.7	B.2.4.7-2	3.5	8.10	0.11	0.00	0.00
N-1.75	B26	VCIM 50x100	98.7	B.2.4.5-1	2.4	4.70	0.10	17.50	0.03
N-1.75	B26	VCIM 50x100	148	B.2.4.5-1	2.4	3.80	0.10	17.50	0.03
N-1.75	B26	VCIM 50x100	148	B.2.4.5-1	2.4	2.40	0.11	17.50	0.03
N-1.75	B26	VCIM 50x100	197.3	B.2.4.5-1	2.4	2.40	0.11	17.50	0.03
N-1.75	B26	VCIM 50x100	197.3	B.2.4.5-1	2.1	2.10	0.11	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B26	VCIM 50x100	221	B.2.4.5-1	2.1	2.10	0.11	0.00	0.00
N-1.75	B26	VCIM 50x100	221	B.2.4.5-1	1.9	1.90	0.11	0.00	0.00
N-1.75	B26	VCIM 50x100	236	B.2.4.5-1	1	0.60	0.11	0.00	0.00
N-1.75	B13	VCIM 50x100	75	B.2.4.7-1	4.4	15.40	0.07	17.50	0.03
N-1.75	B13	VCIM 50x100	105.8	B.2.4.7-1	6	11.90	0.07	17.50	0.03
N-1.75	B13	VCIM 50x100	105.8	B.2.4.7-1	6	11.40	0.07	17.50	0.03
N-1.75	B13	VCIM 50x100	132.3	B.2.4.5-1	7.2	7.80	0.07	17.50	0.03
N-1.75	B13	VCIM 50x100	158.8	B.2.4.5-1	9.4	5.20	0.07	17.50	0.03
N-1.75	B13	VCIM 50x100	158.8	B.2.4.5-1	9.2	4.90	0.03	17.50	0.02
N-1.75	B13	VCIM 50x100	185.2	B.2.4.5-1	10.6	4.90	0.04	17.50	0.02
N-1.75	B13	VCIM 50x100	211.7	B.2.4.5-1	12.1	4.90	0.04	17.50	0.02
N-1.75	B13	VCIM 50x100	211.7	B.2.4.5-1	11.8	4.60	0.01	17.50	0.02
N-1.75	B13	VCIM 50x100	238.2	B.2.4.5-1	12.6	4.60	0.01	17.50	0.02
N-1.75	B13	VCIM 50x100	264.6	B.2.4.5-1	13.5	4.60	0.01	17.50	0.02
N-1.75	B13	VCIM 50x100	264.6	B.2.4.5-1	13.3	4.30	0.02	17.50	0.01
N-1.75	B13	VCIM 50x100	291.1	B.2.4.5-1	13.6	4.30	0.02	17.50	0.01
N-1.75	B13	VCIM 50x100	317.5	B.2.4.5-1	14.1	4.30	0.02	17.50	0.01
N-1.75	B13	VCIM 50x100	317.5	B.2.4.5-1	14	4.10	0.00	0.00	0.00
N-1.75	B13	VCIM 50x100	344	B.2.4.5-1	14.2	4.10	0.00	0.00	0.00
N-1.75	B13	VCIM 50x100	344	B.2.4.5-1	14.1	4.10	0.00	0.00	0.00
N-1.75	B13	VCIM 50x100	370.5	B.2.4.5-1	13.1	4.10	0.00	0.00	0.00
N-1.75	B13	VCIM 50x100	370.5	B.2.4.5-1	12.9	4.00	0.01	0.00	0.00
N-1.75	B13	VCIM 50x100	396.9	B.2.4.5-1	11.6	4.00	0.01	0.00	0.00
N-1.75	B13	VCIM 50x100	423.4	B.2.4.5-1	10.5	4.00	0.01	0.00	0.00
N-1.75	B13	VCIM 50x100	423.4	B.2.4.5-1	10.4	4.00	0.02	0.00	0.00
N-1.75	B13	VCIM 50x100	449.8	B.2.4.5-1	9.2	4.00	0.02	0.00	0.00
N-1.75	B13	VCIM 50x100	476.3	B.2.4.5-1	8.1	4.00	0.02	0.00	0.00
N-1.75	B13	VCIM 50x100	476.3	B.2.4.5-1	8.1	4.00	0.04	0.00	0.00
N-1.75	B13	VCIM 50x100	502.8	B.2.4.5-1	6.7	4.00	0.03	0.00	0.00
N-1.75	B13	VCIM 50x100	529.2	B.2.4.5-2	5.5	4.20	0.03	0.00	0.00
N-1.75	B13	VCIM 50x100	529.2	B.2.4.5-2	5.6	4.50	0.06	17.50	0.01
N-1.75	B13	VCIM 50x100	555.7	B.2.4.7-2	4.3	7.30	0.06	17.50	0.01
N-1.75	B13	VCIM 50x100	582.2	B.2.4.5-2	4.1	10.80	0.05	17.50	0.01
N-1.75	B13	VCIM 50x100	582.2	B.2.4.5-2	4.3	11.30	0.05	17.50	0.01
N-1.75	B13	VCIM 50x100	613	B.2.4.7-2	2.6	15.40	0.05	17.50	0.01
N-1.75	B1114	VCIM 50x100	75	B.2.4.5-8	1.3	18.90	0.15	17.50	0.03
N-1.75	B1114	VCIM 50x100	99.3	B.2.4.5-1	7.1	15.40	0.16	17.50	0.03
N-1.75	B1114	VCIM 50x100	99.3	B.2.4.5-1	7.1	15.40	0.20	17.50	0.03
N-1.75	B1114	VCIM 50x100	149	B.2.4.5-1	7.1	7.10	0.21	17.50	0.03
N-1.75	B1114	VCIM 50x100	149	B.2.4.5-1	7.1	7.10	0.15	17.50	0.03
N-1.75	B1114	VCIM 50x100	198.7	B.2.4.5-1	11.8	7.10	0.15	17.50	0.03
N-1.75	B1114	VCIM 50x100	198.7	B.2.4.5-1	12.5	7.10	0.12	17.50	0.03
N-1.75	B1114	VCIM 50x100	223.5	B.2.4.5-1	15.3	7.10	0.12	17.50	0.03
N-1.75	B1114	VCIM 50x100	223.5	B.2.4.5-3	15.4	7.10	0.11	17.50	0.03
N-1.75	B1114	VCIM 50x100	248.3	B.2.4.5-3	15.4	7.10	0.11	17.50	0.03
N-1.75	B1114	VCIM 50x100	248.3	B.2.4.5-3	15.4	7.20	0.12	17.50	0.03
N-1.75	B1114	VCIM 50x100	298	B.2.4.5-3	15.4	7.20	0.12	17.50	0.03
N-1.75	B1114	VCIM 50x100	298	B.2.4.5-3	15.4	7.30	0.14	17.50	0.04
N-1.75	B1114	VCIM 50x100	347.7	B.2.4.5-1	14	7.30	0.14	17.50	0.04
N-1.75	B1114	VCIM 50x100	347.7	B.2.4.5-1	13.7	7.30	0.16	17.50	0.04
N-1.75	B1114	VCIM 50x100	397.3	B.2.4.5-1	9.1	7.30	0.15	17.50	0.04
N-1.75	B1114	VCIM 50x100	397.3	B.2.4.5-1	8.6	7.10	0.17	17.50	0.03

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B1114	VCIM 50x100	447	B.2.4.5-1	3.1	2.20	0.16	17.50	0.03
N-1.75	B1161	VCIM 50x100	75	B.2.4.5-2	6.6	7.70	0.20	17.50	0.01
N-1.75	B1161	VCIM 50x100	105	B.2.4.5-1	6.4	5.60	0.20	17.50	0.01
N-1.75	B1161	VCIM 50x100	105	B.2.4.5-1	6.1	5.30	0.19	17.50	0.01
N-1.75	B1161	VCIM 50x100	131.3	B.2.4.5-1	5.5	4.10	0.19	17.50	0.01
N-1.75	B1161	VCIM 50x100	157.5	B.2.4.5-1	5	4.10	0.19	17.50	0.01
N-1.75	B1161	VCIM 50x100	157.5	B.2.4.5-1	4.7	3.90	0.16	0.00	0.00
N-1.75	B1161	VCIM 50x100	183.8	B.2.4.5-1	3.9	3.90	0.17	0.00	0.00
N-1.75	B1161	VCIM 50x100	210	B.2.4.5-1	3.9	3.90	0.17	0.00	0.00
N-1.75	B1161	VCIM 50x100	210	B.2.4.5-1	3.6	3.60	0.16	0.00	0.00
N-1.75	B1161	VCIM 50x100	236.3	B.2.4.5-1	3.6	3.60	0.16	0.00	0.00
N-1.75	B1161	VCIM 50x100	262.5	B.2.4.5-1	3.6	3.60	0.16	0.00	0.00
N-1.75	B1161	VCIM 50x100	262.5	B.2.4.5-1	3.4	3.40	0.19	0.00	0.00
N-1.75	B1161	VCIM 50x100	288.8	B.2.4.5-1	3.4	7.10	0.19	0.00	0.00
N-1.75	B1161	VCIM 50x100	315	B.2.4.5-1	3.4	11.00	0.19	0.00	0.00
N-1.75	B1161	VCIM 50x100	315	B.2.4.5-1	3.2	11.20	0.19	0.00	0.00
N-1.75	B1161	VCIM 50x100	345	B.2.4.7-2	0.4	15.40	0.19	0.00	0.00
N-1.75	B1162	VCIM 50x100	75	B.2.4.7-1	10.5	15.40	0.19	17.50	0.01
N-1.75	B1162	VCIM 50x100	99.3	B.2.4.7-1	10.3	13.60	0.19	17.50	0.01
N-1.75	B1162	VCIM 50x100	99.3	B.2.4.7-1	10.2	13.00	0.19	17.50	0.01
N-1.75	B1162	VCIM 50x100	149	B.2.4.5-1	10.1	7.50	0.19	17.50	0.01
N-1.75	B1162	VCIM 50x100	149	B.2.4.5-1	9.8	7.20	0.17	17.50	0.01
N-1.75	B1162	VCIM 50x100	198.7	B.2.4.5-1	9.9	7.20	0.17	17.50	0.01
N-1.75	B1162	VCIM 50x100	198.7	B.2.4.5-1	9.7	7.10	0.15	17.50	0.01
N-1.75	B1162	VCIM 50x100	223.5	B.2.4.5-1	10.2	7.10	0.15	17.50	0.01
N-1.75	B1162	VCIM 50x100	223.5	B.2.4.5-1	10.2	6.90	0.16	0.00	0.00
N-1.75	B1162	VCIM 50x100	248.3	B.2.4.5-1	10.8	6.90	0.16	0.00	0.00
N-1.75	B1162	VCIM 50x100	248.3	B.2.4.5-1	10.7	6.80	0.17	0.00	0.00
N-1.75	B1162	VCIM 50x100	298	B.2.4.5-1	11.3	6.80	0.17	0.00	0.00
N-1.75	B1162	VCIM 50x100	298	B.2.4.5-1	11.2	6.70	0.19	0.00	0.00
N-1.75	B1162	VCIM 50x100	347.7	B.2.4.5-1	10.8	7.30	0.19	0.00	0.00
N-1.75	B1162	VCIM 50x100	347.7	B.2.4.5-1	10.7	7.50	0.19	0.00	0.00
N-1.75	B1162	VCIM 50x100	372	B.2.4.5-1	10.3	9.00	0.19	0.00	0.00
N-1.75	B6	VCIM 50x100	75	B.2.4.4-4	0	27.60	0.30	0.00	0.00
N-1.75	B6	VCIM 50x100	105.8	B.2.4.5-1	7.9	18.70	0.30	0.00	0.00
N-1.75	B6	VCIM 50x100	105.8	B.2.4.5-1	8.1	17.50	0.36	0.00	0.00
N-1.75	B6	VCIM 50x100	132.3	B.2.4.5-1	8.1	12.30	0.36	0.00	0.00
N-1.75	B6	VCIM 50x100	158.8	B.2.4.5-1	8.1	8.10	0.36	0.00	0.00
N-1.75	B6	VCIM 50x100	158.8	B.2.4.5-1	9.4	8.30	0.23	0.00	0.00
N-1.75	B6	VCIM 50x100	185.2	B.2.4.5-3	15.4	8.30	0.23	0.00	0.00
N-1.75	B6	VCIM 50x100	211.7	B.2.4.5-1	17.7	8.30	0.24	0.00	0.00
N-1.75	B6	VCIM 50x100	211.7	B.2.4.5-1	18.5	8.50	0.12	0.00	0.00
N-1.75	B6	VCIM 50x100	238.2	B.2.4.5-1	21.6	8.50	0.12	0.00	0.00
N-1.75	B6	VCIM 50x100	264.6	B.2.4.5-1	25	8.50	0.12	0.00	0.00
N-1.75	B6	VCIM 50x100	264.6	B.2.4.5-1	25.5	8.80	0.06	0.00	0.00
N-1.75	B6	VCIM 50x100	291.1	B.2.4.5-1	27.1	8.80	0.06	0.00	0.00
N-1.75	B6	VCIM 50x100	317.5	B.2.4.5-1	28.9	8.80	0.06	0.00	0.00
N-1.75	B6	VCIM 50x100	317.5	B.2.4.5-1	29.2	8.90	0.02	0.00	0.00
N-1.75	B6	VCIM 50x100	344	B.2.4.5-1	30	8.90	0.02	0.00	0.00
N-1.75	B6	VCIM 50x100	344	B.2.4.5-1	29.4	9.00	0.09	0.00	0.00
N-1.75	B6	VCIM 50x100	370.5	B.2.4.5-1	26.5	9.00	0.09	0.00	0.00
N-1.75	B6	VCIM 50x100	370.5	B.2.4.5-1	25.8	9.10	0.13	0.00	0.00

