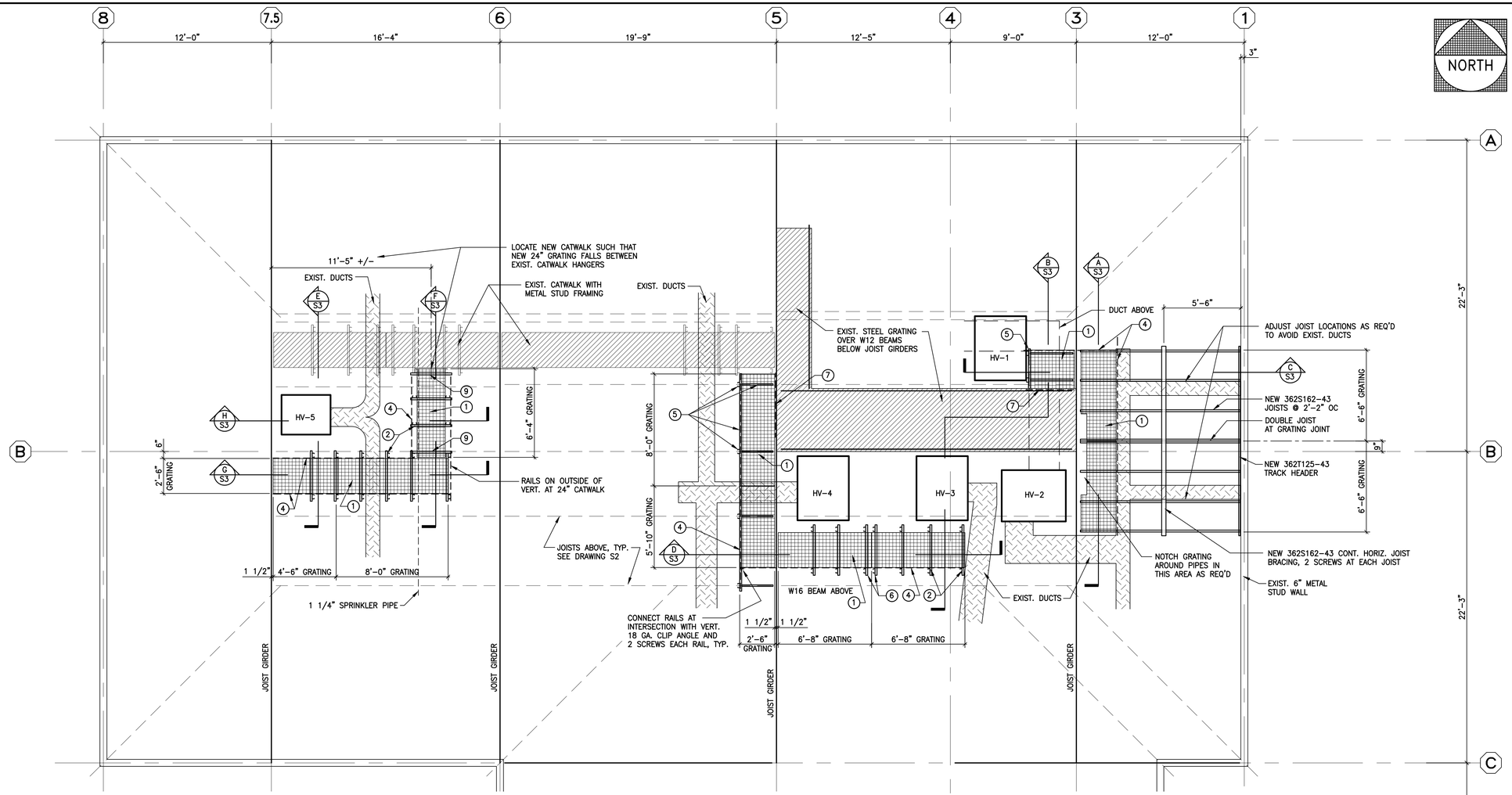
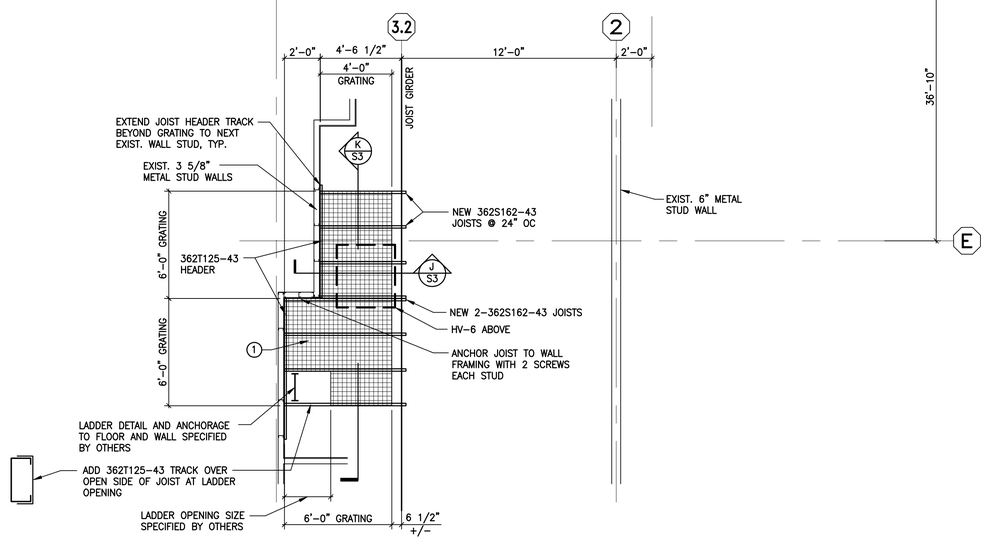


