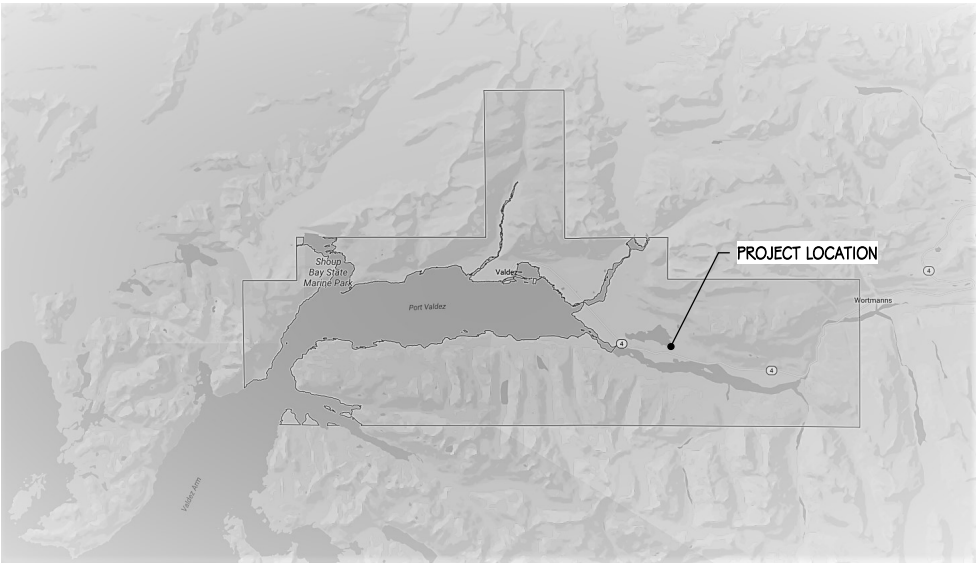
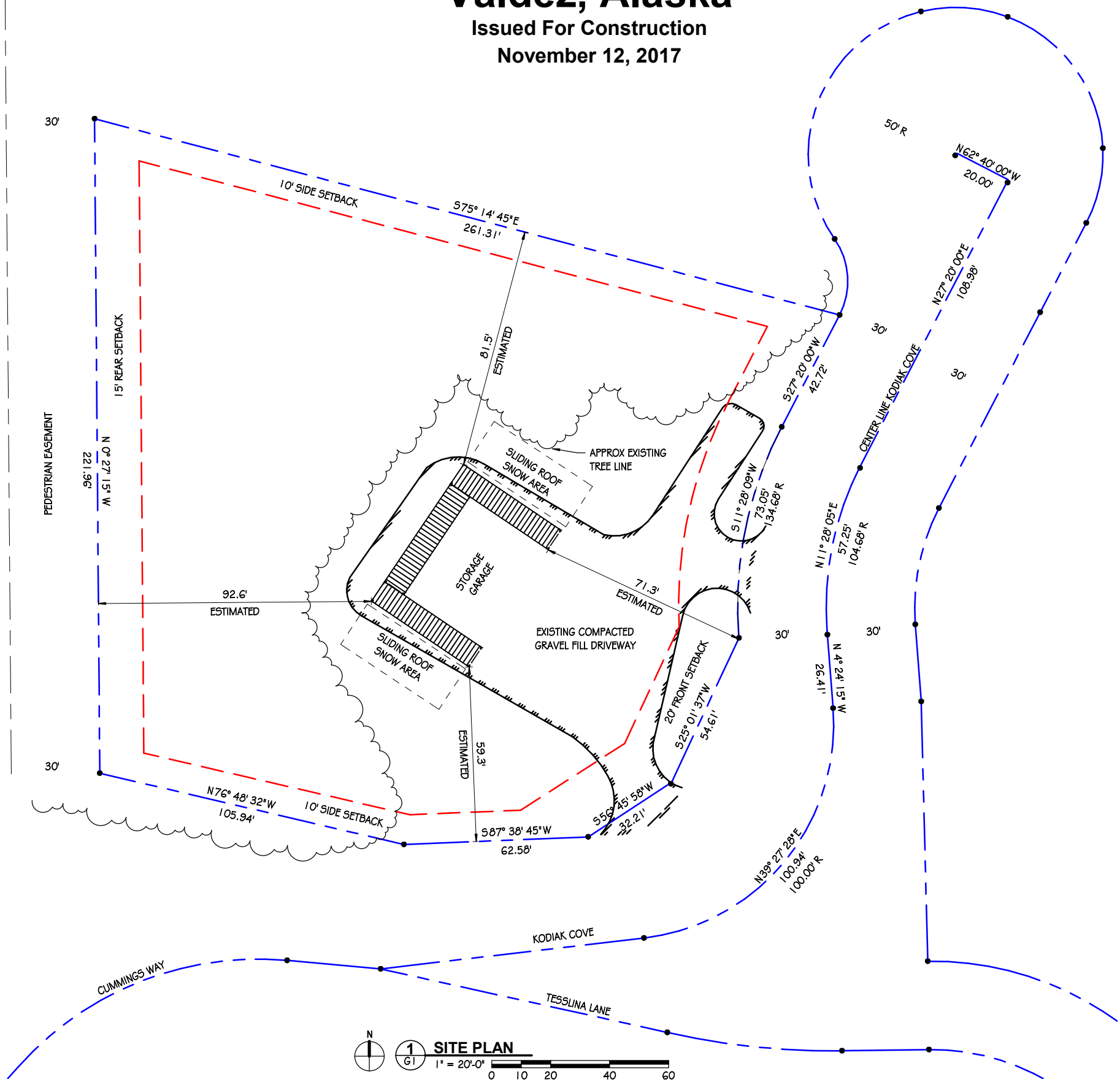


# GITW Storage Garage

## Valdez, Alaska

Issued For Construction  
November 12, 2017



### PROJECT INFORMATION

**LEGAL DESCRIPTION:**  
ROBE LAKE WILDERNESS ESTATES, BLOCK 3, LOT 1

**OWNER:**  
GEEKS IN THE WOODS, LLC  
2200 WESTERN AVENUE, SUITE 200  
SEATTLE, WA 98121

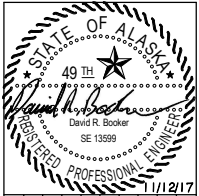
**PROJECT DESCRIPTION:**  
PRIVATE RESIDENTIAL 1-STORY STORAGE GARAGE WITH ATTIC

<b>CODE ANALYSIS:</b>		2011-5
PLAT:		COMMERCIAL RESIDENTIAL
ZONING:		11,000 SF
MINIMUM LOT SIZE:		45,538 SF OK
LOT SIZE:		50 FT
MINIMUM LOT WIDTH:		70 FT OK
LOT WIDTH:		50%
ALLOWABLE LOT COVERAGE:		2,240 SQ FT
LOT COVERAGE:		4.9% OK
NEW COVERAGE PERCENTAGE:		35 FT
MAX PRINCIPAL HEIGHT ALLOWED:		22 FT OK
PRINCIPAL HEIGHT:		
LOT SETBACKS:		

	REQUIRED:	PROVIDED:
FRONT	20 FT	71 FT ESTIMATED
SIDE	10 FT	59 FT ESTIMATED
REAR	15 FT	92 FT ESTIMATED

DRIVEWAY SURFACE:	GRAVEL	OK
LANDSCAPING REQUIRED:	NONE	OK

OCCUPANCY:	52 - LOW HAZAROUS STORAGE
CONSTRUCTION TYPE:	V-B
NUMBER OF STORIES PERMITTED:	2 OK
PERMITTED HEIGHT:	40 FT
BUILDING HEIGHT:	22 FT OK
FLOOR AREA PERMITTED PER FLOOR:	13,500 SF
FLOOR AREA PROVIDED PER FLOOR:	2,240 SF OK
FLOOR AREA PROVIDED - ATTIC:	800 SF OK
VERT. SEPARATION WALLS REQUIRED:	NONE
VERT. SEPARATION WALLS PROVIDED:	12 GA STEEL OK
HORIZ. SEPARATION FLOORS REQUIRED:	1-HR
HORIZ. SEPARATION FLOORS PROVIDED:	1-HR OK



By	
Revision	
Date	
No.	

