SWARA
CONSULTING SERVICES INC.

ENGINEERING

EMPOWERING

PROJECTS WITH WOOD ENGINEERING

EXPERTISE

Introduction:

Welcome to Swara Consulting Services Inc., your partner in creating exceptional engineering solutions. We take pride in our commitment to excellence, innovation, and reliability.

Our Mission:

Empowering projects with engineering expertise that translates your organization's brand promise into positive, profitable, and predictable customer experiences across the globe.

Our Vision:

To be thought leaders in customer and service experience in 'Definition, Implementation, and Management,' aiming to become the preferred partner for our target customer segments in all Engineering Sectors & Industries.

Core Values:

Founded on a vision of engineering excellence, Swara Consulting Services Inc. has a rich history of delivering outstanding engineering solutions. Our core values drive us.

Outstanding People: We are dedicated to maximizing contributions, seeking personal growth, and effective collaboration.

Customer Driven: Prioritizing customer needs, we build business-focused relationships through clear communication.

Winning Performance: We focus on results, delivering objectives, going the extra mile, and producing high-quality work on time.

Innovation in Action: We create lasting solutions, seek process improvements, and show flexibility in thought.

Fully Integrated: We champion causes, build networks, overcome barriers, and involve others to deliver customer satisfaction.

Our leadership team embodies these values, bringing their expertise and passion to every project.

Services Overview:

At Swara Consulting Services Inc., we offer a comprehensive range of engineering services that cater to diverse industries and project complexities. Our services are categorized into various domains, each backed by our commitment to excellence, innovation, and client satisfaction.

Wood Engineering: Crafting with Nature's Beauty

We specialize in designing building components using wood for residential and commercial structures. Our wood engineering solutions enhance architectural beauty and structural integrity.

Detailing Services: Precision in Every Detail

Our detailing services cover a wide range of areas, including steel detailing for residential buildings, commercial buildings, industrial buildings, bridges, and more. Our meticulous detail drawings facilitate seamless fabrication and erection processes.

Structural Engineering: Creating Strong and Functional Structures

Our expertise in structural engineering spans from residential to industrial projects. We develop robust structures that can withstand external and internal forces while ensuring safety, longevity, and functionality.

Pre-Engineered Building:

Unlock the future of construction with our Pre-Engineered Building solutions. Benefit from precision engineering, accelerated timelines, and cost-effective excellence. We prioritize sustainability, minimizing waste and contributing to eco-friendly construction practices. Choose innovation and efficiency for your projects.

Transmission tower:

Empower connectivity and reliability with our Transmission Tower solutions. Explore innovative designs, structural integrity, and efficient deployment. We leverage advanced technology to enhance tower performance, ensuring your communication infrastructure is at the forefront of efficiency and durability.

EPC (Engineering, Procurement & Construction): Seamlessly Executing Projects

We excel in providing end-to-end EPC services for sectors like power, steel, sugar, and more. Our comprehensive solutions ensure seamless project execution, from design and procurement to construction and commissioning.

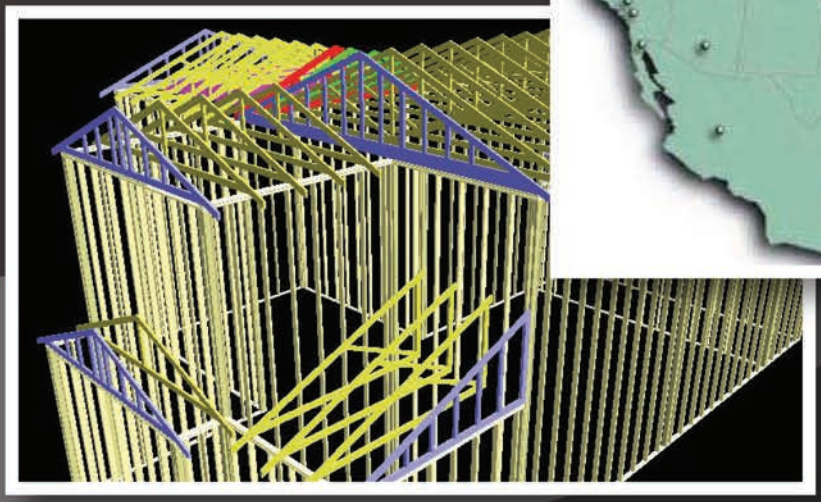
Global Design Centre

GLOBAL DESIGN CENTRE (GDC) HAD

- 40+ DESIGNERS FROM TRAINEES TO 14+ EXP
- 6500+ HOUSES DESIGNED
- DIRECT COMMUNICATION ROUND THE CLOCK WITH RESPECTIVE PLANTS

