



VILLAGE OF THIENSVILLE
Plan Commission
AGENDA

DATE: Tuesday, December 12, 2023

LOCATION: 250 Elm Street, Thiensville, WI

TIME: 6:00 PM

I. CALL TO ORDER

II. ROLL CALL

CHAIRMAN:	VAN MOBLEY
COMMISSIONERS:	RICK GATTONI
	JEFF HERSHBERGER
	REBECCA HOLYOKE-ODEJA
	KEN KUCHARSKI
	JOE NELSON
	M. RANDY PASTERNAK
PLANNER:	JON CENSKY
DIRECTOR OF	ANDY LAFOND
COMMUNITY	
SERVICES/PUBLIC	
WORKS:	

III. CITIZENS TO BE HEARD

A. Open to any resident or taxpayer on items not subject to a public hearing: Please be advised per §19.84(2), information will be received from the public. Village policy limits a three (3) minute time period per person, with time extension by the presiding official's discretion or a vote of 2/3 of the Board or Committee; be further advised that there may be limited discussion on the information received, however, no action will be taken under public comments. Written comments on agenda items are encouraged to be sent and addressed to the intended body by noon on the day of the meeting. Comments received timely will be forwarded to all members of the body. If you wish to speak, you must pre-register by emailing the Village Clerk at clandisch@village.thiensville.wi.us by 4:00 PM on the day of the meeting or by signing in immediately prior to the meeting.

IV. BUSINESS

A. Approval of Minutes

1. November 14, 2023 (att)

B. Review and Action regarding Canopy Replacement, 246 S. Main Street, Village BP (att)

C. Review and Action regarding Sign Application and Sign Code Waiver for Size and Electronic Messaging, 246 S. Main Street, Village BP (att)

D. Review and Action regarding Gazebo, 213 E. Freistadt Road, Sergei Ialoma (att)

V. STAFF REPORT

A. Staff Report (att)

VI. ADJOURNMENT

Colleen Landisch-Hansen, Village Clerk

December 7, 2023

Please advise the Thiensville Municipal Hall, 250 Elm Street (262-242-3720) at least 24 hours prior to the start of this meeting if you have disabilities and desire special accommodations.



VILLAGE OF THIENSVILLE
Plan Commission
MINUTES

DATE: Tuesday, November 14, 2023

LOCATION: 250 Elm Street, Thiensville, WI

TIME: 6:00 PM

I. CALL TO ORDER

President Mobley called the meeting to order at 6:00 PM

II. ROLL CALL

CHAIRMAN:	VAN MOBLEY
COMMISSIONERS:	RICK GATTONI
	JEFF HERSHBERGER
	REBECCA HOLYOKE-ODEJA
	KEN KUCHARSKI
	JOE NELSON (EXCUSED)
	M. RANDY PASTERNAK
PLANNER:	JON CENSKY
DIRECTOR OF	ANDY LAFOND
COMMUNITY	
SERVICES/PUBLIC	
WORKS:	

III. CITIZENS TO BE HEARD

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There were no citizens to be heard.

IV. BUSINESS

A. Approval of Minutes

1. October 10, 2023 (att)

MOTION by Commissioner Holyoke-Odeja, **SECONDED** by Commissioner Gattoni to approve the October 10, 2023 Minutes. **MOTION CARRIED UNANIMOUSLY.**

B. Review and Action regarding Gazebo, 213 East Freistadt Road, Serghei Ialama (att)

The contractor explained the project. Planner Censky noted the gazebo complies with Village Code and there are no objections. The contractor added the gazebo is being built just past a deck off the rear of the home. Commissioner Hershberger noted that photos or elevations were not submitted with the application. Commissioner Kucharski asked if most of the structure has already been completed. The applicant noted the project is mostly complete. Commissioner Kucharski noted that there should have been an application for the project prior to it being built. The contractor replied the customer did not know about the process. Commissioner Gattoni noted he wants to see what the structure will look like and also voiced concern that construction is already well underway. Planner Censky suggested the applicant return with photos and a scaled drawing of the structure. In response to a question from President Mobley, Planner Censky noted the proposed accessory structure complies with Village Code requirements for size and setbacks. President Mobley noted if a structure complies with Village Code, it should be approved. The applicant did not follow the proper sequence.

MOTION by Commissioner Pasternak, **SECONDED** by Commissioner Holyoke-Odeja to approve Gazebo, 213 East Freistadt Road, Serghei Ialama.

Commissioner Kucharski noted he would like to table the application until the December meeting so a complete application can be obtained. President Mobley noted he would like to vote on the matter at this meeting, rather than table the application.

Ayes: Commissioners Holyoke-Odeja, Pasternak and President Mobley

Naes: Commissioners Gattoni, Hershberger and Kucharski

MOTION FAILS.

The applicant was asked to return to the December 12, 2023, meeting. Photos and a scaled drawing of the project will be submitted prior to the meeting.

V. STAFF REPORT

A. Staff Report (att)

Director LaFond noted staff approved a sign application at 151 Green Bay Road that involved new copy in an existing sign frame. Letters were mailed to three properties in the commercial district -- 133 South Main Street, 525 North Main Street and 127 South Main Street -- regarding maintenance issues. Director LaFond has met with one of the property owners and steps are being taken to address the concerns. Attempts are ongoing to arrange meetings with the other property owners. The Police Department contacted the property owner at 107 Concord Place regarding junked vehicles and outside storage. The owner of a vehicle for sale on the street in the 300 block of Green Bay Road was contacted. The vehicle was removed.

President Mobley asked for an update on the application for an electronic sign at Village BP, 246 South Main Street. Director LaFond noted that the resubmission of the sign without the display screen involved much larger price numbers. Staff requested the sign application be resubmitted with smaller numbers.

VI. ADJOURNMENT

MOTION by Commissioner Gattoni, **SECONDED** by Commissioner Kucharski to adjourn the meeting at 6:49 PM. **MOTION CARRIED UNANIMOUSLY.**

Submitted by,

Gary Achterberg
Administrative Assistant

Signed by,

Andy LaFond
Director of Community Services/Public Works

STAFF REPORT

To: **Thiensville Plan Commission**

Prepared by: **Jonathan P. Censky, City Planner**

Date: **December 12, 2023**

General Information

Applicant:	Basu Joshi
Status of Applicant:	Owner
Location:	246 South Main Street
Requested Action:	1. Sign Code Variance and Replacement Sign. 2. Approval of a replacement canopy.
Existing Zoning:	B-4 Highway Business District
Proposed Zoning:	No Change
Surrounding Zoning:	B-4 Highway Business District
Existing Lot Size:	24,700sf
Existing Land Use:	Gas Station

Report:

The applicant was before you in October requesting approval of the BP Gas station replacement sign, but since you asked for some changes to the sign, the request was tabled. Specifically, you asked that he eliminate the message display element from the bottom of the sign. In accordance with that direction, the applicant has now submitted his revised plan which is basically the same as that which you reviewed last month but without the message board. This sign will stand 9.83 feet tall and 5.18 feet wide for a size of 51 square feet in size on one side and 102 square feet total.

The applicant is also here requesting approval to replace the existing canopy over his gas dispensers with a new one. Village records indicate that the BP gas station was before the Board of Appeals years ago and received a variance for an encroachment into the front yard setback requirement for structures in the B-4 District. Staff's review of these plans indicates that the new canopy will be installed at the same setback location as the existing and therefore respects the previous variance allowance.

Accordingly, the applicant does not need to seek a new variance; the former variance still applies. The new canopy measures 48' x 50' which is slightly larger than the existing and will have a clearance of 15'. The canopy facia is similar to the existing and reflects BP's corporate logo and color scheme.

Staff Comments:

With respect to the sign, staff notes that Section 16.17b of the Sign Code states: **Monument Sign located outside the Green Bay Road and Main Street Historic District shall have a gross surface area not to exceed 40 square feet on one side nor 80 square feet on all sides.** However, Section 16.24 of the Code permits the Plan Commission to grant a variance as it states: **The Plan Commission may, in its judgment, waive or modify the provisions in this chapter where it would further the public interest.** If a variance is approved, Staff recommends that the new sign not exceed the size and height of the existing sign.

December 12, 2023
Page 2

Staff has no objection to the proposed replacement canopy subject to all ATCP and Village code requirements.



Village of Thiensville

Plan Commission Application

Property Address: 246 S. Main St., Thiensville WI 53092

Tax Key #

Property Owner

Basu Jooshi, Nanda Property LLC

Name

500 S. Main St., West Bend, WI 53095

Address

262-720-9030

Phone

basujooshi@gmail.com

Email address

Current Zoning

Applicant ☐ Same as owner

Neil Elgin, Walt's Petroleum Service

Name

5207 E. Jelinek Ave, Schofield, WI 54476

Address

715-201-4783

Phone

neile@waltspetro.com

Email address

Project description

Please describe your project in detail. Include details about height and dimensions, color, materials used and setbacks from the street and property lines. Provide any information that you believe will assist staff in reviewing and approving your request.

We will be replacing the existing canopy at the BP fuel station. The new canopy will be installed in the same location, but will be slightly larger at 48' x 50' with a clearance of 15' high. Canopy fascia will be BP branded similar to existing.

New tanks, piping, and dispensers will also be installed. All required permits will be obtained from WDATCP following ATCP code requirements.

Neil Elgin

Digitally signed by: Neil Elgin
DN: CN = Neil Elgin email = neile@waltspetro.com
C= US O = Walt's Petroleum Service, Inc.
Date: 2023.10.16 21:22:07 -0500

Applicant's Signature

12/16/23

Date

A complete application along with the appropriate fees shall be submitted by the deadline stated on the meeting schedule to the Village Clerk. In order for an application to be considered complete, the application shall include the required number of site plans/maps, and all of the necessary supporting information as indicated on the Project Review Checklist. The applicant is responsible to pay planner charges after a first half hour of planner time. Owner, architect, builder or owner's representative must attend the Plan Commission meeting for action to be taken. Work cannot begin until Plan Commission approval and paid and approved building permit.

Thiensville Plan Commission Application Revised 10.10.22

Page 1 of 3

Planner Fee Schedule: The Village provides the first half hour of the Village Planner's services. Any additional plan review time is billed at \$50.00/hr

Application Checklist: *Two Paper Copies and an electronic copy with files in PDF format (plan size 11X17) must be submitted for all applicable items below for planner review and the Plan Commission packet.*

- ☒ Submit scaled site plan with proposed location and setbacks with accurate dimensions indicating the property size, its relationship to surrounding properties, existing topography, key natural features and show the location of all existing and proposed:

A. Structures, showing all entrances	K. Dumpster location and screening
B. Driveways & street access	L. Location, color, message, dimensions and materials of all signs
C. Parking areas	M. Location, size and character of dedicated or private open space
D. Walkways	N. Location of sanitary sewer, storm sewer, water mains and services and storm water detention facilities
E. Existing landscaping	O. Floor plan of building or addition
F. Abutting public and private streets	
G. Public easements	
H. Surrounding land uses and zoning	
I. Retaining walls	
J. Decorative accessories	

- ☐ Storm water management plan.
- ☒ Completed building permit application (including two full size plan sets with state stamp for commercial and multi-family).
- ☐ Grading plan showing existing and finished grades.
- ☐ Professionally prepared landscape plan.
- ☐ Lighting plan; photometric plan, type of fixtures, wattage and location and height of lighting structures.
- ☐ Topographic data or pertinent grade elevations, if necessary, for proper remodeling of existing buildings showing finished exterior treatment.
- ☐ Colored elevations of proposed buildings, structures and fencing, or of proposed remodeling of existing buildings, showing finished exterior treatment and a listing of building materials.

Is property in Thiensville's Historic District? ☐ Yes ☐ No

If yes, you must apply for a Certificate of Appropriateness with the Historic Preservation Commission. Complete the COA application. Attendance at HPC meeting is required

***All Commercial and Multi-Family projects including any change of occupancy, change of use, or construction/alteration must be submitted to the Thiensville Fire Department for review, approval, and inspections.**

=====

VILLAGE STAFF REVIEW

☐ Application Complete. Items needed: _____

Submitted to Village Planner on _____ Planner Staff Report Completed on _____

Plan Commission Meeting Date _____

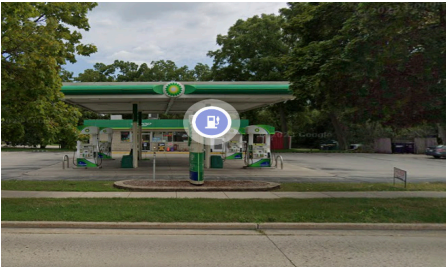
☐ Historic Preservation Approval (if needed) on _____

ADDITIONAL REMARKS/CONDITIONS:

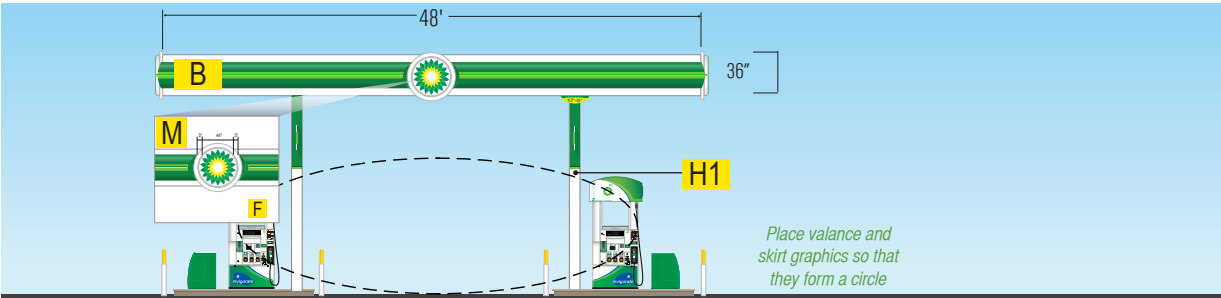
Village Staff

Title

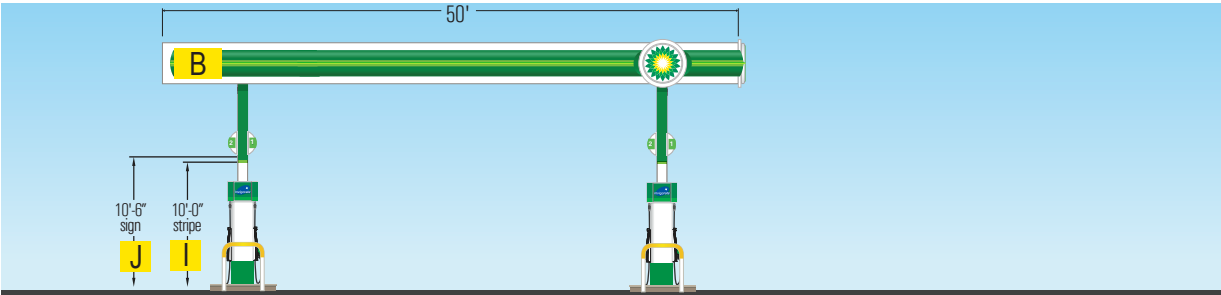
Date



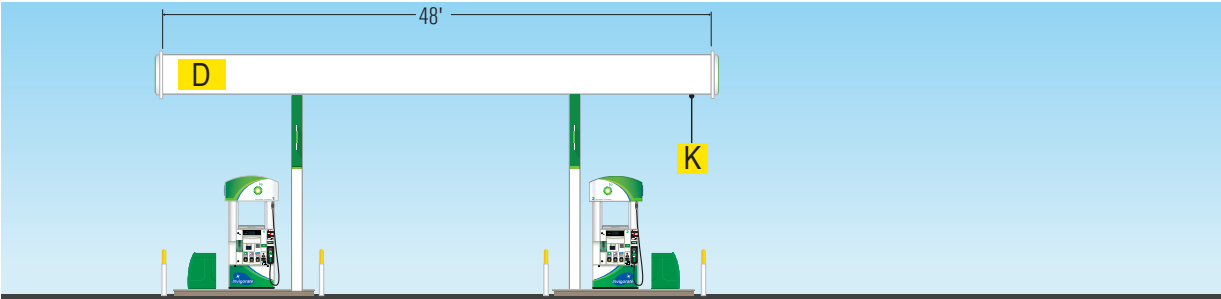
Front Elevation



Left Elevation



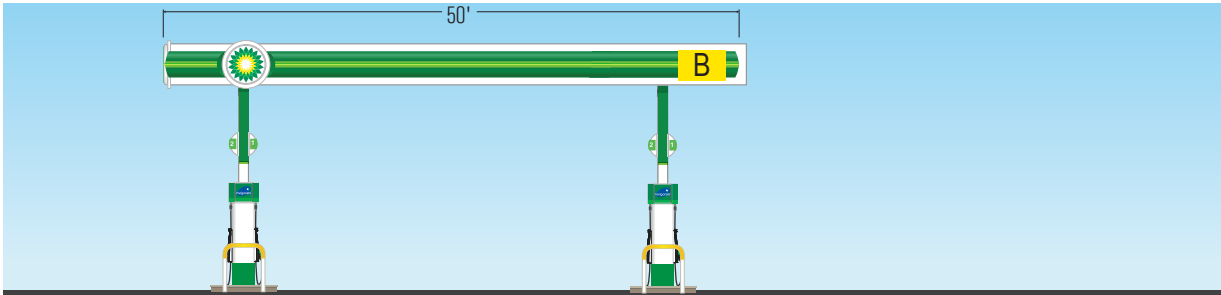
NO IMAGE AVAILABLE



Back Elevation



Right Elevation



See Site Notes page for specific paint codes and contact info.
REMOVE ALL EXISTING SIGNAGE

- B

☒

Install Dimensional Bullnose Fascia With Light Bar
- C1

☐

Install Dimensional Bullnose Fascia With No Light Bar
- C2

☐

Install BGB Flat ACM With Decal Applied With No Light Bar
- D

☒

Install New White ACM

☐ Jobber Supplied

☒ Federal Heath Supplied
- E

☐

Paint Existing Flat ACM White

☐ Install Bullnose Decal

☐ Leave White
- F

☒

Install Helios With Arc Kit

☐ 39" Helios

☐ 30" Helios (restricted P&Z only)

☒ 44" Helios

☐ 36" Helios (restricted P&Z only)
- G

☐

Install Helios Without Arc Kit

☐ 39" Helios

☐ 30" Helios (restricted P&Z only)

☐ 44" Helios

☐ 36" Helios (restricted P&Z only)
- H1

☒

Paint Canopy Columns White/BP Green, & Install Column Decal

(Per Standards Shown on Note Page)
- H2

☐

Image As Shown In Concepts
- I

☒

Install Flag Signs 10'6" From The Ground
- J

☒

Apply BP Light Green Stripe 10'0" From The Ground
- K

☒

Canopy Deck To Be BP White
- L

☒

Canopy Corners:

☒ Are 90°

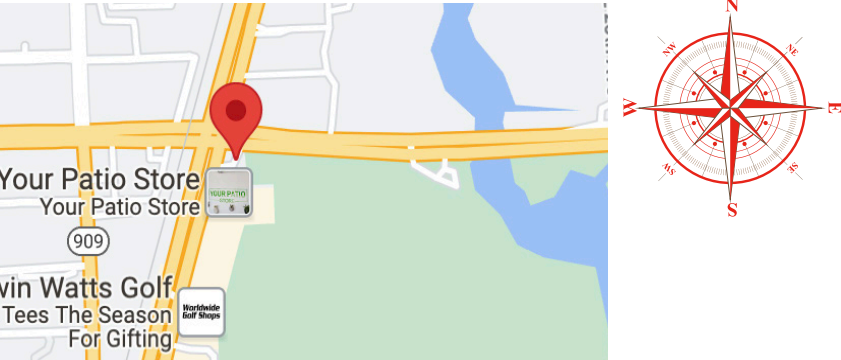
☐ Are NOT 90°
- M

☒

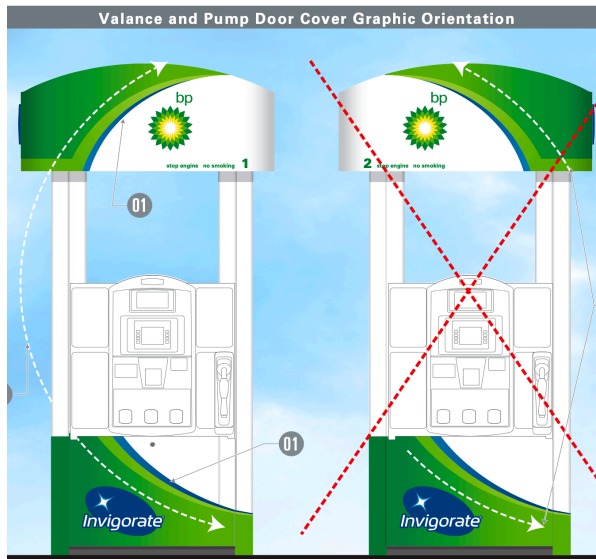
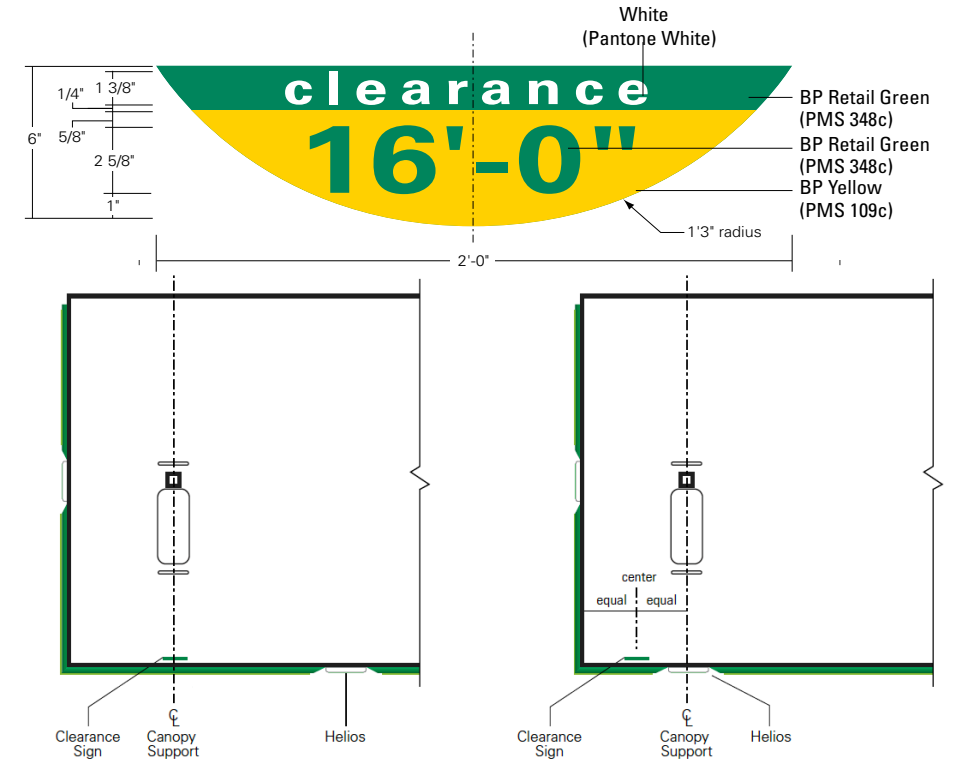
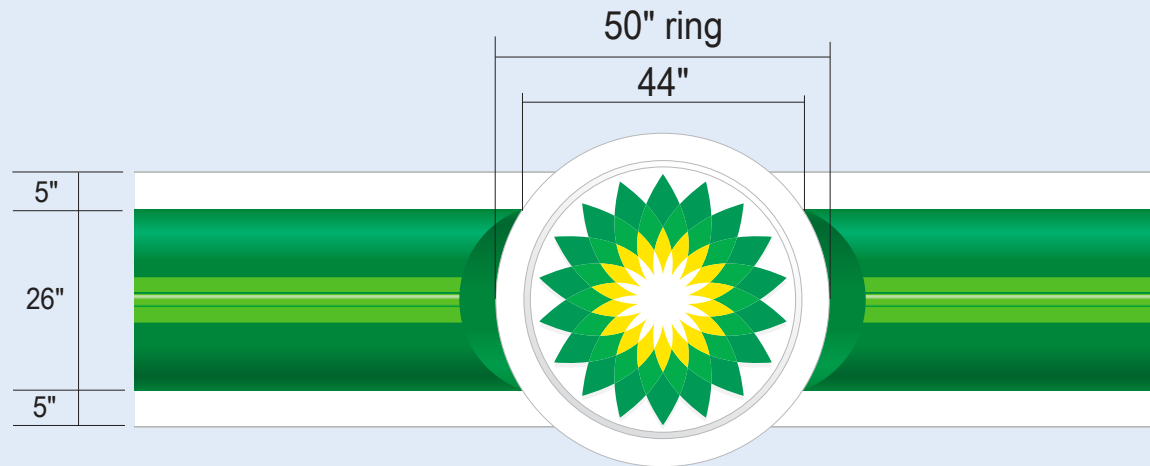
Canopy Detail (Full Canopy Detail Page After Elevation)

NOTES:
FOR A TWO TIER FASCIA, PLEASE REMOVE ALL LAYERS OF FASCIA AND TAKE IT BACK TO THE DECK. THEN BUILD THE FASCIA HEIGHT TO 36".

MAP:



M



Correct orientation. Swoosh graphic on valance and door cover match.

Do not install valance and door cover in opposite graphic directions.

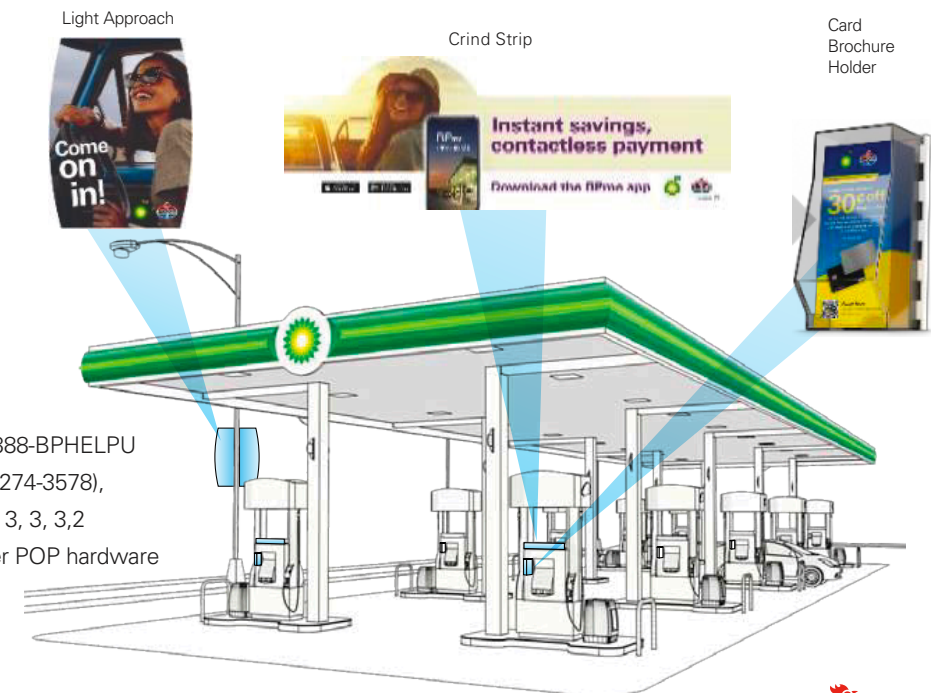
TYPICAL FOR ALL GASOLINE AND DIESEL DISPENSERS



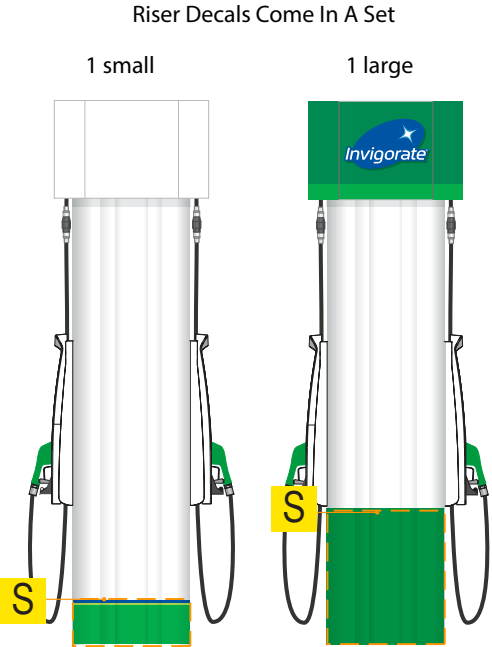
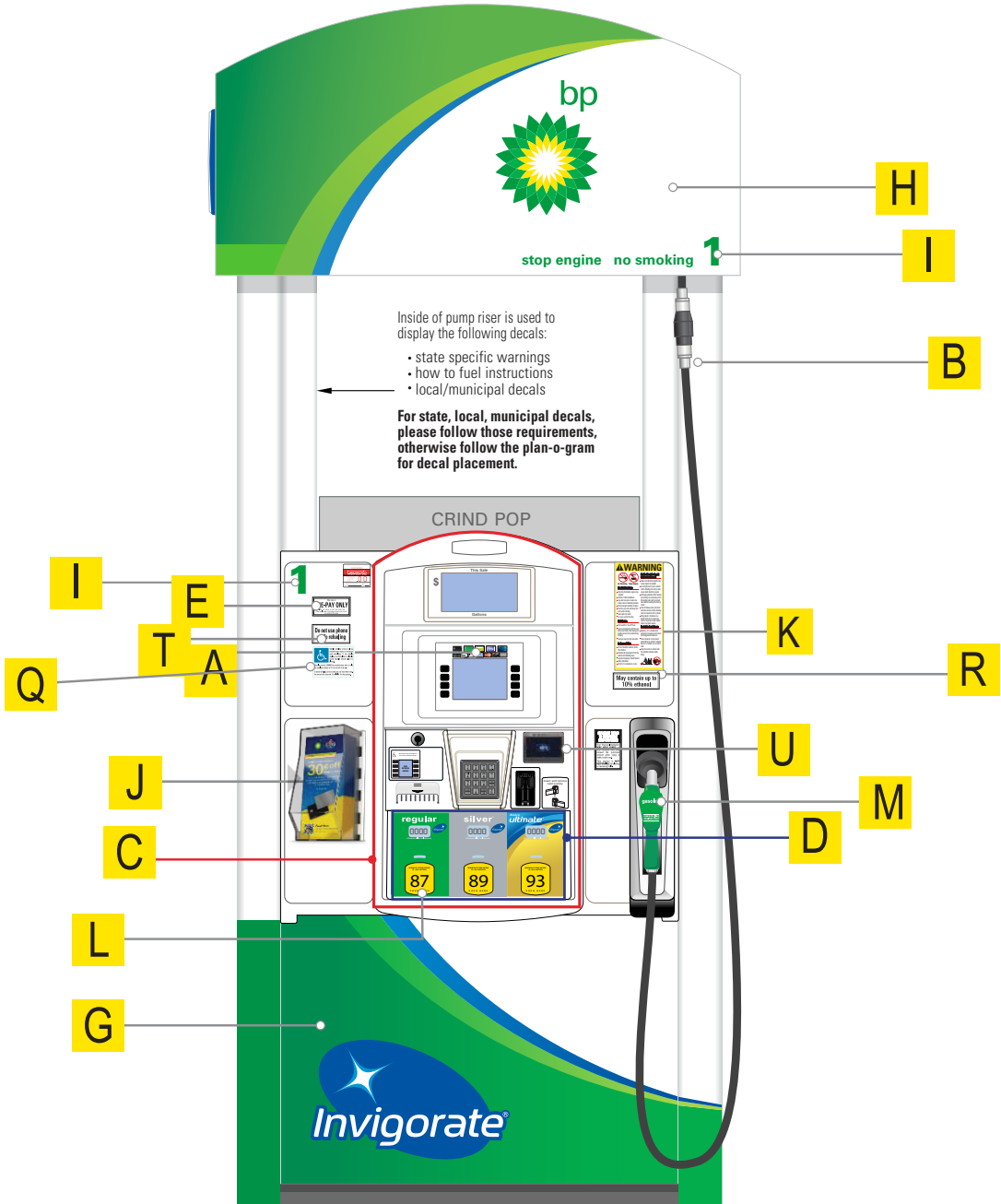
Note: Any deviation from nozzle covers **MUST** have BP approval.



Call 1-888-BPHELPU
(1-888-274-3578),
option 3, 3, 2
to order POP hardware



Unless prior approval has been given by the BP Image Manager: The decals shown in this rendering are the only decals approved by BP.
The failure to remove existing decals, or the installation of any additional decals will be considered non-compliant with BP Brand Standards.



