BLOCK 671 LOT 1.01 QUALIFICATION CODE _____ ADDRESS (SITE) 56 Chambers Bridge Rd Brick NJ PERMIT NO. 14-1870

CONSTRUCTION PERMIT APPLICATION

C-14-001963

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

I. IDENTIFICATION

1. Proposed Work Site at: 56 Chambers Bridge Rd, Brick NJ
2. Name of Owner in Fee: Red Robin Gormet Burgers Federal Realty Invest. Trust
   Tel. (847) 298-6900 e-mail _____
   Address 6312 S. Fiddlers Greene Cir., Greenwood Co. 80111
   street municipality zip code
3. Ownership in Fee: Public _____ Private _____
4. Principal Contractor: Conboy - Mannion Tel. (518) 583-4038
   Address 36 Phila St e-mail _____
   Saratoga Springs, N.Y. 12866
   License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____
   Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____
   Federal Emp. ID No. 14-1686116 FAX: ( ) _____
5. Architect or Engineer Chipman Design Contact Brian Jung
   Address 2740 River Rd, Des Plaines Ill. e-mail _____
   Tel. ( ) _____ FAX: ( ) _____
6. Responsible Person in Charge once Work has Begun DAN Cochran
   Tel. (609) 226-8226 FAX: ( ) _____

V. FEE SUMMARY (for office use only)

		Update	Update
1. Building	$ 750 ✓		
2. Electrical			
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal			
7. Less 20% for State Plan Review	$		
8. Subtotal	$ 17		
9. State Permit Surcharge Fee			
10. Subtotal	$		
11. Cert. of Occupancy			
12. Other Pylon Sign	+ ~~250~~		
13. TOTAL	$ 767		

VI. BUILDING/SITE CHARACTERISTICS

		(office use only)
1. Number of Stories	1	
2. Height of Structure	22'6" ft.	
3. Area — Largest Floor	5940 sq. ft.	
4. New Building Area	6284 sq. ft.	
5. Volume of New Structure	141,390 cu. ft.	
6. Max. Live Load	20 lbs	
7. Max. Occupancy Load	289	
8. If Industrialized Building: State Approved ___ HUD ___		
9. Total Land Area Disturbed	sq. ft.	
10. Flood Hazard Zone		
11. Base Flood Elevation	ft.	
12. Wetlands yes ___ no ✓		

IIa. PROPOSED WORK

- ☐ Minor Work
- ☐ New Building
- ☐ Addition
- ☐ Demolition
- ☐ Repair
- ☐ Alteration
- ☐ Renovation
- ☐ Reconstruction
- ☐ Asbestos Abat. -Subch. 8
- ☐ Lead Hazard Abatement
- ☐ Radon Remediation
- ☐ Annual Permit

IIb. SUBCODES (Check all that apply)

FOR OFFICE USE ONLY (Optional)

	Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Resubmission Dates Rejection	Re-viewer
☑ Building	$750				6/11/14	IW			
☐ Electrical									
☐ Plumbing									
☐ Fire Protection									
☐ Elevator		Eng exempt			5/31/14	ECC			
TOTAL COST									

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL *(primary use)*
1. State Specific Use:
2. Use Group, Proposed: _____
3. Change in Use Group, Indicate Present:
4. No. of dwelling units: *Total Units* *Income-restricted*
   Gained, Sale ___ ___
   Gained, Rental ___ ___
   Lost, Sale ___ ___
   Lost, Rental ___ ___

B. NON-RESIDENTIAL *(primary use)*
1. State Specific Use:
2. Use Group, Proposed: _____
3. Change in Use Group, Indicate Present:

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:
1. ☐ Partial Releases
2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks
2. ☐ High Pressure Boilers
3. ☐ Pressure Vessels
4. ☐ Refrigeration Systems
5. ☐ Cross-Connections/Backflow Preventers
6. ☐ Hazardous Uses/Places of Assembly
7. ☐ Sprinklers/Standpipes
8. ☐ Smoke Control Systems in Open Wells
9. ☐ Underground Storage Tanks
10. ☐ Swimming Pools, Spas and Hot Tubs
11. ☐ LPGas Tanks
12. ☐ Fire Alarm

U.C.C. F100-1 (rev. 8/08)