TYPES OF DESIGN JOBS

- MANUFACTURED
  - FAMILY HOMES (SINGLE & MULTI)
  - COMMERCIAL BUILDINGS/STRUCTURES
- MOBILE & MODULAR
- OPEN JOIST
- I-JOIST
- WALL PANELS



DESIGN SOLUTIONS EXPERTISE IN

- ROOF TRUSS
- FLOOR TRUSS
- MODULAR
- ENGINEERED WOOD PRODUCTS
- WALL PANEL

PLANTS SERVED

- 212-GORDON
- 221-BELCHERTOWN
- 270-BURLESON
- 272-SAN ANTONIO
- 276-LAFAYETTE
- 280-CHESAPEAKE
- 301-NEW WINDSOR
- 343-HOUSTON
- 348-INDY
- 350-DALLAS359-VERO BEACH
- 361-RIVERBANK
- 79E-GRAND RAPID

Type of design jobs Residential Vs Commercial

Residential Homes

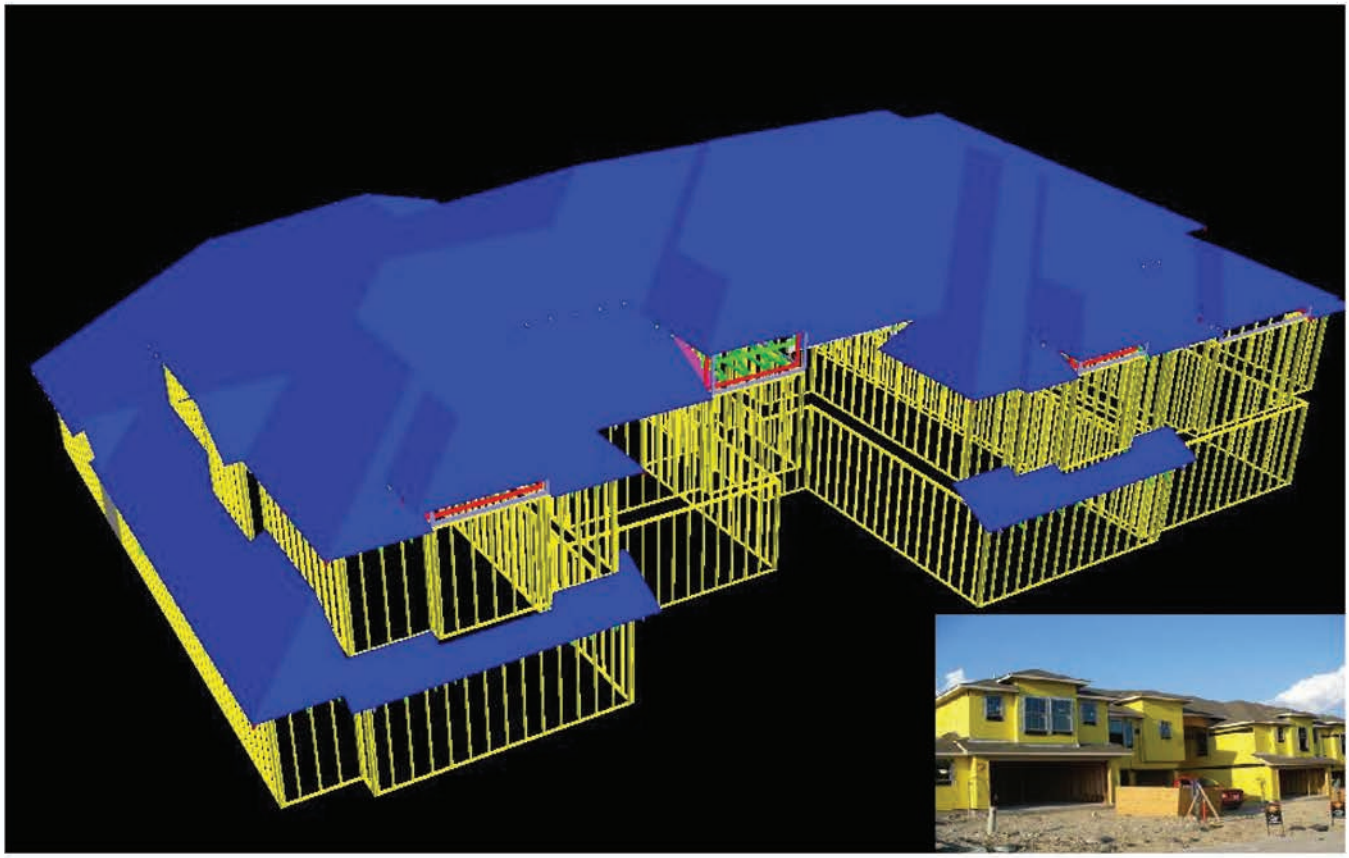
- Includes- Tract homes, Custom built homes, Multifamily
- Designed per International Residential Code (IRC), Uniform Building Code (UBC)
- Designed to meet customer requirement, Plant standards & county specification.

