

Building Assemblies RSI Calculations

Above Grade Exterior Wall @ 16" O.C. C/W Hardie Board Siding **Required RSI: 2.97**

| Wall Construction | RSI _e Calculation | | |
|---|---------------------------------|------------------|-------------------|
| | Framed Portion RSI _f | RSI _c | Continuous Layers |
| Climate Zone: 7a HRV Installed | | | |
| Exterior Air Film | --- | --- | 0.03 |
| 5/16" (7.9 mm) Hardie-Board Lap Siding | --- | --- | 0.02 |
| Sealed Sheathing Membrane | --- | --- | --- |
| 3/8" (9.5 mm) OSB Sheathing | --- | --- | 0.093 |
| 5-1/2" (140 mm) R24 Batt Insulation | --- | 4.23 | --- |
| 2 X 6 Wood Stud (140mm) @ 16" (406 mm) o.c. | 1.19 | --- | --- |
| Sealed Polyethylene Sheet | --- | --- | --- |
| 1/2" (12.7 mm) Gypsum Board | --- | --- | 0.08 |
| Finish: 1 Coat Latex Primer and Latex Paint | --- | --- | --- |
| Interior Air Film | --- | --- | 0.12 |
| RSI Sub-Totals | 1.19 | 4.23 | 0.343 |
| % Area of Each Component | 23% | 77% | 100% |
| RSI_e Eff | 3.007461148 | | |
| R_{eff} | 17.0763644 | | |

Above Grade Exterior Wall C/W Acrylic Stucco **Required RSI: 3.08**

| Wall Construction | RSI _e Calculation | | |
|---|---------------------------------|------------------|-------------------|
| | Framed Portion RSI _f | RSI _c | Continuous Layers |
| Climate Zone: 5 HRV Installed | | | |
| Exterior Air Film | --- | --- | 0.03 |
| 15mm Acrylic Stucco | --- | --- | 0.0135 |
| Sealed Sheathing Membrane | --- | --- | --- |
| 3/8" (9.5 mm) OSB Sheathing | --- | --- | 0.093 |
| 5-1/2" (140 mm) R24 Batt Insulation | --- | 4.23 | --- |
| 2 X 6 Wood Stud (140mm) @ 16" (406 mm) o.c. | 1.19 | --- | --- |
| Sealed Polyethylene Sheet | --- | --- | --- |
| 1/2" (12.7 mm) Gypsum Board | --- | --- | 0.08 |
| Finish: 1 Coat Latex Primer and Latex Paint | --- | --- | --- |
| Interior Air Film | --- | --- | 0.12 |
| RSI Sub-Totals | 1.19 | 4.23 | 0.3365 |
| % Area of Each Component | 23% | 77% | 100% |
| RSI_e Eff | 3.000961148 | | |
| R_{eff} | 17.0394574 | | |

Above Grade Exterior Wall @ 16" O.C. C/W Stone Veneer Cladding **Required RSI: 3.08**