A CATWALK FRAMING PLAN

SCALE: 1/4"=1'-0"

KEY NOTES

1. NEW 1" MOLDED FIBERGLASS GRATING, BEAR ON TOP OF JOIST GIRDER BOTTOM CHORD ANGLES.
2. NEW CATWALK HANGER FRAMES WITH 362S162-43 VERT. AND HORIZ. MEMBERS, SEE 4/S4.
3. NEW L 2x2x3/16 STEEL BEAM FOR HANGER FRAME SUPPORT, SEE 4/S4.
4. NEW (2) 362T125-33 CONTINUOUS BOX RAILS, SEE DETAIL 1/S3. RAILS CAN BE INTERRUPTED FOR ACCESS TO HV UNITS.
5. NEW 362S162-43 VERT. HANGERS WITH 362S162-43 HORIZ. BEAM, MIN. 2 SCREWS EACH LAP. PROVIDE 362T125-43 SWAY BRACE TO JOIST GIRDER AT EACH VERT., SEE 6/S4.
6. LOCATE HANGER FRAMES EACH SIDE OF GRATING PANEL JOINTS.
7. CUT AND REMOVE EXIST. PIPE / ANGLE RAIL AS REQ'D FOR ACCESS TO NEW CATWALK.
8. UNISTRUT P1000T BELOW JOISTS TO AVOID LOW PIPE.
9. NEW 362S162-43 JOIST, FASTEN TO VERT. HANGERS WITH 2 SCREWS EACH CONNECTION.



REV. NO.	REVISIONS	DATE

STATE OF NEW HAMPSHIRE
JEFFREY S. TREXLER
No.5979
PROFESSIONAL ENGINEER

Trexler Engineering
CONSULTING STRUCTURAL ENGINEER
38 BARNARD HILL ROAD
DUNBARTON, NH 03046
603-774-6060 FAX 774-6058
EMAIL jeff@trexlerengineering.com

©TREXLER ENGINEERING, 2021

DERRY PUBLIC LIBRARY

64 E. BROADWAY
DERRY, NH

ATTIC HVAC CATWALKS

SHEET TITLE:

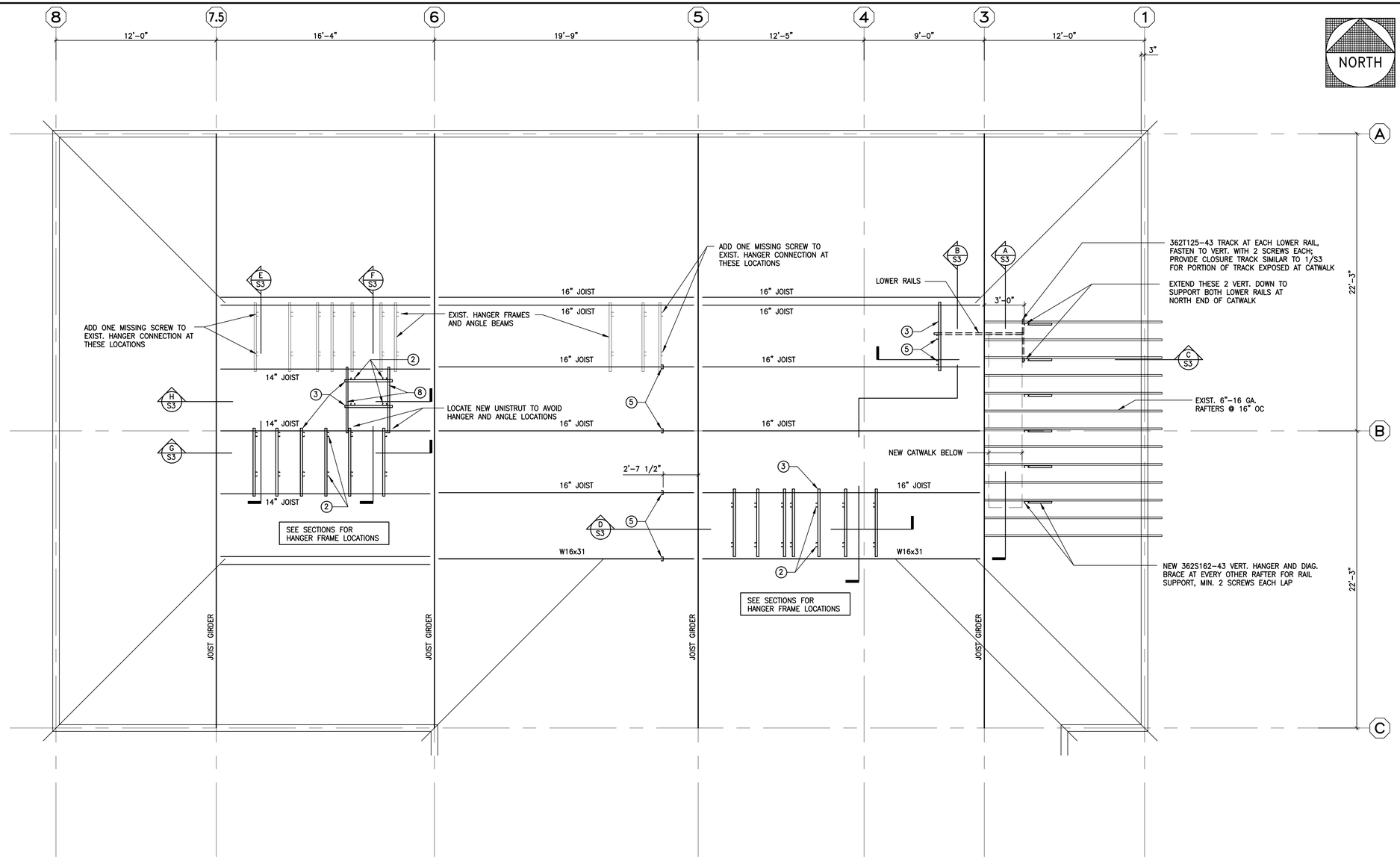
ATTIC LEVEL FRAMING PLAN

DATE:	06/22/2021
SCALE:	1/4" = 1'-0"
DRAWN BY:	JST
CHECKED BY:	JST
JOB NUMBER:	2105.DER

SHEET NO.:

S1

DERRY PUBLIC LIBRARY



A ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

KEY NOTES

1. NEW 1" MOLDED FIBERGLASS GRATING, BEAR ON TOP OF JOIST GIRDER BOTTOM CHORD ANGLES.
2. NEW CATWALK HANGER FRAMES WITH 362S162-43 VERT. AND HORIZ. MEMBERS, SEE 4/S4.
3. NEW L 2x2x3/16 STEEL BEAM FOR HANGER FRAME SUPPORT, SEE 4/S4.
4. NEW (2) 362T125-33 CONTINUOUS BOX RAILS, SEE DETAIL 1/S3. RAILS CAN BE INTERRUPTED FOR ACCESS TO HV UNITS.
5. NEW 362S162-43 VERT. HANGERS WITH 362S162-43 HORIZ. BEAM, MIN. 2 SCREWS EACH LAP. PROVIDE 362T125-43 SWAY BRACE TO JOIST GIRDER AT EACH VERT., SEE 6/S4.
6. LOCATE HANGER FRAMES EACH SIDE OF GRATING PANEL JOINTS.
7. CUT AND REMOVE EXIST. PIPE / ANGLE RAIL AS REQ'D FOR ACCESS TO NEW CATWALK.
8. UNISTRUT P1000T BELOW JOISTS TO AVOID LOW PIPE.
9. NEW 362S162-43 JOIST, FASTEN TO VERT. HANGERS WITH 2 SCREWS EACH CONNECTION.

