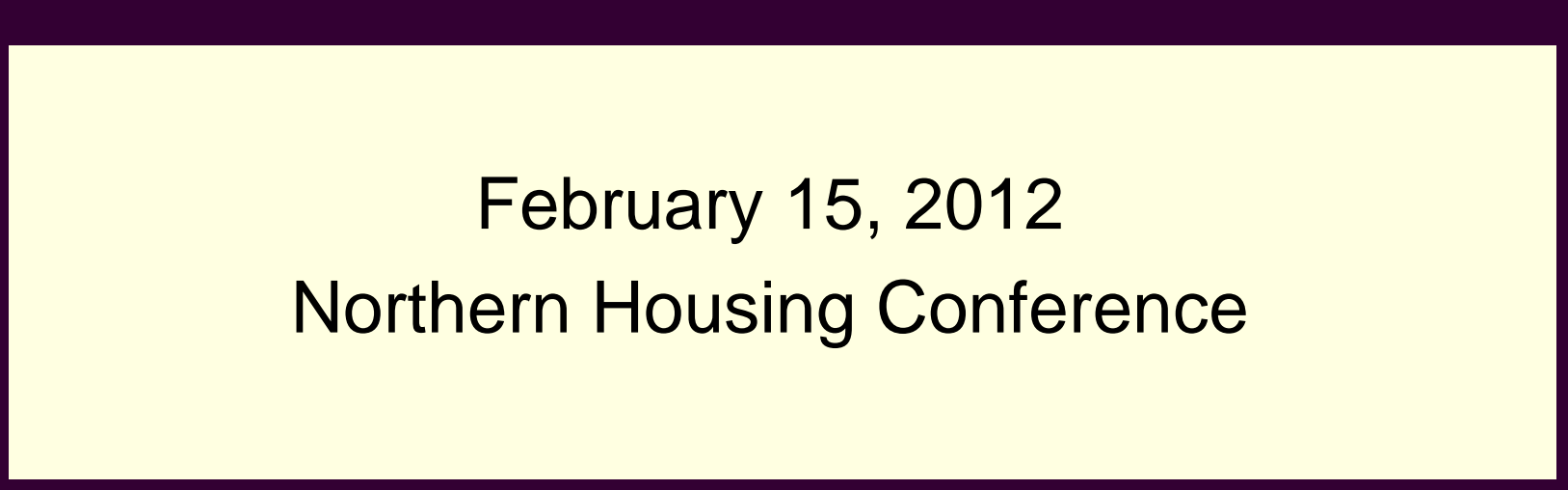




# Plan Reading



February 15, 2012  
Northern Housing Conference



## MILESTONE CONSTRUCTION SOLUTIONS

- New Homes
  - Renovations
  - Commercial Buildings
  - Structural Insulated Panels
- 
- Durable
  - Economical
  - Energy Efficient
  - Capacity Building
  - Construction Supervision
  - Products
  - Technical Expertise
  - Estimating
  - Training
  - Design / Drafting

- 
- Established in 2005 with the assistance of the Nishnawbe Aski Development Fund and Aboriginal Business Canada

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- 2007 and 2009 Winner

“ CMHC Building Communities Award”

At the 17<sup>th</sup> an 19<sup>th</sup> Annual NADF Business Awards



# Plans

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- Project Plans can include;
  - Drawings
  - Specifications
  - Contract Documents
  - Changes (Addenda)

# Drawings

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- Drawings are a means of communicating information in a two dimensional format using lines, symbols and text. They are a graphical representation of the proposed building.
- Drawings provide:
  - Location of the component;
  - Name of the component;
  - Size and dimension;
  - Shape and form;
  - Connection details.

- 
- **The drawings are used by:**
  - **The designer**, to communicate the project particulars to the project team.
  - **The owner**, to ensure the project meets their requirements and to form part of the contract with the contractor.
  - **Bidders**, to prepare bids and obtain bids from their suppliers and subcontractors.
  - **The contractor**, to guide them in carrying out the work and to form part of the contract with the owner.
  - **The 'authority having jurisdiction'**, to verify that the project conforms to existing regulations.