10640 Republic Circle  
Anchorage, Alaska 99515  
907-344-1646 voice  
integral@gci.net

**Integral Engineering**

David R. Booker, PE, SE  
Civil / Structural Engineer

**GITW STORAGE GARAGE**  
4550 Kodiak Cove  
Valdez, Alaska

Robe Lake Wilderness Estates, Block 3, Lot 1

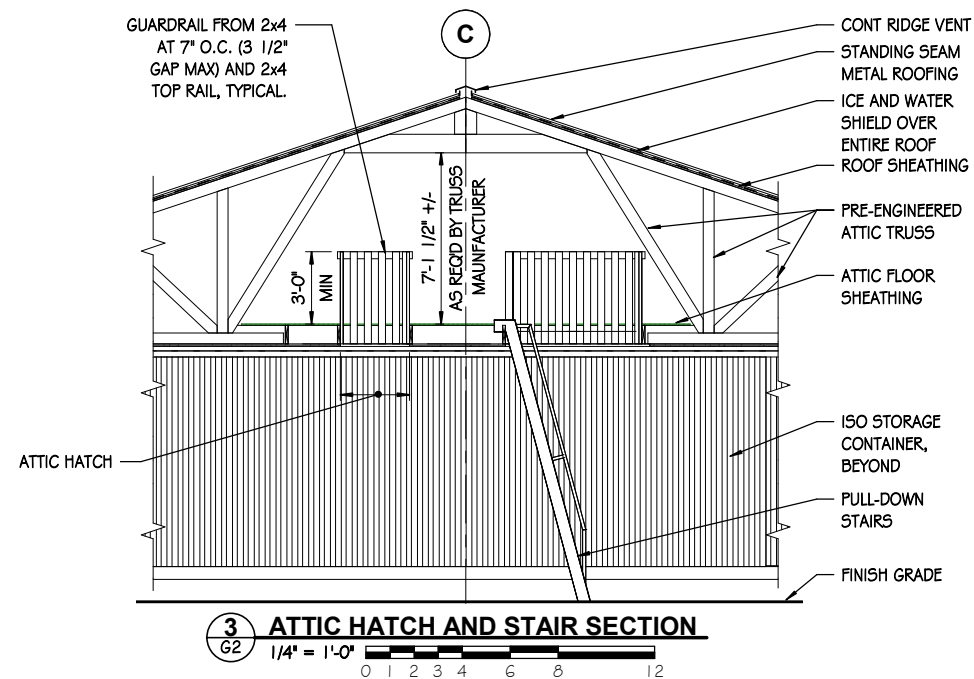
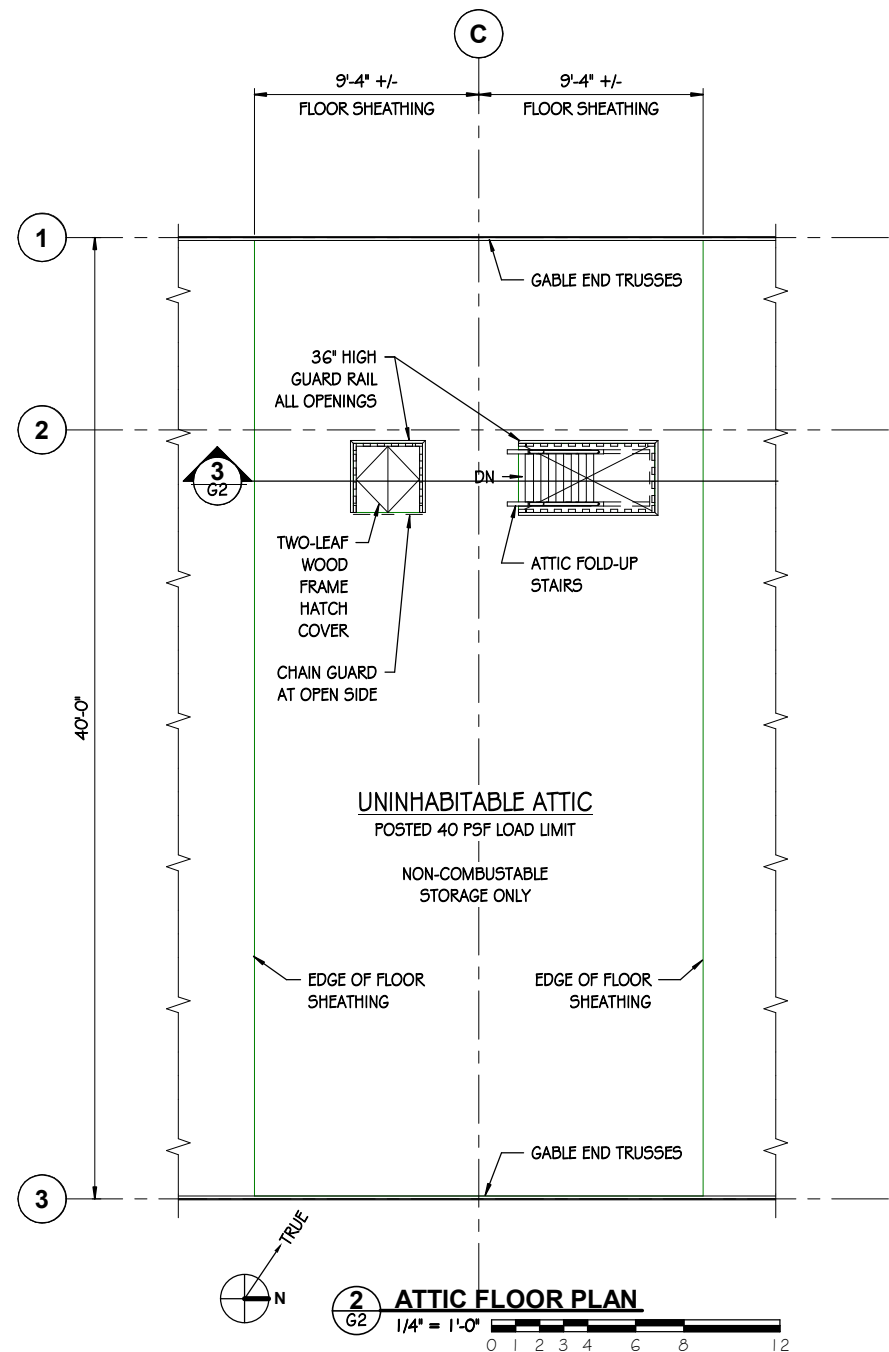
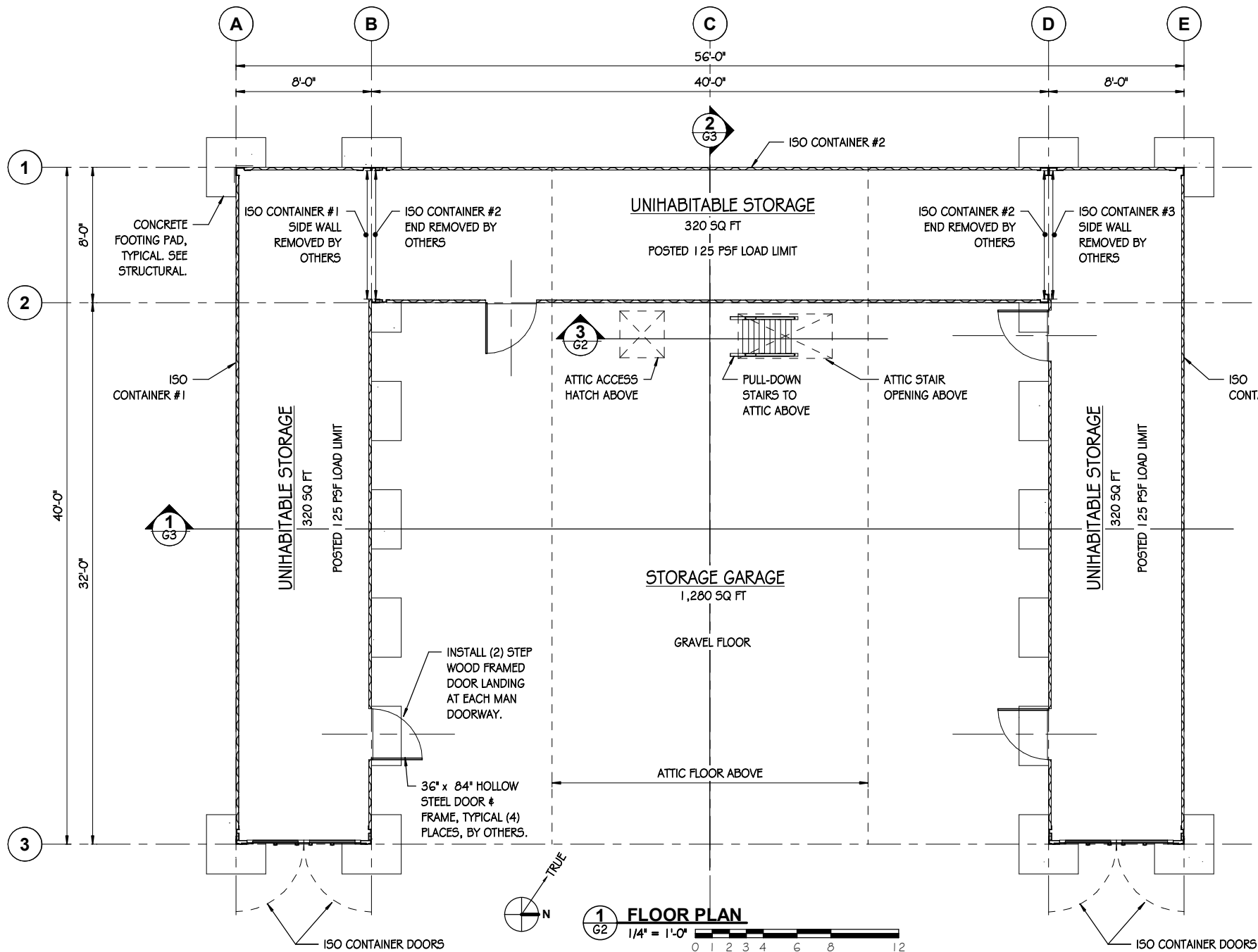
**DRAWING TITLE:**  
VICINITY MAP, SITE  
PLAN, PROJECT  
INFORMATION AND  
GENERAL NOTES

