

City of Miami Beach  
 Last Completed Item Reviews Across All Submittals

Permit Type: Revision Work Class: General Application Date: 05/11/2022 Status: Applied

Reviewed For Compliance

Address: 5313 COLLINS AVE

Permit:RV2217886 **RV2217886**

Item Review Type	Status	Version	Completed Date	Assigned User
Plumbing Review	Not Required	1	05/26/2022	Rogelio Lorenzo
Mechanical Review	Not Required	1	05/20/2022	Laura Ferrer
Electrical Review	Not Required	1	05/23/2022	Elier Marquez
Environmental Review	Not Required	1	05/20/2022	Jorge Nunez
Elevator Review	Not Required	1	05/23/2022	Joey Gan
Roofing Review	Not Required	1	05/24/2022	James Bartell
Building Review	Not Required	1	05/24/2022	Armando Lopez
Planning Review	Pass	2	07/01/2022	Irina Villegas
Structural Review	Pass	2	06/15/2022	Adalberto Viciado
Fire Building Review	Pass	3	09/12/2022	Jorge Clavijo
Submittal Version Complete	Pass	4	10/03/2022	Nisca Cesar
Permit Intake Review	Pass	4	09/29/2022	Ashley Gonzalez

RV2217886

06/03/2022 4:30:45 PM

Applicant Information (Blue or Black Ink Only)		
<b>Office Use Only</b> Submittal Date: ___/___/___	Master Permit Number (If applicable): BC2116519	Florida Statute 553.79 (10) regarding permit timelines. Please select one (Required):
	Violation # (If applicable): US2021-03920	<input checked="" type="checkbox"/> Opt IN <input type="checkbox"/> Opt OUT
Permit #: _____	Unit #: _____	Parcel/Folio Number: 0232140220001
Property Address: 5313 COLLINS AVENUE MIAMI BEACH, FL 33140	For more information, see attached F.S.553.79(16)	

Permit Type (select one)	Permit Request (select all that apply)	Property Information (select one)
<input checked="" type="checkbox"/> Building <input type="checkbox"/> Electrical <input type="checkbox"/> Mechanical <input type="checkbox"/> Plumbing <input type="checkbox"/> Roofing <input type="checkbox"/> Phased Permit <input type="checkbox"/> Demo year-built <input type="checkbox"/> Generator <input type="checkbox"/> Temp Structure <input type="checkbox"/> Fire <input type="checkbox"/> Shop Drawings	<input type="checkbox"/> New Permit <input type="checkbox"/> Change of Contractor <input type="checkbox"/> Change of Arch/Engr <input type="checkbox"/> LEED <input type="checkbox"/> Interior, Non-Structural <input type="checkbox"/> Affordable Housing <input type="checkbox"/> Permit Extension <input type="checkbox"/> Permit Renewal <input checked="" type="checkbox"/> Permit Revision <input type="checkbox"/> Private Provider <input type="checkbox"/> City Project <input type="checkbox"/> Reprieve Permit	<input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Multi-Family Residential <input type="checkbox"/> Residential: Single-Family Residence/Duplex
Occupancy Classification:		Attach a copy of the construction cost affidavit to this form

Type of Work	Value of Work (This amount cannot be changed once submitted)	Square Footage
New Construction/Additions:	\$ N/A	N/A
Alterations/Reconfig of space:	\$ 44,475.20	40

Description of Work: SHORING PLAN FOR COLUMNS REPAIRS

Property Owner		Contractor	
Name: THE AMETHYST CONDO ASSOCIATION		Name: JUAN CLAVIJO	
Address: 5313 COLLINS AVENUE	Suite: _____	Address: 12205 SW 129TH CT	Suite: 3
City: MIAMI BEACH State: FL	Zip Code: 33140	City: MIAMI State: FLORIDA	Zip Code: 33186
Driver's License/ State Identification Number:		State Identification Number/License: CGC1513648	
E-Mail Address (REQUIRED): NAGARCIA@MIAMIMANAGEMENT.COM	Daytime phone: 305-265-7177	E-Mail Address: LGONZALEZ@ICONGROUPENGINEERS.COM	Daytime phone: 305-501-4817
Architect		Structural Engineer	
Name: LUIS NAYA		Name: RAFAEL OREAMUNO	
License Number: _____		License Number: _____	
E-Mail Address: NAYA@NAYAARCHITECTS.COM	Daytime phone: 305-265-7177	E-Mail Address: ROREAMUNO@RCGROUP-LLC.COM	Daytime phone: 305-905-7101

Notice & Certification

This application is hereby made to obtain a permit to do the work and installations as indicated. I certify that all work will be performed to meet the standards of all laws and construction regulations in this jurisdiction. I understand that a separate permit must be secured for Electrical, Elevator, Fire, Mechanical, Plumbing, Signs, Wells, Pools, Furnaces, Boilers, Heaters, Tanks, Air Conditioners, etc.

Owner's Affidavit: I certify that all the forgoing information is correct. Owner Certifies that the aforementioned Contractor has the authorization to perform the work as specified above. Lessee's Affidavit: Lessee certifies that he has full consent and authorization from owner of subject property to perform the above-mentioned work and to hire above captioned contractor. In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as: the Environmental Division of Miami-Dade County; Permitting, Environment and Regulatory Affairs, Water & Sewer Department, Department of Environmental Protection, South Florida Water Management District, Miami-Dade County Impact Fee, water management districts, state agencies, and/or federal agencies. Under penalties of perjury, I declare that I have read the foregoing application and that the facts stated in it are true. Any information found to be false may cause the revocation and/or denial of the permit and/or Certificate of Occupancy. A person who knowingly makes a false declaration is guilty of the crime of perjury by false written declaration, a felony of the third degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084.

Owner/Lessee for new permits (Documentation establishing ownership may be requested).     Owner Builder Permit (must complete Owner Builder Affidavit)

Master Permit Contractor of Record (For sub-permit / change of contractor).

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT IS REQUIRED FOR ANY WORK WITH COST EXCEEDING \$2,500.00.

Signature of Owner/Agent or GC (for Sub-permits): _____	Signature of Qualifier: <u>Juan Clavijo</u> DC34E7555E744A1...
PRINT NAME: _____	PRINT NAME: JUAN CARLOS CLAVIJO
STATE OF _____ COUNTY OF _____	STATE OF FLORIDA COUNTY OF MIAMI-DADE
The foregoing instrument was acknowledged before me, by means of <input type="checkbox"/> physical presence or <input type="checkbox"/> online notarization, this _____ day of _____, 20____	The foregoing instrument was acknowledged before me, by means of <input type="checkbox"/> physical presence or <input type="checkbox"/> online notarization, this <u>May 22</u> day of <u>2022</u>
by _____	by <u>Juan Clavijo</u>
Signature of Notary Public _____	Signature of Notary Public _____
PRINT NAME: _____	PRINT NAME: <u>LORENA PAULA GONZALEZ</u>
(SEAL) Personally known _____	(SEAL) Notary Public - State of Florida Commission # <u>4H 21420</u> My Comm. Expires on <u>6-2026</u>
or Produced Identification _____	or Produced Identification <u>Bonded through National Notary Ass.</u>

## CONSTRUCTION COST AFFIDAVIT

I, THE AMETHYST CONDOMINIUM ASSOCIATION, acting as agent (owner, registered agent, or legal representative) and I (general contractor/ sub-contractor), ICON GROUP ENGINEERS LLC do hereby attest that the construction costs indicated herein for **Permit Number** BC2116519 at property address 5313 COLLINS AVENUE, MIAMI BEACH, FLORIDA are accurate for this construction project.

**Note:** This affidavit is only required for job values are \$5,000 or greater.

### Master Permits:

Building cost (excludes roofing, windows, doors, railings, other, and MEP)\$: 44,475.20

### Stand alone and sub-permits

Roofing \$: <u>N/A</u>	Windows/Doors \$: <u>N/A</u>	Railings \$: <u>N/A</u>
Electrical \$: <u>N/A</u>	Mechanical \$: <u>N/A</u>	Plumbing \$: <u>N/A</u>
Other \$: <u>N/A</u>	Description: <u>N/A</u>	

Under penalties of perjury, I declare that I have read the foregoing affidavit and that the facts stated in it are true.

Registered Owner/Agent or GC: JUAN C. CLAVIJO Registered Contractor: JUAN C. CLAVIJO  
 Signature of Owner/Agent or GC (for Sub-permits) \_\_\_\_\_ Signature of Qualifier: Juan Clavijo  
DC34E7555E744A1...

The foregoing instrument was acknowledged before me, by means of

physical presence or  online notarization,

this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

by \_\_\_\_\_, who is personally known to me or

who has produced \_\_\_\_\_ as identification

Notary Public, State of \_\_\_\_\_

County of \_\_\_\_\_

Printed Name and Signature

Commission Number: \_\_\_\_\_

Commission Expires: \_\_\_\_\_

the foregoing instrument was acknowledged before me, by means of

physical presence or  online notarization,

this MAY day of 11th, 2022

by Juan C. Clavijo, who is personally known to me or

who has produced \_\_\_\_\_ as identification.

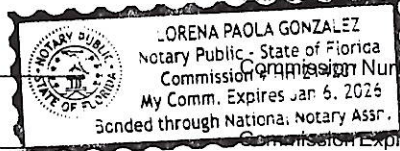
Notary Public, State of Florida

County of Miami-Dade

Printed Name and Signature

Commission Number: HH 214201

Commission Expires: Jan 6, 2026



## CONSTRUCTION COST AFFIDAVIT

I, THE AMETHYST CONDOMINIUM ASSOCIATION, acting as agent (owner, registered agent, or legal representative) and I (general contractor/ sub-contractor), ICON GROUP ENGINEERS LLC do hereby attest that the construction costs indicated herein for **Permit Number** BC2116519 at property address 5313 COLLINS AVENUE, MIAMI BEACH, FLORIDA are accurate for this construction project.