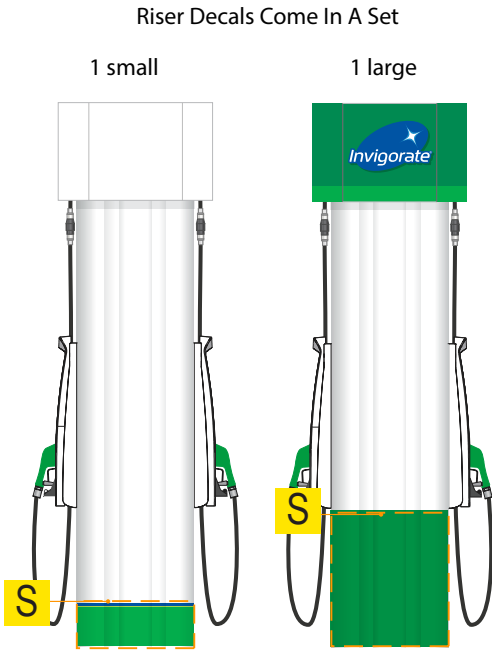
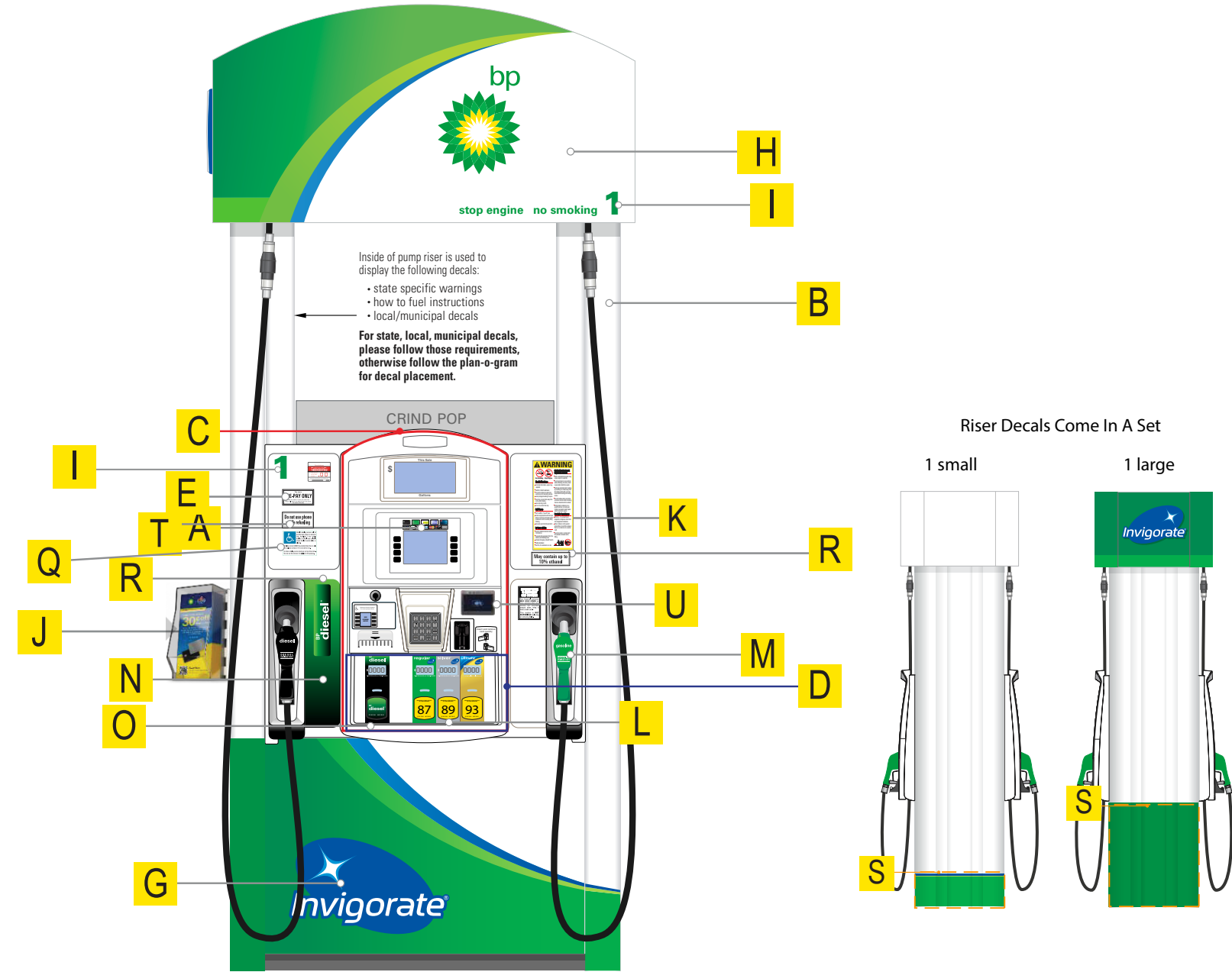
- *REMOVE ALL UNAPPROVED SIGNAGE FROM DISPENSERS*
- See Site Notes Page For Specific Paint Codes And Contact Info.
- ☒ Crind Hardware
 - ☐ Inverted Pump Sign Hardware (NY & NJ ONLY)
 - ☒ Install BP Credit Card Acceptance Decal
 - ☒ Install BP White Dispenser Riser Panel Overlay
 - ☒ Panel Surrounding Electronics Must Be One Of The Following Colors And/or Any Combination Of BP White, Grey, Beige And/or Black. Blue And Red Are Not Approved Amoco Colors.
 - ☒ Current electronic panel meets BP Standards
 - ☐ Current electronic panel DOES NOT meet BP standards
 - ☒ Apply BP Branded Grade Decals
 - ☒ Apply Please Prepay First Decal
 - ☐ Install "This Is Not A BP Product" Decal
 - ☒ Install BP Pump Appropriate Skirt
 - ☒ Install BP Branded Skirt (as shown)
 - ☐ Install BP Un-Branded Skirt (as shown)
 - ☒ Install Spec Valance (as shown)
 - ☒ Apply Pump Numbers (Decal supplied should have BP Green number with clear background)
 - ☒ Install Rewards Brochure Holder
 - ☒ Apply Regulatory Graphic Provided By BP (Additional graphics may be required by your state.)
 - ☒ Install Applicable Octane Decals
 - ☒ Install Correct Nozzle Covers (See Forecourt Notes Page)
 - ☐ Install Nozzle Surround For BP Branded Diesel
 - ☐ Install BP Branded Diesel Actuator Button
 - ☐ Apply Vertical Grade Decal For BP Branded Diesel
 - ☒ Apply Handicap Decal
 - ☒ Apply 10% Ethanol Decal (As required by code)
 - ☒ Apply Riser Decal
 - ☒ Do Not Use Phone While Fueling Decal
 - ☒ Tap To Pay Interface

Notes



- THESE FILLER PANELS WILL NEED TO BE PURCHASED THROUGH THE DISPENSER MANUFACTURER, GILBARCO. BP PARTS WILL NOT PROVIDE THIS ON THE ESTIMATE.
- THIS IS ONLY NEEDED IF YOU ARE REIMAGING AN EXISTING DISPENSER AND THIS AREA IS AN UNAPPROVED DISPENSER COLOR (RED OR BLUE).

Unless prior approval has been given by the BP Image Manager: The decals shown in this rendering are the only decals approved by BP. The failure to remove existing decals, or the installation of any additional decals will be considered non-compliant with BP Brand Standards.

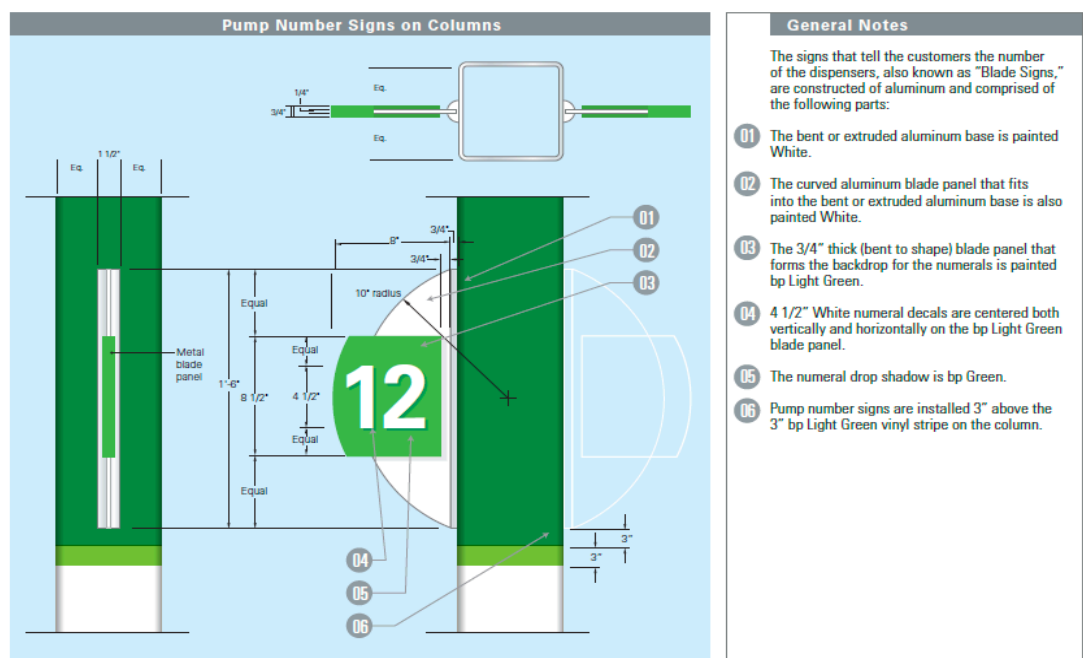
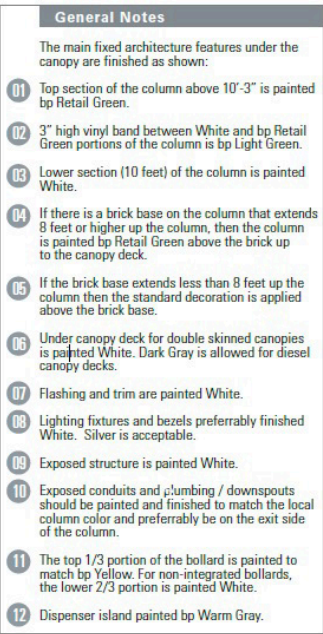


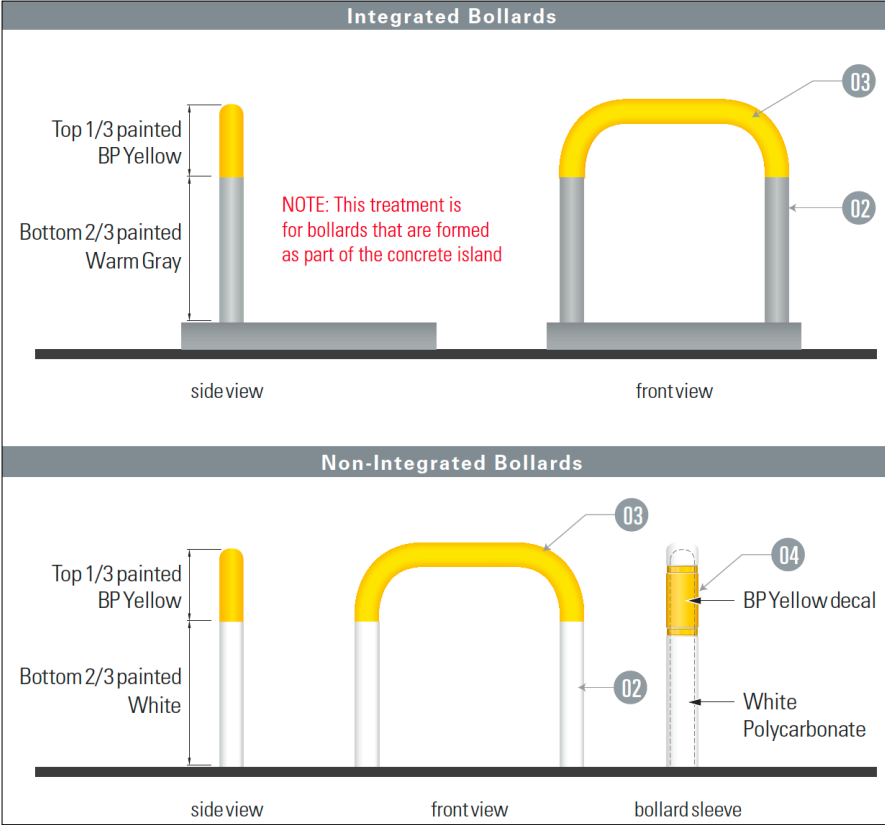
- *REMOVE ALL UNAPPROVED SIGNAGE FROM DISPENSERS*
- See Site Notes Page For Specific Paint Codes And Contact Info.
- ☒ Crind Hardware
 - ☐ Inverted Pump Sign Hardware (NY & NJ ONLY)
- A ☒ Install BP Credit Card Acceptance Decal
- B ☒ Install BP White Dispenser Riser Panel Overlay
- C ☒ Panel Surrounding Electronics Must Be One Of The Following Colors And/or Any Combination Of BP White, Grey, Beige And/or Black. Blue And Red Are Not Approved Amoco Colors.
- ☒ Current electronic panel meets BP Standards
 - ☐ Current electronic panel DOES NOT meet BP standards
- D ☒ Apply BP Branded Grade Decals
- E ☒ Apply Please Prepay First Decal
- F ☐ Install "This Is Not A BP Product" Decal
- G ☒ Install BP Pump Appropriate Skirt
- ☒ Install BP Branded Skirt (as shown)
 - ☐ Install BP Un-Branded Skirt (as shown)
- H ☒ Install Spec Valance (as shown)
- I ☒ Apply Pump Numbers
(Decal supplied should have BP Green number with clear background)
- J ☒ Install Rewards Brochure Holder
- K ☒ Apply Regulatory Graphic Provided By BP
(Additional graphics may be required by your state.)
- L ☒ Install Applicable Octane Decals
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- P ☐ Apply Vertical Grade Decal For BP Branded Diesel
- Q ☒ Apply Handicap Decal
- R ☒ Apply 10% Ethanol Decal
(As required by code)
- S ☒ Apply Riser Decal
- T ☒ Do Not Use Phone While Fueling Decal
- U ☒ Tap To Pay Interface

Notes



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Curbs with integrated bollard are to be painted BP Warm Grey.

Top 1/3 of integrated bollard to be painted BP Yellow.

EXTERIOR PAINT SPECIFICATIONS		01 BP Pearl - Glidden Professional, Order #A0083, Spec #38YY 72/117, "Indian Legend" - Sherwin Williams, SW6119, "Antique White" - Benjamin Moore, OC-8, "Elephant Tusk" - P28 DTM (Gallon) - Anchor Paint, BP Pearl - CC3065 (Acrylic), CC3112 (Oil)
		02 BP Warm Gray - Glidden Professional, Order #A1860, Spec #40YY 25/074, "Grey Mountain" - Sherwin Williams, SW7053, "Adaptive Shade" - Benjamin Moore, 2137-40, "Desert Twilight" - P28 DTM (Gallon) - Anchor Paint, BP Warm Gray - CC3068 (Acrylic), CC3115 (Oil)
		03 BP Yellow (Paint) - Glidden Professional, Order #A0775, Spec #37YY 61/867, "Omega Yellow" - Sherwin Williams, SW6903, "Cheerful" - Benjamin Moore, 2022-10, "Yellow" - P28 DTM (Gallon) - Anchor Paint, BP Yellow - CC3066 (Acrylic), CC3113 (Oil) BP Yellow (ACM) - Reynobond, "Program Yellow"
		04 White (Canopy Deck, Canopy Columns) - Glidden Professional, Order #A0128, Spec #50GY 83/010, "White Wing" - Sherwin Williams, SW7006, "Extra White" - Benjamin Moore, OC-67, "Ice Mist" - P28 DTM (Gallon) - Anchor Paint, BP White - 4900 (Acrylic), 900 (Oil)
		05 BP Dark Pearl - Glidden Professional, Order #A0767, Spec #30YY 52/207, "Desert Valley" - Sherwin Williams, SW6121, "Whole Wheat" - Benjamin Moore, HC-24, "Pittsfield Buff" - P28 DTM (Gallon)
		06 BP Bright Green (to go fascia paint) - Benjamin Moore, 2030-10, "Lizard Green" - Anchor Paint, BP White - CC3107 (Acrylic), CC3116 (Oil) BP Bright Green (to go ACM) - Duragloss 3000, CMR# 071013-D, 497G11281 H/G SR Green
		09 BP Retail Green - Glidden Professional, Custom Color "BP Retail Green" - Sherwin Williams, Hydrogloss B65GW180, Custom Color - Benjamin Moore, BP Retail Green - PMS 348c, Custom Color - Anchor Paint, BP Retail Green - CC3067 (Acrylic), CC3114 (Oil)
		10 ADA/Handicap Blue~ - Glidden Professional, "Handicap Blue", 25524 traffic paint - Sherwin Williams, TM2133, "Setfast Blue", Setfast marking latex - Benjamin Moore, P58-30, "Handicap Blue", Safety/Zone marking latex
		~Handicap Blue paint is used for pavement striping and marking on site (as required).
	ADA BLUE	

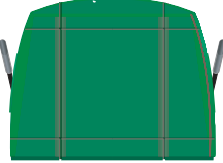
All existing trash containers must be removed and replaced with BP approved containers. These containers must be BP approved colors.



Waste Container
SKU#: 8002615



All in One - Front View / Side View
SKU#: 8002614



2 DOUBLE SIDED ISLAND CONVENIENCE CNTR
SKU #75823699

BP EXTERIOR SIGNAGE		BP Yellow - PMS 109
		BP Super Bright Green (to go) - PMS 382
		BP Extra Light Green (to go) - PMS 376
		BP Light Green - PMS 368
		BP Bright Green (to go) - PMS 361
		BP Green - PMS 355
		BP Retail Green - PMS 348
		BP Dark Green (to go) - PMS 356

For all paint inquiries, contact:

Benjamin Moore
855-724-6802
www.benjaminmoore.com

Sherwin Williams
800-474-3794
www.sherwin-williams.com

Glidden Professional
888-615-8169
www.gliddenprofessional.com

Anchor Paint
405-831-9446
www.anchorpaint.com

Printing Concepts:

1. Open your PDF file through Adobe Acrobat and click the "File" tab > "Print..." This will cause a popup to appear on your screen. Locate the "A" button to get to the next step.

Select Print as Image
Clicking the 'Advanced' button will cause another popup to appear on your screen, this time you need to click the "Print as Image" button. With this, you are done! Just click "OK" and "Print."

JSN Engineering LLC

Structural Engineers
2750 102nd St SE
Delano, MN 55328
Office: 612-229-9205

JOB TITLE BP

JOB NO. 2023-011

SHEET NO.

CALCULATED BY JWR

DATE 10/11/23

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DATE

CS2018 Ver 2018.11.22

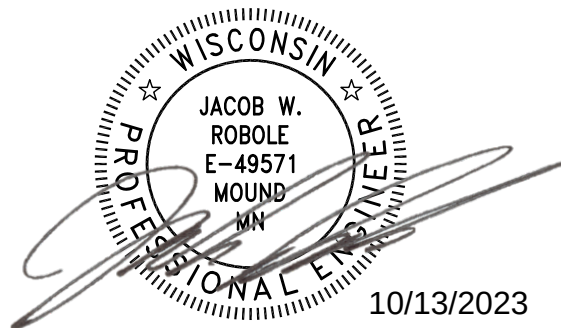
www.struware.com

STRUCTURAL CALCULATIONS

FOR

BP

Thiensville, WI



JSN Engineering LLC

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www.struware.com

Code Search**Code:** Wisconsin Commercial Building Code**Occupancy:**

Occupancy Group = B Business

Risk Category & Importance Factors:

Risk Category = II
 Wind factor = 1.00
 Snow factor = 1.00
 Seismic factor = 1.00

Type of Construction:

Fire Rating:
 Roof = 0.0 hr
 Floor = 0.0 hr

Building Geometry:

Roof angle (θ) 0.30 / 12 1.4 deg
 Building length (L) 50.0 ft
 Least width (B) 48.0 ft
 Mean Roof Ht (h) 15.0 ft
 Parapet ht above grd 18.0 ft
 Minimum parapet ht 3.0 ft

Live Loads:

Roof 0 to 200 sf: 20 psf
 200 to 600 sf: 24 - 0.02Area, but not less than 12 psf
 over 600 sf: 12 psf

Floor:

Typical Floor 40 psf
 Partitions 15 psf
 Lobbies & first floor corridors 100 psf
 Corridors above first floor 80 psf
 Balconies (exterior) - same as occup: 40 psf

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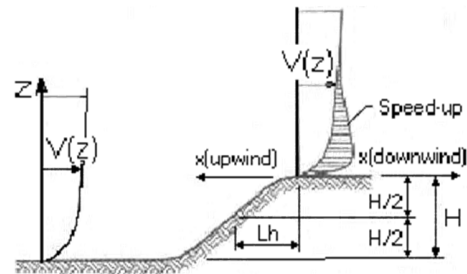
JOB NO. 2023-011 SHEET NO.
CALCULATED BY JWR DATE 10/11/23
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Wind Loads : ASCE 7 - 10

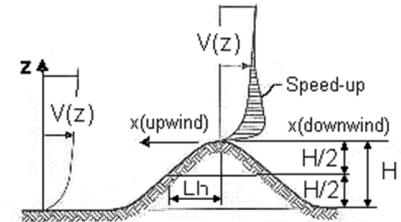
Ultimate Wind Speed 115 mph
Nominal Wind Speed 89.1 mph
Risk Category II
Exposure Category C
Enclosure Classif. Open Building
Internal pressure +/-0.00
Directionality (Kd) 0.85
Kh case 1 0.849
Kh case 2 0.849
Type of roof Monoslope

Topographic Factor (Kzt)

Topography Flat
Hill Height (H) 80.0 ft
Half Hill Length (Lh) 100.0 ft
Actual H/Lh = 0.80
Use H/Lh = 0.50
Modified Lh = 160.0 ft
From top of crest: x = 50.0 ft
Bldg up/down wind? downwind
H/Lh = 0.50 K₁ = 0.000
x/Lh = 0.31 K₂ = 0.792
z/Lh = 0.09 K₃ = 1.000
At Mean Roof Ht:
Kzt = (1+K₁K₂K₃)^2 = 1.00



ESCARPMENT



2D RIDGE or 3D AXISYMMETRICAL HILL

Gust Effect Factor

h = 15.0 ft
B = 48.0 ft
/z (0.6h) = 15.0 ft

Flexible structure if natural frequency < 1 Hz (T > 1 second).

If building h/B > 4 then may be flexible and should be investigated.

h/B = 0.31 Rigid structure (low rise bldg)

G = 0.85 Using rigid structure default

Rigid Structure

e = 0.20
l = 500 ft
Z_{min} = 15 ft
c = 0.20
g_Q, g_v = 3.4
L_z = 427.1 ft
Q = 0.92
I_z = 0.23
G = 0.88 use G = 0.85

Flexible or Dynamically Sensitive Structure

34 rcy (η₁) = 0.0 Hz
Damping ratio (β) = 0
/b = 0.65
/α = 0.15
V_z = 97.1
N₁ = 0.00
R_n = 0.000
R_h = 28.282 η = 0.000 h = 15.0 ft
R_B = 28.282 η = 0.000
R_L = 28.282 η = 0.000
g_R = 0.000
R = 0.000
G_f = 0.000

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Enclosure Classification

Test for Enclosed Building: A building that does not qualify as open or partially enclosed.

Test for Open Building: All walls are at least 80% open.
 $A_o \geq 0.8A_g$

Test for Partially Enclosed Building: Predominately open on one side only

Input		Test	
Ao	500.0 sf	$A_o \geq 1.1A_{oi}$	NO
Ag	600.0 sf	$A_o > 4'$ or $0.01A_g$	YES
Aoi	1000.0 sf	$A_{oi} / A_{gi} \leq 0.20$	YES
Agi	10000.0 sf		

Building is NOT
Partially Enclosed

Conditions to qualify as Partially Enclosed Building. Must satisfy all of the following:

- $A_o \geq 1.1A_{oi}$
- $A_o > \text{smaller of } 4' \text{ or } 0.01 A_g$
- $A_{oi} / A_{gi} \leq 0.20$

Where:

A_o = the total area of openings in a wall that receives positive external pressure.

A_g = the gross area of that wall in which A_o is identified.

A_{oi} = the sum of the areas of openings in the building envelope (walls and roof) not including A_o .

A_{gi} = the sum of the gross surface areas of the building envelope (walls and roof) not including A_g .

Reduction Factor for large volume partially enclosed buildings (R_i) :

If the partially enclosed building contains a single room that is unpartitioned , the internal pressure coefficient may be multiplied by the reduction factor R_i .

Total area of all wall & roof openings (A_{og}):	0 sf
Unpartitioned internal volume (V_i) :	0 cf
$R_i =$	1.00

Altitude adjustment to constant 0.00256 (caution - see code) :

Grd level above sea level =	0.0 ft	Average Air Density =	0.0765 lbm/ft ³
Constant =	0.00256	Adj Constant =	0.00256

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Wind Loads - Open Buildings: $0.25 \leq h/L \leq 1.0$

Ultimate Wind Pressures

Type of roof = Monoslope Free Roofs
Wind Flow = Clear

G = 0.85
Roof Angle = 1.4 deg

Main Wind Force Resisting System

Kz = Kh (case 2) = 0.85

Base pressure (qh) = **24.4 psf**

NOTE: The code requires the MWFRS be
designed for a minimum pressure of 16 psf.

Roof pressures - Wind Normal to Ridge

Wind Flow	Load Case		Wind Direction $\gamma = 0^\circ \text{ \& } 180^\circ$	
			Cnw	Cnl
Clear Wind Flow	A	Cn =	1.20	0.30
		p =	24.9 psf	6.2 psf
	B	Cn =	-1.10	-0.10
		p =	-22.8 psf	-2.1 psf

NOTE: 1). Cnw and Cnl denote combined pressures from top and bottom roof surfaces.
2). Cnw is pressure on windward half of roof. Cnl is pressure on leeward half of roof.
3). Positive pressures act toward the roof. Negative pressures act away from the roof.

Roof pressures - Wind Parallel to Ridge, $\gamma = 90^\circ$

Wind Flow	Load Case		Horizontal Distance from Windward Edge		
			$\leq h$	$>h \leq 2h$	$> 2h$
Clear Wind Flow	A	Cn =	-0.80	-0.60	-0.30
		p =	-16.6 psf	-12.5 psf	-6.2 psf
	B	Cn =	0.80	0.50	0.30
		p =	16.6 psf	10.4 psf	6.2 psf

h = 15.0 ft
2h = 30.0 ft

Fascia Panels -Horizontal pressures

qp = 24.4 psf

Windward fascia: 36.6 psf (GCpn = +1.5)
Leeward fascia: -24.4 psf (GCpn = -1.0)

Components & Cladding - roof pressures

Kz = Kh (case 1) = 0.85
Base pressure (qh) = **24.4 psf**
G = 0.85

a = 4.8 ft

a² = 23.0 sf
4a² = 92.2 sf

	Effective Wind Area	Clear Wind Flow					
		zone 3		zone 2		zone 1	
		positive	negative	positive	negative	positive	negative
C _N	$\leq 23 \text{ sf}$	2.55	-3.47	1.91	-1.78	1.28	-1.16
	$>23, \leq 92.2 \text{ sf}$	1.91	-1.78	1.91	-1.78	1.28	-1.16
	$> 92.2 \text{ sf}$	1.28	-1.16	1.28	-1.16	1.28	-1.16
Wind pressure	$\leq 23 \text{ sf}$	53.0 psf	-72.1 psf	39.8 psf	-36.9 psf	26.5 psf	-24.0 psf
	$>23, \leq 92.2 \text{ sf}$	39.8 psf	-36.9 psf	39.8 psf	-36.9 psf	26.5 psf	-24.0 psf
	$> 92.2 \text{ sf}$	26.5 psf	-24.0 psf	26.5 psf	-24.0 psf	26.5 psf	-24.0 psf

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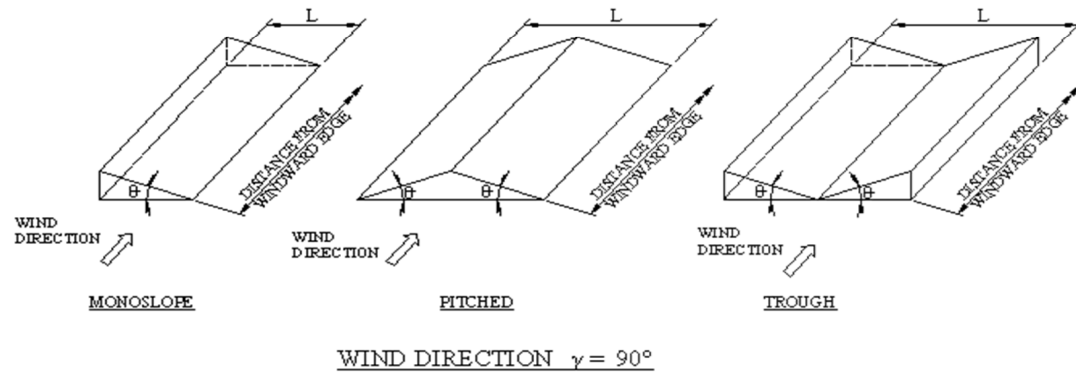
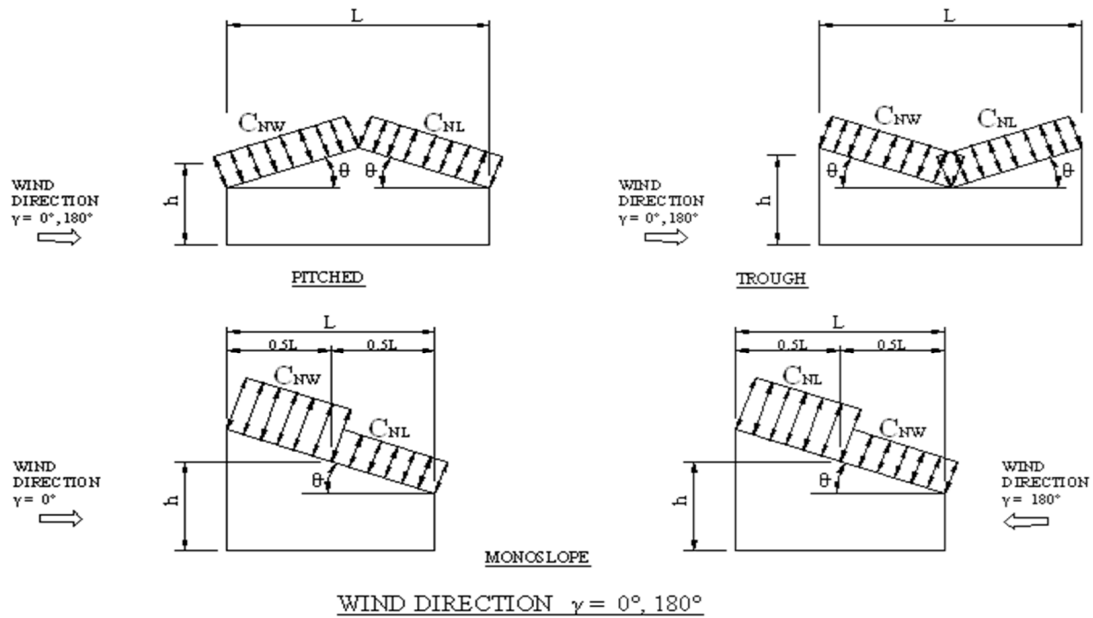
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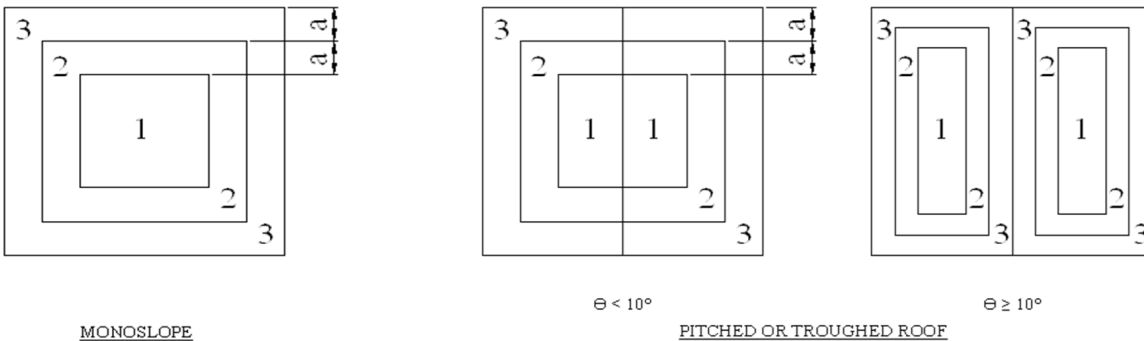
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Location of Wind Pressure Zones



MAIN WIND FORCE RESISTING SYSTEM



COMPONENTS AND CLADDING

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Snow Loads : ASCE 7-10

Nominal Snow Forces

Roof slope = 1.4 deg
Horiz. eave to ridge dist (W) = 48.0 ft
Roof length parallel to ridge (L) = 50.0 ft

Type of Roof	Monoslope
Ground Snow Load	Pg = 30.0 psf
Risk Category	= II
Importance Factor	I = 1.0
Thermal Factor	Ct = 1.20
Exposure Factor	Ce = 1.0

Pf = $0.7 \cdot Ce \cdot Ct \cdot I \cdot Pg$ = 25.2 psf
Unobstructed Slippery Surface no

Sloped-roof Factor Cs = 1.00
Balanced Snow Load = **25.2 psf**

Rain on Snow Surcharge Angle 0.96 deg
Code Maximum Rain Surcharge 5.0 psf
Rain on Snow Surcharge = 0.0 psf
Ps plus rain surcharge = 25.2 psf
Minimum Snow Load Pm = 20.0 psf

Uniform Roof Design Snow Load = **25.2 psf**

Near ground level surface balanced snow load = **30.0 psf**

NOTE: Alternate spans of continuous beams shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code for loading diagrams and exceptions for gable roofs..