# Drawing Types

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- Presentation Drawings
- Plans (site plan, foundation plan, roof plan & floor plans)
- Elevations
- Sections
- Details
- Schedules



# Presentation Drawings

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- A picture is worth a thousand words
- Displays the house in an easily understood form
- Attempts a realistic view of the finished project
- Displays all three dimensions
- Shows both horizontal and vertical planes

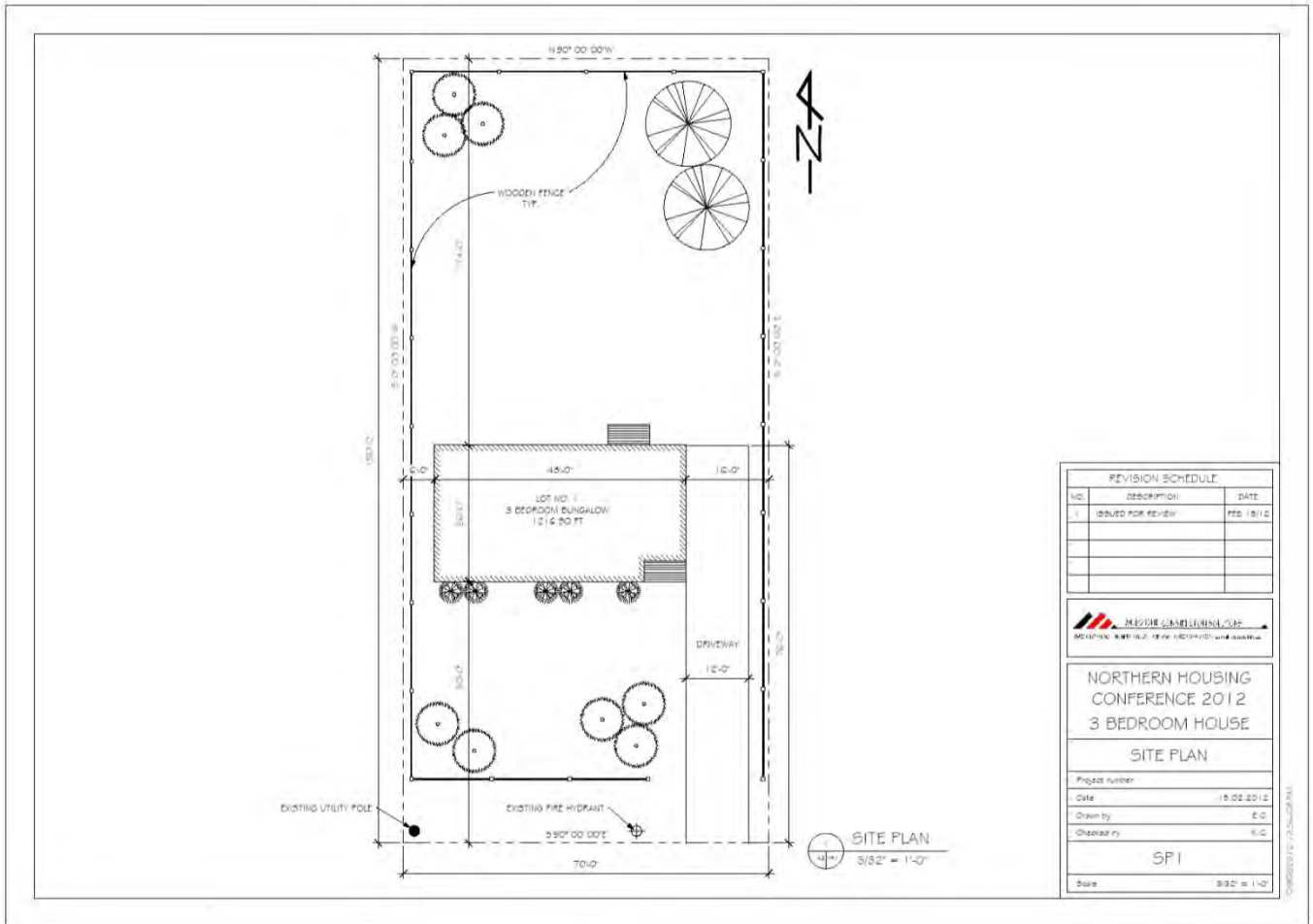




# Site Plan

---

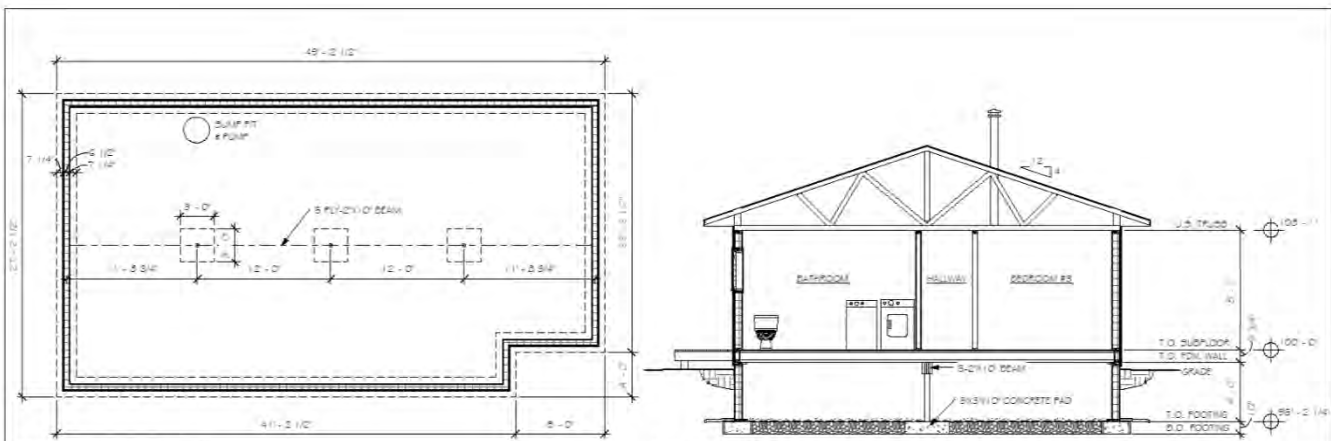
- A Site Plan identifies buildings and other features in relation to property boundaries. It must identify the proposed changes to the lot created by the project. Most of the information required for the site plan can be found on the property survey.
- A Site Plan typically includes the following information;
  - Title, scale and north arrow,
  - Proposed construction indicating use, shape, size and dimension,
  - Position of the proposed construction on the site,
  - Set backs to all property lines,
  - Property lines and dimensions,
  - Rights of way and easements,
  - Septic tanks, beds and wells (if applicable),
  - Piped water and sewer connections (if applicable),
  - Existing grades and proposed grades,
  - Existing buildings or structures,
  - Driveway, parking and sidewalk areas,
  - Reference elevations ( benchmarks),



# Foundation Plan

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- A Foundation Plan shows foundation type and dimensions, including footing and column locations and dimensions. The size, direction and spacing of structural members must be shown.
- A Foundation Plan typically includes the following information;
  - Title and Scale,
  - Footing construction and dimension,
  - Foundation wall construction and dimension,
  - Slab construction,
  - Structural member dimension, location and material,
  - Drainage system,
  - Sump pit and pump,
  - Window size and location,
  - References to cross sections and details.



1 FOUNDATION PLAN  
3/16" = 1'-0"

2 SECTION 1  
1/4" = 1'-0"



3 SECTION 2  
1/4" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB 15/12



NORTHERN HOUSING CONFERENCE 2012  
3 BEDROOM HOUSE

FDN. PLAN & SECTIONS

Project number: 19-00-20112

Date: 1/9/2012

Drawn by: E.C.

Checked by: K.C.