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### Stand alone and sub-permits

Roofing \$: N/A                      Windows/Doors \$: N/A                      Railings \$: N/A  
 Electrical \$: N/A                      Mechanical \$: N/A                      Plumbing \$: N/A  
 Other \$: N/A                      Description: N/A

Under penalties of perjury, I declare that I have read the foregoing affidavit and that the facts stated in it are true.

Registered Owner/Agent or GC: JUAN C. CLAVIJO                      Registered Contractor: JUAN C. CLAVIJO  
 Signature of Owner/Agent or GC (for Sub-permits) \_\_\_\_\_                      Signature of Qualifier: Juan Clavijo  
DC34E7555E744A1...

The foregoing instrument was acknowledged before me, by means of

physical presence or  online notarization,

this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

by \_\_\_\_\_, who is personally known to me or

who has produced \_\_\_\_\_ as identification

Notary Public, State of \_\_\_\_\_

County of \_\_\_\_\_

Printed Name and Signature

Commission Number: \_\_\_\_\_

Commission Expires: \_\_\_\_\_

the foregoing instrument was acknowledged before me, by means of

physical presence or  online notarization,

this MAY day of 13<sup>th</sup>, 2022

by Juan C. Clavijo, who is personally known to me or

who has produced \_\_\_\_\_ as identification.

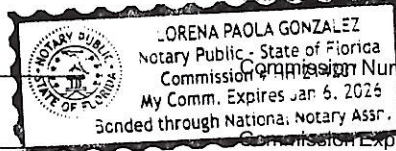
Notary Public, State of Florida

County of Miami-Dade

Printed Name and Signature

Commission Number: HH 214201

Commission Expires: Jan 6, 2026



**NOTICE OF COMMENCEMENT**

A RECORDED COPY MUST BE POSTED ON THE JOB SITE AT TIME OF FIRST INSPECTION

PERMIT NO. BC2116519 TAX FOLIO NO. 0232140220001

STATE OF FLORIDA:  
COUNTY OF MIAMI-DADE:

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

STATE OF FLORIDA, COUNTY OF MIAMI-DADE  
I HEREBY CERTIFY that this is a true copy of the original filed in this office on August 6 day of August, AD 2021  
WITNESS my hand and Official Seal.  
By Harvey Ruvin Clerk of Circuit and County Courts  
D.C.



MIAMI BEACH BUILDING DEPARTMENT  
CFN 2021R0576790  
OR BK 3216519  
RECORDED 08/06/2021 09:45:20  
HARVEY RUVIN, CLERK  
MIAMI-DADE COUNTY, FLORIDA  
10/03/2022 1:30:46 PM  
Reviewed For Compliance  
RV2217886

Space above reserved for use of recording office

1. Legal description of property and street/address: THE AMETHYST CONDOMINIUM ASSOCIATION. 5313 COLLINS AVENUE MIAMI BEACH, FLORIDA 33140
2. Description of Improvement: CONCRETE REPAIRS
3. Owner(s) name and address: THE AMETHYST CONDOMINIUM ASSOCIATION. 5313 COLLINS AVE MIAMI BEACH FL 33140  
Interest in property: MULTI- FAMILY RESIDENTIAL  
Name and address of fee simple titleholder: \_\_\_\_\_
4. Contractor's name, address and phone number: ICON GROUP ENGINEERS LLC. 12205 SW 129TH CT # 3, MIAMI FL 33186. PHONE NUMBER: 305-501-4817
5. Surety: (Payment bond required by owner from contractor, if any)  
Name, address and phone number: \_\_\_\_\_  
Amount of bond \$ \_\_\_\_\_
6. Lender's name and address: \_\_\_\_\_
7. Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes,  
Name, address and phone number: \_\_\_\_\_
8. In addition to himself, Owners designates the following person(s) to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes.  
Name, address and phone number: \_\_\_\_\_
9. Expiration date of this Notice of Commencement: \_\_\_\_\_  
(the expiration date is 1 year from the date of recording unless a different date is specified)

**WARNING TO OWNER:** ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART 1, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

Signature(s) of Owner(s) or Owner(s) Authorized Officer/Director/Partner/Manager  
Prepared By Robert N. Pelier Prepared By \_\_\_\_\_  
Print Name Robert N. Pelier Print Name \_\_\_\_\_  
Title/Office PRESIDENT Title/Office \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF MIAMI-DADE  
The foregoing instrument was acknowledged before me this 26 day of July, 2021  
By Robert Pelier

Individually, or  as Board President for Amethyst Condo Assoc  
 Personally known, or  produced the following type of identification:  
Signature of Notary Public: Michelle Suarez  
Print Name: Michelle Suarez  
(SEAL)



Michelle Suarez  
Comm #GG332800  
Expires: May 9, 2023  
Bonded Thru Aaron Notary

**VERIFICATION PURSUANT TO SECTION 92.525, FLORIDA STATUTES**  
Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true, to the best of my knowledge and belief.

Signature(s) of Owner(s) or Owner(s) Authorized Officer/Director/Partner/Manager who signed above:  
By Robert N. Pelier By \_\_\_\_\_  
Pres

# MIAMI BEACH BUILDING DEPARTMENT

Reviewed For Compliance

**RV2217886**

10/03/2022 1:30:46 PM

MIAMI-DADE COUNTY CLERK OF COURTS  
COUNTY RECORDER  
22 N.W. 1ST STREET  
MIAMI, FL 33128  
REF: 305-501-4817  
DATE: 8/6/2021  
TIME: 9:43:21 AM  
RECEIPT: 80922298

ICON GROUP  
ACCOUNT #: 0

ITEM - 01 NCO  
RECD: 8/6/2021 9:45:20 AM  
FILE: 20210576790 BK/Pg 0 32666/1495  
Recording Fees 10.00  
COPIES 1.00  
CERTIFICATION 2.00  
Subtotal 13.00

ITEM - 02 SERVICE  
RECORDING MISC REVENUE 0.60  
Subtotal 0.60

TOTAL DUE \$13.60  
PAID TOTAL \$13.60  
PAID CHECK \$13.60  
Check #1464811781: 13.60

REC BY: Miriam P  
Please verify transaction & amount before leaving.



Reviewed For Compliance

**RV2217886**

10/03/2022 1:30:46 PM

**PROJECT:**

Amethyst  
Condominium

5313 Collins Avenue  
Miami Beach, FL  
33140

**RC No.:**

220135

**Temporary Structure Calculations**

**DESCRIPTION:**

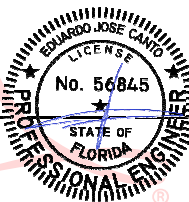
Temporary  
Re-shoring  
Members  
Evaluation

**DATE:**

April 14, 2022

**No. OF PAGES:**

Digitally signed by  
Eduardo J Canto  
DN: c=US, o=RC  
GROUP LLC,  
dnQualifier=A014  
10C0000017DC3D  
ABE780000CD65,  
cn=Eduardo J  
Canto  
Date: 2022.06.07  
'15:03:18 -04'00



Cover + 17

This item has been electronically signed & sealed by Eduardo J. Canto, P.E., S.I. Dated: 06/07/2022, using a Digital Signature. Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

O.L.#:600338-8  
E.B.#: 26946

Eduardo Canto, P.E.  
Structural Engineer  
FL. No.: 56845

Codes:	Materials:
<ul style="list-style-type: none"> <li>(1) FBC 2020, 7<sup>th</sup> Edition</li> <li>(2) ACI 318-14</li> <li>(3) ACI 530-13</li> <li>(4) ASCE 7-16</li> <li>(5) AISC (ASD 14th Ed.)</li> <li>(6) NDS 2018</li> <li>(7) ACI 347.2R-05. Guide for Shoring/Re-shoring of Concrete Multistory Buildings</li> <li>(8) ADM 1-2015</li> </ul>	<ul style="list-style-type: none"> <li>(1) Concrete, <math>f_c = 3,000</math> psi (U.O.N., Minimum)</li> <li>(2) Reinforcing Steel, <math>f_y = 60,000</math> psi – ASTM A 615, Grade 60 (U.O.N.)</li> <li>(3) Structural Steel, <math>F_y = 50,000</math> psi – ASTM A 992, Grade 50 (U.O.N.)</li> <li>(4) Plywood, Structural Grade 1 (As per APA table 3, attached):  <ul style="list-style-type: none"> <li><math>F_b = 1,190</math> psi (U.O.N.)</li> <li>Load Duration Factor: <math>F_b = 1,488</math> psi (U.O.N.)</li> </ul> </li> <li>(5) Wood, Southern Pine No.2 (Typical for all members):  <ul style="list-style-type: none"> <li>Single Member: <math>F_b = 1,100</math> psi (U.O.N.)</li> </ul> </li> <li>(6) Anchor Rods, ASTM A 307 (U.O.N.)</li> <li>(7) Bolting Materials, ASTM A 325 or A 490 (U.O.N.)</li> </ul>

Table of Content:	
Page	Description
1	Re-shoring members check for existing damaged column.
16	Re-shoring capacity tables.



**RE-SHORING FOR EXISTING CONCRETE COLUMN**

The purpose of this re-shoring is to support existing load on column located on ground level . Contractor shall verify in field all dimensions, and notify us any deviation.

