

GENERAL STRUCTURAL NOTES

GENERAL

THE CONTRACTOR MUST VERIFY AND COORDINATE ALL DIMENSIONS AMONG THE DRAWINGS BEFORE STARTING ANY WORK OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, REFERENCE STANDARDS, SITE CONDITIONS OR GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS MUST GOVERN. CONTRACTOR MUST NOTIFY THE ENGINEER OF DISCREPANCIES AND OBTAIN DIRECTION PRIOR TO PROCEEDING. NOTES ON INDIVIDUAL STRUCTURAL DRAWINGS MUST TAKE PRIORITY OVER GENERAL STRUCTURAL NOTES. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED AS TYP ON THE PLANS BUT MUST APPLY AS SHOWN OR DESCRIBED IN THE DETAILS.

ALL CONSTRUCTION MUST COMPLY WITH THE 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC) AS AMENDED AND ADOPTED BY THE MUNICIPALITY OF ANCHORAGE (MOA).

SAFETY - THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL FEDERAL, STATE AND LOCAL SAFETY STANDARDS. THE CONTRACTOR IS IN CHARGE OF ALL SAFETY MATTERS ON AND AROUND THE JOB SITE.

STRUCTURAL DESIGN DATA

STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2018 IEBC AS AMENDED AND ADOPTED BY THE MUNICIPALITY OF ANCHORAGE. RISK CATEGORY IS II IN ACCORDANCE WITH IBC SECTION 1604.5. WORK UNDER THE IEBC IS CONSIDERED A REPAIR. REPAIRS WILL BE IMPLEMENTED ACCORDING TO SECTION 405 OF THE IEBC.

THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SHORING AND BRACING DURING CONSTRUCTION.

SNOW LOADS: GROUND SNOW (Pg)= 50 PSF
Is=1.0, Ct=1.0, Ce=1.0
ROOF SNOW (Pf)= 40 PSF FLAT PLUS DRIFT

WIND LOADS: BASIC WIND SPEED (3-SECOND GUST, Vult)=145 MPH,
EXPOSURE B, INTERNAL PRESSURE GCpi= ±0.18 (ENCLOSED)

EXISTING CONDITIONS

CONTRACTOR MUST VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING WORK. DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. EXISTING CONDITIONS SHOWN ON DRAWINGS ARE BASED ON EITHER SITE OBSERVATIONS, ORIGINAL DRAWINGS, OR WERE ASSUMED BASED ON EXPECTED CONDITIONS. IF EXISTING CONDITIONS DO NOT CLOSELY MATCH CONDITIONS SHOWN ON DRAWINGS, OR IF EXISTING MATERIALS ARE OF QUESTIONABLE OR SUBSTANDARD QUALITY, NOTIFY ENGINEER PRIOR TO COMMENCING WORK.

WHERE (E) TRUSSES EXCEED A 1/4 INCH: 1 FOOT OUT OF LEVEL, LEVEL AND SQUARE (E) TRUSSES PRIOR TO REPAIR; JACK AND SHIM AS REQ'D.

STRUCTURAL TIMBER

MATERIALS:
DIMENSIONAL LUMBER: HEM-FIR NO. 2 OR BETTER
PLYWOOD GUSSET: SPAN RATED 32/16, 15/32 PERFORMANCE CATEGORY
(NOMINAL THICKNESS: 1/2-INCH)
BOLTS, WASHERS, & NUTS: ASTM A307, F436 & A563

WHERE GLUING IS INDICATED, PROVIDE ELMER WOOD GLUE MAX, GORILLA GLUE, TITEBOND 3, LOCTITE 8xPL (ASTM D3498), OR A RESORCINOL-BASED GLUE. ALL GLUES MUST BE ANSI TYPE 1 OR 2 WATERPROOF/RESISTANT EXTERIOR WOOD GLUES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES.

SPECIAL INSPECTION

THE OWNER MUST ENGAGE A SPECIAL INSPECTOR PER CHAPTER 17 OF THE IBC. COPIES OF INSPECTION REPORTS MUST BE AVAILABLE TO THE CONSTRUCTION SITE FOR REVIEW BY THE MOA BUILDING SAFETY PERSONNEL. SEE S2 FOR FURTHER SPECIAL INSPECTION REQUIREMENTS.