Red Robin

Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 2/10/2015
Control Number C-14-001963
Permit Number 14-1870
Permit Issue Date 6/19/2014
Certificate Number 14-1870

Certificate

Construction Code Division

(Certificate of Approval)

Identification

Work Site Location: 56 CHAMBERS BRIDGE RD. Red Robin (Pylon Sign) Brick Township, NJ Block: 671 Lot: 1.01 Qual:

Owner in Fee: FEDERAL REALTY INVESTMENT TRUST

Owner Address: 1626 EAST JEFFERSON ST ROCKVILLE NJ 20852

Telephone:

Contractor Conboy-Mannion

Address 36 Phila St. Saratoga Springs NY 12866

Telephone: (518) 583-4038 Fax:

License Number or Builders Registration Number: Federal Emp. Number: 14-16866116

Home Warranty Number:

Type of Warranty Plan: ☐ State ☐ Private

Use Group: A-2 Construction Classification:

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: SIGN INSTALLATION ...RED ROBIN RESTAURANT - PYLON SIGN

Certificate Comments:

☐ **Certificate of Occupancy**
This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☑ **Certificate of Approval**
This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**
This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**
The following conditions must be met no later than
or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:
Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**
This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**
This serves notice that based on written certification, asbestos abatement was performed to the following extent.

☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**
This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**
The following conditions must be met no later than:
or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:
Conditions to be met:

Construction Official

Fee: $0.00
Check Number:
Collected By:

Date Printed: 2/10/2015

U.C.C. F260 (rev. 08/05)

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

A. ( ) I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

B. ( ) I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

C. ( ) I further certify that I will perform or supervise the following work:
C.1. ( ) Building C.2. ( ) Fire Protection

I further certify that I will perform the following work:
C.3. ( ) Electrical C.4. ( ) Plumbing

D. ( ) I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

(✓ Check if contractor.

Agent Name Cowboy - Mannion

Address 36 Phila St

Saratoga Springs, NY 12866

Telephone (518) 583-4938

Signature _____

III. ( ) LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

BUILDING SUBCODE
TECHNICAL SECTION

Date Received / Control # 6/19/14

Date Issued / Permit # 14-1870

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 671 Lot 1.011 Qualification Code

Work Site Location 56 Chambers Bridge Rd. Brick NJ

Owner in Fee: Red Robin Gormet Burgers

Tel. (847) 298-6900 e-mail

Address 6312 S. Fiddlers Greene Cir. Greenwood Co 80111 (street / municipality / zip code)

Contractor: Conboy-Mannion Tel. 518 583-4038

Address 36 Phila St. e-mail

Saratoga Springs NY 12866

Contractor License No. or Builder Registration No. Exp. Date

Home Improvement Contractor Registration No. or Exemption Reason (if applicable):

Federal Emp. ID No. 14-1686116 FAX: ( )

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial
[ ] No Plans Required		
[X] All	6/11/14	
[ ] Footings/Foundations		
[ ] Structural/Framework		
[ ] Exterior		
[ ] Interior		

Joint Plan Review Required:
[ ] Elec. [ ] Plumb. [ ] Fire [ ] Elevator

SUBCODE APPROVAL for PERMIT
Date: 06/12/14
Approved by: KRM

SUBCODE APPROVAL for CERTIFICATE
[ ] CO [ ] CCO [✓] CA
Date: 02/10/15
Approved by: KRM

INSPECTIONS Type:	Failure	Failure	Approval	Initial
Footing				
Footing Bonding				
Foundation				
Slab				
Frame				
Truss Sys./Bracing				
Barrier-Free				
Insulation				
Finishes -Base Layer				
Finishes -Final				
Energy				
Mechanical				
TCO				
Other				
Final			2-5-15	MV
Barrier-Free				

Dates (Month/Day)

B. BUILDING CHARACTERISTICS

Use Group Present ____ Proposed ____
No. of Stories 1
Height of Structure 22'6" ft.
Area — Largest Floor 5940 sq. ft.
New Bldg. Area/All Floors 6284 sq. ft.
Volume of New Structure 141,390 cu. ft.
Max. Live Load 20 lbs. Sq. ft.
Max. Occupancy Load 289

Constr. Class Present ____ Proposed ____
If Industrialized Building:
State Approved ____ HUD ____

Est. Cost of Bldg. Work:
1. New Bldg. $ 750
2. Rehabilitation $
3. Total (1+ 2) $

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the agent of owner of record and am authorized to make this application.