Table: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B6	VCIM 50x100	396.9	B.2.4.5-1	21.9	9.10	0.13	0.00	0.00
N-1.75	B6	VCIM 50x100	423.4	B.2.4.5-1	18.2	9.10	0.13	0.00	0.00
N-1.75	B6	VCIM 50x100	423.4	B.2.4.5-1	17.7	9.20	0.16	0.00	0.00
N-1.75	B6	VCIM 50x100	449.8	B.2.4.2-2	15.4	9.20	0.16	0.00	0.00
N-1.75	B6	VCIM 50x100	476.3	B.2.4.5-1	13.4	9.20	0.16	0.00	0.00
N-1.75	B6	VCIM 50x100	476.3	B.2.4.5-1	12.8	9.40	0.22	0.00	0.00
N-1.75	B6	VCIM 50x100	502.8	B.2.4.5-1	9.4	9.40	0.22	0.00	0.00
N-1.75	B6	VCIM 50x100	529.2	B.2.4.5-1	9.4	9.40	0.22	0.00	0.00
N-1.75	B6	VCIM 50x100	529.2	B.2.4.5-1	9.5	9.50	0.27	0.00	0.00
N-1.75	B6	VCIM 50x100	555.7	B.2.4.5-1	9.5	15.40	0.27	0.00	0.00
N-1.75	B6	VCIM 50x100	582.2	B.2.4.5-1	9.5	19.60	0.27	0.00	0.00
N-1.75	B6	VCIM 50x100	582.2	B.2.4.5-1	9.5	20.70	0.20	0.00	0.00
N-1.75	B6	VCIM 50x100	613	B.2.4.7-2	0.9	27.60	0.20	0.00	0.00
N-1.75	B9	VCIM 50x100	75	B.2.4.7-2	0.04481	15.40	0.17	0.00	0.00
N-1.75	B9	VCIM 50x100	105	B.2.4.5-1	4.6	13.70	0.17	0.00	0.00
N-1.75	B9	VCIM 50x100	105	B.2.4.5-1	4.7	12.80	0.18	0.00	0.00
N-1.75	B9	VCIM 50x100	131.3	B.2.4.5-1	4.7	6.90	0.18	0.00	0.00
N-1.75	B9	VCIM 50x100	157.5	B.2.4.5-1	4.7	4.70	0.18	0.00	0.00
N-1.75	B9	VCIM 50x100	157.5	B.2.4.5-1	4.7	4.70	0.16	0.00	0.00
N-1.75	B9	VCIM 50x100	183.8	B.2.4.5-1	6.2	4.70	0.16	0.00	0.00
N-1.75	B9	VCIM 50x100	210	B.2.4.5-1	9.4	4.70	0.16	0.00	0.00
N-1.75	B9	VCIM 50x100	210	B.2.4.5-1	9.5	4.80	0.16	0.00	0.00
N-1.75	B9	VCIM 50x100	236.3	B.2.4.5-1	7.3	4.80	0.16	0.00	0.00
N-1.75	B9	VCIM 50x100	262.5	B.2.4.5-1	5.6	4.80	0.16	0.00	0.00
N-1.75	B9	VCIM 50x100	262.5	B.2.4.5-1	5.3	4.80	0.18	0.00	0.00
N-1.75	B9	VCIM 50x100	288.8	B.2.4.5-1	4.8	4.80	0.18	0.00	0.00
N-1.75	B9	VCIM 50x100	315	B.2.4.5-1	4.8	8.90	0.18	0.00	0.00
N-1.75	B9	VCIM 50x100	315	B.2.4.5-1	4.8	9.60	0.17	0.00	0.00
N-1.75	B9	VCIM 50x100	345	B.2.4.7-2	1.3	14.20	0.17	0.00	0.00
N-1.75	B4	VCIM 50x100	75	B.2.4.7-8	1.1	22.00	0.17	17.50	0.01
N-1.75	B4	VCIM 50x100	105	B.2.4.5-8	13	16.90	0.17	17.50	0.01
N-1.75	B4	VCIM 50x100	105	B.2.4.5-8	13	16.20	0.19	17.50	0.01
N-1.75	B4	VCIM 50x100	131.3	B.2.4.5-8	13	15.10	0.19	17.50	0.01
N-1.75	B4	VCIM 50x100	157.5	B.2.4.5-8	13	13.00	0.19	17.50	0.01
N-1.75	B4	VCIM 50x100	157.5	B.2.4.5-8	13	13.00	0.15	17.50	0.01
N-1.75	B4	VCIM 50x100	183.7	B.2.4.5-8	13	13.00	0.16	17.50	0.01
N-1.75	B4	VCIM 50x100	210	B.2.4.5-8	13	13.00	0.16	17.50	0.01
N-1.75	B4	VCIM 50x100	210	B.2.4.5-8	13	13.00	0.06	0.00	0.00
N-1.75	B4	VCIM 50x100	236.2	B.2.4.5-8	13	13.00	0.07	0.00	0.00
N-1.75	B4	VCIM 50x100	262.5	B.2.4.5-8	13	13.00	0.07	0.00	0.00
N-1.75	B4	VCIM 50x100	262.5	B.2.4.5-8	13	13.00	0.05	0.00	0.00
N-1.75	B4	VCIM 50x100	288.8	B.2.4.5-8	13	13.00	0.05	0.00	0.00
N-1.75	B4	VCIM 50x100	315	B.2.4.5-8	13.9	13.00	0.05	0.00	0.00
N-1.75	B4	VCIM 50x100	315	B.2.4.5-8	14	12.90	0.04	0.00	0.00
N-1.75	B4	VCIM 50x100	341.3	B.2.4.5-8	15.2	12.90	0.04	0.00	0.00
N-1.75	B4	VCIM 50x100	367.5	B.2.4.5-3	15.4	12.90	0.04	0.00	0.00
N-1.75	B4	VCIM 50x100	367.5	B.2.4.5-3	15.4	12.90	0.03	0.00	0.00
N-1.75	B4	VCIM 50x100	393.8	B.2.4.5-3	15.4	12.90	0.04	0.00	0.00
N-1.75	B4	VCIM 50x100	420	B.2.4.2-2	15.4	12.90	0.04	0.00	0.00
N-1.75	B4	VCIM 50x100	420	B.2.4.2-2	15.4	12.90	0.00	0.00	0.00
N-1.75	B4	VCIM 50x100	469.7	B.2.4.2-2	15.4	12.90	0.00	0.00	0.00
N-1.75	B4	VCIM 50x100	469.7	B.2.4.2-2	15.4	12.90	0.00	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14									
Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B4	VCIM 50x100	519.3	B.2.4.5-3	15.4	12.90	0.00	0.00	0.00
N-1.75	B4	VCIM 50x100	519.3	B.2.4.5-3	15.4	12.90	0.01	0.00	0.00
N-1.75	B4	VCIM 50x100	569	B.2.4.5-8	15.4	12.90	0.00	0.00	0.00
N-1.75	B4	VCIM 50x100	569	B.2.4.5-8	15.4	13.00	0.03	0.00	0.00
N-1.75	B4	VCIM 50x100	618.7	B.2.4.5-8	13	13.00	0.02	0.00	0.00
N-1.75	B4	VCIM 50x100	618.7	B.2.4.5-8	13	13.00	0.03	0.00	0.00
N-1.75	B4	VCIM 50x100	643.5	B.2.4.5-8	13	13.00	0.03	0.00	0.00
N-1.75	B4	VCIM 50x100	643.5	B.2.4.5-8	13	13.00	0.17	0.00	0.00
N-1.75	B4	VCIM 50x100	668.3	B.2.4.5-8	13	13.00	0.17	0.00	0.00
N-1.75	B4	VCIM 50x100	668.3	B.2.4.5-8	13.1	13.10	0.29	17.50	0.01
N-1.75	B4	VCIM 50x100	718	B.2.4.5-8	13.1	15.40	0.29	17.50	0.01
N-1.75	B4	VCIM 50x100	767.7	B.2.4.5-8	13.3	33.30	0.28	17.50	0.01
N-1.75	B4	VCIM 50x100	792	B.2.4.7-8	1.5	40.50	0.27	17.50	0.01
N-1.75	B75	VCIM 50x100	0	B.2.4.5-2	3.7	3.30	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	49.9	B.2.4.5-2	5.6	3.80	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	49.9	B.2.4.5-2	5.8	3.90	0.01	17.50	0.04
N-1.75	B75	VCIM 50x100	99.8	B.2.4.5-2	7.6	3.90	0.01	17.50	0.04
N-1.75	B75	VCIM 50x100	99.8	B.2.4.5-2	7.7	4.00	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	112.3	B.2.4.5-2	8	4.00	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	112.3	B.2.4.5-2	8.7	4.00	0.01	17.50	0.04
N-1.75	B75	VCIM 50x100	149.7	B.2.4.5-1	9.1	4.00	0.01	17.50	0.04
N-1.75	B75	VCIM 50x100	149.7	B.2.4.5-2	9.2	4.10	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	199.6	B.2.4.5-1	9.3	4.10	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	199.6	B.2.4.5-1	9.3	4.10	0.03	17.50	0.04
N-1.75	B75	VCIM 50x100	224.5	B.2.4.5-1	9.1	4.10	0.02	17.50	0.04
N-1.75	B75	VCIM 50x100	224.5	B.2.4.5-1	9.3	4.10	0.02	17.50	0.03
N-1.75	B75	VCIM 50x100	249.4	B.2.4.5-1	8.4	4.10	0.02	17.50	0.03
N-1.75	B75	VCIM 50x100	249.4	B.2.4.5-1	8.2	4.10	0.02	17.50	0.03
N-1.75	B75	VCIM 50x100	299.3	B.2.4.5-1	6	6.20	0.02	17.50	0.03
N-1.75	B75	VCIM 50x100	299.3	B.2.4.5-1	5.9	6.40	0.04	17.50	0.03
N-1.75	B75	VCIM 50x100	336.8	B.2.4.7-1	5.1	10.00	0.04	17.50	0.03
N-1.75	B75	VCIM 50x100	336.8	B.2.4.7-1	4.9	10.70	0.01	17.50	0.02
N-1.75	B75	VCIM 50x100	349.2	B.2.4.7-1	4.9	11.80	0.01	17.50	0.02
N-1.75	B75	VCIM 50x100	349.2	B.2.4.7-1	4.9	12.40	0.13	17.50	0.02
N-1.75	B75	VCIM 50x100	374	B.2.4.7-1	4.9	15.40	0.13	17.50	0.02
N-1.75	B75	VCIM 50x100	374	B.2.4.5-2	2.8	5.70	0.01	0.00	0.00
N-1.75	B75	VCIM 50x100	389	B.2.4.7-1	2.2	6.80	0.01	0.00	0.00
N-1.75	B76	VCIM 50x100	0	B.2.4.5-1	6.3	4.40	0.30	17.50	0.02
N-1.75	B76	VCIM 50x100	26.2	B.2.4.5-1	11.3	11.30	0.30	17.50	0.02
N-1.75	B76	VCIM 50x100	52.3	B.2.4.5-1	11.3	11.30	0.30	17.50	0.02
N-1.75	B76	VCIM 50x100	52.3	B.2.4.5-1	12	12.00	0.29	17.50	0.02
N-1.75	B76	VCIM 50x100	78.5	B.2.4.5-1	12	12.00	0.29	17.50	0.02
N-1.75	B76	VCIM 50x100	104.7	B.2.4.5-1	12	12.00	0.29	17.50	0.02
N-1.75	B76	VCIM 50x100	104.7	B.2.4.5-1	13	13.00	0.22	17.50	0.03
N-1.75	B76	VCIM 50x100	130.8	B.2.4.5-1	13	13.00	0.22	17.50	0.03
N-1.75	B76	VCIM 50x100	157	B.2.4.5-1	13	13.00	0.22	17.50	0.03
N-1.75	B76	VCIM 50x100	157	B.2.4.5-1	13.7	13.70	0.19	17.50	0.03
N-1.75	B76	VCIM 50x100	183.2	B.2.4.5-1	13.7	13.70	0.19	17.50	0.03
N-1.75	B76	VCIM 50x100	209.3	B.2.4.5-1	13.7	13.70	0.20	17.50	0.03
N-1.75	B76	VCIM 50x100	209.3	B.2.4.5-1	14.6	14.60	0.29	17.50	0.04
N-1.75	B76	VCIM 50x100	235.5	B.2.4.5-1	14.6	15.40	0.29	17.50	0.04
N-1.75	B76	VCIM 50x100	261.7	B.2.4.5-1	14.6	18.80	0.29	17.50	0.04

TABLE: Column Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B76	VCIM 50x100	261.7	B.2.4.5-1	15.4	20.20	0.31	17.50	0.04
N-1.75	B76	VCIM 50x100	287.8	B.2.4.5-1	15.4	26.20	0.31	17.50	0.04
N-1.75	B76	VCIM 50x100	314	B.2.4.7-1	6.2	32.40	0.31	17.50	0.04
N-1.75	B58	VCIM 50x100	60	B.2.4.5-2	2.4	10.80	0.15	0.00	0.00
N-1.75	B58	VCIM 50x100	75	B.2.4.5-1	4.6	9.40	0.15	0.00	0.00
N-1.75	B58	VCIM 50x100	75	B.2.4.5-1	5.6	15.40	0.20	17.50	0.02
N-1.75	B58	VCIM 50x100	103.3	B.2.4.5-1	5.6	15.00	0.21	17.50	0.02
N-1.75	B58	VCIM 50x100	103.3	B.2.4.5-1	5.7	14.30	0.12	17.50	0.02
N-1.75	B58	VCIM 50x100	110.7	B.2.4.5-1	5.7	13.80	0.12	17.50	0.02
N-1.75	B58	VCIM 50x100	110.7	B.2.4.5-1	5.6	11.70	0.19	17.50	0.03
N-1.75	B58	VCIM 50x100	155	B.2.4.5-1	5.6	5.60	0.19	17.50	0.03
N-1.75	B58	VCIM 50x100	155	B.2.4.5-1	5.6	5.60	0.17	17.50	0.02
N-1.75	B58	VCIM 50x100	180.8	B.2.4.5-1	8.1	5.60	0.17	17.50	0.02
N-1.75	B58	VCIM 50x100	206.7	B.2.4.5-1	11	5.60	0.17	17.50	0.02
N-1.75	B58	VCIM 50x100	206.7	B.2.4.5-1	11.2	5.50	0.13	17.50	0.02
N-1.75	B58	VCIM 50x100	221.4	B.2.4.5-1	12.2	5.50	0.13	17.50	0.02
N-1.75	B58	VCIM 50x100	221.4	B.2.4.5-1	12.6	5.30	0.13	17.50	0.02
N-1.75	B58	VCIM 50x100	258.3	B.2.4.5-1	13.2	5.30	0.13	17.50	0.02
N-1.75	B58	VCIM 50x100	258.3	B.2.4.5-1	13.1	5.10	0.14	17.50	0.01
N-1.75	B58	VCIM 50x100	284.2	B.2.4.5-1	13.4	5.10	0.14	17.50	0.01
N-1.75	B58	VCIM 50x100	310	B.2.4.5-1	13.9	5.10	0.14	17.50	0.01
N-1.75	B58	VCIM 50x100	310	B.2.4.5-1	6.5	4.10	0.14	0.00	0.00
N-1.75	B58	VCIM 50x100	327.5	B.2.4.5-1	6.6	4.40	0.14	0.00	0.00
N-1.75	B68	VCIM 50x100	60	B.2.4.5-1	7.7	5.00	0.18	0.00	0.00
N-1.75	B68	VCIM 50x100	77.5	B.2.4.5-1	7.7	7.10	0.18	0.00	0.00
N-1.75	B68	VCIM 50x100	77.5	B.2.4.5-3	15.4	8.00	0.18	17.50	0.03
N-1.75	B68	VCIM 50x100	103.3	B.2.4.5-3	15.4	8.00	0.18	17.50	0.03
N-1.75	B68	VCIM 50x100	129.2	B.2.4.5-3	15.4	8.00	0.18	17.50	0.03
N-1.75	B68	VCIM 50x100	129.2	B.2.4.5-3	15.4	8.10	0.17	17.50	0.03
N-1.75	B68	VCIM 50x100	166.1	B.2.4.5-1	15	8.10	0.17	17.50	0.03
N-1.75	B68	VCIM 50x100	166.1	B.2.4.5-1	14.1	8.10	0.13	17.50	0.02
N-1.75	B68	VCIM 50x100	180.8	B.2.4.5-1	13.2	8.10	0.13	17.50	0.02
N-1.75	B68	VCIM 50x100	180.8	B.2.4.5-1	12.9	8.10	0.14	17.50	0.02
N-1.75	B68	VCIM 50x100	206.7	B.2.4.5-1	10.2	8.10	0.14	17.50	0.02
N-1.75	B68	VCIM 50x100	232.5	B.2.4.5-1	8.1	8.10	0.14	17.50	0.02
N-1.75	B68	VCIM 50x100	232.5	B.2.4.5-1	8.1	8.10	0.15	17.50	0.02
N-1.75	B68	VCIM 50x100	276.8	B.2.4.5-1	8.1	8.10	0.15	17.50	0.02
N-1.75	B68	VCIM 50x100	276.8	B.2.4.5-1	8	8.00	0.13	17.50	0.01
N-1.75	B68	VCIM 50x100	284.2	B.2.4.5-1	8	8.00	0.13	17.50	0.01
N-1.75	B68	VCIM 50x100	284.2	B.2.4.5-1	8	8.00	0.18	17.50	0.01
N-1.75	B68	VCIM 50x100	310	B.2.4.5-1	8	10.90	0.17	17.50	0.01
N-1.75	B68	VCIM 50x100	335.8	B.2.4.5-1	8	14.50	0.17	17.50	0.01
N-1.75	B68	VCIM 50x100	335.8	B.2.4.5-1	7.9	14.80	0.18	17.50	0.01
N-1.75	B68	VCIM 50x100	361.7	B.2.4.5-1	7.9	15.40	0.18	17.50	0.01
N-1.75	B68	VCIM 50x100	387.5	B.2.4.5-2	2.9	16.90	0.18	17.50	0.01
N-1.75	B20	VCIM 50x100	211.7	B.2.4.5-8	28.3	6.10	0.36	0.00	0.00
N-1.75	B20	VCIM 50x100	238.2	B.2.4.2-1	34.9	6.10	0.36	0.00	0.00
N-1.75	B20	VCIM 50x100	264.6	B.2.4.2-1	42.7	6.10	0.36	0.00	0.00
N-1.75	B21	VCIM 50x100	60	B.2.4.5-8	15.4	8.00	0.34	0.00	0.00
N-1.75	B21	VCIM 50x100	75	B.2.4.5-8	14.4	6.50	0.34	0.00	0.00
N-1.75	B21	VCIM 50x100	79.4	B.2.4.5-8	27.1	6.60	0.31	0.00	0.00
N-1.75	B21	VCIM 50x100	105.8	B.2.4.5-8	21.6	6.60	0.31	0.00	0.00