REV. NO.	REVISIONS	DATE

STATE OF NEW HAMPSHIRE
JEFFREY S. TREXLER
No.5979
PROFESSIONAL ENGINEER

Trexler Engineering
CONSULTING STRUCTURAL ENGINEER
38 BARNARD HILL ROAD
DUNBARTON, NH 03046
603-774-6060 FAX 774-6058
EMAIL jeff@trexlerengineering.com

©TREXLER ENGINEERING, 2021

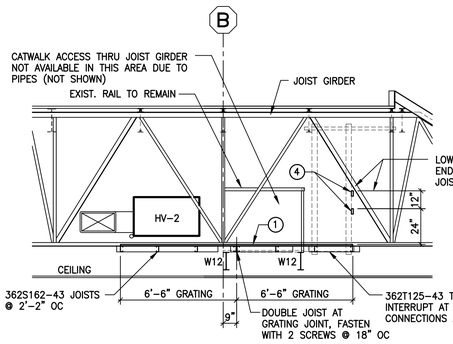
DERRY PUBLIC LIBRARY
64 E. BROADWAY DERRY, NH
ATTIC HVAC CATWALKS

SHEET TITLE:
ROOF LEVEL FRAMING PLAN

DATE:	06/22/2021
SCALE:	1/4" = 1'-0"
DRAWN BY:	JST
CHECKED BY:	JST
JOB NUMBER:	2105.DER

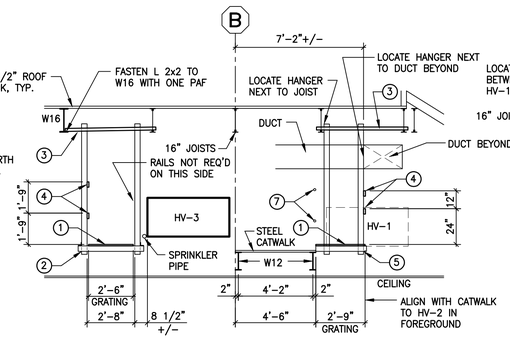
SHEET NO.:
S2

DERRY PUBLIC LIBRARY



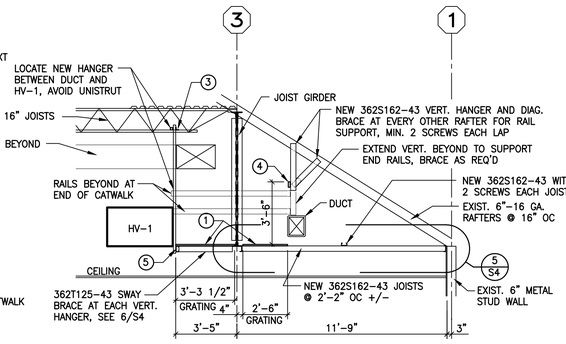
A HV-2 CATWALK

SCALE: 1/4"=1'-0"



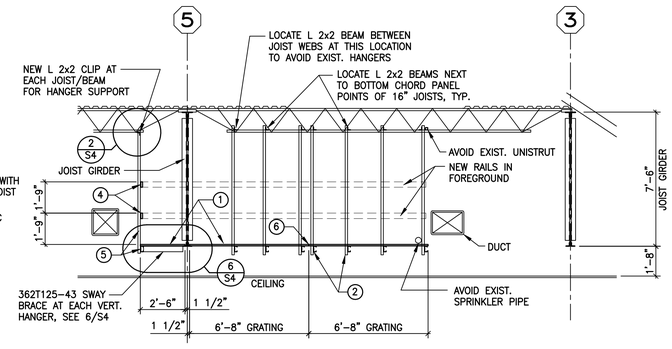
B HV-1/HV-3 CATWALKS

SCALE: 1/4"=1'-0"



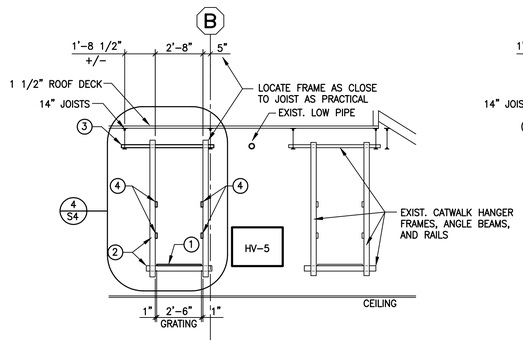
C HV-1/HV-2 CATWALKS

SCALE: 1/4"=1'-0"



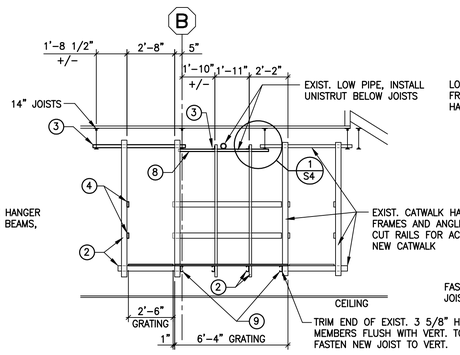
D HV-3/HV-4 CATWALK

SCALE: 1/4"=1'-0"