Sign here:

Print name here: Daniel Cochran

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Pylon Sign
"To Go"
Per Plans
Red Robin

TYPE OF WORK:
[ ] New Building
[ ] Addition
[ ] Rehabilitation
[ ] Roofing
[ ] Siding
[ ] Fence ____ Height (exceeds 6')
[X] Sign ____ Sq. Ft.
[ ] Pool
[ ] Retaining Wall ____ Sq. Ft.
[ ] Asbestos Abatement Subchapter 8
[ ] Lead Haz. Abatement NJAC 5:17
[ ] Radon Remediation
[ ] Other ____
[ ] Demolition

FEE (Office Use Only)
$

Administrative Surcharge $
Minimum Fee $
State Permit Surcharge Fee $
TOTAL FEE $

U.C.C. F110
(rev. 11/09)

1 White = Inspector Copy
2 Canary = Office Copy
3 Pink = Office Copy
4 Gold = Applicant Copy

OFFICE USE ONLY

ZONING REVIEW:

DATE REVIEWED: 6/28/14 DATE DENIED: — DATE APPROVED: 6/28/14 INTLS: SEB

DATE:	COMMENTS:	INITIALS:

LM 6/12/14 LH

CONSTRUCTION PERMIT

Date Issued 6/19/14
Control # C-14-001963
Permit # 14-1870

IDENTIFICATION Block: 671 Lot: 1.01 Qualifier
Work Site Location: 56 CHAMBERS BRIDGE RD. Red Robin (Pylon Sign) Brick Township, NJ
Owner in Fee: FEDERAL REALTY INVESTMENT TRUST 1626 EAST JEFFERSON ST ROCKVILLE NJ 20852
Telephone:
Contractor: Conboy-Mannion
Address: 36 Phila St. Saratoga Springs NY 12866
Telephone: (518) 583-4038
Lic. No. or Bldrs. Reg. No.
Federal Employee. No. 14-16866116

Is hereby granted permission to perform the following work:

- ☑ BUILDING
- ☐ PLUMBING
- ☐ LEAD HAZARD ABATEMENT
- ☐ ELECTRICAL
- ☐ FIRE PROTECTION
- ☐ DEMOLITION
- ☐ ELEVATOR DEVICES
- ☐ ASBESTOS ABATEMENT (Subchapter 8 only)
- ☐ OTHER

DESCRIPTION OF WORK:
SIGN INSTALLATION ...PYLON SIGN

Note: If constuction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.
Estimated Cost of Work $750

Construction Official David J. Newman Jr. Date 6/12/14

PAYMENTS (Office Use Only)

Building	$75
Electrical	$0
Plumbing	$0
Fire Protection	$0
Elevator Devices	$0
Other	$0.00
DCA Training Fee	$1
CO Fee	
Other	$0
Total	$76
Check No.	72463
Cash	$0
Credit	$0
Collected By	

150 126

U.C.C. F170
equiv (rev 1/04)
1 WHITE - INSPECTOR 2 CANARY - OFFICE 3 PINK - TAX ASSESSOR 4 GOLD - APPLICANT

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three (3) business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

BUILDING $75.00
DCA $1.00
DPH $50.00
CHECK $126.00

☑ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☑ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☑ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

RECEIVING CLERK CeL
DATE REC'D 5-6-14

ZONING PERMIT APPLICATION

PERMIT # ZP-140058
DATE ISSUED 6/9/14

BLOCK: 671 LOT: 1.01 QUALIFIER: _____ SITE ADDRESS: 56 Chambers Bridge Rd.

