



Le Sueur County, MN

Thursday, October 18, 2018

Regular Session

Item 1

Hruby-Morton/Burg Packet

Staff Contact: Joshua Mankowski or Michelle Mettler

APPEAL STAFF REPORT

GENERAL INFORMATION

APPLICANT: Steve Hruby, Morton Buildings
OWNER: Jason Burg
911 ADDRESS: 32268 Rosewood LN, St Peter, MN
APPEAL: Appealing the Department decision for foundation definition for a dwelling.
APPEAL NUMBER: 18249
PARCEL NUMBER: 05.023.2600

SITE INFORMATION

LOCATION: Part of the North 1/2 of the NE 1/4, Section 23, Kasota Township
ZONING & PURPOSE: Agriculture

The **Agriculture (A) District** is established for areas where agriculture uses are seen as the best and highest long term use of the land. The land itself needs to be preserved for primarily agricultural activities. These areas should avoid existing cities, residential zones and subdivisions. They should be large contiguous land areas with mostly prime soils.

GOALS AND POLICIES: The current Land Use Plan as adopted in 2007 does make reference to building code.

GOAL #8: As part of the County's responsibility to protect the public health, safety, and welfare, the County will consider adopting the Uniform Building Code.

GENERAL SITE DESCRIPTION: Wooded, ravine, bluff, farm field

ACCESS: New access off Rosewood Lane

BACKGROUND INFORMATION

The landowner has a Lot of Record which would allow for a building eligibility for the construction of a single-family dwelling. Performance standards, for example setbacks, sewage treatment, buildable area etc., can be met. The applicant is proposing to build a pole-shed construction that includes living space. The construction must meet the requirements of the Zoning Ordinance. The proposed construction does not meet the definition of a dwelling. A concrete or masonry foundation is required for a single-family dwelling.

ATTACHMENTS

Application, Written Detail of Request, Aerial photo

STAFF FINDINGS

Staff findings per Le Sueur County Ordinance, the following findings have been developed for this appeal:

Section 4, Dwelling definition:

DWELLING, SINGLE FAMILY DETACHED - A dwelling structure designed for or occupied exclusively by one (1) family, not attached to another dwelling, meeting all of the following standards:

1. A permanent masonry or concrete foundation extending below frost level,

2. A minimum of seven hundred sixty (760) square feet of floor area on the ground floor,
3. The minimum dwelling width excluding porches, decks, or other similar attachments shall be twenty (20) feet except in the cases of temporary dwellings,
4. Open space on the same lot to surround dwelling.

CONSIDERATIONS

SECTION 22, BOARD OF ADJUSTMENT, SUBDIVISION 3. APPEALS/VARIANCES

- A. An appeal from any order, requirement, decision, or determination of the Department shall be taken in such time as shall be prescribed by this Ordinance creating the Board of Adjustment by filing with the Board of Adjustment a notice of appeal specifying the grounds thereof.
1. The Board of Adjustment shall set a reasonable time for the hearing of the appeal and give due notice thereof to the appellant and the officer from whom the appeal is taken and to the public and decide the same within a reasonable time.
 2. An appeal stays all proceedings in furtherance of the action appealed from, unless the Board of Adjustment to whom the appeal is taken certifies that by reason of the facts stated in the certificate a stay would cause imminent peril to life or property.
 3. The Board of Adjustment may reverse or affirm wholly or partly, or may modify the order, requirement, decision, or determination appealed from and to that end shall have all the powers of the officer from whom the appeal was taken and may direct the issuance of a permit. The reasons for the Board's decision shall be stated in writing.

Additional Considerations:

- a. Construction in Le Sueur County needs to be constructed to meet the building code.
- b. Le Sueur County does not enforce the building code therefore the County does not issue building permits nor inspect construction to ensure building code compliance.
- c. Zoning permits are required for construction and must meet the requirements of the Zoning Ordinance. For example, wood foundations are allowed under the building code however are not allowed in the Zoning Ordinance.

CONDITIONS

1. In granting any Appeal, the Board of Adjustment may designate such conditions in connection that will secure substantially the objectives of the Ordinance, regulation or provision to which the application is granted.
2. Conditions must be directly related to and bear a rough proportionally to the impact created by the Appeal.
3. *If approved*, construction must be completed **prior to the Appeal expiration**, Section 22; Subdivision 7.
4. *If approved*, a **zoning permit** must be purchased prior to starting construction, Section 26.
5. **Extension** must be requested 30 days prior to Variance expiration, Section 22; Subdivision 7.

Appeal Application

I. **Applicant:**
 Name STEVE HRURY (MORTON BUILDINGS)
 Mailing Address 603 E. 1ST ST.
 City JANESVILLE State MN. Zip 56048
 Phone # 507-461-4257 Phone # 507-734-5186

II. **Landowner:**
 Name JASON BURG
 Property Address 12774 ROSEWOOD LN. (37768 PER BEGUN)
 City ST. PETER State MN. Zip 56087
 Phone # 507-381-1963 Phone # _____

III. **Parcel Information:**
 Parcel Number 05.023.2600 Parcel Acreage 57.87
 Township KASOTA Section 23-110-0210
 Subdivision _____ Lot _____ Block _____

Full Legal Description must be attached.

(Full legal description can be found on deed, not abbreviated legal description from tax statement).

IV. **Appeal:** List appeal to any decision or determination of the Department.
WE ARE APPEALING THE COUNTY'S DEFINITION OF PERMANENT RESIDENCY
OR CONCRETE FOUNDATION. ACCORDING TO ENVIRONMENTAL SERVICES
WE DON'T MEET #1 UNDER DWELLING, SINGLE FAMILY DETACHED
SECTION 22

V. **Description of Appeal:**

a. A full written description of specifying the appeal with detailed information must be attached.



VI. **Township Notification:**

Township must be notified prior to application. (County Commissioners are not the Township Board.)

KASOTA TOWNSHIP Township notified on 9-12-18
 (Township Name) (Date)

Board Member DAREN BARFKNECHT regarding the appeal.
 (Name) JOE KIEULEN

VII. **Attachments shall include but not limited to:**

- ☐ a. Description of Appeal
- ☐ b. Full legal description
- ☐ c. The Department may request additional information regarding the application.

VIII. Quantities and Submittal Formats:

- a. One (1) reproducible copy of the request and all other supporting documents.
- b. **Ten (10)** copies must be submitted for documents larger than 11 x 17, documents in color, aerials or photographs.
- c. Electronic version of any supporting documents if available.
- d. Additional copies may be requested as deemed necessary by the Department.

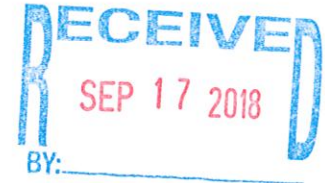
IX. Fees:

Appeal: \$ 600
Filing Fee: \$ 46

Additional Fees:

Special Meeting: \$1,200
After-The-Fact meeting fee: Doubled + After-The-Fact Penalty.
After-The-Fact Penalty: \$1,500 OR 10% of the improvement, whichever is greater.

Fees must be paid at the time of application, cannot be accepted by mail, and are non-refundable. Cash or check. Credit cards will not be accepted.



X. Procedure: See Section 22 of the Zoning Ordinance for full details.

- a. Pre-application meeting is recommended prior to making application to ensure submittal completion. **Appointment is necessary.**
- b. Application must be made in person by the applicant and/or landowner prior to 12 P.M. on the date of application deadline. **Appointment is necessary.**
- c. All required information must be correct and submitted **at the time of application**, or the application will not be accepted.
- d. Fees **will not** be accepted by mail and must be paid at the time of application.
- e. Notification will be sent to all landowners within 500 feet of the affected property, (minimum of 10 landowners) as well as the affected Town Board, any municipality within 2 miles, and other applicable agencies.
- f. Notice will be published in the newspaper of general circulation in the area concerned and the official newspaper of the County.
- g. The Board of Adjustment may conduct an onsite visit to the affected property prior to the scheduled meeting. Any conversation with the Board of Adjustment during the onsite visit is prohibited.
- h. The Board of Adjustment shall hold a public hearing on the proposed Appeal at a scheduled Board of Adjustment meeting.
- i. The applicant or representative must appear before the Board of Adjustment in order to answer questions concerning the request, or the application will be tabled.
- j. The Board of Adjustment has the authority to request additional information or designate conditions.
- k. The Board of Adjustment has the authority to determine Appeal approval or denial. No Appeal may be granted that allow any use that is prohibited in the Zoning District in which the property is located.

- l. The Department shall notify the applicant and/or landowner in writing of the Board of Adjustment decision.
- m. The Department will file a certified copy of any order or decision issued by the Board of Adjustment with the County Recorder.
- n. A zoning permit is required prior to starting construction however zoning permits will not be available the day of the Board of Adjustment meeting. Zoning permit application must be approved prior to obtaining a zoning permit.

XI. Signatures:

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.

Applicant signature

Date

9-17-18

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.

Land Owner signature

Date

9/17/18

OFFICE USE ONLY

Meeting date 10-18-18 Present Zoning Classification A Feedlot within 500' 1000' N
 60 Day 11-16-18 Lake Classification / Water courses Y N
 FEMA Panel # 2707900350 Lake / Bluff Y N
 Flood Zone X-outside RFPE / ☒ Septic 9-7-18 COC
☒ Full legal description ☒ Description of Request 9-7-18 NONC/Waiver
 Other Design

☒ Fee \$ 1640 ATF / SPEC MTG

☒ Application complete

Planning & Zoning Department Signature

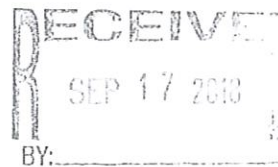
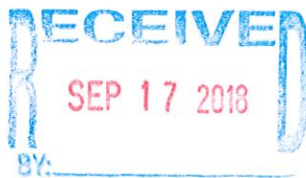
Date

Permit #

Michael R. Matt

9-17-18

18249



01-15-16

Description of Appeal:

We are appealing the decision of Le Sueur County's Zoning Administration that "The plans submitted do not meet the minimum requirements for a dwelling. The plans do not indicate a permanent masonry or concrete foundation. "

1. Our plans show Morton's MFS (Morton FOUNDATION System) Which is an Engineered PERMANENT CONCRETE FOUNDATION system that extends below frost level and offers superior strength for buildings in all climate conditions.
2. The Definition of FOUNDATION per the Dictionary is " the lowest load-bearing part of a building, typically below ground level." In fact Pier or Column FOUNDATION are widely used in buildings across the country.
3. Also the 2015 Minnesota building code (Which Le Sueur County doesn't enforce) under section 1807.3 Embedded posts and Poles allows this type of FOUNDATION and in fact we are allowed to build our Buildings as homes in every other County in the State of Minnesota that enforces these codes as well as across the Country.
4. If you google Post-Frame construction you will see that it is a widely recognized way of building and meets all UBC and IBC standards and has many advantages over traditional stick frame structures. And indeed the posts that go into the ground whether they are wood or concrete are considered the FOUNDATION of the structure.
5. In Summary for our buildings FOUNDATION we are using an Engineered Pre-Cast concrete column placed in a bed of poured in place concrete below frost that supports the weight of the structure and the entire system meets or exceeds all current wind and snow load and meets or exceeds all current building codes and clearly Meets the current Le Sueur County's Zoning Ordinance as well as meets the Dictionary's definition of FOUNDATION.

Attached you will find a copy of:

1. Definition of FOUNDATION
2. An article from NFBA (builders Magazine describing Post Frame construction)
3. Description of Pier FOUNDATION and their uses and advantages in Green Building.
4. A few pages out of the current code book used in the State of Minnesota showing that this type of Building is acceptable and that it is considered the buildings FOUNDATION!
5. A Morton MFS Brochure showing how our system works.

Thank you,

Steve Hruby/ Morton Buildings

507-461-4257



Dictionary

Enter a word, e.g. "pie"



foun·da·tion

/foun'dāSH(ə)n/

noun

1. the lowest load-bearing part of a building, typically below ground level.
synonyms: **footing**, **foot**, **base**, **substructure**, **infrastructure**, **underpinning**; [More](#)
2. an underlying basis or principle for something.
"this idea is the foundation of all modern economics"
synonyms: **basis**, starting point, **base**, **point of departure**, **beginning**, **premise**; [More](#)

Translations, word origin, and more definitions

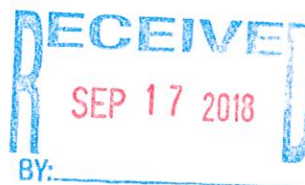
[Feedback](#)

Foundation | Definition of Foundation by Merriam-Webster

<https://www.merriam-webster.com/dictionary/foundation> ▼

Definition of foundation for English Language Learners. : a usually stone or concrete structure that supports a building from underneath. : something (such as an idea, a principle, or a fact) that provides support for something.

[Lay The Groundwork/foundation](#) · [Foundational](#) · [Foundatory](#)





WHAT IS POST FR

[WHAT IS POST FRAME?](#)
[ABOUT NFBA](#)
[MEMBERSHIP](#)
[EVENTS](#)
[AWARDS](#)
[RESOURCES](#)

Post-frame construction is an engineered wood-frame building system that meets UBC and IBC standards. Post-frame buildings feature large, solid sawn posts or laminated columns instead of wood studs, steel framing, or concrete masonry. They transfer loads to the ground or surface-mounted to a concrete pier or masonry foundation, and may use plastic barrier systems for enhanced protection of wood and concrete posts or piers.

