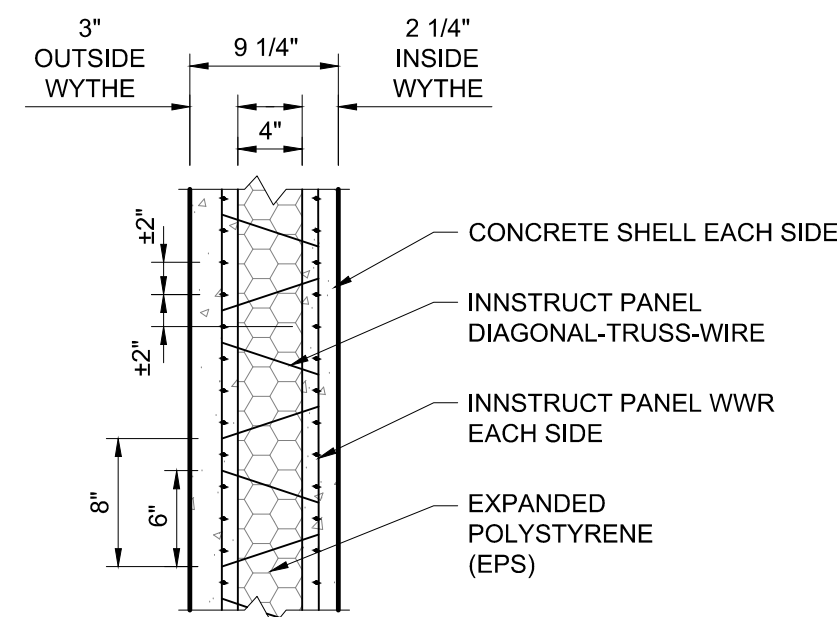


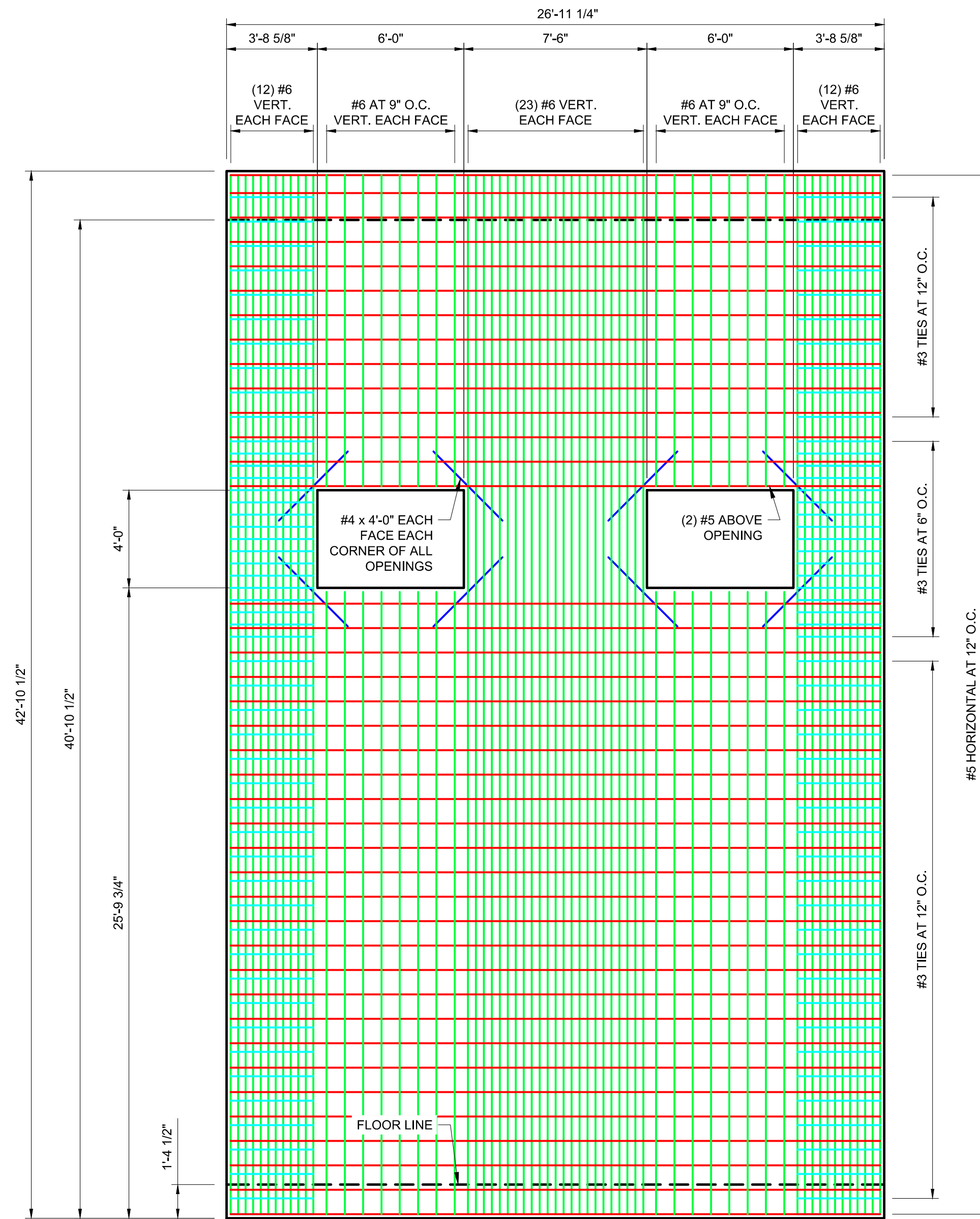
PANEL- INSTRUCT REINFORCING

1/4" = 1'-0"

- TIPS**
 3" EXTERIOR CONCRETE WYTHE (COMPOSITE)
 4" EPS INSULATION