IDENTIFICATION:

1. NAME OF OWNER IN FEE: Red Robin Gormet Burgers
   COMPLETE ADDRESS: 6312 Fiddlers Green Cir. Greenwood Co. 80111
   PHONE # (847) 298-6900 EMAIL: _____

2. NAME OF APPLICANT: Cowboy - Mannion
   APPLICANT ADDRESS: 36 Phila St. Saratoga Springs, NY. 12866
   PHONE # 518 583-4098 EMAIL: _____

3. RESPONSIBLE PERSON FOR WORK: Dan Cochran
   PHONE# 609-226-1337 FAX# _____

4. SIGNATURE OF APPLICANT: [signature]

FOR OFFICE USE ONLY

FEE SUMMARY:

APPLICATION FEE: $ 50
OTHER: $ _____
TOTAL: $ 50

REQUIRED BY APPLICANT

RESIDENTIAL: —
COMMERCIAL: ✓
EXISTING USE: Padsite Vacant
PROPOSED USE: Red Robin

BOARD APPROVAL: ___ PB ___ ZB
RESOLUTION#: _____
APPROVAL DATE: _____

PROJECT DESCRIPTION: (PLEASE CHECK APPLICABLE WORK & DESCRIBE)
*NEW BUILDING: _____ *ADDITION _____ *ALTERATION _____ *PORCH _____ *DECK _____

POOL: ABOVE GROUND _____ IN GROUND _____ FENCE: HEIGHT _____ TYPE _____ MATERIAL _____

HEIGHT: 4'6 (*IF APPLICABLE)

OTHER Pylon Sign "To Go"

DESCRIPTION: Small Pylon Sign per plans

ZONING REVIEW:
DATE REVIEWED: 5/27/14 DATE DENIED: _____ DATE APPROVED: 5/27/14 INTLS: JM

(SEE BACK PAGE)

Brick Township
401 Chambers Bridge Rd.

Brick, NJ 08723
(732) 262-1027

Date Issued: 6/19/14
Application Number: ZA-14-00545
Application Date: 05/21/2014
Project Number:
Permit Number: ZP-1400558
Fee: $50

Zoning Permit

Worksite Location: **56 CHAMBERS BRIDGE RD.** **Brick Township, NJ**

Block: **671**
Lot: **1.01**
Qualifier:
Zone: **B-3**

Owner: **FEDERAL REALTY INVESTMENT TRUST**
Address: **1626 EAST JEFFERSON ST ROCKVILLE, NJ 20852**

Applicant: **Conboy-Mannion**
Address: **36 Phila St. Saratoga, NY 12866**

Application Approved Date: 05/27/2014

This Certifies that an application for the issuance of a Zoning Permit has been examined.

Use is: Restaurant Red Robin Restaurant
Nonconforming Use is:

Work Description:
Sign - Pylon Sign "To Go"
4'-6" x 2'-4"

3 sq. ft.

Additional Zoning permit is required for additional work.

Upon review it was determined that the Zoning Permit:

- ☑ Permitted by Ordinance
- ☐ Permitted by Variance approved on: _____
- ☐ Valid Nonconforming Use is established by
  - ☐ Zoning Board of Adjustment
  - ☐ ~~Zoning Officer~~

Darren P. Terrizzi, Assistant Zoning Officer — 05/27/2014 Date

Michael P. Fowler, Township Planner — 5/29/14 **Date**

File : Kieffer1043d.mcd

Site : Red Robin
Location No. 664
56 Chambers Bridge Road
Brick, New Jersey 08723

Sign Type : 4'-6" OAH direct bury single pole for 1'-0" x 2'-6 3/4" oval shaped directional sign set on an angle with a 6" x 2'-0" ancillary sign on a caisson footing.
Drawing No. 1405015 rev. A

Design wind load is based on the New Jersey State Uniform Construction Code (2009 IBC) using Exposure C and 120 mph winds.

Design Wind Speed : (mph.) $V := 120.0$

Importance Factor : $I := 1.00$ Based on Category II, Non-Hurricane Prone Regions with V = 85-100 mph.

Velocity Pressure Coefficent at a Height of Less Than 15', Exposure C : $Kz := 0.85$

Topographic Factor : $Kzt := 1.00$ Based on 6.5.7.2

Wind Directionality Factor : $Kd := 0.85$ Based on Table 6-4

Velocity Pressure : (PSF) $qz := 0.00256 \cdot Kz \cdot Kzt \cdot Kd \cdot V^2 \cdot I$ $qz = 26.634$

Force Coefficent : $Cf := 1.80$ Based on Figure 6-20

Gust Effect Factor : $G := 0.85$ Taken from 6.5.8.1 for Rigid Structures

Design Pressure : (PSF) $F := qz \cdot Cf \cdot G$ $F = 40.75$ Use : $WL := 40.8$

Reference : Manual of Steel Construction, AISC 13th Edition.