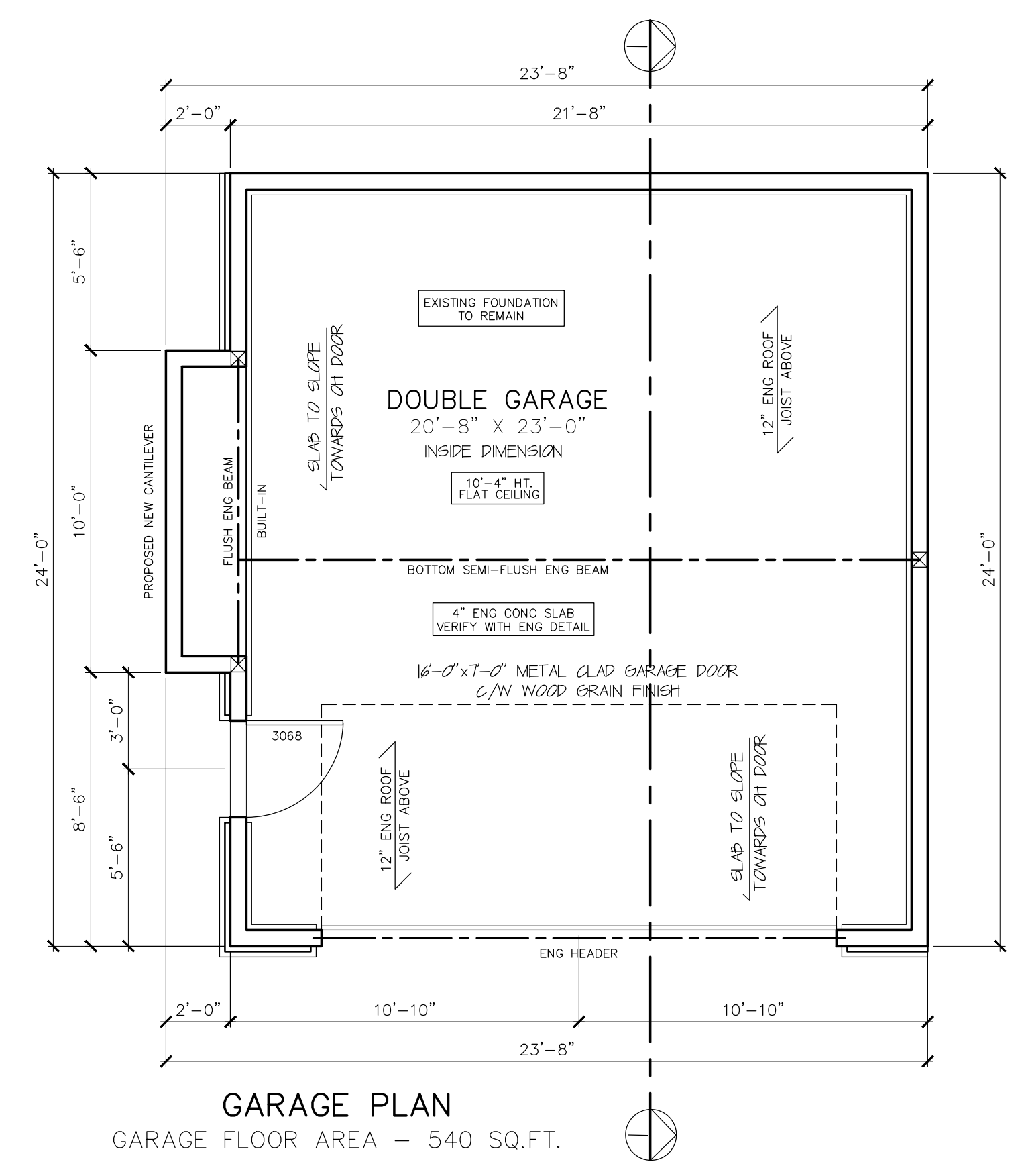
| Wall Construction | RSI _e Calculation | | |
|--|---------------------------------|------------------|-------------------|
| | Framed Portion RSI _f | RSI _c | Continuous Layers |
| Climate Zone: 5 HRV Installed | | | |
| Exterior Air Film | --- | --- | 0.03 |
| 2" (50 mm) Fibre-cement Stone Veneer | --- | --- | 0.15 |
| Sealed Sheathing Membrane | --- | --- | --- |
| 3/8" (11 mm) OSB Sheathing | --- | --- | 0.093 |
| 5-1/2" (140 mm) R24 Batt Insulation | --- | 4.23 | --- |
| 2 X 6 Wood Stud (140 mm) @ 16" (304 mm) o.c. | 1.19 | --- | --- |
| Sealed Polyethylene Sheet | --- | --- | --- |
| 1/2" (12.7 mm) Gypsum Board | --- | --- | 0.08 |
| Finish: 1 Coat Latex Primer and Latex Paint | --- | --- | --- |
| Interior Air Film | --- | --- | 0.12 |
| RSI Sub-Totals | 1.19 | 4.23 | 0.473 |
| % Area of Each Component | 23% | 77% | 100% |
| RSI_e Eff | 3.137461148 | | |
| R_{eff} | 17.8145044 | | |