Number of floors (slabs)  $n_{\text{floors}} := 11$  Including main roof level  
Above column level to be repaired

Tributary area

$$TA_{\text{Typfloor}} := \left( \frac{16.5\text{ft}}{2} + \frac{16.5\text{ft}}{2} \right) \left( \frac{15.75\text{ft}}{2} + \frac{21.58\text{ft}}{2} \right) = 307.97 \text{ft}^2 \quad TA_{\text{Roof}} := TA_{\text{Typfloor}} = 307.97 \text{ft}^2$$

Slab LL  $LL_{\text{slab}} := 40\text{psf}$  Residential live load.  $LL_{\text{Roof}} := 30\text{psf}$  Roof live load

$$P_{LL\text{slab}} := LL_{\text{slab}} \cdot (n_{\text{floors}} - 1) \cdot TA_{\text{Typfloor}} + LL_{\text{Roof}} \cdot TA_{\text{Roof}} = 132.43 \cdot \text{k}$$

$$P_{\text{ColSelfWt}} := 12\text{in} \cdot 20\text{in} \cdot 150\text{pcf} \cdot 10\text{ft} \cdot (n_{\text{floors}} - 1) = 25 \cdot \text{k}$$

Slab DL  $DL_{\text{slab}} := 150\text{pcf} \cdot 8\text{in} = 100 \cdot \text{psf}$

$$P_{DL\text{slab}} := DL_{\text{slab}} \cdot (n_{\text{floors}} - 1) \cdot TA_{\text{Typfloor}} + DL_{\text{slab}} \cdot TA_{\text{Roof}} = 338.77 \cdot \text{k}$$

$$\text{Interior partitions and finishes} \quad P_{\text{SDL}} := (17\text{psf} + 13\text{psf}) \cdot [(n_{\text{floors}} - 1) \cdot TA_{\text{Typfloor}}] = 92.39 \cdot \text{k}$$

$$P_{\text{total}} := P_{LL\text{slab}} + P_{\text{ColSelfWt}} + P_{DL\text{slab}} + P_{\text{SDL}} = 588.59 \cdot \text{k}$$

$$P_{\text{RSH}} := P_{\text{total}} \cdot \frac{50}{100} = 294.29 \cdot \text{k}$$

Contractor shall not repair more than 50% of damaged column.

Check channels: Use C15x50 channel

$$\frac{P_{\text{RSH}}}{2} = 147.15 \cdot \text{k per channel} \quad \text{See ENERCALC Printout.}$$

Check thru bolts:  $V_{boltAllow} := 67.6k$

Bolts 1 1/8" dia. group ASTM A325, X, double shear

$n_{bolts} := 6$  minimum quantity of bolts to be used per connection.  $V_{boltsTotalAllow} := V_{boltAllow} \cdot n_{bolts} = 405.6 \cdot k$

$Check(V_{boltsTotalAllow}, P_{RSH}) = "OK"$

Alternate check thru bolts:  $V_{boltAllowN} := 53.7k$

All threaded rods 1 1/8" dia. group ASTM A325T, N, double shear

$n_{bolts} := 6$  minimum quantity of bolts to be used per connection.  $V_{boltsTotalAllowN} := V_{boltAllowN} \cdot n_{bolts} = 322.2 \cdot k$

$Check(V_{boltsTotalAllowN}, P_{RSH}) = "OK"$

CHECK THRU BOLTS CONCRETE BEARING

Data:  $f'_c := 5000psi$  (V.I.F.)

$R_{Column} := \frac{P_{RSH}}{n_{bolts}} = 49.05 \cdot k$  See previous calculations.

HY 200 Epoxy thickness  $Epoxy_t := \frac{1}{16} \cdot in$  minimum  $Bolt_{Dia} := 1in + \frac{1}{8} \cdot in$

Loaded surface dimensions:  $B := (Bolt_{Dia} + Epoxy_t)$   
 $N := 12in$  Column width (V.I.F.)

Check Bearing:

Allowable Concrete Bearing on Exg. Column  $F_{c,allow} := 0.70 \cdot f'_c$   $F_c = 3500 \cdot psi$

Actual Concrete Bearing on Exg. Column  $f_{c,act} := \frac{R_{Column}}{B \cdot N}$   $f_c = 3442.04 \cdot psi$

$Check(F_c, f_c) = "OK"$

**RV2217886**

**Steel Beam**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 19022155 Build 282.21, Ver 0.17.81

Lic. # : KW-06011462

10/06/2022 1:30:47 PM  
 Licensee : RC GROUP, LLC

Description : 220135- Channel Check - 2 channels one on each side-50% repair

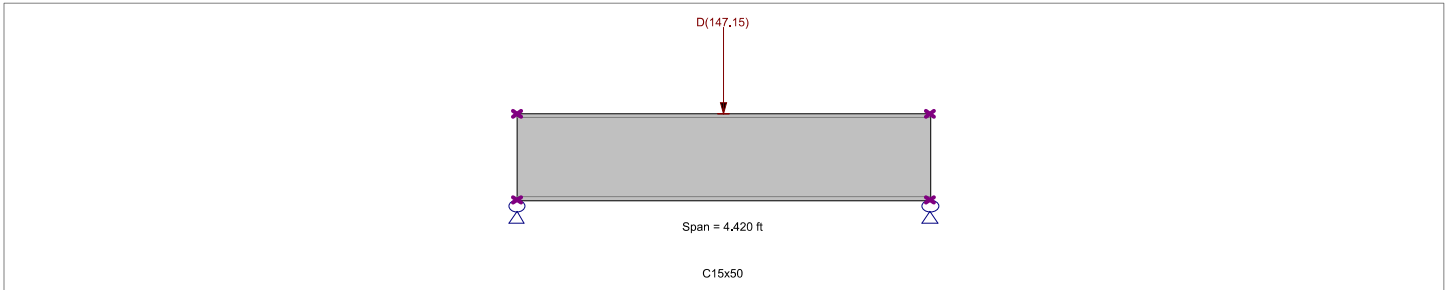
**CODE REFERENCES**

Calculations per AISC 360-10, IBC 2012, ASCE 7-10  
 Load Combination Set : IBC 2015

**Material Properties**

Analysis Method : Allowable Strength Design  
 Beam Bracing : Completely Unbraced  
 Bending Axis : Major Axis Bending

Fy : Steel Yield : 50.0 ksi  
 E: Modulus : 29,000.0 ksi



**Applied Loads**

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading  
 Load(s) for Span Number 1  
 Point Load : D = 147.150 k @ 2.210 ft

**DESIGN SUMMARY**

**Design OK**

Maximum Bending Stress Ratio =	<b>0.952 : 1</b>	Maximum Shear Stress Ratio =	<b>0.382 : 1</b>
Section used for this span	<b>C15x50</b>	Section used for this span	<b>C15x50</b>
Ma : Applied	162.723 k-ft	Va : Applied	73.686 k
Mn / Omega : Allowable	170.908 k-ft	Vn/Omega : Allowable	192.934 k
Load Combination	+D+H	Load Combination	+D+H
Location of maximum on span	2.210ft	Location of maximum on span	0.000 ft
Span # where maximum occurs	Span # 1	Span # where maximum occurs	Span # 1
<b>Maximum Deflection</b>			
Max Downward Transient Deflection	0.000 in	Ratio =	0 <360
Max Upward Transient Deflection	0.000 in	Ratio =	0 <360
Max Downward Total Deflection	0.039 in	Ratio =	1351 >=180
Max Upward Total Deflection	0.000 in	Ratio =	0 <180

**Maximum Forces & Stresses for Load Combinations**

Load Combination	Segment Length	Span #	Max Stress Ratios		Summary of Moment Values						Summary of Shear Values			
			M	V	Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omega
+D+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+L+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+Lr+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+S+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.750Lr+0.750L+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.750L+0.750S+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.60W+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.70E+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.750Lr+0.750L+0.450W+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.750L+0.750S+0.450W+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+D+0.750L+0.750S+0.5250E+H	Dsgn. L = 4.42 ft	1	0.952	0.382	162.72		162.72	285.42	170.91	1.32	1.00	73.69	322.20	192.93
+0.60D+0.60W+0.60H	Dsgn. L = 4.42 ft	1	0.571	0.229	97.63	97.63	285.42	170.91	1.32	1.00	44.21	322.20	192.93	

**RV2217886**

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**Steel Beam**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 1997-2019, Ver. 2.2.1, Ver. 17.8.1

Lic. #: KW-06011462

Licensee: RC GROUP, LLC

Description: 220135- Channel Check - 2 channels one on each side-50% repair

Load Combination	Segment Length	Span #	Max Stress Ratios		Summary of Moment Values						Summary of Shear Values			
			M	V	Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omega
+0.60D+0.70E+0.60H	Dsgn. L = 4.42 ft	1	0.571	0.229	97.63		97.63	285.42	170.91	1.32	1.00	44.21	322.20	192.93

**Overall Maximum Deflections**

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
D Only	1	0.0392	2.223		0.0000	0.000

**Maximum Deflections for Load Combinations**

Load Combination	Span	Max. Downward Defl	Location in Span	Span	Max. Upward Defl	Location in Span
+D+H	1	0.0392	2.223		0.0000	0.000
+D+L+H	1	0.0392	2.223		0.0000	0.000
+D+Lr+H	1	0.0392	2.223		0.0000	0.000
+D+S+H	1	0.0392	2.223		0.0000	0.000
+D+0.750Lr+0.750L+H	1	0.0392	2.223		0.0000	0.000
+D+0.750L+0.750S+H	1	0.0392	2.223		0.0000	0.000
+D+0.60W+H	1	0.0392	2.223		0.0000	0.000
+D+0.70E+H	1	0.0392	2.223		0.0000	0.000
+D+0.750Lr+0.750L+0.450W+H	1	0.0392	2.223		0.0000	0.000
+D+0.750L+0.750S+0.450W+H	1	0.0392	2.223		0.0000	0.000
+D+0.750L+0.750S+0.5250E+H	1	0.0392	2.223		0.0000	0.000
+0.60D+0.60W+0.60H	1	0.0235	2.223		0.0000	0.000
+0.60D+0.70E+0.60H	1	0.0235	2.223		0.0000	0.000
D Only	1	0.0392	2.223		0.0000	0.000