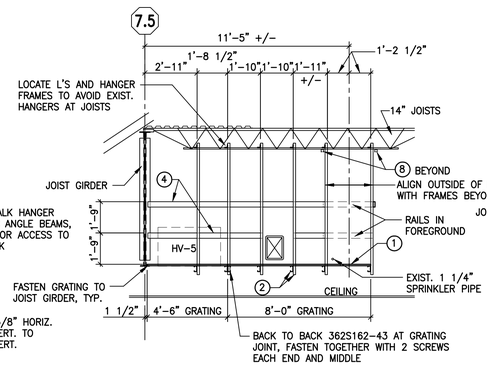
E HV-5 CATWALK

SCALE: 1/4"=1'-0"



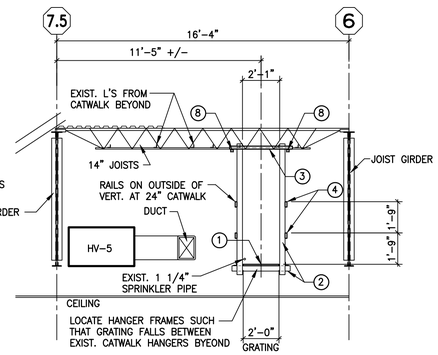
F HV-5 CATWALK

SCALE: 1/4"=1'-0"



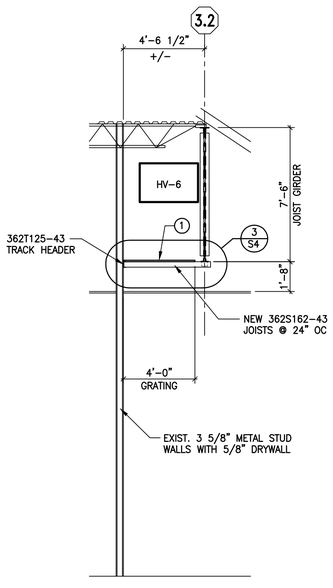
G HV-5 CATWALK

SCALE: 1/4"=1'-0"



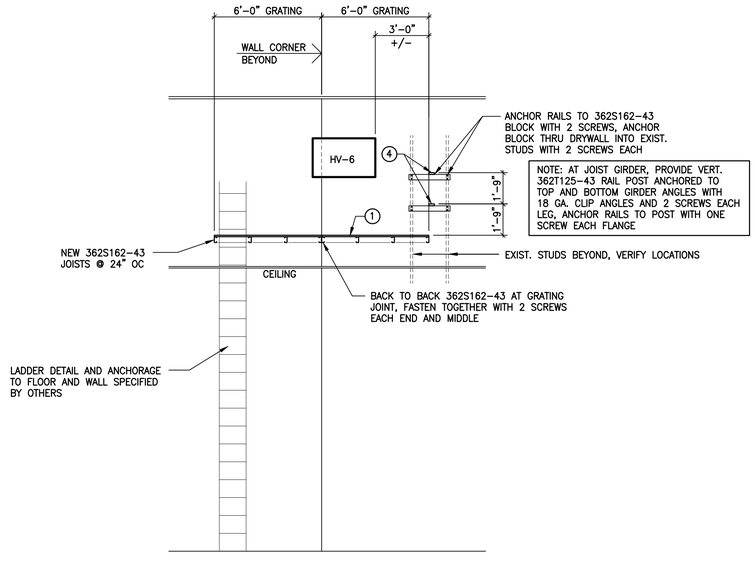
H HV-5 24" CATWALK

SCALE: 1/4"=1'-0"



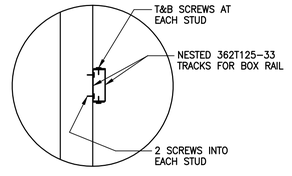
J HV-6 PLATFORM

SCALE: 1/4"=1'-0"



K HV-6 PLATFORM

SCALE: 1/4"=1'-0"



1 RAIL DETAIL

SCALE: 1 1/2"=1'-0"