DATE: 11/12/17  
JOB NUMBER: 17026  
OPERATOR: DRB

SHEET NO:  
**G1**

7 OF 7

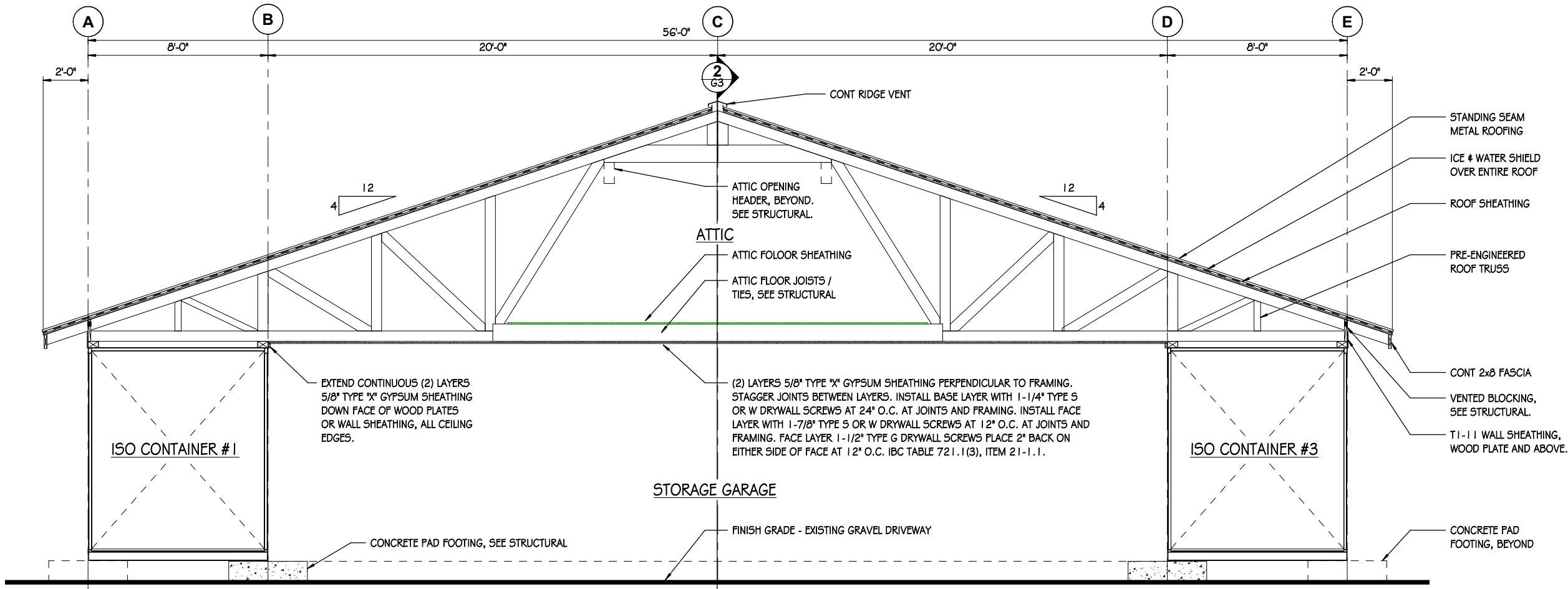
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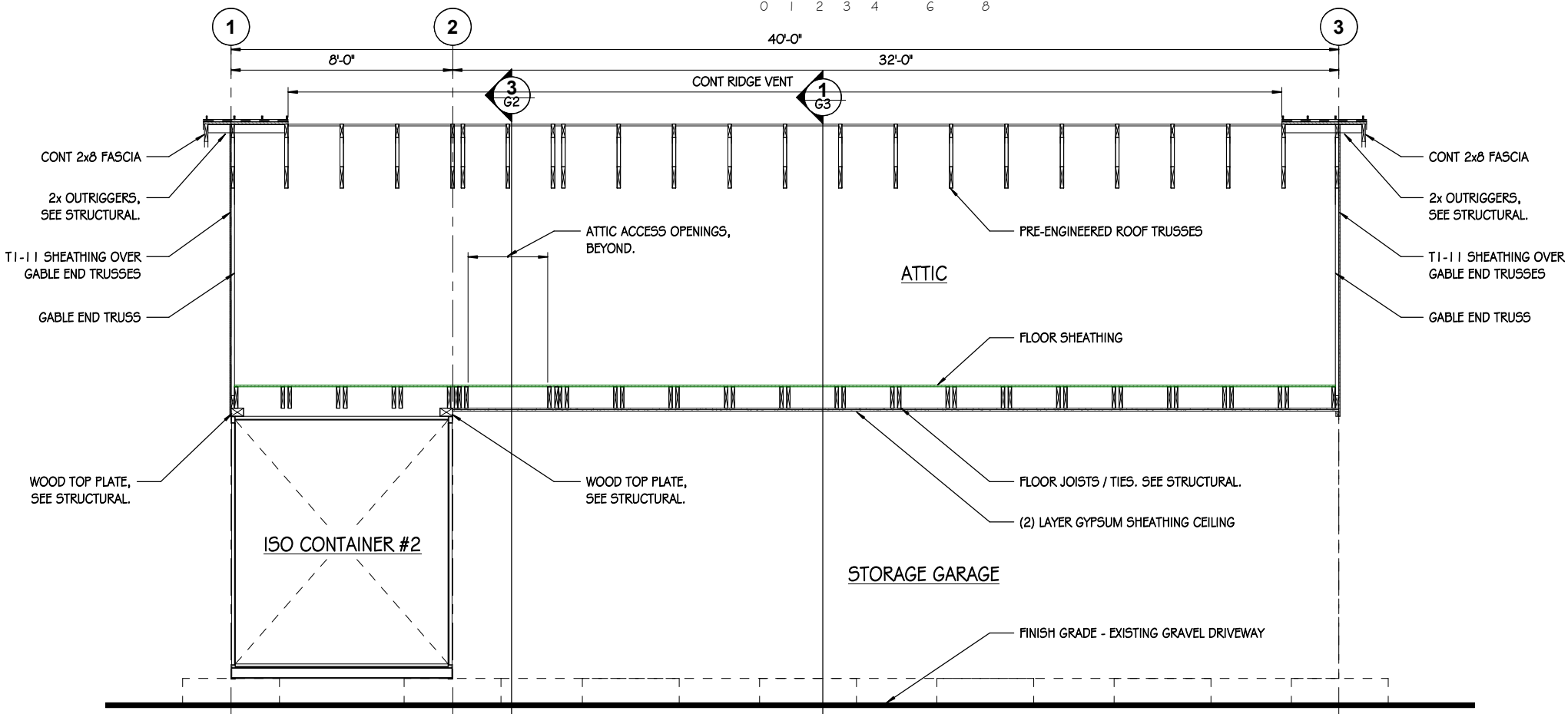
ISSUED FOR CONSTRUCTION