Job
Comm. No.
Date
Name

BH23129
2023-011
10/11/2023
JWR

ASCE 7 - 10 Section 7.8 Roof Projections and Parapets

Balance Snow Load:

Pg =
Ce =
Ct =
I =
Pf =

30 psf (Fig 7-1)
1 (Table 7-2)
1.2 (Table 7-3)
1 (Table 1.5-2)
25.2 psf (Eqn 7-1)

Cs =
Ps_(balanced) =

1.0 (Figure 7-2)
25.2 psf (Eqn 7-2)

hb =
D =

1.4 ft
17.9 psf

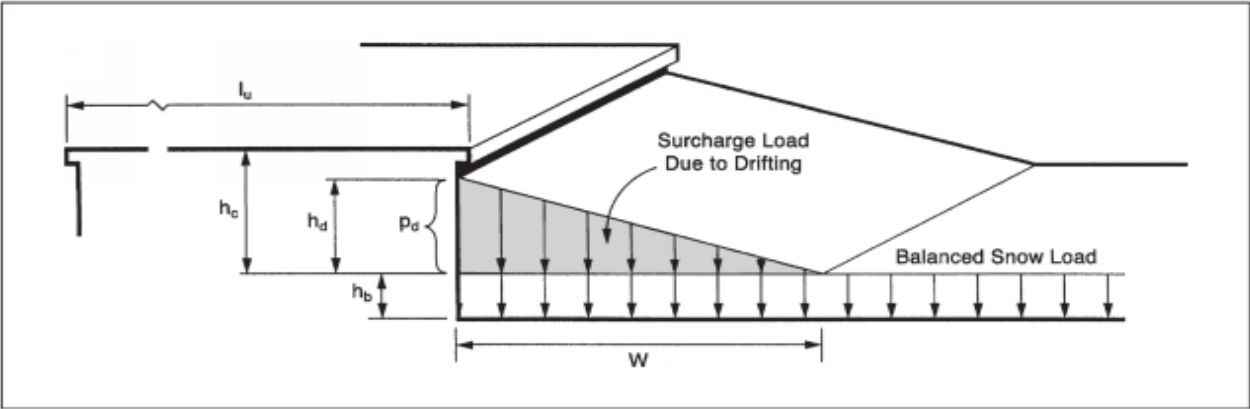


FIGURE 7-8 Configuration of Snow Drifts on Lower Roofs.

Uniform Snow Load:

Pmin =
R-O-S =
P_{uniform} =

20 psf
0.0 psf surcharge
25.2 psf

hr (ft)	Lu (ft)	Location	Windward Drifting		Thus,		Drift Surcharge Pd (psf)	Drift Width W (ft)	Total Snow P max (psf)
			Lu' low (ft)	hd (ft)	hd (ft)	hc (ft)			
3	50	E-W	50	1.86	1.6	1.6	28.5	8.7	53.7
3	48	N-S	48	1.82	1.6	1.6	28.5	8.3	53.7
			25	1.24	0.0	0.0	0.0	0.0	25.2
2	150	Location	150	3.18	0.6	0.6	10.6	4.7	35.8
4	20	Location	25	1.24	1.2	2.6	22.3	5.0	47.5
4	600	Location	600	5.70	2.6	2.6	46.4	20.7	71.6
4	650	Location	650	5.89	2.6	2.6	46.4	20.7	71.6



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Job _____ BH23129 - BP

Comm. No. _____ 2023-011

Date _____ 10/11/2023

Name _____ JWR

CODE INFORMATION:

- Wisconsin Commercial Building Code (2015 IBC) / ASCE 7-10

PROJECT LOCATION:

BP

246 S Main St

Thiensville, WI

BUILDING DESCRIPTION:

New structure is a canopy for the BP and consists of two rows of two columns with carrier beams across the top of two adjacent columns, purlins attached to the underside of the carrier beams and metal deck attached to the bottom side of the purlins. The overall dimensions of the canopy are 50'-0" X 48'-0". The roof has a 3'-0" tall parapet all around

DESIGN AND ANALYSIS LOADING:

Dead Load = 8 PSF

Live Roof Load = 20 PSF (reducible)

Ground Snow = 30 PSF

Roof Snow Load = 25.2 PSF + Drifting

Wind = 115 MPH, Exposure C

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Date _____ 10/11/2023

Name _____ JWR

Deck Connection (Center Purlin) -

Deck C-Clamp connection is rated for 564 lbs at each clip/purlin junction (service)

Max Clip Spacing = 1'-0"

Center Purlin Trib = 8'-0"

Tributary Area = (1'-0")*(8'-0") = 8.0 ft²

Loads:

Dead = 3 psf (deck self weight)

Snow = 25.2 psf

Snow Drift = 28.5 psf

Wind = 53.0 psf

Roof Live = 20 psf

$W = D + S = 56.7$ psf

$W = D + 0.75*S + 0.75*(0.6W) = 67.2$ psf

$P_w = (67.2 \text{ psf}) * (8.0 \text{ ft}^2) = 538 \text{ lbs} < 564 \text{ lbs OK}$

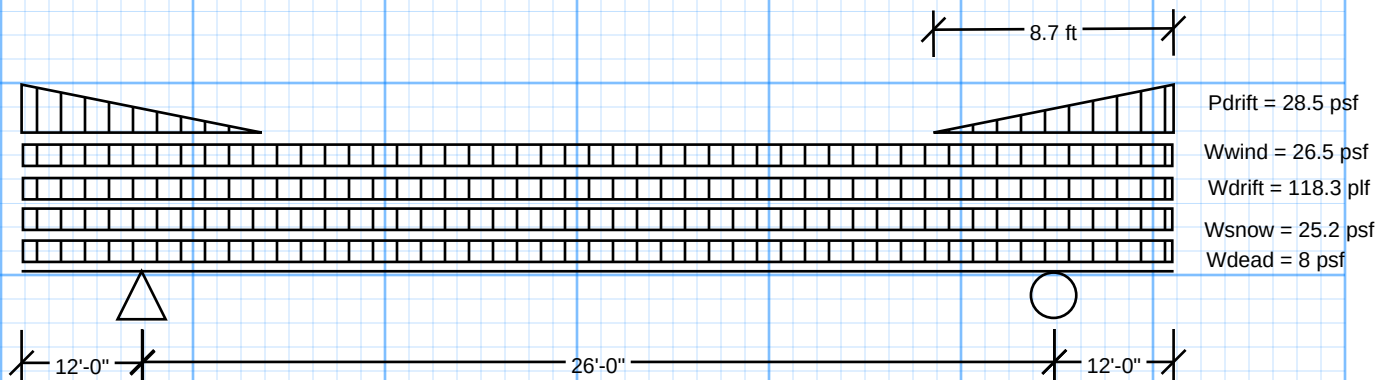
C-Clamp Connections are Adequate for Loading

Purlin Beams -

W14X22

Purlin Trib = 8'-0"

Gravity:

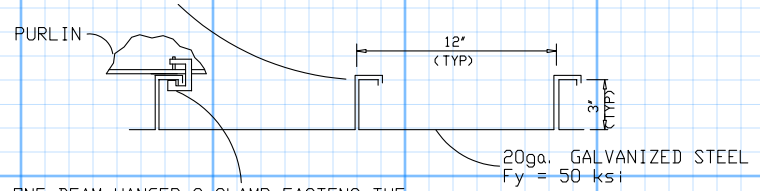


Pattern Snow Loads per
ASCE 7-10 Section 7.5

Use Load Combination

$1.2D + 1.6S + 0.5W$

Spreadsheet uses $1.2D + 1.6L$ ----> Enter W as $L = 0.5/1.6*W = 0.3125W$



ONE BEAM HANGER C CLAMP FASTENS THE PAN TO THE PURLINS AT EACH PAN CLIP/PURLIN JUNCTION. CLAMPS HAVE A MINIMUM 564# CAPACITY EACH. BOLT IS TIGHTENED TO ASSURE THAT CLAMP "BITES" INTO BOTH FLANGE AND CLIP.

SECTION E DECK PAN DETAIL

Name **JWR**

Design of Beam Purlin Typ

Location: **Thiensville, WI**

Grid

Grid

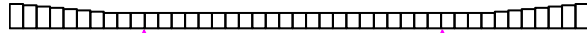


Dead Load

L = 26 ft
 a = 12 ft
 b = 12 ft
 Lb = 1 ft
 Fy = 50 ksi

Pattern Loads? **N** (Y/N)
 Shape **W** (W/C/M)
 Cb = 1
 Depth 14 in
 Wt = 22 lb/ft
 (Suggested Wt = 22 lb/ft)

Live Load



a = 12 ft
 Ru = 19.0 k
 R(S) = 12.2 k
 R(D) = 1.6 k
 R(L) = 10.6 k

L = 26 ft
 Max Mu = 64.6 ft-k

b = 12 ft
 Ru = 19.0 k
 R(S) = 12.2 k
 R(D) = 1.6 k
 R(L) = 10.6 k

Servicability Criteria - Main Span

for LL deflection of L / 240 40 in⁴ (Δ = 1.30 in)
 for TL deflection of L / 180 30 in⁴ (Δ = 1.73 in)

Servicability Criteria - Cantilevers

for LL deflection of L / 120 187 in⁴ (Δ = 1.20 in)
 for TL deflection of L / 90 152 in⁴ (Δ = 1.60 in)

Use W14x22

φMn = 124.5 ft-k
 φVn = 85.3 kips
 I prov'd = 199 in⁴

Mu = 64.6 ft-k
 Vu = 9.9 kips
 req'd = 187 in⁴

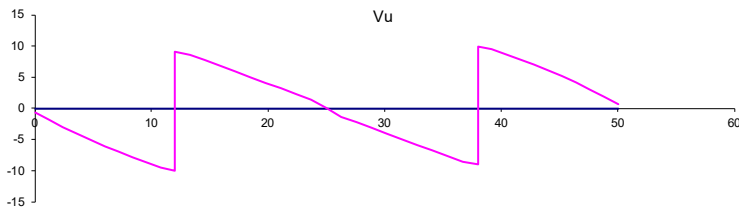
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W14x22
 φMp = 124.5 ft-k
 Lp = 3.7 ft

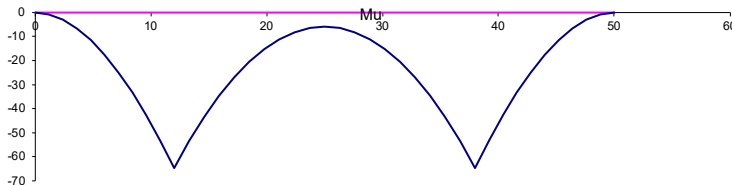
φMr = 86.9 ft-k
 Lr = 9.7 ft

Uniform Loads				Conc Loads				Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0.064	0	50	D	0	0		D	0	0	0	50
D	0	0	50	L	0	0		D	0	0	0	50
D	0	0	50	D	0	0		D	0	0	0	50
L	0.202	0	50	L	0	0		L	0.228	0	0	8.7
L	0.118	0	50	D	0	0		L	0	0.228	41.3	50
L	0.066	0	50	L	0	0		L	0	0	0	50

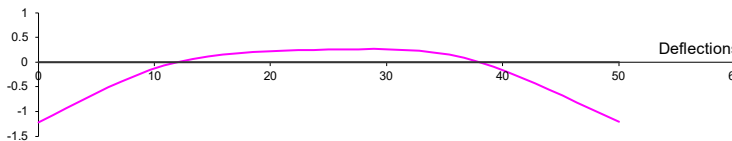
Controlling Load Combination 1.2D+1.6L (A4-2)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	9.9	38.0	-9.9	12.0
V(S)	6.4	38.0	-6.4	12.0
V(L)	5.6	38.0	-5.6	12.0
V(D)	0.8	38.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-64.6	38.0
M(S)	0.0	0.0	-41.5	38.0
M(L)	0.0	0.0	-36.9	38.0
M(D)	4.6	12.0		



	Left Cant (in)	L/x	Main Span (in)	L/x	Right Cant (in)	L/x
Dead	0.09	1537	0.01	28038	0.10	1452
Live	1.13	128	0.26	1209	1.11	130
Total	1.22	118	0.26	1180	1.21	119

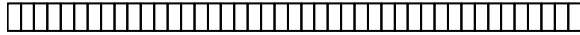
Name **JWR**

Design of Beam Purlin Patt Out

Location: **Thiensville, WI**

Grid

Grid

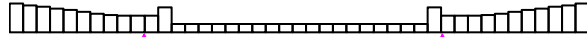


Dead Load

L = 26 ft
a = 12 ft
b = 12 ft
Lb = 1 ft
Fy = 50 ksi

Pattern Loads? **N** (Y/N)
Shape **W** (W/C/M)
Cb = 1
Depth 14 in
Wt = 22 lb/ft
(Suggested Wt = 22 lb/ft)

Live Load



a = 12 ft
Ru = 13.3 k
R(S) = 8.7 k
R(D) = 1.6 k
R(L) = 7.1 k

L = 26 ft
Max Mu = 56.9 ft-k

b = 12 ft
Ru = 13.3 k
R(S) = 8.7 k
R(D) = 1.6 k
R(L) = 7.1 k

Servicability Criteria - Main Span

for LL deflection of L / 240 81 in⁴ (Δ = 1.30 in)
for TL deflection of L / 180 61 in⁴ (Δ = 1.73 in)

Servicability Criteria - Cantilevers

for LL deflection of L / 96 198 in⁴ (Δ = 1.50 in)
for TL deflection of L / 90 197 in⁴ (Δ = 1.60 in)

Use **W14x22**

φMn = 124.5 ft-k
φVn = 85.3 kips
I prov'd = 199 in⁴

Mu = 56.9 ft-k
Vu = 8.7 kips
req'd = 198 in⁴

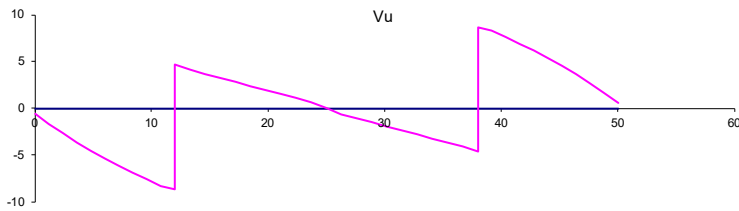
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W14x22
φMp = 124.5 ft-k
Lp = 3.7 ft

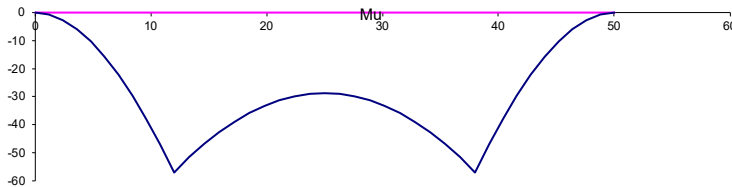
φMr = 86.9 ft-k
Lr = 9.7 ft

Uniform Loads				Conc Loads			Trapezoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft	Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0.064	0	50	D	0	0	D	0	0	0	50
D	0	0	50	L	0	0	D	0	0	0	50
D	0	0	50	D	0	0	D	0	0	0	50
L	0.32	0	12	L	0	0	L	0.228	0	0	8.7
L	0.16	12	38	D	0	0	L	0	0.228	41.3	50
L	0.32	38	50	L	0	0	L	0	0	0	50

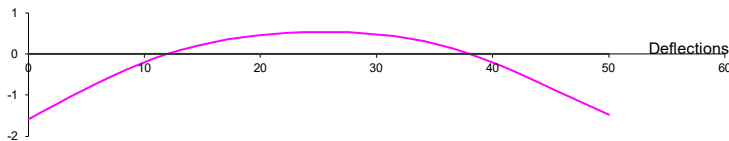
Controlling Load Combination 1.2D+1.6L (A4-2)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	8.7	38.0	-8.7	12.0
V(S)	5.6	38.0	-5.6	12.0
V(L)	4.8	38.0	-4.8	12.0
V(D)	0.8	38.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-56.9	12.0
M(S)	0.0	0.0	-36.7	12.0
M(L)	0.0	0.0	-32.1	12.0
M(D)	4.6	12.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	0.09	1537	0.01	28038	0.10	1452
Live	1.49	97	0.53	588	1.39	104
Total	1.59	91	0.53	584	1.48	97

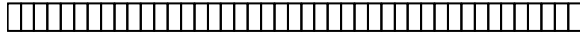
Name **JWR**

Design of Beam Purlin Patt In

Location: **Thiensville, WI**

Grid

Grid

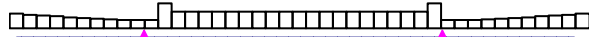


Dead Load

L = 26 ft
a = 12 ft
b = 12 ft
Lb = 1 ft
Fy = 50 ksi

Pattern Loads? **N** (Y/N)
Shape **W** (W/C/M)
Cb = 1
Depth 14 in
Wt = 22 lb/ft
(Suggested Wt = 22 lb/ft)

Live Load



a = 12 ft
Ru = 12.6 k
R(S) = 8.3 k
R(D) = 1.6 k
R(L) = 6.7 k

L = 26 ft
Max Mu = 31.2 ft-k

b = 12 ft
Ru = 12.6 k
R(S) = 8.3 k
R(D) = 1.6 k
R(L) = 6.7 k

Servicability Criteria - Main Span

for LL deflection of L / 240 24 in⁴ (Δ = 1.30 in)
for TL deflection of L / 180 18 in⁴ (Δ = 1.73 in)

Servicability Criteria - Cantilevers

for LL deflection of L / 120 21 in⁴ (Δ = 1.20 in)
for TL deflection of L / 90 28 in⁴ (Δ = 1.60 in)

Use **W14x22**

φMn = 124.5 ft-k
φVn = 85.3 kips
I prov'd = 199 in⁴

Mu = 31.2 ft-k
Vu = 7.8 kips
req'd = 28 in⁴

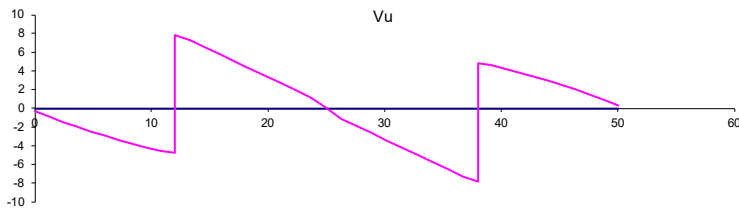
OK (Controls)
OK (Controls)
OK (Controls)

W14x22
φMp = 124.5 ft-k
Lp = 3.7 ft

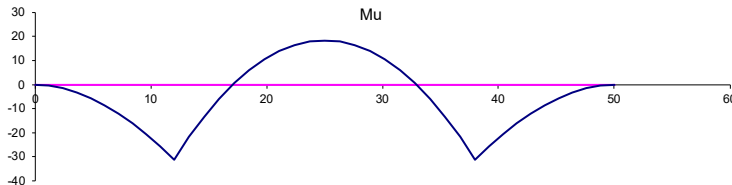
φMr = 86.9 ft-k
Lr = 9.7 ft

Uniform Loads				Conc Loads				Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0.064	0	50	D	0	0		D	0	0	0	50
D	0	0	50	L	0	0		D	0	0	0	50
D	0	0	50	D	0	0		D	0	0	0	50
L	0.16	0	12	L	0	0		L	0.114	0	0	8.7
L	0.32	12	38	D	0	0		L	0	0.114	41.3	50
L	0.16	38	50	L	0	0		L	0	0	0	50

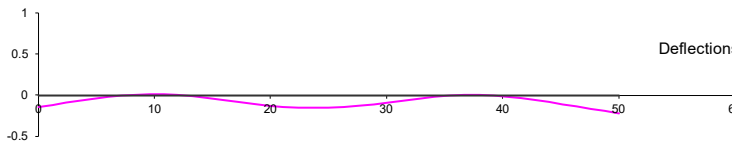
Controlling Load Combination 1.2D+1.6L (A4-2)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	7.8	12.0	-7.8	38.0
V(S)	5.1	12.0	-5.1	38.0
V(L)	4.3	12.0	-4.3	38.0
V(D)	0.8	38.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	18.5	25.0	-31.2	12.0
M(S)	11.8	25.0	-20.7	12.0
M(L)	11.0	25.0	-16.1	12.0
M(D)	4.6	12.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	0.09	1537	0.01	28038	0.10	1452
Live	0.05	2704	0.16	1954	0.13	1144
Total	0.15	980	0.16	1991	0.23	640

JSN

Structural Engineering

 2750 102nd St SE
 Delano, MN 55328
 PH: 612-229-9205

Job _____ BH23129 - BP

Comm. No. _____ 2023-011

Date _____ 10/11/2023

Name _____ JWR

Purlin Beams con't-

From Analysis -

 $M_{u,neg} = -64.6 \text{ k-ft}$ $M_{u,pos} = 18.5 \text{ k-ft}$ $\Delta \text{ Cantilever} = 1.59" = L/90 < L/90 \text{ OK}$ $\Delta \text{ Mainspan} = 0.53" = L/588 < L/180 \text{ OK}$

Beam Capacity:

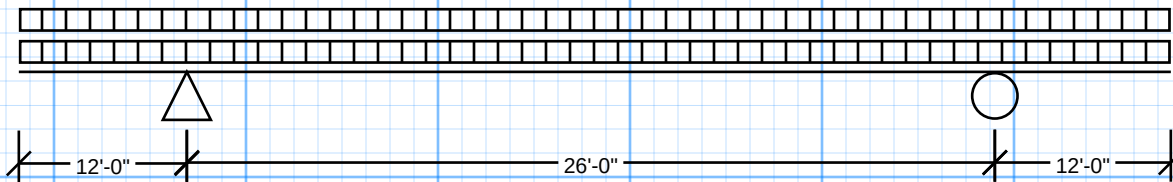
Beam is braced @ 12" OC by the bottom by roof deck (neg moment)

 $\Phi M_n = \Phi M_p = 125 \text{ k-ft} > 64.6 \text{ k-ft} \text{ OK}$ [AISC Table 3-2, pg. 3-26]

Beam is braced @ 26'-0" OC by the supports (positive moment)

 $\Phi M_n = \Phi M_p = 19.5 \text{ k-ft} > 18.5 \text{ k-ft} \text{ OK}$

Uplift:


 $W_{wind} = -24.0 \text{ psf}$
 $W_{dead} = 8 \text{ psf}$

Use Load Combination

 $0.9D + 1.0W$

Pattern Wind Load

Spreadsheet uses $1.2D + 1.6L$ ----> Enter W as $L = 1.0/1.6 * W = 0.625W$ Enter D as $D = 0.9/1.2 = 0.75D$

Name

JWR

Design of Beam Purlin Up

Location: Thiensville, WI

Grid

Grid

Dead Load

L = 26 ft Pattern Loads? N (Y/N)
 a = 12 ft Shape W (W/C/M)
 b = 12 ft Cb = 1
 Lb = 1 ft Depth 14 in
 Fy = 50 ksi Wt = 22 lb/ft
 (Suggested Wt = 22 lb/ft)



Live Load



a = 12 ft L = 26 ft b = 12 ft
 Ru = -3.4 k Max Mu = 9.7 ft-k Ru = -3.4 k
 R(S) = -1.8 k R(S) = -1.8 k
 R(D) = 1.2 k R(D) = 1.2 k
 R(L) = -3.0 k R(L) = -3.0 k

Servicability Criteria - Main Span

for LL deflection of L / 240 3 in⁴ (Δ = 1.30 in)
 for TL deflection of L / 180 1 in⁴ (Δ = 1.73 in)

Servicability Criteria - Cantilevers

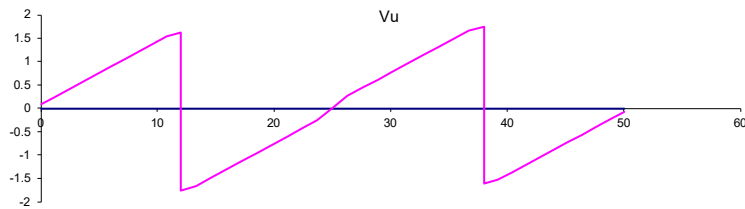
for LL deflection of L / 120 31 in⁴ (Δ = 1.20 in)
 for TL deflection of L / 90 14 in⁴ (Δ = 1.60 in)

Use W14x22
 φMn = 124.5 ft-k > Mu = 9.7 ft-k OK (Controls)
 φVn = 85.3 kips > Vu = 1.7 kips OK (Controls)
 I prov'd = 199 in⁴ > req'd = 31 in⁴ OK (Controls)

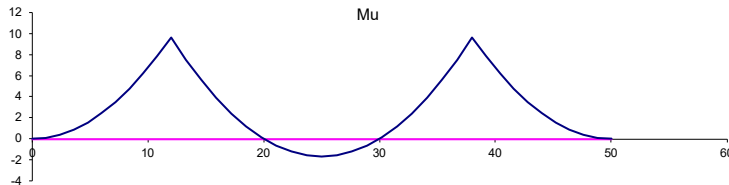
W14x22
 φMp = 124.5 ft-k φMr = 86.9 ft-k
 Lp = 3.7 ft Lr = 9.7 ft

Uniform Loads				Conc Loads				Trapezoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0.048	0	50	D	0	0		D	0	0	0	50
D	0	0	50	L	0	0		D	0	0	0	50
D	0	0	50	D	0	0		D	0	0	0	50
L	-0.12	0	50	L	0	0		L	0	0	0	50
L	0	0	50	D	0	0		L	0	0	0	50
L	0	0	50	L	0	0		L	0	0	0	50

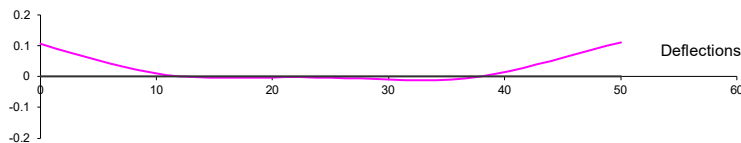
Controlling Load Combination 1.2D+1.6L (A4-2)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	1.7	38.0	-1.7	12.0
V(S)	0.9	38.0	-0.9	12.0
V(L)	1.6	38.0	-1.6	12.0
V(D)	0.6	38.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	9.7	38.0	-1.7	25.0
M(S)	5.2	38.0	-0.9	25.0
M(L)	8.6	38.0	-1.5	25.0
M(D)	3.5	12.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	(in)	L/x	(in)	L/x	(in)	L/x
Dead	0.07	2050	0.01	37384	0.07	1936
Live	0.18	820	0.02	14953	0.19	774
Total	0.11	1366	0.01	24922	0.11	1290

Name

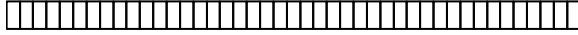
JWR

Design of Beam Purlin Up Patt Out

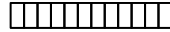
Location: Thiensville, WI

Grid

Grid

**Dead Load**

L = 26 ft Pattern Loads? **N** (Y/N)
 a = 12 ft Shape **W** (W/C/M)
 b = 12 ft Cb = **1**
 Lb = 1 ft Depth **14** in
 Fy = 50 ksi Wt = **22** lb/ft
 (Suggested Wt = 22 lb/ft)

**Live Load**

a = 12 ft L = 26 ft b = 12 ft
 Ru = -1.0 k Max Mu = 14.5 ft-k Ru = -1.0 k
 R(S) = -0.3 k R(S) = -0.3 k
 R(D) = 1.2 k R(D) = 1.2 k
 R(L) = -1.5 k R(L) = -1.5 k

Servicability Criteria - Main Span

for LL deflection of L / 240 33 in⁴ (Δ = 1.30 in)
 for TL deflection of L / 180 25 in⁴ (Δ = 1.73 in)

Servicability Criteria - Cantilevers

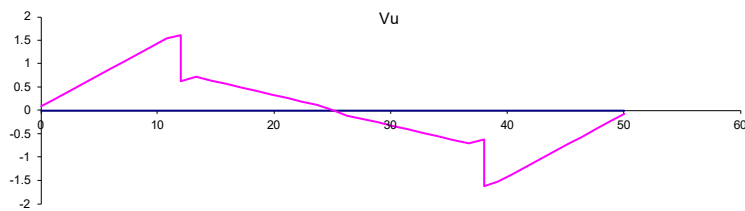
for LL deflection of L / 120 87 in⁴ (Δ = 1.20 in)
 for TL deflection of L / 90 56 in⁴ (Δ = 1.60 in)

Use W14x22
 φMn = 124.5 ft-k > Mu = 14.5 ft-k **OK** (Controls)
 φVn = 85.3 kips > Vu = 1.6 kips **OK** (Controls)
 I prov'd = 199 in⁴ > req'd = 87 in⁴ **OK** (Controls)

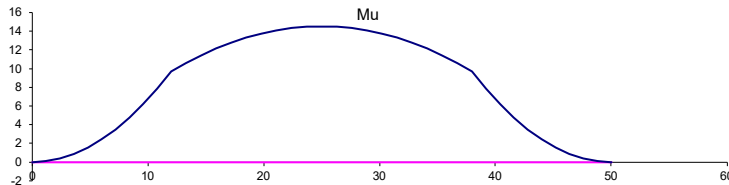
W14x22
 φMp = 124.5 ft-k φMr = 86.9 ft-k
 Lp = 3.7 ft Lr = 9.7 ft

Uniform Loads				Conc Loads				Trapezoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0.048	0	50	D	0	0		D	0	0	0	50
D	0	0	50	L	0	0		D	0	0	0	50
D	0	0	50	D	0	0		D	0	0	0	50
L	-0.12	0	12	L	0	0		L	0	0	0	50
L	-0.12	38	50	D	0	0		L	0	0	0	50
L	0	0	50	L	0	0		L	0	0	0	50

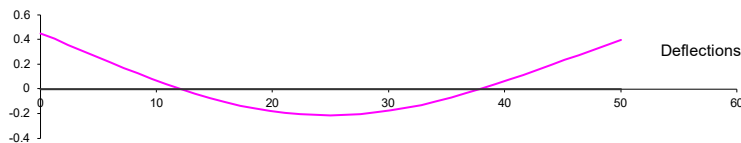
Controlling Load Combination 1.2D+1.6L (A4-2)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	1.6	12.0	-1.6	38.0
V(S)	0.9	12.0	-0.9	38.0
V(L)	1.4	12.0	-1.4	38.0
V(D)	0.6	38.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	14.5	25.0	0.0	50.0
M(S)	9.2	25.0	0.0	50.0
M(L)	8.6	36.7	0.0	0.0
M(D)	3.5	12.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	(in)	L/x	(in)	L/x	(in)	L/x
Dead	0.07	2050	0.01	37384	0.07	1936
Live	0.52	276	0.22	1427	0.47	307
Total	0.45	319	0.22	1446	0.40	364

Name

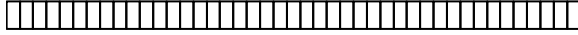
JWR

Design of Beam Purlin Up Patt In

Location: Thiensville, WI

Grid

Grid

**Dead Load**

L = 26 ft Pattern Loads? **N** (Y/N)
 a = 12 ft Shape **W** (W/C/M)
 b = 12 ft Cb = **1**
 Lb = 1 ft Depth **14** in
 Fy = 50 ksi Wt = **22** lb/ft
 (Suggested Wt = 22 lb/ft)

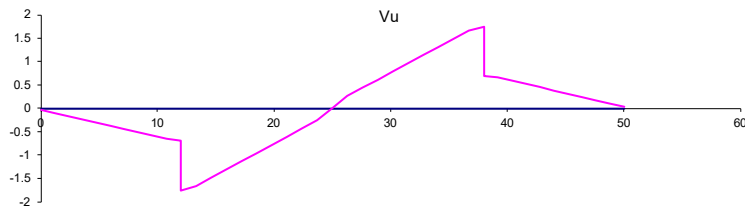
Live Load**Servicability Criteria - Main Span**for LL deflection of L / 240 32 in⁴ (Δ = 1.30 in)for TL deflection of L / 180 25 in⁴ (Δ = 1.73 in)**Servicability Criteria - Cantilevers**for LL deflection of L / 120 57 in⁴ (Δ = 1.20 in)for TL deflection of L / 90 52 in⁴ (Δ = 1.60 in)

a = 12 ft L = 26 ft b = 12 ft
 Ru = -1.1 k Max Mu = 15.5 ft-k Ru = -1.1 k
 R(S) = -0.4 k R(S) = -0.4 k
 R(D) = 1.2 k R(D) = 1.2 k
 R(L) = -1.6 k R(L) = -1.6 k