Design components

- Roof trusses
- Floor trusses
- Hangers, Beams, bearing enhancers, Blockings, Strong backs, Rim boards & hurricane clips

Commercial Homes

- Includes- Hotels, Restaurants, Nursing centers & Churches
- Designed per International Building code (IBC)
- Designed with fire walls and draftstops
- Designed to include sprinkler systems in roof and floor
- Designed for storage, mechanical, assembly room and Cupola loads



Design components

- Roof trusses (Including shear, attic and draftstop trusses)
- Floor trusses
- Hangers, Beams, bearing enhancers, Blockings, Strong backs, Rim boards & hurricane clips

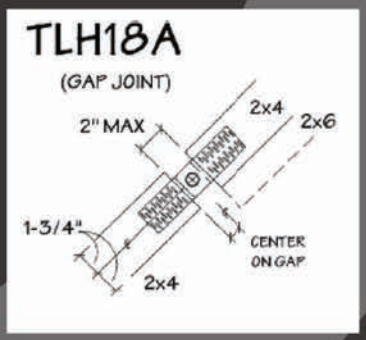
Type of design jobs – Modular

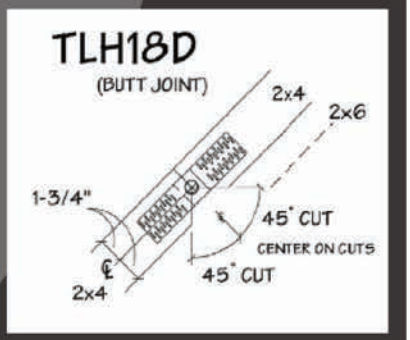
Modular

- Built in factory
- Confirms all codes
- Easy transportation
- Modular frame is little more than a transportation mechanism. It is designed to deal with the rigors of shipping. Each homes constructed with roughly 20 to 30 % more material than a traditional stick built

Features

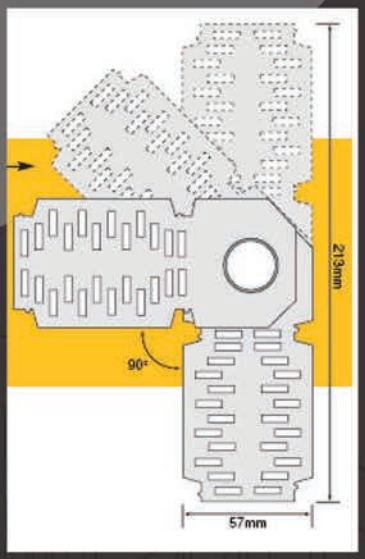
- Indoor construction
- Ability to service remote location
- Low waste
- Environmental friendly
- Energy efficient
- Design flexibility

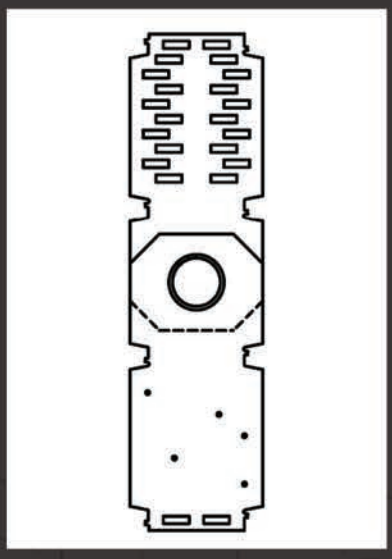




Plates Used

- Bull Eye Hinge plate (BEH)
- TeeLok Hinge plate (TLH)
- Half and Half plate





Benefit

- Building strength
- Very less assembly time. Modular houses are typically built in about 1/3 the time needed to construct a site built home
- Rim built in climate controlled factory thereby reduces any weather related delays or problems
- Better quality construction