Scale: As indicated

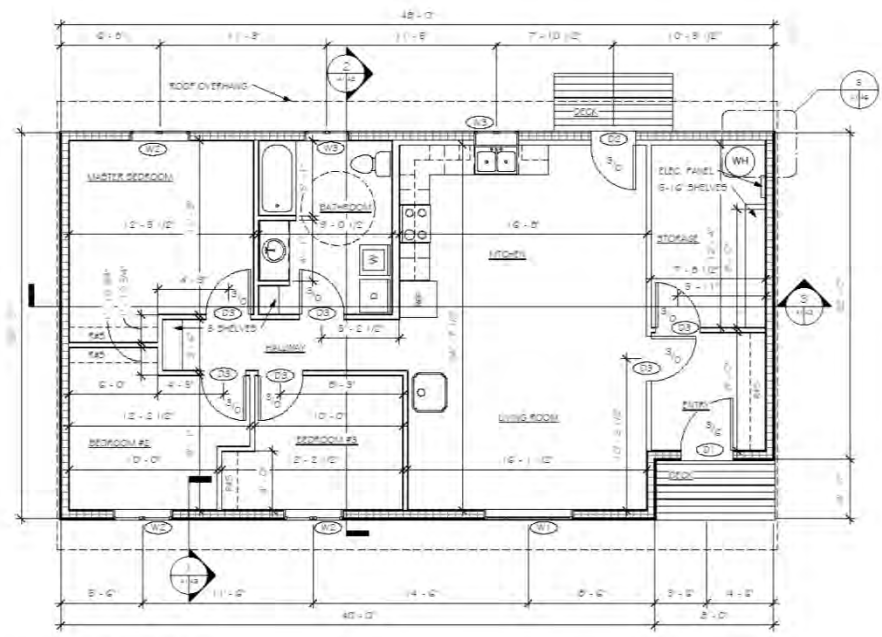
19-00-20112-01-01-01


# Floor Plans





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- Floor Plans provide a 'birds eye view' of the different floor levels. They show scaled dimensions of the project, including rooms, spaces and other features. The size direction and spacing of structural members must be shown.
- A Floor Plan typically includes the following information;
  - Title and scale,
  - Exterior wall dimension and construction,
  - Interior partition location, dimension and construction,
  - Out to Out building dimensions,
  - Door and window size and location,
  - Room names,
  - Structural member dimension, location and material,
  - Plumbing fixtures,
  - Fans,
  - Heating appliances,
  - References to cross sections and details.






**MAIN FLOOR PLAN**  
 1/4" = 1'-0"

- 
**EXTERIOR WALL TYPE**  
 CONCRETE FOUNDATION  
 1" x 3" STRAPPING  
 WEATHER BARRIER  
 1/2" G.I. P.  
 7/16" O.S.B.  
 8" RIGID INSULATION  
 7/16" O.S.B.  
 1/2" GYPSUM BOARD
- 
**BASIC INTERIOR WALL**  
 1/2" GYPSUM BOARD  
 2x4 STUDS @ 16" O.C.  
 1/2" GYPSUM BOARD
- 
**FLAMING WALL**  
 1/2" GYPSUM BOARD  
 2x4 STUDS @ 16" O.C.  
 1/2" GYPSUM BOARD
- 
**WALL TYPES**  
 1/2" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB 19/12


**NORTHERN HOUSING**  
 CONFERENCE 2012  
 3 BEDROOM HOUSE  
**MAIN FLOOR PLAN**

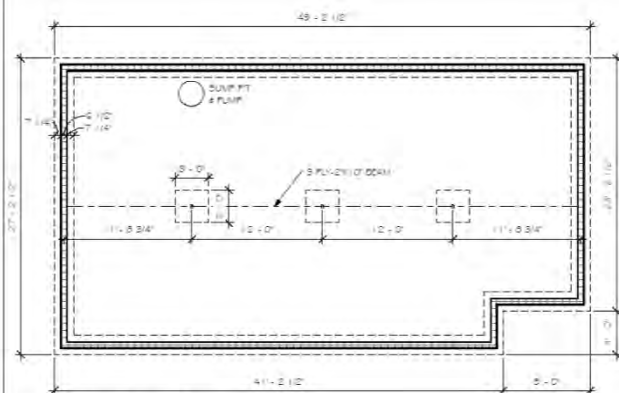
Project number:	
Date:	18.02.2012
Drawn by:	E.C.
Checked by:	K.C.
A1	
Scale:	As indicated