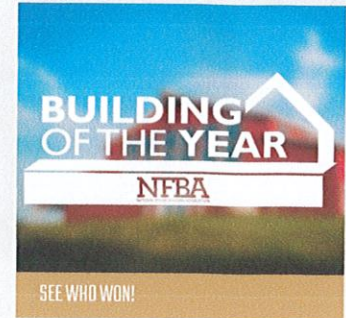
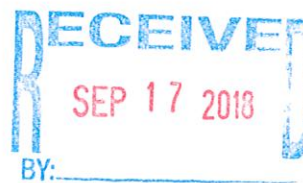
Post-frame structures are more quickly erected than other kinds of buildings. Because the larger posts and the interlocking frame can handle greater loads than stud-wall construction, fewer structural materials are needed, which saves time and other costs. Also, because posts are spaced farther apart than studs, post-frame buildings feature an exceptionally large wall cavity and provide ample room for insulation, lowering heating and cooling costs through the life of the building.

Almost any type of exterior façade may be installed on post-frame buildings, which can be designed to meet the highest standards for quality and aesthetics. Post-frame construction is an efficient and economical option for low-rise applications and is now the construction method of choice for any number of commercial, industrial, municipal, residential, religious, and agricultural projects.

APPLICATIONS

FEATURED

2016 BUILDING OF THE YEAR


[SEE WHO WON!](#)


4. *Seismic Design Categories* and F. A design using Tables 1807.1.6.3(2) through 1807.1.6.3(4) is subject to the seismic requirements of Section 1.18.4.5 of TMS 402/ACI 530/ASCE 5.

1807.2 Retaining walls. Retaining walls shall be designed in accordance with Sections 1807.2.1 through 1807.2.3.

1807.2.1 General. Retaining walls shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Where a keyway is extended below the wall base with the intent to engage passive pressure and enhance sliding stability, lateral soil pressures on both sides of the keyway shall be considered in the sliding analysis.

1807.2.2 Design lateral soil loads. Retaining walls shall be designed for the lateral soil loads set forth in Section 1610.

1807.2.3 Safety factor. Retaining walls shall be designed to resist the lateral action of soil to produce sliding and

overturning with a minimum safety factor of 1.5 in each case. The load combinations of Section 1605 shall not apply to this requirement. Instead, design shall be based on 0.7 times nominal earthquake loads, 1.0 times other *nominal loads*, and investigation with one or more of the variable loads set to zero. The safety factor against lateral sliding shall be taken as the available soil resistance at the base of the retaining wall foundation divided by the net lateral force applied to the retaining wall.

Exception: Where earthquake loads are included, the minimum safety factor for retaining wall sliding and overturning shall be 1.1.

1807.3 Embedded posts and poles. Designs to resist both axial and lateral loads employing posts or poles as columns embedded in earth or in concrete footings in earth shall be in accordance with Sections 1807.3.1 through 1807.3.3.

1807.3.1 Limitations. The design procedures outlined in this section are subject to the following limitations:

TABLE 1807.1.6.3(2)
8-INCH MASONRY FOUNDATION WALLS WITH REINFORCEMENT WHERE $d \geq 5$ INCHES^{a,b,c}

MAXIMUM WALL HEIGHT (feet-inches)	MAXIMUM UNBALANCED BACKFILL HEIGHT ^d (feet-inches)	MINIMUM VERTICAL REINFORCEMENT-BAR SIZE AND SPACING (inches)		
		Design lateral soil load ^e (psf per foot of depth)		
		30°	45°	60°
7-4	4-0 (or less)	#4 at 48	#4 at 48	#4 at 48
	5-0	#4 at 48	#4 at 48	#4 at 48
	6-0	#4 at 48	#5 at 48	#5 at 48
	7-4	#5 at 48	#6 at 48	#7 at 48
8-0	4-0 (or less)	#4 at 48	#4 at 48	#4 at 48
	5-0	#4 at 48	#4 at 48	#4 at 48
	6-0	#4 at 48	#5 at 48	#5 at 48
	7-0	#5 at 48	#6 at 48	#7 at 48
	8-0	#5 at 48	#6 at 48	#7 at 48
8-8	4-0 (or less)	#4 at 48	#4 at 48	#4 at 48
	5-0	#4 at 48	#4 at 48	#5 at 48
	6-0	#4 at 48	#5 at 48	#6 at 48
	7-0	#5 at 48	#6 at 48	#7 at 48
	8-8 ^c	#6 at 48	#7 at 48	#8 at 48
9-4	4-0 (or less)	#4 at 48	#4 at 48	#4 at 48
	5-0	#4 at 48	#4 at 48	#5 at 48
	6-0	#4 at 48	#5 at 48	#6 at 48
	7-0	#5 at 48	#6 at 48	#7 at 48
	8-0	#6 at 48	#7 at 48	#8 at 48
	9-4 ^c	#7 at 48	#8 at 48	#9 at 48
10-0	4-0 (or less)	#4 at 48	#4 at 48	#4 at 48
	5-0	#4 at 48	#4 at 48	#5 at 48
	6-0	#4 at 48	#5 at 48	#6 at 48
	7-0	#5 at 48	#6 at 48	#7 at 48
	8-0	#6 at 48	#7 at 48	#8 at 48
	9-0 ^c	#7 at 48	#8 at 48	#9 at 48
	10-0 ^c	#7 at 48	#9 at 48	#9 at 48



- BY: _____
1. The frictional resistance for structural walls and slabs on silts and clays shall be limited to one-half of the normal force imposed on the soil by the weight of the footing or slab.
 2. Posts embedded in earth shall not be used to provide lateral support for structural or nonstructural materials such as plaster, masonry or concrete unless bracing is provided that develops the limited deflection required.

Wood poles shall be treated in accordance with AWP A U1 for sawn timber posts (Commodity Specification A, Use Category 4B) and for round timber posts (Commodity Specification B, Use Category 4B).

1807.3.2 Design criteria. The depth to resist lateral loads shall be determined using the design criteria established in Sections 1807.3.2.1 through 1807.3.2.3, or by other methods approved by the building official.

1807.3.2.1 Nonconstrained. The following formula shall be used in determining the depth of embedment required to resist lateral loads where no lateral constraint is provided at the ground surface, such as by a

rigid floor or rigid ground surface pavement, and where no lateral constraint is provided above the ground surface, such as by a structural diaphragm.

$$d = 0.5A \{ 1 + [1 + (4.36h/A)]^{1/2} \} \quad (\text{Equation 18-1})$$

where:

$$A = 2.34P/(S_1 b)$$

b = Diameter of round post or footing or diagonal dimension of square post or footing, feet (m).

d = Depth of embedment in earth in feet (m) but not over 12 feet (3.658 m) for purpose of computing lateral pressure.

h = Distance in feet (m) from ground surface to point of application of "P."

P = Applied lateral force in pounds (kN).

S_1 = Allowable lateral soil-bearing pressure as set forth in Section 1806.2 based on a depth of one-third the depth of embedment in pounds per square foot (psf) (kPa).

1807.3.2.2 Constrained. The following formula shall be used to determine the depth of embedment required

TABLE 1807.1.6.3(3)
10-INCH MASONRY FOUNDATION WALLS WITH REINFORCEMENT WHERE $d \geq 6.75$ INCHES ^{a, b, c}

MAXIMUM WALL HEIGHT (feet-inches)	MAXIMUM UNBALANCED BACKFILL HEIGHT ^d (feet-inches)	MINIMUM VERTICAL REINFORCEMENT-BAR SIZE AND SPACING (inches)		
		Design lateral soil load ^a (psf per foot of depth)		
		30 ^a	45 ^a	60
7-4	4-0 (or less)	#4 at 56	#4 at 56	#4 at 56
	5-0	#4 at 56	#4 at 56	#4 at 56
	6-0	#4 at 56	#4 at 56	#5 at 56
	7-4	#4 at 56	#5 at 56	#6 at 56
8-0	4-0 (or less)	#4 at 56	#4 at 56	#4 at 56
	5-0	#4 at 56	#4 at 56	#4 at 56
	6-0	#4 at 56	#4 at 56	#5 at 56
	7-0	#4 at 56	#5 at 56	#6 at 56
8-8	4-0 (or less)	#4 at 56	#4 at 56	#4 at 56
	5-0	#4 at 56	#4 at 56	#4 at 56
	6-0	#4 at 56	#4 at 56	#5 at 56
	7-0	#4 at 56	#5 at 56	#6 at 56
9-4	4-0 (or less)	#4 at 56	#4 at 56	#4 at 56
	5-0	#4 at 56	#4 at 56	#4 at 56
	6-0	#4 at 56	#5 at 56	#5 at 56
	7-0	#4 at 56	#5 at 56	#6 at 56
10-0	4-0 (or less)	#4 at 56	#4 at 56	#4 at 56
	5-0	#4 at 56	#4 at 56	#4 at 56
	6-0	#4 at 56	#5 at 56	#5 at 56
	7-0	#5 at 56	#6 at 56	#7 at 56
	8-0	#5 at 56	#7 at 56	#8 at 56
	9-0 ^e	#6 at 56	#7 at 56	#9 at 56
	10-0 ^e	#7 at 56	#8 at 56	#9 at 56

For SI: 1 inch = 25.4 mm, 1 foot = 304.8, 1 pound per square foot per foot = 1.157 kPa/m.

a. For design lateral soil loads, see Section 1610.

b. Provisions for this table are based on design and construction requirements specified in Section 1807.1.6.3.

c. For alternative reinforcement, see Section 1807.1.6.3.1.

d. For height of unbalanced backfill, see Section 1807.1.2.

e. Where unbalanced backfill height exceeds 8 feet and design lateral soil loads from Table 1610.1 are used, the requirements for 30 and 45 psf per foot of depth are not applicable. See Section 1610.



1809.5 Frost protection. Except where otherwise protected from frost, foundations and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extending below the frost line specified in Minnesota Rules, part 1303.1600;
2. Constructing in accordance with ASCE 32; or
3. Erecting on solid rock.

Exception: Freestanding buildings constructed in accordance with Minnesota Rules, Chapter 1303 shall not be required to be protected.

Shallow foundations shall not bear on frozen soil.

1809.6 Location of footings. Footings on granular soil shall be so located that the line drawn between the lower edges of adjoining footings shall not have a slope steeper than 30 degrees (0.52 rad) with the horizontal, unless the material supporting the higher footing is braced or retained or otherwise laterally supported in an *approved* manner or a greater slope has been properly established by engineering analysis.

1809.7 Prescriptive footings for light-frame construction. Where a specific design is not provided, concrete or masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7.

TABLE 1809.7
PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAME CONSTRUCTION^{a, b, c, d, e}

NUMBER OF FLOORS SUPPORTED BY THE FOOTING ^f	WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)
1	12	6
2	15	6
3	18	8 ^g

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Depth of footings shall be in accordance with Section 1809.4.
- b. The ground under the floor shall be permitted to be excavated to the elevation of the top of the footing.
- c. Interior stud-bearing walls shall be permitted to be supported by isolated footings. The footing width and length shall be twice the width shown in this table, and footings shall be spaced not more than 6 feet on center.
- d. See Section 1905 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F.
- e. For thickness of foundation walls, see Section 1807.1.6.
- f. Footings shall be permitted to support a roof in addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.
- g. Plain concrete footings for Group R-3 occupancies shall be permitted to be 6 inches thick.

1809.8 Plain concrete footings. The edge thickness of plain concrete footings supporting walls of other than light-frame construction shall not be less than 8 inches (203 mm) where placed on soil or rock.

Exception: For plain concrete footings supporting Group R-3 occupancies, the edge thickness is permitted to be 6 inches (152 mm), provided that the footing does not extend beyond a distance greater than the thickness of the footing on either side of the supported wall.

1809.9 Masonry-unit footings. The design, materials and construction of masonry-unit footings shall comply with Sec-

tions 1809.9.1 and 1809.9.2, and the provisions of Chapter 21.

Exception: Where a specific design is not provided, masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7.

1809.9.1 Dimensions. Masonry-unit footings shall be laid in Type M or S mortar complying with Section 2103.9 and the depth shall not be less than twice the projection beyond the wall, pier or column. The width shall not be less than 8 inches (203 mm) wider than the wall supported thereon.

1809.9.2 Offsets. The maximum offset of each course in brick foundation walls stepped up from the footings shall be 1½ inches (38 mm) where laid in single courses, and 3 inches (76 mm) where laid in double courses.

1809.10 Pier and curtain wall foundations. Except in *Seismic Design Categories D, E and F*, pier and curtain wall foundations shall be permitted to be used to support light-frame construction not more than two stories above grade plane, provided the following requirements are met:

1. All load-bearing walls shall be placed on continuous concrete footings bonded integrally with the *exterior wall* footings.
2. The minimum actual thickness of a load-bearing masonry wall shall not be less than 4 inches (102 mm) nominal or 3⅞ inches (92 mm) actual thickness, and shall be bonded integrally with piers spaced 6 feet (1829 mm) on center (o.c.).
3. Piers shall be constructed in accordance with Chapter 21 and the following:
 - 3.1. The unsupported height of the masonry piers shall not exceed 10 times their least dimension.
 - 3.2. Where structural clay tile or hollow concrete masonry units are used for piers supporting beams and girders, the cellular spaces shall be filled solidly with concrete or Type M or S mortar.

Exception: Unfilled hollow piers shall be permitted where the unsupported height of the pier is not more than four times its least dimension.
 - 3.3. Hollow piers shall be capped with 4 inches (102 mm) of solid masonry or concrete or the cavities of the top course shall be filled with concrete or grout.
4. The maximum height of a 4-inch (102 mm) load-bearing masonry foundation wall supporting wood frame walls and floors shall not be more than 4 feet (1219 mm) in height.

5. The unbalanced fill for 4-inch (102 mm) foundation walls shall not exceed 24 inches (610 mm) for solid masonry, nor 12 inches (305 mm) for hollow masonry.