**Vertical Reactions**

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	73.686	73.686
Overall MINimum	44.211	44.211
+D+H	73.686	73.686
+D+L+H	73.686	73.686
+D+Lr+H	73.686	73.686
+D+S+H	73.686	73.686
+D+0.750Lr+0.750L+H	73.686	73.686
+D+0.750L+0.750S+H	73.686	73.686
+D+0.60W+H	73.686	73.686
+D+0.70E+H	73.686	73.686
+D+0.750Lr+0.750L+0.450W+H	73.686	73.686
+D+0.750L+0.750S+0.450W+H	73.686	73.686
+D+0.750L+0.750S+0.5250E+H	73.686	73.686
+0.60D+0.60W+0.60H	44.211	44.211
+0.60D+0.70E+0.60H	44.211	44.211
D Only	73.686	73.686
Lr Only		
L Only		
S Only		
W Only		
E Only		
H Only		

**RV2217886**

**Steel Beam**

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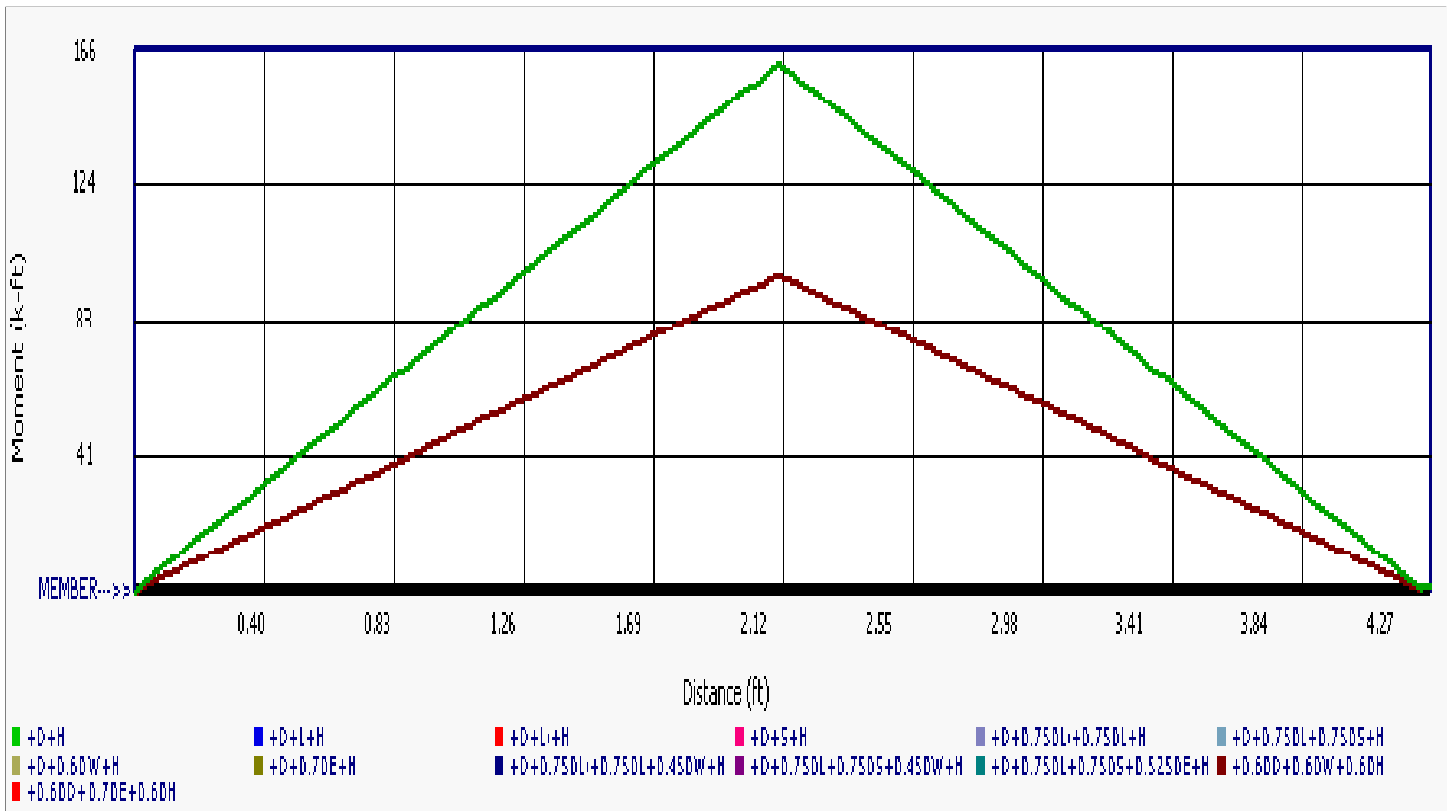
Lic. # : KW-06011462

Licensee : RC GROUP, LLC

Description : 220135- Channel Check - 2 channels one on each side-50% repair

**Steel Section Properties : C15x50**

Depth	=	15.000 in	I xx	=	404.00 in <sup>4</sup>	J	=	2.650 in <sup>4</sup>
Web Thick	=	0.716 in	S xx	=	53.80 in <sup>3</sup>	Cw	=	492.00 in <sup>6</sup>
Flange Width	=	3.720 in	R xx	=	5.240 in	Ro	=	5.490 in
Flange Thick	=	0.650 in	Zx	=	68.500 in <sup>3</sup>	H	=	0.937 in
Area	=	14.700 in <sup>2</sup>	I yy	=	11.000 in <sup>4</sup>	Who	=	17.400 in <sup>2</sup>
Weight	=	50.000 plf	S yy	=	3.770 in <sup>3</sup>	Sw	=	13.700 in <sup>4</sup>
Kdesign	=	1.440 in	R yy	=	0.865 in	Qf	=	14.000 in <sup>3</sup>
			Zy	=	8.140 in <sup>3</sup>	Qw	=	34.100 in <sup>3</sup>
rts	=	1.170 in				Wn2	=	6.750
Ycg	=	7.500 in				Sw2	=	11.600
Xcg	=	0.799 in				Sw3	=	5.860
Xp	=	0.490 in						
Eo	=	0.583 in						