 2-1/4" INTERIOR CONCRETE WYTHE (COMPOSITE)
 9-1/4" TOTAL THICKNESS



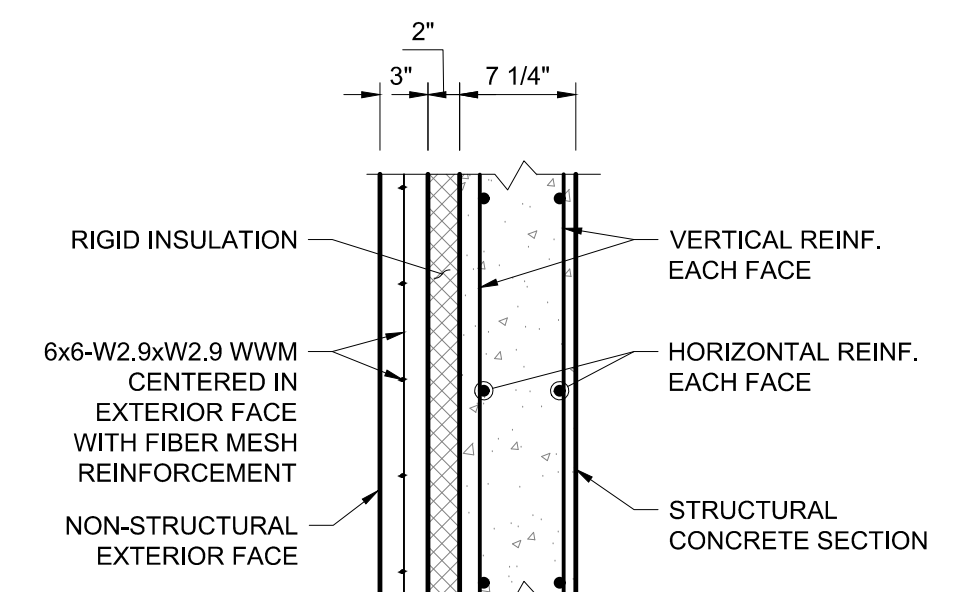
TYPICAL INSTRUCT PANEL
 SCALE: NTS



SOLID CONCRETE PANEL REINFORCING

1/4" = 1'-0"