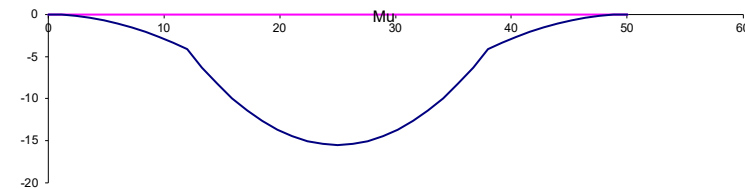
Use W14x22

φMn = 124.5 ft-k > Mu = 15.5 ft-k **OK** (Controls) W14x22
 φVn = 85.3 kips > Vu = 1.7 kips **OK** (Controls) φMp = 124.5 ft-k φMr = 86.9 ft-k
 I prov'd = 199 in⁴ > req'd = 57 in⁴ **OK** (Controls) Lp = 3.7 ft Lr = 9.7 ft

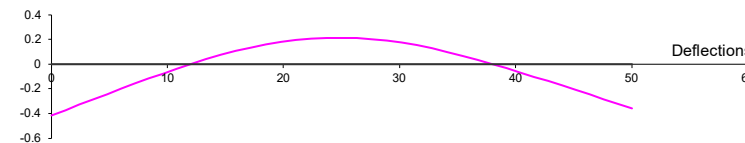
Uniform Loads				Conc Loads				Trapezoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0.048	0	50	D	0	0		D	0	0	0	50
D	0	0	50	L	0	0		D	0	0	0	50
D	0	0	50	D	0	0		D	0	0	0	50
L	-0.12	12	38	L	0	0		L	0	0	0	50
L	0	0	50	D	0	0		L	0	0	0	50
L	0	0	50	L	0	0		L	0	0	0	50

Controlling Load Combination 1.2D+1.6L (A4-2)

	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	1.7	38.0	-1.7	12.0
V(S)	0.9	38.0	-0.9	12.0
V(L)	1.6	38.0	-1.6	12.0
V(D)	0.6	38.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-15.5	25.0
M(S)	0.0	0.0	-9.5	25.0
M(L)	0.0	0.0	-10.1	25.0
M(D)	3.5	12.0		



	Left Cant (in)	L/x	Main Span (in)	L/x	Right Cant (in)	L/x
Dead	0.07	2050	0.01	37384	0.07	1936
Live	0.35	416	0.21	1474	0.28	508
Total	0.42	346	0.21	1455	0.36	402

JSN

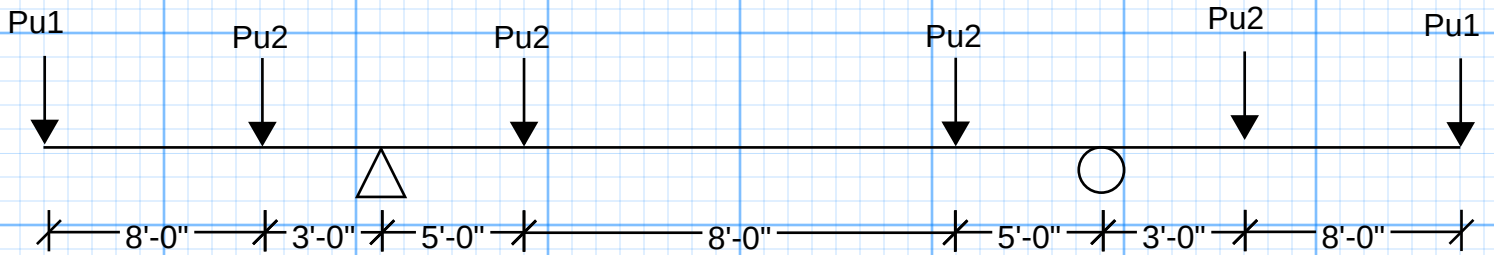
Structural Engineering

2750 102nd St SE
 Delano, MN 55328
 PH: 612-229-9205

Carrier Beam -

W18x50

Max Trib = 25'-0"



$$P_d = (8 \text{ psf}) \cdot (8'-0") \cdot (50'-0") / 2 = 1.6 \text{ k}$$

$$P_s = (25.2 \text{ psf}) \cdot (8'-0") \cdot (50'-0") / 2 + (0.5) \cdot (28.5 \text{ psf}) \cdot (8.7 \text{ ft}) \cdot (8'-0") = 6.1 \text{ k}$$

$$P_{\text{drift}} = (0.5) \cdot (28.5 \text{ psf}) \cdot (8.3 \text{ ft}) \cdot (50'-0") / 2 = 3.0 \text{ k}$$

$$P_w = (26.5 \text{ psf}) \cdot (8'-0") \cdot (50'-0") / 2 = 5.3 \text{ k}$$

$$P_{w,\text{up}} = (-24.0 \text{ psf}) \cdot (8'-0") \cdot (50'-0") / 2 = -4.8 \text{ k}$$

$$LC = 1.2D + 1.6S + 0.5W$$

$$Pu1 = 14.4 \text{ k}$$

$$Pu2 = 19.2 \text{ k}$$

$$LC = 0.9D + 1.0W$$

$$Pu1 = -3.4 \text{ k}$$

$$Pu2 = -3.4 \text{ k}$$

See attached spreadsheets for Beam Design

W18x50 Carrier Beam OK for Required Loading

Name

JWR

Design of Beam Typ Carrier

Location: Thiensville, WI

**Dead Load**

L = 18 ft Pattern Loads? **N** (Y/N)
 a = 11 ft Shape **W** (W/C/M)
 b = 11 ft Cb = 1
 Lb = 11 ft Depth 18 in
 Fy = 50 ksi Wt = 50 lb/ft
 (Suggested Wt = 50 lb/ft)

Live Load

Serviceability Criteria - Main Span

for LL deflection of L / 0 0 in⁴ (Δ = ##### in)for TL deflection of L / 0 0 in⁴ (Δ = ##### in)

Serviceability Criteria - Cantilevers

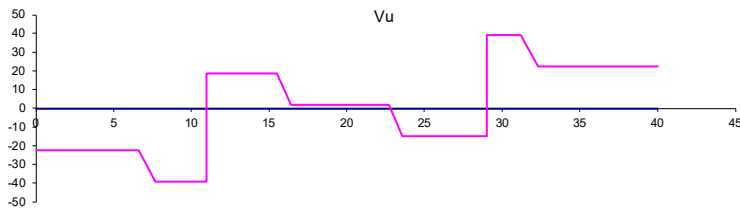
for LL deflection of L / 0 0 in⁴ (Δ = ##### in)for TL deflection of L / 0 0 in⁴ (Δ = ##### in)

a = 11 ft L = 18 ft b = 11 ft
 Ru = 57.9 k Max Mu = 301.8 ft-k Ru = 54.1 k
 R(S) = 41.3 k R(S) = 38.7 k
 R(D) = 41.3 k R(D) = 38.7 k
 R(L) = 0.0 k R(L) = 0.0 k

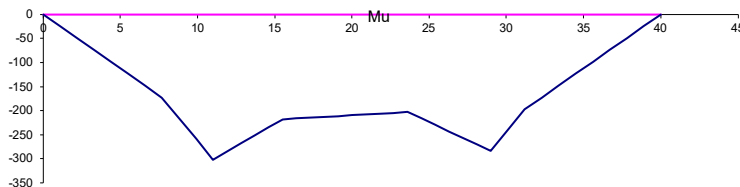
Use W18x50
 ϕMn = 319.6 ft-k > Mu = 301.8 ft-k **OK** (Controls) W18x50
 ϕVn = 172.4 kips > Vu = 39.2 kips **OK**
 I prov'd = 800 in⁴ > req'd = 0 in⁴ **OK**
 ϕMp = 378.8 ft-k ϕMr = 266.8 ft-k
 Lp = 5.8 ft Lr = 15.6 ft

Uniform Loads				Conc Loads			Trapezoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft	Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	16	0	D	0	0	0	40
D	0	0	40	D	12	8	D	0	0	0	40
D	0	0	40	D	12	16	D	0	0	0	40
L	0	0	29	D	12	24	L	0	0	0	40
L	0	0	40	D	12	32	L	0	0	0	40
L	0	0	40	D	16	40	L	0	0	0	40

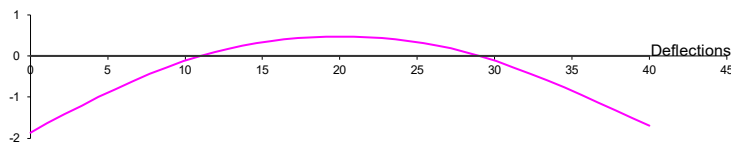
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	39.2	29.0	-39.2	7.7
V(S)	28.0	29.0	-28.0	7.7
V(L)	0.0	0.0	0.0	0.0
V(D)	28.0	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-301.8	11.0
M(S)	0.0	0.0	-215.6	11.0
M(L)	0.0	0.0	0.0	0.0
M(D)	215.6	11.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	1.86	71	0.47	460	1.70	78
Live	0.00		0.00		0.00	
Total	1.86	71	0.47	460	1.70	78

Name **JWR**

Design of Beam Typ Carrier Deflection Location: **Thiensville, WI**



Dead Load

L = 18 ft
a = 11 ft
b = 11 ft
Lb = 1 ft
Fy = 50 ksi

Pattern Loads? **N** (Y/N)
Shape **W** (W/C/M)
Cb = 1
Depth 18 in
Wt = 50 lb/ft
(Suggested Wt = 46 lb/ft)

Live Load

a = 11 ft
Ru = 37.7 k
R(S) = 27.0 k
R(D) = 27.0 k
R(L) = 0.0 k

L = 18 ft
Max Mu = 200.4 ft-k

b = 11 ft
Ru = 35.3 k
R(S) = 25.2 k
R(D) = 25.2 k
R(L) = 0.0 k

Servicability Criteria - Main Span

for LL deflection of L / 240 0 in⁴ (Δ = 0.90 in)
for TL deflection of L / 180 210 in⁴ (Δ = 1.20 in)

Servicability Criteria - Cantilevers

for LL deflection of L / 120 0 in⁴ (Δ = 1.10 in)
for TL deflection of L / 90 680 in⁴ (Δ = 1.47 in)

Use W18x50

φMn = 378.8 ft-k
φVn = 172.4 kips
I prov'd = 800 in⁴

Mu = 200.4 ft-k
Vu = 25.8 kips
req'd = 680 in⁴

OK
OK
OK

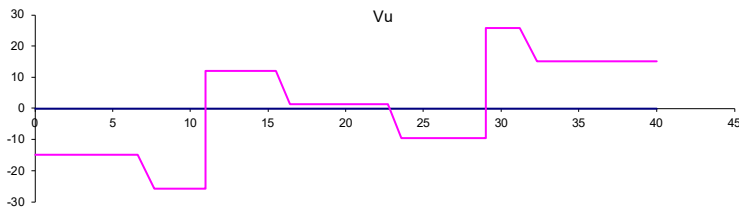
(Controls)

W18x50
φMp = 378.8 ft-k
Lp = 5.8 ft

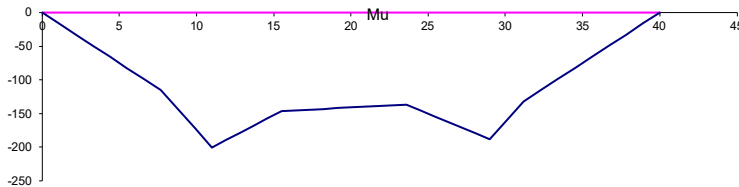
φMr = 266.8 ft-k
Lr = 15.6 ft

Uniform Loads				Conc Loads				Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	10.7	0		D	0	0	0	40
D	0	0	40	D	7.7	8		D	0	0	0	40
D	0	0	40	D	7.7	16		D	0	0	0	40
L	0	0	29	D	7.7	24		L	0	0	0	40
L	0	0	40	D	7.7	32		L	0	0	0	40
L	0	0	40	D	10.7	40		L	0	0	0	40

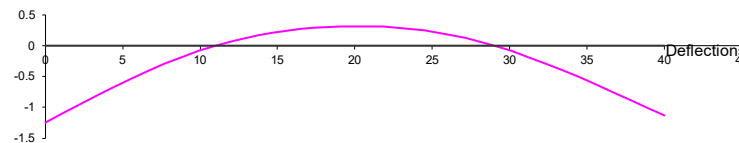
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	25.8	29.0	-25.8	7.7
V(S)	18.4	29.0	-18.4	7.7
V(L)	0.0	0.0	0.0	0.0
V(D)	18.4	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-200.4	11.0
M(S)	0.0	0.0	-143.1	11.0
M(L)	0.0	0.0	0.0	0.0
M(D)	143.1	11.0		



	Left Cant (in)	L/x	Main Span (in)	L/x	Right Cant (in)	L/x
Dead	1.25	106	0.32	685	1.14	116
Live	0.00		0.00		0.00	
Total	1.25	106	0.32	685	1.14	116

Name **JWR**

Design of Beam Carrier Patt Out

Location: **Thiensville, WI**



L = **18** ft Pattern Loads? **N** (Y/N)
a = **11** ft Shape **W** (W/C/M)
b = **11** ft Cb = **1**
Lb = **8** ft Depth **18** in
Fy = **50** ksi Wt = **50** lb/ft
(Suggested Wt = **71** lb/ft)

Live Load

a = 11 ft L = 18 ft b = 11 ft
Ru = 48.6 k Max Mu = 301.8 ft-k Ru = 45.7 k
R(S) = 34.7 k R(S) = 32.7 k
R(D) = 34.7 k R(D) = 32.7 k
R(L) = 0.0 k R(L) = 0.0 k

Servicability Criteria - Main Span

for LL deflection of L / **240** 0 in⁴ (Δ = 0.90 in)
for TL deflection of L / **180** 369 in⁴ (Δ = 1.20 in)

Servicability Criteria - Cantilevers

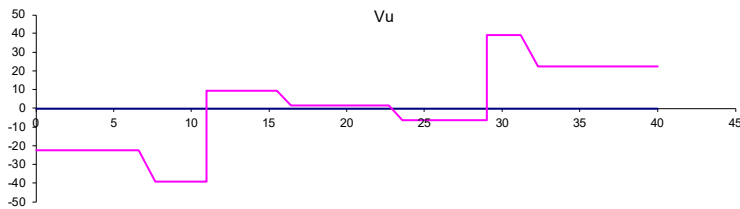
for LL deflection of L / **120** 0 in⁴ (Δ = 1.10 in)
for TL deflection of L / **90** 1118 in⁴ (Δ = 1.47 in)

Use W18x50
φMn = 354.0 ft-k > Mu = 301.8 ft-k **OK**
φVn = 172.4 kips > Vu = 39.2 kips **OK**
I prov'd = 800 in⁴ ! > req'd = 1118 in⁴ **Red Go (Controls)**

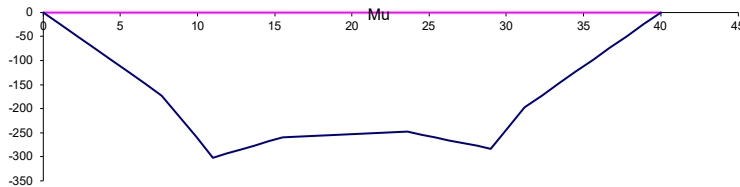
W18x50
φMp = 378.8 ft-k φMr = 266.8 ft-k
Lp = 5.8 ft Lr = 15.6 ft

Uniform Loads				Conc Loads				Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	16	0		D	0	0	0	40
D	0	0	40	D	12	8		D	0	0	0	40
D	0	0	40	D	5.667	16		D	0	0	0	40
L	0	11	29	D	5.667	24		L	0	0	0	40
L	0	0	40	D	12	32		L	0	0	0	40
L	0	0	40	D	16	40		L	0	0	0	40

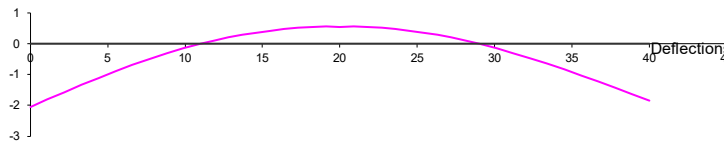
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	39.2	29.0	-39.2	7.7
V(S)	28.0	29.0	-28.0	7.7
V(L)	0.0	0.0	0.0	0.0
V(D)	28.0	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-301.8	11.0
M(S)	0.0	0.0	-215.6	11.0
M(L)	0.0	0.0	0.0	0.0
M(D)	215.6	11.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	2.05	64	0.55	390	1.85	71
Live	0.00		0.00		0.00	
Total	2.05	64	0.55	390	1.85	71

Name **JWR**

Design of Beam Carrier Patt Out Defl Location: **Thiensville, WI**



Dead Load

L = 18 ft
a = 11 ft
b = 11 ft
Lb = 8 ft
Fy = 50 ksi

Pattern Loads? **N** (Y/N)
Shape **W** (W/C/M)
Cb = 1
Depth 18 in
Wt = 50 lb/ft
(Suggested Wt = 50 lb/ft)

Live Load

a = 11 ft
Ru = 33.3 k
R(S) = 23.8 k
R(D) = 23.8 k
R(L) = 0.0 k

L = 18 ft
Max Mu = 200.4 ft-k

b = 11 ft
Ru = 31.3 k
R(S) = 22.3 k
R(D) = 22.3 k
R(L) = 0.0 k

Servicability Criteria - Main Span

for LL deflection of L / 240 0 in⁴ (Δ = 0.90 in)
for TL deflection of L / 180 237 in⁴ (Δ = 1.20 in)

Servicability Criteria - Cantilevers

for LL deflection of L / 120 0 in⁴ (Δ = 1.10 in)
for TL deflection of L / 90 729 in⁴ (Δ = 1.47 in)

Use W18x50

φMn = 354.0 ft-k
φVn = 172.4 kips
I prov'd = 800 in⁴

Mu = 200.4 ft-k
Vu = 25.8 kips
req'd = 729 in⁴

OK
OK
OK

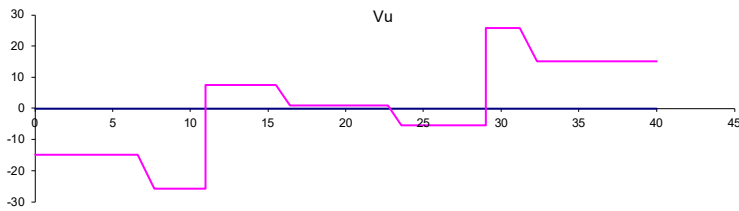
(Controls)

W18x50
φMp = 378.8 ft-k
Lp = 5.8 ft

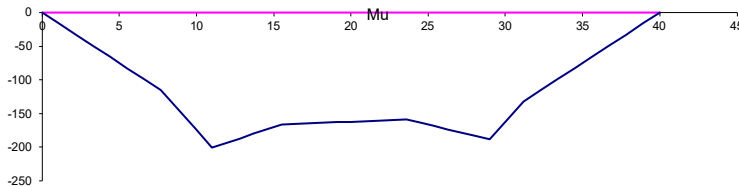
φMr = 266.8 ft-k
Lr = 15.6 ft

Uniform Loads				Conc Loads			Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft	Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	10.7	0	D	0	0	0	40
D	0	0	40	D	7.7	8	D	0	0	0	40
D	0	0	40	D	4.65	16	D	0	0	0	40
L	0	11	29	D	4.65	24	L	0	0	0	40
L	0	0	40	D	7.7	32	L	0	0	0	40
L	0	0	40	D	10.7	40	L	0	0	0	40

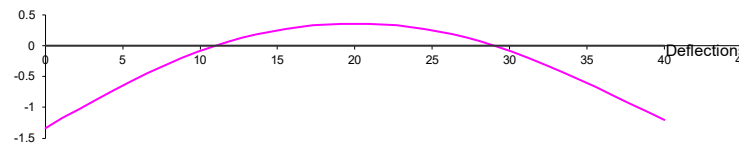
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	25.8	29.0	-25.8	7.7
V(S)	18.4	29.0	-18.4	7.7
V(L)	0.0	0.0	0.0	0.0
V(D)	18.4	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-200.4	11.0
M(S)	0.0	0.0	-143.1	11.0
M(L)	0.0	0.0	0.0	0.0
M(D)	143.1	11.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	1.34	99	0.36	607	1.21	109
Live	0.00		0.00		0.00	
Total	1.34	99	0.36	607	1.21	109

Name **JWR**

Design of Beam Carrier Patt In

Location: **Thiensville, WI**



Dead Load

L = **18** ft Pattern Loads? **N** (Y/N)
a = **11** ft Shape **W** (W/C/M)
b = **11** ft Cb = **1**
Lb = **8** ft Depth **18** in
Fy = **50** ksi Wt = **50** lb/ft
(Suggested Wt = **40** lb/ft)

Live Load

a = 11 ft L = 18 ft b = 11 ft
Ru = 39.9 k Max Mu = 178.9 ft-k Ru = 37.3 k
R(S) = 28.5 k R(S) = 26.6 k
R(D) = 28.5 k R(D) = 26.6 k
R(L) = 0.0 k R(L) = 0.0 k

Servicability Criteria - Main Span

for LL deflection of L / **240** 0 in⁴ (Δ = 0.90 in)
for TL deflection of L / **180** 144 in⁴ (Δ = 1.20 in)

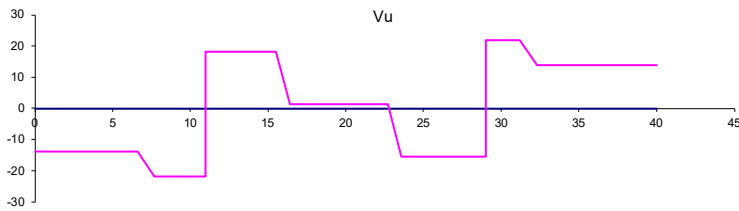
Servicability Criteria - Cantilevers

for LL deflection of L / **120** 0 in⁴ (Δ = 1.10 in)
for TL deflection of L / **90** 531 in⁴ (Δ = 1.47 in)

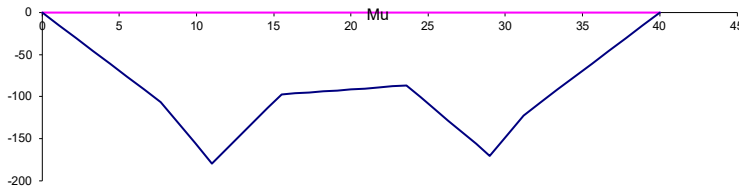
Use W18x50
φMn = 354.0 ft-k > Mu = 178.9 ft-k **OK**
φVn = 172.4 kips > Vu = 21.8 kips **OK**
I prov'd = 800 in⁴ > req'd = 531 in⁴ **OK** (Controls)
W18x50 φMp = 378.8 ft-k φMr = 266.8 ft-k
Lp = 5.8 ft Lr = 15.6 ft

Uniform Loads				Conc Loads			Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft	Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	9.917	0	D	0	0	0	40
D	0	0	40	D	5.667	8	D	0	0	0	40
D	0	0	40	D	12	16	D	0	0	0	40
L	0	11	29	D	12	24	L	0	0	0	40
L	0	0	40	D	5.667	32	L	0	0	0	40
L	0	0	40	D	9.917	40	L	0	0	0	40

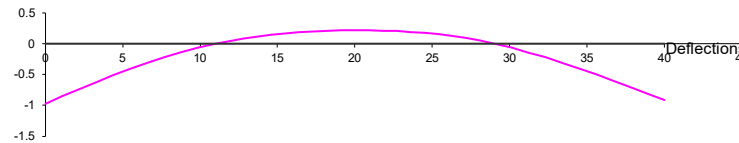
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	21.8	29.0	-21.8	7.7
V(S)	15.6	29.0	-15.6	7.7
V(L)	0.0	0.0	0.0	0.0
V(D)	15.6	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-178.9	11.0
M(S)	0.0	0.0	-127.8	11.0
M(L)	0.0	0.0	0.0	0.0
M(D)	127.8	11.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	0.97	136	0.22	1001	0.91	145
Live	0.00		0.00		0.00	
Total	0.97	136	0.22	1001	0.91	145

Name

JWR

Design of Beam Carrier Patt In DeflLocation: **Thiensville, WI****Dead Load**

L = 18 ft Pattern Loads? **N** (Y/N)
 a = 11 ft Shape **W** (W/C/M)
 b = 11 ft Cb = 1
 Lb = 8 ft Depth 18 in
 Fy = 50 ksi Wt = 50 lb/ft
 (Suggested Wt = 35 lb/ft)

Live Load

Servicability Criteria - Main Span

for LL deflection of L / 240 0 in⁴ (Δ = 0.90 in)for TL deflection of L / 180 93 in⁴ (Δ = 1.20 in)

Servicability Criteria - Cantilevers

for LL deflection of L / 120 0 in⁴ (Δ = 1.10 in)for TL deflection of L / 90 342 in⁴ (Δ = 1.47 in)

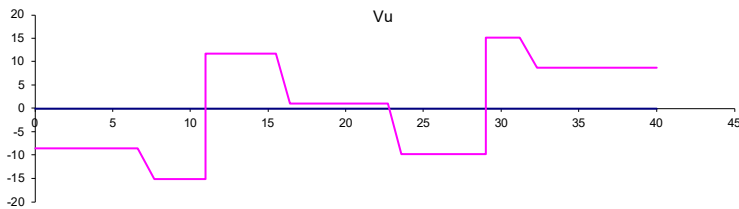
a = 11 ft L = 18 ft b = 11 ft
 Ru = 26.8 k Max Mu = 116.2 ft-k Ru = 25.0 k
 R(S) = 19.2 k R(S) = 17.8 k
 R(D) = 19.2 k R(D) = 17.8 k
 R(L) = 0.0 k R(L) = 0.0 k

Use W18x50
 φMn = 354.0 ft-k > Mu = 116.2 ft-k **OK** (Controls)
 φVn = 172.4 kips > Vu = 15.1 kips **OK** (Controls)
 I prov'd = 800 in⁴ > req'd = 342 in⁴ **OK** (Controls)

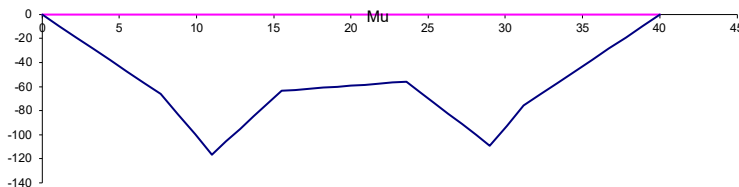
W18x50
 φMp = 378.8 ft-k φMr = 266.8 ft-k
 Lp = 5.8 ft Lr = 15.6 ft

Uniform Loads				Conc Loads				Trapezoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	6.15	0		D	0	0	0	40
D	0	0	40	D	4.65	8		D	0	0	0	40
D	0	0	40	D	7.7	16		D	0	0	0	40
L	0	11	29	D	7.7	24		L	0	0	0	40
L	0	0	40	D	4.65	32		L	0	0	0	40
L	0	0	40	D	6.15	40		L	0	0	0	40

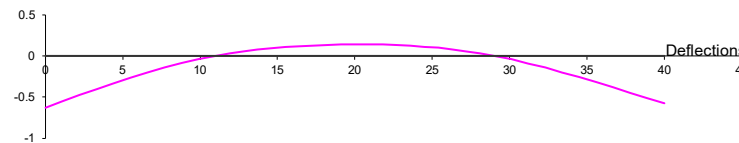
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	15.1	29.0	-15.1	7.7
V(S)	10.8	29.0	-10.8	7.7
V(L)	0.0	0.0	0.0	0.0
V(D)	10.8	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	0.0	0.0	-116.2	11.0
M(S)	0.0	0.0	-83.0	11.0
M(L)	0.0	0.0	0.0	0.0
M(D)	83.0	11.0		



	Left Cant (in)	L/x	Main Span (in)	L/x	Right Cant (in)	L/x
Dead	0.63	210	0.14	1547	0.58	227
Live	0.00		0.00		0.00	
Total	0.63	210	0.14	1547	0.58	227

Name **JWR**

Design of Beam Carrier Up

Location: **Thiensville, WI**



Dead Load

L = **18** ft Pattern Loads? **N** (Y/N)
a = **11** ft Shape **W** (W/C/M)
b = **11** ft Cb = **1**
Lb = **8** ft Depth **16** in
Fy = **50** ksi Wt = **31** lb/ft
(Suggested Wt = **26** lb/ft)

Live Load

a = 11 ft L = 18 ft b = 11 ft
Ru = -12.3 k Max Mu = 56.7 ft-k Ru = -11.5 k
R(S) = -8.8 k R(S) = -8.2 k
R(D) = -8.8 k R(D) = -8.2 k
R(L) = 0.0 k R(L) = 0.0 k

Servicability Criteria - Main Span

for LL deflection of L / **240** 0 in⁴ (Δ = 0.90 in)
for TL deflection of L / **180** 53 in⁴ (Δ = 1.20 in)

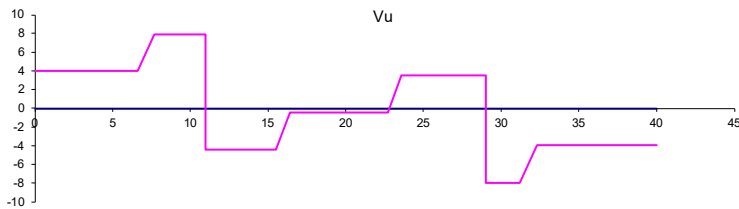
Servicability Criteria - Cantilevers

for LL deflection of L / **120** 0 in⁴ (Δ = 1.10 in)
for TL deflection of L / **90** 179 in⁴ (Δ = 1.47 in)

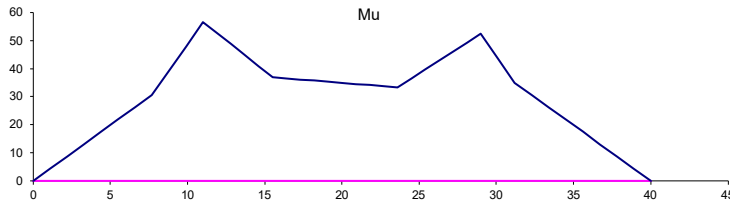
Use W16x31
φMn = 168.0 ft-k > Mu = 56.7 ft-k **OK** (Controls)
φVn = 117.9 kips > Vu = 7.9 kips **OK** (Controls)
I prov'd = 375 in⁴ > req'd = 179 in⁴ **OK** (Controls)
W16x31 φMp = 202.5 ft-k φMr = 141.7 ft-k
Lp = 4.1 ft Lr = 11.0 ft

Uniform Loads				Conc Loads				Trapazoidal Loads				
Load Case (D/L)	Load k/ft	Starting dist ft	Ending dist ft	Load Case (D/L)	Load kips	dist ft		Load Case (D/L)	Load at start k/ft	Load at end k/ft	Starting dist ft	Ending dist ft
D	0	0	40	D	-2.833	0		D	0	0	0	40
D	0	0	40	D	-2.833	8		D	0	0	0	40
D	0	0	40	D	-2.833	16		D	0	0	0	40
L	0	11	29	D	-2.833	24		L	0	0	0	40
L	0	0	40	D	-2.833	32		L	0	0	0	40
L	0	0	40	D	-2.833	40		L	0	0	0	40

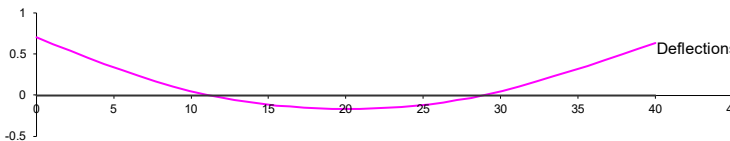
Controlling Load Combination 1.4D (A4-1)



	Max (k)	At x = (ft)	Min (k)	At x = (ft)
Vu	7.9	7.7	-7.9	29.0
V(S)	5.7	7.7	-5.7	29.0
V(L)	0.0	0.0	0.0	0.0
V(D)	5.7	29.0		



	Max (ft-k)	At x = (ft)	Min (ft-k)	At x = (ft)
Mu	56.7	11.0	0.0	0.0
M(S)	40.5	11.0	0.0	0.0
M(L)	0.0	0.0	0.0	0.0
M(D)	40.5	11.0		



	Left Cant (in)		Main Span (in)		Right Cant (in)	
	L/x		L/x		L/x	
Dead	0.70	188	0.17	1275	0.63	208
Live	0.00		0.00		0.00	
Total	0.70	188	0.17	1275	0.63	208

JSN

Structural Engineering

 2750 102nd St SE
 Delano, MN 55328
 PH: 612-229-9205

Job _____ BH23129 - BP

Comm. No. _____ 2023-011

Date _____ 10/11/2023

Name _____ JWR

Purlin Carrier Connection -

From Analysis:

 $P_u, \text{Max} = 19.2 \text{ k}$

Capacity:

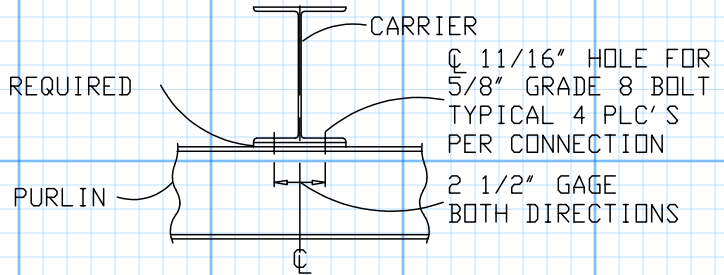
(4)- 5/8" DIA Grade 8 Bolts

$$\phi R_n = \phi F_n A_b$$

$$= (0.75) * (90 \text{ ksi}) * [(4) * \pi * (5/8")^2]$$

$$= 331 \text{ kips} > 9.3 \text{ k} \text{ OK}$$

SPACER PLIF REQUIRED



SECTION D

PURLIN TO CARRIER CONNECTION

Verify no prying action:

$$t_{\min} = \sqrt{4 * (19.2 \text{ k} / 4) * (2.5") / (0.9 * 5" * 65 \text{ ksi})} \quad [\text{AISC Eqn 9-20a}]$$

$$t_{\min} = 0.405"$$

$$t_f \text{ W18x50} = 0.570" > 0.405" \text{ OK}$$

$$t_f \text{ W14x22} = 0.335" < 0.405" \text{ NG}$$

Consider Prying Force on W14x22

$$\delta = 1 - d'/p = 1 - (11/16") / (5")$$

$$= 0.8625$$

$$\alpha' = \frac{1}{\delta(1+p)} [(t_c/t)^2 - 1]$$

$$= \frac{1}{(0.8625) * (1+5)} [(0.405"/0.335")^2 - 1]$$

$$= 0.089$$

$$Q = (t/t_c)^2 (1 + \delta \alpha')$$

$$= (0.335"/0.405")^2 (1 + 0.8625 * (0.089))$$

$$= 0.73$$

$$\phi R_n = (0.73) * (331 \text{ k}) = 243 \text{ k} > 19.2 \text{ k} \text{ OK}$$

Connection is adequate for purlin loads

JSN

Structural Engineering

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 Delano, MN 55328
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Job _____ BH23129 - BP

Comm. No. _____ 2023-011

Date _____ 10/11/2023

Name _____ JWR

HSS Column: HSS10x10x3/16

$$P_d = (8 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 = 4.8 \text{ k}$$

$$P_s = (25.2 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 + (0.5) \cdot (28.5 \text{ psf}) \cdot (8.3 \text{ ft}) \cdot (50' - 0'') / 2 + (0.5) \cdot (28.5 \text{ psf}) \cdot (8.7 \text{ ft}) \cdot (48' - 0'') / 2 = 21.1 \text{ k}$$

$$P_w = (26.5 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 = 15.9 \text{ k}$$

$$P_{w,up} = (-24.0 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 = -14.4 \text{ k}$$

$$P_{wind,horz} = (36.6 \text{ psf} + 24.4 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (3' - 0'') / 2 = 2.3 \text{ k}$$

$$M_{u,wh} = (2.3 \text{ k}) \cdot (15' - 0'' + (3' - 0'') / 2) = 37.8 \text{ k-ft}$$

Consider Load Cases

$$(1) 1.2D + 1.6S + 0.5W$$

$$(2) 1.2D + 0.5S + 1.0W$$

$$P_{u,1} = (1.2) \cdot (4.8 \text{ k}) + (1.6) \cdot (21.1 \text{ k}) + (0.5) \cdot (15.9 \text{ k}) = 47.5 \text{ k}$$

$$P_{u,2} = (1.2) \cdot (4.8 \text{ k}) + (0.5) \cdot (21.1 \text{ k}) + (1.0) \cdot (15.9 \text{ k}) = 32.2 \text{ k}$$

Notional Load:

$$N_i = 0.002 \cdot 1.0 \cdot Y_i$$

$$= 0.002 \cdot Y_i = 0.002 \cdot (47.5 \text{ k})$$

$$= 95 \text{ lbs}$$

$$M_{u,not} = (95 \text{ lbs}) \cdot (15' - 0'') \\ = 1.5 \text{ k-ft}$$

$$M_{u,1} = 0.5 \cdot (37.8 \text{ k-ft}) + 1.5 \text{ k-ft} = 20.4 \text{ k-ft}$$

$$M_{u,2} = 37.8 \text{ k-ft} + 1.5 \text{ k-ft} = 39.3 \text{ k-ft}$$

Capacity:

$$\Phi P_n = 152 \text{ k}, KL = 30' - 0''$$

$$\Phi M_n = 62.3 \text{ k-ft}$$

$$P_u / \Phi P_n = 47.5 \text{ k} / 152 \text{ k} = 0.31 > 0.2$$

$$P_u / \Phi P_n = 32.2 \text{ k} / 152 \text{ k} = 0.21 > 0.2$$

$$P_u / \Phi P_n + (8/9) \cdot (M_u / \Phi M_n) < 1.0 \quad [\text{AISC Eqn H1-1a}]$$

$$47.5 \text{ k} / 152 \text{ k} + (8/9) \cdot (20.4 \text{ k-ft} / 62.3 \text{ k-ft}) = 0.60 < 1.0 \text{ OK}$$

$$P_u / \Phi P_n + (8/9) \cdot (M_u / \Phi M_n) < 1.0 \quad [\text{AISC Eqn H1-1b}]$$

$$32.2 \text{ k} / 152 \text{ k} + (8/9) \cdot (39.3 \text{ k-ft} / 62.3 \text{ k-ft}) = 0.78 < 1.0 \text{ OK}$$

Job _____ BH23129 - BP

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HSS Column Con't:

Deflection:

$$P_{wind, horz} = 0.6 * (36.6 \text{ psf} + 24.4 \text{ psf}) * (50' - 0'') / 2 * (3' - 0'') / 2 = 1373 \text{ lbs}$$

$$\begin{aligned} \Delta &= \frac{P * L^3}{3EI} \\ &= \frac{(1373 \text{ lbs}) * (180'')^3}{3 * (29,000,000 \text{ psi}) * (108 \text{ in}^4)} \\ &= 0.85'' \end{aligned}$$

$$0.85'' = L/211 \text{ OK}$$

HSS10x10x3/16 Is Adequate for Required Loading

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Job _____ BH23129 - BP

Comm. No. _____ 2023-011

Date _____ 10/11/2023

Name _____ JWR

Column Cap Connection -

Loads:

$$P_d = (8 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 = 4.8 \text{ k}$$

$$P_s = (25.2 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 + (0.5) \cdot (28.5 \text{ psf}) \cdot (8.3 \text{ ft}) \cdot (50' - 0'') / 2 + (0.5) \cdot (28.5 \text{ psf}) \cdot (8.7 \text{ ft}) \cdot (48' - 0'') / 2 = 21.1 \text{ k}$$

$$P_w = (26.5 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 = 15.9 \text{ k}$$

$$P_{w,up} = (-24.0 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (48' - 0'') / 2 = -14.4 \text{ k}$$

$$P_{wind,horz} = (36.6 \text{ psf} + 24.4 \text{ psf}) \cdot (50' - 0'') / 2 \cdot (3' - 0'') / 2 = 2.3 \text{ k}$$

$$M_{u,wh} = (2.3 \text{ k}) \cdot ((3' - 0'') / 2) = 3.5 \text{ k-ft}$$

LC

$$(1) 0.9D + 1.0W$$

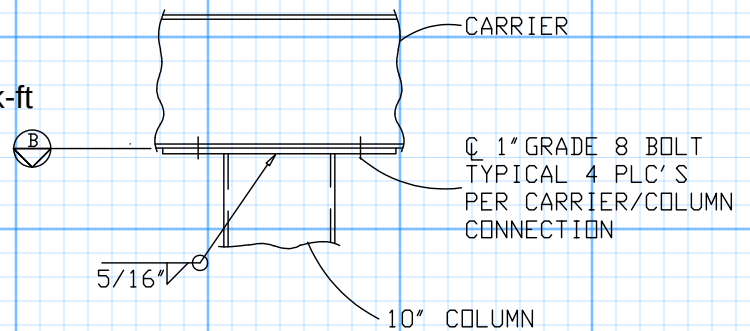
$$P_{u,1} = (0.9) \cdot (4.8 \text{ k}) + (1.0) \cdot (-14.4 \text{ k}) = -10.0 \text{ k}$$

$$M_{u,1} = 3.5 \text{ k-ft}$$

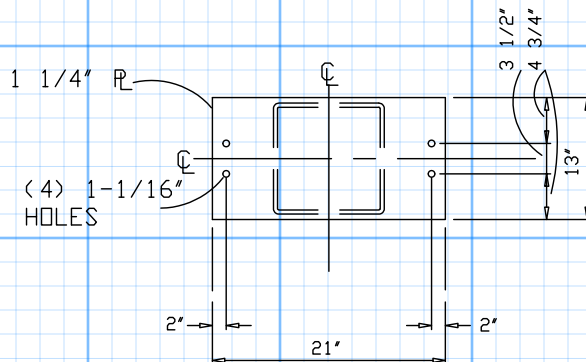
-Design for a nominal moment capacity of 20 k-ft

Connection is adequate for required loads

see attached spreadsheet



SECTION A
CARRIER TO COLUMN CONNECTION



SECTION B
COLUMN TOP REINFORCEMENT DETAILS

Job: BP
 Comm. No: 2023-011
 Date: 10/11/2023
 Name: JWR
 Location: Col Cap

MOMENT CONNECTION (EXTENDED END-PLATE)

M4

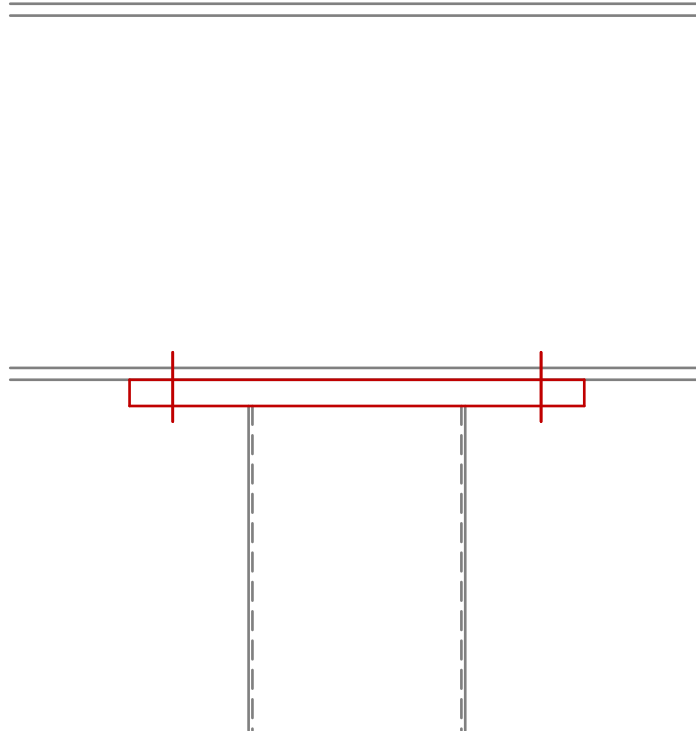
GEOMETRIC AND MATERIAL PROPERTIES:

End = No

DESIGN STRENGTH:

Column = HSS10x10x3, Beam = W18x50
 ASTM = A500-C (46) ASTM = A992
 d = 10 in d = 18 in
 b_f = 10 in b_f = 7.5 in
 t_w = 0.174 in t_w = 0.355 in
 t_f = 0.174 in t_f = 0.57 in
 STIFF = No STIFF = No
 t_s = — t_s = —
 h_s = — b_s = —

Cap Plate Bolts
 t_p = 1-1/4 in d_{bolt} = 1 in
 ASTM = A36 ASTM = A325N
 L_p = 21 in Hole = STD
 b_p = 11 in g = 3.5 in
 L_{eh} = 3.75 in L_{eh} = 1.75 in
 L_{ev} = 2 in L_{ev} = —
 p_{fo} = 3.5 in D_w = 5/16 in



φR_n %
 a. 89 k (0.15)
 b. 74 k (0.18)
 c. 98 k (0.14)
 d. 98 k (0.14)
 e. 89 k (0.02)
 f. 1134 k (0.00)
 g. 1215 k (0.00)
 h. 895 k (0.00)
 i. 127 k (0.01)
 j. — —
 k. 267 k (0.00)
 l. 206 k (0.11)
 m. 147 k (0.16)
 n. — —

REQUIRED STRENGTH:

M_u = 20 k-ft T_u = 14 k
 P_u = -10.0 k C_u = 24 k
 V_u = 2.3 k C_{uo} = 0 k

AISC 15th EDITION LRFD LIMIT STATES

Limit States Resisting Tension Component (Plate)

a. (J3-1) Bolt Tension (w/prying) φ = 0.75

$$R_n = F_{nt}A_bQ$$

$$A_b = (\pi/4)(1'')^2 = 0.79 \text{ in}^2$$

$$\rho = b'/a' = (3'')/(2.5'') = 1.2$$

$$p = g/2 + L_{eh} = (3.5'')/2 + (3.75'') = 5.5 \text{ in}$$

$$\delta = 1 - d'/p = 1 - (1.13'')/(5.5'') = 0.8$$

$$t_c = \sqrt{[(4)(53 \text{ k})(3'')/(0.9 \times 5.5'' \times 58 \text{ ksi})]} = 1.49 \text{ in}$$

$$\alpha' = \min\{1/[0.8(1+1.2)][(1.49''/0.57'')^2 - 1], 1\} = 0.24$$

$$Q = (0.57''/1.49'')^2(1+0.88'' \times 0.24) = 0.84$$

$$R_n = (90 \text{ ksi})(2 \times 0.79 \text{ in}^2)(0.84) = 119 \text{ k}$$

b. (J2-4) Weld Tensile Strength φ = 0.75

$$R_n = F_wA_w$$

$$F_w = (1.5)(0.6)(70 \text{ ksi}) = 63 \text{ ksi}$$

$$A_w = (9.19'')(0.707 \times 0.313'') = 2 \text{ in}^2$$

$$R_n = (63 \text{ ksi})(2 \text{ in}^2)(0.78) = 99 \text{ k}$$

Limit States Resisting Tension Component (Flange)

c. (J3-1) Bolt Tension (w/prying) Left End φ = 0.75

$$R_n = F_{nt}A_bQ$$

$$A_b = (\pi/4)(1'')^2 = 0.79 \text{ in}^2$$

$$\rho = b'/a' = (1.07'')/(2.25'') = 0.48$$

$$p = 2\sqrt{(1.57 \times 3.32) + \min(2\sqrt{(1.57 \times 3.32)}, 8.5)} = 9.14 \text{ in}$$

$$\delta = 1 - d'/p = 1 - (1.13'')/(9.14'') = 0.88$$

$$t_c = \sqrt{[(4)(53 \text{ k})(1.07'')/(0.9 \times 9.14'' \times 65 \text{ ksi})]} = 0.65 \text{ in}$$

$$\alpha' = \min\{1/[0.88(1+0.48)][(0.65''/0.57'')^2 - 1], 1\} = 0.24$$

$$Q = (0.57''/0.65'')^2(1+0.88'' \times 0.24) = 0.92$$

$$R_n = (90 \text{ ksi})(2 \times 0.79 \text{ in}^2)(0.92) = 131 \text{ k}$$

d. (J3-1) Bolt Tension (w/prying) Right End φ = 0.75

$$R_n = F_{nt}A_bQ$$

$$A_b = (\pi/4)(1'')^2 = 0.79 \text{ in}^2$$

$$\rho = b'/a' = (1.07'')/(2.25'') = 0.48$$

$$p = \min(2\sqrt{(1.57 \times 3.32)}, 8.5) + 2\sqrt{(1.57 \times 3.32)} = 9.14 \text{ in}$$

$$\delta = 1 - d'/p = 1 - (1.13'')/(9.14'') = 0.88$$

$$t_c = \sqrt{[(4)(53 \text{ k})(1.07'')/(0.9 \times 9.14'' \times 65 \text{ ksi})]} = 0.65 \text{ in}$$

$$\alpha' = \min\{1/[0.88(1+0.48)][(0.65''/0.57'')^2 - 1], 1\} = 0.24$$

$$Q = (0.57''/0.65'')^2(1+0.88'' \times 0.24) = 0.92$$

$$R_n = (90 \text{ ksi})(2 \times 0.79 \text{ in}^2)(0.92) = 131 \text{ k}$$

Job:	BP
Comm. No:	2023-011
Date:	10/11/2023
Name:	JWR
Location:	Col Cap

MOMENT CONNECTION (EXTENDED END-PLATE)**M4****AISC 15th EDITION LRFD LIMIT STATES****Limit States Resisting Shear***e. (J2-3) Weld Shear Strength* $\phi = 0.75$

$$R_n = F_w A_w \quad t_w/t_{min} = 0.70$$

$$F_w = (0.6)(70 \text{ ksi}) = 42 \text{ ksi}$$

$$A_w = 2(9.19'')(0.707 \times 0.313'') = 4.1 \text{ in}^2$$

$$R_n = (42 \text{ ksi})(4.1 \text{ in}^2)(0.7) = 119 \text{ k}$$

f. (J4-3) Shear Yielding (Plate) $\phi = 1.00$

$$R_n = 0.6 F_y A_g$$

$$A_g = (2 \times 1.25'')(21'') = 52.5 \text{ in}^2$$

$$R_n = (0.6)(36 \text{ ksi})(52.5 \text{ in}^2) = 1134 \text{ k}$$

g. (J4-4) Shear Rupture (Plate) $\phi = 0.75$

$$R_n = 0.6 F_u A_n$$

$$A_{nv} = (2 \times 1.25'')(21'' - 2 \times 1.19'') = 46.6 \text{ in}^2$$

$$R_n = (0.6)(58 \text{ ksi})(46.6 \text{ in}^2) = 1620 \text{ k}$$

h. (J4-5) Block Shear (Plate) $\phi = 0.75$

$$R_n = U_{bs} F_u A_{nt} + \min[0.6 F_y A_{gv}, 0.6 F_u A_{nv}]$$

$$U_{bs} F_u A_{nt} = (58 \text{ ksi})(1.25'' \times 2.31'') = 168 \text{ k}$$

$$0.6 F_y A_{gv} = (0.6)(36 \text{ ksi})(2 \times 1.25'' \times 19'') = 1026 \text{ k}$$

$$0.6 F_u A_{nv} = (0.6)(58 \text{ ksi})(2 \times 1.25'' \times 17.22'') = 1498 \text{ k}$$

$$R_n = [(168 \text{ k}) + \min(1026 \text{ k}, 1498 \text{ k})] = 1194 \text{ k}$$

Limit States Resisting Compressive Component*l. (J10-2) Web Local Yielding* $\phi = 1.00$

$$R_n = C_t(6k + N)F_y t_w$$

END = **No** Reversible = **Yes**

$$C_t = 1$$

$$N = (0.17'') + 2(1.25'') + 2(0.31'') = 3.3 \text{ in}$$

$$R_n = (1)(6(0.972'') + 3.3'')(50 \text{ ksi})(0.36'') = 206 \text{ k}$$

i. (J3-1) Bolt Shear (modified) $\phi = 0.75$

$$R_n = F_{nv} A_b + F_{nv}' A_b$$

$$A_b = (2)(\pi/4)(1'')^2 = 1.57 \text{ in}^2$$

$$q = (1.2)[(14 \text{ k}) - (106 \text{ k})(1.25''/1.49'')]^2 = 0 \text{ k}$$

$$f_t = (14 \text{ k} + 0 \text{ k})/(1.57 \text{ in}^2) = 9 \text{ ksi}$$

$$F_{nv}' = \min[1.3(9)/(67.5), 1](54) = 54 \text{ ksi}$$

$$R_n = (54 \text{ ksi} + 54 \text{ ksi})(1.57 \text{ in}^2) = 170 \text{ k}$$

j. (J3-4) Bolt Slip (w/tension) $\phi = 1.00$

$$R_n = \mu D_u h_f T_b k_s n_b$$

$$\mu = 0.3 \quad h_f = 1$$

$$D_u = 1.13 \quad T_b = 51 \text{ k}$$

$$k_s = 1 - (14 \text{ k})/[(1.13)(51 \text{ k})(2)] = 0.88$$

$$R_n = \text{—}$$

k. (J3-6a) Bearing Strength $\phi = 0.75$

$$R_n = \min[1.2 L_c t F_u, 2.4 d t F_u]$$

$$r_{n(\text{edge})} = \min[1.2(1.41''), 2.4(1'')](1.25'')(58 \text{ ksi})(2) = 245 \text{ k}$$

$$r_{n(\text{space})} = \min[1.2(15.81''), 2.4(1'')](1.25'')(58 \text{ ksi})(2) = 348 \text{ k}$$

$$r_{n(\text{space})} = \min[1.2(15.81''), 2.4(1'')](0.57'')(65 \text{ ksi})(4) = 356 \text{ k}$$

$$R_n = \min(593 \text{ k}, 356 \text{ k}) = 356 \text{ k}$$

m. (J10-4) Web Local Crippling $\phi = 0.75$

$$R_n = C_t 0.8 t_w^2 [1 + 3(N/d)(t_w/t_f)^{1.5}] \sqrt{E F_y t_f/t_w}$$

$$R_n = (1)(0.8)(0.36'')^2 [1 + 3(3.3''/18'')(0.36''/0.57'')^{1.5}] \times \dots$$

$$\dots \sqrt{(29000)(50 \text{ ksi})(0.57'')/(0.36'')} = 195 \text{ k}$$

n. (J10-8) Web Compression Buckling $\phi = 0.90$

$$R_n = C_t 24 t_w^2 \sqrt{E F_y} / (h/t_w)$$

$$R_n = \text{—}$$

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Job _____ BH23129 - BP

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Date _____ 10/11/2023

Name _____ JWR

Column Base Plate Connection -

Loads:

$$P_d = (8 \text{ psf}) * (50' - 0'') / 2 * (48' - 0'') / 2 = 4.8 \text{ k}$$

$$P_s = (25.2 \text{ psf}) * (50' - 0'') / 2 * (48' - 0'') / 2 + (0.5) * (28.5 \text{ psf}) * (8.3 \text{ ft}) * (50' - 0'') / 2 + (0.5) * (28.5 \text{ psf}) * (8.7 \text{ ft}) * (48' - 0'') / 2 = 21.1 \text{ k}$$

$$P_w = (26.5 \text{ psf}) * (50' - 0'') / 2 * (48' - 0'') / 2 = 15.9 \text{ k}$$

$$P_{w,up} = (-24.0 \text{ psf}) * (50' - 0'') / 2 * (48' - 0'') / 2 = -14.4 \text{ k}$$

$$P_{wind,horz} = (36.6 \text{ psf} + 24.4 \text{ psf}) * (50' - 0'') / 2 * (3' - 0'') / 2 = 2.3 \text{ k}$$

$$M_{u,wh} = (2.3 \text{ k}) * (15' - 0'' + (3' - 0'') / 2) = 37.8 \text{ k-ft}$$

Capacity:

See attached spreadsheet for baseplate checks

Connection:

$$M_u = 28.4 \text{ k-ft (from column design analysis)}$$

$$P_u = 37.8 \text{ k-ft} / 10'' + (0.9 * (-4.0 \text{ k}) + 12.0 \text{ k}) / 2 = 49.6 \text{ k}$$

Base metal rupture check:

$$D_{max} = t * F_u / 3.09 \quad [\text{AISC Eqn 9-3}]$$

$$= (3/16) * (58 \text{ ksi}) / 3.09$$

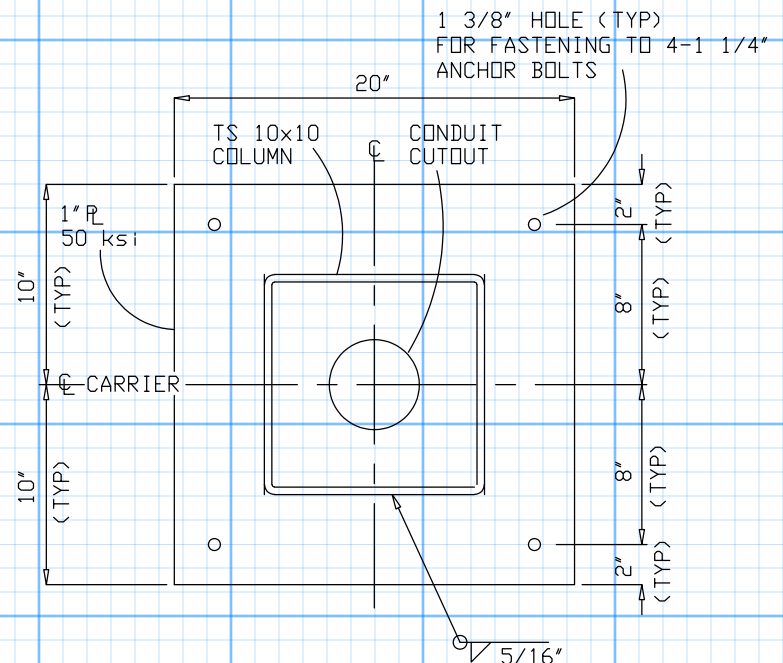
$$= 3.5$$

$$\Phi R_n = 1.5 * 1.392 * D * L$$

$$= 1.5 * 1.392 * 3.5 * 10''$$

$$= 73 \text{ k} > 49.6 \text{ k} \text{ OK}$$

Connection is adequate for required loads



SECTION C
 BASE PL DETAILS

Base Plate with Moment

See AISC Design Guide 1 - Column Base Plates

Location: Col Base

Loads

P(D) =	4.8 k	M(D) =	0 ft-k
P(L) =	0 k	M(L) =	0 ft-k
P(Lr) =	21.1 k	M(Lr) =	0 ft-k
P(W) =	-8.64 k	M(W) =	22.68 ft-k
P(Q _E) =	0 k	M(Q _E) =	0 ft-k

(If uplift is possible, enter P as negative)

Base Plate

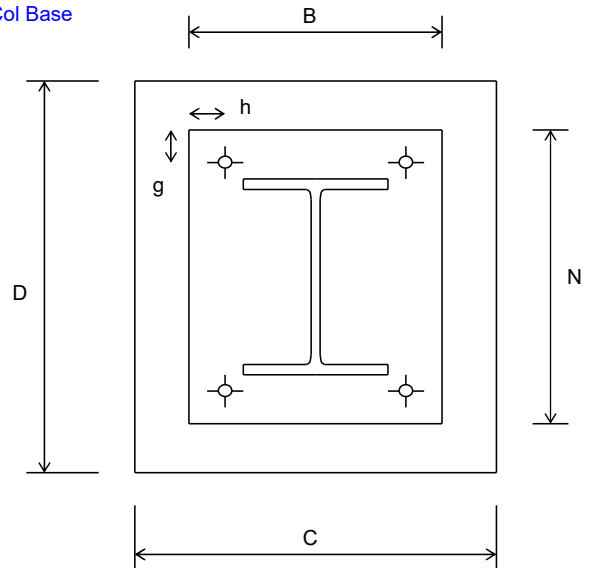
N =	20 in	C =	4 ft
B =	20 in	D =	4 ft
Fy =	50 ksi	f'c =	3 ksi
Anchor Rod Dia	1 1/4 in	g =	2 in
Anchor Rod Fy =	36 ksi	h =	2 in
Column Size	TS10x10x.1875	d =	10 in
Number of anchor rods along ea side	2 (4 total)	bf =	10 in

Load Factors

Has W been reduced by Kd? **y** (y/n)

p = **1.0**

S_{DS} = **0 g**



Summary

	Pu (k)	Mu (k-ft)
Case 1 1.2D + 1.6L + 0.5Lr	16	0.0
Case 2 1.2D + 1.6Lr + 0.5L	40	0.0
Case 3 1.2D + 1.6Lr + 0.8W	46	18.1
Case 4 1.2D + 1.6W + 0.5L + 0.5Lr	30	36.3
Case 5 0.9D + 1.6W	-10	36.3
Case 6 1.2D + 1.0E + 0.5L + 0.2Lr	10	0.0
Case 7 0.9D + 1.0E	4	0.0

Method of Analysis	Moment in Base Plate	Required Plate Thickness	Bearing Stress on Concrete	Tension in Single Anchor Rod	
Case 1 Zero eccentricity	0.73 in-k / in	0.26 in	0.04 ksi	0.0 k	OK
Case 2 Zero eccentricity	1.78 in-k / in	0.40 in	0.10 ksi	0.0 k	OK
Case 3 Moderate eccentricity	3.58 in-k / in	0.56 in	0.29 ksi	0.0 k	OK
Case 4 Large eccentricity	9.29 in-k / in	0.91 in	3.06 ksi	4.2 k	OK
Case 5 Large eccentricity	9.20 in-k / in	0.90 in	3.06 ksi	14.9 k	OK
Case 6 Zero eccentricity	0.45 in-k / in	0.20 in	0.02 ksi	0.0 k	OK
Case 7 Zero eccentricity	0.19 in-k / in	0.13 in	0.01 ksi	0.0 k	OK
	Req'd t =	0.91 in			

Ultimate bearing stress on concrete Fp = 3.06 ksi

Capacity of Anchor Rod in tension ϕ Tn = 40.0 k

Footing -

Vertical:

$$P_w = (4.8 \text{ k}) + (0.75)*(21.1 \text{ k}) + (0.75)*(0.6)*(15.9 \text{ k})$$
$$= 27,780 \text{ lbs}$$

Allowable Vertical Soil Bearing Pressure - 1500 psf (assumed)

Footing Size - 4'-6" x 4'-6"

$$(1500 \text{ psf}) * (4'-6") * (4'-6") = 30,375 \text{ lbs} > 27,780 \text{ lbs OK}$$

Lateral:

$$d = \sqrt{4.25 \cdot M_w / (S_3 \cdot b)} \quad [\text{IBC 2015 Eqn 18-3}]$$

Post is laterally restrained at the surface by 6" of concrete

$$M_w = 0.6 \cdot (37,800 \text{ lb-ft}) = 22,680 \text{ lb-ft}$$

$$S_3 = (150 \text{ pcf}) \cdot (5'-0") = 750 \text{ psf (check 5'-0" deep footing)}$$

$$b = \sqrt{(4.5\text{ft})^2 + (4.5\text{ft})^2} = 6.36\text{ ft}$$

$$d = \sqrt{4.25 \cdot (22,680 \text{ lb-ft}) / ((750 \text{ psf}) \cdot (6.36 \text{ ft}))}$$
$$= 4.5 \text{ ft} < 5.0 \text{ ft} \text{ OK}$$

Uplift:

LC: $0.6D + 0.6W$

Concrete Weight = 145 pcf

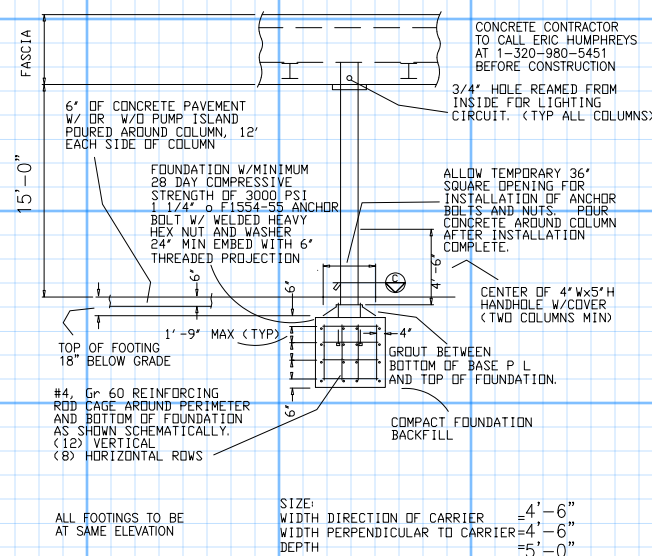
$$D = (8 \text{ psf}) * (50' - 0") / 2 * (48' - 0") / 2 = 4800 \text{ lbs}$$

$$W = (-24.0 \text{ psf}) \cdot (50'-0")/2 \cdot (48'-0")/2 = -14400 \text{ lbs}$$

$$0.6 \cdot (4800 \text{ lbs}) + (0.6) \cdot (-14400 \text{ lbs}) = -5760 \text{ lbs}$$

$$(0.6) \times (4'-6") \times (4'-6") \times (5'-0") \times (145 \text{ pcf}) = 8808 \text{ lbs} > 5760 \text{ lbs OK}$$

4'-6" x 4'-6" x 5'-0"d FTG OK for Required Loading



VIEW G
COL. FTG. ELEVATION

JSN

Structural Engineering

2750 102nd St SE
 Delano, MN 55328
 PH: 612-229-9205

Job _____ BH23129 - BP

Comm. No. _____ 2023-011

Date _____ 10/11/2023

Name _____ JWR

Fascia -

Horizontal Wind Load - 36.6 psf
 Braces @ 4'-0" OC

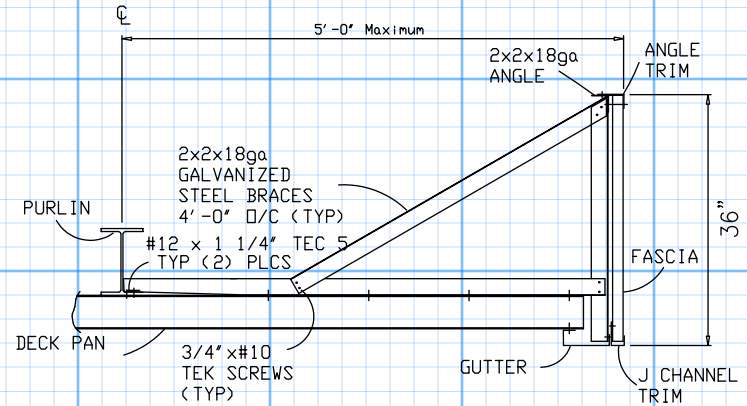
$$W = (0.6) * (36.6 \text{ psf}) * (4'-0") = 88 \text{ plf}$$

$$P_w = (88 \text{ plf}) * (3'-0") / 2 = 132 \text{ lbs}$$

(3)- #10 TEK Screws in 18ga steel
 (3)*(263 lbs) = 789 lbs > 132 lbs **OK**

(2)- #12 TEK Screws in 18ga steel
 (2)*(280 lbs) = 540 lbs > 132 lbs **OK**

SEE CUSTOMERS PURCHASE
 ORDER FOR FASCIA AND
 TRIM SPECIFICATIONS



FASCIA PANELS PERPENDICULAR TO THE PURLINS ARE INSTALLED USING IDENTICAL DETAILS EXCEPT THAT AT LEAST TWO FASCIA BRACE ASSEMBLIES MUST BE IMMEDIATELY ADJACENT TO THE CENTER-MOST PURLINS. AT THESE LOCATIONS AN ANGLE IS BOLTED TO THE UNDERSIDE OF THE PURLIN END WHICH EXTENDS UNDER THE HORIZONTAL LEG OF THE FASCIA BRACE AND SUPPORTS THE FASCIA WEIGHT.