1809.11 Steel grillage footings. Grillage footings of structural steel shapes shall be separated with *approved* steel spac-

Pier Foundations

Piers Can Support Anything From a Deck to a House UPDATED 11/27/2012



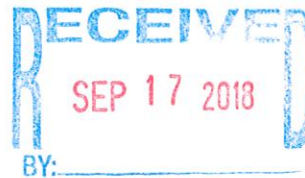
Disturbing as little soil as possible

Pier foundations are unlike more conventional concrete footings and walls in that they support structural loads at a number of distinct points, not continuously. Pier foundations can be as simple as concrete-filled cardboard tubes dropped into hand-dug holes. But more complex foundations incorporating very deep piers or helical screws can support much greater loads.

To some green builders, one advantage of pier foundations is that they cause minimal disruption to the soil environment. Excavation can be performed with a shovel, and existing roots and soil organisms remain mostly undisturbed. At the end of the building's useful life, the site will be easier to restore to a natural state than a site with a full basement.

Design starts in the soil

The number and size of the piers depends on how much weight the underlying soil can hold. The standard design load in the International Residential Code assumes a 40-pound live load; dead load is commonly calculated at between 10 and 15 pounds



MORTON BUILDINGS GENERAL SPECIFICATIONS

LAMINATED COLUMNS - NO. 1 OR BETTER SOUTHERN YELLOW PINE NAIL LAMINATED 3 MEMBER 3/4" COLUMNS NAILED 8" O.C. STAGGERED ON EACH SIDE WITH 4" NAILS.

MFS PRE-CAST CONCRETE COLUMN - MORTON BUILDINGS FOUNDATION SYSTEM IS A PRE-ENGINEERED, 10,000 PSI, STEEL REINFORCED COLUMN FOR BELOW GROUND INSTALLATION. DESIGNED TO BE MECHANICALLY FASTENED TO ABOVE GROUND NAIL LAMINATED COLUMNS. THE SYSTEM IS DESIGNED TO RESIST BOTH AXIAL AND BENDING FORCES.

FOOTINGS AND ANCHORAGE - COLUMN HOLES ARE DUG A MINIMUM DEPTH OF 4'-0" BELOW GRADE (SEE PLANS FOR DIAMETER AND DEPTH). MFS PRE-CAST CONCRETE COLUMNS ARE PLACED IN THE HOLE. CONCRETE (MINIMUM COMPRESSIVE STRENGTH 2500 PSI) IS POURED IN PLACE TO THE SPECIFIED THICKNESS (SEE PLANS FOR REQUIRED THICKNESS ABOVE AND BELOW THE COLUMN). THE COLUMN IS THEN BACKFILLED WITH SOIL AND COMPACTED AT 8" INTERVALS OR BACKFILLED WITH CONCRETE (SEE PLANS).

TREATED LUMBER - PRESSURE PRESERVATIVE TREATED LUMBER OTHER THAN LAMINATED COLUMNS ARE NO. 1 OR BETTER SOUTHERN YELLOW PINE AND CENTER MATCHED OR NOTCHED AND GROOVED OR 3/4". PRESSURE TREATMENT TO GROUND CONTACT RETENTION WITH PRESERVATIVE TREATMENT COMPLYING WITH USE CATEGORY UC4B (AWPA OR ICC-ES) AND IN COMPLIANCE WITH USEPA GUIDELINES AND STANDARDS.

FRAMING LUMBER - SIDING NAILERS ARE 2x4 S4S OR 2x6 SPF NO. 2 OR BETTER SPACED APPROXIMATELY 36" O.C. WITH ALL JOINTS STAGGERED AT ATTACHMENT TO COLUMNS. ROOF PURLINS ARE 2x4 S4S NO. 2 OR BETTER ON EDGE SPACED APPROXIMATELY 24" O.C. ALL OTHER FRAMING LUMBER IS NO. 2 OR BETTER.

ROOF TRUSSES - FACTORY ASSEMBLED WITH 18 OR 20 GAUGE GALVANIZED STEEL TRUSS PLATES AS REQUIRED AND KILN DRIED LUMBER AS SPECIFIED. IN-PLANT QUALITY CONTROL INSPECTION IS CONDUCTED UNDER THE AUSPICES OF THE TPI INSPECTION BUREAU. TRUSSES ARE DESIGNED IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS FOR THE STATED LOADING.

SIDING & ROOFING PANELS (FLUOROFLEX 1000™) - 0.017" MIN., G90 GALVANIZED OR AZ55 GALVALUME STEEL WITH AN ADDITIONAL BAKED-ON 70% PVDF FINISH WITH A NOMINAL 1 MIL. PAINT THICKNESS ON EXTERIOR.

TRIM - DIE-FORMED TRIM OF 0.017" MIN., G90 GALVANIZED OR AZ55 GALVALUME STEEL ON GABLES, RIDGES, CORNERS, BASE WINDOWS, AND DOORS WITH SAME FINISH AS ROOFING OR SIDING PANELS.

GUTTERS - 5" K-STYLE, .030 HIGH TENSILE ALUMINUM GUTTER, 70% PVDF FINISH TO MATCH TRIM, ON BOTH SIDES OF THE BUILDING.
2x4F1F1 02/12

DESIGN AND EXPLANATORY NOTES

- 1.) ALL PLAN PLANS AND RELATED DETAILS SHALL BE PROVIDED BY OWNER UNLESS INCORPORATED AS PART OF THESE DRAWINGS.
- 2.) MORTON BUILDINGS GENERAL SPECIFICATIONS APPLY UNLESS INDICATED DIFFERENTLY ON SPECIFIC JOB DRAWINGS OR SUPPLEMENTAL INFORMATION.
- 3.) NO ONE MAY ALTER ANY ENGINEERING ITEM UNLESS ACTING UNDER THE DIRECTION OF THE LICENSED / REGISTERED ENGINEER.
- 4.) THE PRECEDING SYMBOL IDENTIFIES ITEMS THROUGHOUT THE PLANS THAT ARE NOT PROVIDED BY MORTON BUILDINGS, INC. OR MORTON BUILDINGS' SUBCONTRACTORS AND ARE THE OWNER'S RESPONSIBILITY.



SHEET INDEX	
SHEET #	DESCRIPTION
G1 OF G1	SPECIFICATIONS & SHEET INDEX
S1 OF S5	COLUMN PLAN
S2 OF S5	TRUSS/BRACING PLAN, TRUSS DRAWING & DETAILS
S3 OF S5	ELEVATIONS
S4 OF S5	SECTIONS & DETAILS
S5 OF S5	SECTIONS & DETAILS

CURRENT LUMBER SPECIFICATIONS (06-01-2013)		
SIZE	DESCRIPTION	BENDING VALUE Fb
2x4	NO. 2 SPF	1313 PSI
2x4	NO. 1 SYP	1500 PSI
2x4	2100F MSR SPF	2100 PSI
2x6	NO. 2 SPF	1138 PSI
2x6	NO. 1 SYP	1350 PSI
2x6	2100F MSR SPF	2100 PSI
2x6	2400 MSR SYP	2400 PSI
2x8	NO. 1 SYP	1250 PSI
2x8	2400 MSR SYP	2400 PSI
2x10	NO. 1 SYP	1050 PSI
2x10	2400 MSR SYP	2400 PSI
2x12	NO. 1 SYP	1000 PSI
2x12	2250F MSR SYP	2250 PSI
1 1/2x16"	LAMINATED VENEER LUMBER	2800 PSI
3 1/2x15"	GLU-LAM	1650 PSI
5 1/4x15 1/2"	GLU-LAM	2400 PSI
5 1/4x19 1/2"	GLU-LAM	2400 PSI

BUILDING DESIGN CRITERIA	
USE GROUP	R-3
CONSTRUCTION TYPE	VB
RISK CATEGORY	II
BUILDING AREA	5724 SQ. FT.
ROOF SNOW LOAD *	34 PSF
GROUND SNOW LOAD	50 PSF
WIND SPEED (V _W)	115 MPH
WIND SPEED (V _{AD})	89 MPH

*ROOF SNOW LOAD CALCULATIONS

$P_s = 0.7 \times C_e \times I \times P_g \times C_t \times C_s$
 C_e = SNOW EXPOSURE FACTOR = 1.0
 I = IMPORTANCE FACTOR = 1.0
 P_g = GROUND SNOW LOAD = 50 PSF
 C_t = THERMAL FACTOR = 1.1
 C_s = ROOF SLOPE FACTOR = 0.86
 $P_s = 0.7 \times 1.0 \times 1.0 \times 50 \times 1.1 \times 0.86 = 33.11 \text{ PSF}$

I HEREBY CERTIFY THAT THE STRUCTURAL DESIGN FOR THIS BUILDING WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED/REGISTERED PROFESSIONAL ENGINEER.

Michael L. McCormick
MICHAEL L. MCCORMICK, P.E.
mccormick@allieddesigngroup.com
DATE: 5-21-18 REG. # 22602



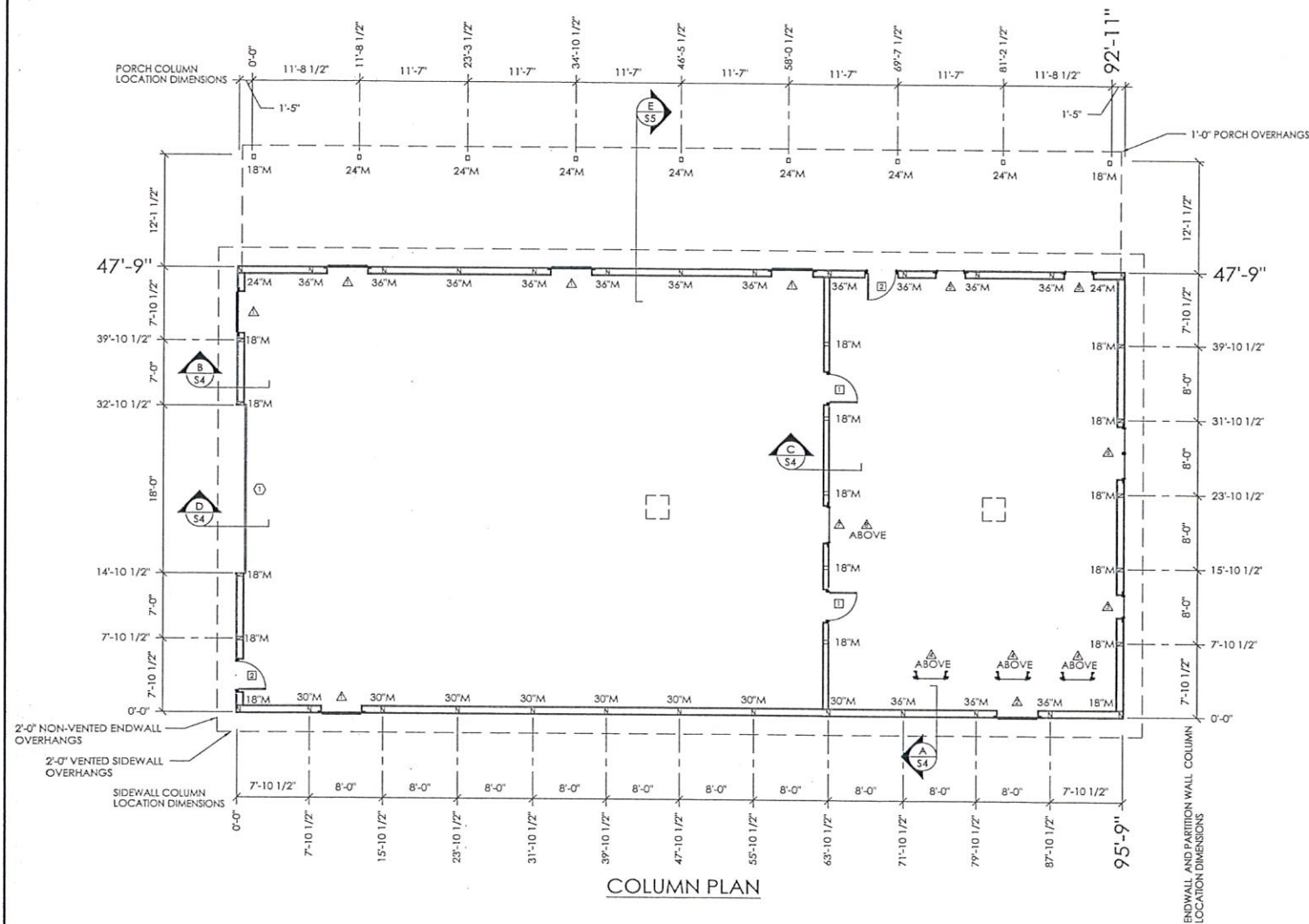
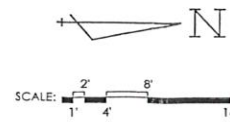
OFFICE:
JANESVILLE, MN
JOB NO.
038-077109

JASON BURG
SAINT PETER, MN

ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.
100 S. PRESHING P.O. BOX 110 MORTON, IL 61550
PHONE NUMBER: 309-263-4105

DRAWN BY: RKS
DATE: 3/2/2018
CHECKED BY: KMK
DATE: 3/16/2018
REVISED DATE: ---
REVISED DATE: ---
REVISED DATE: ---
REVISED DATE: ---

SCALE: AS NOTED
SHEET NO.
G1 OF G1



COLUMN PLAN LEGEND

- - 3-2x6 LAMINATED COLUMN LOCATION
- - 3-2x6 LAMINATED COLUMN LOCATION
- - (2) 3'-0" x 6'-8" WALK DOORS (20 MIN. FIRE RATED) ♦
- - (2) 3'-0" x 6'-8" WALK DOOR ♦
- △ - (5) 4429 MB SLIDING WINDOWS
- △ - 4429 MB SLIDING WINDOW (7'-6" ABOVE GRADE)
- △ - 25' x 35' PCD2941 VENT PELLA PROLINE DOUBLE HUNG WINDOW
- △ - (5) 31" x 49" PCD3757 VENT PELLA PROLINE DOUBLE HUNG WINDOWS (15'-0" ABOVE GRADE)
- △ - (2) 31" x 49" PCD3757 VENT PELLA PROLINE DOUBLE HUNG WINDOWS (7'-6" ABOVE GRADE)
- △ - 56' x 49" TWIN PCD3357 VENT PELLA PROLINE DOUBLE HUNG WINDOWS
- △ - 31" x 31" WINDOW ♦ (20 MINUTE FIRE RATED ASSEMBLY)
- △ - 31" x 31" WINDOW ♦ (20 MINUTE FIRE RATED ASSEMBLY 15'-0" ABOVE GRADE)
- - 18'-2" x 14'-1" OVERHEAD DOOR ♦
- - (1) 3'-6" x 3'-6" FUNCTIONAL CUPOLA WITH 18" 4220 CFM FAN WITH 7'x 30" WEATHERVANE
- - (1) 3'-6" x 3'-6" NON-FUNCTIONAL CUPOLA WITH 7'x 30" WEATHERVANE
- - (2) 30X30 ATTIC ACCESS PANEL (VERIFY LOCATION)
- ALL STEEL FASTENED WITH STAINLESS STEEL SCREWS
- 18" - 18" DIAMETER FOOTING WITH 4" TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM), 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x1/4" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN, PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.
- 24" - 24" DIAMETER FOOTING WITH 4" TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM), 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x1/4" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN, PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.
- 30" - 30" DIAMETER FOOTING WITH 4" TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM), 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x1/4" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN, PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.
- 36" - 36" DIAMETER FOOTING WITH 4" TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM), 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x1/4" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN, PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.