INFORMATION @ 2012-02-14

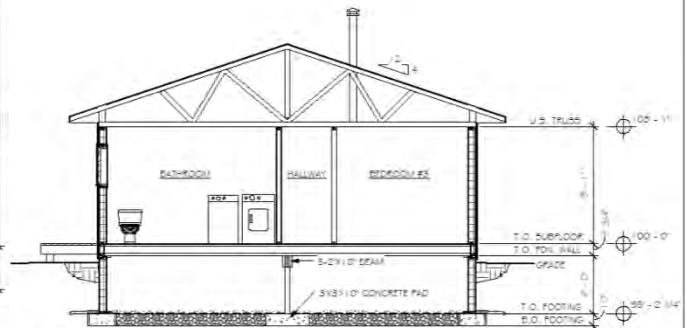
# Sections

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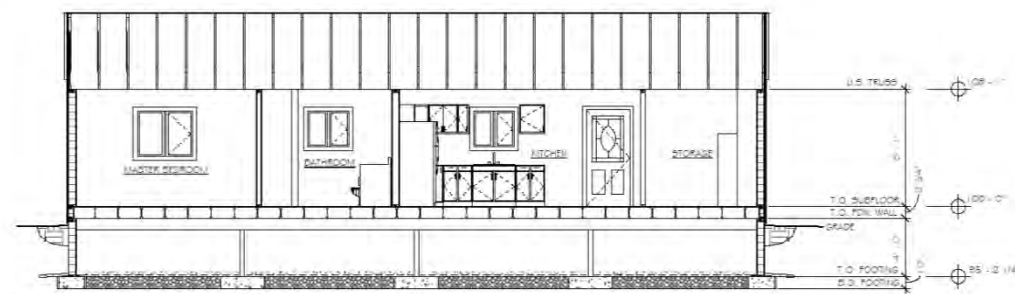
- Sections show a view along an imaginary line cut through the building, showing its structural and construction elements. The section exposes and identifies construction elements of the roof, walls, floors and foundation.
- A section typically includes the following information;
  - Title and scale,
  - Building components ( walls, roof, floors, foundation etc.),
  - Top of top plate elevation,
  - Top of floor sheathing elevation,
  - Top of finish grade elevation,
  - Bottom of footing elevation,
  - Height dimensions,
  - Size and type of materials,
  - Roof pitch.



FOUNDATION PLAN  
3/16" = 1'-0"



SECTION 1  
1/4" = 1'-0"



SECTION 2  
1/4" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB. 15/12



NORTHERN HOUSING  
CONFERENCE 2012  
3 BEDROOM HOUSE  
FDN. PLAN & SECTIONS

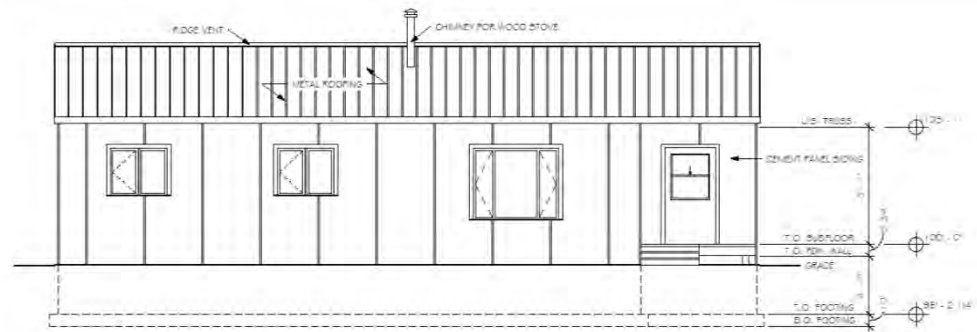
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Drawn by	E.C.
Checked by	N.C.
A2	
Scale	As indicated

150800018 (12-03) 1/2"=1'-0"

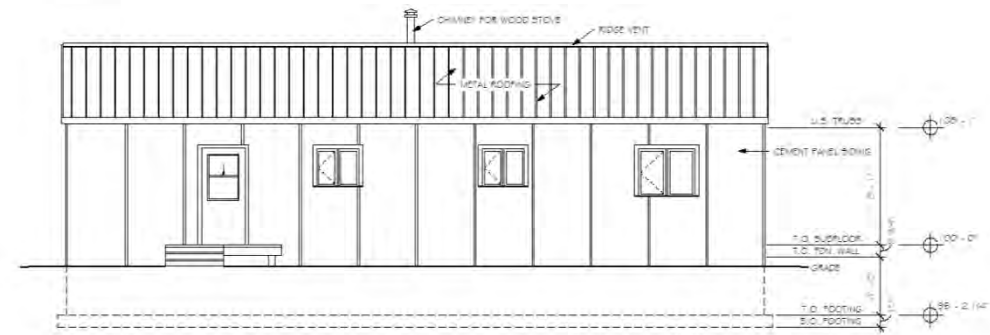
# Elevations

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- Elevations show the exterior views of a building for each building face. The drawings indicate the exterior finish information.
- An elevation typically includes the following information;
  - Title and scale,
  - Exterior building elements (windows, gutters etc.),
  - Exterior finishes and materials,
  - Top of top plate elevation,
  - Top of floor sheathing elevation,
  - Top of finish grade elevation,
  - Height dimensions,
  - Roof pitch,
  - Exterior stairs, guards & handrails,
  - Roof venting
  - Window types.