By	
Revision	
Date	
No.	
PROJECT: 10540 Republic Circle Anchorage, Alaska 99515 907-344-1646 voice integral@gci.net	
<b>Integral Engineering</b> David R. Booker, PE, SE Civil / Structural Engineer	
PROJECT: <b>GITW STORAGE GARAGE</b> 4550 Kodiak Cove Valdez, Alaska	
DRAWING TITLE: <b>FLOOR &amp; ATTIC PLANS AND DETAILS</b>	
DATE:	1/11/2017
JOB NUMBER:	17025
OPERATOR:	DRB
SHEET NO:	
<b>G2</b>	
7	OF 7

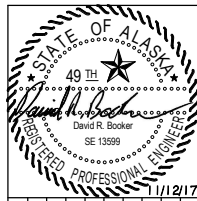
1/11/2017 8:39:07 PM D:\Integral Projects\2017 PROJECTS\17025 GITW Garage\Drawings\GITW.rvt



**1 BUILDING LONG SECTION**  
3/8\"/>



**2 BUILDING CROSS SECTION**  
3/8\"/>



By	
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Date	
No.	

10540 Republic Circle  
Anchorage, Alaska 99515  
907-344-1646 voice  
integral@gci.net

**Integral Engineering**  
David R. Booker, PE, SE  
Civil / Structural Engineer

**PROJECT:**  
GITW STORAGE GARAGE  
4550 Kodiak Cove  
Valdez, Alaska

**Robe Lake Wilderness Estates, Block 3, Lot 1**

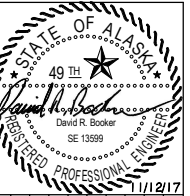
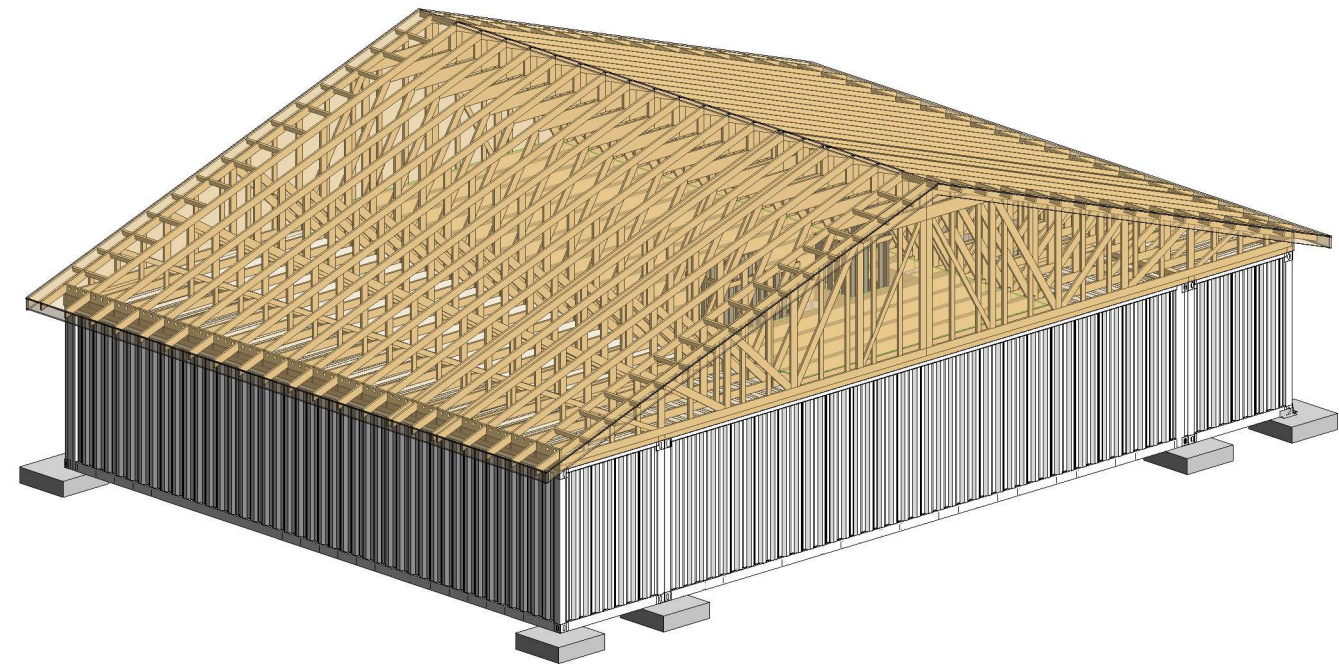
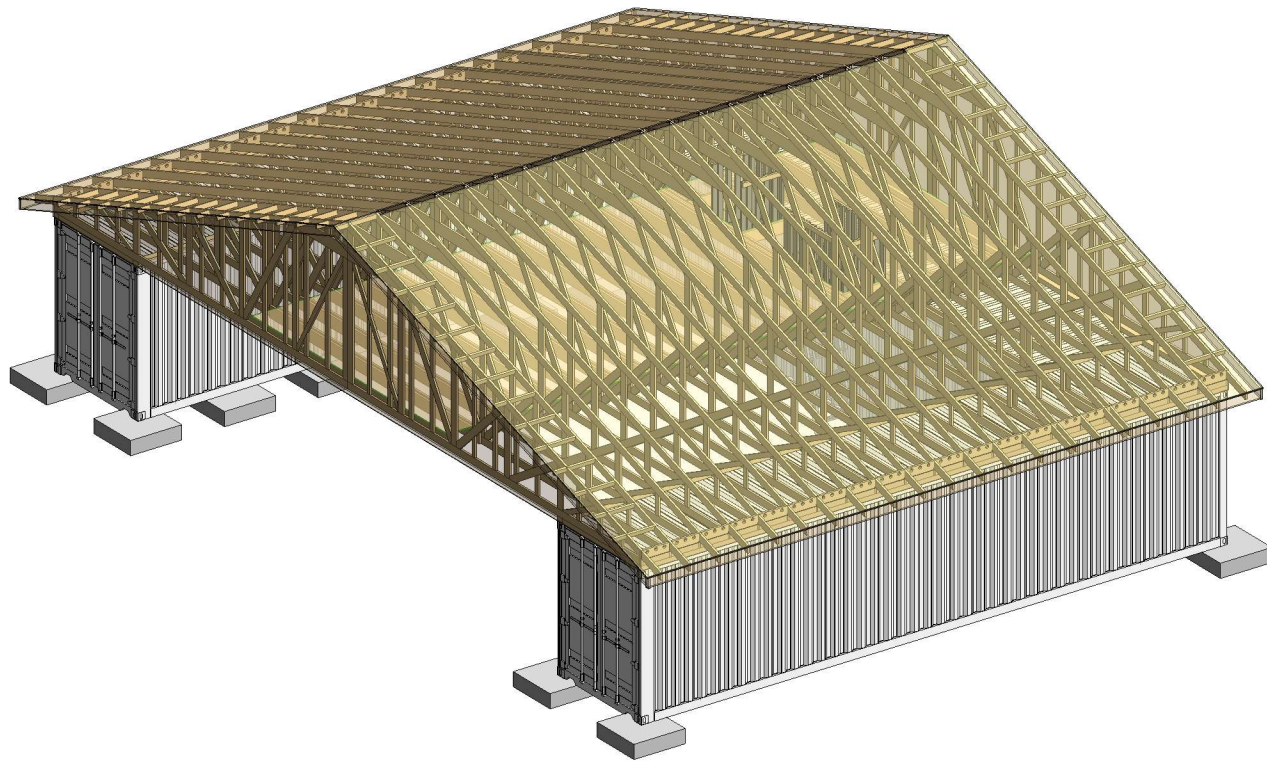
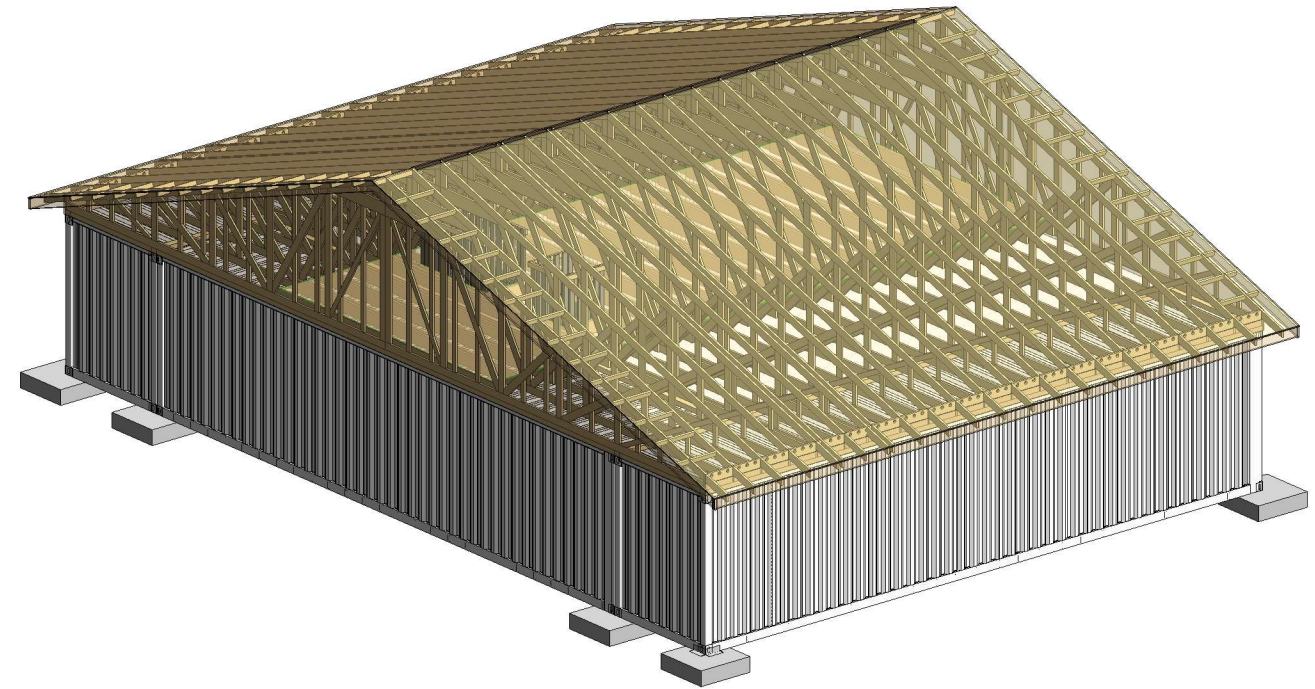
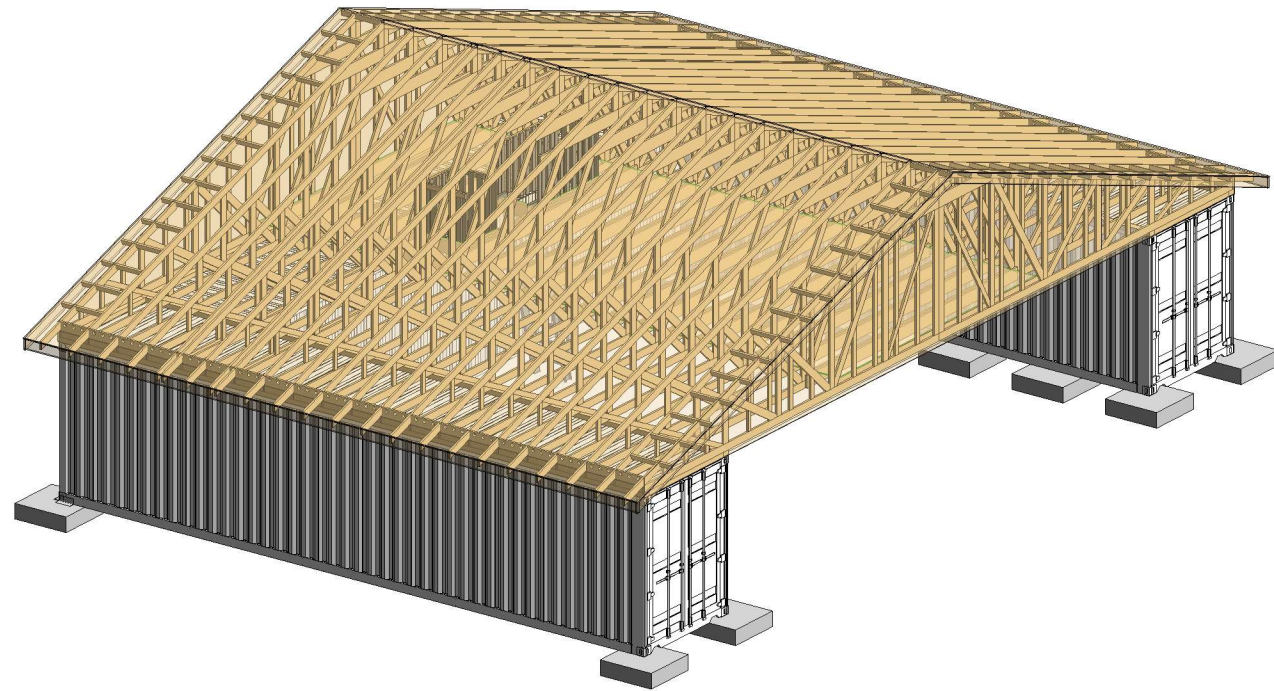
**DRAWING TITLE:**  
BUILDING SECTIONS