TABLE: Concrete Beam Design Summary - ACI 318-14

Story	Label	DesignSect	Station	AsTopCombo	AsTop	AsBot	VRebar	TLngRebar	TTrnRebar
			cm		cm²	cm²	cm²/cm	cm²	cm²/cm
N-1.75	B21	VCIM 50x100	132.3	B.2.4.5-8	16.3	6.60	0.30	0.00	0.00
N-1.75	B21	VCIM 50x100	132.3	B.2.4.5-8	15.6	6.70	0.35	0.00	0.00
N-1.75	B21	VCIM 50x100	158.8	B.2.4.5-1	13.4	6.70	0.35	0.00	0.00
N-1.75	B21	VCIM 50x100	185.2	B.2.4.5-8	7.8	6.70	0.34	0.00	0.00
N-1.75	B21	VCIM 50x100	238.2	B.2.4.5-8	6.7	15.40	0.34	0.00	0.00
N-1.75	B21	VCIM 50x100	269	B.2.4.7-8	1	19.60	0.34	0.00	0.00
N-1.75	B70	VCIM 50x100	60	B.2.4.7-8	1.8	3.80	0.07	0.00	0.00
N-1.75	B70	VCIM 50x100	75	B.2.4.5-8	2.7	3.30	0.07	0.00	0.00
N-1.75	B70	VCIM 50x100	75	B.2.4.5-8	10.3	3.20	0.10	0.00	0.00
N-1.75	B70	VCIM 50x100	105.8	B.2.4.5-8	11.7	3.20	0.10	0.00	0.00
N-1.75	B70	VCIM 50x100	105.8	B.2.4.5-8	11.8	3.20	0.09	0.00	0.00
N-1.75	B70	VCIM 50x100	132.3	B.2.4.5-8	12.7	3.20	0.09	0.00	0.00
N-1.75	B70	VCIM 50x100	158.8	B.2.4.5-8	13.7	3.20	0.09	0.00	0.00
N-1.75	B70	VCIM 50x100	158.8	B.2.4.5-8	13.6	3.10	0.07	0.00	0.00
N-1.75	B70	VCIM 50x100	185.2	B.2.4.5-8	13.9	3.10	0.07	0.00	0.00
N-1.75	B70	VCIM 50x100	211.7	B.2.4.5-8	14.2	3.10	0.07	0.00	0.00
N-1.75	B70	VCIM 50x100	211.7	B.2.4.5-8	14	3.00	0.09	0.00	0.00
N-1.75	B70	VCIM 50x100	238.2	B.2.4.5-8	13.8	3.00	0.09	0.00	0.00
N-1.75	B70	VCIM 50x100	264.6	B.2.4.5-8	13.8	3.00	0.08	0.00	0.00
N-1.75	B70	VCIM 50x100	264.6	B.2.4.5-8	5.8	2.20	0.10	0.00	0.00
N-1.75	B70	VCIM 50x100	284	B.2.4.5-8	5.7	3.40	0.10	0.00	0.00
N-1.75	B73	VCIM 50x100	60	B.2.4.5-8	4.3	2.90	0.04	0.00	0.00
N-1.75	B73	VCIM 50x100	79.4	B.2.4.5-8	4.1	2.10	0.04	0.00	0.00
N-1.75	B73	VCIM 50x100	79.4	B.2.4.5-8	8.5	2.50	0.04	17.50	0.03
N-1.75	B73	VCIM 50x100	105.8	B.2.4.5-8	8	2.50	0.04	17.50	0.03
N-1.75	B73	VCIM 50x100	132.3	B.2.4.5-8	7.5	2.50	0.04	17.50	0.03
N-1.75	B73	VCIM 50x100	132.3	B.2.4.5-8	7.5	2.40	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	158.8	B.2.4.5-8	6.8	2.40	0.04	17.50	0.03
N-1.75	B73	VCIM 50x100	185.2	B.2.4.5-8	6.1	2.40	0.04	17.50	0.03
N-1.75	B73	VCIM 50x100	185.2	B.2.4.5-8	6	2.30	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	211.7	B.2.4.5-8	5.1	2.30	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	238.2	B.2.4.5-8	4.3	2.30	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	238.2	B.2.4.5-8	4.1	2.20	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	264.6	B.2.4.5-8	3.2	2.20	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	291.1	B.2.4.5-8	2.3	2.20	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	291.1	B.2.4.5-8	2.1	2.00	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	317.5	B.2.4.5-8	2	2.00	0.05	17.50	0.03
N-1.75	B73	VCIM 50x100	344	B.2.4.7-8	1.5	2.10	0.05	17.50	0.03
N-1.75	B83	VCIM 50x100	0	B.2.4.5-2	1.9	4.70	0.10	17.50	0.01
N-1.75	B83	VCIM 50x100	26.2	B.2.4.5-1	4.7	5.20	0.10	17.50	0.01
N-1.75	B83	VCIM 50x100	52.4	B.2.4.5-1	4.7	5.70	0.10	17.50	0.01
N-1.75	B83	VCIM 50x100	52.4	B.2.4.5-1	5	6.10	0.10	17.50	0.01
N-1.75	B83	VCIM 50x100	78.5	B.2.4.5-1	5	6.70	0.10	17.50	0.01
N-1.75	B83	VCIM 50x100	104.7	B.2.4.5-1	5	7.40	0.10	17.50	0.01
N-1.75	B83	VCIM 50x100	104.7	B.2.4.5-1	5.3	8.10	0.14	17.50	0.02
N-1.75	B83	VCIM 50x100	130.8	B.2.4.5-1	5.3	10.70	0.14	17.50	0.02
N-1.75	B83	VCIM 50x100	157	B.2.4.5-1	5.3	13.20	0.13	17.50	0.02
N-1.75	B83	VCIM 50x100	157	B.2.4.5-1	5.4	13.40	0.11	17.50	0.02
N-1.75	B83	VCIM 50x100	157.1	B.2.4.5-1	5.4	13.40	0.11	17.50	0.02
N-1.75	B83	VCIM 50x100	157.1	B.2.4.5-1	5.4	13.60	0.16	17.50	0.02

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 interaccion balsa-pilote

Relación de Poisson			0,3	
Longitud pilote.			13	m
Módulo Elasticidad suelo a nivel pilote		Esl	198	Kg/cm2
Módulo Elasticidad suelo bajo nivel pil		Esb	207	Kg/cm2
Módulo Elasticidad suelo promedio pi		Esav	107	Kg/cm2
Relación Módulos 1 (Fsl/Fsh)		ζ	0,957	
Relación Módulos 2 (Esav/Esl)		P	0,539	
Radio medio		rm	9.250	m
Radio pilote		ro	0,5	m
Relación forma		ζ	2,918	
Area total losa		A	1030	m2
Cantidad pilotes		n	30	pilotes
Radio promedio losa		rc	34,33	m
Factor interacción losa/pilote		αcp	-0,06843	
Rigidez pilotes	Kp		86004	
Rigidez losa	Kr		25500	
Porcentaje losa	X		0,24	
Divid			113249,117	
			0,99861165	
Rigidez Conjunto	**Kpr**		**113287**	**KN/m**
			11,33	**Kg/cm3**

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

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

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

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

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

$$\zeta = \ln(r_m/r_0)$$

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

$$K_{pr} = \frac{(Kp + Kr(1-\alpha cp))}{\left(1 - \alpha cp^2 \cdot \frac{Kr}{Kp}\right)}$$

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

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

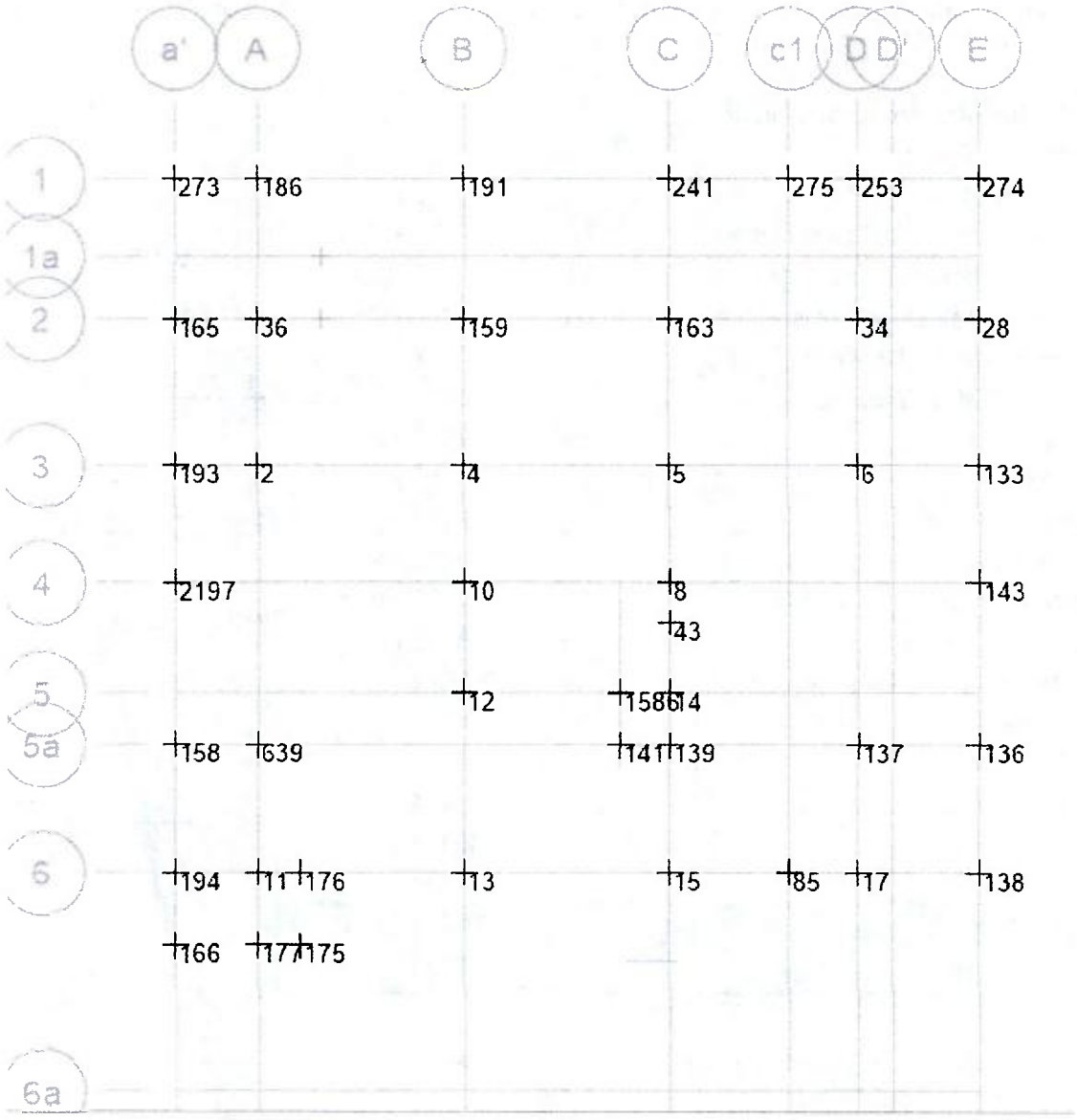


Figura 35 Joint Label base de columnas Edificio B N-3.60

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 tonf
N-3.60	2	3	Env Serv	600.8	600.8
N-3.60	2	3	Env Serv	275.9	
N-3.60	11	17	Env Serv	494.2	494.2
N-3.60	11	17	Env Serv	239.8	
N-3.60	13	21	Env Serv	680.1	680.1
N-3.60	13	21	Env Serv	324.4	
N-3.60	15	25	Env Serv	435.2	435.2
N-3.60	15	25	Env Serv	206.2	
N-3.60	17	1523	Env Serv	97.2	97.2
N-3.60	17	1523	Env Serv	36.3	
N-3.60	4	2	Env Serv	413.4	413.4
N-3.60	4	2	Env Serv	180.2	
N-3.60	5	5	Env Serv	417.3	417.3
N-3.60	5	5	Env Serv	180.1	
N-3.60	6	13	Env Serv	361.2	361.2
N-3.60	6	13	Env Serv	166.1	
N-3.60	8	6373	Env Serv	139.6	139.6
N-3.60	8	6373	Env Serv	-49.0	
N-3.60	10	373	Env Serv	248.1	248.1
N-3.60	10	373	Env Serv	-64.2	
N-3.60	12	376	Env Serv	244.0	244.0
N-3.60	12	376	Env Serv	-63.4	
N-3.60	14	6364	Env Serv	366.2	366.2
N-3.60	14	6364	Env Serv	-65.6	
N-3.60	1586	382	Env Serv	244.1	244.1
N-3.60	1586	382	Env Serv	70.8	
N-3.60	193	1100	Env Serv	60.0	60.0
N-3.60	193	1100	Env Serv	30.9	
N-3.60	194	1126	Env Serv	38.0	38.0
N-3.60	194	1126	Env Serv	18.1	
N-3.60	2197	169	Env Serv	16.0	16.0
N-3.60	2197	169	Env Serv	7.3	
N-3.60	43	108	Env Serv	268.2	268.2
N-3.60	43	108	Env Serv	-49.2	
N-3.60	85	80	Env Serv	381.9	381.9
N-3.60	85	80	Env Serv	137.9	
N-3.60	639	9	Env Serv	364.0	364.0
N-3.60	639	9	Env Serv	168.3	
N-3.60	28	1551	Env Serv	84.5	84.5
N-3.60	28	1551	Env Serv	37.2	
N-3.60	34	10	Env Serv	326.6	326.6
N-3.60	34	10	Env Serv	148.4	
N-3.60	36	11	Env Serv	399.3	399.3
N-3.60	36	11	Env Serv	187.0	
N-3.60	133	1550	Env Serv	126.3	126.3
N-3.60	133	1550	Env Serv	60.7	
N-3.60	136	1549	Env Serv	134.0	134.0
N-3.60	136	1549	Env Serv	62.8	
N-3.60	137	19	Env Serv	385.8	385.8
N-3.60	137	19	Env Serv	175.0	
N-3.60	138	1536	Env Serv	99.4	99.4
N-3.60	138	1536	Env Serv	17.8	
N-3.60	139	390	Env Serv	194.5	194.5

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo		FZ tonf	FZ tonf
N-3.60	139	390	Env Serv	-	46.0	
N-3.60	141	391	Env Serv		352.0	352.0
N-3.60	141	391	Env Serv	-	44.0	
N-3.60	143	570	Env Serv		18.3	18.3
N-3.60	143	570	Env Serv		8.5	
N-3.60	158	1118	Env Serv		58.5	58.5
N-3.60	158	1118	Env Serv		30.3	
N-3.60	159	195	Env Serv		393.1	393.1
N-3.60	159	195	Env Serv		182.3	
N-3.60	163	226	Env Serv		369.3	369.3
N-3.60	163	226	Env Serv		172.1	
N-3.60	165	1091	Env Serv		36.5	36.5
N-3.60	165	1091	Env Serv		18.8	
N-3.60	166	1141	Env Serv		37.2	37.2
N-3.60	166	1141	Env Serv	-	4.6	
N-3.60	175	1495	Env Serv		34.9	34.9
N-3.60	175	1495	Env Serv	-	6.9	
N-3.60	176	1496	Env Serv		176.4	176.4
N-3.60	176	1496	Env Serv		79.6	
N-3.60	177	1494	Env Serv		19.4	19.4
N-3.60	177	1494	Env Serv	-	3.6	
N-3.60	186	1108	Env Serv		100.8	100.8
N-3.60	186	1108	Env Serv		46.8	
N-3.60	191	1106	Env Serv		133.8	133.8
N-3.60	191	1106	Env Serv		64.5	
N-3.60	241	1107	Env Serv		114.5	114.5
N-3.60	241	1107	Env Serv		47.8	
N-3.60	253	1109	Env Serv		75.4	75.4
N-3.60	253	1109	Env Serv		33.1	
N-3.60	273	1090	Env Serv		49.2	49.2
N-3.60	273	1090	Env Serv	-	0.1	
N-3.60	274	1564	Env Serv		94.91	94.9
N-3.60	274	1564	Env Serv		-4.31	
N-3.60	275	1597	Env Serv		43.61	43.6
N-3.60	275	1597	Env Serv		-0.24	

Condición Dinámica: Fz= 9728.4ton

Condición Dinamica - Servicio Con Sismo

Area Losa	**1030 m²**
Peso Concreto Losa Aligerada	1617.1 ton
Tanques:Peso 219m³de agua	219.0 ton
Peso Tanques Fibra de Vidrio 30kg/m³ de agua	6.6 ton
Peso Relleno Nivelacion Auditorio	508.6 ton
SobreCarga Losa: 3.5kN/m²*Area	367.86 ton
Carga Viva Losa: 5kN/m²*Area	525.51 ton
Carga Total Cimentación	**3244.7 ton**
Carga SuperEstructura	9728.0 ton
Carga Total Cimentación	3244.7 ton
Fz_diseño	**12972.7 ton**
Qadm	1.02 kg/cm²
	10.2 tof/m²
Capacidad Losa	**10506 ton**

Servicio Con Sismo		
Fz_diseño	**12972.7 ton**	**100%**
Aporte Losa	10506.0 ton	81%
Requerido Pilotes	2466.7 ton	19%