KEY NOTES

1. NEW 1" MOLDED FIBERGLASS GRATING, BEAR ON TOP OF JOIST GIRDER BOTTOM CHORD ANGLES.
2. NEW CATWALK HANGER FRAMES WITH 362S162-43 VERT. AND HORIZ. MEMBERS, SEE 4/S4.
3. NEW L 2x2x3/16 STEEL BEAM FOR HANGER FRAME SUPPORT, SEE 4/S4.
4. NEW (2) 362T125-33 CONTINUOUS BOX RAILS, SEE DETAIL 1/S3. RAILS CAN BE INTERRUPTED FOR ACCESS TO HV UNITS.
5. NEW 362S162-43 VERT. HANGERS WITH 362S162-43 HORIZ. BEAM, MIN. 2 SCREWS EACH LAP. PROVIDE 362T125-43 SWAY BRACE TO JOIST GIRDER AT EACH VERT., SEE 6/S4.
6. LOCATE HANGER FRAMES EACH SIDE OF GRATING PANEL JOINTS.
7. CUT AND REMOVE EXIST. PIPE / ANGLE RAIL AS REQ'D FOR ACCESS TO NEW CATWALK.
8. UNISTRUT P1000T BELOW JOISTS TO AVOID LOW PIPE.
9. NEW 362S162-43 JOIST, FASTEN TO VERT. HANGERS WITH 2 SCREWS EACH CONNECTION.

REV. NO.	REVISIONS	DATE

STATE OF NEW HAMPSHIRE
JEFFREY S. TREXLER No.5979
PROFESSIONAL ENGINEER

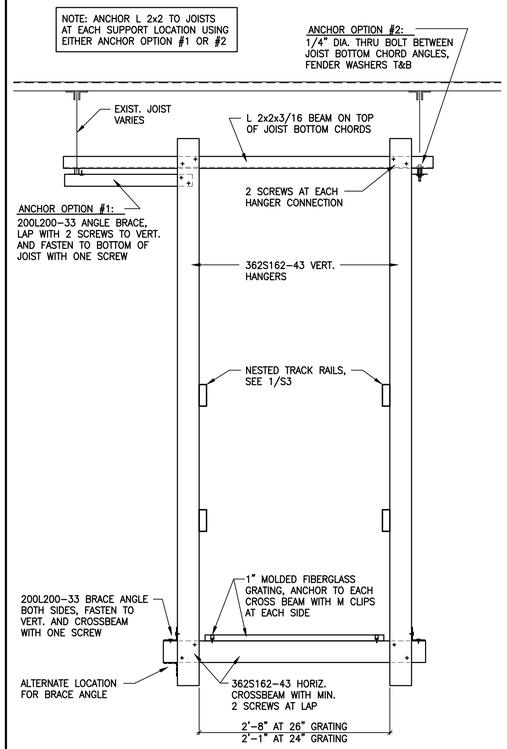
Trexler Engineering
CONSULTING STRUCTURAL ENGINEER
38 BARNARD HILL ROAD
DUNBARTON, NH 03046
603-774-6060 FAX 774-6058
EMAIL jeff@trexlerengineering.com
©TREXLER ENGINEERING, 2021

DERRY PUBLIC LIBRARY
64 E. BROADWAY DERRY, NH
ATTIC HVAC CATWALKS

SHEET TITLE:
SECTIONS AND DETAILS

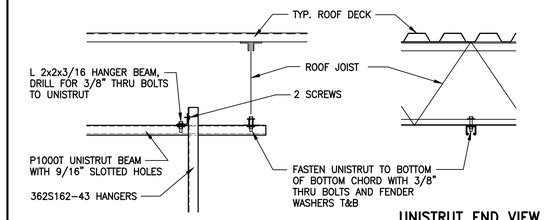
DATE:	06/22/2021
SCALE:	AS SHOWN
DRAWN BY:	JST
CHECKED BY:	JST
JOB NUMBER:	2105.DER
SHEET NO.:	S3

DERRY PUBLIC LIBRARY



4 TYPICAL CATWALK HANGER FRAME

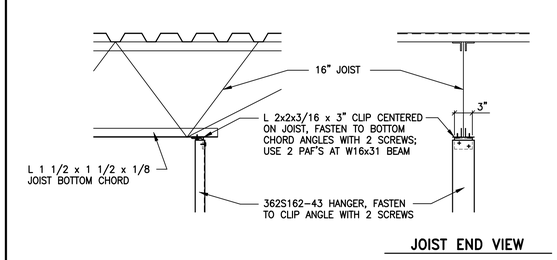
SCALE: 1"=1'-0"



UNISTRUT END VIEW

1 UNISTRUT CONNECTION DETAILS AT HV-5 CATWALK

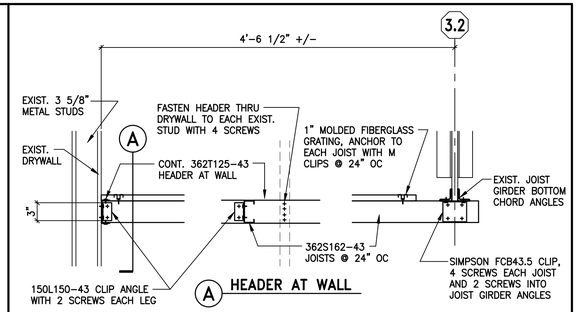
SCALE: 1"=1'-0"