Tube : ASTM A-500 Gr. B Fy = 46.0 ksi. ; Fb = 30.36 ksi. ; Fv = 18.40 ksi.

Mounting Bolts : 18-8 Stainless Steel Fu = 60.0 ksi. ; Ft = 20.00 ksi. ; Fv = 10.00 ksi.

Reference : American Concrete Institute, Code 318.10

Rebar : ASTM A-615 Grade 40 Fy = 40.0 ksi.

Concrete : 3,000 psi. compressive strength at 28 days.

5/8/14

Design Loads at EL. 0.33' : (Pole splice 4" above grade.)

Directional Sign : $DirSgn := (1.0 \cdot 2.56 \cdot WL) \cdot \left[\left(\frac{1.5}{2}\right) + 2.86\right]$ $DirSgn = 377.057$ ft.lbs.

Upper Exposed Pole$_1$: $UprExpPole_1 := \left[0.38 \cdot \left(\frac{2}{12}\right) \cdot WL\right] \cdot \left[\left(\frac{0.38}{2}\right) + 2.48\right]$ $UprExpPole_1 = 6.899$ ft.lbs.

Ancillary Sign : $AncSgn := (0.5 \cdot 2.0 \cdot WL) \cdot \left[\left(\frac{0.5}{2}\right) + 1.98\right]$ $AncSgn = 90.984$ ft.lbs.

Lower Exposed Pole$_1$: $LwrExpPole_1 := \left[1.98 \cdot \left(\frac{2}{12}\right) \cdot WL\right] \cdot \left(\frac{1.98}{2}\right)$ $LwrExpPole_1 = 13.329$ ft.lbs.

Moment : (ft.lbs.) $MtEL0_{33} := DirSgn + UprExpPole_1 + AncSgn + LwrExpPole_1$ $MtEL0_{33} = 488.27$

Shear : (lbs.) $ShrEL0_{33} := (1.0 \cdot 2.56 \cdot WL) + (0.5 \cdot 2.0 \cdot WL) + \left[2.36 \cdot \left(\frac{2}{12}\right) \cdot WL\right]$ $ShrEL0_{33} = 161.296$

Design of Pole Structure at EL. 0.33' :

Section Modulus of Tube : ($in.^3$) TS 2" x 2" x 1/8" wall - TubeSM := 0.486

Bending Stress : (psi.) $f_b := \frac{MtEL0_{33} \cdot 12}{TubeSM}$ $f_b = 12056.047$

Area of Tube : ($in.^2$) TS 2" x 2" x 1/8" wall - TubeArea := 0.840

Shear Stress : (psi.) $f_v := \frac{ShrEL0_{33}}{TubeArea}$ $f_v = 192.019$

Unity Check : Upper Pole $UCUprPole := \frac{f_b}{30360} + \frac{f_v}{18400}$ $UCUprPole = 0.408 < 1.00$ OK

Design of Flat Head Set Screw for Pole Splice at EL. 0.33' :

Mounting Bolt Diameter : (in.) MntBltDia := 0.25

Stress Area : ($in.^2$) (Based on nominal diameter per AISC 4-3) $MntBltArea := \frac{\pi \cdot MntBltDia^2}{4}$ $MntBltArea = 0.049$

Allowable Shear : (lbs.) $AllwShr := 10000 \cdot MntBltArea$ $AllwShr = 491$

Unity Check - Set Screw : $UCSetScrw := \frac{ShrEL0_{33}}{AllwShr}$ $UCSetScrw = 0.329 < 1.00$ OK

Note : Use 1/4" diameter 18-8 Stainless Steel flat head set screw in counter sunk hole

Design Loads at Grade :

Directional Sign : $DirSgn := (1.0 \cdot 2.56 \cdot WL) \cdot \left[\left(\frac{1.5}{2}\right) + 3.19\right]$ $DirSgn = 411.525$ ft.lbs.

Upper Exposed $Pole_1$: $UprExpPole_1 := \left[0.38 \cdot \left(\frac{2}{12}\right) \cdot WL\right] \cdot \left[\left(\frac{0.38}{2}\right) + 2.81\right]$ $UprExpPole_1 = 7.752$ ft.lbs.

Ancillary Sign : $AncSgn := (0.5 \cdot 2.0 \cdot WL) \cdot \left[\left(\frac{0.5}{2}\right) + 2.31\right]$ $AncSgn = 104.448$ ft.lbs.