**RV2217886**

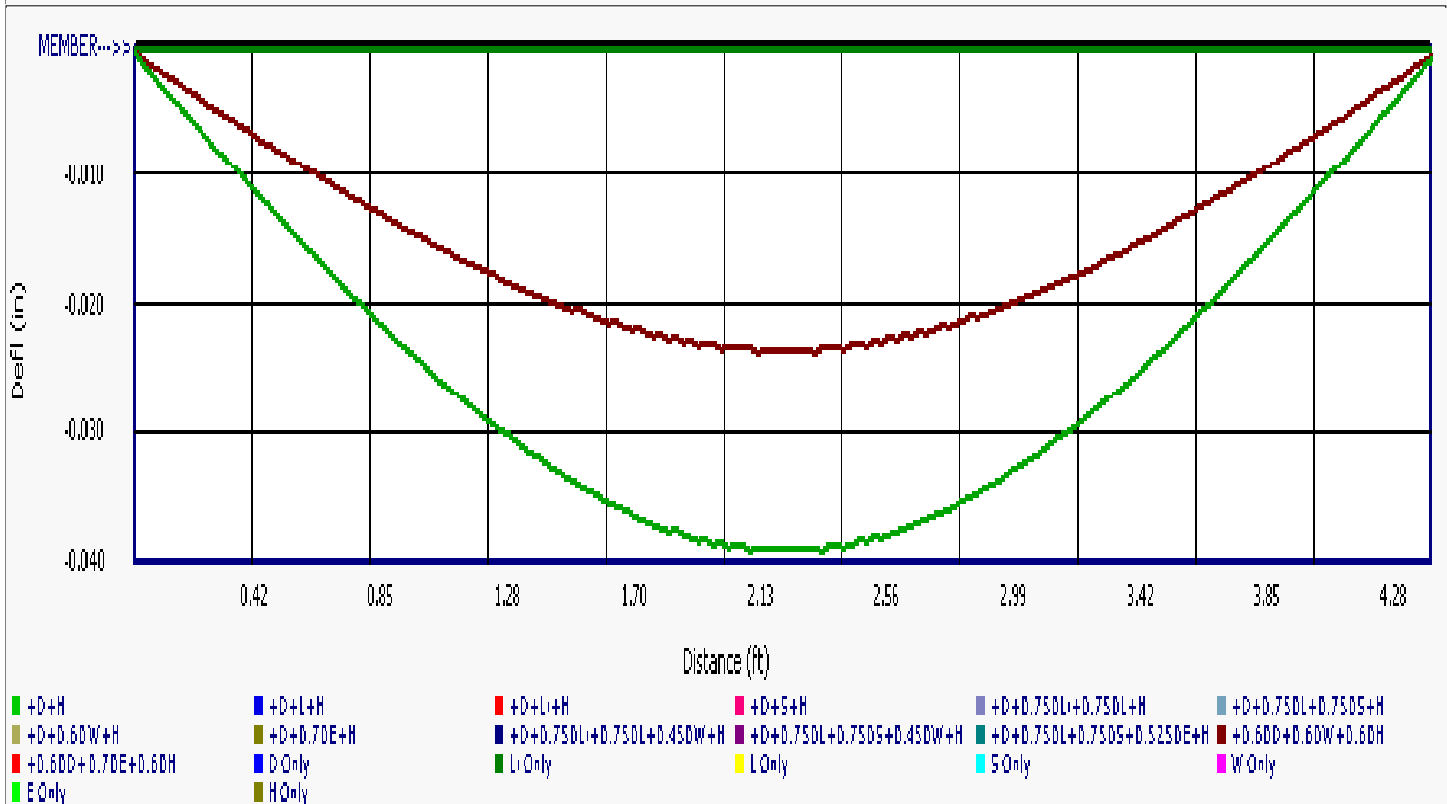
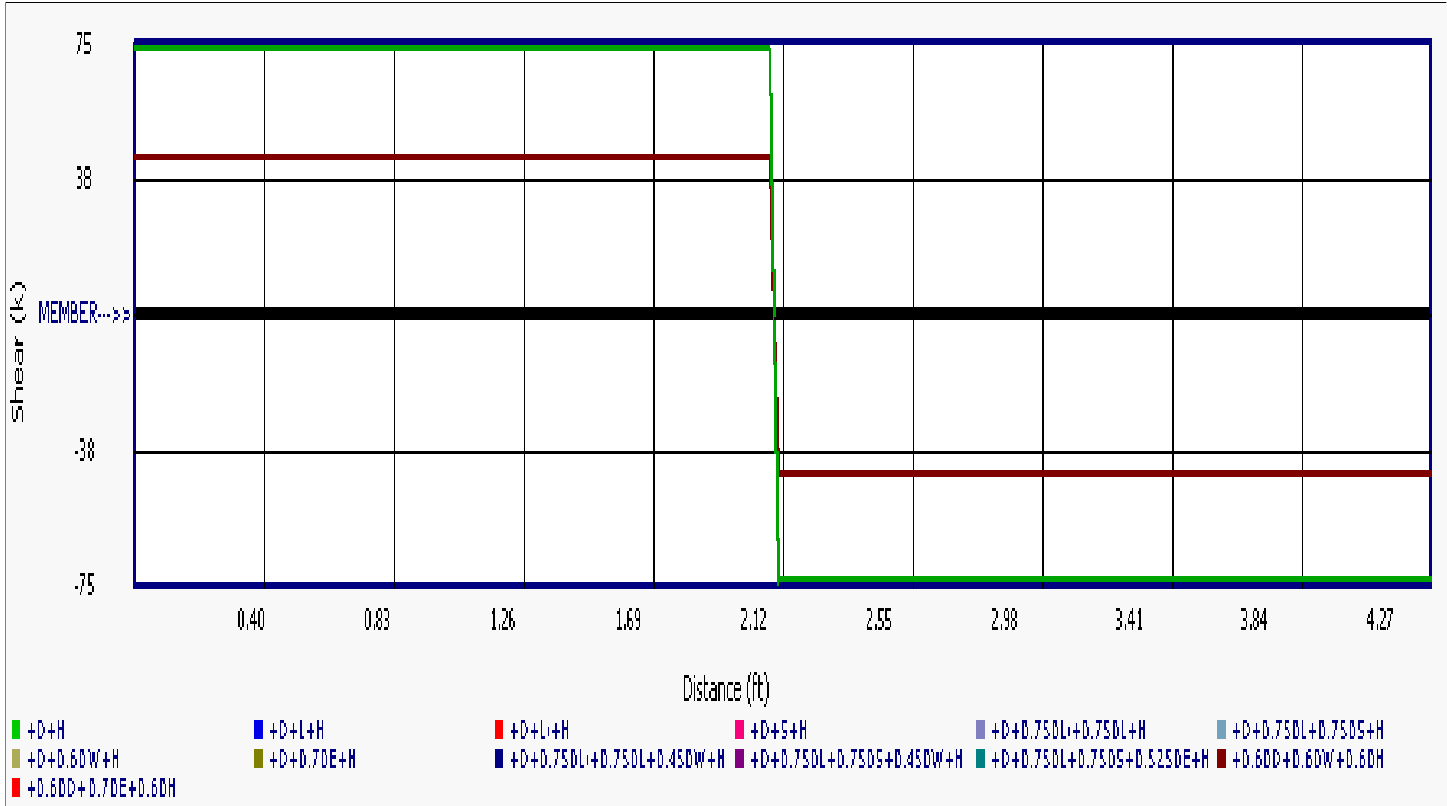
**Steel Beam**

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 ENERCALC, INC. 1902255010262.21 V.50.17.81

Lic. #: KW-06011462

10/06/2022 1:30:47 PM  
 Licensee: RC GROUP, LLC

Description: 220135- Channel Check - 2 channels one on each side-50% repair



**RV2217886**

**Steel Column**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 1992155 Build 282.21, Ver 0.17.431

Lic. # : KW-06011462

Licensee : RC GROUP, LLC

Description : 220135- HSS 4.5x4.5x5.16

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**Code References**

Calculations per AISC 360-10, IBC 2012, CBC 2013, ASCE 7-10  
 Load Combinations Used : IBC 2015

**General Information**

Steel Section Name :	<b>HSS4-1/2x4-1/2x5/16</b>	Overall Column Height	8.0 ft
Analysis Method :	<b>Allowable Strength</b>	Top & Bottom Fixity	<b>Top &amp; Bottom Pinned</b>
Steel Stress Grade		Brace condition for deflection (buckling) along columns :	
Fy : Steel Yield	46.0 ksi	X-X (width) axis :	
E : Elastic Bending Modulus	29,000.0 ksi	Unbraced Length for X-X Axis buckling = 8 ft, K = 1.0	
		Y-Y (depth) axis :	
		Unbraced Length for Y-Y Axis buckling = 10 ft, K = 1.0	

**Applied Loads**

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 135.680 lbs \* Dead Load Factor  
 AXIAL LOADS . . .  
 Axial Load at 8.0 ft, D = 73.686 k

**DESIGN SUMMARY**

**Bending & Shear Check Results**

<b>PASS</b> Max. Axial+Bending Stress Ratio =	<b>0.8007</b> : 1	<b>Maximum SERVICE Load Reactions . .</b>	
Load Combination	+D+H	Top along X-X	0.0 k
Location of max.above base	0.0 ft	Bottom along X-X	0.0 k
At maximum location values are . . .		Top along Y-Y	0.0 k
Pa : Axial	73.822 k	Bottom along Y-Y	0.0 k
Pn / Omega : Allowable	92.198 k	<b>Maximum SERVICE Load Deflections . . .</b>	
Ma-x : Applied	0.0 k-ft	Along Y-Y	0.0 in at 0.0ft above base
Mn-x / Omega : Allowable	16.688 k-ft	for load combination :	
Ma-y : Applied	0.0 k-ft	Along X-X	0.0 in at 0.0ft above base
Mn-y / Omega : Allowable	16.688 k-ft	for load combination :	
<b>PASS</b> Maximum Shear Stress Ratio =	<b>0.0</b> : 1		
Load Combination			
Location of max.above base	0.0 ft		
At maximum location values are . . .			
Va : Applied	0.0 k		
Vn / Omega : Allowable	0.0 k		

**Load Combination Results**

Load Combination	Maximum Axial + Bending Stress Ratios			Maximum Shear Ratios		
	Stress Ratio	Status	Location	Stress Ratio	Status	Location
+D+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+L+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+Lr+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+S+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.750Lr+0.750L+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.750L+0.750S+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.60W+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.70E+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.750Lr+0.750L+0.450W+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.750L+0.750S+0.450W+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+D+0.750L+0.750S+0.5250E+H	0.801	PASS	0.00 ft	0.000	PASS	0.00 ft
+0.60D+0.60W+0.60H	0.480	PASS	0.00 ft	0.000	PASS	0.00 ft
+0.60D+0.70E+0.60H	0.480	PASS	0.00 ft	0.000	PASS	0.00 ft

**Maximum Reactions**

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction		Y-Y Axis Reaction		Axial Reaction
	@ Base	@ Top	@ Base	@ Top	@ Base
+D+H		k		k	73.822 k

**RV2217886**

**Steel Column**

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 ENERCALC, INC. 1992055010.262.21, Ver 017431

Lic. # : KW-06011462

Licensee : RC GROUP, LLC

Description : 220135- HSS 4.5x4.5x5.16

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Note: Only non-zero reactions are listed.