JOIST END VIEW

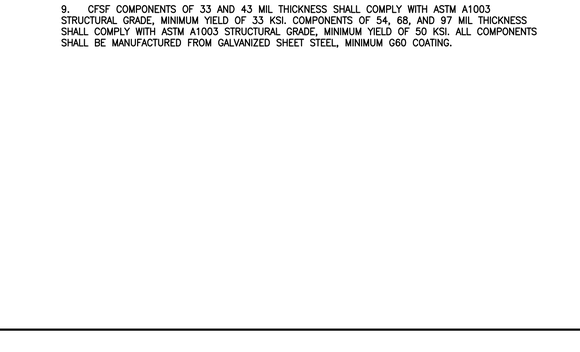
2 HANGER CONNECTION AT END OF JOIST

SCALE: 1"=1'-0"



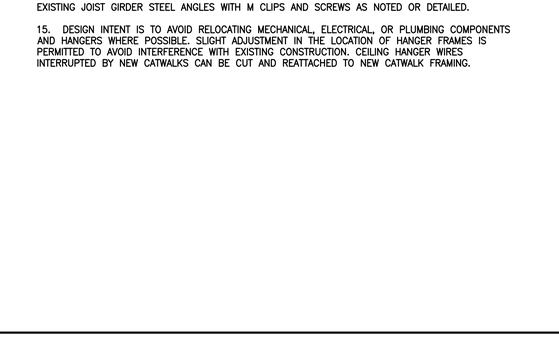
3 CONNECTION DETAILS AT HV-6 PLATFORM

SCALE: 1"=1'-0"



5 FRAMING DETAILS AT CATWALK TO HV-2

SCALE: 1"=1'-0"



6 FRAMING DETAILS AT LINE 5 CATWALK

SCALE: 1"=1'-0"

GENERAL NOTES

1. VERIFY EXISTING CONDITIONS IN THE FIELD. NOTIFY TREXLER ENGINEERING (ENGINEER) IMMEDIATELY IF EXISTING CONDITIONS ARE NOT SUBSTANTIALLY AS SHOWN OR IF STRUCTURAL DRAWINGS ARE UNCLEAR OR FOUND TO BE INACCURATE IN ANY WAY. DO NOT PROCEED WITH THE AFFECTED WORK UNTIL RECEIVING DIRECTION FROM THE ENGINEER.

2. DIMENSIONS TO AND BETWEEN EXISTING CONSTRUCTION ARE +/- AND MUST BE VERIFIED IN THE FIELD PRIOR TO FABRICATION OR CONSTRUCTION.

3. ALL ITEMS SHOWN ON THESE DRAWINGS ARE EXISTING UNLESS NOTED AS NEW.

4. THE CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION AND FOR SAFETY ON THE JOBSITE. PROVIDE ALL TEMPORARY SHORING AND BRACING NECESSARY TO SAFELY MAINTAIN STRUCTURAL INTEGRITY OF NEW AND EXISTING CONSTRUCTION AT ALL TIMES AND UNTIL ALL STRUCTURAL COMPONENTS ARE COMPLETELY INSTALLED.

5. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST OR APPLICABLE EDITION OF THE CODES, STANDARDS AND REFERENCES SPECIFIED HEREIN. COMPLY WITH THE APPLICABLE PROVISIONS OF ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES INCLUDING THE 2015 INTERNATIONAL BUILDING CODE (IBC).

6. NEW CATWALK DESIGNED FOR A UNIFORM LIVE LOAD OF 40 PSF PER 2015 IBC AND A CONCENTRATED LOAD OF 300 LBS. ON AN AREA 2.5 FT. x 2.5 FT.

7. STRUCTURAL STEEL ANGLES SHALL BE ASTM A36. PRIME PAINTING NOT REQUIRED.

8. COLD-FORMED STEEL FRAMING (CFSF) SHALL COMPLY WITH AISI S100-12 "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", AISI S200-12 "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS",

9. CFSF COMPONENTS OF 33 AND 43 MIL THICKNESS SHALL COMPLY WITH ASTM A1003 STRUCTURAL GRADE, MINIMUM YIELD OF 33 KSI. COMPONENTS OF 54, 68, AND 97 MIL THICKNESS SHALL COMPLY WITH ASTM A1003 STRUCTURAL GRADE, MINIMUM YIELD OF 50 KSI. ALL COMPONENTS SHALL BE MANUFACTURED FROM GALVANIZED SHEET STEEL, MINIMUM G60 COATING.