FRONT ELEVATION  
1/4" = 1'-0"



REAR ELEVATION  
1/4" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB. 15/12

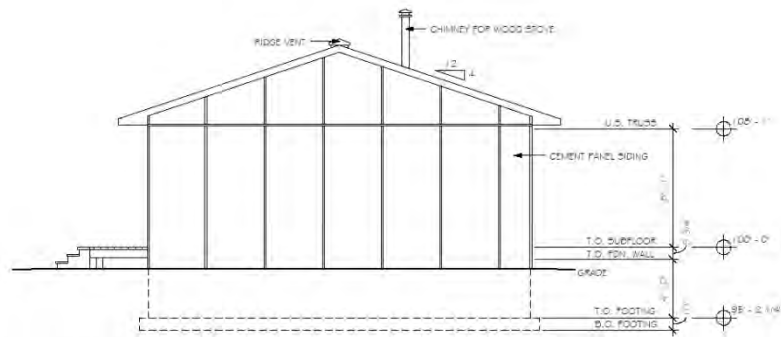


NORTHERN HOUSING  
CONFERENCE 2012  
3 BEDROOM HOUSE

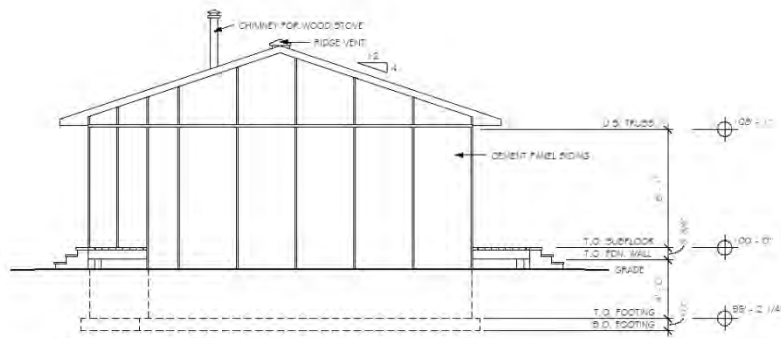
ELEVATIONS

Project number	
Date	18.02.2012
Drawn by	E.C.
Checked by	A.C.
A4	
Scale	1/4" = 1'-0"

NORTHERN HOUSING CONFERENCE 2012



1 LEFT ELEVATION  
1/4" = 1'-0"



2 RIGH ELEVATION  
1/4" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB. 15/12



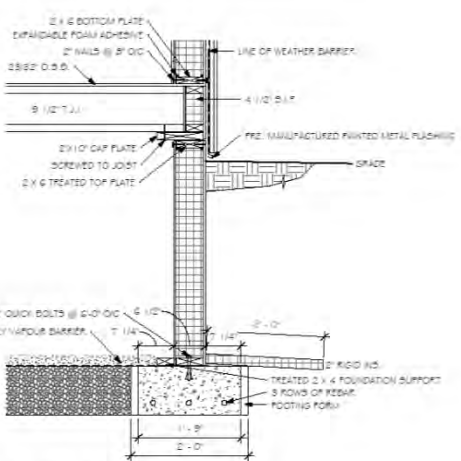
NORTHERN HOUSING CONFERENCE 2012 3 BEDROOM HOUSE	
ELEVATIONS	
Project Number	
Date	15.02.2012
Drawn by	E.C.
Created by	H.C.
A5	
Scale	1/4" = 1'-0"

CONSULTANT: J. J. J. ARCHITECTS

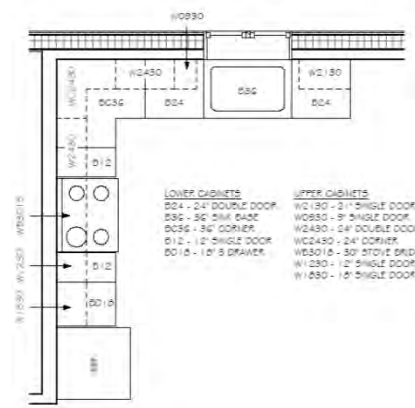
# Details

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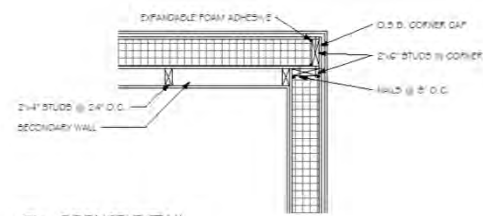
- Details are large scale drawings to provide information on the assembly and interrelationship of various materials and components. Details sometimes illustrate typical conditions but are more useful in depicting special or unusual conditions.
- The following elements should be detailed;
  - Walls, including intersections with floors and roofs,
  - Stairs,
  - Any custom construction component.