- SOLID CONCRETE SECTION**
 7 1/4" STRUCTURAL INTERIOR CONCRETE
 2" RIGID INSULATION
 3" NON-STRUCTURAL EXTERIOR CONCRETE FACE
 12 1/4" TOTAL PANEL THICKNESS



NOTE:
 CONNECTORS TO BE USED TO
 CONNECT ARCHITECTURAL FACE
 TO STRUCTURAL PANEL

SOLID CONCRETE PANEL SECTION
 SCALE: NTS

LIMITATION OF COMPARISON:
 ORIGINAL PANEL DRAWINGS ARE BASED ON
 PROJECT PLANS

**TIPS COMPARISON DRAWINGS ARE PRELIMINARY
 AND ARE SUBJECT TO CHANGE BASED ON FINAL
 DESIGN.**

BAR SIZE LEGEND:

- #3 - CYAN
- #4 - BLUE
- #5 - RED
- #6 - GREEN
- #7 - PURPLE
- #8 - PINK

TIE BAR - - - - (SIZE PER COLOR)

| NO. | REVISIONS | BY | DATE |
|-----|-----------|----|------|
| | | | |

FORSGREN Associates Inc.
 95 WEST 100 SOUTH, STE. 115, LOGAN, UT 84321
 PH: 435.227.0334
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PRELIMINARY DRAWING NOT FOR CONSTRUCTION

| |
|----------------|
| PROJECT NO. 16 |
| DRAWN |
| DESIGNED |
| APPROVED |
| QA/QC |

INNOVATIVE STRUCTURAL SOLUTIONS

PROJECT 16

TIPS COMPARISON

SHEET NO:

DATE: JANUARY 2021
 PAGE NO: 2 OF 2

INNSTRUCT | Total Integrated Panel System (TIPS)

Basic Design Comparison and Material Displacement Estimate

Project: **16B**
 Panel Description: S101 Windows
 Total Wall Square Feet: 89,200
 Total Panels in Project: 107

Prepared by: Kim D. Blackburn
 Date: 1/1/2021

Panel Configuration:

- 8 Number of Similar Panels in Project
- 42.83 Height (ft)
- 27.00 Width (ft)
- 48 Area of Openings (ft²) - windows
- 1,108 Panel Area (ft²)
- 150 Concrete Weight (lbs./ft³)



Original Design Configuration:

| | |
|-------|--------------------------|
| 3 | Architectural Wythe (in) |
| 2 | Insulation (in) |
| 7.25 | Structural Wythe (in) |
| 10.25 | Concrete Thickness (in) |
| 12.25 | Total Thickness (in) |
| 15.1 | R-value Materials Only |

Innstruct | TIPS Design Configuration:

| | |
|------|-------------------------|
| 3 | Outside Wythe (in) |
| 4 | Insulation (in) |
| 2.25 | Inside Wythe (in) |
| 5.25 | Concrete Thickness (in) |
| 9.25 | Total Thickness (in) |
| 22.6 | R-value Materials Only |

Design Comparison | Material Displacement:

Original Design

| Material | Amount | Units |
|---------------|---------|-----------|
| Concrete | 35 | cubic yds |
| Reinforcement | 10,635 | lbs. |
| Panel Weight | 152,650 | lbs. |

TIPS Design

| Amount | Units | % Reduced |
|--------|-----------|------------|
| 18 | cubic yds | 49% |
| 1,960 | lbs. | 82% |
| 74,699 | lbs. | 51% |

INNOVATIVE STRUCTURAL SOLUTIONS

375 East 400 North - Morgan, Utah 84050 | www.innstruct.com

BETTER PANEL | LESS EFFORT | MORE PROFIT