			Pilotes Usados	
Pilote	**Qadm Dinamico**	**Cantidad Requerida**	**Cantidad Usada**	**Carga**
100cm	137.4 ton	18	**30**	4121.0 ton
120cm	177.8 ton	14	**0**	0.0 ton
150cm	246.3 ton	11	**0**	0.0 ton
			Capacidad Total	**4121.0 ton**

Cumple: 4121>2466.7

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

Peso aproximado de la Cimentación	**2465.3 ton**

Tabla 23 Reacciones servicio sin sismo en columnas de Edificio A

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ	FZ
				tonf	tonf
N-3.60	2	3	Env Serv SS	578.0	578.0
N-3.60	2	3	Env Serv SS	275.9	
N-3.60	11	17	Env Serv SS	482.6	482.6
N-3.60	11	17	Env Serv SS	239.8	
N-3.60	13	21	Env Serv SS	651.4	651.4
N-3.60	13	21	Env Serv SS	324.4	
N-3.60	15	25	Env Serv SS	435.2	435.2
N-3.60	15	25	Env Serv SS	206.2	
N-3.60	17	1523	Env Serv SS	90.6	90.6
N-3.60	17	1523	Env Serv SS	36.3	
N-3.60	4	2	Env Serv SS	381.6	381.6
N-3.60	4	2	Env Serv SS	180.2	
N-3.60	5	5	Env Serv SS	383.5	383.5
N-3.60	5	5	Env Serv SS	180.1	
N-3.60	6	13	Env Serv SS	349.5	349.5
N-3.60	6	13	Env Serv SS	166.1	
N-3.60	8	6373	Env Serv SS	59.9	59.9
N-3.60	8	6373	Env Serv SS	19.7	
N-3.60	10	373	Env Serv SS	111.3	111.3
N-3.60	10	373	Env Serv SS	52.7	
N-3.60	12	376	Env Serv SS	116.4	116.4
N-3.60	12	376	Env Serv SS	40.9	
N-3.60	14	6364	Env Serv SS	187.6	187.6
N-3.60	14	6364	Env Serv SS	78.4	
N-3.60	1586	382	Env Serv SS	184.6	184.6
N-3.60	1586	382	Env Serv SS	89.9	
N-3.60	193	1100	Env Serv SS	59.3	59.3
N-3.60	193	1100	Env Serv SS	30.9	
N-3.60	194	1126	Env Serv SS	35.4	35.4
N-3.60	194	1126	Env Serv SS	18.1	
N-3.60	2197	169	Env Serv SS	16.0	16.0
N-3.60	2197	169	Env Serv SS	7.3	
N-3.60	43	108	Env Serv SS	141.7	141.7
N-3.60	43	108	Env Serv SS	52.5	
N-3.60	85	80	Env Serv SS	349.9	349.9
N-3.60	85	80	Env Serv SS	137.9	
N-3.60	639	9	Env Serv SS	363.1	363.1
N-3.60	639	9	Env Serv SS	168.3	
N-3.60	28	1551	Env Serv SS	74.9	74.9
N-3.60	28	1551	Env Serv SS	37.2	
N-3.60	34	10	Env Serv SS	303.8	303.8
N-3.60	34	10	Env Serv SS	148.4	
N-3.60	36	11	Env Serv SS	383.0	383.0
N-3.60	36	11	Env Serv SS	187.0	
N-3.60	133	1550	Env Serv SS	123.9	123.9
N-3.60	133	1550	Env Serv SS	60.7	
N-3.60	136	1549	Env Serv SS	131.4	131.4
N-3.60	136	1549	Env Serv SS	62.8	

TABLE: Joint Reactions

Story	Joint Label	Unique Name	Load Case/Combo	FZ tonf	FZ tonf
N-3.60	137	19	Env Serv SS	377.9	377.9
N-3.60	137	19	Env Serv SS	175.0	
N-3.60	138	1536	Env Serv SS	77.0	77.0
N-3.60	138	1536	Env Serv SS	32.5	
N-3.60	139	390	Env Serv SS	88.9	88.9
N-3.60	139	390	Env Serv SS	44.3	
N-3.60	141	391	Env Serv SS	185.5	185.5
N-3.60	141	391	Env Serv SS	87.4	
N-3.60	143	570	Env Serv SS	18.3	18.3
N-3.60	143	570	Env Serv SS	8.5	
N-3.60	158	1118	Env Serv SS	58.5	58.5
N-3.60	158	1118	Env Serv SS	30.3	
N-3.60	159	195	Env Serv SS	383.0	383.0
N-3.60	159	195	Env Serv SS	182.3	
N-3.60	163	226	Env Serv SS	359.5	359.5
N-3.60	163	226	Env Serv SS	172.1	
N-3.60	165	1091	Env Serv SS	35.2	35.2
N-3.60	165	1091	Env Serv SS	18.8	
N-3.60	166	1141	Env Serv SS	19.0	19.0
N-3.60	166	1141	Env Serv SS	7.9	
N-3.60	175	1495	Env Serv SS	16.1	16.1
N-3.60	175	1495	Env Serv SS	7.1	
N-3.60	176	1496	Env Serv SS	159.3	159.3
N-3.60	176	1496	Env Serv SS	79.6	
N-3.60	177	1494	Env Serv SS	8.7	8.7
N-3.60	177	1494	Env Serv SS	3.9	
N-3.60	186	1108	Env Serv SS	95.4	95.4
N-3.60	186	1108	Env Serv SS	46.8	
N-3.60	191	1106	Env Serv SS	132.7	132.7
N-3.60	191	1106	Env Serv SS	64.5	
N-3.60	241	1107	Env Serv SS	102.9	102.9
N-3.60	241	1107	Env Serv SS	47.8	
N-3.60	253	1109	Env Serv SS	68.7	68.7
N-3.60	253	1109	Env Serv SS	33.1	
N-3.60	273	1090	Env Serv SS	27.7	27.7
N-3.60	273	1090	Env Serv SS	14.2	
N-3.60	274	1564	Env Serv SS	53.8	53.8
N-3.60	274	1564	Env Serv SS	22.3	
N-3.60	275	1597	Env Serv SS	27.1	27.1
N-3.60	275	1597	Env Serv SS	10.9	

Condición Estática ΣFz= 8289.1ton

CONDICION ESTATICA: Servicio SIN Sismo

Area Losa	**1030 m²**
Peso Concreto Losa Aligerada	1617.1 ton
Peso 219m³de Agua	219.0 ton
Peso Tanques Fibra de Vidrio 30kg/m³ de agua	6.6 ton
Peso Relleno Nivelacion Auditorio	508.6 ton
SobreCarga Losa: 3.5kN/m²*Area	367.86 ton
Carga Viva Losa: 5kN/m²*Area	525.51 ton
Carga Total Cimentación	**3244.7 ton**
Carga SuperEstructura	8289.6 ton
Carga Total Cimentación	3244.7 ton
Fz_diseño	**11534.2 ton**
Qadm	1.02 kg/cm²
	10.2 tof/m²
Capacidad Losa	**10506 ton**

Servicio Sin Sismo		
Fz_diseño	11534.2 ton	100%
Aporte Losa	10506.0 ton	91%
Requerido Pilotes	1028.2 ton	9%

			Pilotes Usados	
Pilote	Qadm Estatico	Cantidad Requerida	Cantidad Usada	Carga
100cm	66.1 ton	16	**30**	1981.8 ton
120cm	80.2 ton	13	**0**	0.0 ton
150cm	102.1 ton	11	**0**	0.0 ton
			Capacidad Total	**1981.8 ton**

Cumple: 1981.8>1028.2

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

Peso aproximado de la cimentacion 1617.1 ton

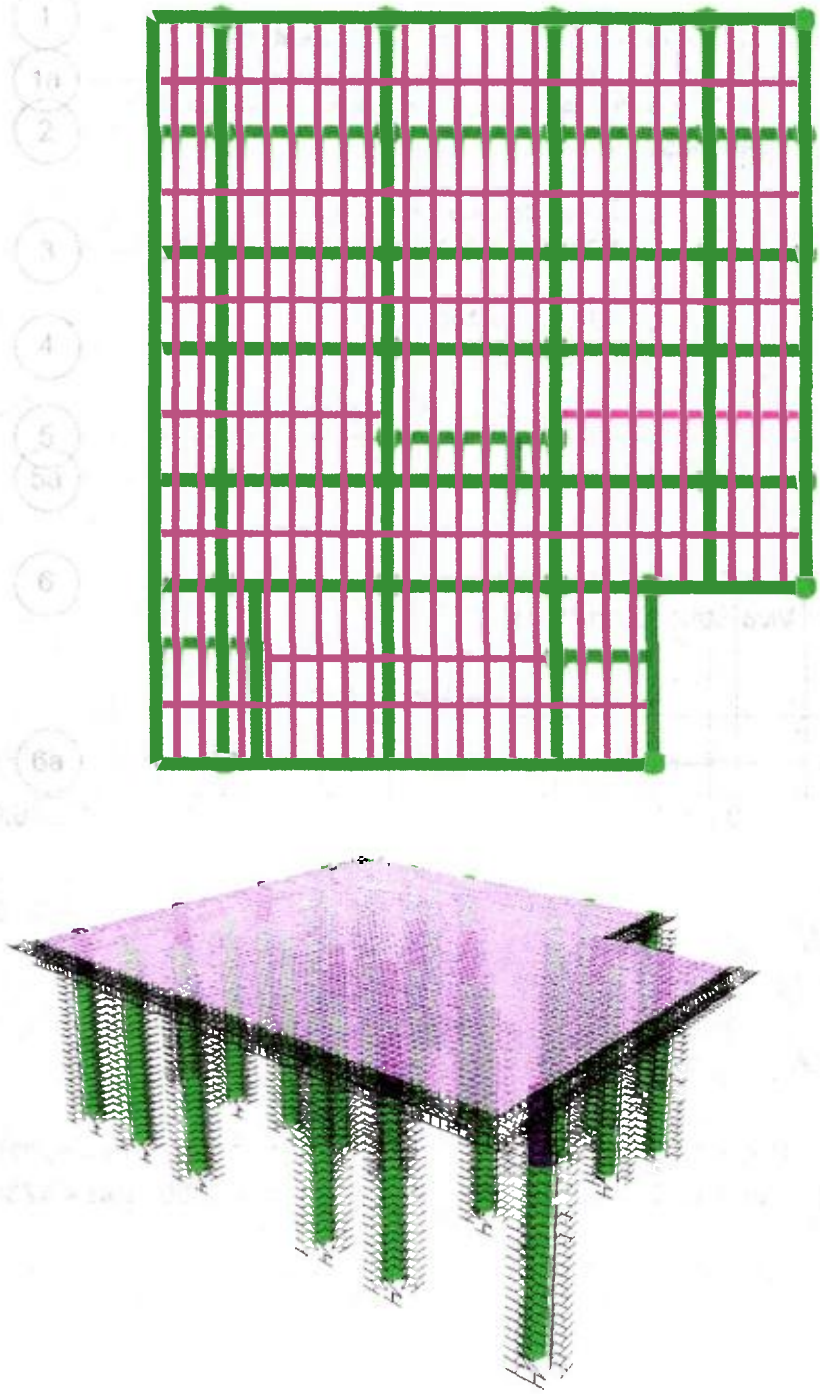


Figura 36 Modelo de Interacción de la Cimentación del Edificio B.

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):
>
> $$D + L \leq 0.25 f'_c A_g \qquad \text{(C.15-2)}$$
>
> $$1.2D + 1.6L \leq 0.35 f'_c A_g \qquad \text{(C.15-3)}$$

f'c: 210kg/cm²

D: Carga Muerta Super Estructura: 8593 ton
L: Carga Viva Super Estructura: 2513 ton

		Pilotes Usados		C.15.11.3	
Pilote	**Area**	**Cantidades**	**Area Total**	**0.25*Ag*f'c**	**0.35*Ag*f'c**
100cm	0.8 m²	**30**	23.6 m²	**12370.0 ton**	**17318.0 ton**
			Σ:	**12370.0 ton**	**17318.0 ton**