ROUGH OPENING SCHEDULE

UNIT SYMBOL FROM LEGEND	WIDTH	HEIGHT
□	VERIFY	VERIFY
□	VERIFY	VERIFY
△	52 1/4"	33 5/8"
△	52 1/4"	33 5/8"
△	29 1/4"	41 1/4"
△	37 1/4"	57 1/4"
△	37 1/4"	57 1/4"
△	66 1/4"	57 1/4"
△	VERIFY	VERIFY
△	VERIFY	VERIFY

DESIGN AND EXPLANATORY NOTES

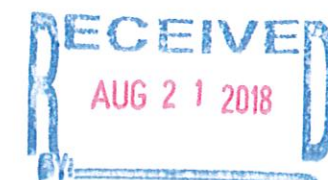
- 1.) THE PRIVATE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY MEANS OF 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE. DOOR OPENINGS BETWEEN THE GARAGE AND THE RESIDENCE SHALL BE EQUIPPED WITH EITHER SOLID WOOD NOT LESS THAN 1 3/8" THICK, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1 3/8" THICK OR 20 MINUTE FIRE RATED WALK DOOR.
 - 2.) THE AREA OF FLOOR USED FOR PARKING OF AUTOMOBILES OR OTHER VEHICLES SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY DOORWAY.
 - 3.) ROOMS USED FOR SLEEPING TO HAVE EMERGENCY ESCAPE AND RESCUE OPENING
- ♦ - EMERGENCY ESCAPE AND RESCUE OPENING MEETING OR EXCEEDING A NET CLEAR OPENING OF 5.7 SQUARE FEET WITH A MIN NET CLEAR WIDTH OF 20" AND A NET CLEAR HEIGHT OF 24" WITH THE SILL NOT MORE THAN 44" ABOVE THE FLOOR.

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DATE: 3/2/2018
CHECKED BY: RKM
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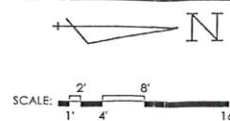


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Michael J. McComick
Date: 8-21-18 Reg No. 23006

SCALE: AS NOTED
SHEET NO.
S1 OF S5

JASON BURG
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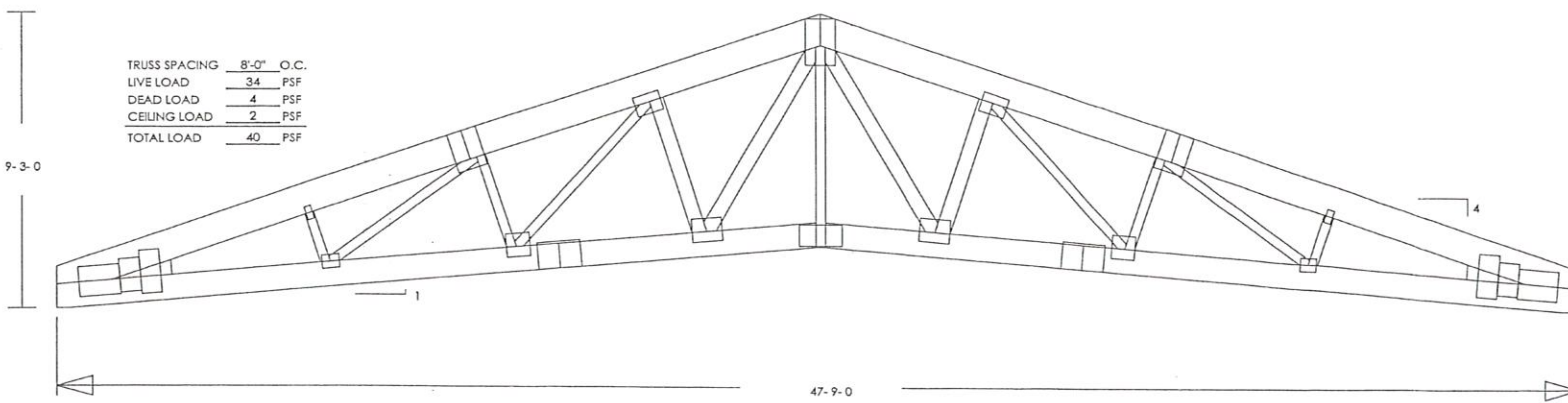


TRUSS/BRACING PLAN

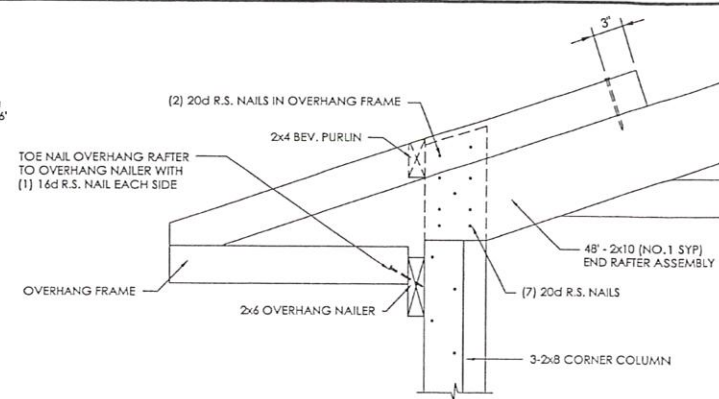
TRUSS/BRACING PLAN LEGEND

- ◆ 48' 3090 R.C. TRUSSES @ 8'-0" O.C.
- ◆ 48' END RAFTER ASSEMBLY
- ◆ 2x4 TRUSS TIES
- ◆ 2x6 DIAGONAL END BRACES (TO EXTEND TO FIRST TRUSS IN FROM ENDWALL)
- ◆ 2x6 FLAT TRUSS TIE CENTERED IN BUILDING
- ◆ 12' DOUBLE PORCH FRAME
- ◆ 12' PORCH END FRAME

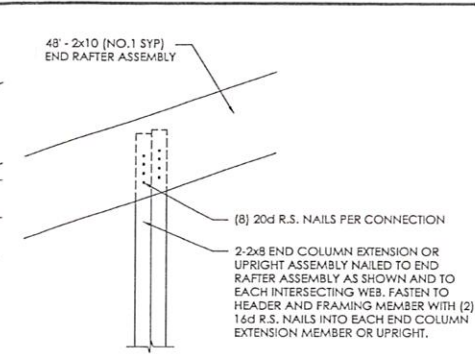
TRUSS SPACING	8'-0" O.C.
LIVE LOAD	34 PSF
DEAD LOAD	4 PSF
CEILING LOAD	2 PSF
TOTAL LOAD	40 PSF



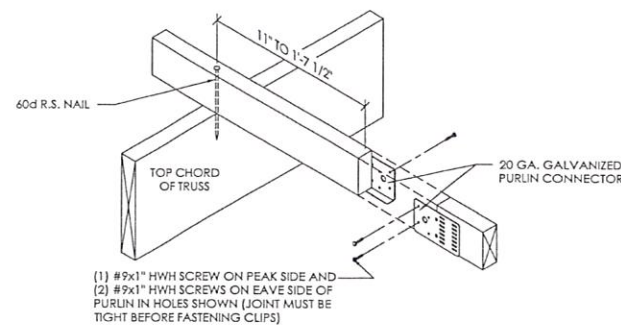
48' R.C. 3090 TRUSS
SCALE: 3/8" = 1'-0"



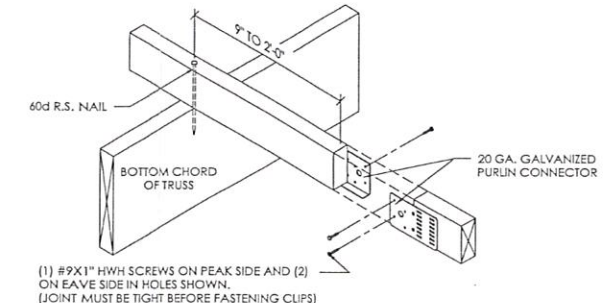
DETAIL A
SCALE: 1 1/2" = 1'-0"



DETAIL B
SCALE: 1 1/2" = 1'-0"

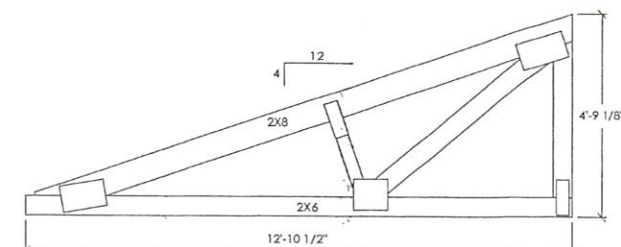


2x4 BUTTED PURLIN DETAIL
SCALE: 1 1/2" = 1'-0"

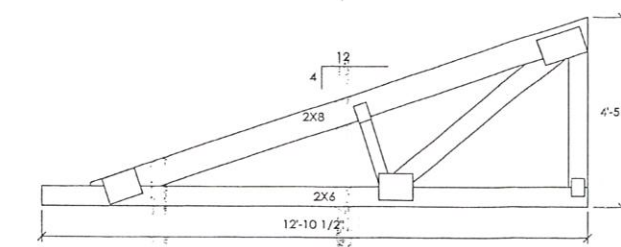


2x4 TRUSS TIE DETAIL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Michael J. McDonnell
Date: 9-21-18 Reg. No. 23006



12' PORCH FRAME
SCALE: 1/2" = 1'-0"



12' PORCH END FRAME
SCALE: 1/2" = 1'-0"

LIVE LOAD	40 PSF
DEAD LOAD	6 PSF
CEILING LOAD	2 PSF
TOTAL LOAD	48 PSF

TRUSS DESIGN SPECIFICATION:
Truss has been designed by computer using Robbins Engineering Software and specifications of recognized engineering principles. Trusses are manufactured by Morton Buildings, Inc.

LUMBER SPECIFICATION:
Lower Chord - No. 1 - KD19 or MSR 2400f - 2.0E Southern Pine
Top Chord - MSR 2400f - 2.0E Southern Pine
Web Members - No. 1 - KD19 Southern Pine

TRUSS PLATE SPECIFICATION (ICC Evaluation report No. 3080):
ASTM A-653, Grade A 20 Ga. and 18 Ga. where noted, galvanized steel Morton truss plates identified by a hexagon stamped every 1 1/4" along the center of the plate.

12' INT PORCH FRAME (Q683) - 1'OH - 4/12 (41924500012)

LIVE LOAD	40 PSF
DEAD LOAD	6 PSF
CEILING LOAD	2 PSF
TOTAL LOAD	48 PSF

TRUSS DESIGN SPECIFICATION:
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TRUSS PLATE SPECIFICATION (ICC Evaluation report No. 3080):
ASTM A-653, Grade A 20 Ga. and 18 Ga. where noted, galvanized steel Morton truss plates identified by a hexagon stamped every 1 1/4" along the center of the plate.