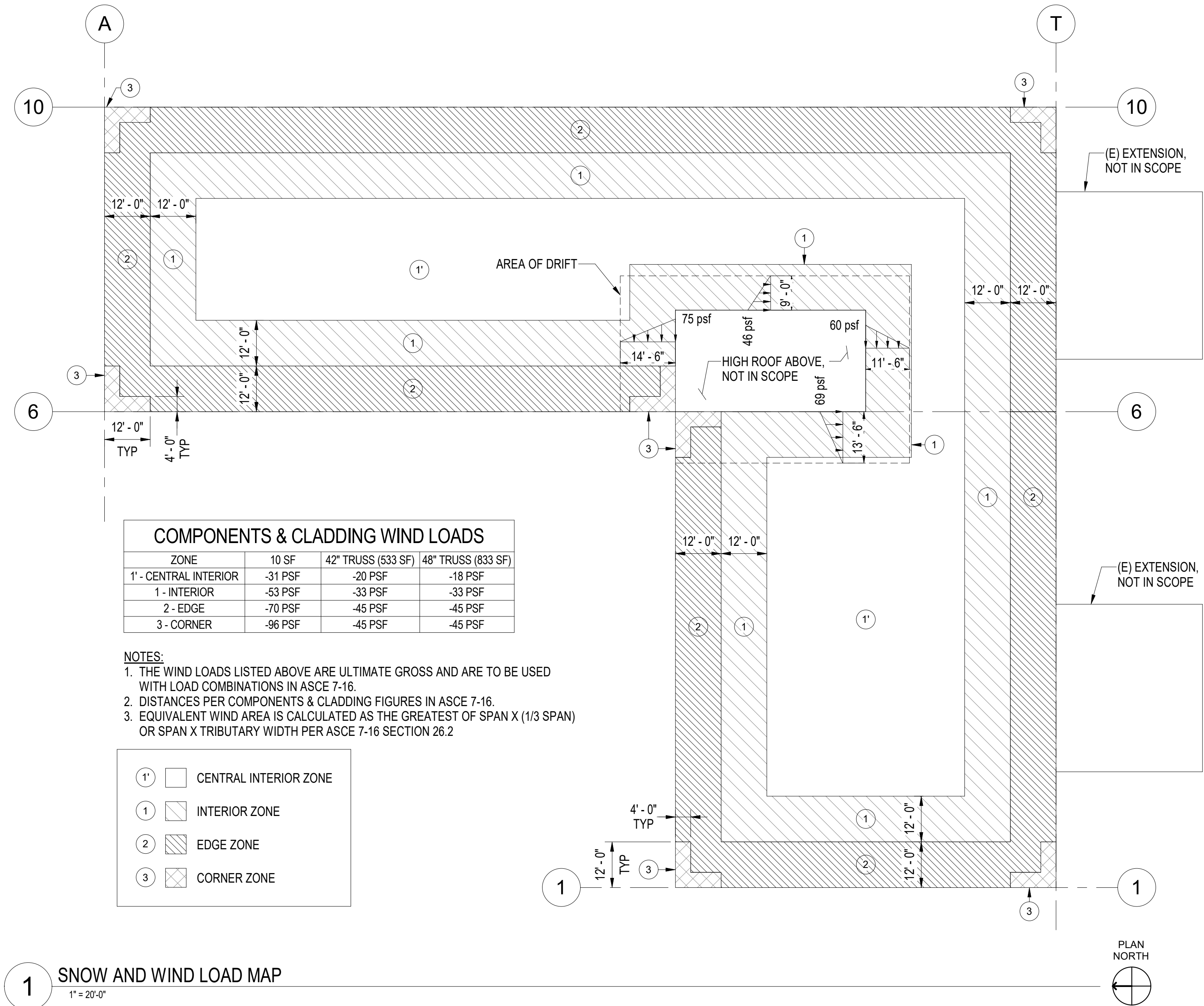
TYPICAL TRUSS REPAIRS

ALL SNOW LOAD MUST BE REMOVED FROM THE TRUSSES PRIOR TO REPAIRS.

PLYWOOD GUSSETS MAY BE NOTCHED TO ALLOW FOR PIPES AND CONDUITS PERPENDICULAR TO THE TRUSS. ROUND ALL INSIDE CORNERS WITH 1/2" RADIUS TO PREVENT STRESS CONCENTRATIONS.

MEMBERS THAT SPLIT DURING PREDRILLING OR INSTALLATION OF REPAIRS MUST BE REMOVED AND REPLACED.

WHERE EXISTING HARDWARE (STRAPS, HURRICANE TIES, MECH/ELEC/SPRINKLER HANGERS, ETC) INTERFERES WITH REPAIR DETAIL, REMOVE THE EXISTING HARDWARE AND REINSTALL THE EXISTING HARDWARE (IF IT CAN BE SALVAGED), OR REINSTALL NEW HARDWARE TO MATCH ORIGINAL.