**Maximum Reactions**

Load Combination	X-X Axis Reaction		Y-Y Axis Reaction		Axial Reaction
	@ Base	@ Top	@ Base	@ Top	@ Base
+D+L+H		k		k	73.822 k
+D+Lr+H		k		k	73.822 k
+D+S+H		k		k	73.822 k
+D+0.750Lr+0.750L+H		k		k	73.822 k
+D+0.750L+0.750S+H		k		k	73.822 k
+D+0.60W+H		k		k	73.822 k
+D+0.70E+H		k		k	73.822 k
+D+0.750Lr+0.750L+0.450W+H		k		k	73.822 k
+D+0.750L+0.750S+0.450W+H		k		k	73.822 k
+D+0.750L+0.750S+0.5250E+H		k		k	73.822 k
+0.60D+0.60W+0.60H		k		k	44.293 k
+0.60D+0.70E+0.60H		k		k	44.293 k
D Only		k		k	73.822 k
Lr Only		k		k	k
L Only		k		k	k
S Only		k		k	k
W Only		k		k	k
E Only		k		k	k
H Only		k		k	k

**Maximum Deflections for Load Combinations**

Load Combination	Max. X-X Deflection		Max. Y-Y Deflection	
	Distance		Distance	
+D+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+L+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+Lr+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+S+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr+0.750L+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.60W+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.70E+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr+0.750L+0.450W+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+0.450W+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+0.5250E+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D+0.60W+0.60H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D+0.70E+0.60H	0.0000 in	0.000 ft	0.000 in	0.000 ft
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
Lr Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
S Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
W Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
E Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
H Only	0.0000 in	0.000 ft	0.000 in	0.000 ft



**RV2217886**

**Steel Column**

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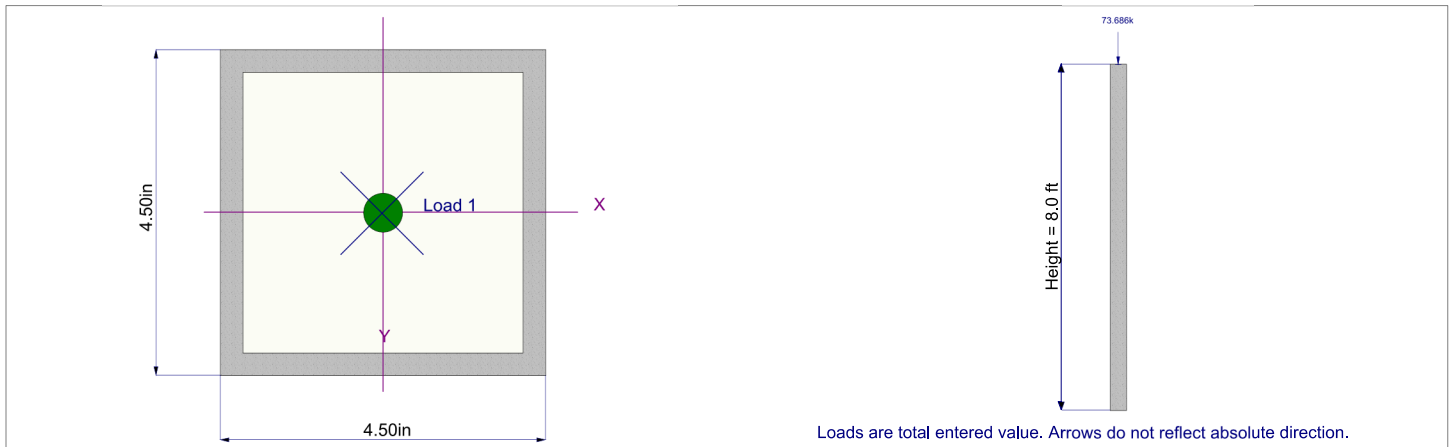
Lic. # : KW-06011462

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 Licensee : RC GROUP, LLC

Description : 220135- HSS 4.5x4.5x5.16

**Steel Section Properties : HSS4-1/2x4-1/2x5/16**

Depth	=	4.500 in	I xx	=	13.50 in^4	J	=	22.300 in^4
			S xx	=	6.00 in^3			
Width	=	4.500 in	R xx	=	1.700 in			
Wall Thick	=	0.313 in	Zx	=	7.270 in^3			
Area	=	4.680 in^2	I yy	=	13.500 in^4	C	=	10.200 in^3
Weight	=	16.960 plf	S yy	=	6.000 in^3			
			R yy	=	1.700 in			
Ycg	=	0.000 in						



**RV2217886**

**Steel Base Plate**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 1997-2022, Ver 17.4.1

Lic. # : KW-06011462

Description : 220135-Steel plate

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 Licensee : RC GROUP, LLC

**Code References**

Calculations per AISC Design Guide # 1, IBC 2012, CBC 2013, ASCE 7-10  
 Load Combination Set : IBC 2015

**General Information**

**Material Properties**  
 AISC Design Method Allowable Strength Design  
 Steel Plate Fy = 36.0 ksi  
 Concrete Support f'c = 3.0 ksi  
 Assumed Bearing Area : Full Bearing

$\Omega_c$  : ASD Safety Factor. 2.50  
 Allowable Bearing Fp per J8 2.550 ksi

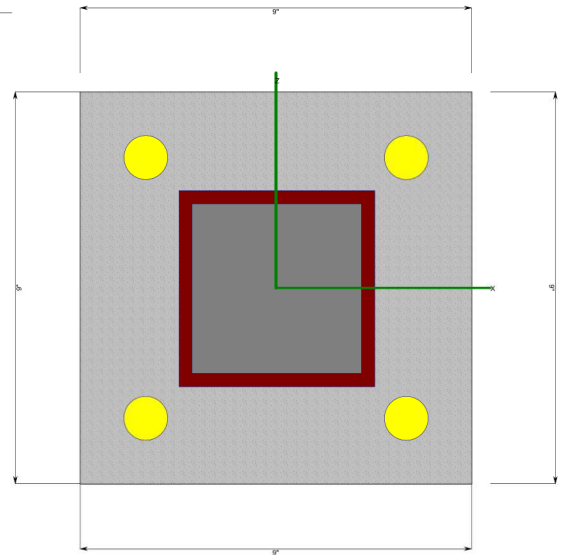
**Column & Plate**

**Column Properties**  
 Steel Section : HSS4-1/2x4-1/2x5/16  
 Depth 4.5 in Area 4.68 in<sup>2</sup>  
 Width 4.5 in Ixx in<sup>4</sup>  
 Flange Thickness 0.291 in Iyy in<sup>4</sup>  
 Web Thickness in

**Plate Dimensions**  
 N : Length 9.0 in  
 B : Width 9.0 in  
 Thickness 0.750 in

**Support Dimensions**  
 Width along "X" 9.0 in  
 Length along "Z" 9.0 in

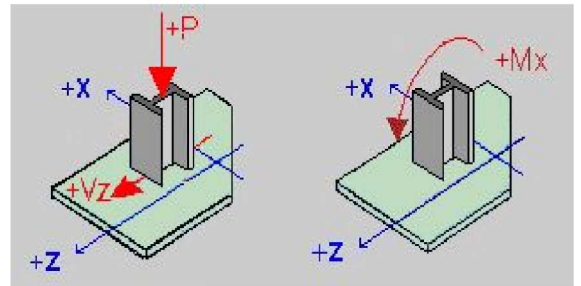
Column assumed welded to base plate.



**Applied Loads**

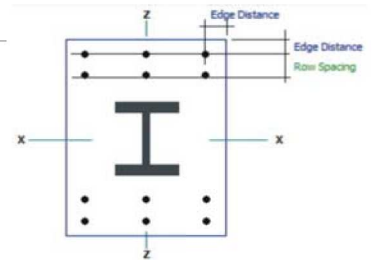
	P-Y	V-Z	M-X
D : Dead Load .....	73.686 k	k	k-ft
L : Live .....	k	k	k-ft
Lr : Roof Live .....	k	k	k-ft
S : Snow .....	k	k	k-ft
W : Wind .....	k	k	k-ft
E : Earthquake .....	k	k	k-ft
H : Lateral Earth .....	k	k	k-ft

"P" = Gravity load, "+" sign is downward.  
 "+" Moments create higher soil pressure at +Z edge.  
 "+" Shears push plate towards +Z edge.



**Anchor Bolts**

Anchor Bolt or Rod Description	3/4"
Max of Tension or Pullout Capacity.....	5.0 k
Shear Capacity.....	5.0 k
Edge distance : bolt to plate.....	1.50 in
Number of Bolts in each Row.....	2.0
Number of Bolt Rows.....	1.0



**RV2217886**

**Steel Base Plate**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 19922 S. Biscayne Blvd., Suite 202, Coral Gables, FL 33134  
 Licensee : RC GROUP, LLC

Lic. # : KW-06011462

Description : 220135-Steel plate

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**GOVERNING DESIGN LOAD CASE SUMMARY**

Plate Design Summary

Design Method Allowable Strength Design  
 Governing Load Combination +D+H  
 Governing Load Case Type Axial Load Only  
 Design Plate Size **9" x 9" x 0 -3/4"**  
 Pa : Axial Load .... 73.686 k  
 Ma : Moment ..... 0.000 k-ft

Mu : Max. Moment ..... 2.539 k-in  
 fb : Max. Bending Stress ..... 18.053 ksi  
 Fb : Allowable : 21.557 ksi  
 Fy / Omega  
 Bending Stress Ratio **0.837**  
**Bending Stress OK**

fu : Max. Plate Bearing Stress .... 0.910 ksi  
 Fp : Allowable : 1.020 ksi  
 min( 0.85\*fc\*sqrt(A2/A1), 1.7\* fc)\*Omega  
 Bearing Stress Ratio **0.892**  
**Bearing Stress OK**

**Load Comb. : +D+H**

**Axial Load Only, No Moment**

Loading

Pa : Axial Load .... 73.686 k  
 Design Plate Height ..... 9.000 in  
 Design Plate Width ..... 9.000 in  
*Will be different from entry if partial bearing used.*  
 A1 : Plate Area ..... 81.000 in^2  
 A2: Support Area ..... 81.000 in^2  
 sqrt( A2/A1 ) 1.000

Bearing Stresses

Fp : Allowable ..... 1.020 ksi  
 fa : Max. Bearing Pressure 0.910 ksi  
**Stress Ratio ..... 0.892**

Plate Bending Stresses

Mmax = Fu \* L^2 / 2 ..... 2.539 k-in  
 fb : Actual ..... 18.053 ksi  
 Fb : Allowable ..... 21.557 ksi  
**Stress Ratio ..... 0.837**