FOUNDATION DETAIL  
1/4" = 1'-0"



CABINET LAYOUT  
1/2" = 1'-0"



CORNER DETAIL  
1/4" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB. 19.12



<b>NORTHERN HOUSING CONFERENCE 2012 3 BEDROOM HOUSE</b>	
<b>DETAILS</b>	
Project Number	
Date	19.02.2012
Drawn by	E.C.
Checked by	J.C.
<b>AG</b>	
Date	As indicated

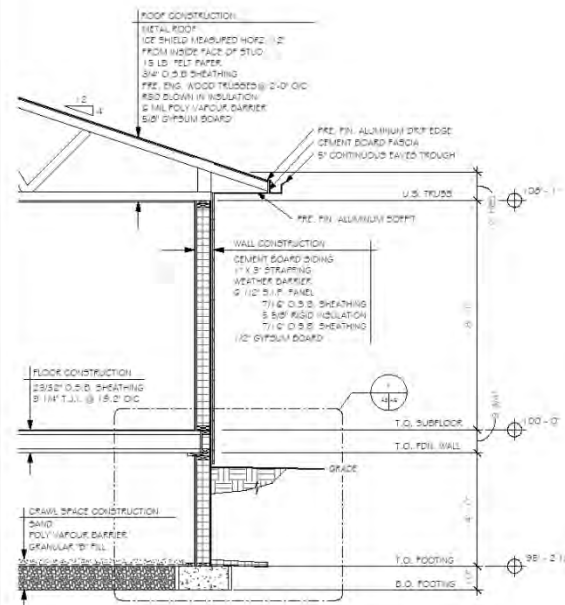
TRANSMONT A. LAMALLE INC.



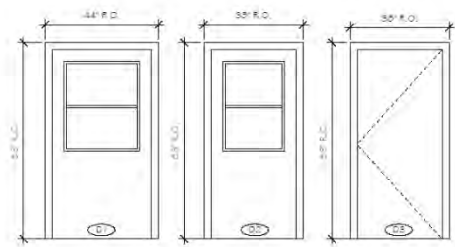
# Schedules

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- When appropriate information can be presented in a schedule – usually a list or table containing information on similar construction elements.
- Typical elements presented in this format are;
  - Doors and frames,
  - Door hardware,
  - Windows,
  - Room finishes.



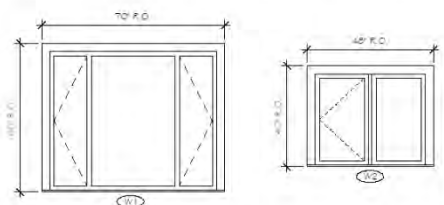
WALL SECTION  
1/2" = 1'-0"



**DL & DR**  
STEEL INSULATED DOOR  
CW VINYL CLAD™ JAMB - DUAL  
LOW E ARGON FILLED (VENTING UTE  
ENERGY STAR RATED

**IS**  
INTERIOR DOORS TO BE KNOCK DOWN  
HOLLOW WOODSITE - MEDIUM  
CW FINISHED GLASS CW  
MATCHING JAMB AND STOP

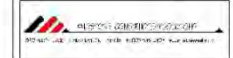
DOOR TYPES  
1/2" = 1'-0"



NOTE: ALL WINDOWS TO BE PVC  
DOUBLE SALICED LOW E ARGON  
GAS FILLED GLAZING  
CASEMENT TYPE  
ENERGY STAR RATED  
W/ 1 1/2\"/>

WINDOW TYPES  
1/2" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	FEB 15/12