Tyvek
Tyvek
Tyvek
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5134oR
64


OVERSIZE LOAD
AAA
MOBILE HOME
SERVICE

OPEN JOIST 2000

- Convenience of open web
- Available from stock
- Flexibility of Field Trimming
- Assurance of individual Testing

Features

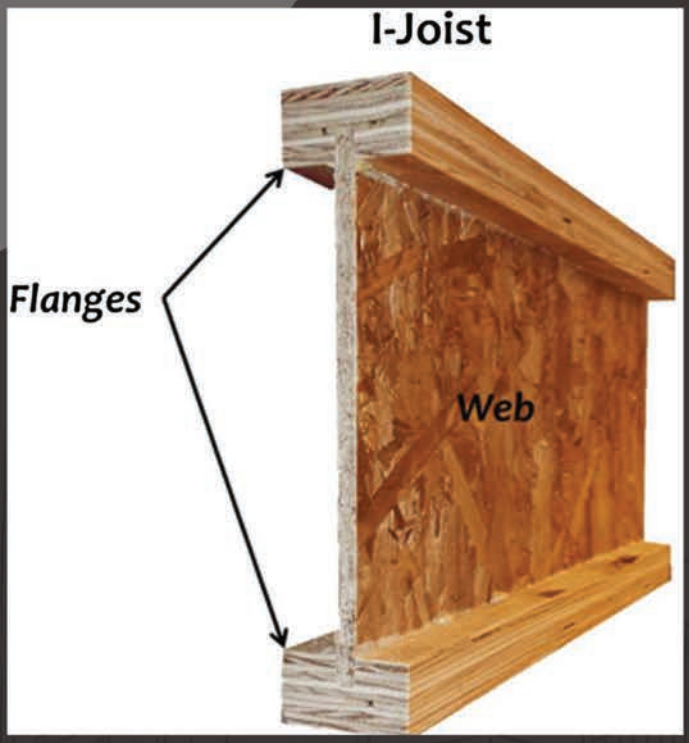
- Open web Configuration
- Trimmable ends
- Finger joint and waterproof glue
- Stocked item
- Stocked in 1 foot of increment
- Installs like Dimensional lumber
- 2x3 and 2x4 Top and Bottom chords
- Individually tested
- Accepted by Regulating authorities

Design components

- Open Joist
- Beam
- Rim Board
- Gusset plate
- Strong back
- Hangers

Depth and Span of Open Joist

Depths		Max Span
9 – ¼"	-	20'
11 – 7/8"	-	23'
14"	-	25'
16"	-	30



I-JOIST

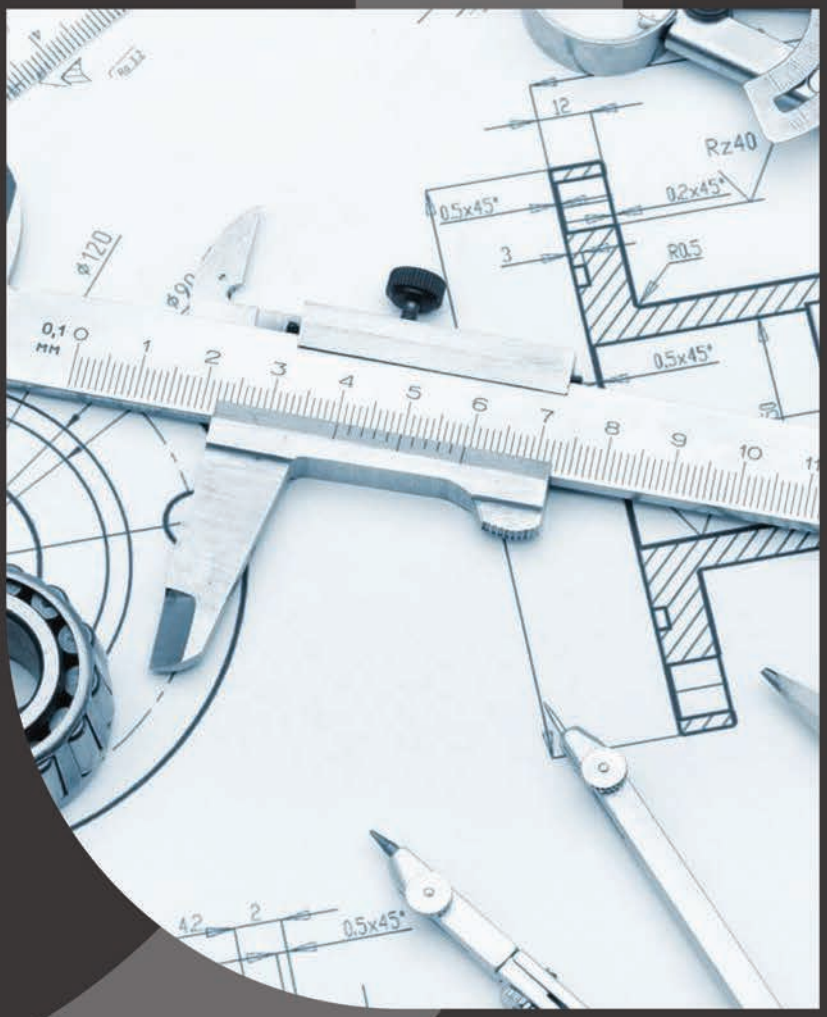
- Strong and straight
- More consistent in quality
- Light weight
- Less waste