SECTION F FASCIA DETAILS

Screw Capacities

Table Notes

- Capacities based on AISI S100 Section E4.
- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.
- Capacities are based on Allowable Strength Design (ASD) and include safety factor of 3.0.
- Where multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least 3 times the nominal diameter (d).
- Screws are assumed to have a center-of-screw to edge-of-steel dimension of at least 1.5 times the nominal diameter (d) of the screw.
- Pull-out capacity is based on the lesser of pull-out capacity in sheet closest to screw tip or tension strength of screw.
- Pull-over capacity is based on the lesser of pull-over capacity for sheet closest to screw header or tension strength of screw.
- Values are for pure shear or tension loads. See AISI Section E4.5 for combined shear and pull-over.
- Screw Shear (Pss), tension (Pts), diameter, and head diameter are from CFSEI Tech Note (F701-12).
- Screw shear strength is the average value, and tension strength is the lowest value listed in CFSEI Tech Note (F701-12).
- Higher values for screw strength (Pss, Pts), may be obtained by specifying screws from a specific manufacturer.

Allowable Screw Connection Capacity (lbs)

Thickness (Mils)	Design Thickness	Fy Yield (ksi)	Fu Tensile (ksi)	#6 Screw			#8 Screw			#10 Screw			#12 Screw			¼" Screw		
				(Pss = 643 lbs, Pts = 419 lbs)			(Pss = 1278 lbs, Pts = 586 lbs)			(Pss = 1644 lbs, Pts = 1158 lbs)			(Pss = 2330 lbs, Pts = 2325 lbs)			(Pss = 3048 lbs, Pts = 3201 lbs)		
				0.138" dia, 0.272" Head			0.164" dia, 0.272" Head			0.190" dia, 0.340" Head			0.216" dia, 0.340" Head			0.250" dia, 0.409" Head		
				Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over
18	0.0188	33	33	44	24	84	48	29	84	52	33	105	55	38	105	60	44	127
27	0.0283	33	33	82	37	127	89	43	127	96	50	159	102	57	159	110	66	191
30	0.0312	33	33	95	40	140	103	48	140	111	55	175	118	63	175	127	73	211
33	0.0346	33	45	151	61	140	164	72	195	177	84	265	188	95	265	203	110	318
43	0.0451	33	45	214	79	140	244	94	195	263	109	345	280	124	345	302	144	415
54	0.0566	33	45	214	100	140	344	118	195	370	137	386	394	156	433	424	180	521
68	0.0713	33	45	214	125	140	426	149	195	523	173	386	557	196	545	600	227	656
97	0.1017	33	45	214	140	140	426	195	195	548	246	386	777	280	775	1,016	324	936
118	0.1242	33	45	214	140	140	426	195	195	548	301	386	777	342	775	1,016	396	1,067
54	0.0566	50	65	214	140	140	426	171	195	534	198	386	569	225	625	613	261	752
68	0.0713	50	65	214	140	140	426	195	195	548	249	386	777	284	775	866	328	948
97	0.1017	50	65	214	140	140	426	195	195	548	356	386	777	405	775	1,016	468	1,067
118	0.1242	50	65	214	140	140	426	195	195	548	386	386	777	494	775	1,016	572	1,067

Weld Capacities

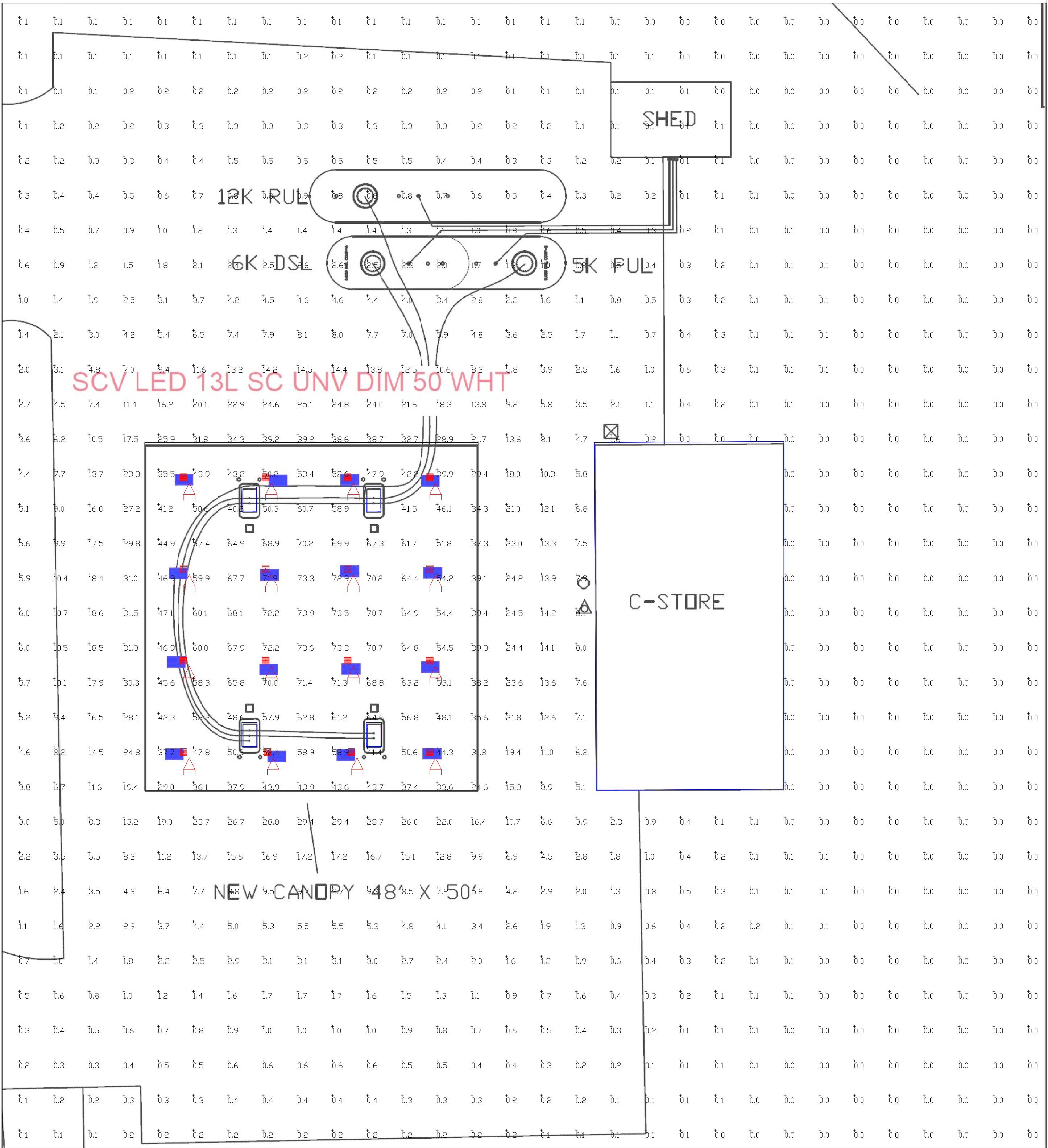
Table Notes

- Capacities based on the AISI S100 Specification Sections E2.4 for fillet welds and E2.5 for flare groove welds.
- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values.
- Capacities are based on Allowable Strength Design (ASD).
- Weld capacities are based on E60 electrodes. For material thinner than 68 mil, 0.030" to 0.035" diameter wire electrodes may provide best results.
- Longitudinal capacity is considered to be loading in the direction of the length of the weld.
- Transverse capacity is loading in perpendicular direction of the length of the weld.
- For flare groove welds, the effective throat of weld is conservatively assumed to be less than 2t.
- For longitudinal fillet welds, a minimum value of EQ E2.4-1, E2.4-2, and E2.4-4 was used.
- For transverse fillet welds, a minimum value of EQ E2.4-3 and E2.4-4 was used.
- For longitudinal flare groove welds, a minimum value of EQ E2.5-2 and E2.5-3 was used.

Allowable Weld Capacity (lbs / in)

Thickness (Mils)	Design Thickness	Fy Yield (ksi)	Fu Tensile (ksi)	Fillet Welds		Flare Groove Welds	
				Longitudinal	Transverse	Longitudinal	Transverse
43	0.0451	33	45	499	864	544	663
54	0.0566	33	45	626	1084	682	832
68	0.0713	33	45	789	1365	859	1048
97	0.1017	33	45	1125	1269	- ¹	- ¹
54	0.0566	50	65	905	1566	985	1202
68	0.0713	50	65	1140	1972	1241	1514
97	0.1017	50	65	1269	1269	- ¹	- ¹

¹Weld capacity for material thickness greater than 0.10" requires engineering judgment to determine leg of welds, W1 and W2.



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CALCULATION POINTS @ GRADE	Illuminance	Fc	8.61	73.9	0.0	N.A.	N.A.
CANOPY	Illuminance	Fc	53.62	73.9	24.6	2.18	3.00

Drawing scaled or converted from PDF file or scanned / submitted image. Dimensions are approximate.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Description	Mounting Height	LLD	LLF	Arr. Lum. Lumens	Arr. Watts
	16	A	Single	SCV-LED-13L-SC-50	15'	1.000	1.000	13444	90

PHOTOMETRIC EVALUATION
NOT FOR CONSTRUCTION

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

Total Project Watts
Total Watts = 1440



LIGHTING PROPOSAL

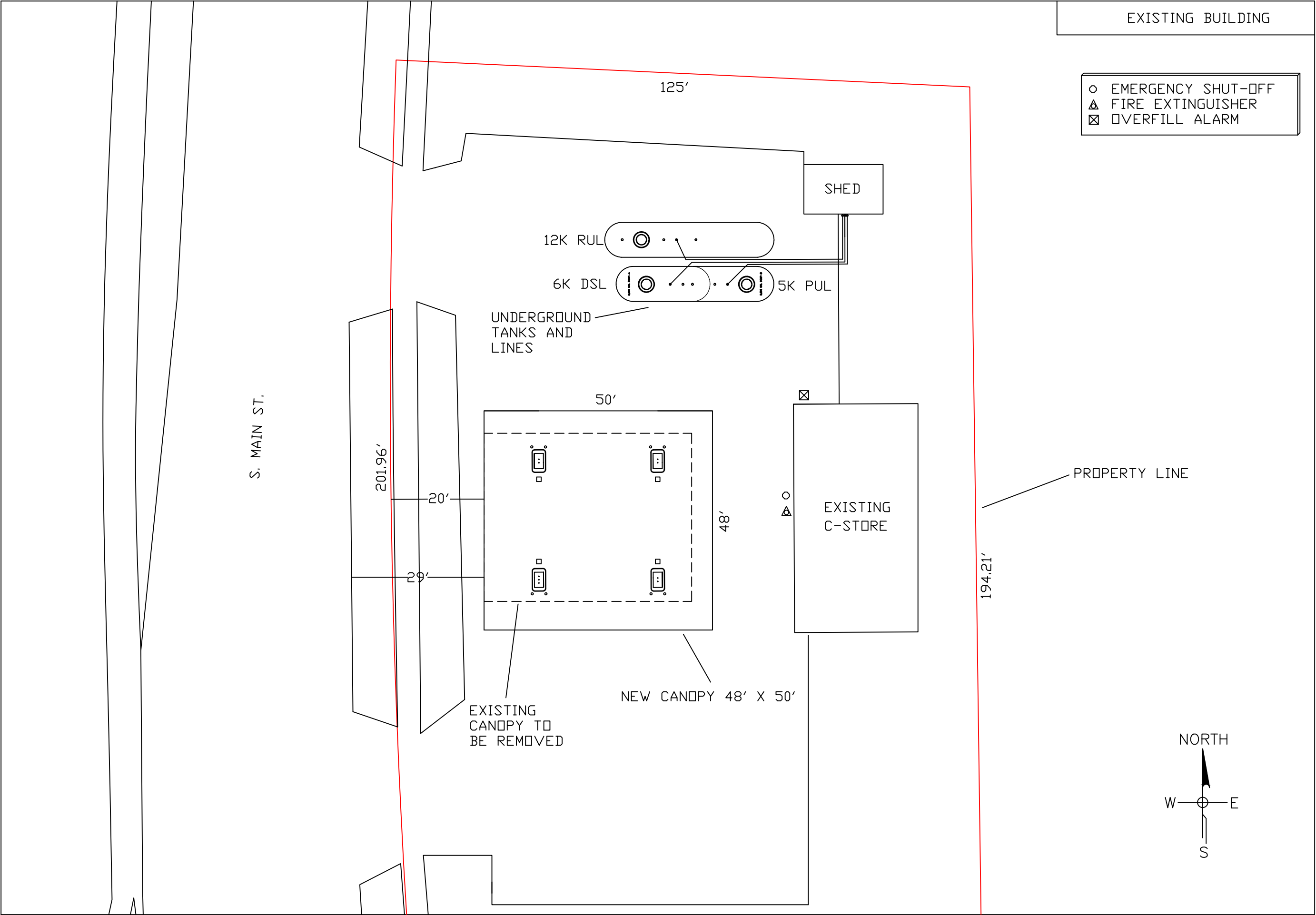
LD-159060

48X50 CANOPY
246 S MAIN ST
THIENSVILLE, VI

BY: SAM DATE: 10/31/23 REV: SHEET 1 OF 1

SCALE: 1"=10'

0 10



EXISTING BUILDING

○ EMERGENCY SHUT-OFF

▲ FIRE EXTINGUISHER

☒ OVERFILL ALARM

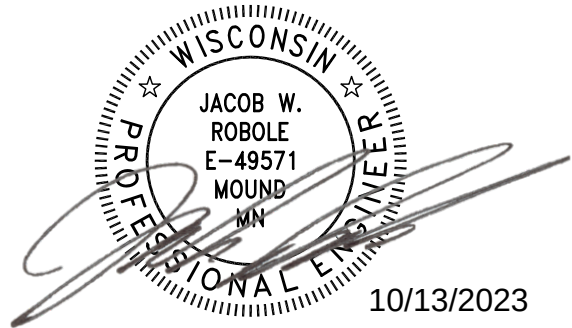


Ctn: Ozaukee	Village of Thiensville	Thiensville Fire Dept. FD #4508
FACILITY ID: 414031 NANDA PROPERTY 246 S. MAIN ST. THIENSVILLE, WI 53092	OWNER ID: 0000000 NANDA PROPERTY LLC 500 S MAIN ST WEST BEND, WI 53095	CONTRACTOR ID: 240951 WALT'S PETROLEUM SERVICE INC. 5207 E. JELINEK AVE. SCHOFIELD, WI 54476

DRAWN BY: NRE
DATE: 10/30/2023
SCALE: 1" = 20'
SHEET: 1
SHEET: 1 OF 1

NOTES:

- 1) LOADS: 8 PSF DEAD LOAD
25.2 PSF SNOW LOAD
28.5 PSF x 8.7ft DRIFT
36.6 PSF HORIZONTAL WIND
24.0 PSF WIND UPLIFT



- 2) FOUNDATION DESIGN PRESUMES 1500 PSF MIN SOIL BEARING AT 12" DEPTH
FIELD CONDITIONS ARE TO BE VERIFIED BY CONTRACTOR
- 3) ALL STEEL IS ASTM A-992, COLUMNS A-500, EXCEPT FOR DECK PANS
- 4) THERE ARE NO BOLTED FRICTION TYPE CONNECTIONS.
BOLTS NEED ONLY BE TORQUED SNUGLY FOR LOADING ON TENSION AND SHEAR.
- 5) ALL WELDS ARE TO BE MADE WITH 70 KSI MINIMUM MATERIAL USING WIRE FEED
IN ACCORDANCE WITH THE PROVISIONS OF THE AWS STRUCTURAL WELDING CODE.
- 6) ALL CONSTRUCTION SHALL BE DONE ACCORDING TO THE WISCONSIN COMMERCIAL
BUILDING CODE(2015 IBC).

TABLE OF DRAWINGS FOR THIS CANOPY IN ORDER ATTACHED BEHIND THIS TITLE PAGE:

- 1) ROOF FRAMING PLAN
- 2) SECTION A: CARRIER TO COLUMN CONNECTION & SECTION B: COLUMN TOP PLATE DETAILS
- 3) SECTION C: BASE PLATE DETAILS
- 4) SECTION D: PURLIN TO CARRIER CONNECTION & SECTION E: DECK PAN DETAIL
- 5) SECTION F: FASCIA DETAILS
- 6) VIEW G: COLUMN-FOOTING ELEVATION
- 7) DETAIL H1, H2, H3: SPLICE DETAILS ☐ (X WHEN PRESENT)
- 8) MISCELLANEOUS DETAILS ☐ (X WHEN PRESENT)

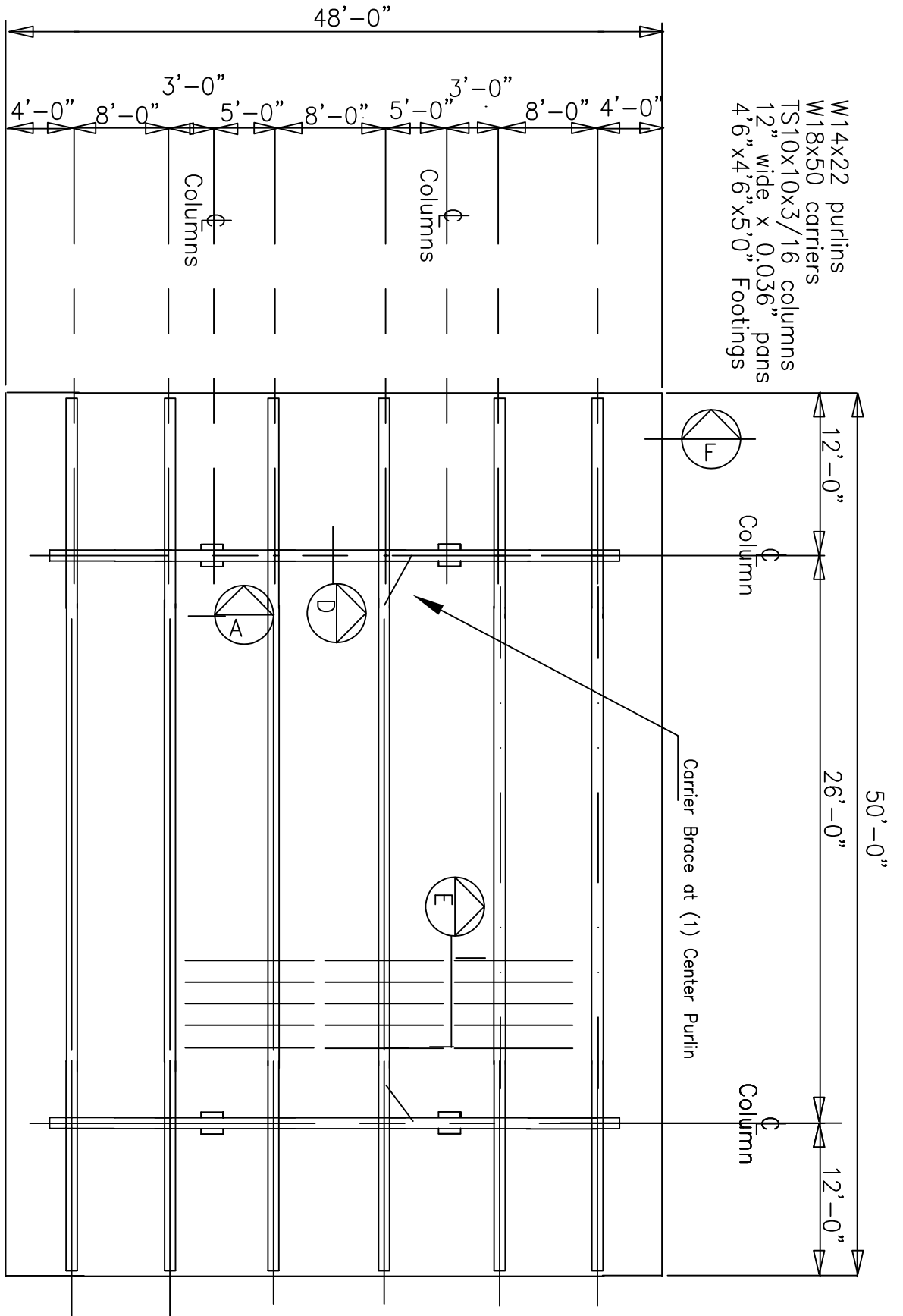
B&H Fabrication

320 Glen St * Foley, MN 56329

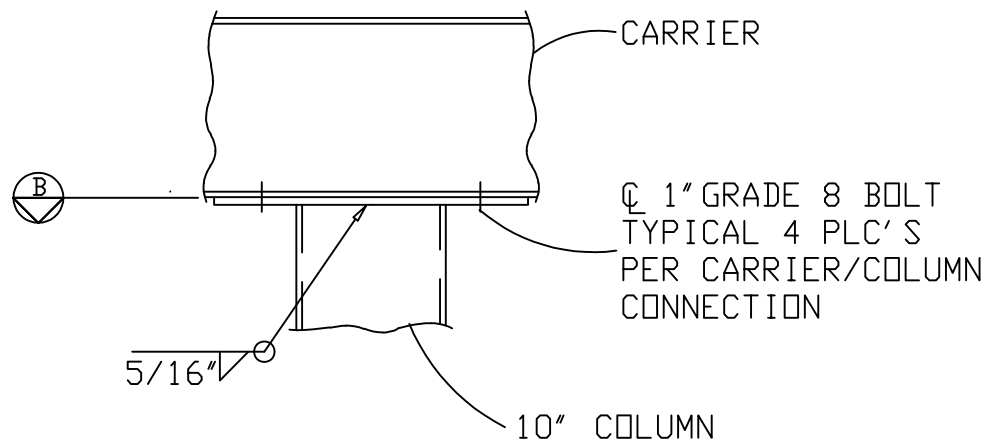
1-320-968-8955

Description: 48 x 50 4 column, 6 purlin	Not To Scale	Drawn: JLB Approved:
Location: BP 246 S Main St * Theinsville WI		Revision: 0
Date: 10/9/23	B&H Job: BH23-129	JSN Job: 2023-011

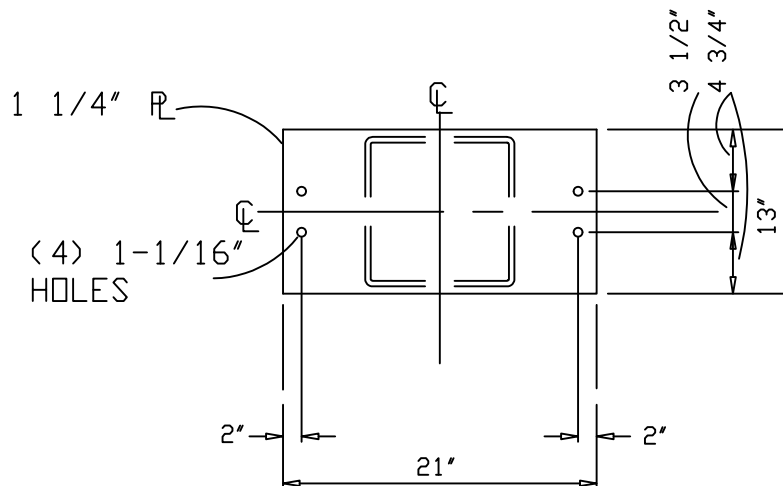
W14x22 purlins
W18x50 carriers
TS10x10x3/16 columns
12" wide x 0.036" pans
4'6"x4'6"x5'0" Footings



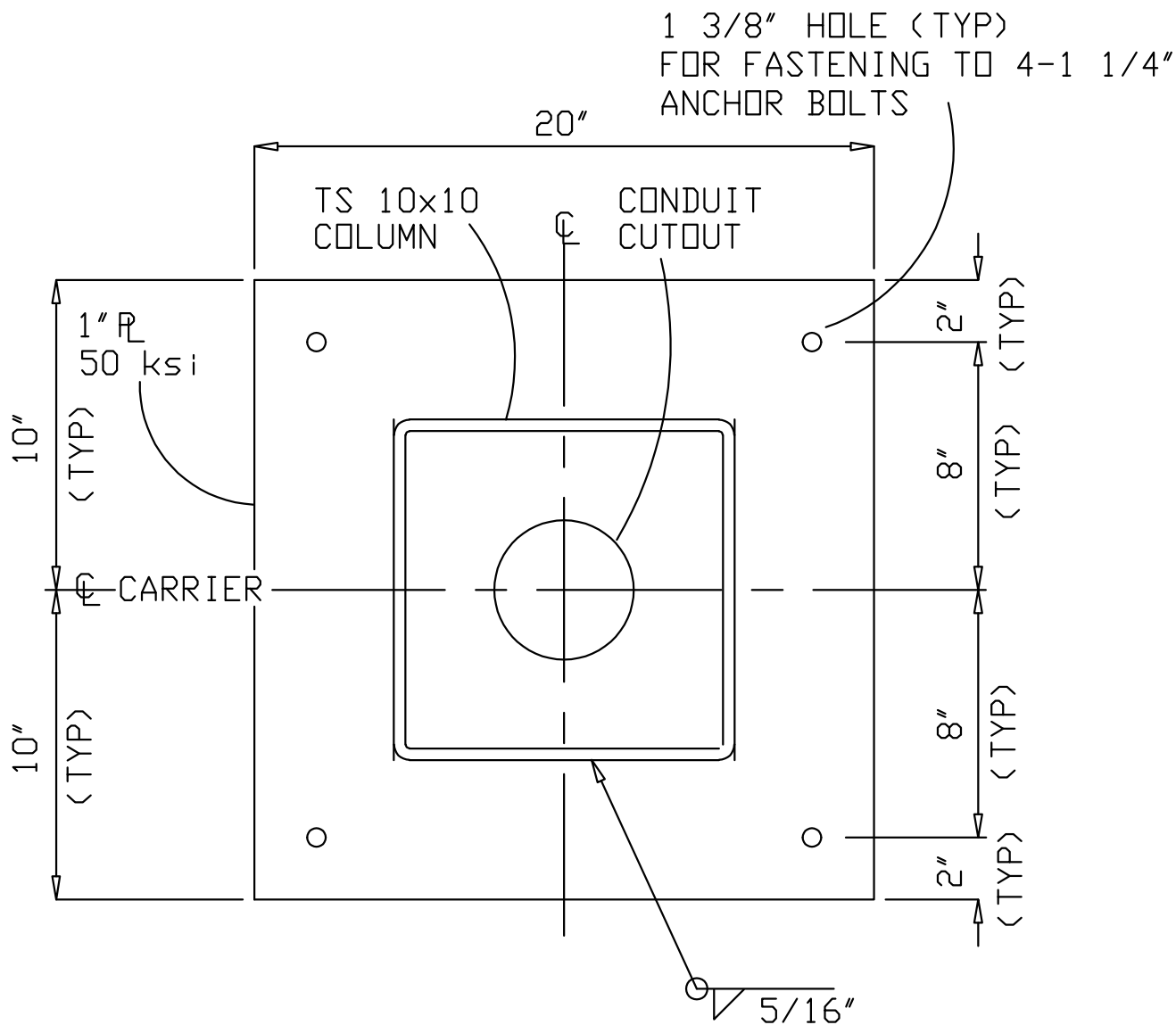
ROOF FRAMING PLAN



SECTION A CARRIER TO COLUMN CONNECTION

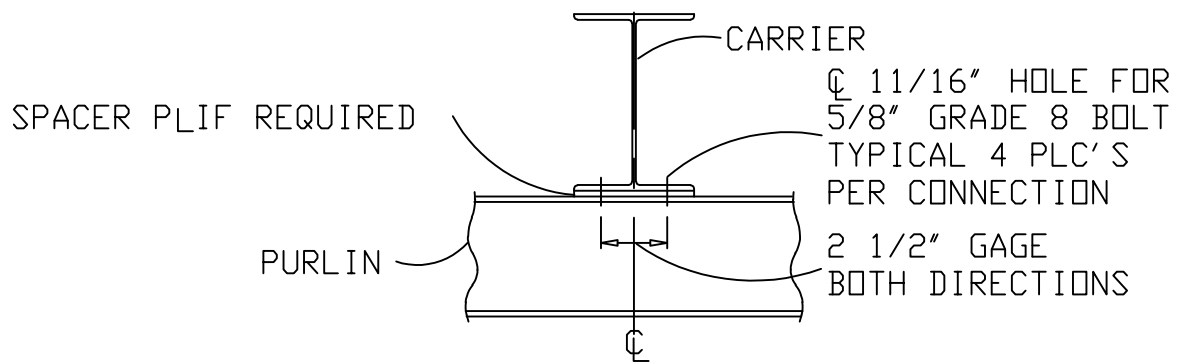


SECTION B COLUMN TOP REINFORCEMENT DETAILS



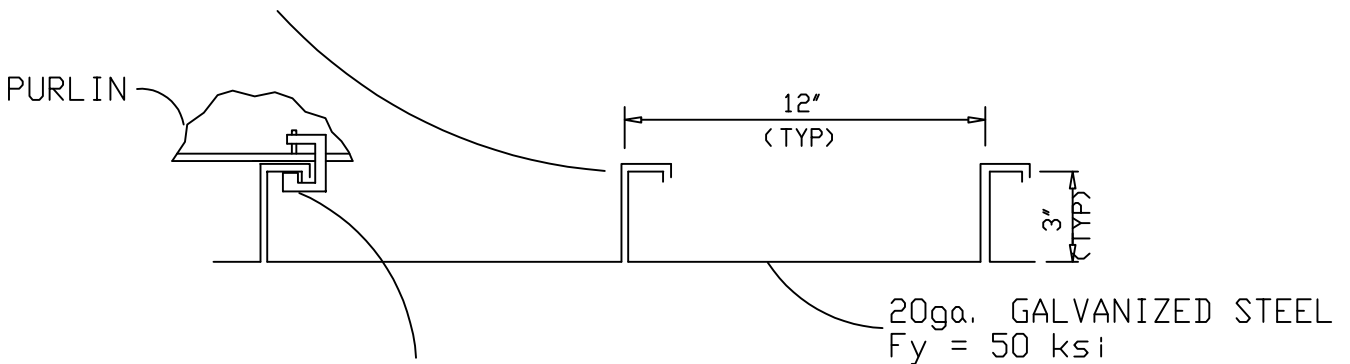
SECTION C

BASE PL DETAILS



SECTION D PURLIN TO CARRIER CONNECTION

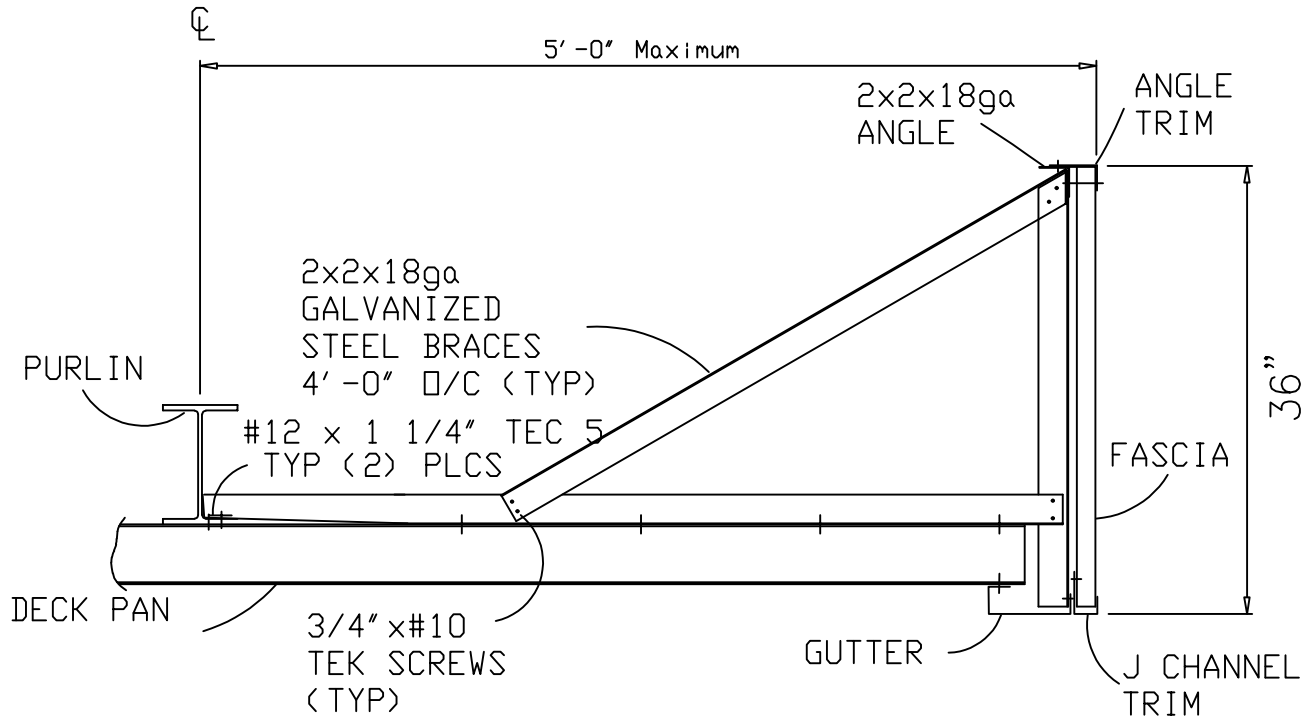
ADJACENT PANS OVERLAP.
UNDER LAP EDGE IS 7/8" WIDE.
OVER LAP EDGE IS 15/16" WIDE.
EDGE VERTICAL IS 9/16".