12' END PORCH FRAME (Q673) - 1'OH - 4/12 (41927300012)

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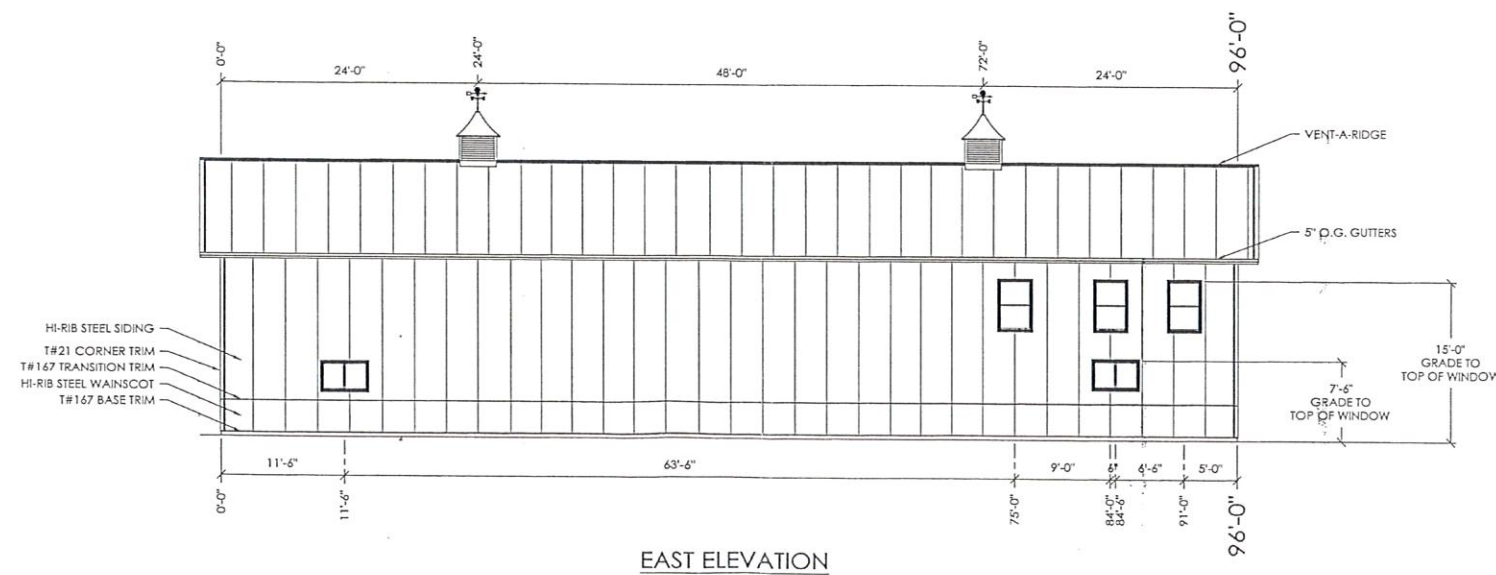
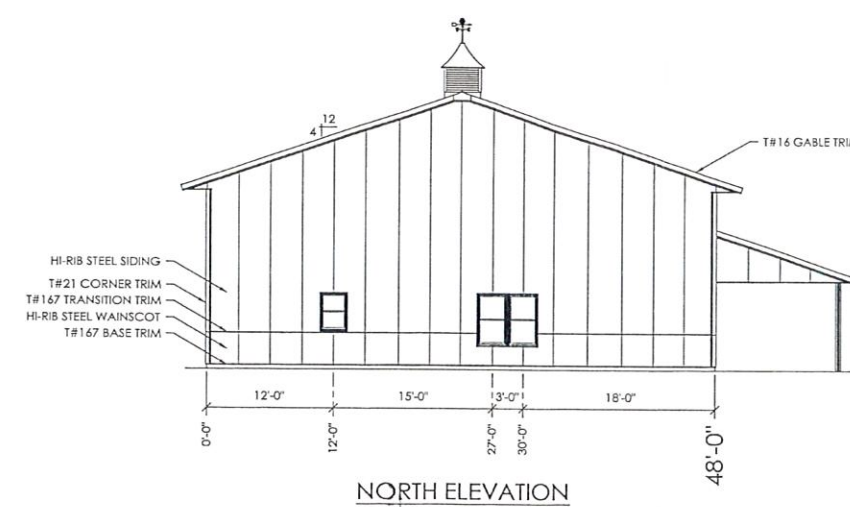
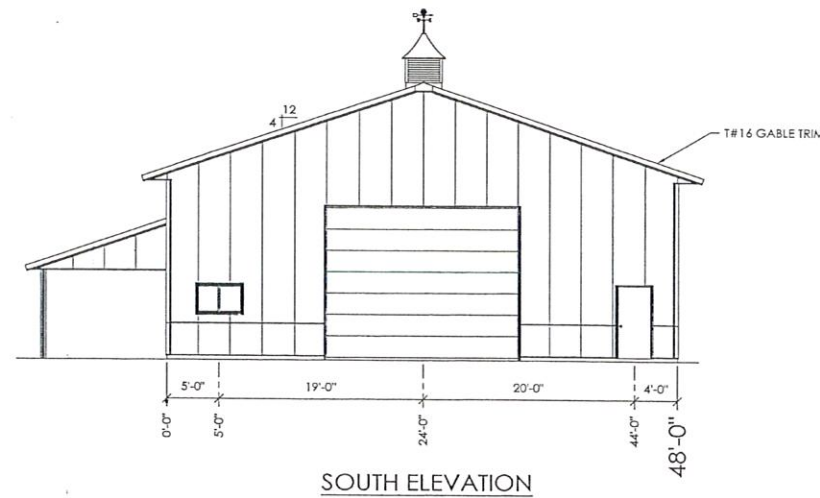
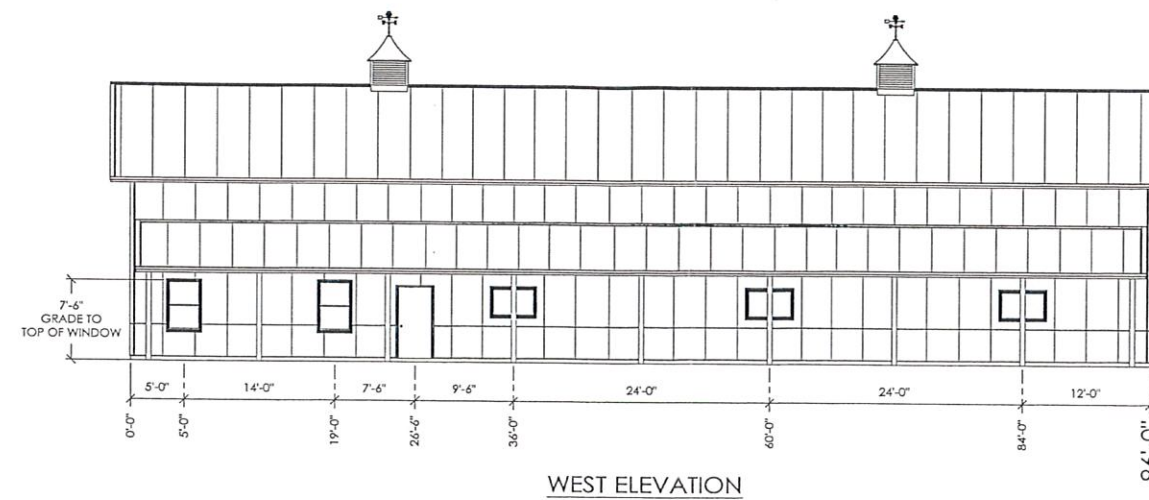
DRAWN BY:	RKS
DATE:	3/2/2018
CHECKED BY:	KMK
DATE:	3/16/2018
REVISED DATE:	---
REVISED DATE:	---
REVISED DATE:	---

SCALE: AS NOTED
SHEET NO.
S2 OF S5

DESIGN AND EXPLANATORY NOTES

1.) EXTERIOR DOOR AND WINDOW LOCATIONS ARE TAKEN FROM THE EXTERIOR FACE OF THE WALLS AND ARE TO THE CENTER OF THE DOOR AND WINDOW UNITS. VERIFY ALL DOOR AND WINDOW LOCATIONS WITH THE OWNER.

OFFICE:
JANESVILLE, MN
JOB NO.
038-077109

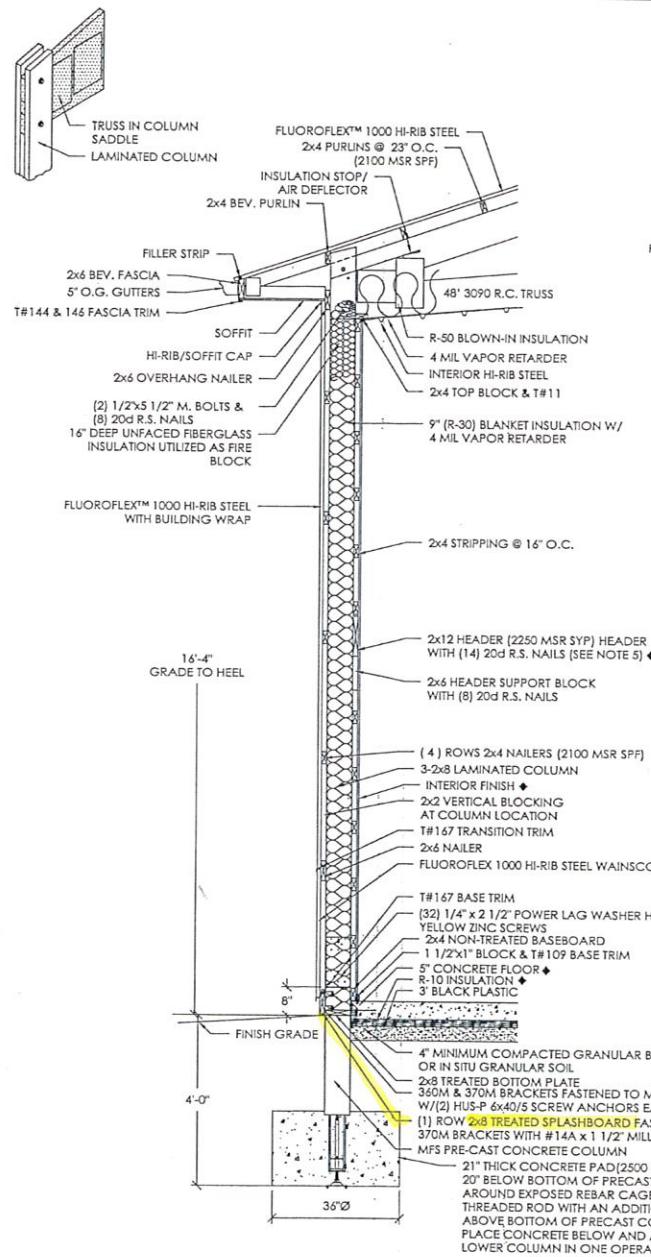


SCALE: AS NOTED
SHEET NO.
S3 OF S5

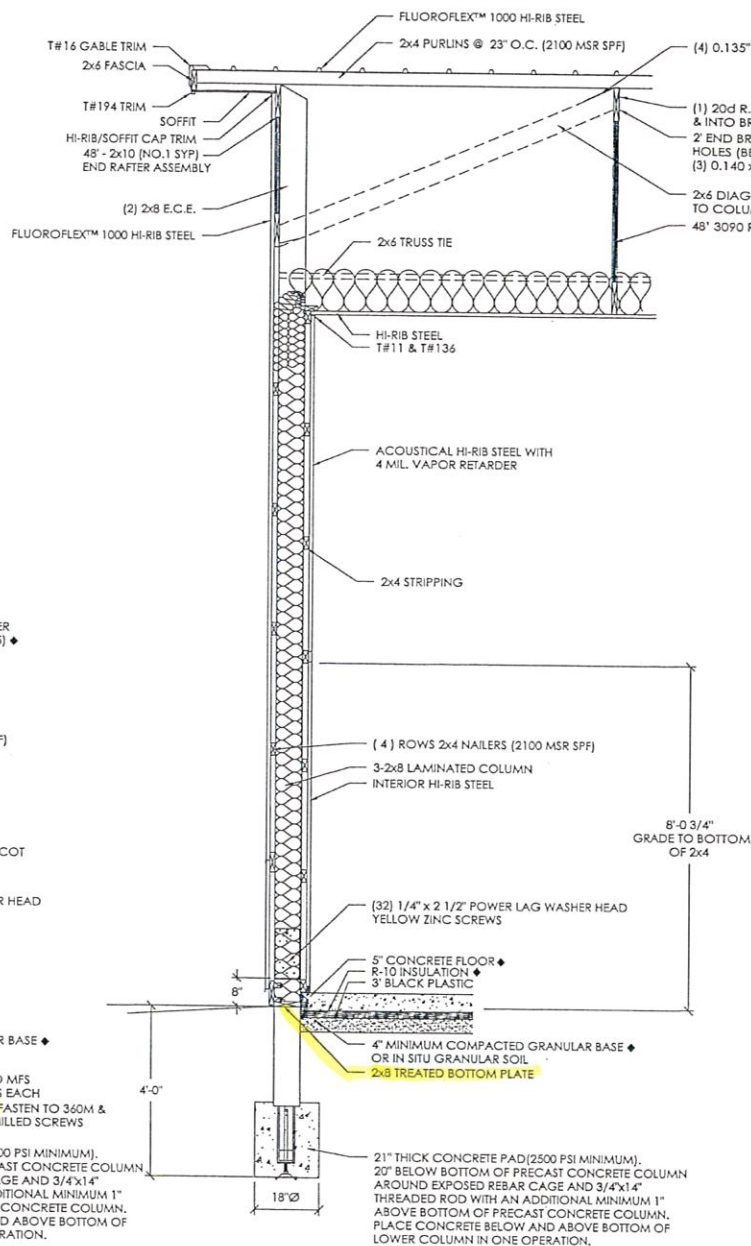
JASON BURG
SAINT PETER, MN

ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.
100 S. PIERCE ST. P.O. BOX 110. MORTON, IL 61550