4" Concrete Slab Above Frost Line **Required RSI: 1.96**

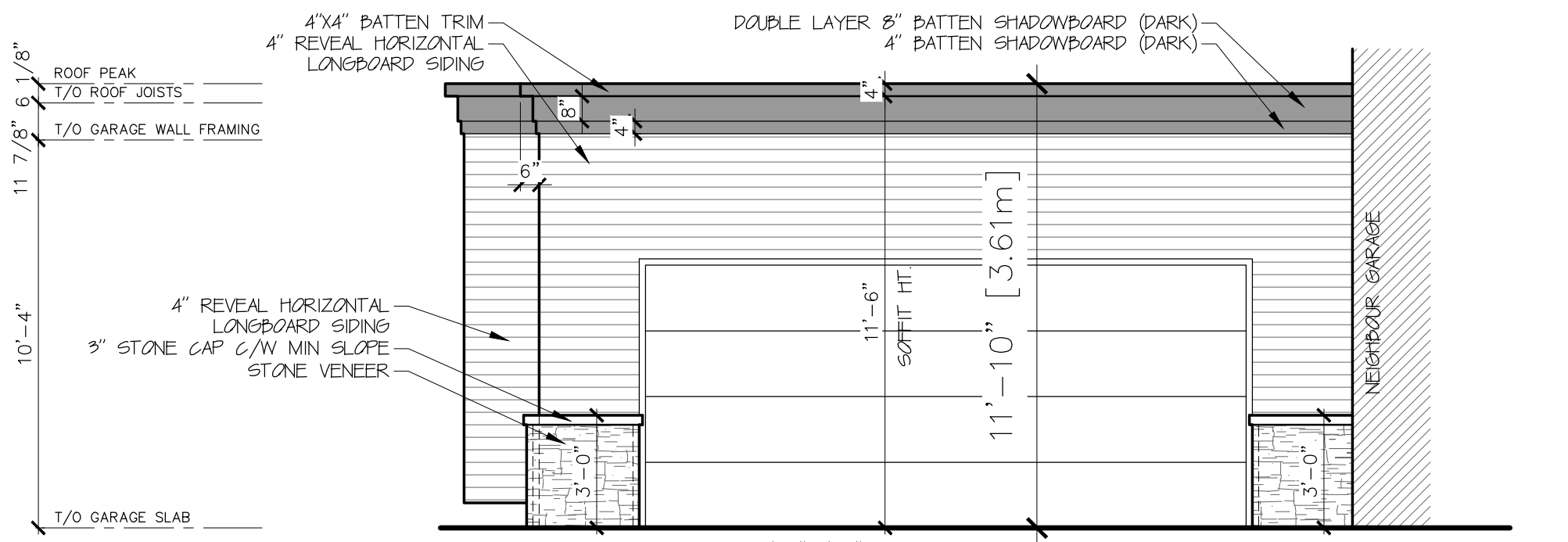
| Wall Construction | RSI _e Calculation | | |
|--|---------------------------------|------------------|-------------------|
| | Framed Portion RSI _f | RSI _c | Continuous Layers |
| Climate Zone: 5 HRV Installed | | | |
| Undisturbed Earth | --- | --- | --- |
| 4" (101 mm) Washed Gravel | --- | --- | --- |
| 3" (76 mm) (XPS) Extruded Polystyrene Insulation | --- | --- | 2.66 |
| Sealed Polyethylene Sheet | --- | --- | --- |
| 4" (101 mm) Normal Density Aggregate Concrete Slab | --- | --- | 0.04 |
| Interior Air Film | --- | --- | 0.12 |
| RSI Sub-Totals | 0 | 0 | 2.82 |
| % Area of Each Component | 0% | 0% | 100% |
| RSI_e Eff | 2.82 | | |
| R_{eff} | 16.01196 | | |