Features

- 'I' Shaped engineered wood structural member.
- Never have to trim more than one end
- Prefabricated MSGL or LVL flanges and
- Structural panel web.
- Allowable span – L/480 deflection criteria

Designing

- I-Joist
- Beam
- Rim Board
- Blocking
- Hangers



Depths

Depths Available:

- 9 – ¼"
- 11 – 7/8"
- 14"
- 16"

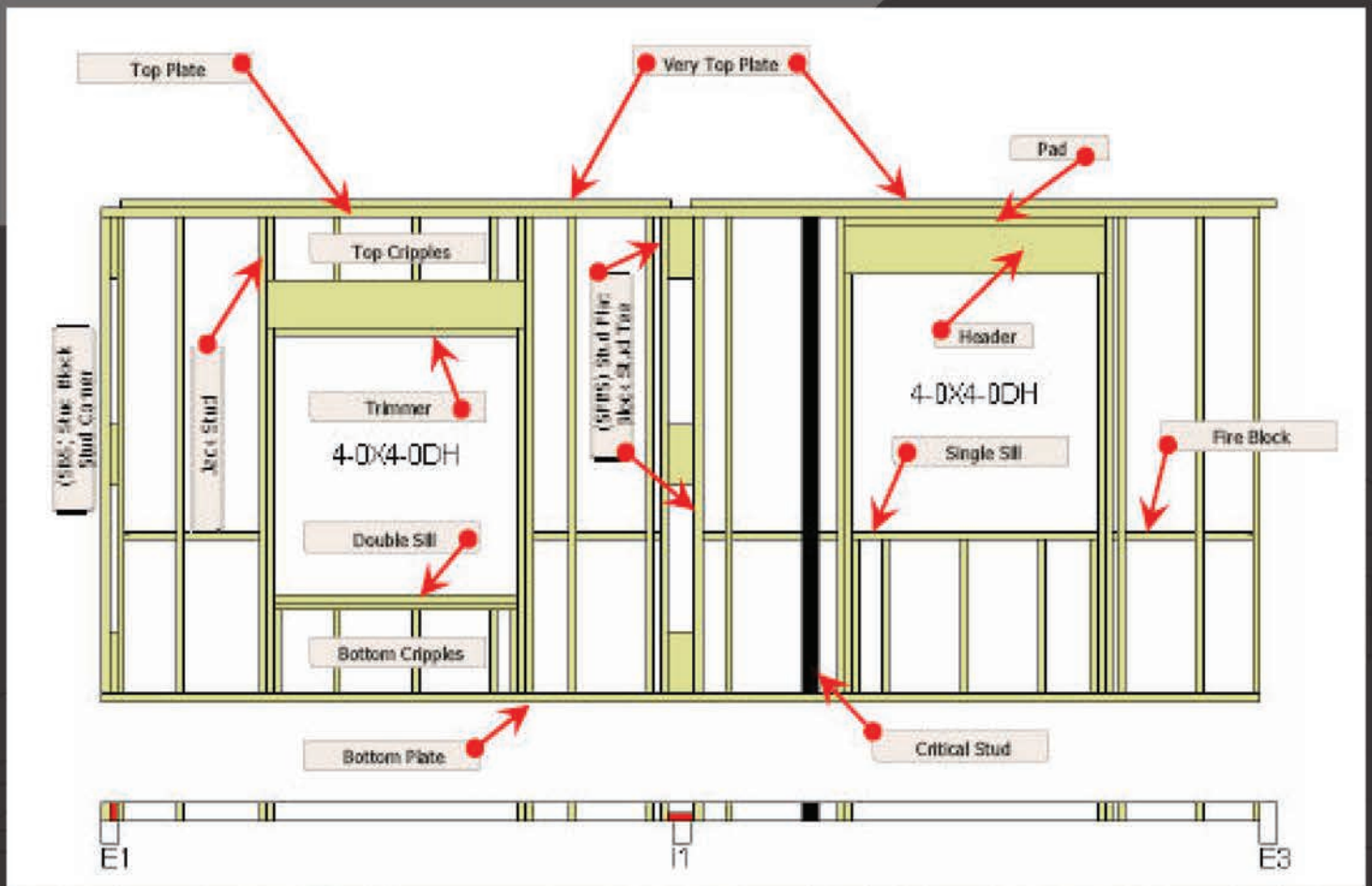
Wall Panel

- Prescriptive Design
- Specification as per code and plants requirement
- Each client's requirement is unique

WHY WALL PANELS?

- Save installation time!
- Eliminate design and fabrication inconsistencies