**DATE:** 1/11/2017  
**JOB NUMBER:** 17025  
**OPERATOR:** DRB

**SHEET NO:**  
**G3**  
7 OF 7

ISSUED FOR CONSTRUCTION



[illegible]

10040 Republic Circle  
Anchorage, Alaska 99515  
907-344-1646 voice  
integral@gci.net

**IIIIII Integral  
Engineering**

**David R. Booker, PE, SE**  
Civil / Structural Engineer

**GITW STORAGE GARAGE**  
4550 Kodiak Cove  
Valdez, Alaska  
Robe Lake Wilderness Estates, Block 3, Lot 1

**DRAWING TITLE:**  
**BUILDING ISOMETRICS**

DATE: 11/12/17  
JOB NUMBER: 17028  
OPERATOR: DRB

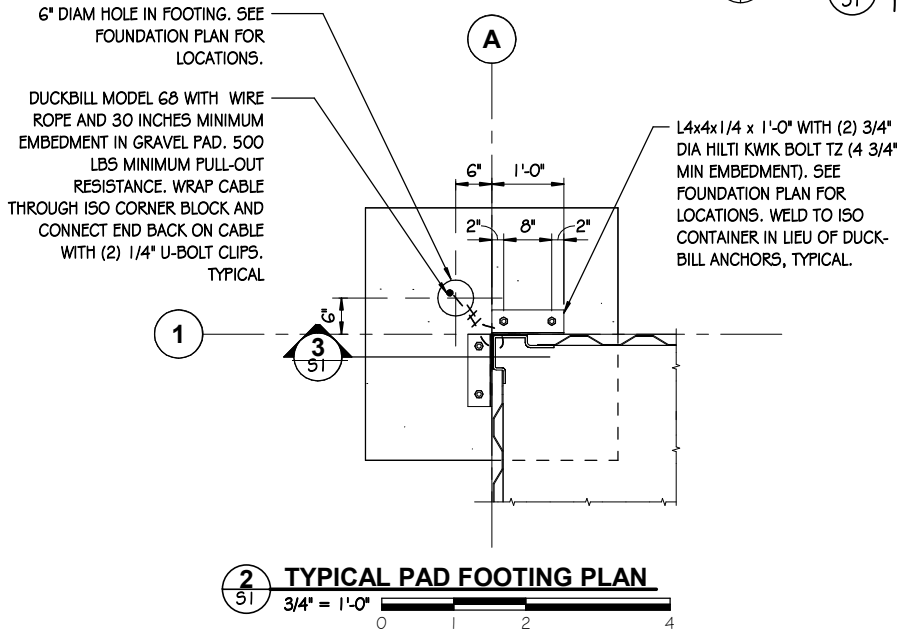
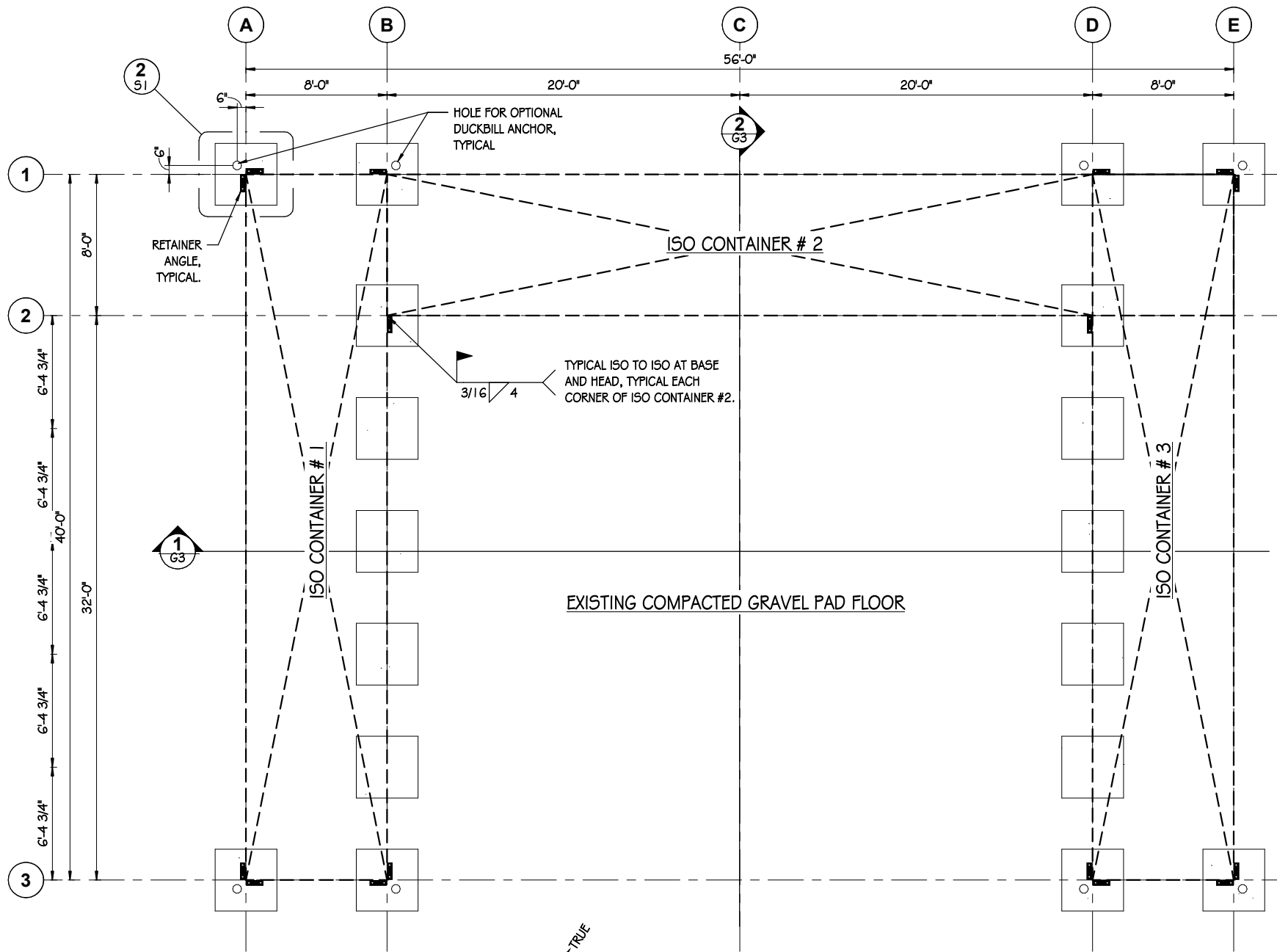
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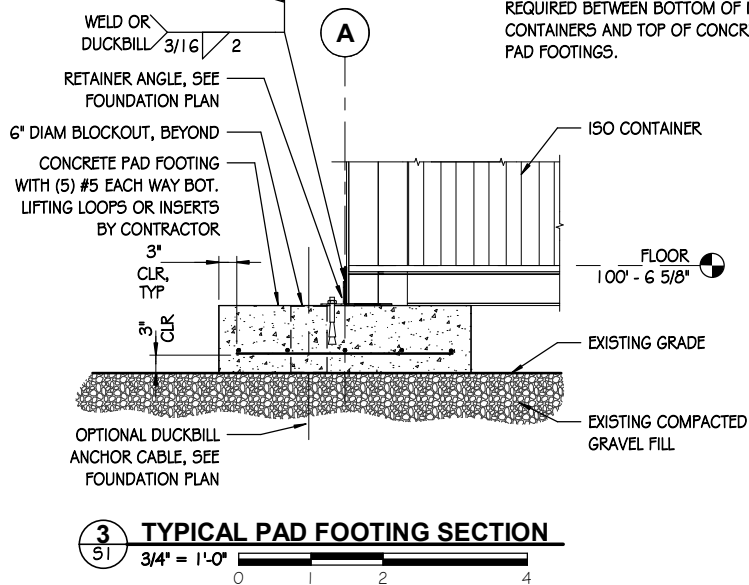
OF 7

**ISSUED FOR CONSTRUCTION**





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



SHEET NOTES:

1. PROVIDE ASTM A36 STEEL SHIMS AS REQUIRED BETWEEN BOTTOM OF ISO CONTAINERS AND TOP OF CONCRETE PAD FOOTINGS.

GENERAL STRUCTURAL NOTES:

THE FOLLOWING NOTES APPLY UNLESS SHOWN OTHERWISE:

CODES AND STANDARDS -  
AS ADOPTED BY THE CITY OF VALDEZ:  
2012 INTERNATIONAL BUILDING CODE (IBC)  
2010 ASCE 7 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.

LIVE LOADS -  
ROOF - 20 PSF  
ATTIC FLOOR - 40 PSF POSTED LOAD LIMIT  
ISO CONTAINER FLOOR - 125 PSF LIGHT STORAGE

SNOW LOADS -  
GROUND SNOW - 160 PSF  
BALANCED ROOF,  $P_f$  - 123 PSF, MIN  
 $C_e$  - 1.00  
 $C_t$  - 1.00  
 $I_s$  - 1.00

LATERAL LOADS -  
WIND  
WIND SPEED,  $V$  - 140 MPH, 3-SEC GUST  
EXPOSURE - C  
IMPORTANCE FACTOR,  $I_w$  - 1.00  
TOPOGRAPHIC FACTOR,  $k_t$  - 1.00  
DIRECTIONALITY FACTOR,  $k_d$  - 0.85  
GUST FACTOR,  $G$  - 0.85

SEISMIC  
DESIGN CATEGORY - II  
SITE CLASS - D  
IMPORTANCE FACTOR,  $I_e$  - 1.00  
SPECTRAL RESPONSE,  $S_s$  - 1.50 g  
 $S_1$  - 0.78 g  
 $F_a$  - 1.00  
 $F_v$  - 1.78  
 $S_{ds}$  - 1.00 g  
 $S_{d1}$  - 0.78 g  
RESISTANCE FACTOR,  $R$  - 6.5 ASCE 7-10, TABLE 16.17.6  
LIGHT FRAMING BEARING / SHEAR WALL  
SEISMIC FACTOR - 0.15 D,  $D=DL+20\%$  SNOW  
BASE SHEAR,  $V_s$  - 20 KIPS, LRFD

SITE PREPARATION -  
THE EXISTING SOILS BENEATH THE BUILDING FOOT PRINT PLUS 5 FEET AROUND PERIMETER SHALL BE EXCAVATED OF ALL PEAT AND ORGANICS TO EXISTING BEDROCK AND BACKFILLED WITH NON-FROST SUSCEPTIBLE (NFS) CLASSIFIED FILL IN LIFTS NOT TO EXCEED 8 INCHES. COMPACT EACH LIFT TO 95% MAXIMUM DENSITY TO FINAL GRADE PER ASTM D1557.

SOILS PRESSURES -  
ALLOWABLE SOILS PRESSURES IN ACCORDANCE WITH UBC TABLE 1806.2 FOR SANDY GRAVEL SOILS:  
BEARING PRESSURE - 3,000 PSF  
SHORT TERM BEARING - 4,000 PSF  
COEFFICIENT OF FRICTION - 0.35

REINFORCING STEEL -  
REINFORCING FOR CONCRETE CONSTRUCTION SHALL BE ASTM A615, GRADE 60, DEFORMED BARS. LAP ALL REINFORCING 55 BAR DIAMETERS MINIMUM, 24 INCHES MINIMUM AT SPLICES.