Flat Roofs - 12" Eng. Joists (24" o/c) **Required RSI: 5.02**

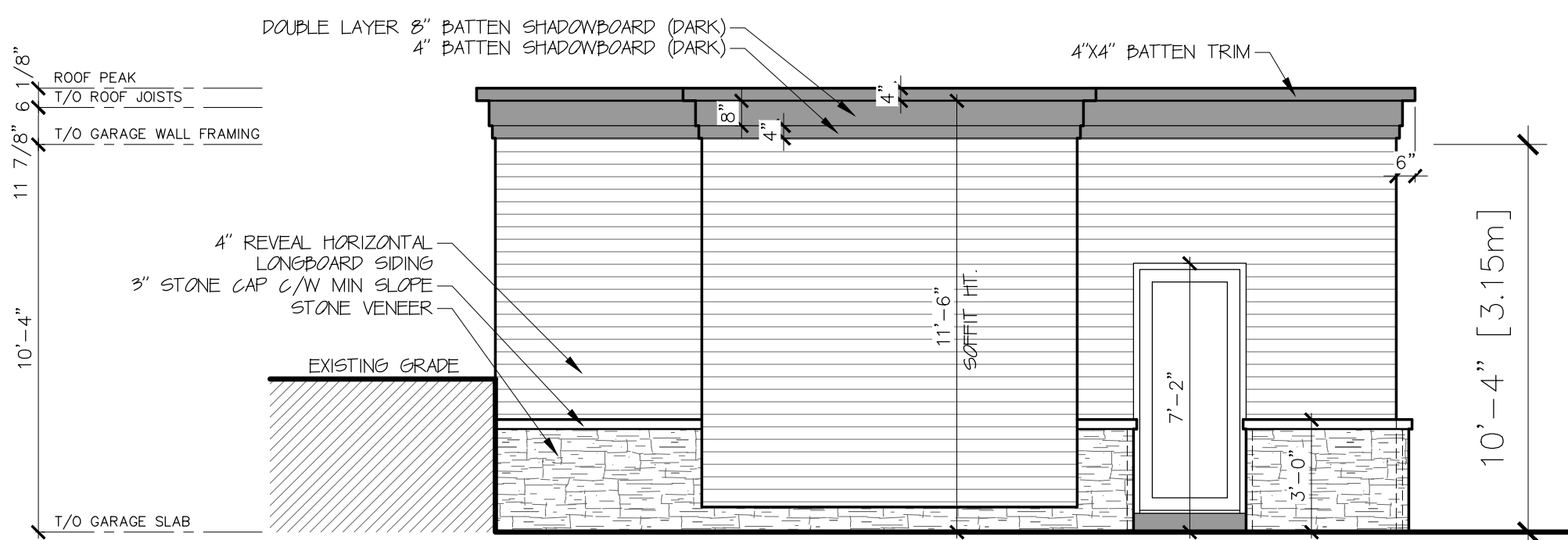
| Wall Construction | RSI _e Calculation | | |
|---|---------------------------------|------------------|-------------------|
| | Framed Portion RSI _f | RSI _c | Continuous Layers |
| Climate Zone: 7a HRV Installed | | | |
| Exterior Air Film | --- | --- | 0.03 |
| Torch-on Asphalt Roll Roofing | --- | --- | 0.03 |
| Sloped Type 1 EPS Expanded Polystyrene (@ Min 25.4mm) | --- | --- | 0.65 |
| SopraDrain 10-G Drainage Mat | --- | --- | --- |
| 5/8" (15.5 mm) Plywood Sheathing | --- | --- | 0.17 |
| 11-7/8" (301.6 mm) Eng. Joist @ 24" o.c. | 2.56 | --- | --- |
| 5" (127 mm) Joist Cavity Medium Density Polyurethane Sprayed Foam | --- | 4.57 | --- |
| 1/2" (12.7 mm) Gypsum Board | --- | --- | 0.08 |
| Interior Air Film | --- | --- | 0.11 |
| RSI Sub-Totals | 2.56 | 4.57 | 1.07 |
| % Area of Each Component | 6% | 94% | 100% |
| RSI_e Eff | 5.43 | | |
| R_{eff} | 30.85650066 | | |



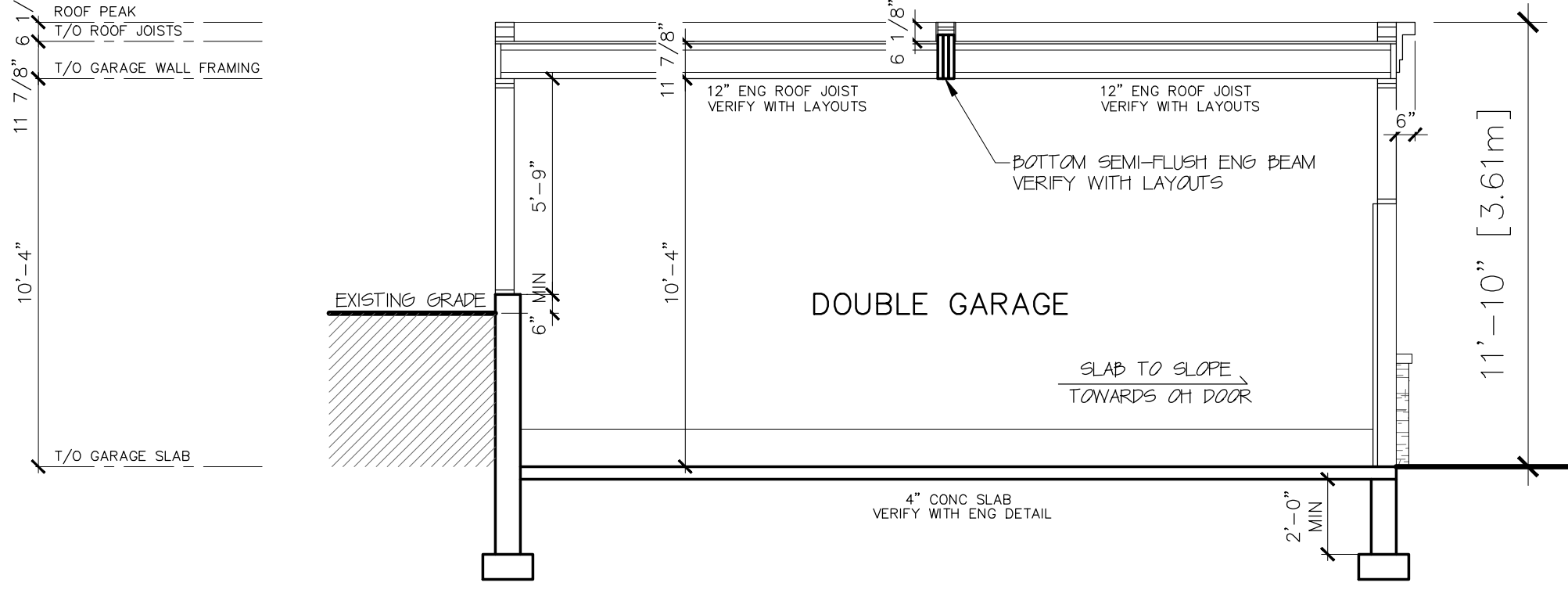
GARAGE PLAN
GARAGE FLOOR AREA - 540 SQ.FT.