Distance for Moment Calculation

" m " ..... 2.363 in  
 " n " ..... 2.363 in  
 X ..... 0.000 in^2  
 Lambda ..... 0.000  
 n' ..... 0.000 in  
 n' \* Lambda ..... 0.000 in  
 L = max(m, n, n') ..... 2.363 in

**Load Comb. : +D+L+H**

**Axial Load Only, No Moment**

Loading

Pa : Axial Load .... 73.686 k  
 Design Plate Height ..... 9.000 in  
 Design Plate Width ..... 9.000 in  
*Will be different from entry if partial bearing used.*  
 A1 : Plate Area ..... 81.000 in^2  
 A2: Support Area ..... 81.000 in^2  
 sqrt( A2/A1 ) 1.000

Bearing Stresses

Fp : Allowable ..... 1.020 ksi  
 fa : Max. Bearing Pressure 0.910 ksi  
**Stress Ratio ..... 0.892**

Plate Bending Stresses

Mmax = Fu \* L^2 / 2 ..... 2.539 k-in  
 fb : Actual ..... 18.053 ksi  
 Fb : Allowable ..... 21.557 ksi  
**Stress Ratio ..... 0.837**

Distance for Moment Calculation

" m " ..... 2.363 in  
 " n " ..... 2.363 in  
 X ..... 0.000 in^2  
 Lambda ..... 0.000  
 n' ..... 0.000 in  
 n' \* Lambda ..... 0.000 in  
 L = max(m, n, n') ..... 2.363 in

**RV2217886**

**Steel Base Plate**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 19020 S. Biscayne Blvd., Suite 202, Coral Gables, FL 33134  
 Licensee : RC GROUP, LLC

Lic. # : KW-06011462

Description : 220135-Steel plate

10/06/2022 1:30:43 PM

**Load Comb. : +D+Lr+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in <sup>2</sup>
A2 : Support Area .....	81.000 in <sup>2</sup>
sqrt( A2/A1 )	1.000

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L <sup>2</sup> / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in <sup>2</sup>
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

**Load Comb. : +D+S+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in <sup>2</sup>
A2 : Support Area .....	81.000 in <sup>2</sup>
sqrt( A2/A1 )	1.000

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L <sup>2</sup> / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in <sup>2</sup>
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

**Load Comb. : +D+0.750Lr+0.750L+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in <sup>2</sup>
A2 : Support Area .....	81.000 in <sup>2</sup>
sqrt( A2/A1 )	1.000

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L <sup>2</sup> / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in <sup>2</sup>
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

**RV2217886**

**Steel Base Plate**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 19020 S. Biscayne Blvd., Suite 202, Coral Gables, FL 33134  
 Licensee : RC GROUP, LLC

Lic. # : KW-06011462

Description : 220135-Steel plate

10/06/2022 1:36:49 PM

**Load Comb. : +D+0.750L+0.750S+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in^2
A2 : Support Area .....	81.000 in^2
sqrt( A2/A1 )	1.000

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in^2
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

Bearing Stresses

Fp : Allowable .....	1.020 ksi
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<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L^2 / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

**Load Comb. : +D+0.60W+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in^2
A2 : Support Area .....	81.000 in^2
sqrt( A2/A1 )	1.000

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in^2
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L^2 / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

**Load Comb. : +D+0.70E+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in^2
A2 : Support Area .....	81.000 in^2
sqrt( A2/A1 )	1.000

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in^2
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L^2 / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

**RV2217886**

**Steel Base Plate**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 19020 S. Biscayne Blvd., Suite 202, Miami, FL 33131

Lic. # : KW-06011462

Description : 220135-Steel plate

10/06/2022 1:30:49 PM  
 Licensee : RC GROUP, LLC

**Load Comb. : +D+0.750Lr+0.750L+0.450W+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in^2
A2 : Support Area .....	81.000 in^2
sqrt( A2/A1 )	1.000

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in^2
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L^2 / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

**Load Comb. : +D+0.750L+0.750S+0.450W+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in^2
A2 : Support Area .....	81.000 in^2
sqrt( A2/A1 )	1.000

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in^2
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L^2 / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

**Load Comb. : +D+0.750L+0.750S+0.5250E+H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	73.686 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in^2
A2 : Support Area .....	81.000 in^2
sqrt( A2/A1 )	1.000

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in^2
Lambda .....	0.000
n' .....	0.000 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.910 ksi
<b>Stress Ratio .....</b>	<b>0.892</b>

Plate Bending Stresses

Mmax = Fu * L^2 / 2 .....	2.539 k-in
fb : Actual .....	18.053 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.837</b>

**RV2217886**

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**Steel Base Plate**

File = R:\Engineering\2022\220135-AMETHYST CONDO-IKON\c channel, steel column and plate.ec6  
 ENERCALC, INC. 19020 S. Bldg. 262.21, Ver. 017491

Lic. # : KW-06011462

Licensee : RC GROUP, LLC

Description : 220135-Steel plate

**Load Comb. : +0.60D+0.60W+0.60H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	44.212 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in <sup>2</sup>
A2: Support Area .....	81.000 in <sup>2</sup>
sqrt( A2/A1 )	1.000

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.546 ksi
<b>Stress Ratio .....</b>	<b>0.535</b>

Plate Bending Stresses

Mmax = Fu * L <sup>2</sup> / 2 .....	1.523 k-in
fb : Actual .....	10.832 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.502</b>

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in <sup>2</sup>
Lambda .....	0.000
n' .....	1.450 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

**Load Comb. : +0.60D+0.70E+0.60H**

*Axial Load Only, No Moment*

Loading

Pa : Axial Load ....	44.212 k
Design Plate Height .....	9.000 in
Design Plate Width .....	9.000 in
<i>Will be different from entry if partial bearing used.</i>	
A1 : Plate Area .....	81.000 in <sup>2</sup>
A2: Support Area .....	81.000 in <sup>2</sup>
sqrt( A2/A1 )	1.000

Bearing Stresses

Fp : Allowable .....	1.020 ksi
fa : Max. Bearing Pressure	0.546 ksi
<b>Stress Ratio .....</b>	<b>0.535</b>

Plate Bending Stresses

Mmax = Fu * L <sup>2</sup> / 2 .....	1.523 k-in
fb : Actual .....	10.832 ksi
Fb : Allowable .....	21.557 ksi
<b>Stress Ratio .....</b>	<b>0.502</b>

Distance for Moment Calculation

" m " .....	2.363 in
" n " .....	2.363 in
X .....	0.000 in <sup>2</sup>
Lambda .....	0.000
n' .....	1.450 in
n' * Lambda .....	0.000 in
L = max(m, n, n") .....	2.363 in

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**Table 7-1**  
**Available Shear**  
**Strength of Bolts, kips**

Nominal Bolt Diameter, $d$ , in.					$5/8$		$3/4$		$7/8$		1	
Nominal Bolt Area, in. <sup>2</sup>					0.307		0.442		0.601		0.785	
ASTM Desig.	Thread Cond.	$F_{nv}/\Omega$ (ksi)	$\phi F_{nv}$ (ksi)	Loading	$r_n/\Omega$	$\phi r_n$	$r_n/\Omega$	$\phi r_n$	$r_n/\Omega$	$\phi r_n$	$r_n/\Omega$	$\phi r_n$
		ASD	LRFD		ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD
Group A	N	27.0	40.5	S	8.29	12.4	11.9	17.9	16.2	24.3	21.2	31.8
				D	16.6	24.9	23.9	35.8	32.5	48.7	42.4	63.6
Group A	X	34.0	51.0	S	10.4	15.7	15.0	22.5	20.4	30.7	26.7	40.0
				D	20.9	31.3	30.1	45.1	40.9	61.3	53.4	80.1
Group B	N	34.0	51.0	S	10.4	15.7	15.0	22.5	20.4	30.7	26.7	40.0
				D	20.9	31.3	30.1	45.1	40.9	61.3	53.4	80.1
Group B	X	42.0	63.0	S	12.9	19.3	18.6	27.8	25.2	37.9	33.0	49.5
				D	25.8	38.7	37.1	55.7	50.5	75.7	65.9	98.9
A307	-	13.5	20.3	S	4.14	6.23	5.97	8.97	8.11	12.2	10.6	15.9
				D	8.29	12.5	11.9	17.9	16.2	24.4	21.2	31.9
Nominal Bolt Diameter, $d$ , in.					$1\ 1/8$		$1\ 1/4$		$1\ 3/8$		$1\ 1/2$	
Nominal Bolt Area, in. <sup>2</sup>					0.994		1.23		1.48		1.77	
ASTM Desig.	Thread Cond.	$F_{nv}/\Omega$ (ksi)	$\phi F_{nv}$ (ksi)	Loading	$r_n/\Omega$	$\phi r_n$	$r_n/\Omega$	$\phi r_n$	$r_n/\Omega$	$\phi r_n$	$r_n/\Omega$	$\phi r_n$
		ASD	LRFD		ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD
Group A	N	27.0	40.5	S	26.8	40.3	33.2	49.8	40.0	59.9	47.8	71.7
				D	53.7	80.5	66.4	99.6	79.9	120	95.6	143
Group A	X	34.0	51.0	S	33.8	50.7	41.8	62.7	50.3	75.5	60.2	90.3
				D	67.6	101	83.6	125	101	151	120	181
Group B	N	34.0	51.0	S	33.8	50.7	41.8	62.7	50.3	75.5	60.2	90.3
				D	67.6	101	83.6	125	101	151	120	181
Group B	X	42.0	63.0	S	41.7	62.6	51.7	77.5	62.2	93.2	74.3	112
				D	83.5	125	103	155	124	186	149	223
A307	-	13.5	20.3	S	13.4	20.2	16.6	25.0	20.0	30.0	23.9	35.9
				D	26.8	40.4	33.2	49.9	40.0	60.1	47.8	71.9
<b>ASD</b>	<b>LRFD</b>	For end loaded connections greater than 38 in., see AISC Specification Table J3.2 footnote b.										
$\Omega = 2.00$	$\phi = 0.75$											



**RC GROUP, LLC**

7500 NW 25<sup>th</sup> ST, Suite 292, MIAMI, FLORIDA 33122  
PHONE: 305.477.8860 FAX: 305.463.6761

Reviewed For Compliance

**RV2217886**

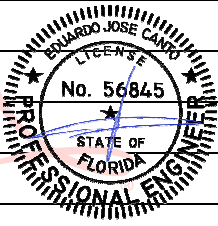
10/03/2022 1:30:49 PM

**CITY COMMENTS RESPONSE**

Amethyst Condominium  
5310 Collins Ave.