Lower Exposed $Pole_1$: $LwrExpPole_1 := \left[1.98 \cdot \left(\frac{2}{12}\right) \cdot WL\right] \cdot \left[\left(\frac{1.98}{2}\right) + 0.33\right]$ $LwrExpPole_1 = 17.772$ ft.lbs.

Direct Bury Pole : $DBPole := \left[0.33 \cdot \left(\frac{2.5}{12}\right) \cdot WL\right] \cdot \left(\frac{0.33}{2}\right)$ $DBPole = 0.463$ ft.lbs.

Moment : (ft.lbs.) $MtGrd := DirSgn + UprExpPole_1 + AncSgn + LwrExpPole_1 + DBPole$

$MtGrd = 541.96$

Shear : (lbs.) $ShrGrd := ShrEL0_{33} + \left[0.33 \cdot \left(\frac{2.5}{12}\right) \cdot WL\right]$ $ShrGrd = 164.101$

Design of Pole Structure at Top of Footing :

Section Modulus of Tube : ($in.^3$) TS 2-1/2" x 2-1/2" x 1/4" wall - TubeSM := 1.30

Bending Stress : (psi.) $f_b := \frac{MtGrd \cdot 12}{TubeSM}$ $f_b = 5002.712$

Area of Tube : ($in.^2$) TS 2-1/2" x 2-1/2" x 1/4" wall - TubeArea := 1.97

Shear Stress : (psi.) $f_v := \frac{ShrGrd}{TubeArea}$ $f_v = 83.3$

Unity Check : Lower Pole $UCLwrPole := \frac{f_b}{30360} + \frac{f_v}{18400}$ $UCLwrPole = 0.169 < 1.00$ OK

Design of Caisson Footing :

Moment : (ft.lbs.)	Ma := MtGrd	Ma = 541.96
Shear : (lbs.)	Va := ShrGrd	Va = 164.101
Applied Lateral Force : (lbs.)	P := Va	P = 164.101
Allowable Lateral Soil Pressure : ($lbs./ft.^2$ per ft.)		LP := 150
Diameter of Caisson : (ft.)		b1 := 1.0
Distance in Feet From Ground Surface to Point of Application of "P"	$h := \frac{Ma}{Va}$	h = 3.303
Depth of Footing Below Grade : (ft.)		d1 := 2.75
Allowable Lateral Soil Bearing Pressure Pursuant to the 2009 International Building Code Section 1805.7 and Table 1804.2.	$S1 := d1 \cdot \frac{(LP \cdot 1.33)}{3}$	S1 = 182.875

$A := 2.34 \cdot \frac{P}{(S1 \cdot 2) \cdot b1}$ A = 1.05

$d2 := \left(\frac{A}{2}\right) \cdot \left[1 + \left(\sqrt{1 + 4.36 \cdot \frac{h}{A}}\right)\right]$ d2 = 2.539 ≤ d1 = 2.75 OK

Check Tensile Stress in Footing :

Overturning Moment About Heel Point : (ft.lbs.) Treat as a cantilever at bottom. $Mh := Ma + (Va \cdot d1)$ Mh = 993.238

Compressive Strength of Concrete : (psi.) fc := 3000

Yield Strength of Rebar : (psi.) fy := 40000

Section Modulus of Footing : ($in.^3$) $Sw := \frac{\pi \cdot (b1 \cdot 12)^3}{32}$ Sw = 169.646

Tensile Stress in Concrete : (psi.) $ft := \left[\frac{(Mh \cdot 12)}{Sw}\right]$ ft = 70.257

Allowable Concrete Stress : (psi.) $\phi Ft := 0.65 \cdot (5 \cdot \sqrt{fc})$ $\phi Ft = 178.01$ > $ft = 70.257$

REBAR NOT REQUIRED FOR STRESS

Design of Temperature and Shrinkage Steel in Caisson :

Moment for USD Design : $Mu := 1.7 \cdot Mh$ $Mu = 1688.505$

$$d := [(b1 \cdot 12) \cdot .80] - \left[\frac{(b1 \cdot 12) - 2.5}{2}\right] \qquad d = 4.85$$

To Plot for " ju " : $$coeff := \frac{Mu \cdot 12}{fc \cdot b1 \cdot 12 \cdot d^2}$$ $coeff = 0.024$ $ju := 0.83$

Use yield strength of direct bury tube to check.