NORTHERN HOUSING  
CONFERENCE 2012  
3 BEDROOM HOUSE

SECTION & TYPES

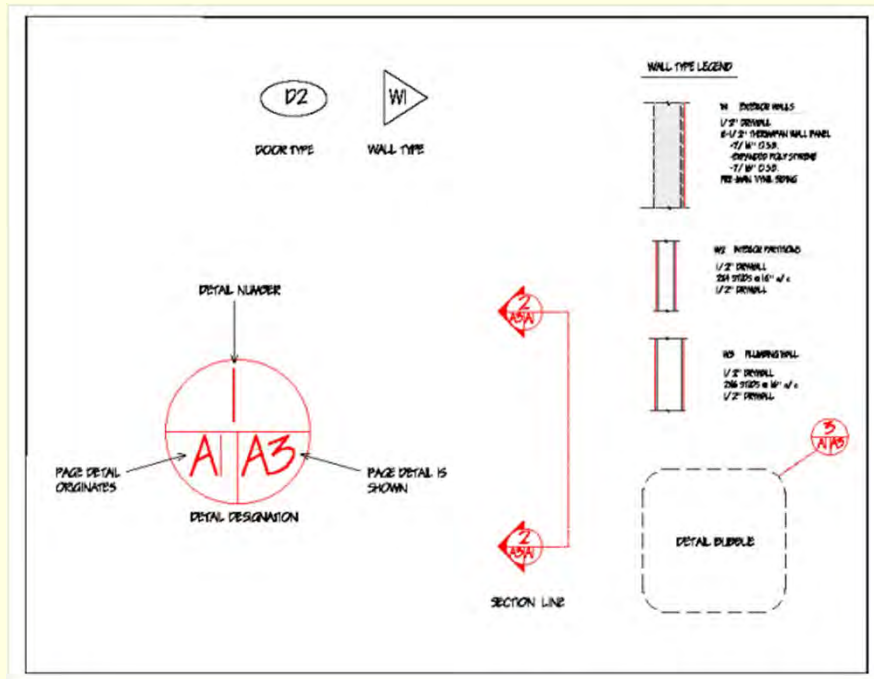
Project number	
Date	15 02 2012
Drawn by	C.C.
Checked by	K.S.
A3	
Scale	1/2" = 1'-0"

CONFERENCE 2012 11/15/2011 11:15:34 AM

# Symbols

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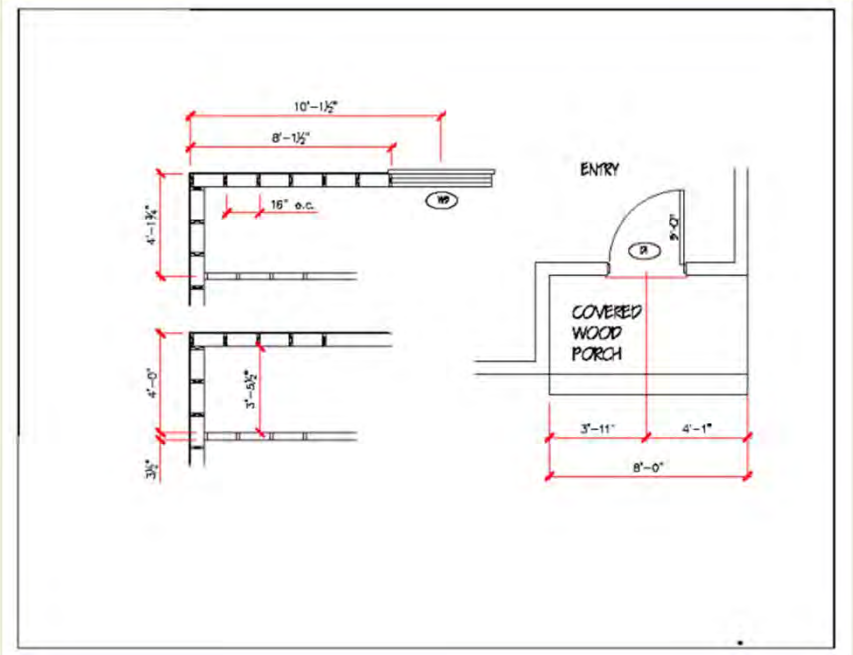
- Detail Designation
- Door Types
- Window Types
- Section lines
- Detail Bubbles
- Wall Type Legend



# Dimensions

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- Dimensions are to face of stud unless otherwise noted
- Doors and windows are dimensioned to the center line of the opening
- Interior walls are dimensioned to the center of the interior wall



# Comments

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- Do not scale drawings – use the dimensions stated on the drawing
- Bring discrepancies to the attention of the designer as soon as possible
- Do not use old plans – codes change and the old drawing may be based on outdated information

- 
- In all cases, the final set of working drawings, together with the construction documents (bid forms, contract forms, contract conditions and specifications) must provide clear, concise, accurate and sufficient information needed to;
  - Prepare accurate construction cost estimates,
  - Obtain a building permit or approval from 'authorities having jurisdiction' and
  - Construct the project.



- 
- **Well formulated contract documents are the key to minimizing changes and avoiding disputes and delays during construction.**
  - **This is the Owners most powerful tool in assuring a positive outcome.**