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CONSTRUCTION DOCUMENTS



161 KLEVIN ST TYPICAL TRUSS REPAIRS
ANCHORAGE, AK

REVISION SCHEDULE		
#	DESCRIPTION	DATE

DATE: 02/21/25
PROJECT #: 402024.031.001
DRAWN BY: GC
CHECKED BY: EH

SHEET DESCRIPTION:
GENERAL NOTES &
LOAD MAP

SHEET NO:

S1

WOOD GANG-NAIL PLATE TRUSS SPECIAL INSPECTION

THE CONTRACTOR MUST ENGAGE A SPECIAL INSPECTOR. COPIES OF INSPECTION REPORTS MUST BE AVAILABLE TO THE CONSTRUCTION SITE FOR REVIEW BY THE MOA BUILDING SAFETY PERSONNEL.

- PERIODIC SPECIAL INSPECTION IS REQUIRED DURING CONSTRUCTION AS FOLLOWS:
- VERIFY REPAIRS IN ACCORDANCE WITH THESE DOCUMENTS (DAILY).
 - VERIFY THAT 100% OF TRUSS MEMBERS ARE NOT DISTRESSED. THIS VISUAL VERIFICATION MUST POSITION THE SPECIAL INSPECTOR WITHIN 4'-0" OF EACH MEMBER. DECLARATION THAT A MEMBER IS NOT DISTRESSED FROM FARTHER THAN 4'-0" WILL NOT BE ACCEPTED.

IF A DISTRESSED MEMBER IS IDENTIFIED BY THE SPECIAL INSPECTOR OR CONTRACTOR, SUBMIT A PHOTO OF THE MEMBER, PROPERLY LABELED, IN A REPORT (DAILY REPORT, RFI OR OTHER) TO ENGINEER, AND ENGINEER WILL DETERMINE IF REPAIR IS REQUIRED. COMMON TYPES OF OBSERVED DISTRESS THAT THE SPECIAL INSPECTOR AND CONTRACTOR SHOULD BE LOOKING FOR ARE DEFINED ON THIS SHEET.

COPIES OF THE SPECIAL INSPECTION (SI) REPORTS SHALL BE DISTRIBUTED TO THE MOA BUILDING SAFETY DIVISION, THE GENERAL CONTRACTOR AND THE ENGINEER OF RECORD. SI REPORTS SHALL BE COMPLETED DAILY AND DISTRIBUTED ON A WEEKLY BASIS AND SHALL BE DISTRIBUTED BY THE MONDAY FOLLOWING THE WEEK IN WHICH THE INSPECTION WAS COMPLETED. A COPY OF ALL SPECIAL INSPECTION REPORTS, DEFICIENCIES, DISTRESS, AND CORRECTIVE ACTIONS SHALL BE MAINTAINED AT THE JOB SITE.

SITE VISITS BY THE ENGINEER OF RECORD OR THEIR REPRESENTATIVE SHALL BE MADE ON A PERIODIC BASIS AT CRITICAL STAGES OF CONSTRUCTION TO MAKE VISUAL OBSERVATIONS OF THE CONSTRUCTION FOR GENERAL CONFORMANCE TO THE CONSTRUCTION DOCUMENTS. COPIES OF THE OBSERVATION REPORTS (SOR) SHALL BE DISTRIBUTED WITHIN 2 WORKING DAYS OF THE SITE VISIT TO THE GENERAL CONTRACTOR, AND TO THE SPECIAL INSPECTOR INVOLVED IN ANY ISSUES RAISED IN THE REPORT.

CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE MOA, IN ACCORDANCE WITH IBC 1704.4. THE STATEMENT SHALL ACKNOWLEDGE AWARENESS OF THE SPECIAL INSPECTION REQUIREMENTS; ACKNOWLEDGE THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS; IDENTIFY PROCEDURES FOR EXERCISING CONTROL; THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS; AND IDENTIFY PERSONS THAT WILL EXERCISE CONTROL AND THEIR QUALIFICATIONS.

COMMON DISTRESS TYPES

THIS SHEET REPRESENTS A NON-EXHAUSTIVE LIST OF TYPICAL TYPES OF DISTRESS THAT HAVE BEEN OBSERVED IN PRE-1990 WOOD GANG-NAIL ROOF TRUSSES IN COMMERCIAL BUILDINGS (LONG-SPAN) IN ANCHORAGE, ALASKA IN 2023 AND 2024 BY REID MIDDLETON, INC.

THESE AND OTHER TYPES OF STRUCTURAL DISTRESS SHALL BE NOTED BY SPECIAL INSPECTORS AND CONTRACTOR WHEN OBSERVED DURING THE NORMAL EXECUTION ON THEIR DUTIES, AND SHALL BE REPORTED TO THE ENGINEER TO DETERMINE IF CORRECTIVE ACTION IS NEEDED.