Yield Strength of Tube : (psi.) $fy := 46000$

Required Area : ($in.^2$) $$As := \frac{Mu \cdot 12}{ju \cdot fy \cdot d \cdot 0.90}$$ $As = 0.122$

Reinforcement Requirment : $As = 0.122$ < $TubeArea = 1.97$

No rebar required with the direct bury tube.

Quantity of Concrete : ($yds.^3$) $$CY := \left(\frac{\pi \cdot b1^2 \cdot d1}{4 \cdot 27}\right)$$ $CY = 0.08$

Note : Keep bottom of tube 3" from bottom of footing to create concrete cover for water exclusion.

ENGINEERING PERMIT APPLICATION

RECEIVING CLERK: _____

PERMIT #: _____

BLOCK: 671 LOT: 1.01 ADDRESS: 56 Chambers Bridge Rd, Brick NJ

IDENTIFICATION:

1. WORK SITE ADDRESS: 56 Chambers Bridge Rd
2. NAME OF OWNER IN FEE: Red Robin Gormet Burgers
   ADDRESS: 6312 S. Fiddlers Greene Cir PHONE #: (847) 298-6900
   Greenwood Co 80111 FAX #: (_) _____
3. PRINCIPAL CONTRACTOR: Conboy-Marrion
   ADDRESS: 36 Phila St PHONE #: (518) 583-4038
   Saratoga Springs NY 12866 FAX #: (_) _____
4. ARCHITECT OR ENGINEER: Chipman Design
   ADDRESS: 2700 S. River Rd Des Plaines Il. PHONE: # (847) 298-6900
5. RESPONSIBLE PERSON FOR WORK: Dan Cochran
   ADDRESS: _____

PHONE #: (609) 226-8226 FAX #: (_) _____ E-MAIL: _____

FEE SUMMARY:

APPLICATION FEE:	$ _____
REVIEW FEE:	$ _____
INSPECTION FEE:	$ _____
OTHER _____:	$ _____
BOND(S):	$ _____
TOTAL:	$ _____

PROJECT DESCRIPTION:

☐ GRADING/CLEARING ☐ ROAD OPENING
☐ SOIL REMOVAL/FILL ☐ RETAINING WALL ☐ POOL
☐ BULKHEAD/DOCK ☐ DWELLING ☐ TREE REMOVAL _____
☒ OTHER Pylon Sign (To 60')

LENGTH: _____ WIDTH: _____ HEIGHT: _____

SPECIAL CONDITIONS:

OCEAN COUNTY SOILS: _____
DRAINAGE EASEMENTS: _____
UTILITY EASEMENTS: _____
CONSERVATION EASEMENTS: _____
FEMA REQUIREMENTS: _____
D.E.P. PERMITS: _____
BOARD APPROVAL: ☐ PB ☐ ZB
APPLICATION NUMBER: _____
APPROVED DATE: _____

ENGINEERING REVIEW:

DATE RECEIVED: _____ DATE REJECTED: _____ DATE APPROVED: _____ INITIALS: _____

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
☐ Zoning Officer	[illegible]	5/22/14							ZA-14-00545
☐ Planning Board									
☐ Zoning Board									
☐ Sewer Authority									
☐ Water Authority									
☐ Police Department									
☐ Health Department									
☐ Soil Conservation									
☐ N.J. Department of Community Affairs									
☐ N.J. Department of Transportation									
☐ N.J. Department of Environmental Protection									
☐ Utility Dig No.									
☐									
☐									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

	Name of Code & Edition		Name of Code & Edition	
Building		Energy		Other
Electrical		Barrier Free		
Plumbing		Flood Hazard		
Fire Protection		As Built Elevation Cert.		
Mechanical		Other		

X. CERTIFICATES ISSUED (office use only)

		DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
☐ Temporary Certificate of Occupancy	No.				
☐ Temporary Certificate of Compliance	No.				
☐ Continued Certificate of Occupancy	No.				
☐ Certificate of Compliance	No.				
☐ Certificate of Occupancy	No.				
☐ Certificate of Approval	No.				
☐ Lead Abatement Clearance Certificate	No.				