- Increase quality
- Utilize less skilled labor
- Reduce jobsite theft
- Reduce waste (less scrap and material)

PANEL TERMINOLOGY



CRITICAL LOADS

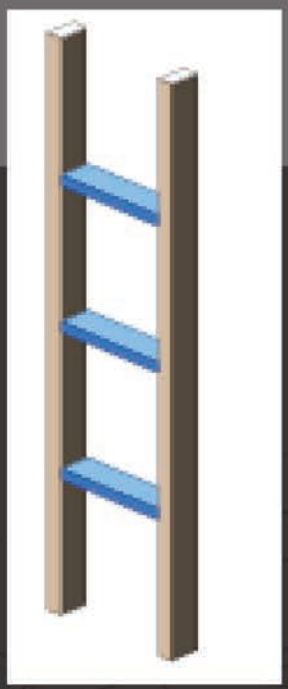
Critical Stud

Up sized header to carry the load from the beam

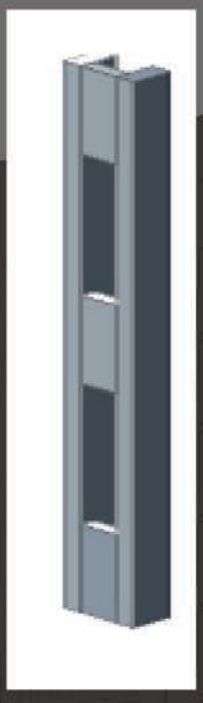
JUNCTIONS

CORNERS

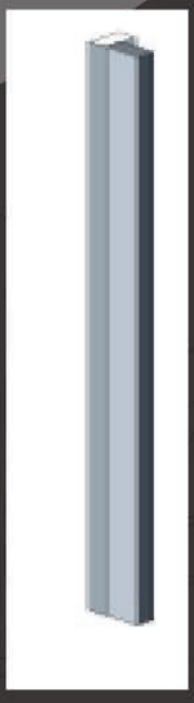
TEES



LADDER



SFBS



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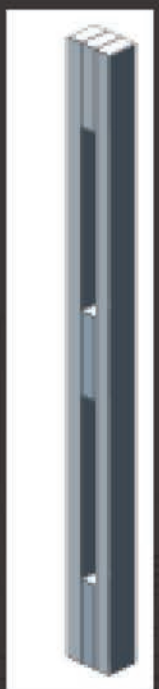

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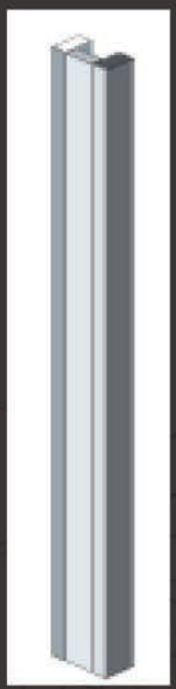