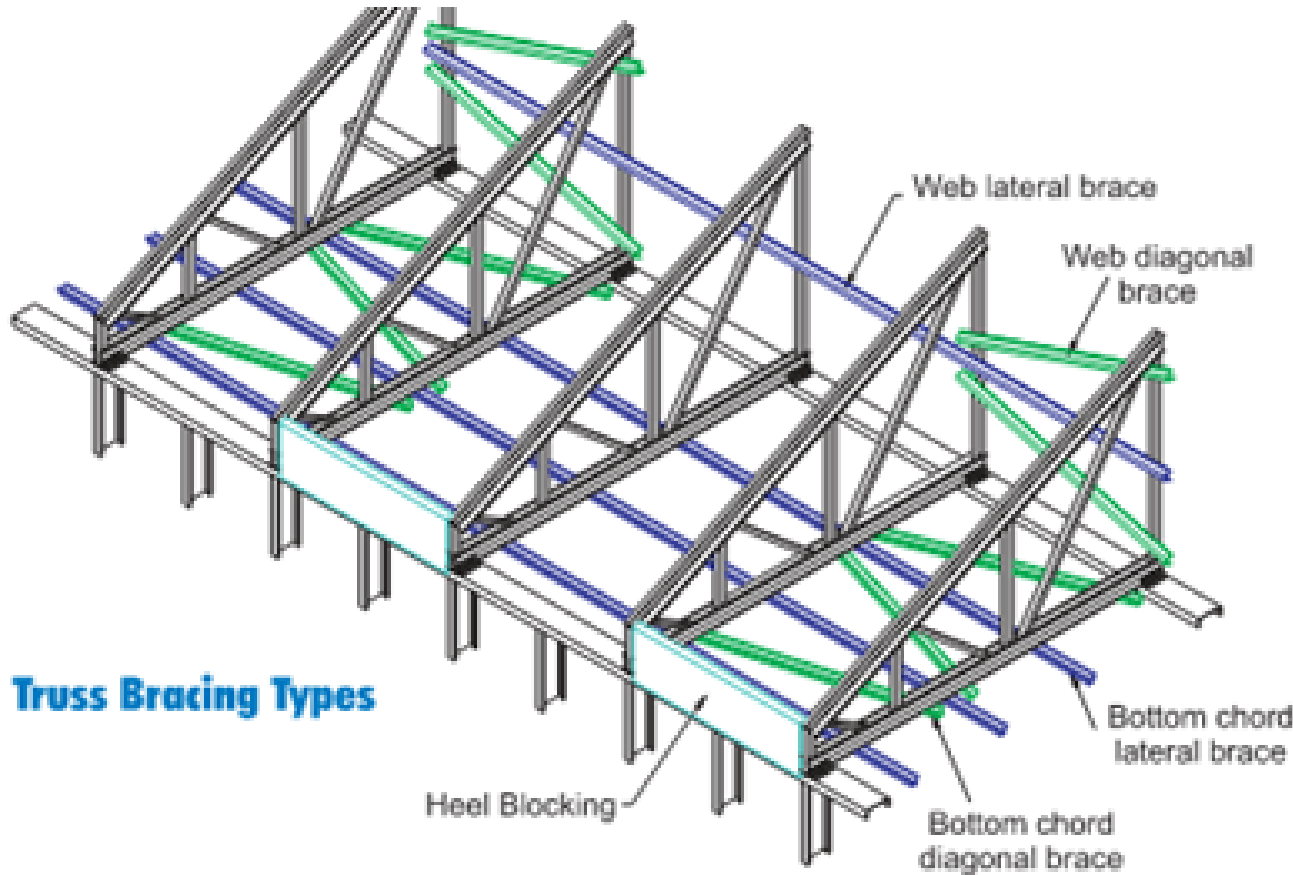
MOA POLICY S.12 ALSO IDENTIFIES ADDITIONAL TYPES OF DISTRESS, AND CROSS REFERENCES ARE PROVIDED WHERE APPLICABLE.



1 MEMBER SECTION LOSS
S2 NTS



- SECTION LOSS OR BROKEN MEMBERS IN TRUSS MEMBERS, INCLUDING ROT.
- THROUGH-THICKNESS AND OTHER SEVERE CHECKING.
- LARGE KNOTS IN TENSION MEMBERS.
- MOA S.12, ITEMS C & D.