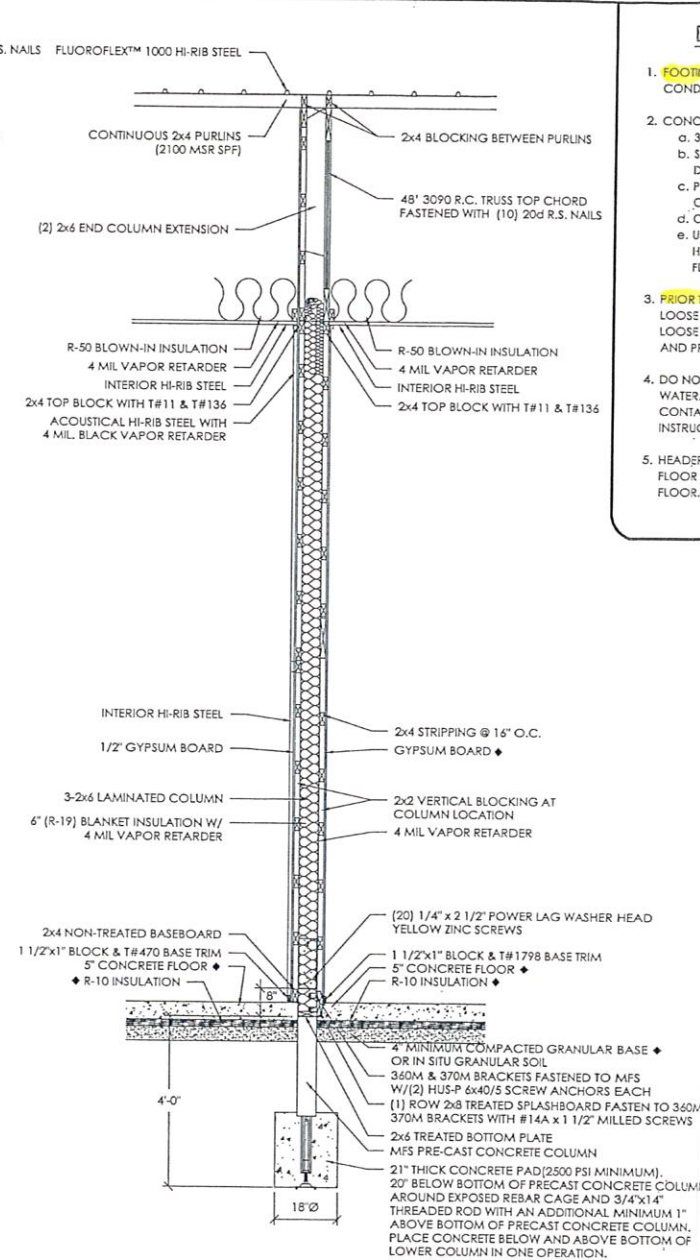
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DATE:	3/2/2018
CHECKED BY:	KMK
DATE:	3/16/2018
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REVISED DATE:	



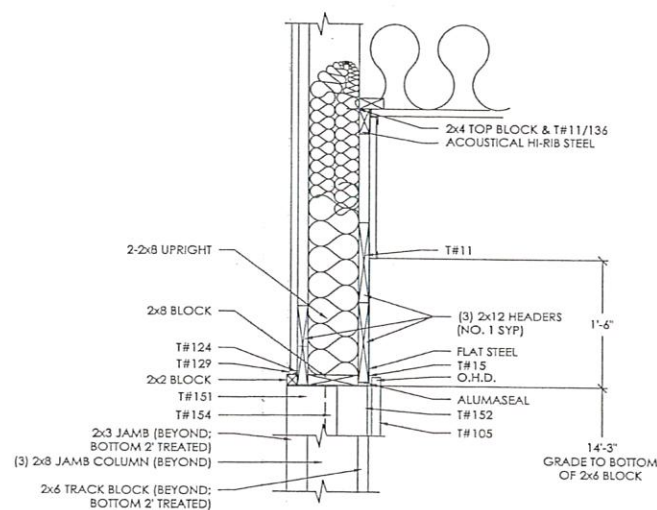
SIDEWALL SECTION A
SCALE: 1/2" = 1'-0"



ENDWALL SECTION B
SCALE: 1/2" = 1'-0"



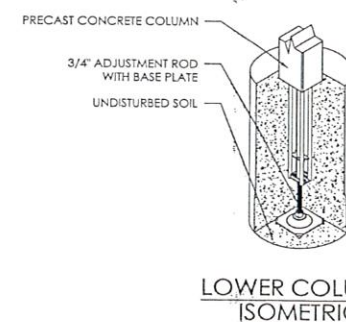
PARTITION SECTION C
SCALE: 1/2" = 1'-0"



OHD HEADER SECTION D
SCALE: 1" = 1'-0"

HEADER NAILING SCHEDULE		
HEADER MEMBER	UPRIGHT	JAMB COLUMN
EA. 2X12	8	8

- NOTES:**
- NUMBERS ABOVE ARE 20d R.S. NAILS REQUIRED PER CONNECTION.
 - PRE-DRILL HEADERS AS REQUIRED TO PREVENT SPLITTING.
 - IF NUMBER OF NAILS REQUIRED FOR HEADER TO JAMB COLUMN CONNECTION IS EXCESSIVE TO CAUSE SPLITTING, THE EXCESS NAILS MAY BE INSTALLED IN HEADER SUPPORT BLOCKING.



LOWER COLUMN ISOMETRIC

LOWER COLUMN INSTALLATION

- INSTALL PRECAST CONCRETE COLUMN W/ADJUSTMENT ROD & BASE PLATE IN THE AUGERED HOLE.
- PLUMB PRECAST CONCRETE COLUMN IN BOTH DIRECTIONS.
- ADJUST HEIGHT UP OR DOWN WITH ADJUSTMENT HEX ROD.
- POUR READY-MIX CONCRETE INTO THE HOLE AS SPECIFIED.
- BACKFILL AND COMPACT THE ANNULAR SPACE AROUND THE COLUMN TO GRADE WITH SOIL AUGERED FROM THE SITE.

DESIGN AND EXPLANATORY NOTES

- FOOTINGS** ARE DESIGNED FOR A 2000 PSF SOIL BEARING CAPACITY. LOCAL CONDITIONS MAY REQUIRE MODIFICATIONS.
- CONCRETE FLOOR NOTES:**
 - 3500 PSI, 5 1/2 BAG MIX CONCRETE.
 - SLOPE GRADE AWAY FROM BUILDING @ 1" PER FOOT FOR A MINIMUM DISTANCE OF 10' PLUS OVERHANG WIDTH.
 - PLACE A MINIMUM 6 MIL POLYETHYLENE VAPOR RETARDER OVER A COMPACTED GRANULAR BASE AND DIRECTLY BELOW THE CONCRETE FLOOR.
 - CONTRACTION JOINTS UNIFORMLY SPACED 15' O.C. OR LESS.
 - USE 2" TYPE VI EXTRUDED POLYSTYRENE OR A COMPARABLE PRODUCT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 40 PSI UNDER ENTIRE FLOOR.
- PRIOR TO PLACING THE CONCRETE FOOTINGS**, HAND TAMP THE BOTTOM 2'-3" OF LOOSE SOIL TO CONSOLIDATE. IF THE DRILLED HOLE CONTAINS MORE THAN 3" OF LOOSE SOIL, REMOVE EXCESS SOIL TO A UNIFORM THICKNESS OF 2'-3", HAND TAMP AND PROCEED WITH CONCRETE FOOTING PLACEMENT.
- DO NOT PLACE **CONCRETE FOOTING** THROUGH MORE THAN 3" OF STANDING WATER. IF MORE THAN 3" OF STANDING WATER IS PRESENT IN THE FOOTING HOLE, CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR INSTALLATION INSTRUCTIONS.
- HEADER AND FOOTINGS ARE DESIGNED FOR 350 PLF ALONG HEADER FOR FUTURE FLOOR SYSTEM. BOTTOM OF HEADER IS TO BE LOCATED AT 6'-1" ABOVE CONCRETE FLOOR. (VERIFY)



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Michael W. Cook
 Date: 8-21-18 Reg. No. 22398

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JANESVILLE, MN
JOB NO.
038-077109

JASON BURG
SAINT PETER, MN

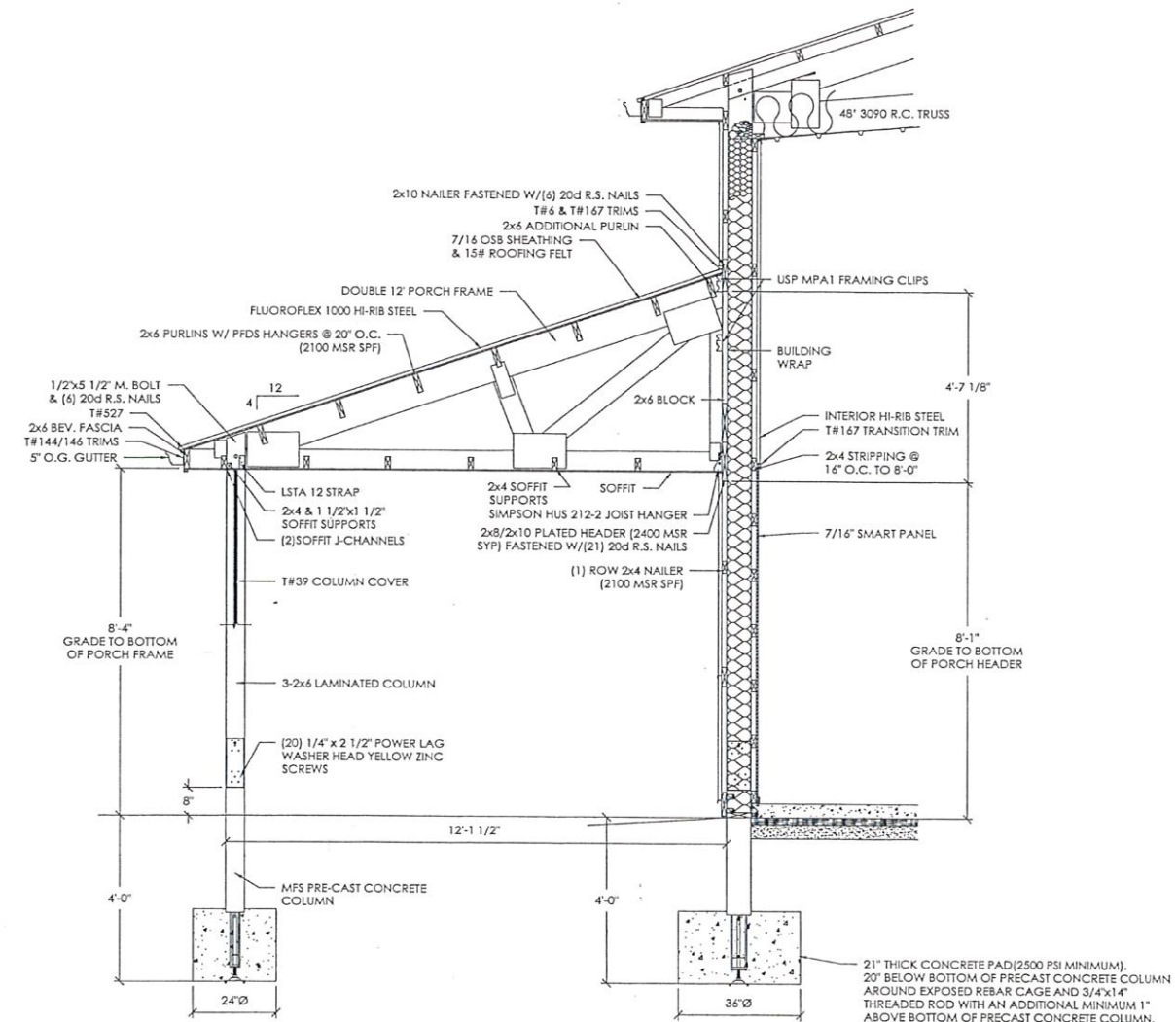
ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.
100 S. PIERCE P.O. BOX 110 MORTON, IL 61550
PHONE NUMBER: 309-263-1105

DRAWN BY:	RKS
DATE:	3/2/2018
CHECKED BY:	KMK
DATE:	3/16/2018
REVISED DATE:	---
REVISED DATE:	---
REVISED DATE:	---

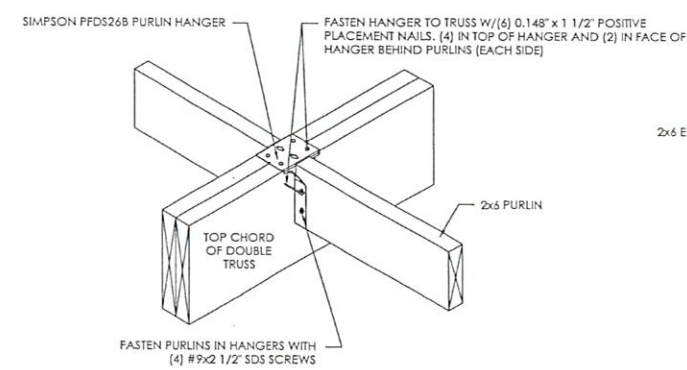
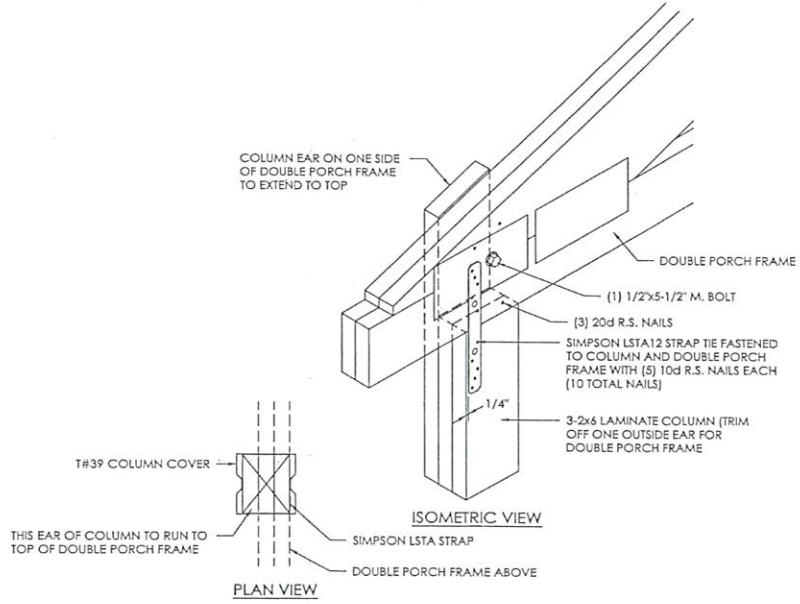
SCALE: AS NOTED
SHEET NO.
S4 OF S5