REINFORCED CONCRETE -  
SPECIAL INSPECTION NOT REQUIRED. CONCRETE MATERIALS SHALL CONFORM TO ACI AND ASTM STANDARDS AS FOLLOWS:  
COMPRESSIVE STRENGTH -  $f'_c = 4,000$  PSI MIN AT 28 DAYS  
AGGREGATES - ASTM C33, 3/4" MAX., NORMAL WT.  
CEMENT - ASTM C150, TYPE I OR III.  
MAX WATER-CEMENT RATIO - 0.45 BY WEIGHT.  
WATER - CLEAR POTABLE.  
AIR ENTRAINMENT - ASTM C260, 4% TO 7% BY VOL.

CONCRETE COVER -  
MINIMUM CONCRETE COVER TO REINFORCING AS FOLLOWS:  
CONCRETE CAST AGAINST EARTH - 3 INCHES  
FORMED CONCRETE EXPOSED TO WEATHER - 2 INCHES  
WALLS NOT EXPOSED TO EARTH OR WEATHER - 1-1/2 INCHES  
SLABS NOT EXPOSED TO EARTH OR WEATHER - 3/4 INCHES

POST-INSTALLED ANCHORS -  
SPECIAL INSPECTION NOT REQUIRED. ICC REPORTS REQUIRED FOR ALL TYPES OF POST-INSTALLED ANCHORS. INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN REQUIREMENTS INCLUDING DRILL BIT, HOLE DIAMETER AND DEPTH, HOLE CLEANING, ANCHOR INSTALLATION, FASTENER ATTACHMENT, AND TORQUE.

EXPANSION ANCHORS:  
RED HEAD "TRUBOLT+", HILTI "KWIK-BOLT TZ", SIMPSON "STRONG BOLT", OR APPROVED EQUIVALENT.

STRUCTURAL STEEL -  
ALL STRUCTURAL STEEL SHALL CONFORM TO AISC AND ASTM SPECIFICATIONS AS FOLLOWS:  
ANGLES - ASTM A36,  $F_y = 36$  KSI  
BOLTS - ASTM A307A, GALVANIZED  
NUTS - ASTM A563A, GALVANIZED  
WASHERS - ASTM F844, GALVANIZED  
SHOP PAINT - SSPC PAINT 25, IRON ALKLYD AFTER FABRICATION

STRUCTURAL STEEL WELDING -  
SPECIAL STRUCTURAL INSPECTION REQUIRED, SEE NOTES BELOW. ALL STRUCTURAL STEEL WELDS SHALL BE PRE QUALIFIED AND CONFORM TO AISC AND AWS SPECIFICATIONS AS FOLLOWS:

WELDERS - CERTIFIED FOR ROD AND POSITION  
ELECTRODES - E70XX; HEAVY COATED, LOW HYDROGEN  
MINIMUM WELD - CONTINUOUS FILLET PER AISC TABLE J2.4.

CONTRACTOR SHALL SUBMIT WELDER QUALIFICATIONS AND PROCEDURE QUALIFICATIONS. WHERE NOT SHOWN, USE MIN. WELD SIZE PER AISC AND AWS.

WELDS EXPOSED IN FINISHED WORK SHALL BE FREE OF SLAG, SPATTER, AND GOUGES. SHARP EDGES SHALL BE GROUND SMOOTH. BACK BARS AND RUN-OFF TABS SHALL BE REMOVED.

STRUCTURAL LUMBER -  
ALL STRUCTURAL LUMBER SHALL BE HEM FIR NO. 2 OR BETTER FOR 2X4 AND LARGER AND CONSTRUCTION GRADE FOR 2X3 AND SMALLER. USE PRESSURE TREATED LUMBER AT ALL WOOD INSTALLED WITHIN 1 INCH OF CONCRETE.

TYPICAL FRAMING NOTES -  
ALL WOOD FRAMING SHALL BE IN ACCORDANCE WITH IBC SECTION 2308. MINIMUM CONNECTIONS AND FASTENERS SHALL COMPLY WITH IBC TABLE 2304.9.1.

METAL TIMBER CONNECTORS -  
STEEL CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR APPROVED EQUIVALENT.

PRE-ENGINEERED WOOD ROOF TRUSSES -  
ALL PRE-ENGINEERED ROOF TRUSSES SHALL DESIGNED TO MEET DESIGN CRITERIA SHOWN IN THESE DRAWINGS, 2012 IBC, AND ASCE 7-10 LOAD COMBINATIONS. ROOF TRUSSES SHALL BE MANUFACTURED IN CONFORMANCE WITH TRUSS PLATE INSTITUTE ANSI / TPI D58. TRUSS MANUFACTURER SHALL PROVIDE ALL INTERNAL BRIDGING AND BRACING AS SHOWN IN TRUSS FABRICATION DRAWINGS.

SHEATHING -  
ALL SHEATHING SHALL CONFORM TO AP SPECIFICATIONS AND THICKNESS AS FOLLOWS:  
WALL - 5/8-INCH T-11 SIDING, 32/16 APA DOC P52  
ROOF - 3/4-INCH CDX PLYWOOD, 48/24 APA DOC P52

ALL WALL SHEATHING SHALL BE LAID FACE GRAIN (MARKED SPAN DIRECTION) VERTICAL. FASTEN ALL WALL SHEATHING TO WOOD FRAMING WITH 10d COMMON NAILS AT 6" O.C. MAX TO SUPPORTS AND 12" O.C. WITHIN THE FIELD. INSTALL 2x (FLAT) BLOCKING AT ALL UNSUPPORTED WALL PANEL EDGES. AT SHEAR WALLS WHERE SHEATHING OCCURS ON BOTH SIDES OF WALL AND NAIL SPACING IS LESS THAN 6" ON CENTER, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR MEMBERS SHALL BE 3-INCH NOMINAL OR DOUBLE 2x STITCH NAILED WITH (2) ROWS OF 10d COMMON NAILS AT 6" O.C., STAGGERED. FASTEN ALL ROOF SHEATHING TO WOOD FRAMING WITH 10d COMMON NAILS AT 6" O.C. UNBLOCKED AT PANEL EDGES AND 6" O.C. WITHIN FIELD..

SPECIAL STRUCTURAL INSPECTION - NONE

DEFERRED SUBMITTALS - PRE-ENGINEERED ROOF TRUSSES

GENERAL CONTRACTOR NOTES -  
CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AND SHORING REQUIRED FOR THE ERECTION OF THE BUILDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, AND SEQUENCES OF PROCEDURES REQUIRED TO PERFORM THE WORK. CONTRACTOR SHALL COORDINATE ALL TRADES AND VERIFY DIMENSIONS IN THE FIELD. THESE DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER.

STATE OF ALASKA  
49 TH  
David R. Booker  
SE 13599  
REGISTERED PROFESSIONAL ENGINEER  
1/11/2017

By: \_\_\_\_\_  
Revision: \_\_\_\_\_  
Date: \_\_\_\_\_  
No. \_\_\_\_\_

10640 Republic Circle  
Anchorage, Alaska 99515  
907-344-1646 voice  
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III Integral  
Engineering  
David R. Booker, PE, SE  
Civil / Structural Engineer

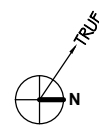
PROJECT:  
GITW STORAGE GARAGE  
4550 Kodiak Cove  
Valdez, Alaska

Robe Lake Wilderness Estates, Block 3, Lot 1

DRAWING TITLE:  
GENERAL  
STRUCTURAL NOTES,  
FOUNDATION PLAN &  
DETAILS

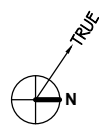
DATE: 1/11/2017  
JOB NUMBER: 17026  
OPERATOR: DRB