10. ALL SCREW FASTENERS SHALL COMPLY WITH ASTM C 1513, SHALL BE CORROSION RESISTANT COATED, SELF-DRILLING AND SELF-TAPPING, AND LENGTH SUCH THAT PENETRATION THROUGH CONNECTED MATERIALS WILL PRODUCE NOT LESS THAN THREE EXPOSED THREADS. MINIMUM SCREW SIZE FOR CFSF TO CFSF CONNECTIONS SHALL BE #10-16. MINIMUM SCREW SIZE FOR CFSF TO STRUCTURAL STEEL OR STRUCTURAL STEEL TO STRUCTURAL STEEL SHALL BE #12-14. PAF'S MAY BE USED INSTEAD OF SCREWS WHEREVER STRUCTURAL STEEL THICKNESS IS 1/4" OR MORE, SEE GENERAL NOTE #11.

11. POWER ACTUATED FASTENERS (PAF'S) FOR CONNECTING COMPONENTS TO STRUCTURAL STEEL SHALL BE MINIMUM .177" DIAMETER WITH HEAD AND SHANK AS RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION. COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

12. HANDLING, CUTTING, AND INSTALLATION OF CFSF COMPONENTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, PRODUCT LITERATURE AND SUGGESTED SPECIFICATIONS. PROVIDE TRACKS, BRIDGING AND BRACING, FRAMING ANGLES, WEB STIFFENERS, CONNECTIONS, ETC., AS INDICATED.

13. CATWALK DESIGN ANTICIPATES THAT THE CONTRACTOR MAY WISH TO AVOID STAGING FROM THE FLOOR BELOW DURING INSTALLATION TO THE GREATEST EXTENT FEASIBLE. HANGER FRAMES CAN BE PRE-ASSEMBLED ON THE EXIST. ATTIC PLATFORM ABOVE THE STAIR, AND CAN BE INSTALLED ONE AT A TIME STARTING FROM THE EXISTING CATWALK. PLYWOOD DECKING OR PLANKS MAY BE USED AS A TEMPORARY CATWALK SURFACE UNTIL EACH FRAME IS PLACED, PLUMBED AND STRAIGHTENED, ANCHORED TO THE STEEL JOIST ABOVE, AND BRACED TO EACH OTHER WITH L2x2 HORIZONTAL BRACES AT THE HANGER / JOIST CONNECTIONS. WELDING OF STRUCTURAL STEEL ANGLES TO EXISTING K JOISTS IS NOT REQUIRED. CFSF JOISTS FOR HV-6 PLATFORM AND FOR CATWALK TO HV-2 WILL REQUIRE INSTALLATION FROM THE FLOOR BELOW.

14. MOLDED FIBERGLASS GRATING SHALL BE 1" HIGH TYPE MS-S-100, YELLOW, BY McNICHOLS, OR ENGINEER APPROVED EQUAL. PROVIDE IN MINIMUM WIDTH AND LENGTH AS NOTED AND TRIMMED IN THE FIELD TO FIT. TRIM AROUND ANY PIPE PENETRATIONS. ANCHOR GRATING TO CFSF AND TO EXISTING JOIST GIRDER STEEL ANGLES WITH M CLIPS AND SCREWS AS NOTED OR DETAILED.

15. DESIGN INTENT IS TO AVOID RELOCATING MECHANICAL, ELECTRICAL, OR PLUMBING COMPONENTS AND HANGERS WHERE POSSIBLE. SLIGHT ADJUSTMENT IN THE LOCATION OF HANGER FRAMES IS PERMITTED TO AVOID INTERFERENCE WITH EXISTING CONSTRUCTION. CEILING HANGER WIRES INTERRUPTED BY NEW CATWALKS CAN BE CUT AND REATTACHED TO NEW CATWALK FRAMING.

REV. NO.	REVISIONS	DATE

STATE OF NEW HAMPSHIRE
JEFFREY S. TREXLER No.5979
PROFESSIONAL ENGINEER

Trexler Engineering
CONSULTING STRUCTURAL ENGINEER
38 BARNARD HILL ROAD
DUNBARTON, NH 03046
603-774-6060 FAX 774-6058
EMAIL jeff@trexlerengineering.com

©TREXLER ENGINEERING, 2021

DERRY PUBLIC LIBRARY
64 E. BROADWAY DERRY, NH
ATTIC HVAC CATWALKS

SHEET TITLE:
DETAILS & GENERAL NOTES

DATE:	06/22/2021
SCALE:	AS SHOWN
DRAWN BY:	JST
CHECKED BY:	JST
JOB NUMBER:	2105.DER
SHEET NO.:	S4

DERRY PUBLIC LIBRARY