D+L= 11106 ton
1.2D+1.6L= 14332 ton

(C.15-2) D+L < 0.25*Ag*f'c: **11105.6397 ton < 12370 ton** Cumple
(C.15-2) 1.2D+1.6 L < 0.25*Ag*f'c: **14331.82508 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				cm²	cm²/cm	cm²/cm	
N-3.60	C27	Pilote 100	0	Check	0.016	B.2.4.5-8	28.4	0.00143	0.00303	No Message
N-3.60	C27	Pilote 100	25	Check	0.015	B.2.4.5-8	28.4	0.00143	0.00303	No Message
N-3.60	C27	Pilote 100	50	Check	0.014	B.2.4.5-8	28.4	0.00143	0.00303	No Message
N-3.60	C31	Pilote 100	0	Check	0.014	B.2.4.5-8	28.4	0.00171	0.0029	No Message
N-3.60	C31	Pilote 100	25	Check	0.014	B.2.4.5-8	28.4	0.00171	0.0029	No Message
N-3.60	C31	Pilote 100	50	Check	0.013	B.2.4.5-8	28.4	0.00171	0.0029	No Message
N-3.60	C32	Pilote 100	0	Check	0.013	B.2.4.5-8	28.4	0.00268	0.0036	No Message
N-3.60	C32	Pilote 100	25	Check	0.012	B.2.4.5-8	28.4	0.00268	0.0036	No Message
N-3.60	C32	Pilote 100	50	Check	0.017	B.2.4.7-8	28.4	0.00268	0.0036	No Message
N-3.60	C44	Pilote 100	0	Check	0.017	B.2.4.7-8	28.4	0.00378	0.00477	No Message
N-3.60	C44	Pilote 100	25	Check	0.026	B.2.4.7-8	28.4	0.00378	0.00477	No Message
N-3.60	C44	Pilote 100	50	Check	0.035	B.2.4.7-8	28.4	0.00378	0.00477	No Message
N-3.60	C45	Pilote 100	0	Check	0.035	B.2.4.7-8	28.4	0.00487	0.00604	No Message
N-3.60	C45	Pilote 100	25	Check	0.046	B.2.4.7-8	28.4	0.00487	0.00604	No Message
N-3.60	C45	Pilote 100	50	Check	0.057	B.2.4.7-8	28.4	0.00487	0.00604	No Message
N-3.60	C46	Pilote 100	0	Check	0.057	B.2.4.7-8	28.4	0.00591	0.00724	No Message
N-3.60	C46	Pilote 100	25	Check	0.069	B.2.4.7-8	28.4	0.00591	0.00724	No Message
N-3.60	C46	Pilote 100	50	Check	0.082	B.2.4.7-8	28.4	0.00591	0.00724	No Message
N-3.60	C47	Pilote 100	0	Check	0.082	B.2.4.7-8	28.4	0.00684	0.00828	No Message
N-3.60	C47	Pilote 100	25	Check	0.096	B.2.4.7-8	28.4	0.00684	0.00828	No Message
N-3.60	C47	Pilote 100	50	Check	0.11	B.2.4.7-8	28.4	0.00684	0.00828	No Message
N-3.60	C51	Pilote 100	0	Check	0.11	B.2.4.7-8	28.4	0.0076	0.00908	No Message
N-3.60	C51	Pilote 100	25	Check	0.126	B.2.4.7-8	28.4	0.0076	0.00908	No Message
N-3.60	C51	Pilote 100	50	Check	0.143	B.2.4.5-8	28.4	0.0076	0.00908	No Message
N-3.60	C59	Pilote 100	0	Check	0.143	B.2.4.5-8	28.4	0.0081	0.00954	No Message
N-3.60	C59	Pilote 100	25	Check	0.161	B.2.4.5-8	28.4	0.0081	0.00954	No Message
N-3.60	C59	Pilote 100	50	Check	0.179	B.2.4.5-8	28.4	0.0081	0.00954	No Message
N-3.60	C69	Pilote 100	0	Check	0.179	B.2.4.5-8	28.4	0.00825	0.00954	No Message
N-3.60	C69	Pilote 100	25	Check	0.197	B.2.4.5-8	28.4	0.00825	0.00954	No Message
N-3.60	C69	Pilote 100	50	Check	0.216	B.2.4.5-8	28.4	0.00825	0.00954	No Message
N-3.60	C70	Pilote 100	0	Check	0.216	B.2.4.5-8	28.4	0.00825	0.0093	No Message
N-3.60	C70	Pilote 100	25	Check	0.233	B.2.4.5-8	28.4	0.00825	0.0093	No Message
N-3.60	C70	Pilote 100	50	Check	0.251	B.2.4.5-8	28.4	0.00825	0.0093	No Message
N-3.60	C71	Pilote 100	0	Check	0.251	B.2.4.5-8	28.4	0.00806	0.01	No Message
N-3.60	C71	Pilote 100	25	Check	0.266	B.2.4.5-8	28.4	0.00806	0.01	No Message
N-3.60	C71	Pilote 100	50	Check	0.282	B.2.4.5-8	28.4	0.00806	0.01	No Message
N-3.60	C72	Pilote 100	0	Check	0.282	B.2.4.5-8	28.4	0.00736	0.01035	No Message
N-3.60	C72	Pilote 100	25	Check	0.295	B.2.4.5-8	28.4	0.00736	0.01035	No Message
N-3.60	C72	Pilote 100	50	Check	0.308	B.2.4.5-8	28.4	0.00736	0.01035	No Message
N-3.60	C73	Pilote 100	0	Check	0.308	B.2.4.5-8	28.4	0.00608	0.01028	No Message
N-3.60	C73	Pilote 100	25	Check	0.317	B.2.4.5-8	28.4	0.00608	0.01028	No Message
N-3.60	C73	Pilote 100	50	Check	0.325	B.2.4.5-8	28.4	0.00608	0.01028	No Message
N-3.60	C74	Pilote 100	0	Check	0.325	B.2.4.5-8	28.4	0.00431	0.00789	No Message
N-3.60	C74	Pilote 100	25	Check	0.329	B.2.4.5-8	28.4	0.00431	0.00789	No Message
N-3.60	C74	Pilote 100	50	Check	0.335	B.2.4.5-8	28.4	0.00431	0.00789	No Message
N-3.60	C87	Pilote 100	0	Check	0.335	B.2.4.5-8	28.4	0.00391	0.00258	No Message
N-3.60	C87	Pilote 100	25	Check	0.348	B.2.4.5-8	28.4	0.00391	0.00258	No Message
N-3.60	C87	Pilote 100	50	Check	0.361	B.2.4.5-8	28.4	0.00391	0.00258	No Message
N-3.60	C88	Pilote 100	0	Check	0.361	B.2.4.5-8	28.4	0.00865	0.00585	No Message
N-3.60	C88	Pilote 100	25	Check	0.37	B.2.4.5-8	28.4	0.00865	0.00585	No Message
N-3.60	C88	Pilote 100	50	Check	0.379	B.2.4.5-8	28.4	0.00865	0.00585	No Message
N-3.60	C89	Pilote 100	0	Check	0.379	B.2.4.5-8	28.4	0.01375	0.01534	No Message
N-3.60	C89	Pilote 100	25	Check	0.384	B.2.4.5-8	28.4	0.01375	0.01534	No Message
N-3.60	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	At V Minor	Warnings
			cm				cm²	cm²/cm	cm²/cm	
N-3.60	C90	Pilote 100	0	Check	0.389	B.2.4.5-8	28.4	0.01975	0.02644	No Message
N-3.60	C90	Pilote 100	25	Check	0.39	B.2.4.5-8	28.4	0.01975	0.02644	No Message
N-3.60	C90	Pilote 100	50	Check	0.393	B.2.4.5-8	28.4	0.01975	0.02644	No Message
N-3.60	C91	Pilote 100	0	Check	0.393	B.2.4.5-8	28.4	0.02622	0.03427	No Message
N-3.60	C91	Pilote 100	25	Check	0.39	B.2.4.5-8	28.4	0.02622	0.03427	No Message
N-3.60	C91	Pilote 100	50	Check	0.389	B.2.4.5-8	28.4	0.02622	0.03427	No Message
N-3.60	C92	P100R	0	Check	0.225	B.2.4.5-8	51	0.03291	0.04232	No Message
N-3.60	C92	P100R	25	Check	0.224	B.2.4.5-8	51	0.03291	0.04232	No Message
N-3.60	C92	P100R	50	Check	0.228	B.2.4.5-8	51	0.03291	0.04232	No Message
N-3.60	C93	P100R	0	Check	0.228	B.2.4.5-8	51	0.03955	0.05023	No Message
N-3.60	C93	P100R	25	Check	0.243	B.2.4.5-8	51	0.03955	0.05023	No Message
N-3.60	C93	P100R	50	Check	0.279	B.2.4.5-8	51	0.03955	0.05023	No Message
N-3.60	C94	P100R	0	Check	0.279	B.2.4.5-8	51	0.04575	0.05756	No Message
N-3.60	C94	P100R	25	Check	0.327	B.2.4.5-8	51	0.04575	0.05756	No Message
N-3.60	C94	P100R	50	Check	0.377	B.2.4.5-8	51	0.04575	0.05756	No Message
N-3.60	C95	P100R	0	Check	0.377	B.2.4.5-8	51	0.05124	0.06399	No Message
N-3.60	C95	P100R	25	Check	0.433	B.2.4.5-8	51	0.05124	0.06399	No Message
N-3.60	C95	P100R	50	Check	0.489	B.2.4.5-8	51	0.05124	0.06399	No Message
N-3.60	C96	P100R	0	Check	0.489	B.2.4.5-8	51	0.0557	0.06914	No Message
N-3.60	C96	P100R	25	Check	0.55	B.2.4.5-8	51	0.0557	0.06914	No Message
N-3.60	C96	P100R	50	Check	0.611	B.2.4.5-8	51	0.0557	0.06914	No Message
N-3.60	C97	P100R	0	Check	0.611	B.2.4.5-8	51	0	0	No Message
N-3.60	C97	P100R	0.1	Check	0.611	B.2.4.5-8	51	0	0	No Message
N-3.60	C97	P100R	0.2	Check	0.611	B.2.4.5-8	51	0	0	No Message
N-3.60	C98	Pilote 100	0	Check	0.017	B.2.4.5-8	28.4	0.00219	0.00545	No Message
N-3.60	C98	Pilote 100	25	Check	0.016	B.2.4.5-8	28.4	0.00219	0.00545	No Message
N-3.60	C98	Pilote 100	50	Check	0.016	B.2.4.5-8	28.4	0.00219	0.00545	No Message
N-3.60	C99	Pilote 100	0	Check	0.016	B.2.4.5-8	28.4	0.00183	0.00468	No Message
N-3.60	C99	Pilote 100	25	Check	0.015	B.2.4.5-8	28.4	0.00183	0.00468	No Message
N-3.60	C99	Pilote 100	50	Check	0.015	B.2.4.5-8	28.4	0.00183	0.00468	No Message
N-3.60	C100	Pilote 100	0	Check	0.015	B.2.4.5-8	28.4	0.00263	0.00368	No Message
N-3.60	C100	Pilote 100	25	Check	0.015	B.2.4.5-8	28.4	0.00263	0.00368	No Message
N-3.60	C100	Pilote 100	50	Check	0.016	B.2.4.5-8	28.4	0.00263	0.00368	No Message
N-3.60	C101	Pilote 100	0	Check	0.016	B.2.4.5-8	28.4	0.00368	0.00428	No Message
N-3.60	C101	Pilote 100	25	Check	0.017	B.2.4.5-8	28.4	0.00368	0.00428	No Message
N-3.60	C101	Pilote 100	50	Check	0.019	B.2.4.7-8	28.4	0.00368	0.00428	No Message
N-3.60	C102	Pilote 100	0	Check	0.019	B.2.4.7-8	28.4	0.00479	0.00535	No Message
N-3.60	C102	Pilote 100	25	Check	0.026	B.2.4.7-8	28.4	0.00479	0.00535	No Message
N-3.60	C102	Pilote 100	50	Check	0.035	B.2.4.7-8	28.4	0.00479	0.00535	No Message
N-3.60	C103	Pilote 100	0	Check	0.035	B.2.4.7-8	28.4	0.00587	0.0078	No Message
N-3.60	C103	Pilote 100	25	Check	0.046	B.2.4.7-8	28.4	0.00587	0.0078	No Message
N-3.60	C103	Pilote 100	50	Check	0.057	B.2.4.7-8	28.4	0.00587	0.0078	No Message
N-3.60	C104	Pilote 100	0	Check	0.057	B.2.4.7-8	28.4	0.00686	0.00868	No Message
N-3.60	C104	Pilote 100	25	Check	0.07	B.2.4.7-8	28.4	0.00686	0.00868	No Message
N-3.60	C104	Pilote 100	50	Check	0.083	B.2.4.7-8	28.4	0.00686	0.00868	No Message
N-3.60	C105	Pilote 100	0	Check	0.083	B.2.4.7-8	28.4	0.00769	0.00922	No Message
N-3.60	C105	Pilote 100	25	Check	0.097	B.2.4.7-8	28.4	0.00769	0.00922	No Message
N-3.60	C105	Pilote 100	50	Check	0.112	B.2.4.7-8	28.4	0.00769	0.00922	No Message
N-3.60	C106	Pilote 100	0	Check	0.112	B.2.4.7-8	28.4	0.00828	0.00931	No Message
N-3.60	C106	Pilote 100	25	Check	0.127	B.2.4.7-8	28.4	0.00828	0.00931	No Message
N-3.60	C106	Pilote 100	50	Check	0.144	B.2.4.5-8	28.4	0.00828	0.00931	No Message
N-3.60	C107	Pilote 100	0	Check	0.144	B.2.4.5-8	28.4	0.00855	0.00886	No Message
N-3.60	C107	Pilote 100	25	Check	0.162	B.2.4.5-8	28.4	0.00855	0.00886	No Message
N-3.60	C107	Pilote 100	50	Check	0.179	B.2.4.5-8	28.4	0.00855	0.00886	No Message
N-3.60	C108	Pilote 100	0	Check	0.179	B.2.4.5-8	28.4	0.00839	0.00776	No Message
N-3.60	C108	Pilote 100	25	Check	0.196	B.2.4.5-8	28.4	0.00839	0.00776	No Message
N-3.60	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	At V Minor	Warnings
			cm				cm²	cm²/cm	cm²/cm	
N-3.60	C109	Pilote 100	0	Check	0.212	B.2.4.5-8	28.4	0.00769	0.00936	No Message
N-3.60	C109	Pilote 100	25	Check	0.227	B.2.4.5-8	28.4	0.00769	0.00936	No Message
N-3.60	C109	Pilote 100	50	Check	0.241	B.2.4.5-8	28.4	0.00769	0.00936	No Message
N-3.60	C110	Pilote 100	0	Check	0.241	B.2.4.5-8	28.4	0.00635	0.01117	No Message
N-3.60	C110	Pilote 100	25	Check	0.252	B.2.4.5-8	28.4	0.00635	0.01117	No Message
N-3.60	C110	Pilote 100	50	Check	0.263	B.2.4.5-8	28.4	0.00635	0.01117	No Message
N-3.60	C111	Pilote 100	0	Check	0.263	B.2.4.5-8	28.4	0.00429	0.01035	No Message
N-3.60	C111	Pilote 100	25	Check	0.27	B.2.4.5-8	28.4	0.00429	0.01035	No Message
N-3.60	C111	Pilote 100	50	Check	0.276	B.2.4.5-8	28.4	0.00429	0.01035	No Message
N-3.60	C112	Pilote 100	0	Check	0.276	B.2.4.5-8	28.4	0.00144	0.00512	No Message
N-3.60	C112	Pilote 100	25	Check	0.277	B.2.4.5-8	28.4	0.00144	0.00512	No Message
N-3.60	C112	Pilote 100	50	Check	0.278	B.2.4.5-8	28.4	0.00144	0.00512	No Message
N-3.60	C113	Pilote 100	0	Check	0.278	B.2.4.5-8	28.4	0.00251	0.00545	No Message
N-3.60	C113	Pilote 100	25	Check	0.284	B.2.4.5-8	28.4	0.00251	0.00545	No Message
N-3.60	C113	Pilote 100	50	Check	0.301	B.2.4.5-8	28.4	0.00251	0.00545	No Message
N-3.60	C114	Pilote 100	0	Check	0.301	B.2.4.5-8	28.4	0.00706	0	No Message
N-3.60	C114	Pilote 100	25	Check	0.317	B.2.4.5-8	28.4	0.00706	0	No Message
N-3.60	C114	Pilote 100	50	Check	0.333	B.2.4.5-8	28.4	0.00706	0	No Message
N-3.60	C115	Pilote 100	0	Check	0.333	B.2.4.5-8	28.4	0.01239	0.0082	No Message
N-3.60	C115	Pilote 100	25	Check	0.351	B.2.4.5-8	28.4	0.01239	0.0082	No Message
N-3.60	C115	Pilote 100	50	Check	0.37	B.2.4.5-8	28.4	0.01239	0.0082	No Message
N-3.60	C116	Pilote 100	0	Check	0.37	B.2.4.5-8	28.4	0.01836	0.016	No Message
N-3.60	C116	Pilote 100	25	Check	0.386	B.2.4.5-8	28.4	0.01836	0.016	No Message
N-3.60	C116	Pilote 100	50	Check	0.404	B.2.4.5-8	28.4	0.01836	0.016	No Message
N-3.60	C117	Pilote 100	0	Check	0.404	B.2.4.5-8	28.4	0.02482	0.01511	No Message
N-3.60	C117	Pilote 100	25	Check	0.424	B.2.4.5-8	28.4	0.02482	0.01511	No Message
N-3.60	C117	Pilote 100	50	Check	0.445	B.2.4.5-8	28.4	0.02482	0.01511	No Message
N-3.60	C118	P100R	0	Check	0.262	B.2.4.5-8	51	0.03154	0.01353	No Message
N-3.60	C118	P100R	25	Check	0.274	B.2.4.5-8	51	0.03154	0.01353	No Message
N-3.60	C118	P100R	50	Check	0.29	B.2.4.5-8	51	0.03154	0.01353	No Message
N-3.60	C119	P100R	0	Check	0.29	B.2.4.5-8	51	0.03824	0.04482	No Message
N-3.60	C119	P100R	25	Check	0.308	B.2.4.5-8	51	0.03824	0.04482	No Message
N-3.60	C119	P100R	50	Check	0.331	B.2.4.5-8	51	0.03824	0.04482	No Message
N-3.60	C120	P100R	0	Check	0.331	B.2.4.5-8	51	0.04454	0.05122	No Message
N-3.60	C120	P100R	25	Check	0.37	B.2.4.5-8	51	0.04454	0.05122	No Message
N-3.60	C120	P100R	50	Check	0.418	B.2.4.5-8	51	0.04454	0.05122	No Message
N-3.60	C121	P100R	0	Check	0.418	B.2.4.5-8	51	0.05015	0.05681	No Message
N-3.60	C121	P100R	25	Check	0.474	B.2.4.5-8	51	0.05015	0.05681	No Message
N-3.60	C121	P100R	50	Check	0.531	B.2.4.5-8	51	0.05015	0.05681	No Message
N-3.60	C122	P100R	0	Check	0.531	B.2.4.5-8	51	0.05475	0.06127	No Message