JASON BURG
SAINT PETER, MN

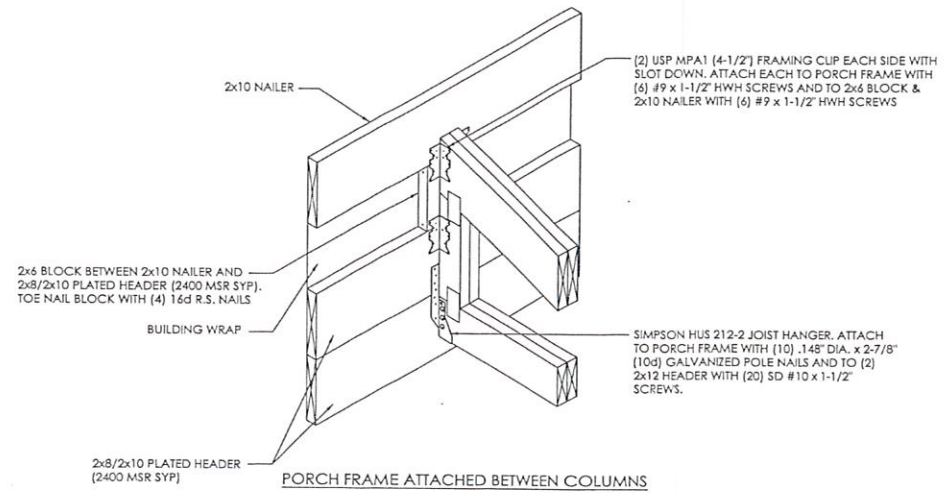
ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.
100 S. PERSHING P.O. BOX 110 MORTON, IL 61550
PHONE NUMBER: 309-263-4105



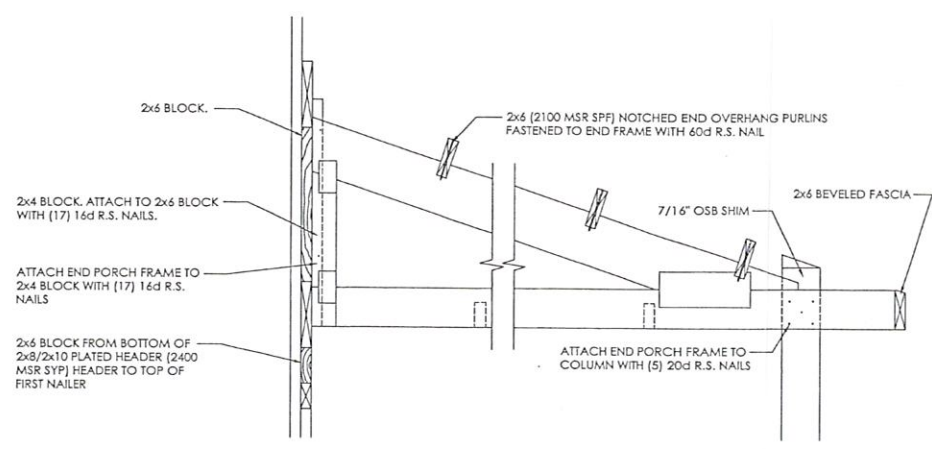
12' PORCH SECTION E
SCALE: 1/2" = 1'-0"



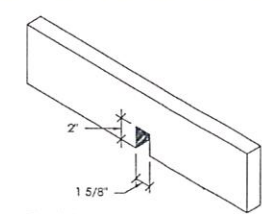
PURLIN HANGER DETAIL
SCALE: 1 1/2" = 1'-0"



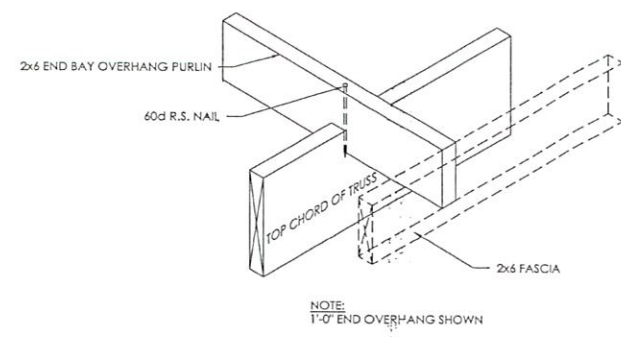
PORCH FRAME ATTACHED BETWEEN COLUMNS



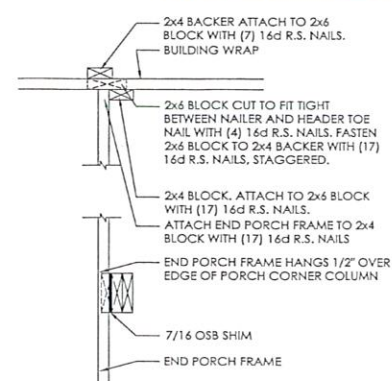
END VIEW OF END PORCH FRAME (SHOWN WITH END OVERHANG)
SCALE: 1/2" = 1'-0"



2x6 END BAY PURLIN NOTCH DETAIL



2x6 END OVERHANG DETAIL
SCALE: 1 1/2" = 1'-0"

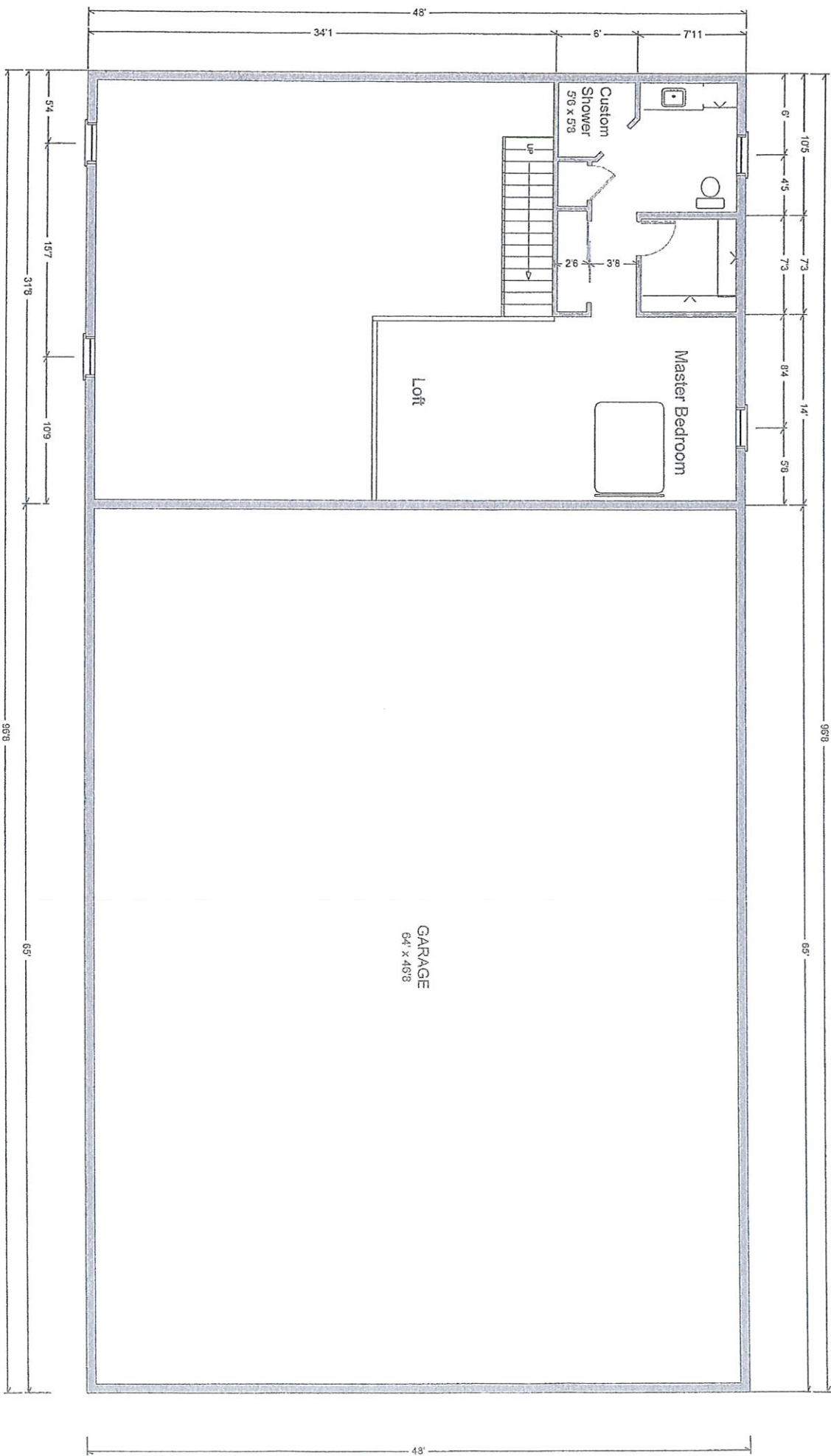


PORCH ENDS ALONG BUILDING

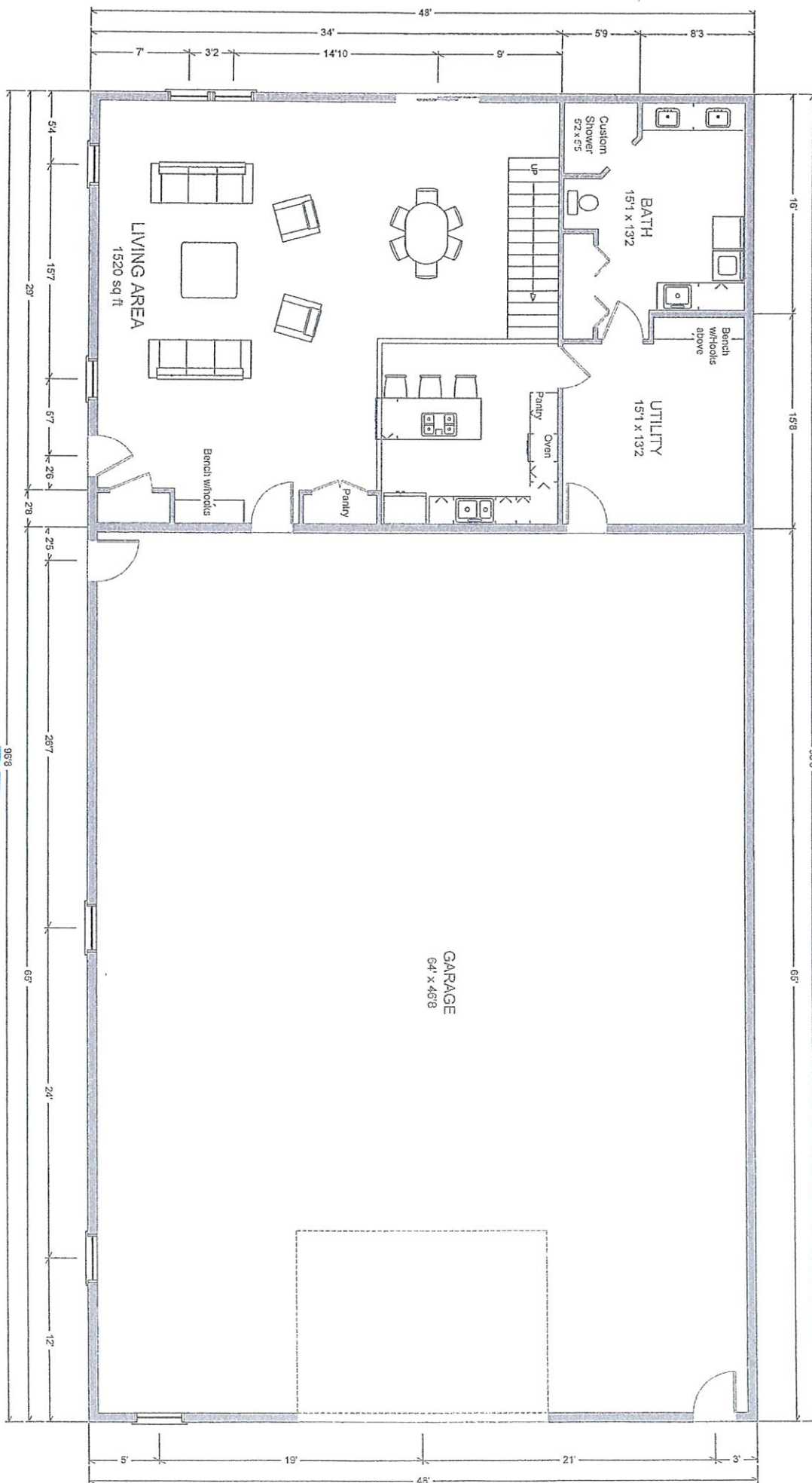
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Michael J. McConaha
E-33 9-21-18 Reg. No. 22008

DRAWN BY:	RKS
DATE:	3/2/2018
CHECKED BY:	KMK
DATE:	3/16/2018
REVISED DATE:	
REVISED DATE:	
REVISED DATE:	