ONE BEAM HANGER C CLAMP FASTENS THE
PAN TO THE PURLINS AT EACH PAN CLIP/PURLIN
JUNCTION.
CLAMPS HAVE A MINIMUM 564# CAPACITY EACH.
BOLT IS TIGHTENED TO ASSURE THAT CLAMP
"BITES" INTO BOTH FLANGE AND CLIP.

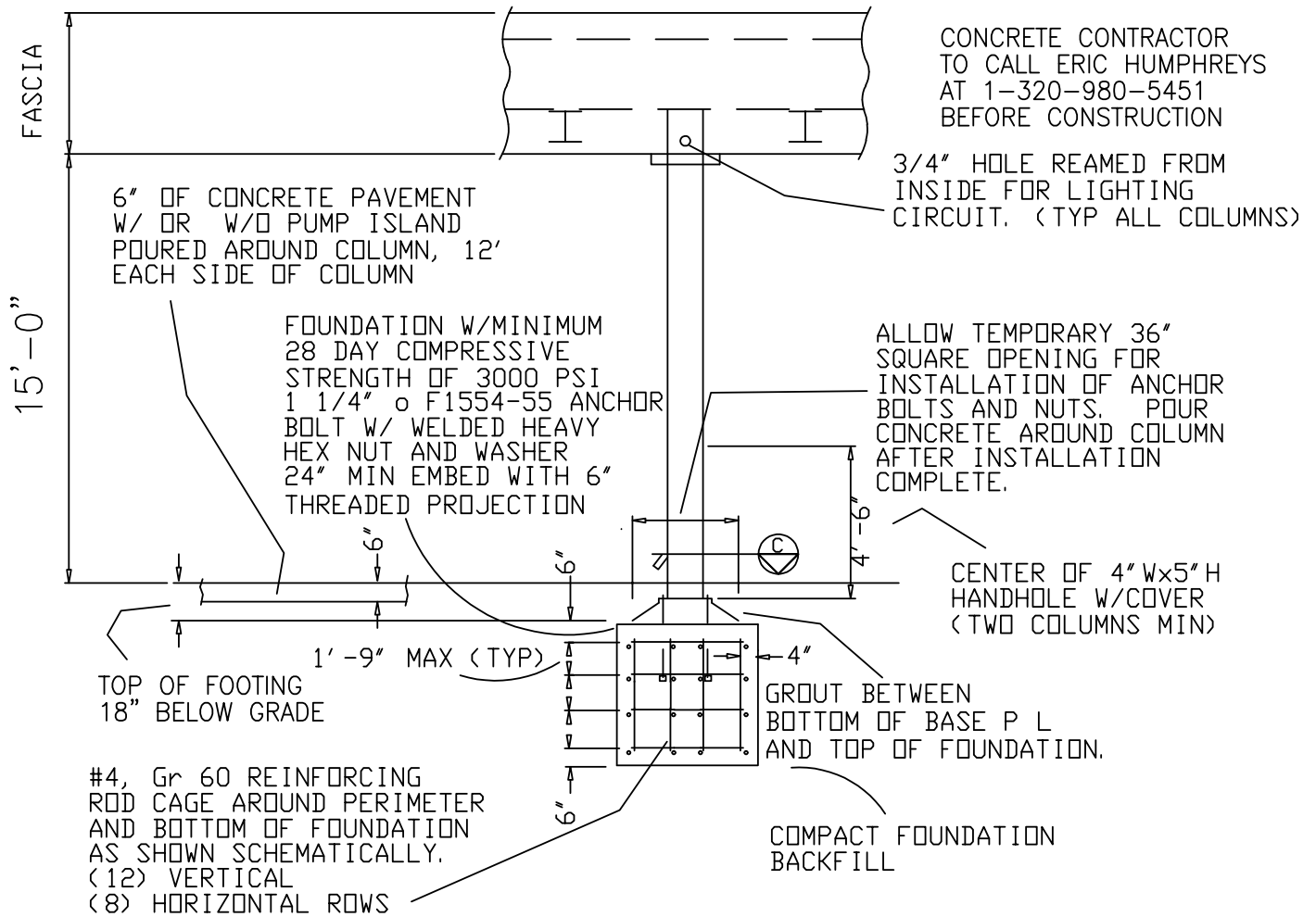
SECTION E DECK PAN DETAIL

SEE CUSTOMERS PURCHASE
ORDER FOR FASCIA AND
TRIM SPECIFICATIONS



FASCIA PANELS PERPENDICULAR TO THE PURLINS ARE INSTALLED USING IDENTICAL DETAILS EXCEPT THAT AT LEAST TWO FASCIA BRACE ASSEMBLIES MUST BE IMMEDIATELY ADJACENT TO THE CENTER-MOST PURLINS. AT THESE LOCATIONS AN ANGLE IS BOLTED TO THE UNDERSIDE OF THE PURLIN END WHICH EXTENDS UNDER THE HORIZONTAL LEG OF THE FASCIA BRACE AND SUPPORTS THE FASCIA WEIGHT.

SECTION F FASCIA DETAILS



ALL FOOTINGS TO BE
AT SAME ELEVATION

SIZE:
WIDTH DIRECTION OF CARRIER = 4'-6"
WIDTH PERPENDICULAR TO CARRIER = 4'-6"
DEPTH = 5'-0"

VIEW G
COL. FTG. ELEVATION

262-420-4732 SAFEbuilt®		WI UNIFORM PERMIT APPLICATION Wlinspections@safebuilt.com <i>Inspections need to be called in by 4 pm for next business day inspections.</i>				PERMIT NO. _____ TAXKEY# _____	
☐ TOWN ☒ VILLAGE ☐ CITY OF <u>Thiensville</u> COUNTY: <u>Ozaukee</u> PROJECT LOCATION (Building Address) <u>246 S. Main St., Thiensville, WI 53092</u>		PROJECT DESCRIPTION ☐ COMMERCIAL ☐ ONE & TWO FAMILY <u>Canopy - Thiensville BP</u>					
Owner's Name Nanda Property LLC		Mailing Address - Include City & Zip 500 S. Main St., West Bend, WI 53095				Telephone - Include Area Code 262-720-9030	
Construction Contractor (DC Lic No.) Walt's Petroleum Service, Inc.		Mailing Address - Include City & Zip 5207 E. Jelinek Ave, Schofield, WI 54476				Telephone - Include Area Code 800-459-4362	
Dwelling Contractor Qualifier (DCQ Lic No.)		Dwelling Contractor Qualifier shall be an owner, CEO, COB, or employee of Dwelling Contractor				Telephone - Include Area Code	
Plumbing Contractor (Lic No.)		Mailing Address - Include City & Zip				Telephone - Include Area Code	
Electrical Contractor (Lic No.) Prime Service, Inc.		Mailing Address - Include City & Zip W7257 US Highway 10 & 114, Menasha, WI 54952				Telephone - Include Area Code 920-358-7625	
HVAC Contractor (Lic No.)		Mailing Address - Include City & Zip				Telephone - Include Area Code	

PROJECT INFORMATION			Subdivision Name _____			Lot No. _____		Block No. _____	
Zoning District _____		Lot Area _____ Sq. Ft.		N.S.E.W. _____		Front _____ Ft.		Rear _____ Ft.	
		Setbacks _____							

1a. PROJECT		3. TYPE		6. STORIES		9. HVAC EQUIPMENT		12. ENERGY SOURCE																								
☒ New ☐ Addition ☐ Raze ☐ Alteration ☐ Repair ☐ Move ☐ Other _____		☐ Single Family ☐ Two Family ☐ Multi ☒ Commercial		☐ 1-Story ☐ 2-Story ☒ Other Canopy _____		☐ Forced Air Furnace ☐ Radiant Baseboard or Panel ☐ Heat Pump ☐ Boiler ☐ Central Air Conditioning ☐ Other _____		<table style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">Fuel</th> <th style="width:10%;">Nat. Gas</th> <th style="width:10%;">L.P.</th> <th style="width:10%;">Oil</th> <th style="width:10%;">Elec. *</th> <th style="width:10%;">Solid</th> <th style="width:10%;">Solar</th> </tr> <tr> <td>Space Htg</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Water Htg</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Fuel	Nat. Gas	L.P.	Oil	Elec. *	Solid	Solar	Space Htg	☐	☐	☐	☐	☐	☐	Water Htg	☐	☐	☐	☐	☐	☐
Fuel	Nat. Gas	L.P.	Oil	Elec. *	Solid	Solar																										
Space Htg	☐	☐	☐	☐	☐	☐																										
Water Htg	☐	☐	☐	☐	☐	☐																										
1b. GARAGE		4. CONST. TYPE		7. FOUNDATION		10. PLUMBING		* ☐ Dwelling unit will have 3 kilowatt or more installed electric space heater equipment capacity.																								
☐ Attached ☐ Detached		☒ Site Constructed ☐ Mfd. UDC ☐ Mfd. HUD		☒ Concrete ☐ Masonry ☐ Treated Wood ☐ ICF ☐ Other _____		Sewer ☐ Municipal ☐ Septic No. _____																										
2. AREA		5. ELECTRICAL		8. USE		11. WATER		13. HEAT LOSS (Calculated)																								
Basement _____ Sq. Ft. Living Area _____ Sq. Ft. Garage _____ Sq. Ft. Other <u>2,400</u> Sq. Ft. TOTAL <u>2,400</u>		Entrance Panel Size: _____ amp Service: ☐ New ☐ Rewire _____ Phase _____ Volts ☐ Underground ☐ Overhead Power Company: _____		☐ Seasonal ☐ Permanent ☐ Other _____		☐ Municipal Utility ☐ Private On-Site Well		Total _____ BTU/HR																								
								14. ESTIMATED COST																								
								\$ 92,720																								

I understand that I: am subject to all applicable codes, laws, statutes and ordinances, including those described on the Notice to Permit Applicants form; am subject to any conditions of this permit; understand that the issuance of this permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. If one acre or more of soil will be disturbed, I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and the owner shall sign the statement on the Notice to Permit Applicants form. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.

☐ I vouch that I am or will be an owner-occupant of this dwelling for which I am applying for an erosion control or construction permit without a Dwelling Contractor Certification and have read the cautionary statement regarding contractor responsibility on the Notice to Permit Applicants form.

APPLICANT (PRINT): Neil Elgin

SIGN: Neil Elgin

DATE: 10/16/2023

APPROVAL CONDITIONS This permit is issued pursuant to the attached conditions. Failure to comply may result in suspension or revocation of this permit or other penalty. Owner/Builder solely responsible for compliance with all applicable State & Local Building and Zoning codes.

INSPECTIONS NEEDED **Building** ☐ Footing ☐ Foundation ☐ Rough ☐ Insulation ☐ Bsmt. Fl. ☐ Final
Electric ☐ Rough ☐ Service ☐ Final **Plumbing** ☐ Rough ☐ Underfloor ☐ Final **HVAC** ☐ Rough ☐ Final

FEES:		PERMIT(S) ISSUED		SEAL NO. _____		Municipality No. _____	
Building Fee _____ Zoning Fee _____ WI Seal _____ Electric Fee _____ Plumbing Fee _____ HVAC Fee _____ Adm. Fee _____ Other _____ Total \$ 0.00		Bldg. # At top of form _____ Zoning # _____ Elec. # _____ Plmb. # _____ HVAC # _____		RECEIPT CK # _____ Amount \$ _____ Date _____ From _____ Rec By. _____		PERMIT EXPIRATION: Permit expires two years from date issued unless municipal ordinance is more restrictive.	
						PERMIT ISSUED BY MUNICIPAL AGENT: Name _____ Date _____ Certification No. _____	



RECEIVED

SEP 21 2023

Village of Thiensville

SIGN REVIEW APPLICATION - \$150.00 FEE

Please Allow Two (2) Weeks for Sign Review

The applicant is responsible to pay planner charges after a first half hour that will be paid for by the village.

THIS APPLICATION BEGINS THE REVIEW PROCESS BY OUR PLANNING CONSULTANT JON CENSKY WHO PERFORMS INITIAL REVIEW OF THE SIGN(S). The sign specifications must be submitted at least 2 weeks prior to the Plan Commission and/or the Historic Preservation Commission to Jon Censky via email, 6954jpc@sbcglobal.net or by regular mail.

Mr. Censky will review the sign(s) to see if they meet the Village Sign Code requirements and make a recommendation to the Plan Commission via a written report. **ELEVEN (11) FULL SIZE COPIES OF THE COLORED SIGN GRAPHICS AND ONE SCALE SITE PLAN** are required in addition to submittal of the **SIGN PERMIT APPLICATION** form to the Village Hall, 250 Elm Street, Thiensville, WI one week prior to the meetings. Additional copies may be required upon request from Village staff.

Applicant/Petitioner Name Basu Joshi

Premises Address 246 S. Main street Thiensville WI 53092

Business Name Village B.P. Business Phone 262-478-0006

Property Owner Nanda Property Address 246 S. Main st Thiensville WI 53092

Property Owner Phone 262-720-9030 E-mail basujooshi@gmail.com

Contractor Webner Oil Company Address 23110 Mueller Rd Kiel WI 53042 E-mail dennis@webneroil.com

Contractor Phone 920-377-1651 Contractor Fax -

Estimated Project Cost: \$ 25,000.00

Sign(s) requested: (check all that apply) ☐ Wall ☒ Monument ☐ Projecting

☐ Marquee, Awning or Canopy ☐ Sandwich Board ☐ On-site Directional Signs

Colored plans must include a scaled sketch of the proposed sign labeling dimensions and area, lettering (including height), colors, types of materials, method of illumination, height and dimensions of the pole or mounting bracket, and date of preparation. A summary of all existing signs that will remain on the site (including dimensions) is also required. Color and material samples must be provided for sign review.

Wall sign, Marquee, Canopy or Awning sign proposals must specify building elevation or a photograph of the façade on which will be located, including a dimensioned shape showing where the sign will be placed and what size it will be.

Ground Mounted Signs and On-site Directional sign proposals require submittal of a scaled, dimensioned site plan, plot plan, or survey showing the proposed sign location in relation to driveways, parking areas, sidewalks, property lines, streets, and other signs on and within 20 feet of the property.

Projecting sign proposals must specify the distance from the street curb, distance sign projects from building, the clearance from the measured grade level to the bottom of the sign, that there are no more than two faces for the projecting sign and must show that the sign, including both faces, is perpendicular to the building.

Sandwich Board Signs require submittal of a scaled, dimensioned colored graphic of the proposed sign and proposed placement of sandwich board sign

If necessary, additional fees will be billed at an hourly rate for consulting, legal and engineering review. After approval from the Village Plan Commission, a sign permit is required from the Village Inspection Department.

Signature of Applicant [Signature] Date 09/21/2023

Signature of Owner [Signature] Date 09/21/2023

VILLAGE OF THIENSVILLE

SIGN REVIEW FEE SCHEDULE - CONSULTANT

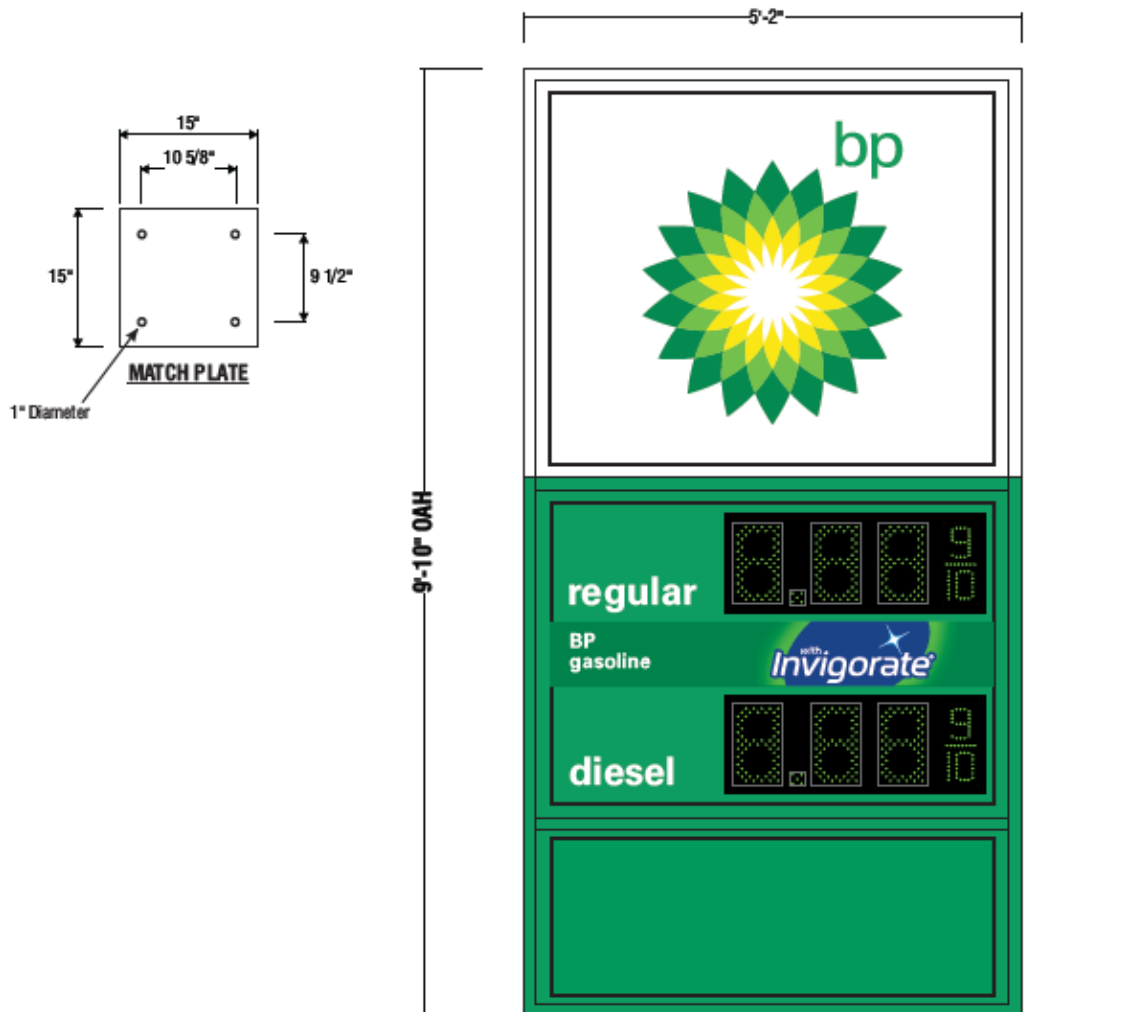
Sign Review Includes	Application Fee	Revision Fee	Receipt #
Sign Plan Package for Entire Site, including all wall, ground, canopy, and directional signs	<u>\$150.00*</u>	\$100.00*	63739
Individual Wall Sign, projecting sign, ground sign, canopy sign or directional signs	\$150.00*	\$100.00*	
Permanent Window Signage or Individual Tenant Sign on an existing Master Tenant Sign	\$150.00*	\$100.00*	
All others including temporary signs	\$150.00*	\$100.00*	

9/21/23

*Plus any additional costs of the planning consultant's review at the rate of \$50/hr.

If needed, additional review time for planning, engineering and legal services will be billed back to the applicant and no permits or approvals will be given until all invoices are paid.

Revised 8/23/19



PROPOSED SIGNAGE

MID - EXISTING / PROPOSED

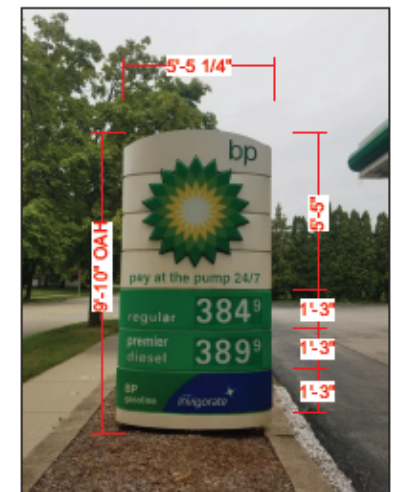
SCOPE OF WORK

1. New Monument (50.81 SF) @ 9'-10" OAH on Existing Foundation.
 2. Existing Sign SF: 52.36 SF.
 3. Proposed Sign SF: 50.81 SF.
- * Paint to match Brand Standards

NOTE: SUBJECT TO CHANGE DURING ENGINEER REVIEW.

ACTION ITEMS REQUIRED PRIOR TO PRODUCTION

1. STAMPED & SEALED DRAWINGS REQUIRED



EXISTING SIGNAGE

BACKYARD GAZEBO 213 E. FREISTADT ROAD

To: Village of Thiensville Plan Commission

Prepared by: Jon Censky, Village Planner

Date: November 14, 2023

General Information

Applicant:	Sergei Ialama
Status of Applicant:	Owner
Requested Action:	Backyard Gazebo
Zoning	R-2 Single Family Residential District
Proposed Zoning:	No Change
Location:	213 E. Freistadt Road
Land Use Plan Designation:	Residential
Existing Land Use:	Single Family

Report:

The applicant has constructed a gazebo that is attached to and directly behind his existing deck in the rear yard of his property at 213 E. Freistadt Road and is now seeking approval. This gazebo measures 17' x 25' (425 sq. ft.) and is supported by 8" cedar posts and has a plywood roof that is covered with Owens Corning Oakridge asphalt shingles.

Because the code does not address gazebos staff views this as a detached accessory building. According to **Sections 17.0603. F.** of the zoning code, **Accessory buildings structures, shall be placed or erected in the rear yard provided that not more than one detached accessory building is permitted per dwelling unit, shall not exceed 625 square feet in area, shall not exceed 20' in height, and shall not be closer than 5 feet to the principle structure, and shall be located no closer than 3 feet to any property line and all detached accessory structures shall not occupy more than 20 percent of the rear yard area.**

Staff Comments:

The gazebo is within the size limits and setbacks of the code. Staff recommends approval.



Village of Thiensville

Plan Commission Application

Property Address: 213 E Freistadt Rd Thiensville WI 53092

120500417004

Tax Key #

res

Current Zoning

R-2

Property Owner

Serghei Ialama

Name

213 E Freistadt Rd

Address

262 419 9991

Phone

serg722@yahoo.com

Email address

Applicant ☒ Same as owner

Name

Address

Phone

Email address



Project description

Please describe your project in detail. Include details about height and dimensions, color, materials used and setbacks from the street and property lines. Provide any information that you believe will assist staff in reviewing and approving your request.

Scope of work: build a 25x17 ft gazebo with 8x8 cedar posts and regular lumber for roof height from grade, stimpson metal connectors painted black, open concept ceiling stained with painted details, back deck: Remove all existing deck boards, fix all damaged structure install new composite deck.

Applicant's Signature

Date

A complete application along with the appropriate fees shall be submitted by the deadline stated on the meeting schedule to the Village Clerk in order for an application to be considered complete, the application shall include the required number of site plans/maps, and all of the necessary supporting information as indicated on the Project Review Checklist. The applicant is responsible to pay planner charges after a first half hour of planner time. Owner, architect, builder or owner's representative must attend the Plan Commission meeting for action to be taken. Work cannot begin until Plan Commission approval and paid and approved building permit.

Thiensville Plan Commission Application Revised 10.10.22

Page 1 of 3

Planner Fee Schedule: The Village provides the first half hour of the Village Planner's services. Any additional plan review time is billed at \$50.00/hr

Application Checklist: Two Paper Copies and an electronic copy with files in PDF format (plan size 11X17) must be submitted for all applicable items below for planner review and the Plan Commission packet.

- ☐ Submit scaled site plan with proposed location and setbacks with accurate dimensions indicating the property size, its relationship to surrounding properties, existing topography, key natural features and show the location of all existing and proposed:

A. Structures, showing all entrances	K. Dumpster location and screening
B. Driveways & street access	L. Location, color, message, dimensions and materials of all signs
C. Parking areas	M. Location, size and character of dedicated or private open space
D. Walkways	N. Location of sanitary sewer, storm sewer, water mains and services and storm water detention facilities
E. Existing landscaping	O. Floor plan of building or addition
F. Abutting public and private streets	
G. Public easements	
H. Surrounding land uses and zoning	
I. Retaining walls	
J. Decorative accessories	

- ☐ Storm water management plan.
- ☐ Completed building permit application (including two full size plan sets with state stamp for commercial and multi-family).
- ☐ Grading plan showing existing and finished grades.
- ☐ Professionally prepared landscape plan.
- ☐ Lighting plan; photometric plan, type of fixtures, wattage and location and height of lighting structures.
- ☐ Topographic data or pertinent grade elevations, if necessary, for proper remodeling of existing buildings showing finished exterior treatment.
- ☐ Colored elevations of proposed buildings, structures and fencing, or of proposed remodeling of existing buildings, showing finished exterior treatment and a listing of building materials.

Is property in Thiensville's Historic District? ☐ Yes ☒ No

If yes, you must apply for a Certificate of Appropriateness with the Historic Preservation Commission. Complete the COA application. Attendance at HPC meeting is required

***All Commercial and Multi-Family projects including any change of occupancy, change of use, or construction/alteration must be submitted to the Thiensville Fire Department for review, approval, and inspections.**

=====

VILLAGE STAFF REVIEW

☐ Application Complete. Items needed: drawing showing setbacks + roof details

Submitted to Village Planner on 10/23/23 Planner Staff Report Completed on _____

Plan Commission Meeting Date _____

☐ Historic Preservation Approval (if needed) on N/A

ADDITIONAL REMARKS/CONDITIONS:

Village Staff

Title

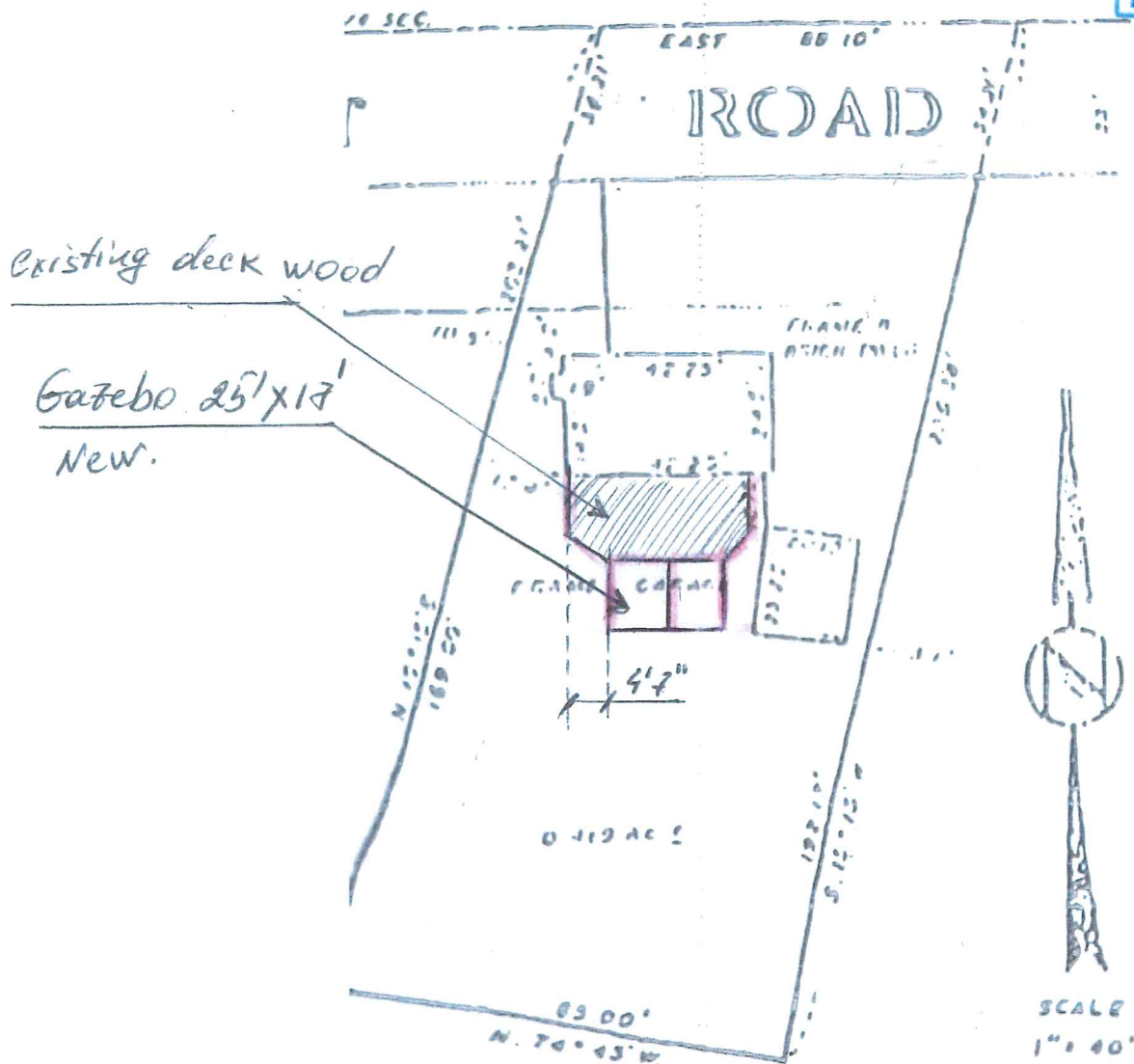
Date

10/26- Survey + roofing details submitted.