N-3.60	C122	P100R	25	Check	0.593	B.2.4.5-8	51	0.05475	0.06127	No Message
N-3.60	C122	P100R	50	Check	0.656	B.2.4.5-8	51	0.05475	0.06127	No Message
N-3.60	C123	P100R	0	Check	0.656	B.2.4.5-8	51	0	0.71378	No Message
N-3.60	C123	P100R	0.1	Check	0.656	B.2.4.5-8	51	0	0.71378	No Message
N-3.60	C123	P100R	0.2	Check	0.656	B.2.4.5-8	51	0	0.71378	No Message
N-3.60	C124	Pilote 100	0	Check	0.02	B.2.4.5-8	28.4	0.00777	0.00375	No Message
N-3.60	C124	Pilote 100	25	Check	0.019	B.2.4.5-8	28.4	0.00777	0.00375	No Message
N-3.60	C124	Pilote 100	50	Check	0.019	B.2.4.5-8	28.4	0.00777	0.00375	No Message
N-3.60	C125	Pilote 100	0	Check	0.019	B.2.4.5-8	28.4	0.00546	0.00351	No Message
N-3.60	C125	Pilote 100	25	Check	0.018	B.2.4.5-3	28.4	0.00546	0.00351	No Message
N-3.60	C125	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00546	0.00351	No Message
N-3.60	C126	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.0043	0.00297	No Message
N-3.60	C126	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.0043	0.00297	No Message
N-3.60	C126	Pilote 100	50	Check	0.02	B.2.4.5-3	28.4	0.0043	0.00297	No Message
N-3.60	C127	Pilote 100	0	Check	0.02	B.2.4.5-3	28.4	0.00455	0.00374	No Message
N-3.60	C127	Pilote 100	25	Check	0.024	B.2.4.7-4	28.4	0.00455	0.00374	No Message
N-3.60	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				cm²	cm²/cm	cm²/cm	
N-3.60	C128	Pilote 100	0	Check	0.031	B.2.4.7-4	28.4	0.00565	0.00471	No Message
N-3.60	C128	Pilote 100	25	Check	0.039	B.2.4.7-4	28.4	0.00565	0.00471	No Message
N-3.60	C128	Pilote 100	50	Check	0.047	B.2.4.7-4	28.4	0.00565	0.00471	No Message
N-3.60	C129	Pilote 100	0	Check	0.047	B.2.4.7-4	28.4	0.00683	0.00695	No Message
N-3.60	C129	Pilote 100	25	Check	0.056	B.2.4.7-4	28.4	0.00683	0.00695	No Message
N-3.60	C129	Pilote 100	50	Check	0.066	B.2.4.7-4	28.4	0.00683	0.00695	No Message
N-3.60	C130	Pilote 100	0	Check	0.066	B.2.4.7-4	28.4	0.00783	0.00774	No Message
N-3.60	C130	Pilote 100	25	Check	0.076	B.2.4.7-4	28.4	0.00783	0.00774	No Message
N-3.60	C130	Pilote 100	50	Check	0.088	B.2.4.7-4	28.4	0.00783	0.00774	No Message
N-3.60	C131	Pilote 100	0	Check	0.088	B.2.4.7-4	28.4	0.00854	0.00825	No Message
N-3.60	C131	Pilote 100	25	Check	0.1	B.2.4.7-4	28.4	0.00854	0.00825	No Message
N-3.60	C131	Pilote 100	50	Check	0.112	B.2.4.7-4	28.4	0.00854	0.00825	No Message
N-3.60	C132	Pilote 100	0	Check	0.112	B.2.4.7-4	28.4	0.0089	0.00838	No Message
N-3.60	C132	Pilote 100	25	Check	0.126	B.2.4.7-8	28.4	0.0089	0.00838	No Message
N-3.60	C132	Pilote 100	50	Check	0.143	B.2.4.5-8	28.4	0.0089	0.00838	No Message
N-3.60	C133	Pilote 100	0	Check	0.143	B.2.4.5-8	28.4	0.00881	0.00804	No Message
N-3.60	C133	Pilote 100	25	Check	0.159	B.2.4.5-8	28.4	0.00881	0.00804	No Message
N-3.60	C133	Pilote 100	50	Check	0.176	B.2.4.5-8	28.4	0.00881	0.00804	No Message
N-3.60	C134	Pilote 100	0	Check	0.176	B.2.4.5-8	28.4	0.00819	0.00713	No Message
N-3.60	C134	Pilote 100	25	Check	0.192	B.2.4.5-8	28.4	0.00819	0.00713	No Message
N-3.60	C134	Pilote 100	50	Check	0.208	B.2.4.5-8	28.4	0.00819	0.00713	No Message
N-3.60	C135	Pilote 100	0	Check	0.208	B.2.4.5-8	28.4	0.00827	0.0087	No Message
N-3.60	C135	Pilote 100	25	Check	0.221	B.2.4.5-8	28.4	0.00827	0.0087	No Message
N-3.60	C135	Pilote 100	50	Check	0.235	B.2.4.5-8	28.4	0.00827	0.0087	No Message
N-3.60	C136	Pilote 100	0	Check	0.235	B.2.4.5-8	28.4	0.00803	0.01062	No Message
N-3.60	C136	Pilote 100	25	Check	0.245	B.2.4.5-8	28.4	0.00803	0.01062	No Message
N-3.60	C136	Pilote 100	50	Check	0.255	B.2.4.5-8	28.4	0.00803	0.01062	No Message
N-3.60	C137	Pilote 100	0	Check	0.255	B.2.4.5-8	28.4	0.0073	0.01256	No Message
N-3.60	C137	Pilote 100	25	Check	0.26	B.2.4.5-8	28.4	0.0073	0.01256	No Message
N-3.60	C137	Pilote 100	50	Check	0.265	B.2.4.5-8	28.4	0.0073	0.01256	No Message
N-3.60	C138	Pilote 100	0	Check	0.265	B.2.4.5-8	28.4	0.00212	0.00551	No Message
N-3.60	C138	Pilote 100	25	Check	0.264	B.2.4.5-8	28.4	0.00212	0.00551	No Message
N-3.60	C138	Pilote 100	50	Check	0.266	B.2.4.7-8	28.4	0.00212	0.00551	No Message
N-3.60	C139	Pilote 100	0	Check	0.266	B.2.4.7-8	28.4	0.00201	0.00446	No Message
N-3.60	C139	Pilote 100	25	Check	0.27	B.2.4.7-8	28.4	0.00201	0.00446	No Message
N-3.60	C139	Pilote 100	50	Check	0.291	B.2.4.5-8	28.4	0.00201	0.00446	No Message
N-3.60	C140	Pilote 100	0	Check	0.291	B.2.4.5-8	28.4	0.00944	0	No Message
N-3.60	C140	Pilote 100	25	Check	0.313	B.2.4.5-8	28.4	0.00944	0	No Message
N-3.60	C140	Pilote 100	50	Check	0.335	B.2.4.5-8	28.4	0.00944	0	No Message
N-3.60	C141	Pilote 100	0	Check	0.335	B.2.4.5-8	28.4	0.01818	0.00787	No Message
N-3.60	C141	Pilote 100	25	Check	0.356	B.2.4.5-8	28.4	0.01818	0.00787	No Message
N-3.60	C141	Pilote 100	50	Check	0.377	B.2.4.5-8	28.4	0.01818	0.00787	No Message
N-3.60	C142	Pilote 100	0	Check	0.377	B.2.4.5-8	28.4	0.02506	0.00893	No Message
N-3.60	C142	Pilote 100	25	Check	0.398	B.2.4.5-8	28.4	0.02506	0.00893	No Message
N-3.60	C142	Pilote 100	50	Check	0.421	B.2.4.5-8	28.4	0.02506	0.00893	No Message
N-3.60	C143	Pilote 100	0	Check	0.421	B.2.4.5-8	28.4	0.03238	0.01576	No Message
N-3.60	C143	Pilote 100	25	Check	0.443	B.2.4.5-8	28.4	0.03238	0.01576	No Message
N-3.60	C143	Pilote 100	50	Check	0.466	B.2.4.5-8	28.4	0.03238	0.01576	No Message
N-3.60	C144	P100R	0	Check	0.276	B.2.4.5-8	51	0.03986	0.0148	No Message
N-3.60	C144	P100R	25	Check	0.288	B.2.4.5-8	51	0.03986	0.0148	No Message
N-3.60	C144	P100R	50	Check	0.308	B.2.4.5-8	51	0.03986	0.0148	No Message
N-3.60	C145	P100R	0	Check	0.308	B.2.4.5-8	51	0.04718	0.02025	No Message
N-3.60	C145	P100R	25	Check	0.334	B.2.4.5-8	51	0.04718	0.02025	No Message
N-3.60	C145	P100R	50	Check	0.363	B.2.4.5-8	51	0.04718	0.02025	No Message
N-3.60	C146	P100R	0	Check	0.363	B.2.4.5-8	51	0.05393	0.04499	No Message
N-3.60	C146	P100R	25	Check	0.406	B.2.4.5-3	51	0.05393	0.04499	No Message
N-3.60	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	At V Minor	Warnings
			cm				cm²	cm²/cm	cm²/cm	
N-3.60	C147	P100R	0	Check	0.453	B.2.4.5-3	51	0.05982	0.04994	No Message
N-3.60	C147	P100R	25	Check	0.505	B.2.4.5-3	51	0.05982	0.04994	No Message
N-3.60	C147	P100R	50	Check	0.559	B.2.4.5-3	51	0.05982	0.04994	No Message
N-3.60	C148	P100R	0	Check	0.559	B.2.4.5-3	51	0.06451	0.05392	No Message
N-3.60	C148	P100R	25	Check	0.617	B.2.4.5-3	51	0.06451	0.05392	No Message
N-3.60	C148	P100R	50	Check	0.676	B.2.4.5-3	51	0.06451	0.05392	No Message
N-3.60	C149	P100R	0	Check	0.676	B.2.4.5-3	51	0	0	No Message
N-3.60	C149	P100R	0.1	Check	0.676	B.2.4.5-3	51	0	0	No Message
N-3.60	C149	P100R	0.2	Check	0.676	B.2.4.5-3	51	0	0	No Message
N-3.60	C150	Pilote 100	0	Check	0.013	B.2.4.5-8	28.4	0.00174	0.00612	No Message
N-3.60	C150	Pilote 100	25	Check	0.013	B.2.4.5-8	28.4	0.00174	0.00612	No Message
N-3.60	C150	Pilote 100	50	Check	0.012	B.2.4.5-8	28.4	0.00174	0.00612	No Message
N-3.60	C151	Pilote 100	0	Check	0.012	B.2.4.5-8	28.4	0.00148	0.0045	No Message
N-3.60	C151	Pilote 100	25	Check	0.012	B.2.4.5-8	28.4	0.00148	0.0045	No Message
N-3.60	C151	Pilote 100	50	Check	0.012	B.2.4.5-8	28.4	0.00148	0.0045	No Message
N-3.60	C152	Pilote 100	0	Check	0.012	B.2.4.5-8	28.4	0.00212	0.00363	No Message
N-3.60	C152	Pilote 100	25	Check	0.015	B.2.4.7-8	28.4	0.00212	0.00363	No Message
N-3.60	C152	Pilote 100	50	Check	0.022	B.2.4.7-8	28.4	0.00212	0.00363	No Message
N-3.60	C153	Pilote 100	0	Check	0.022	B.2.4.7-8	28.4	0.00303	0.00383	No Message
N-3.60	C153	Pilote 100	25	Check	0.029	B.2.4.7-8	28.4	0.00303	0.00383	No Message
N-3.60	C153	Pilote 100	50	Check	0.036	B.2.4.7-8	28.4	0.00303	0.00383	No Message
N-3.60	C154	Pilote 100	0	Check	0.036	B.2.4.7-8	28.4	0.00401	0.00477	No Message
N-3.60	C154	Pilote 100	25	Check	0.043	B.2.4.7-8	28.4	0.00401	0.00477	No Message
N-3.60	C154	Pilote 100	50	Check	0.051	B.2.4.7-8	28.4	0.00401	0.00477	No Message
N-3.60	C155	Pilote 100	0	Check	0.051	B.2.4.7-8	28.4	0.00498	0.00578	No Message
N-3.60	C155	Pilote 100	25	Check	0.059	B.2.4.7-8	28.4	0.00498	0.00578	No Message
N-3.60	C155	Pilote 100	50	Check	0.068	B.2.4.7-8	28.4	0.00498	0.00578	No Message
N-3.60	C156	Pilote 100	0	Check	0.068	B.2.4.7-8	28.4	0.0059	0.00664	No Message
N-3.60	C156	Pilote 100	25	Check	0.078	B.2.4.7-8	28.4	0.0059	0.00664	No Message
N-3.60	C156	Pilote 100	50	Check	0.089	B.2.4.7-8	28.4	0.0059	0.00664	No Message
N-3.60	C157	Pilote 100	0	Check	0.089	B.2.4.7-8	28.4	0.00671	0.00728	No Message
N-3.60	C157	Pilote 100	25	Check	0.102	B.2.4.5-8	28.4	0.00671	0.00728	No Message
N-3.60	C157	Pilote 100	50	Check	0.116	B.2.4.5-8	28.4	0.00671	0.00728	No Message
N-3.60	C158	Pilote 100	0	Check	0.116	B.2.4.5-8	28.4	0.00734	0.00762	No Message
N-3.60	C158	Pilote 100	25	Check	0.131	B.2.4.5-8	28.4	0.00734	0.00762	No Message
N-3.60	C158	Pilote 100	50	Check	0.147	B.2.4.5-8	28.4	0.00734	0.00762	No Message
N-3.60	C159	Pilote 100	0	Check	0.147	B.2.4.5-8	28.4	0.0077	0.0076	No Message
N-3.60	C159	Pilote 100	25	Check	0.162	B.2.4.5-8	28.4	0.0077	0.0076	No Message
N-3.60	C159	Pilote 100	50	Check	0.178	B.2.4.5-8	28.4	0.0077	0.0076	No Message
N-3.60	C160	Pilote 100	0	Check	0.178	B.2.4.5-8	28.4	0.00772	0.00735	No Message
N-3.60	C160	Pilote 100	25	Check	0.193	B.2.4.5-8	28.4	0.00772	0.00735	No Message
N-3.60	C160	Pilote 100	50	Check	0.208	B.2.4.5-8	28.4	0.00772	0.00735	No Message
N-3.60	C161	Pilote 100	0	Check	0.208	B.2.4.5-8	28.4	0.00732	0.00825	No Message
N-3.60	C161	Pilote 100	25	Check	0.223	B.2.4.5-8	28.4	0.00732	0.00825	No Message
N-3.60	C161	Pilote 100	50	Check	0.237	B.2.4.5-8	28.4	0.00732	0.00825	No Message
N-3.60	C162	Pilote 100	0	Check	0.237	B.2.4.5-8	28.4	0.00674	0.00895	No Message
N-3.60	C162	Pilote 100	25	Check	0.249	B.2.4.5-8	28.4	0.00674	0.00895	No Message
N-3.60	C162	Pilote 100	50	Check	0.262	B.2.4.5-8	28.4	0.00674	0.00895	No Message
N-3.60	C163	Pilote 100	0	Check	0.262	B.2.4.5-8	28.4	0.0057	0.00939	No Message
N-3.60	C163	Pilote 100	25	Check	0.271	B.2.4.5-8	28.4	0.0057	0.00939	No Message
N-3.60	C163	Pilote 100	50	Check	0.28	B.2.4.5-8	28.4	0.0057	0.00939	No Message
N-3.60	C164	Pilote 100	0	Check	0.28	B.2.4.5-8	28.4	0.00419	0.00777	No Message
N-3.60	C164	Pilote 100	25	Check	0.286	B.2.4.5-8	28.4	0.00419	0.00777	No Message
N-3.60	C164	Pilote 100	50	Check	0.292	B.2.4.5-8	28.4	0.00419	0.00777	No Message
N-3.60	C165	Pilote 100	0	Check	0.292	B.2.4.5-8	28.4	0.00288	0.00288	No Message
N-3.60	C165	Pilote 100	25	Check	0.305	B.2.4.5-8	28.4	0.00288	0.00288	No Message
N-3.60	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	At V Minor	Warnings
			cm				cm²	cm²/cm	cm²/cm	
N-3.60	C166	Pilote 100	0	Check	0.318	B.2.4.5-8	28.4	0.00498	0	No Message
N-3.60	C166	Pilote 100	25	Check	0.328	B.2.4.5-8	28.4	0.00498	0	No Message
N-3.60	C166	Pilote 100	50	Check	0.34	B.2.4.5-8	28.4	0.00498	0	No Message
N-3.60	C167	Pilote 100	0	Check	0.34	B.2.4.5-8	28.4	0.00916	0.00646	No Message
N-3.60	C167	Pilote 100	25	Check	0.349	B.2.4.5-8	28.4	0.00916	0.00646	No Message
N-3.60	C167	Pilote 100	50	Check	0.358	B.2.4.5-8	28.4	0.00916	0.00646	No Message
N-3.60	C168	Pilote 100	0	Check	0.358	B.2.4.5-8	28.4	0.01409	0.00705	No Message
N-3.60	C168	Pilote 100	25	Check	0.364	B.2.4.5-8	28.4	0.01409	0.00705	No Message
N-3.60	C168	Pilote 100	50	Check	0.372	B.2.4.5-8	28.4	0.01409	0.00705	No Message
N-3.60	C169	Pilote 100	0	Check	0.372	B.2.4.5-8	28.4	0.01955	0.02222	No Message
N-3.60	C169	Pilote 100	25	Check	0.376	B.2.4.5-8	28.4	0.01955	0.02222	No Message
N-3.60	C169	Pilote 100	50	Check	0.38	B.2.4.5-8	28.4	0.01955	0.02222	No Message
N-3.60	C170	Pilote 100	0	Check	0.38	B.2.4.5-8	28.4	0.02531	0.03329	No Message
N-3.60	C170	Pilote 100	25	Check	0.381	B.2.4.5-8	28.4	0.02531	0.03329	No Message
N-3.60	C170	Pilote 100	50	Check	0.383	B.2.4.5-8	28.4	0.02531	0.03329	No Message
N-3.60	C171	Pilote 100	0	Check	0.383	B.2.4.5-8	28.4	0.03111	0.03953	No Message
N-3.60	C171	Pilote 100	25	Check	0.386	B.2.4.5-8	28.4	0.03111	0.03953	No Message
N-3.60	C171	Pilote 100	50	Check	0.401	B.2.4.5-8	28.4	0.03111	0.03953	No Message
N-3.60	C172	Pilote 100	0	Check	0.401	B.2.4.5-8	28.4	0.03664	0.04532	No Message
N-3.60	C172	Pilote 100	25	Check	0.442	B.2.4.5-8	28.4	0.03664	0.04532	No Message
N-3.60	C172	Pilote 100	50	Check	0.5	B.2.4.5-8	28.4	0.03664	0.04532	No Message