- INADEQUATE PERMANENT LONG-WEB MEMBER STABILITY BRACING.
- INADEQUATE BOTTOM CHORD BRACING (WHERE THERE IS NO CEILING).
- SEE TPI STANDARDS.
- MOA S.12, ITEM H.

2 INADEQUATE STABILITY BRACING
S2 NTS



- NON-STRUCTURAL PARTITIONS BUILT TO UNDERSIDE OF TRUSSES WITH NO DEFLECTION JOINT.

3 NON-STRUCTURAL PARTITIONS
S2 NTS

CONSTRUCTION DOCUMENTS

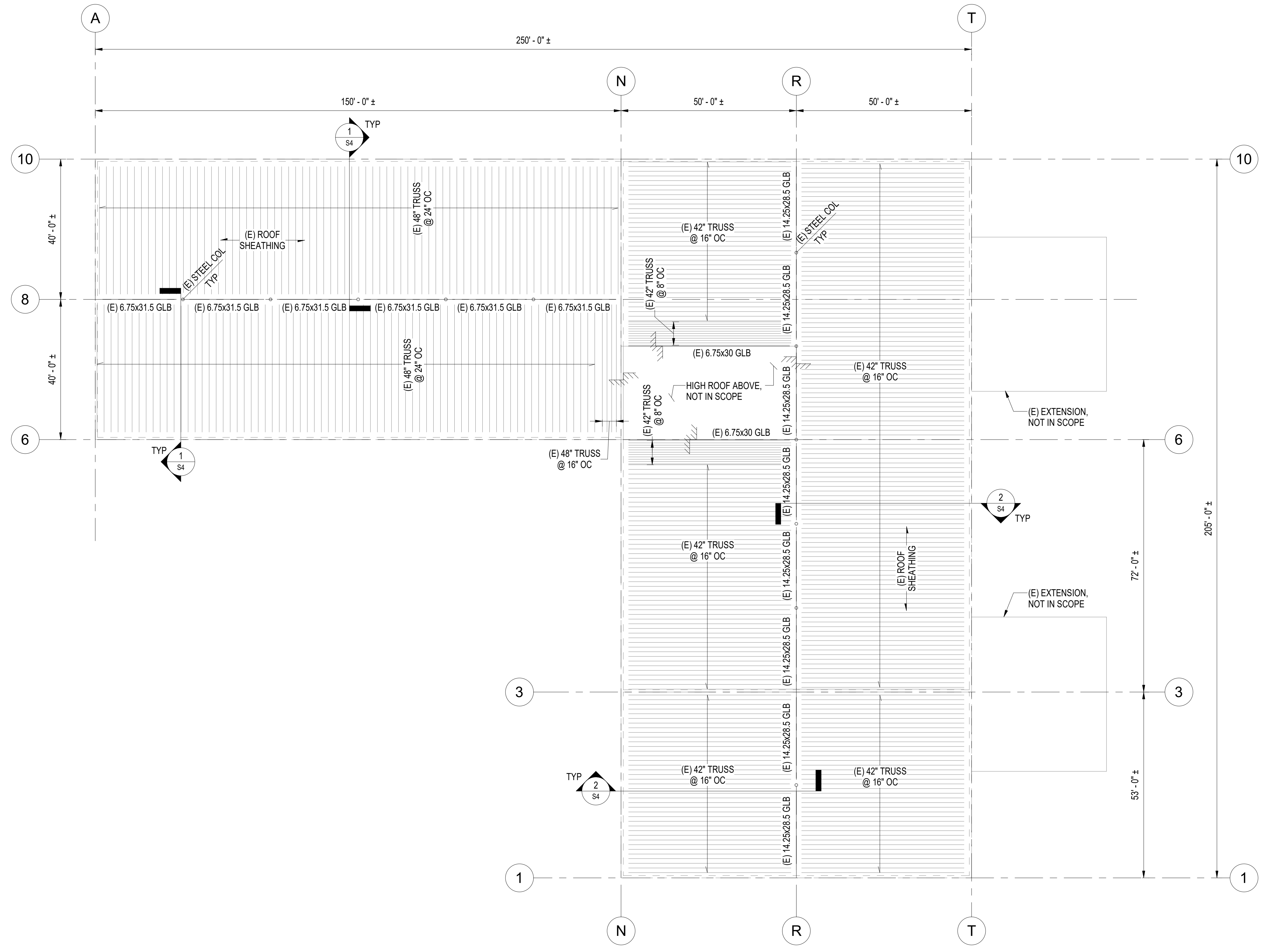


REVISION SCHEDULE		
#	DESCRIPTION	DATE

DATE : 02/21/25
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DRAWN BY : GC
CHECKED BY : EH