PROJECT: Miami, Florida 33140 Date: 06-07-2022  
RC Job No. : 220135 Pages: Cover +1  
PROCESS No.: N/A CITY : Miami Beach

*NOTE: The following comments response shall be read in conjunction with the attached comments by City Reviewer.*

ITEM	RESPONSE to City Structural Reviewer Comments 06-07-2022
1 thru 4	Acknowledged.
5	Please see revised SH-1 note.
6	Please see revised calculations page 2.
	Digitally signed by Eduardo J Canto DN: c=US, o=RC GROUP LLC, dnQualifier=A01410C0 000017DC3DABE78000 0CD65, cn=Eduardo J Canto Date: 2022.06.07 '15:03:41 -04'00
	
Note:	Please call us at 305-477-8860 if you have any question.

This item has been electronically signed & sealed by Eduardo J. Canto, P.E., S.I. Dated: 06/07/2022, using a Digital Signature. Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

O.L#: 600338-8  
E.B.#: 26946

Eduardo Canto  
Structural Engineer  
PE No. 56845

**RC GROUP, LLC**

7500 NW 25<sup>th</sup> ST, Suite 292, MIAMI, FLORIDA 33122  
PHONE: 305.477.8860 FAX: 305.463.6761

Reviewed For Compliance

**RV2217886**

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CITY STRUCTURAL REVIEWER COMMENTS:

the documents. Alternatively, provide independent signed and sealed letter from E.O.R. with list of reviewed documents.

5. Replace W by C on steel note #1. See screenshot below,

1. ALL STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS OTHERWISE NOTED. W SHAPES HEAVIER THAN 20 PLF SHALL BE ASTM A992. SUBMIT SHOP DRAWINGS SIGNED & SEALED BY A FLORIDA REGISTERED ENGINEER FOR APPROVAL. ALL CONNECTIONS DETAILS TO BE SHOWN ON SHOP DRAWINGS.

6. Replace shearwall by column on calculations. See screenshot below,

CHECK THRU BOLTS CONCRETE BEARING

Data:  $f_c = 5000\text{psi}$  (V.I.F.)

$$R_{\text{Column}} = \frac{294.29\text{k}}{6} = 49.048\text{k} \quad \text{See previous calculations}$$

HY 200 Epoxy thickness  $Epoxy_t = \frac{1}{16}\text{in}$  minimum  $Bolt_{Dia} = 1\text{in} + \frac{1}{8}\text{in}$

Loaded surface dimensions:  $B = (Bolt_{Dia} + Epoxy_t) + N_c = 12\text{in}$  Column width (V.I.F.)

Check Bearing:

Allowable Concrete Bearing on Shearwall  $F_c = 0.70 f_c$   $F_c = 3500\text{psi}$

Actual Concrete Bearing on Shearwall  $f_c = \frac{R_{\text{Column}}}{B \cdot N} f_c = 3441.988\text{psi}$

Pdf files (Items 1 thru 4) containing valid digital signatures shall be uploaded on the CSS system.

Respectfully,

MIAMIBEACH

**Adalberto Viciedo, P.E.**

Chief Structural Engineer

BUILDING DEPARTMENT

1700 Convention Center Drive, Miami Beach, FL 33139

Tel: 305-673-7610 Ext. 26735 / Fax: 786-394-5497 / [www.miamibeachfl.gov](http://www.miamibeachfl.gov)

We are committed to providing excellent public service and safety to all who live, work and play in our vibrant, tropical, historic community.

O.L#: 600338-8  
E.B.#: 26946

Eduardo Canto  
Structural Engineer  
PE No. 56845

RV2217886

NOTICE TO THE CITY OF MIAMI BEACH BUILDING DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR UNDER THE FLORIDA BUILDING CODE (6th Edition, 2017)

I have been retained by: ICON ENGINEERS to perform special inspector services at the Amethyst Condominium, 5313 Collins Av, Miami Beach, FL project on the below listed structures as of 06/08/2022 (date). I am a registered architect or a professional engineer licensed in the State of Florida.

Process Number: Master Permit (IF APPLICABLE):

- Special Inspector for Pilings, CMDC Sect. 8-22
Special Inspector for Lightweight Insulating Concrete, CMDC Sect. 8-22
Special Inspector for Soil Compaction, CMDC Sect. 8-22
Special Inspector for Precast Units and Attachments, CMDC Sect. 8-22
Special Inspector for Reinforced Masonry, FBC 2122.2.4 & CMDC Sect. 8-22
Special Inspector for Steel Bolted & Welded Connections, CMDC Sect. 8-22
Special Inspector for Trusses over 35 feet long or 6 feet high, CMDC Sect. 8-22
Special Inspector for Curtain Wall, CMDC Sect. 8-22
Special Inspector for Structural Glazing, CMDC Sect. 8-22
Special Inspector for Composite Floor System, CMDCC Sect. 8-22

Special Inspector for SHORING AND RE-SHORING NOTE: Only the marked boxes apply.

The following individuals employed by this firm or me are authorized representatives to perform inspections

- 1. Eduardo J. Canto, P.E. 2. Rafael A. Oreamuno
3. Jacqueline Padron 4.

\* Special inspectors utilizing authorized representatives shall insure the authorized representative is qualified by education or licensure to perform the duties assigned by the Special Inspector. The qualifications shall include: licensure as a professional engineer or architect; graduation from an engineering education program in civil or structural engineering; graduation from an architectural education program; successful completion of the NCEES Fundamentals Examination; or registration as a building inspector or general contractor.

I will notify the City of Miami Beach Building Department of any changes regarding authorized personnel performing inspection services.

I understand that all mandatory inspections, as required by the Florida Building Code, shall be requested by the permit holder and approved by the Building Department Inspectors. Inspections performed by the Special inspector hired by the Owner are in addition to the mandatory inspections performed by the Building Department. A Special Inspection Log for each building must be displayed in a convenient location on the site for inspection by the Building Department Inspectors. Further, upon completion of the work under each building permit, I will submit to the Building Department at the time of final inspection the completed Inspection Log form and sealed statement that, to the best of my knowledge, belief and professional judgment those portions outlined above meet the intent of the Florida Building Code and are in subsequent accordance with the approved plans.

Architect/Engineer's Printed Name and Signature: Eduardo J. Canto, P.E., RC GROUP, LLC

Address, Telephone, and E-mail: 7500 NW 25 ST, Suite 292, Miami, FL 33122

License Number: 56845

Digitally signed by Eduardo J. Canto DN: cn=US, o=RC GROUP LLC, dnQualifier=A01410C0000017DC3DABE780000CD65, cn=Eduardo J. Canto Date: 2022.06.08 14:04:00 -04'00



06/08/2022

This item has been electronically signed & sealed by Eduardo J. Canto, P.E., S.I. Dated: 06/08/2022, using a Digital Signature. Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

Signed and Sealed:

Date:

Accepted at the Building Department by:

Date:



May 27, 2022

**City of Miami Beach**  
**Building Department**  
 1700 Convention Center Dr.  
 Miami Beach, FL 33139

Ref: Garage Columns Shoring Shopdrawing Review  
 Amethyst Condominium  
 5313 Collins Ave  
 Miami Beach, FL 33140

## STATEMENT LETTER

Building Department Official:

This letter is to confirmed that I, Fernando Azcue, P.E, the Engineer of Record of the above mentioned project, have reviewed and approved the Garage Columns Shoring Shopdrawing. The shopdrawing was signed and sealed by Eduardo Jose Canto, P.E. Lic. No: 56845 on April 5<sup>th</sup>, 2022. The following are the names of the shopdrawing sheets:

- S-0 General Notes
- SH-1 Floor plan notes and details
- SH-2 Floor plan notes and details

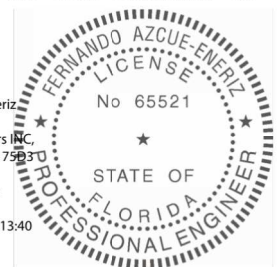
As mentioned on the shoring calculations, the repair of the column must be repaired in phases affecting no more than 50% of the column. However, I instructed the GC that the column must be repaired one corner at a time as mentioned on the approved drawings (typical column repairs), no more than 25% of the column section. I will be at the side during loose concrete removal to ensure that we do not exceed the 25%.

Should you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

Fernando  
 o Azcue  
 Eneriz

Digitally signed by  
 Fernando Azcue Eneriz  
 DN: c=US, o=ASD  
 Consulting Engineers Inc,  
 ou=A01410C00000175B3F  
 4A97A900001494,  
 cn=Fernando Azcue  
 Eneriz  
 Date: 2022.05.31 10:13:40  
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**Fernando Azcue, P.E.**

**Lic. No. 65521**

**Special Inspector No: 7023770**