SFSS

TYPICAL OPENING

MANUFACTURING PICTURES

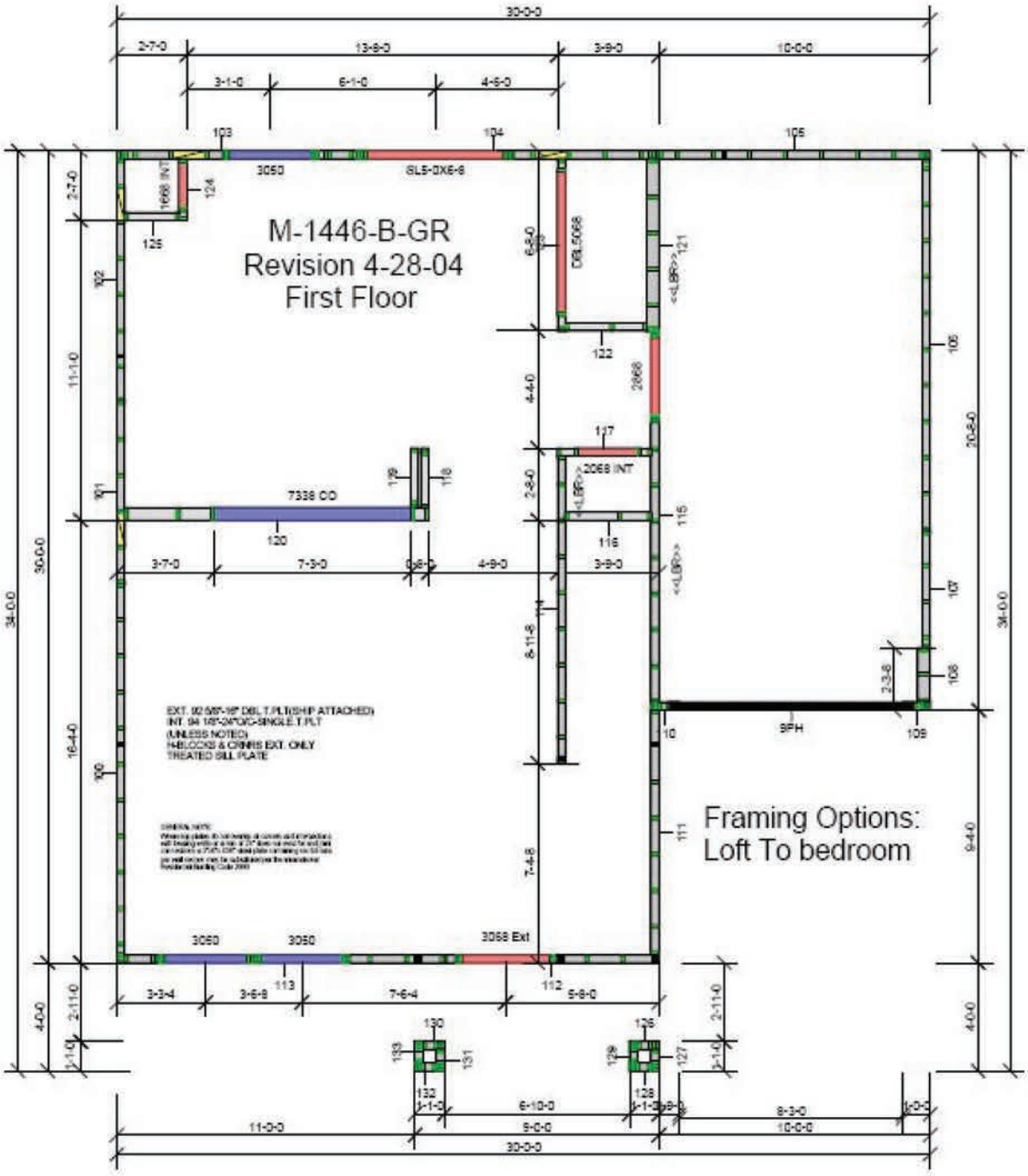
WALL PANEL - CHOICES

Raked Wall

Sheathing
Attached

GARAGE

PLACEMENT PLAN

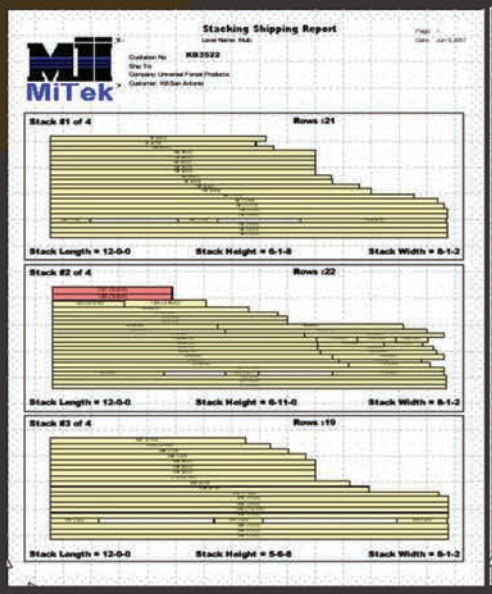


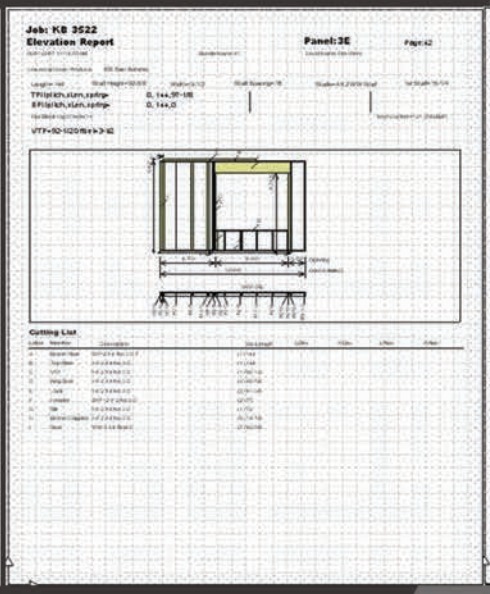
Universal Forest Products
KB Homes
M-1446-B-GR
Caballito Del Mar
3712 Venera Street
Job: 05-2355
Designed by: JCS

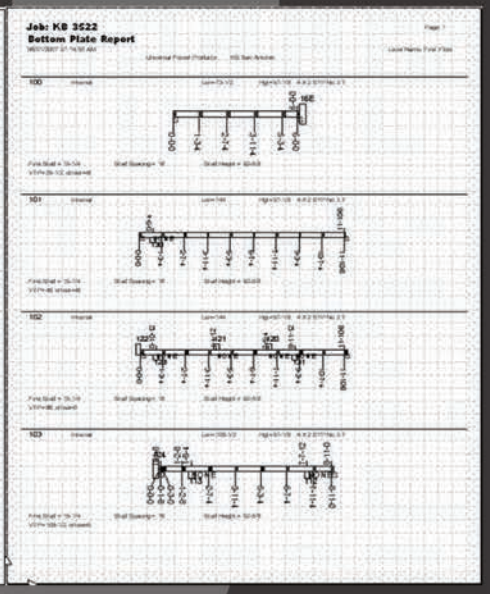
Quantity	Name	Height	Width
1	1668 INT	6-10-14	1-8-8
1	2068 INT	6-10-14	2-2-8
1	2868	6-10-14	2-10-8
1	7338 CO	3-8-0	7-3-0
1	DBL5068	6-10-14	5-2-8
3	3050	5-0-8	3-0-8
1	3068 Ext	6-10-14	3-2-8
1	SL5-0X6-6	5-9-6	5-0-8

Loose Material:
15 ea. 2x4x8' dbl.t.plt.w.w
1 ea. 3 1/2x11 1/4x9' PwrHdr
2 ea. 2x12x4' porch beam
1 ea. 2x12x8' porch beam

REPORTS







STACKING & TRANSPORTING...

Wall Panel Final Thoughts

- Walls are not engineered. They are based on time tested prescriptive framing methods
- Consideration is given to critical loads requiring the addition of critical studs or header design
- Must meet the building code, city, subdivision, customer and manufacturing plant specifications

Wood truss - Typical Deliverables

Structural wood Design

- Field truss placement drawings
- Wall panel layout & Elevation report
- Engineering drawings in CNC format
- Modular truss profile in DGN format
- Beam design report
- Joists design report
- Construction of 3D model
- Shop drawing for cutting and assembling
- Estimation and scheduling of building materials
- Inputs to Mitek Business Application (MBA) software

Drawings as per IRC AND IBC codes
Multi layered QA & QC system

Contact Us:

Contact **Swara Consulting Services Inc.** to discuss your next project. Our dedicated team is ready to provide engineering expertise tailored to your needs. Reach out to us today:

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We look forward to collaborating with you to empower your projects with Engineering Excellence.