SHEET DESCRIPTION:
WOOD TRUSS
SPECIAL
INSPECTION

SHEET NO:
S2



1 ROOF PLAN
1/16" = 1'-0"



CONSTRUCTION DOCUMENTS

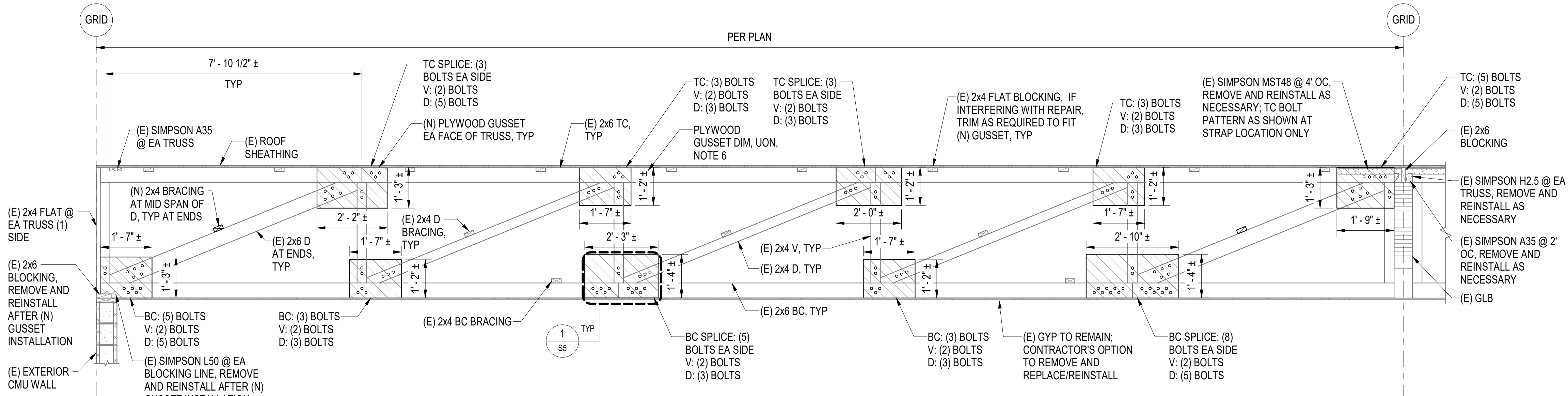


161 KLEVIN ST TYPICAL TRUSS REPAIRS
ANCHORAGE, AK

REVISION SCHEDULE		
#	DESCRIPTION	DATE

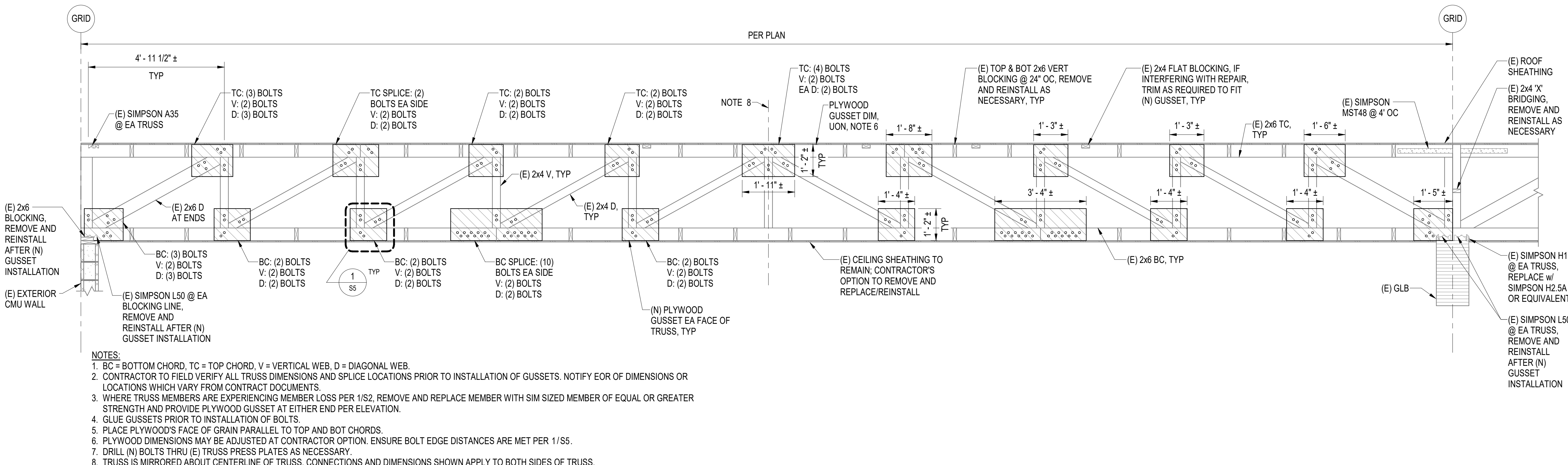
DATE: 02/21/25
PROJECT #: 402024.031.001
DRAWN BY: GC
CHECKED BY: EH