FRONT ELEVATION



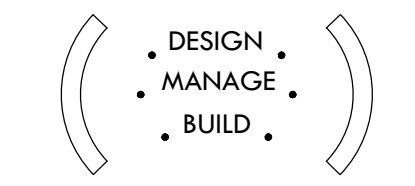
LEFT ELEVATION



GARAGE SECTION

DESIGNED BY:

ALL ELEMENTS



P: 236.361.5991
E: info@allelements.ca

PROJECT SET:

GARAGE VARIANCE PERMIT SET

PROJECT ADDRESS:

35 ROBINSON POINT RD
RURAL NARAMATA, BC

LOT 8
PLAN 14874
DL 210

PROJECT FLOOR AREAS:

DETACHED DOUBLE GARAGE 540 SQ.FT.

PROJECT SCHEDULE:

| | |
|--------------|--------------------------------|
| OCT 8, 2019 | VARIANCE PERMIT SET COMPLETION |
| AUG 10, 2020 | DEVELOPMENT PERMIT REVISION |
| AUG 12, 2020 | DEVELOPMENT PERMIT REVISION |
| NOV 5, 2020 | PERMIT REVISIONS |
| NOV 23, 2020 | PERMIT REVISIONS |
| DEC 2, 2020 | PERMIT REVISIONS |
| FEB 8, 2021 | PERMIT REVISIONS |
| FEB 9, 2021 | PERMIT REVISIONS |

THESE DESIGNS AND DRAWINGS ARE THE EXCLUSIVE PROPERTY OF ALL ELEMENTS. THEY ARE COPYRIGHT OF THE FIRM AND CAN NOT BE USED, REPRODUCED OR COPIED IN FULL OR IN PART WITHOUT WRITTEN CONSENT.
THIS SET IS STRICTLY FOR DESIGN PURPOSES AND MUST BE VERIFIED BY QUALIFIED ENGINEER AND/OR SUPPLIERS.
CONTRACTORS AND SUB-CONTRACTORS ARE RESPONSIBLE FOR CHECKING DETAILS AND ALL ASPECTS OF THESE DRAWINGS. REPORT ANY DISCREPANCIES OR OMISSIONS TO THE DESIGNER IMMEDIATELY. ALL ELEMENTS IS NOT RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS ADVISED BY ANY AUTHORITY OFFICIALS OR OTHER PROFESSIONAL CONSULTANT AT ANY TIME PRIOR TO OR DURING CONSTRUCTION.
DO NOT SCALE THESE DRAWINGS. ALL WORK MUST COMPLY WITH MOST RECENT EDITION OF THE BC BUILDING CODE AND ANY OTHER GOVERNING AUTHORITIES.

DRAWING TITLE:

**SITE PLAN / ELEV/
SECTIONS & RSI CALC**

DRAWING INFORMATION:

DATE: FEB 9, 2021
SCALE: AS INDICATED

SHEET: 1 / 1