N-3.60	C173	Pilote 100	0	Check	0.5	B.2.4.5-8	28.4	0.04162	0.05038	No Message
N-3.60	C173	Pilote 100	25	Check	0.568	B.2.4.5-8	28.4	0.04162	0.05038	No Message
N-3.60	C173	Pilote 100	50	Check	0.637	B.2.4.5-8	28.4	0.04162	0.05038	No Message
N-3.60	C174	Pilote 100	0	Check	0.637	B.2.4.5-8	28.4	0.04574	0.05444	No Message
N-3.60	C174	Pilote 100	25	Check	0.715	B.2.4.5-8	28.4	0.04574	0.05444	No Message
N-3.60	C174	Pilote 100	50	Check	0.794	B.2.4.5-8	28.4	0.04574	0.05444	No Message
N-3.60	C175	Pilote 100	0	Check	0.794	B.2.4.5-8	28.4	0	0	No Message
N-3.60	C175	Pilote 100	0.1	Check	0.795	B.2.4.5-8	28.4	0	0	No Message
N-3.60	C175	Pilote 100	0.2	Check	0.795	B.2.4.5-8	28.4	0	0	No Message
N-3.60	C176	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00222	0.00614	No Message
N-3.60	C176	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00222	0.00614	No Message
N-3.60	C176	Pilote 100	50	Check	0.025	B.2.4.7-4	28.4	0.00222	0.00614	No Message
N-3.60	C177	Pilote 100	0	Check	0.025	B.2.4.7-4	28.4	0.00188	0.00427	No Message
N-3.60	C177	Pilote 100	25	Check	0.034	B.2.4.7-4	28.4	0.00188	0.00427	No Message
N-3.60	C177	Pilote 100	50	Check	0.043	B.2.4.7-4	28.4	0.00188	0.00427	No Message
N-3.60	C178	Pilote 100	0	Check	0.043	B.2.4.7-4	28.4	0.00221	0.00335	No Message
N-3.60	C178	Pilote 100	25	Check	0.05	B.2.4.7-4	28.4	0.00221	0.00335	No Message
N-3.60	C178	Pilote 100	50	Check	0.057	B.2.4.7-4	28.4	0.00221	0.00335	No Message
N-3.60	C179	Pilote 100	0	Check	0.057	B.2.4.7-4	28.4	0.00298	0.00363	No Message
N-3.60	C179	Pilote 100	25	Check	0.064	B.2.4.7-4	28.4	0.00298	0.00363	No Message
N-3.60	C179	Pilote 100	50	Check	0.071	B.2.4.7-4	28.4	0.00298	0.00363	No Message
N-3.60	C180	Pilote 100	0	Check	0.071	B.2.4.7-4	28.4	0.00387	0.00457	No Message
N-3.60	C180	Pilote 100	25	Check	0.078	B.2.4.7-4	28.4	0.00387	0.00457	No Message
N-3.60	C180	Pilote 100	50	Check	0.086	B.2.4.7-4	28.4	0.00387	0.00457	No Message
N-3.60	C181	Pilote 100	0	Check	0.086	B.2.4.7-4	28.4	0.00477	0.00559	No Message
N-3.60	C181	Pilote 100	25	Check	0.095	B.2.4.7-4	28.4	0.00477	0.00559	No Message
N-3.60	C181	Pilote 100	50	Check	0.104	B.2.4.7-4	28.4	0.00477	0.00559	No Message
N-3.60	C182	Pilote 100	0	Check	0.104	B.2.4.7-4	28.4	0.00562	0.00649	No Message
N-3.60	C182	Pilote 100	25	Check	0.115	B.2.4.7-4	28.4	0.00562	0.00649	No Message
N-3.60	C182	Pilote 100	50	Check	0.125	B.2.4.7-4	28.4	0.00562	0.00649	No Message
N-3.60	C183	Pilote 100	0	Check	0.125	B.2.4.7-4	28.4	0.00635	0.00721	No Message
N-3.60	C183	Pilote 100	25	Check	0.137	B.2.4.7-4	28.4	0.00635	0.00721	No Message
N-3.60	C183	Pilote 100	50	Check	0.149	B.2.4.5-3	28.4	0.00635	0.00721	No Message
N-3.60	C184	Pilote 100	0	Check	0.149	B.2.4.5-3	28.4	0.00692	0.00767	No Message
N-3.60	C184	Pilote 100	25	Check	0.164	B.2.4.5-3	28.4	0.00692	0.00767	No Message
N-3.60	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				cm²	cm²/cm	cm²/cm	
N-3.60	C185	Pilote 100	0	Check	0.179	B.2.4.5-3	28.4	0.00725	0.00782	No Message
N-3.60	C185	Pilote 100	25	Check	0.194	B.2.4.5-8	28.4	0.00725	0.00782	No Message
N-3.60	C185	Pilote 100	50	Check	0.21	B.2.4.5-8	28.4	0.00725	0.00782	No Message
N-3.60	C186	Pilote 100	0	Check	0.21	B.2.4.5-8	28.4	0.00734	0.00797	No Message
N-3.60	C186	Pilote 100	25	Check	0.225	B.2.4.5-8	28.4	0.00734	0.00797	No Message
N-3.60	C186	Pilote 100	50	Check	0.24	B.2.4.5-8	28.4	0.00734	0.00797	No Message
N-3.60	C187	Pilote 100	0	Check	0.24	B.2.4.5-8	28.4	0.00789	0.00852	No Message
N-3.60	C187	Pilote 100	25	Check	0.255	B.2.4.5-8	28.4	0.00789	0.00852	No Message
N-3.60	C187	Pilote 100	50	Check	0.27	B.2.4.5-8	28.4	0.00789	0.00852	No Message
N-3.60	C188	Pilote 100	0	Check	0.27	B.2.4.5-8	28.4	0.0082	0.00879	No Message
N-3.60	C188	Pilote 100	25	Check	0.283	B.2.4.5-8	28.4	0.0082	0.00879	No Message
N-3.60	C188	Pilote 100	50	Check	0.296	B.2.4.5-8	28.4	0.0082	0.00879	No Message
N-3.60	C189	Pilote 100	0	Check	0.296	B.2.4.5-8	28.4	0.00824	0.00877	No Message
N-3.60	C189	Pilote 100	25	Check	0.306	B.2.4.5-8	28.4	0.00824	0.00877	No Message
N-3.60	C189	Pilote 100	50	Check	0.317	B.2.4.5-8	28.4	0.00824	0.00877	No Message
N-3.60	C190	Pilote 100	0	Check	0.317	B.2.4.5-8	28.4	0.00808	0.00853	No Message
N-3.60	C190	Pilote 100	25	Check	0.324	B.2.4.5-8	28.4	0.00808	0.00853	No Message
N-3.60	C190	Pilote 100	50	Check	0.334	B.2.4.5-8	28.4	0.00808	0.00853	No Message
N-3.60	C191	Pilote 100	0	Check	0.334	B.2.4.5-8	28.4	0.008	0.00732	No Message
N-3.60	C191	Pilote 100	25	Check	0.349	B.2.4.5-8	28.4	0.008	0.00732	No Message
N-3.60	C191	Pilote 100	50	Check	0.365	B.2.4.5-8	28.4	0.008	0.00732	No Message
N-3.60	C192	Pilote 100	0	Check	0.365	B.2.4.5-8	28.4	0.00891	0.00894	No Message
N-3.60	C192	Pilote 100	25	Check	0.378	B.2.4.5-8	28.4	0.00891	0.00894	No Message
N-3.60	C192	Pilote 100	50	Check	0.391	B.2.4.5-8	28.4	0.00891	0.00894	No Message
N-3.60	C193	Pilote 100	0	Check	0.391	B.2.4.5-8	28.4	0.01159	0.01428	No Message
N-3.60	C193	Pilote 100	25	Check	0.402	B.2.4.5-8	28.4	0.01159	0.01428	No Message
N-3.60	C193	Pilote 100	50	Check	0.413	B.2.4.5-8	28.4	0.01159	0.01428	No Message
N-3.60	C194	Pilote 100	0	Check	0.413	B.2.4.5-8	28.4	0.0156	0.01945	No Message
N-3.60	C194	Pilote 100	25	Check	0.421	B.2.4.5-8	28.4	0.0156	0.01945	No Message
N-3.60	C194	Pilote 100	50	Check	0.43	B.2.4.5-8	28.4	0.0156	0.01945	No Message
N-3.60	C195	Pilote 100	0	Check	0.43	B.2.4.5-8	28.4	0.02038	0.02524	No Message
N-3.60	C195	Pilote 100	25	Check	0.436	B.2.4.5-8	28.4	0.02038	0.02524	No Message
N-3.60	C195	Pilote 100	50	Check	0.446	B.2.4.5-3	28.4	0.02038	0.02524	No Message
N-3.60	C196	Pilote 100	0	Check	0.446	B.2.4.5-3	28.4	0.02557	0.03131	No Message
N-3.60	C196	Pilote 100	25	Check	0.456	B.2.4.5-3	28.4	0.02557	0.03131	No Message
N-3.60	C196	Pilote 100	50	Check	0.47	B.2.4.5-3	28.4	0.02557	0.03131	No Message
N-3.60	C197	Pilote 100	0	Check	0.47	B.2.4.5-3	28.4	0.03087	0.03737	No Message
N-3.60	C197	Pilote 100	25	Check	0.489	B.2.4.5-3	28.4	0.03087	0.03737	No Message
N-3.60	C197	Pilote 100	50	Check	0.517	B.2.4.5-3	28.4	0.03087	0.03737	No Message
N-3.60	C198	Pilote 100	0	Check	0.517	B.2.4.5-3	28.4	0.03592	0.04305	No Message
N-3.60	C198	Pilote 100	25	Check	0.554	B.2.4.5-3	28.4	0.03592	0.04305	No Message
N-3.60	C198	Pilote 100	50	Check	0.6	B.2.4.5-3	28.4	0.03592	0.04305	No Message
N-3.60	C199	Pilote 100	0	Check	0.6	B.2.4.5-3	28.4	0.04048	0.04809	No Message
N-3.60	C199	Pilote 100	25	Check	0.655	B.2.4.5-3	28.4	0.04048	0.04809	No Message
N-3.60	C199	Pilote 100	50	Check	0.714	B.2.4.5-3	28.4	0.04048	0.04809	No Message
N-3.60	C200	Pilote 100	0	Check	0.714	B.2.4.5-3	28.4	0.04425	0.05218	No Message
N-3.60	C200	Pilote 100	25	Check	0.78	B.2.4.5-3	28.4	0.04425	0.05218	No Message
N-3.60	C200	Pilote 100	50	Check	0.852	B.2.4.5-3	28.4	0.04425	0.05218	No Message
N-3.60	C201	Pilote 100	0	Check	0.852	B.2.4.5-3	28.4	0.52791	0.62722	No Message
N-3.60	C201	Pilote 100	0.1	Check	0.852	B.2.4.5-3	28.4	0.52791	0.62722	No Message
N-3.60	C201	Pilote 100	0.2	Check	0.853	B.2.4.5-3	28.4	0.52791	0.62722	No Message
N-3.60	C202	Pilote 100	0	Check	0.015	B.2.4.5-3	28.4	0.0063	0.00142	No Message
N-3.60	C202	Pilote 100	25	Check	0.014	B.2.4.5-3	28.4	0.0063	0.00142	No Message
N-3.60	C202	Pilote 100	50	Check	0.013	B.2.4.5-3	28.4	0.0063	0.00142	No Message
N-3.60	C203	Pilote 100	0	Check	0.013	B.2.4.5-3	28.4	0.00438	0.00165	No Message
N-3.60	C203	Pilote 100	25	Check	0.013	B.2.4.5-3	28.4	0.00438	0.00165	No Message
N-3.60	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	At V Minor	Warnings
			cm				cm²	cm²/cm	cm²/cm	
N-3.60	C204	Pilote 100	0	Check	0.021	B.2.4.7-4	28.4	0.00316	0.0027	No Message
N-3.60	C204	Pilote 100	25	Check	0.028	B.2.4.7-4	28.4	0.00316	0.0027	No Message
N-3.60	C204	Pilote 100	50	Check	0.036	B.2.4.7-4	28.4	0.00316	0.0027	No Message
N-3.60	C205	Pilote 100	0	Check	0.036	B.2.4.7-4	28.4	0.00297	0.00383	No Message
N-3.60	C205	Pilote 100	25	Check	0.042	B.2.4.7-4	28.4	0.00297	0.00383	No Message
N-3.60	C205	Pilote 100	50	Check	0.049	B.2.4.7-4	28.4	0.00297	0.00383	No Message
N-3.60	C206	Pilote 100	0	Check	0.049	B.2.4.7-4	28.4	0.0037	0.00497	No Message
N-3.60	C206	Pilote 100	25	Check	0.056	B.2.4.7-4	28.4	0.0037	0.00497	No Message
N-3.60	C206	Pilote 100	50	Check	0.063	B.2.4.7-4	28.4	0.0037	0.00497	No Message
N-3.60	C207	Pilote 100	0	Check	0.063	B.2.4.7-4	28.4	0.00459	0.00607	No Message
N-3.60	C207	Pilote 100	25	Check	0.072	B.2.4.7-4	28.4	0.00459	0.00607	No Message
N-3.60	C207	Pilote 100	50	Check	0.081	B.2.4.7-4	28.4	0.00459	0.00607	No Message
N-3.60	C208	Pilote 100	0	Check	0.081	B.2.4.7-4	28.4	0.00539	0.00708	No Message
N-3.60	C208	Pilote 100	25	Check	0.091	B.2.4.7-4	28.4	0.00539	0.00708	No Message
N-3.60	C208	Pilote 100	50	Check	0.102	B.2.4.7-4	28.4	0.00539	0.00708	No Message
N-3.60	C209	Pilote 100	0	Check	0.102	B.2.4.7-4	28.4	0.00602	0.00791	No Message
N-3.60	C209	Pilote 100	25	Check	0.114	B.2.4.7-4	28.4	0.00602	0.00791	No Message
N-3.60	C209	Pilote 100	50	Check	0.127	B.2.4.5-3	28.4	0.00602	0.00791	No Message
N-3.60	C210	Pilote 100	0	Check	0.127	B.2.4.5-3	28.4	0.00645	0.0085	No Message
N-3.60	C210	Pilote 100	25	Check	0.142	B.2.4.5-3	28.4	0.00645	0.0085	No Message
N-3.60	C210	Pilote 100	50	Check	0.157	B.2.4.5-3	28.4	0.00645	0.0085	No Message
N-3.60	C211	Pilote 100	0	Check	0.157	B.2.4.5-3	28.4	0.00664	0.00873	No Message
N-3.60	C211	Pilote 100	25	Check	0.173	B.2.4.5-3	28.4	0.00664	0.00873	No Message
N-3.60	C211	Pilote 100	50	Check	0.188	B.2.4.5-3	28.4	0.00664	0.00873	No Message
N-3.60	C212	Pilote 100	0	Check	0.188	B.2.4.5-3	28.4	0.00679	0.00852	No Message
N-3.60	C212	Pilote 100	25	Check	0.204	B.2.4.5-3	28.4	0.00679	0.00852	No Message
N-3.60	C212	Pilote 100	50	Check	0.219	B.2.4.5-8	28.4	0.00679	0.00852	No Message
N-3.60	C213	Pilote 100	0	Check	0.219	B.2.4.5-8	28.4	0.00783	0.00774	No Message
N-3.60	C213	Pilote 100	25	Check	0.234	B.2.4.5-8	28.4	0.00783	0.00774	No Message
N-3.60	C213	Pilote 100	50	Check	0.249	B.2.4.5-8	28.4	0.00783	0.00774	No Message
N-3.60	C214	Pilote 100	0	Check	0.249	B.2.4.5-8	28.4	0.00876	0.0063	No Message
N-3.60	C214	Pilote 100	25	Check	0.262	B.2.4.5-8	28.4	0.00876	0.0063	No Message
N-3.60	C214	Pilote 100	50	Check	0.275	B.2.4.5-8	28.4	0.00876	0.0063	No Message
N-3.60	C215	Pilote 100	0	Check	0.275	B.2.4.5-8	28.4	0.00956	0.00441	No Message
N-3.60	C215	Pilote 100	25	Check	0.285	B.2.4.5-3	28.4	0.00956	0.00441	No Message
N-3.60	C215	Pilote 100	50	Check	0.295	B.2.4.5-3	28.4	0.00956	0.00441	No Message
N-3.60	C216	Pilote 100	0	Check	0.295	B.2.4.5-3	28.4	0.01018	0.00206	No Message
N-3.60	C216	Pilote 100	25	Check	0.302	B.2.4.5-3	28.4	0.01018	0.00206	No Message
N-3.60	C216	Pilote 100	50	Check	0.31	B.2.4.5-3	28.4	0.01018	0.00206	No Message
N-3.60	C217	Pilote 100	0	Check	0.31	B.2.4.5-3	28.4	0.00891	0.00286	No Message
N-3.60	C217	Pilote 100	25	Check	0.319	B.2.4.5-3	28.4	0.00891	0.00286	No Message
N-3.60	C217	Pilote 100	50	Check	0.332	B.2.4.5-3	28.4	0.00891	0.00286	No Message
N-3.60	C218	Pilote 100	0	Check	0.332	B.2.4.5-3	28.4	0.00384	0.00758	No Message
N-3.60	C218	Pilote 100	25	Check	0.341	B.2.4.5-3	28.4	0.00384	0.00758	No Message
N-3.60	C218	Pilote 100	50	Check	0.351	B.2.4.5-3	28.4	0.00384	0.00758	No Message
N-3.60	C219	Pilote 100	0	Check	0.351	B.2.4.5-3	28.4	0.0055	0.01311	No Message
N-3.60	C219	Pilote 100	25	Check	0.357	B.2.4.5-3	28.4	0.0055	0.01311	No Message
N-3.60	C219	Pilote 100	50	Check	0.366	B.2.4.5-3	28.4	0.0055	0.01311	No Message
N-3.60	C220	Pilote 100	0	Check	0.366	B.2.4.5-3	28.4	0.00606	0.0193	No Message
N-3.60	C220	Pilote 100	25	Check	0.374	B.2.4.5-3	28.4	0.00606	0.0193	No Message
N-3.60	C220	Pilote 100	50	Check	0.382	B.2.4.5-3	28.4	0.00606	0.0193	No Message
N-3.60	C221	Pilote 100	0	Check	0.382	B.2.4.5-3	28.4	0.01683	0.02598	No Message
N-3.60	C221	Pilote 100	25	Check	0.388	B.2.4.5-3	28.4	0.01683	0.02598	No Message
N-3.60	C221	Pilote 100	50	Check	0.399	B.2.4.5-3	28.4	0.01683	0.02598	No Message
N-3.60	C222	Pilote 100	0	Check	0.399	B.2.4.5-3	28.4	0.02114	0.03293	No Message
N-3.60	C222	Pilote 100	25	Check	0.41	B.2.4.5-3	28.4	0.02114	0.03293	No Message
N-3.60	C222	Pilote 100	50	Check	0.425	B.2.4.5-3	28.4	0.02114	0.03293	No Message