SHEET DESCRIPTION:
ROOF PLAN



- NOTES:
1. BC = BOTTOM CHORD, TC = TOP CHORD, V = VERTICAL WEB, D = DIAGONAL WEB.
 2. CONTRACTOR TO FIELD VERIFY ALL TRUSS DIMENSIONS AND SPLICE LOCATIONS PRIOR TO INSTALLATION OF GUSSETS. NOTIFY EOR OF DIMENSIONS OR LOCATIONS WHICH VARY FROM CONTRACT DOCUMENTS.
 3. WHERE TRUSS MEMBERS ARE EXPERIENCING MEMBER LOSS PER 1/S2, REMOVE AND REPLACE MEMBER WITH SIM SIZED MEMBER OF EQUAL OR GREATER STRENGTH AND PROVIDE PLYWOOD GUSSET AT EITHER END PER ELEVATION.
 4. GLUE GUSSETS PRIOR TO INSTALLATION OF BOLTS.
 5. PLACE PLYWOOD'S FACE OF GRAIN PARALLEL TO TOP AND BOT CHORDS.
 6. PLYWOOD DIMENSIONS MAY BE ADJUSTED AT CONTRACTOR OPTION. ENSURE BOLT EDGE DISTANCES ARE MET PER 1/S5.
 7. DRILL (N) BOLTS THRU (E) TRUSS PRESS PLATES AS NECESSARY.

1 48" TRUSS ELEVATION
1/2" = 1'-0"



- NOTES:
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 7. DRILL (N) BOLTS THRU (E) TRUSS PRESS PLATES AS NECESSARY.
 8. TRUSS IS MIRRORED ABOUT CENTERLINE OF TRUSS. CONNECTIONS AND DIMENSIONS SHOWN APPLY TO BOTH SIDES OF TRUSS.

2 42" TRUSS ELEVATION
1/2" = 1'-0"