RECEIVED

OCT 26 2023

BY:



Scanned with CamScanner

HOUSE

Note

PRIVACY
WALL

GAZEBO Nowhere
Size

existing deck to remain
Replace boards

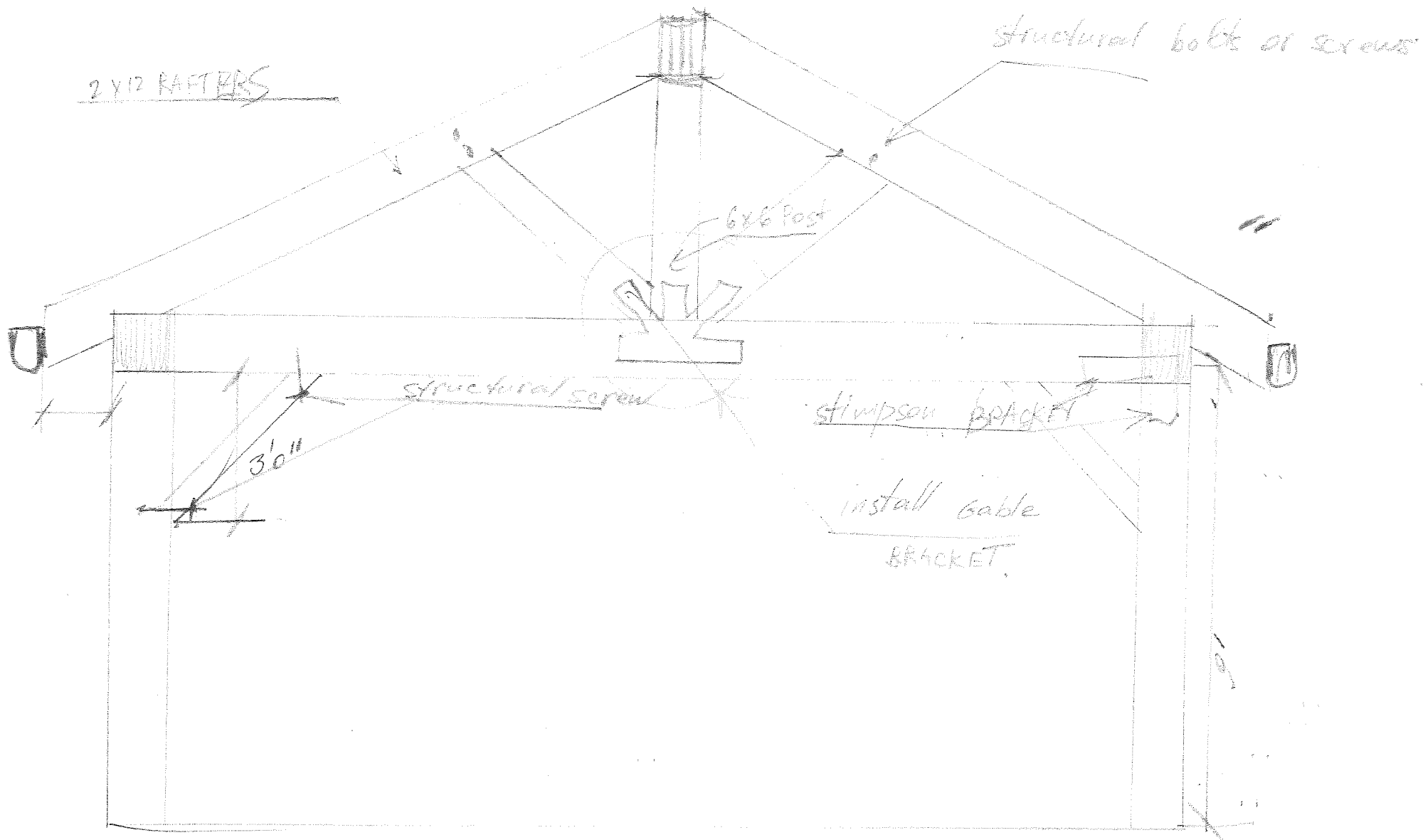
17'0"

SLOPE

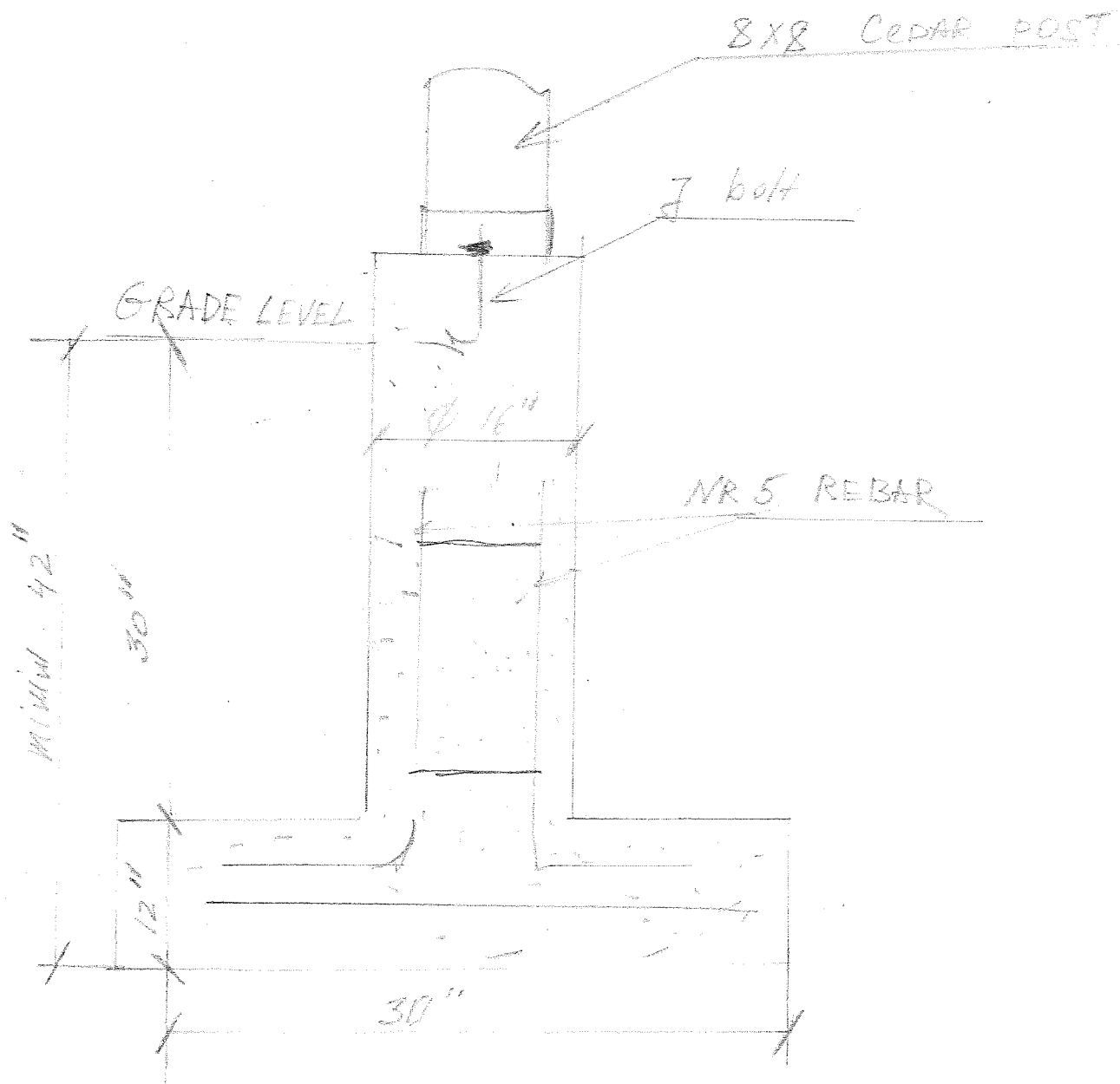
SLOPE

25'0"

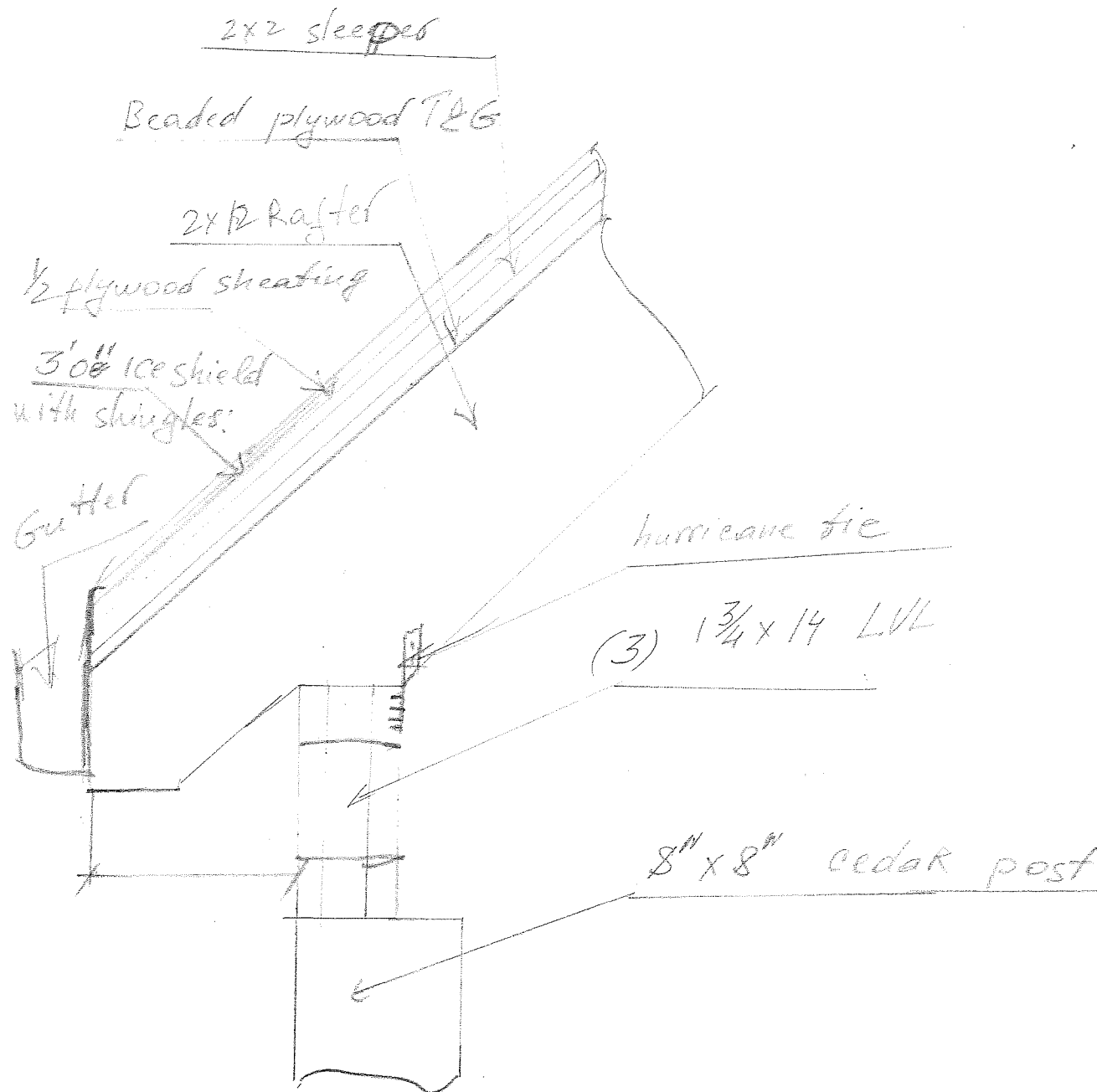
stairs



FOOTING DETAIL



Roof detail lower section



RIDGE (2) $13\frac{1}{4} \times 11\frac{3}{4}$ LVL

Beaded plywood T&G

2x2 slippers:
nailed to rafters:

$\frac{1}{2}$ sheathing

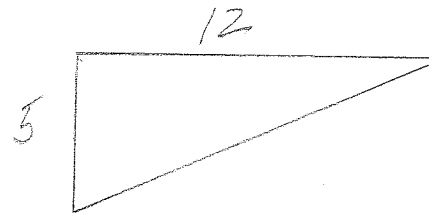
shingles

ROOF

Detail UPPER SECTION

2x12 RAFTERS

16 OC



Roof pitch.

Note: Ridge vert. install



Village of Thiensville
213 E. Freistadt Road

DISCLAIMER: The Village of Thiensville does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

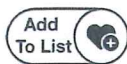


SCALE: 1 = 74'



Village of Thiensville
250 Elm Street
Thiensville, WI 53092
262-242-3720

Print Date: 10/20/2023



Owens Corning® ProEdge® Brownwood Hip and Ridge Roofing Shingles (33 lin. ft.)

Model Number: 1512365 | Menards® SKU: 1512365



EVERYDAY LOW PRICE

\$69.99

11% MAIL-IN REBATE Good Through 10/29/23

\$7.70

FINAL PRICE

\$62²⁹ /bndl

You Save \$7.70 with Mail-In Rebate

- Formulated with a shadow line to allow for distinction along ridge lines
- Increased exposure allows for quick installation
- Features convenient premanufactured perforations for easy separation

[View More Information >](#)

Color: Brownwood

Sold in Stores



14 In-Stock at [Milwaukee](#) Stocked in Outside Yard



• • • [Check Another Store for Availability](#)

• • • [Share](#)

Description & Documents

Owens Corning® ProEdge® hip and ridge shingles are formulated with a shadow line along the ridge to enhance overall aesthetics. Perforated for easy separation, these shingles require no on-site cutting. They're the perfect finishing touch for your roof!



[Click here to see more products from Owens Corning](#)

Features

- Formulated with a shadow line to allow for distinction along ridge lines
- Increased exposure allows for quick installation
- Features convenient premanufactured perforations for easy separation
- Larger exposure requires fewer pieces to achieve coverage compared to strip shingles
- Color coordinated to complement Owens Corning® laminate shingle line
- Limited lifetime warranty when installed with TruDefinition® series and Oakridge® shingles

Specifications

Product Type	Hip & Ridge Shingles	Manufacturer Warranty	Limited Lifetime
Listing Agency Standards	ASTM D228, ASTM D3018, ASTM D3161, ASTM D3462, ASTM D7158, ASTM E108, ICC ES AC438, UL 790, UL ER2453-01	Color/Finish	Brownwood
Coverage Area	33 linear foot	Exposure	6 inch
Overall Length	12 inch	Overall Width	12 inch
Resistance Features	Class A Fire Resistance, Algae Resistant	Fire Rating	E108 & UL790 CLASS A FIRE RESISTANCE
Material	Asphalt, Fiberglass	Weight	62 pounds
Special Features	Designed with perforated tabs for ease of installation	Shipping Dimensions	36.00 H x 12.00 W x 3.25 D
Shipping Weight	62.0 lbs	Return Policy	Regular Return (view Return Policy)

Please Note: Prices, promotions, styles and availability may vary by store and online. Inventory is sold and received continuously throughout the day; therefore, the quantity shown may not be available when you get to the store. This inventory may include a store display unit. Online orders and products purchased in-store qualify for rebate redemption. Mail-in Rebate is in the form of merchandise credit check, valid in-store only. Merchandise credit check is not valid towards purchases made on MENARDS.COM®. By submitting this rebate form, you agree to resolve any disputes related to rebate redemption by binding arbitration and you waive any right to file or participate in a class action. Terms and conditions available at www.rebateinternational.com



Owens Corning® Oakridge® Brownwood Architectural Roofing Shingles (32.8 sq. ft.)

Limited Lifetime Warranty

Model Number: HK04 | Menards® SKU: 1513091

EVERYDAY LOW PRICE **\$38.00**

SALE PRICE Good Through 11/5/23 **\$35.16**

11% MAIL-IN REBATE Good Through 10/29/23 **\$3.87**

FINAL PRICE **\$31.29**
/bndl

\$0.96 /sq.ft

You Save \$6.71 with Sale Price & Mail-In Rebate

- Owens Corning® StreakGuard™ up to 25-year Algae Resistance Warranty helps inhibit the growth of blue-green algae
- 110-mph wind resistance limited warranty with 4-nail application
- 130-mph wind warranty with 6-nail application and Owens Corning® Starter Shingle product applied along eaves and rakes per installation instructions

[View More Information >](#)

Color: Brownwood

Sold in Stores



133 In-Stock at [Milwaukee](#). Stocked in Outside Yard

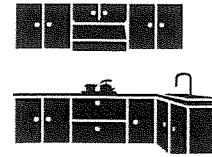
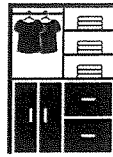
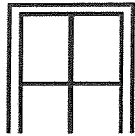
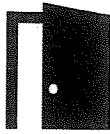


[Check Another Store for Availability](#)



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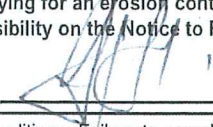


Click here to see more products from [Owens Corning](#)

Specifications

Product Type	Architectural Shingles	Manufacturer Warranty	Limited Lifetime
Listing Agency Standards	ASTM D228, ASTM D3018, ASTM D3161, ASTM D3462, ASTM D7158, ASTM E108, ICC ES AC438, UL 790, UL ER2453-01	Color/Finish	Brownwood
Coverage Area	32.8 square foot	Exposure	5-5/8 inch
Overall Length	39-3/8 inch	Overall Width	13-1/4 inch
Resistance Features	Class A Fire Resistance, 110 MPH Wind Resistance Limited Warranty standard with 4-Nail Application, 130 MPH Wind Resistance Limited Warranty applicable with 6-Nail Application, Algae Resistant	Fire Rating	E108 & UL790 CLASS A FIRE RESISTANCE
Material	Asphalt, Fiberglass	Weight	72 pounds
Special Features	Shake-style appearance	Shipping Dimensions	36.00 H x 12.00 W x 3.00 D
Shipping Weight	71.25 lbs	Return Policy	Regular Return (view Return Policy)

Please Note: Prices, promotions, styles and availability may vary by store and online. Inventory is sold and received continuously throughout the day; therefore, the quantity shown may not be available when you get to the store. This inventory may include a store display unit. Online orders and products purchased in-store qualify for rebate redemption. Mail-in Rebate is in the form of merchandise credit check, valid in-store only. Merchandise credit check is not valid towards purchases made on MENARDS.COM. By submitting this rebate form, you agree to resolve any disputes related to rebate redemption by binding arbitration and you waive any right to file or participate in a class action. Terms and conditions available at www.rebateinternational.com.

262-420-4732 SAFEbuilt.		WI UNIFORM PERMIT APPLICATION Wlinspections@safebuilt.com <i>Inspections need to be called in by 4 pm for next business day inspections.</i>				PERMIT NO. _____ TAXKEY# <u>120500417004</u>																						
 Village of THIENSVILLE		☐ TOWN ☒ VILLAGE ☐ CITY OF <u>Thiensville</u> COUNTY: <u>Ozaukee</u>		PROJECT LOCATION (Building Address) <u>213 E Freistadt Rd</u>																								
		PROJECT DESCRIPTION		☐ COMMERCIAL ☒ ONE & TWO FAMILY																								
Owner's Name <u>Serghei Talama</u> Mailing Address - Include City & Zip <u>213 E Freistadt Rd</u> Telephone - Include Area Code <u>262 419 9991</u>		Construction Contractor (DC Lic No.) _____ Mailing Address - Include City & Zip _____ Telephone - Include Area Code _____																										
Dwelling Contractor Qualifier (DCQ Lic No.) _____ Dwelling Contractor Qualifier shall be an owner, CEO, COB, or employee of Dwelling Contractor Telephone - Include Area Code _____																												
Plumbing Contractor (Lic No.) _____ Mailing Address - Include City & Zip _____ Telephone - Include Area Code _____																												
Electrical Contractor (Lic No.) _____ Mailing Address - Include City & Zip _____ Telephone - Include Area Code _____																												
HVAC Contractor (Lic No.) _____ Mailing Address - Include City & Zip _____ Telephone - Include Area Code _____																												
PROJECT INFORMATION			Subdivision Name _____			Lot No. _____ Block No. _____																						
Zoning District _____ Lot Area _____ Sq. Ft.		N.S.E.W. _____ Front _____ Ft. Rear _____ Ft.		Left _____ Ft. Right _____ Ft.																								
1a. PROJECT ☐ New ☒ Addition ☐ Raze ☐ Alteration ☐ Repair ☐ Move ☐ Other _____		3. TYPE ☒ Single Family ☐ Two Family ☐ Multi ☐ Commercial		6. STORIES ☒ 1-Story ☐ 2-Story ☐ Other _____		9. HVAC EQUIPMENT ☐ Forced Air Furnace ☐ Radiant Baseboard or Panel ☐ Heat Pump ☐ Boiler ☐ Central Air Conditioning ☐ Other _____																						
1b. GARAGE ☐ Attached ☐ Detached		4. CONST. TYPE ☐ Site Constructed ☐ Mfd. UDC ☐ Mfd. HUD		7. FOUNDATION ☐ Concrete ☐ Masonry ☐ Treated Wood ☐ ICF ☐ Other _____		10. PLUMBING Sewer _____ ☐ Municipal ☐ Septic No. _____																						
2. AREA Basement _____ Sq. Ft. Living Area _____ Sq. Ft. Garage _____ Sq. Ft. Other _____ Sq. Ft. TOTAL _____		5. ELECTRICAL Entrance Panel Size: _____ amp Service: ☐ New ☐ Rewire _____ Phase _____ Volts ☐ Underground ☐ Overhead Power Company: _____		8. USE ☒ Seasonal ☐ Permanent ☐ Other _____		11. WATER ☐ Municipal Utility ☐ Private On-Site Well																						
						12. ENERGY SOURCE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Fuel</th> <th>Nat. Gas</th> <th>L.P.</th> <th>Oil</th> <th>Elec.</th> <th>Solid</th> <th>Solar</th> </tr> <tr> <td>Space Htg ☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Water Htg ☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table> * ☐ Dwelling unit will have 3 kilowatt or more installed electric space heater equipment capacity.		Fuel	Nat. Gas	L.P.	Oil	Elec.	Solid	Solar	Space Htg ☐	☐	☐	☐	☐	☐	☐	Water Htg ☐	☐	☐	☐	☐	☐	☐
Fuel	Nat. Gas	L.P.	Oil	Elec.	Solid	Solar																						
Space Htg ☐	☐	☐	☐	☐	☐	☐																						
Water Htg ☐	☐	☐	☐	☐	☐	☐																						
						13. HEAT LOSS (Calculated) Total _____ BTU//HR																						
						14. ESTIMATED COST <u>\$ 9,300.00</u>																						
I understand that I: am subject to all applicable codes, laws, statutes and ordinances, including those described on the Notice to Permit Applicants form; am subject to any conditions of this permit; understand that the issuance of this permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. If one acre or more of soil will be disturbed, I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and the owner shall sign the statement on the Notice to Permit Applicants form. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.																												
☐ I vouch that I am or will be an owner-occupant of this dwelling for which I am applying for an erosion control or construction permit without a Dwelling Contractor Certification and have read the cautionary statement regarding contractor responsibility on the Notice to Permit Applicants form.																												
APPLICANT (PRINT): <u>Serghei Talama</u>				SIGN: 		DATE: _____																						
APPROVAL CONDITIONS		This permit is issued pursuant to the attached conditions. Failure to comply may result in suspension or revocation of this permit or other penalty. Owner/Builder solely responsible for compliance with all applicable State & Local Building and Zoning codes.																										
INSPECTIONS NEEDED Building ☐ Footing ☐ Foundation ☐ Rough ☐ Insulation ☐ Bsmt. Fl. ☐ Final Electric ☐ Rough ☐ Service ☐ Final Plumbing ☐ Rough ☐ Underfloor ☐ Final HVAC ☐ Rough ☐ Final																												
FEES:		PERMIT(S) ISSUED		SEAL NO. _____		Municipality No. _____																						
Building Fee _____ Zoning Fee _____ WI Seal _____ Electric Fee _____ Plumbing Fee _____ HVAC Fee _____ Adm. Fee _____ Other _____ Total _____ \$ 0.00		Bldg. # At top of form _____ Zoning # _____ Elec. # _____ Plmb. # _____ HVAC # _____		RECEIPT CK # _____ Amount \$ _____ Date _____ From _____ Rec By. _____		PERMIT EXPIRATION: Permit expires two years from date issued unless municipal ordinance is more restrictive.																						
				PERMIT ISSUED BY MUNICIPAL AGENT: Name _____ Date _____ Certification No. _____																								



VILLAGE OF THIENSVILLE

250 Elm Street
Thiensville, WI 53092-1602

Phone (262) 242-3720
Fax (262) 242-4743

September 6, 2023

Serghei Ialama
213 E. Freistadt Road
Thiensville, WI 53092

Subject: Stop Work Order and Requirement for Proper Approvals

Dear Mr. Ialama,

We are writing to inform you of a serious matter regarding construction activities on your property at 213 E. Freistadt Road, Thiensville, WI 53092. It has come to our attention that construction is ongoing without the necessary approvals from the Plan Commission and without a valid building permit, violating Village ordinances.

Village ordinances mandate that all construction within Thiensville undergo Plan Commission approval and secure the required building permits before any work begins. This ensures compliance with local regulations and zoning codes, safeguarding our community's integrity and safety.

Specifically, you are in violation of the following ordinances:

1. **Plan Commission Approval:** You must obtain Plan Commission approval before commencing construction.
2. **Zoning Permit:** Any building erection, addition, movement, or structural alteration necessitates a zoning permit.
3. **Building Permit:** A valid building permit is required before any construction work begins.

Non-compliance with these ordinances carries penalties as outlined in Village ordinances. Moreover, failing to secure proper approvals, permits, or certificates during construction initiates the immediate issuance of a stop work order by the Building Inspector. This order must be adhered to, and any violated provisions of this chapter will incur penalties per Village ordinances.

Furthermore, be aware that Village ordinances stipulate a double permit fee for non-compliance.

We urge you to promptly cease all construction activities on your property until you secure Plan Commission approval, building permits, and zoning permits. Failure to do so will result in further enforcement actions as per Village ordinances.

For assistance in obtaining the required approvals and permits, please contact the Village Hall. Your cooperation in rectifying this matter promptly is crucial for our community's safety and integrity.

Sincerely,

A handwritten signature in dark ink, appearing to read 'ALF', with a long, sweeping horizontal line extending to the right.

Andy LaFond
Director of Community Services/Public Works

cc: Paul Mortimer, Building Inspector
Jon Censky, Village Planner
Thiensville Police Department
Property File

7010 0290 0003 7714 6041

U.S. Postal Service TM	
CERTIFIED MAIL TM RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
MacDonald WI 53092	
OFFICIAL USE	
Postage	\$ 3.75
Certified Fee	\$ 0.55
Return Receipt Fee (Endorsement Required)	\$ 0.00
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 4.30

0092
14

Postmark
Here

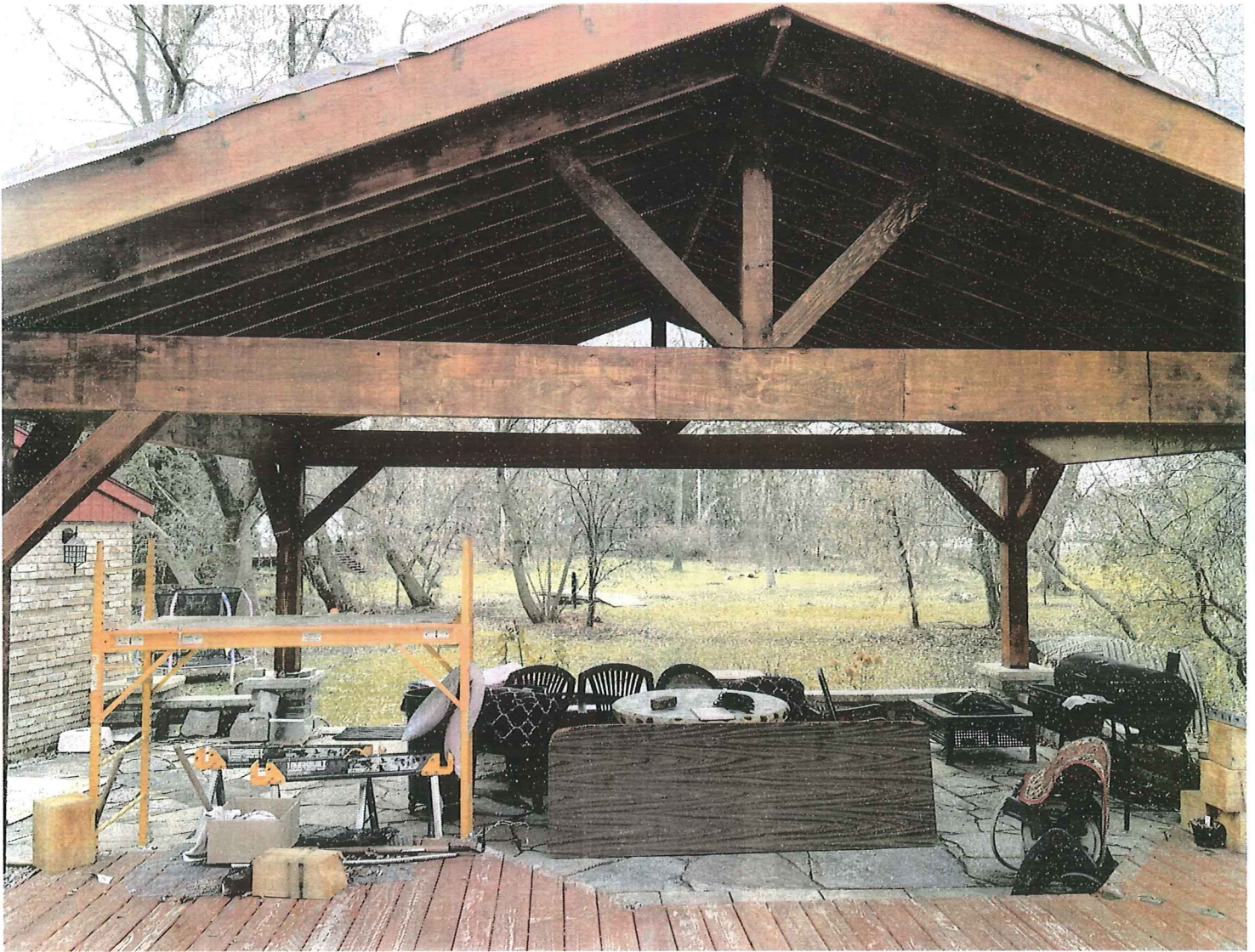
SEP - 6 2023
09/06/2023
PS-53092

Sent To: **Serghei Iakima**
Street, Apt. No. or PO Box No.: **213 E. Freistadt Road**
City, State, ZIP+4: **Thiensville WI 53092**

PS Form 3800, August 2006 See Reverse for Instructions

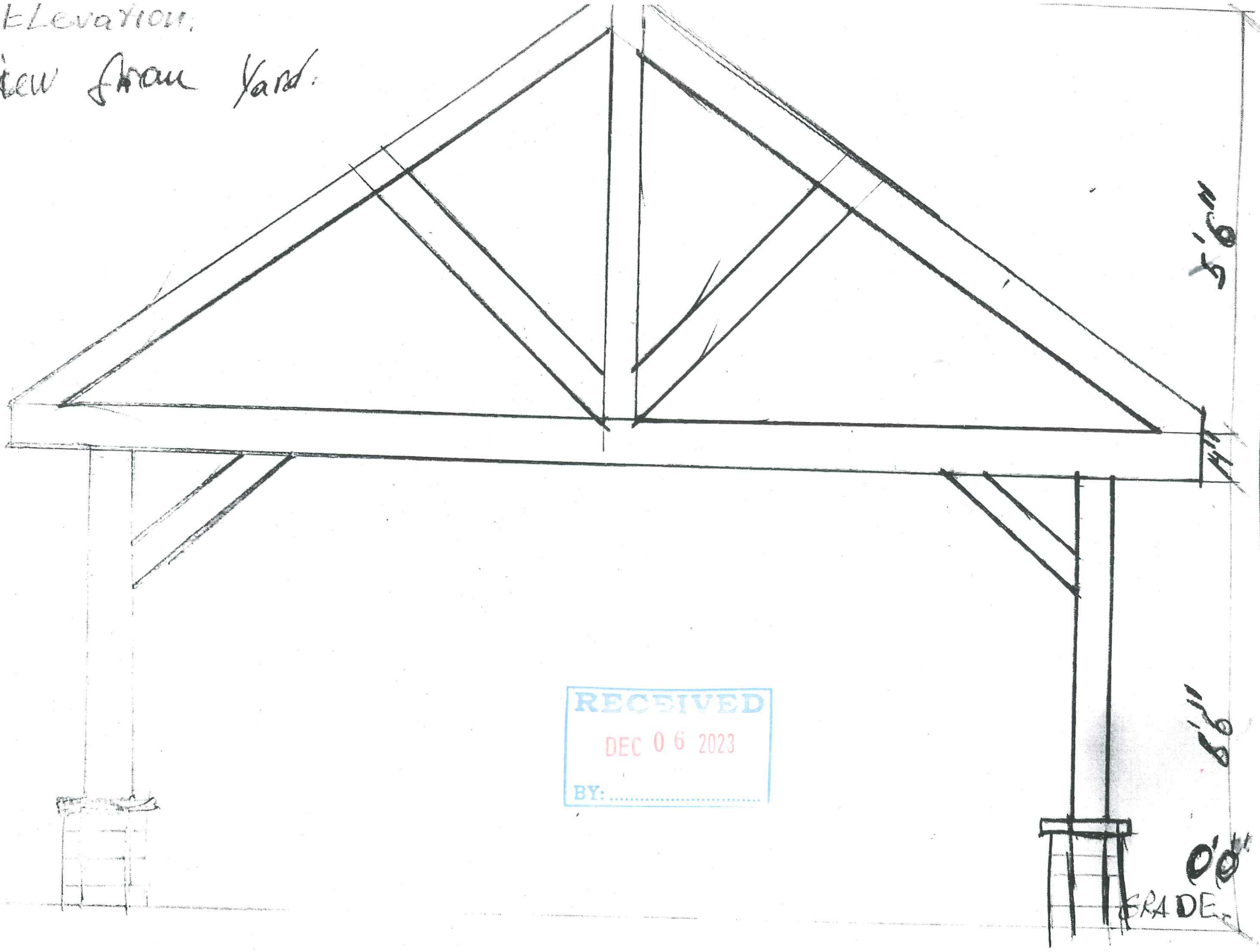








Elevation,
view from Yard.



Thiensville Plan Commission Staff Report -December 2023

Staff Approved Projects November 2023

Date	Address	Applicant	Project	Staff Approval	ZBOA	Approved	Denied
11/30/2023	112-114 Ellenbecker Road	Jim Desmond	South Driveway Addition	12/6/2023		xx	

Code Compliance November 2023

Community Services

Address	Owner	Complaint	Action
---------	-------	-----------	--------

Police Department November 2023

Date	Location	Complaint	Action
11/20/2023	S. Main/Division	Sign on Village property	Officer removed sign