100

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				cm²	cm²/cm	cm²/cm	
N-3.60	C223	Pilote 100	0	Check	0.425	B.2.4.5-3	28.4	0.02999	0.03984	No Message
N-3.60	C223	Pilote 100	25	Check	0.447	B.2.4.5-3	28.4	0.02999	0.03984	No Message
N-3.60	C223	Pilote 100	50	Check	0.475	B.2.4.5-3	28.4	0.02999	0.03984	No Message
N-3.60	C224	Pilote 100	0	Check	0.475	B.2.4.5-3	28.4	0.03459	0.04634	No Message
N-3.60	C224	Pilote 100	25	Check	0.508	B.2.4.5-3	28.4	0.03459	0.04634	No Message
N-3.60	C224	Pilote 100	50	Check	0.552	B.2.4.5-3	28.4	0.03459	0.04634	No Message
N-3.60	C225	Pilote 100	0	Check	0.552	B.2.4.5-3	28.4	0.03872	0.05212	No Message
N-3.60	C225	Pilote 100	25	Check	0.605	B.2.4.5-8	28.4	0.03872	0.05212	No Message
N-3.60	C225	Pilote 100	50	Check	0.669	B.2.4.5-8	28.4	0.03872	0.05212	No Message
N-3.60	C226	Pilote 100	0	Check	0.669	B.2.4.5-8	28.4	0.04211	0.05684	No Message
N-3.60	C226	Pilote 100	25	Check	0.743	B.2.4.5-8	28.4	0.04211	0.05684	No Message
N-3.60	C226	Pilote 100	50	Check	0.819	B.2.4.5-8	28.4	0.04211	0.05684	No Message
N-3.60	C227	Pilote 100	0	Check	0.819	B.2.4.5-8	28.4	0	0.64885	No Message
N-3.60	C227	Pilote 100	0.1	Check	0.819	B.2.4.5-8	28.4	0	0.64885	No Message
N-3.60	C227	Pilote 100	0.2	Check	0.82	B.2.4.5-8	28.4	0	0.64885	No Message
N-3.60	C228	Pilote 100	0	Check	0.014	B.2.4.5-3	28.4	0.00414	0.00473	No Message
N-3.60	C228	Pilote 100	25	Check	0.013	B.2.4.5-3	28.4	0.00414	0.00473	No Message
N-3.60	C228	Pilote 100	50	Check	0.012	B.2.4.5-3	28.4	0.00414	0.00473	No Message
N-3.60	C229	Pilote 100	0	Check	0.012	B.2.4.5-3	28.4	0.00324	0.00334	No Message
N-3.60	C229	Pilote 100	25	Check	0.012	B.2.4.5-3	28.4	0.00324	0.00334	No Message
N-3.60	C229	Pilote 100	50	Check	0.012	B.2.4.5-3	28.4	0.00324	0.00334	No Message
N-3.60	C230	Pilote 100	0	Check	0.012	B.2.4.5-3	28.4	0.00283	0.00315	No Message
N-3.60	C230	Pilote 100	25	Check	0.013	B.2.4.7-4	28.4	0.00283	0.00315	No Message
N-3.60	C230	Pilote 100	50	Check	0.02	B.2.4.7-4	28.4	0.00283	0.00315	No Message
N-3.60	C231	Pilote 100	0	Check	0.02	B.2.4.7-4	28.4	0.0026	0.00393	No Message
N-3.60	C231	Pilote 100	25	Check	0.026	B.2.4.7-4	28.4	0.0026	0.00393	No Message
N-3.60	C231	Pilote 100	50	Check	0.033	B.2.4.7-4	28.4	0.0026	0.00393	No Message
N-3.60	C232	Pilote 100	0	Check	0.033	B.2.4.7-4	28.4	0.00393	0.00503	No Message
N-3.60	C232	Pilote 100	25	Check	0.041	B.2.4.7-4	28.4	0.00393	0.00503	No Message
N-3.60	C232	Pilote 100	50	Check	0.049	B.2.4.7-4	28.4	0.00393	0.00503	No Message
N-3.60	C233	Pilote 100	0	Check	0.049	B.2.4.7-4	28.4	0.00475	0.00612	No Message
N-3.60	C233	Pilote 100	25	Check	0.058	B.2.4.7-4	28.4	0.00475	0.00612	No Message
N-3.60	C233	Pilote 100	50	Check	0.067	B.2.4.7-4	28.4	0.00475	0.00612	No Message
N-3.60	C234	Pilote 100	0	Check	0.067	B.2.4.7-4	28.4	0.00545	0.00708	No Message
N-3.60	C234	Pilote 100	25	Check	0.078	B.2.4.7-4	28.4	0.00545	0.00708	No Message
N-3.60	C234	Pilote 100	50	Check	0.089	B.2.4.7-4	28.4	0.00545	0.00708	No Message
N-3.60	C235	Pilote 100	0	Check	0.089	B.2.4.7-4	28.4	0.00599	0.00784	No Message
N-3.60	C235	Pilote 100	25	Check	0.101	B.2.4.7-4	28.4	0.00599	0.00784	No Message
N-3.60	C235	Pilote 100	50	Check	0.115	B.2.4.5-3	28.4	0.00599	0.00784	No Message
N-3.60	C236	Pilote 100	0	Check	0.115	B.2.4.5-3	28.4	0.00631	0.00832	No Message
N-3.60	C236	Pilote 100	25	Check	0.129	B.2.4.5-3	28.4	0.00631	0.00832	No Message
N-3.60	C236	Pilote 100	50	Check	0.144	B.2.4.5-3	28.4	0.00631	0.00832	No Message
N-3.60	C237	Pilote 100	0	Check	0.144	B.2.4.5-3	28.4	0.00636	0.00867	No Message
N-3.60	C237	Pilote 100	25	Check	0.159	B.2.4.5-3	28.4	0.00636	0.00867	No Message
N-3.60	C237	Pilote 100	50	Check	0.174	B.2.4.5-3	28.4	0.00636	0.00867	No Message
N-3.60	C238	Pilote 100	0	Check	0.174	B.2.4.5-3	28.4	0.00651	0.00871	No Message
N-3.60	C238	Pilote 100	25	Check	0.189	B.2.4.5-3	28.4	0.00651	0.00871	No Message
N-3.60	C238	Pilote 100	50	Check	0.203	B.2.4.5-3	28.4	0.00651	0.00871	No Message
N-3.60	C239	Pilote 100	0	Check	0.203	B.2.4.5-3	28.4	0.00784	0.00824	No Message
N-3.60	C239	Pilote 100	25	Check	0.217	B.2.4.5-3	28.4	0.00784	0.00824	No Message
N-3.60	C239	Pilote 100	50	Check	0.23	B.2.4.5-3	28.4	0.00784	0.00824	No Message
N-3.60	C240	Pilote 100	0	Check	0.23	B.2.4.5-3	28.4	0.00915	0.00719	No Message
N-3.60	C240	Pilote 100	25	Check	0.242	B.2.4.5-3	28.4	0.00915	0.00719	No Message
N-3.60	C240	Pilote 100	50	Check	0.254	B.2.4.5-3	28.4	0.00915	0.00719	No Message
N-3.60	C241	Pilote 100	0	Check	0.254	B.2.4.5-3	28.4	0.01039	0.00546	No Message
N-3.60	C241	Pilote 100	25	Check	0.265	B.2.4.5-3	28.4	0.01039	0.00546	No Message
N-3.60	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	At V Minor	Warnings
			cm				cm²	cm²/cm	cm²/cm	
N-3.60	C242	Pilote 100	0	Check	0.275	B.2.4.5-3	28.4	0.01152	0.00305	No Message
N-3.60	C242	Pilote 100	25	Check	0.283	B.2.4.5-3	28.4	0.01152	0.00305	No Message
N-3.60	C242	Pilote 100	50	Check	0.293	B.2.4.5-3	28.4	0.01152	0.00305	No Message
N-3.60	C243	Pilote 100	0	Check	0.293	B.2.4.5-3	28.4	0.00997	0.00411	No Message
N-3.60	C243	Pilote 100	25	Check	0.306	B.2.4.5-3	28.4	0.00997	0.00411	No Message
N-3.60	C243	Pilote 100	50	Check	0.32	B.2.4.5-3	28.4	0.00997	0.00411	No Message
N-3.60	C244	Pilote 100	0	Check	0.32	B.2.4.5-3	28.4	0.00498	0.00886	No Message
N-3.60	C244	Pilote 100	25	Check	0.334	B.2.4.5-3	28.4	0.00498	0.00886	No Message
N-3.60	C244	Pilote 100	50	Check	0.348	B.2.4.5-3	28.4	0.00498	0.00886	No Message
N-3.60	C245	Pilote 100	0	Check	0.348	B.2.4.5-3	28.4	0.00705	0.01444	No Message
N-3.60	C245	Pilote 100	25	Check	0.359	B.2.4.5-3	28.4	0.00705	0.01444	No Message
N-3.60	C245	Pilote 100	50	Check	0.371	B.2.4.5-3	28.4	0.00705	0.01444	No Message
N-3.60	C246	Pilote 100	0	Check	0.371	B.2.4.5-3	28.4	0.00779	0.02064	No Message
N-3.60	C246	Pilote 100	25	Check	0.383	B.2.4.5-3	28.4	0.00779	0.02064	No Message
N-3.60	C246	Pilote 100	50	Check	0.396	B.2.4.5-3	28.4	0.00779	0.02064	No Message
N-3.60	C247	Pilote 100	0	Check	0.396	B.2.4.5-3	28.4	0.00724	0.02729	No Message
N-3.60	C247	Pilote 100	25	Check	0.406	B.2.4.5-3	28.4	0.00724	0.02729	No Message
N-3.60	C247	Pilote 100	50	Check	0.418	B.2.4.5-3	28.4	0.00724	0.02729	No Message
N-3.60	C248	Pilote 100	0	Check	0.418	B.2.4.5-3	28.4	0.02218	0.03416	No Message
N-3.60	C248	Pilote 100	25	Check	0.434	B.2.4.5-3	28.4	0.02218	0.03416	No Message
N-3.60	C248	Pilote 100	50	Check	0.455	B.2.4.5-3	28.4	0.02218	0.03416	No Message
N-3.60	C249	Pilote 100	0	Check	0.455	B.2.4.5-3	28.4	0.02658	0.04096	No Message
N-3.60	C249	Pilote 100	25	Check	0.486	B.2.4.5-3	28.4	0.02658	0.04096	No Message
N-3.60	C249	Pilote 100	50	Check	0.519	B.2.4.5-3	28.4	0.02658	0.04096	No Message
N-3.60	C250	Pilote 100	0	Check	0.519	B.2.4.5-3	28.4	0.03081	0.04729	No Message
N-3.60	C250	Pilote 100	25	Check	0.557	B.2.4.5-3	28.4	0.03081	0.04729	No Message
N-3.60	C250	Pilote 100	50	Check	0.602	B.2.4.5-3	28.4	0.03081	0.04729	No Message
N-3.60	C251	Pilote 100	0	Check	0.602	B.2.4.5-3	28.4	0.04165	0.05289	No Message
N-3.60	C251	Pilote 100	25	Check	0.656	B.2.4.5-3	28.4	0.04165	0.05289	No Message
N-3.60	C251	Pilote 100	50	Check	0.716	B.2.4.5-3	28.4	0.04165	0.05289	No Message
N-3.60	C252	Pilote 100	0	Check	0.716	B.2.4.5-3	28.4	0.04494	0.05742	No Message
N-3.60	C252	Pilote 100	25	Check	0.789	B.2.4.5-8	28.4	0.04494	0.05742	No Message
N-3.60	C252	Pilote 100	50	Check	0.866	B.2.4.5-8	28.4	0.04494	0.05742	No Message
N-3.60	C253	Pilote 100	0	Check	0.866	B.2.4.5-8	28.4	0	0.70067	No Message
N-3.60	C253	Pilote 100	0.1	Check	0.867	B.2.4.5-8	28.4	0	0.70067	No Message
N-3.60	C253	Pilote 100	0.2	Check	0.867	B.2.4.5-8	28.4	0	0.70067	No Message
N-3.60	C254	Pilote 100	0	Check	0.023	B.2.4.5-8	28.4	0.00524	0.00312	No Message
N-3.60	C254	Pilote 100	25	Check	0.023	B.2.4.5-8	28.4	0.00524	0.00312	No Message
N-3.60	C254	Pilote 100	50	Check	0.022	B.2.4.5-8	28.4	0.00524	0.00312	No Message
N-3.60	C255	Pilote 100	0	Check	0.022	B.2.4.5-8	28.4	0.00337	0.00233	No Message
N-3.60	C255	Pilote 100	25	Check	0.021	B.2.4.5-8	28.4	0.00337	0.00233	No Message
N-3.60	C255	Pilote 100	50	Check	0.02	B.2.4.5-8	28.4	0.00337	0.00233	No Message
N-3.60	C256	Pilote 100	0	Check	0.02	B.2.4.5-8	28.4	0.00244	0.00247	No Message
N-3.60	C256	Pilote 100	25	Check	0.02	B.2.4.5-8	28.4	0.00244	0.00247	No Message
N-3.60	C256	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00244	0.00247	No Message
N-3.60	C257	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00265	0.00326	No Message
N-3.60	C257	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00265	0.00326	No Message
N-3.60	C257	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00265	0.00326	No Message
N-3.60	C258	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00344	0.00424	No Message
N-3.60	C258	Pilote 100	25	Check	0.019	B.2.4.5-3	28.4	0.00344	0.00424	No Message
N-3.60	C258	Pilote 100	50	Check	0.019	B.2.4.5-3	28.4	0.00344	0.00424	No Message
N-3.60	C259	Pilote 100	0	Check	0.019	B.2.4.5-3	28.4	0.00433	0.00523	No Message
N-3.60	C259	Pilote 100	25	Check	0.02	B.2.4.5-3	28.4	0.00433	0.00523	No Message
N-3.60	C259	Pilote 100	50	Check	0.026	B.2.4.7-8	28.4	0.00433	0.00523	No Message
N-3.60	C260	Pilote 100	0	Check	0.026	B.2.4.7-8	28.4	0.00515	0.00615	No Message
N-3.60	C260	Pilote 100	25	Check	0.037	B.2.4.7-8	28.4	0.00515	0.00615	No Message
N-3.60	C260	Pilote 100	50	Check	0.047	B.2.4.7-8	28.4	0.00515	0.00615	No Message