CONSTRUCTION DOCUMENTS



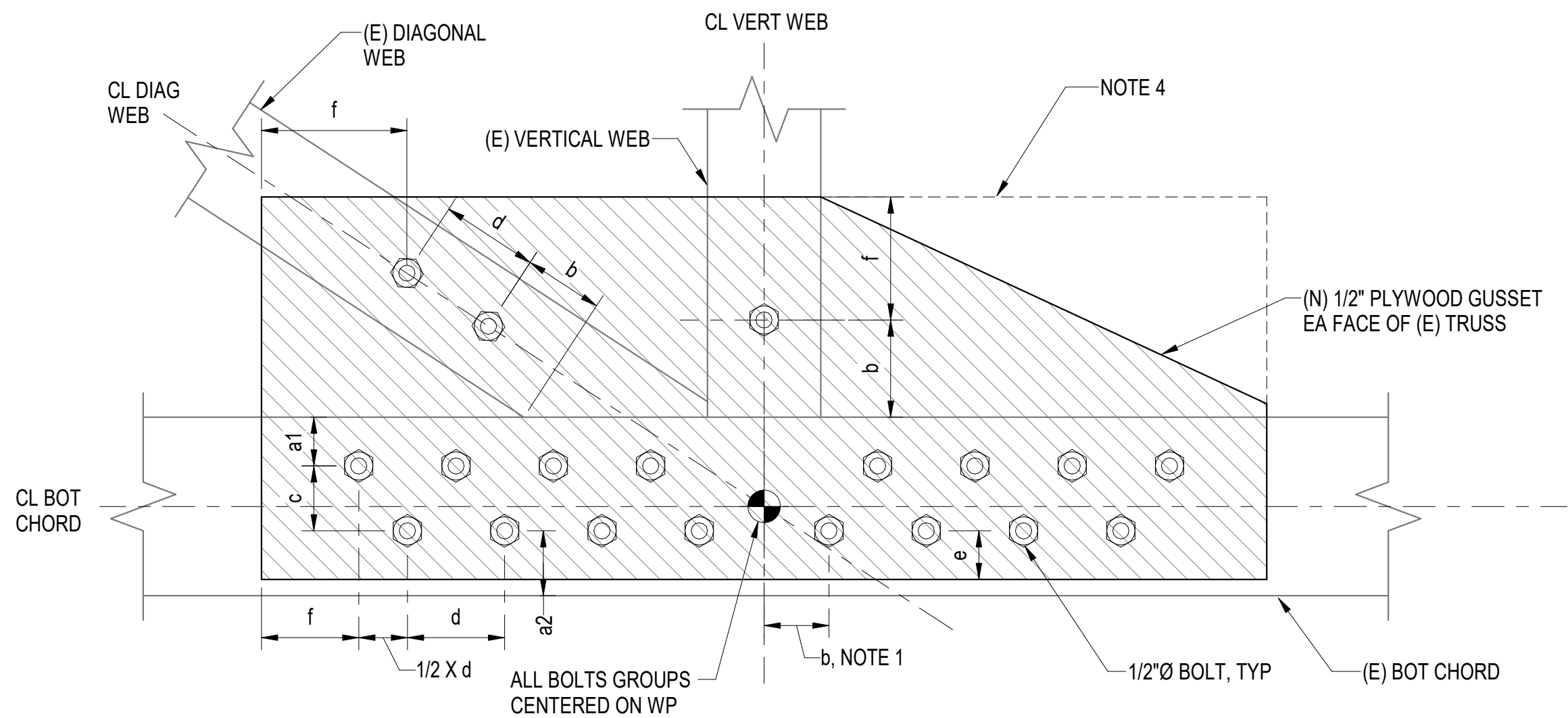
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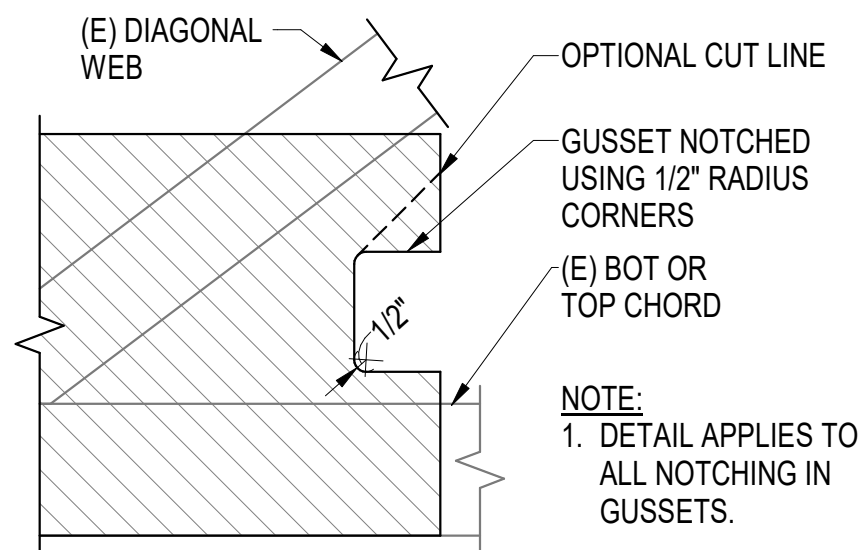
SHEET DESCRIPTION:
TRUSS ELEVATIONS

SHEET NO:
S4



- NOTES:
1. DIMENSION APPLIES FOR SPLICE END DISTANCES.
 2. LAYOUT SHOWN HERE IS TYPICAL AND NOT SPECIFIC TO THIS PROJECT. LAYOUT BOLTS AND PLYWOOD AS SHOWN ON TRUSS ELEVATION.
 3. ELONGATE 'd' DIMENSION TO SPREAD CHORD BOLTS OVER FULL LENGTH OF GUSSET.
 4. CONTRACTOR MAY CUT PLYWOOD GUSSET PROVIDED MIN EDGE/END DISTANCES ARE MAINTAINED.
 5. DETAIL APPLIES TO ALL WOOD GUSSET CONNECTIONS.

MINIMUM EDGE/END DISTANCES	
MAIN MEMBER (E) 2x	
EDGE, a1	3/4"
EDGE TC & BC, a2	2"
END, b	3-1/2"
BTWN ROWS OF BOLTS, c	1-1/2"
BTWN BOLTS IN A ROW, d	3" FOR STAGGERED, 2" ELSE, NOTE 3
SIDE MEMBER (PLYWOOD GUSSET)	
EDGE, e	1-1/2"
END, f	3"



1

S5

TYPICAL TRUSS REPAIR DETAIL

3" = 1'-0"

2

S5

ACCEPTABLE NOTCHES IN PLYWOOD GUSSET

1 1/2" = 1'-0"

CONSTRUCTION

DOCUMENTS



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ANCHORAGE, AK

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SHEET DESCRIPTION:
REPAIR DETAILS

SHEET NO:

S5