SHEET NO:  
S1  
7 OF 7




$1/4'' = 1'-0''$

0 1 2 3 4 6 8 12



$1/4'' = 1'-0''$



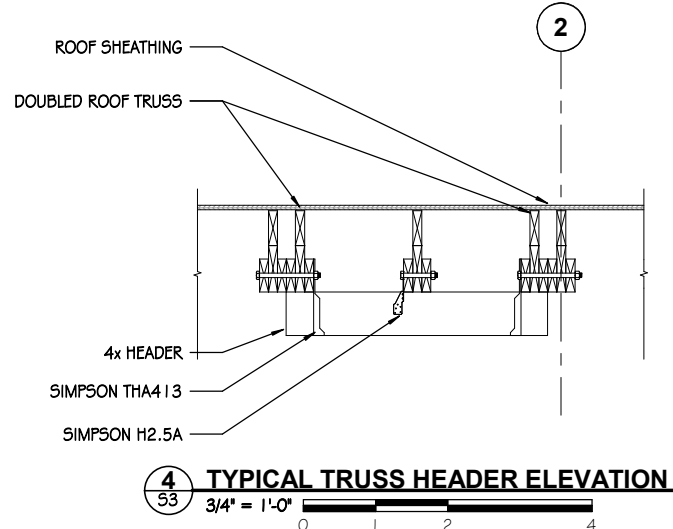
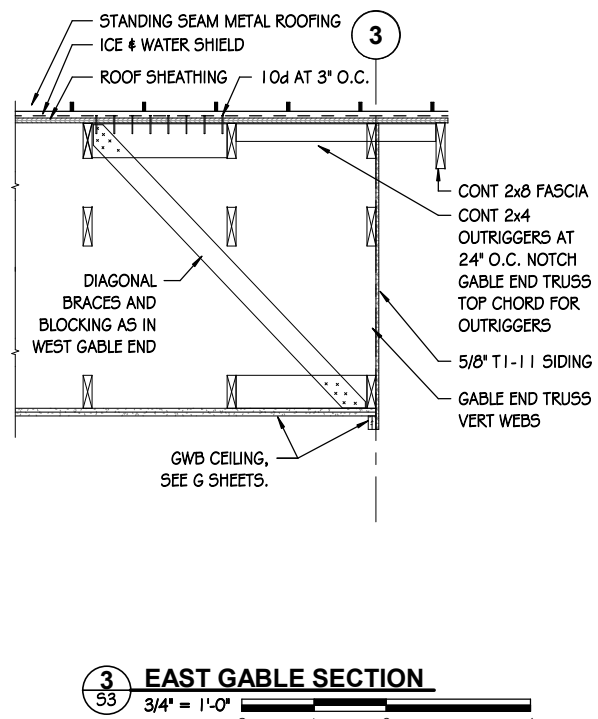
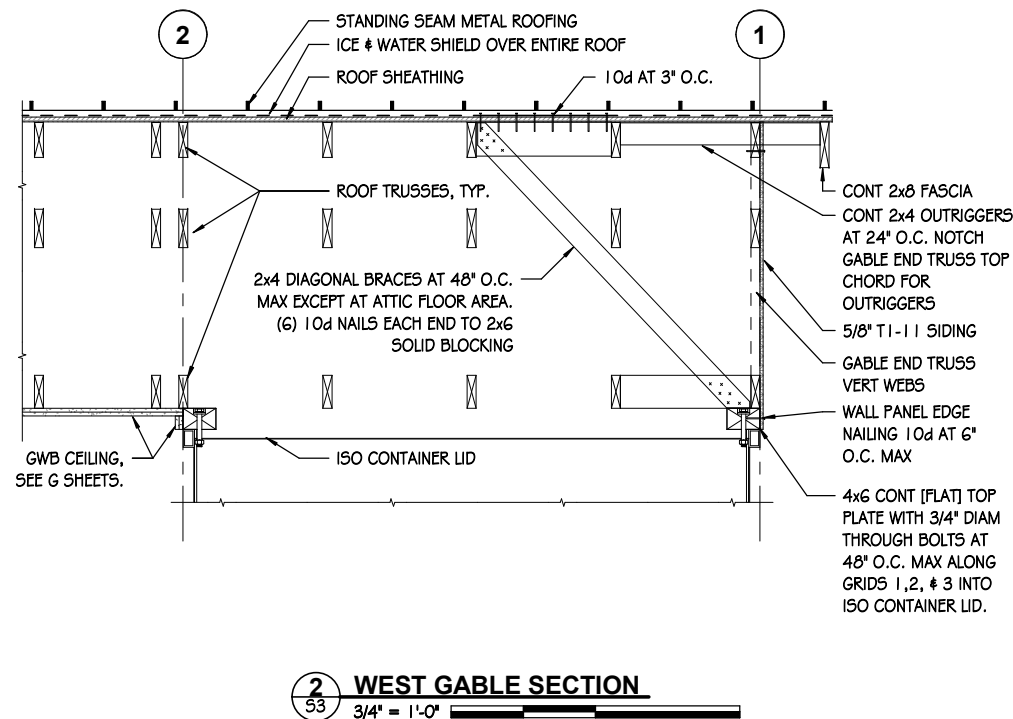
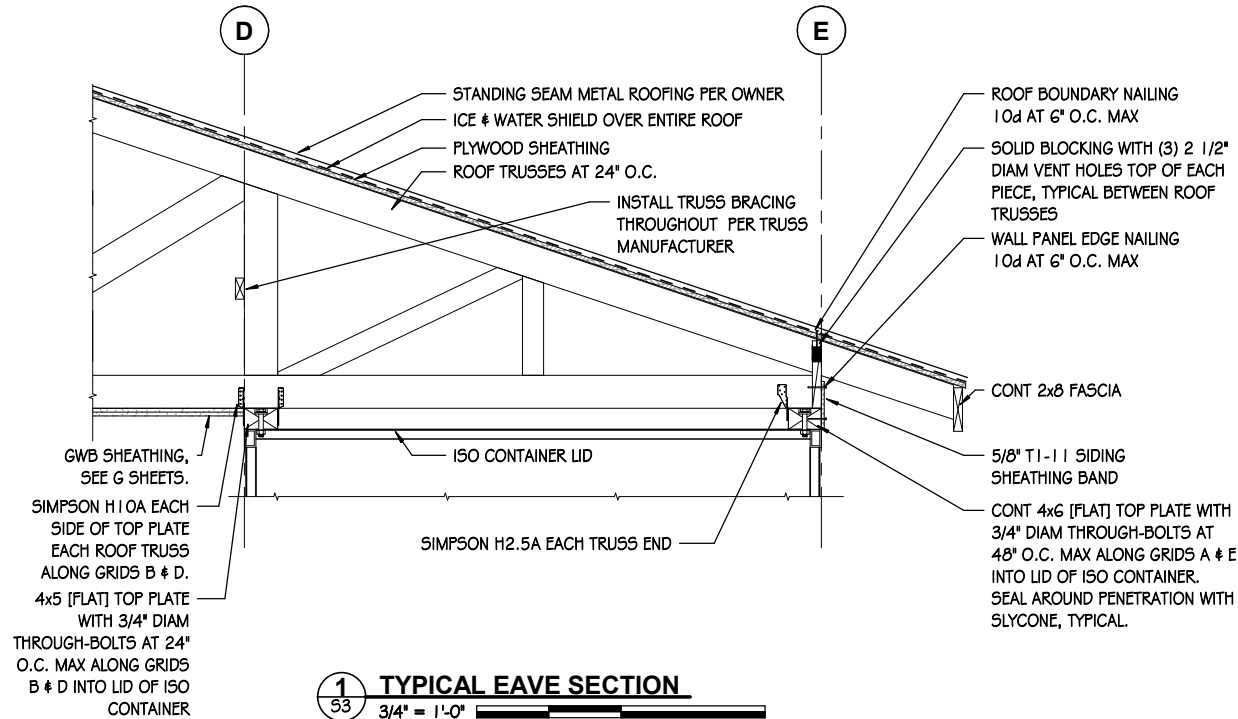
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### 3 TYPICAL ROOF TRUSS BOTTOM CHORD SPLICE



## 4 TYPICAL ROOF TRUSS TOP CHORD SPLICE



By	
Revision	
Date	
No.	
10540 Republic Circle Anchorage, Alaska 99515 907-344-1646 voice integral@gci.net	
<b>Integral Engineering</b> David R. Booker, PE, SE Civil / Structural Engineer	
PROJECT: <b>GITW STORAGE GARAGE</b> 4550 Kodiak Cove Valdez, Alaska Robe Lake Wilderness Estates, Block 3, Lot 1	
DRAWING TITLE: <b>ROOF FRAMING DETAILS</b>	
DATE: 11/12/17 JOB NUMBER: 17025 OPERATOR: DRB	
SHEET NO: <b>S3</b> 7 OF 7	

ISSUED FOR CONSTRUCTION