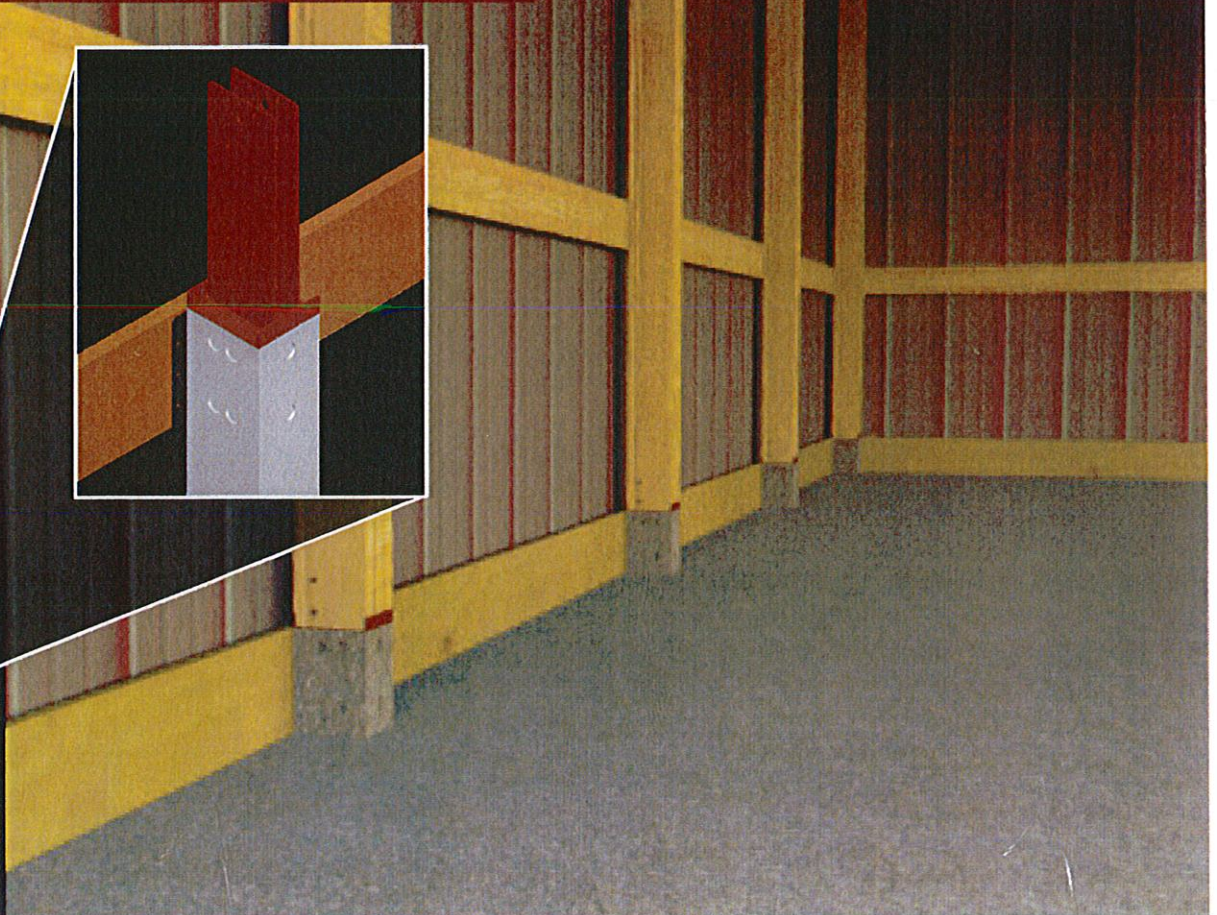
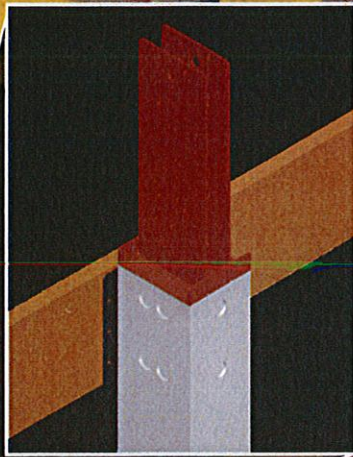
SCALE: AS NOTED
SHEET NO.
S5 OF S5



RECEIVED
AUG 21 2018
BY: _____

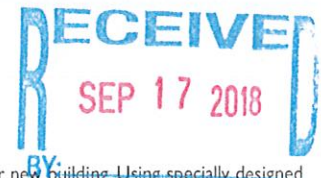


RECEIVED
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 BY: _____



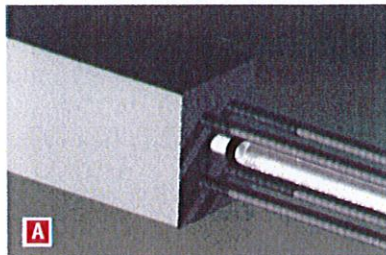
Build on a Strong Foundation

Morton Buildings Foundation System

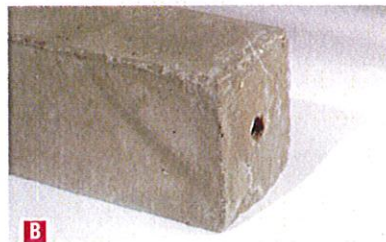


Morton Buildings has engineered a foundation system that offers superior strength for your new building. Using specially designed components and superior materials, the Morton foundation system can be used in all climate conditions.

This exclusive foundation system consists of several components:

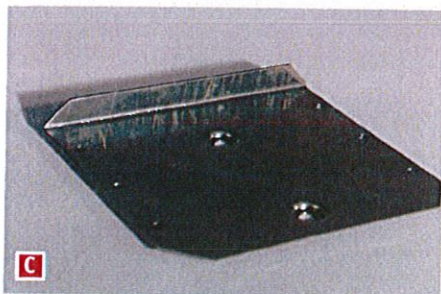


Internal Threaded Adjustment Bracket. The internally threaded bracket is used to set all the foundation columns to the same height during construction to give your building an aesthetically pleasing interior look. The integrity of your building begins with the foundation and our system starts your project off at a flush and level framing point column after column. The internally threaded bracket also connects your building to the concrete footing and anchors your building against wind uplift.

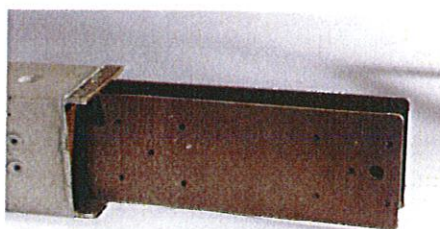


Concrete Column. With a precast concrete column that is second to none, the specially designed mix uses the latest technology in concrete. This formula uses ingredients to create a concrete that inhibits steel rebar corrosion, withstands shock, increases durability to freeze/thaw and gives an attractive, smooth concrete finish with a 10,000 psi compressive strength. Our concrete strength is 2.5 times greater than a typical concrete foundation wall and footing system. Some of the tallest buildings in the world use similar high performance concrete to achieve heights that only this type of concrete can support.

800-447-7436 • mortonbuildings.com

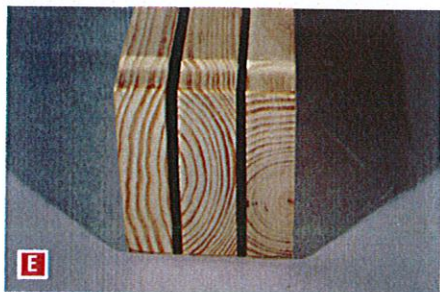


Stainless Splashboard Bracket. This bracket connects the splashboard to the concrete columns. With the awareness that this bracket is typically exposed to a corrosive environment, we've taken the extra step to provide a stainless steel bracket that is far superior in corrosion resistance than that of galvanized or painted steel.



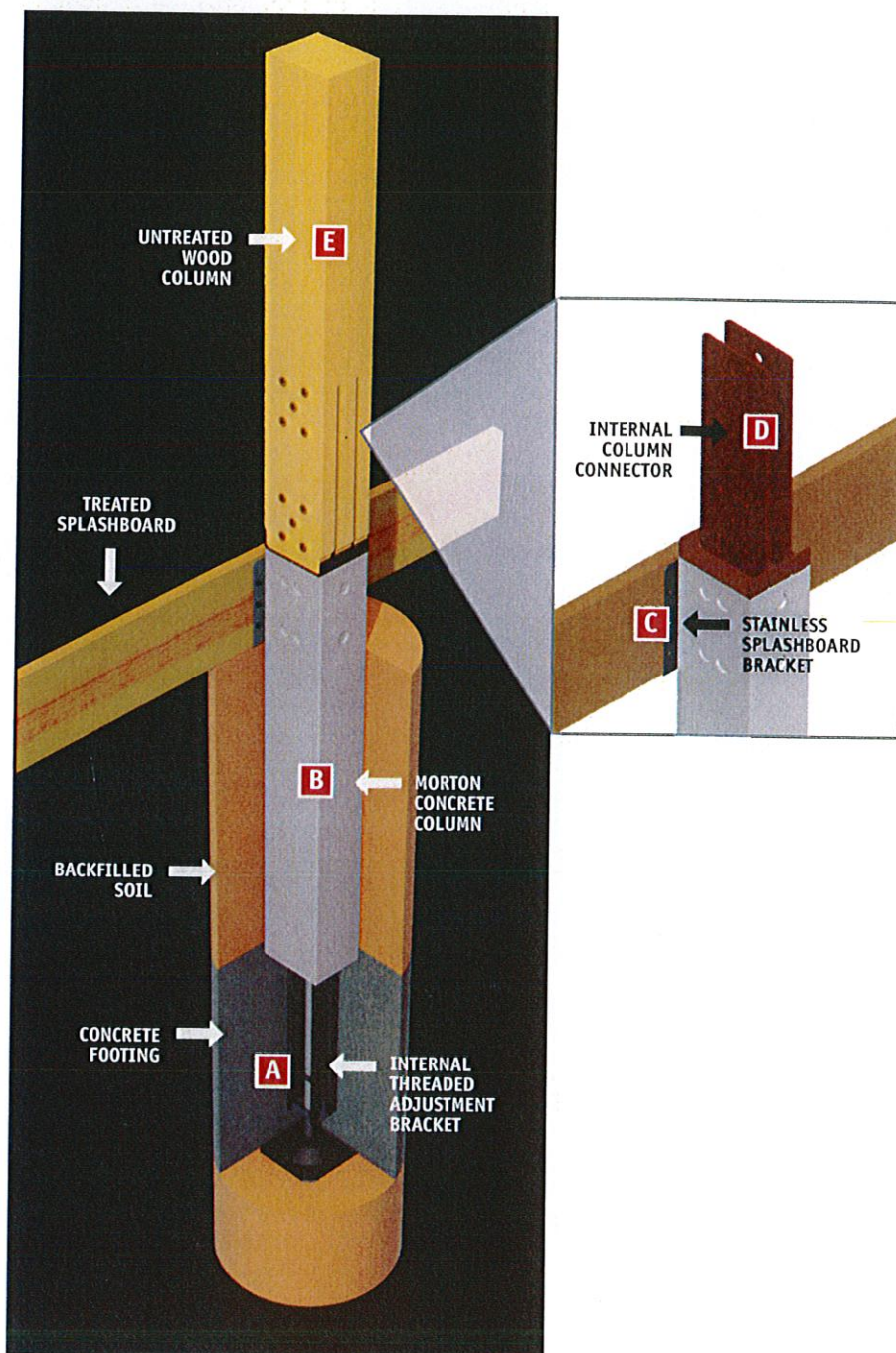
D

Internal Column Connector. The powder coated bracket connects the concrete column to our custom tailored notched/groove laminated wood column to provide a rigid structural connection. With our wood columns in place you'll barely see the bracket, giving you a sleek appearance that you won't find with other precast foundation systems.



E

Wood Column. Our dependable, three-member, laminated No. 1 Southern Yellow Pine columns minimize the possibility of warping and twisting that may occur with solid posts. This core product has been used for decades to provide strength and durability.



MORTON BUILDINGS®

Contact Your Local Morton Buildings Office for More Information
Janesville, MN • 507-234-5186

Colors reproduced in this brochure are for illustrative purposes only and may vary from actual colors or finishes. Construction details and material specifications shown are subject to change without notice. Patented Product used with permission of Perma-Column, Inc. © 2013 Morton Buildings, Inc. A listing of GC licenses available at mortonbuildings.com/licenses.aspx. Form #SS28/2/13.

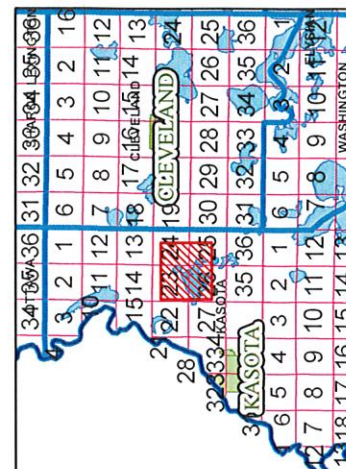
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LE SUEUR COUNTY ENVIRONMENTAL SERVICES

NAME: Burg
 PID: 05.023.2600
 DATE: 10-09-18
 FIRM #: 27079C0235D
 F-Zone: X-outside
 RFPE: na
 District: Agriculture

LE SUEUR COUNTY
 ENVIRONMENTAL SERVICE
 507-357-8538



Map Disclaimer

Reasonable efforts have been made by the Le Sueur County GIS Department to verify that these maps accurately interpret the source data used in their preparation. However, a degree of error is inherent in all maps. These maps may contain omissions and errors in scale, resolution, rectification, positional accuracy, development methodology, interpretation of source data, and other circumstances.

*The maps are date specific and are intended for use only at the published scale.

*These maps should not be used for navigational, engineering, legal, or any other site-specific use.

Coordinate System: NAD 1983 HARN Adj MN Le Sueur Feet

Photo dated April/May 2017

Created By: MRM

