

# Goddard Park Carousel Building Roof Repair Project

Warwick, RI 02818



**PARE CORPORATION**  
ENGINEERS - SCIENTISTS - PLANNERS  
8 BLACKSTONE VALLEY PLACE    10 LINCOLN ROAD, SUITE 210    14 BOGALA ROAD, SUITE 2B  
LINCOLN, RI 02885    FOWERSBORO, PA 12025    HICKORY, PA 02340  
401-334-4100    309-543-1755    413-557-3448



Scale : N.T.S.

## INDEX OF DRAWINGS

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1	-	COVER SHEET
2	S1.0	GENERAL NOTES AND REPAIR PLAN
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**100% CONSTRUCTION DOCUMENTS**  
**April 5, 2024**

**A. GENERAL STRUCTURAL REQUIREMENTS**

- ALL METHODS OF CONSTRUCTION, DETAILS, NOTES, ETC., INDICATED ON THE DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
- CONSTRUCTION SHALL BE MADE FROM APPROVED SHOP DRAWINGS ONLY.
- ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT AND THE RHODE ISLAND STATE BUILDING CODE.
- THE LATEST EDITION OF THE FOLLOWING LISTED CODES SHALL APPLY. IN CASE OF CONFLICT, THE MORE RIGID REQUIREMENTS AND CODES SHALL GOVERN.
  - A. RHODE ISLAND STATE BUILDING CODE (STATE CODE): INTERNATIONAL BUILDING CODE, 2018 EDITION AND ITS APPLICABLE REFERENCED STANDARDS.
  - B. AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS AND ITS CODE OF STANDARD PRACTICE (AISC).
- THE DESIGN LOADS ARE RESISTED BY THE COMPLETED STRUCTURE ACTING AS A UNIT. THE CONTRACTOR SHALL DESIGN AND PROVIDE ANY AND ALL TEMPORARY BRACING, SHORING, OR ADDITIONAL REINFORCEMENT NECESSARY TO RESIST LOADS IMPOSED ON ANY PORTION OF THE STRUCTURE THROUGHOUT ALL STAGES OF CONSTRUCTION. THE SHORING SHALL BE DESIGNED TO RESIST ALL DEAD LOADS AND ANY APPLICABLE CONSTRUCTION LOADS.
- ALL SHORING DESIGNS AND PLANS SHALL BE STAMPED BY A RHODE ISLAND REGISTERED PROFESSIONAL ENGINEER.
- NOTES AND TYPICAL DETAILS APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN PROVIDE DETAILS OF SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- PLANS SHALL NOT BE SCALED FOR DIMENSIONS.

**B. DESIGN LOADS**

- GENERAL
  - A. BUILDING RISK CATEGORY II
- ROOF LIVE LOADS (SNOW):
  - A. IMPORTANCE FACTOR 1.0
  - B. GROUND SNOW LOAD (Pg) 30 psf
  - C. FLAT ROOF SNOW LOAD (Pf) 30 psf
  - D. EXPOSURE FACTOR (Ce) 1.0
  - E. THERMAL FACTOR (Ct) 1.2
- WIND LOADS
  - A. ULTIMATE WIND DESIGN SPEED (Vult) 127 mph
  - B. NOMINAL DESIGN WIND SPEED (Vasd) 98 mph
  - C. EXPOSURE CATEGORY D
  - D. ENCLOSED BUILDING (Gcpi) ±0.18
- EARTHQUAKE LOADS
  - A. IMPORTANCE FACTOR 1.0
  - B. MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss, S1) 0.174, 0.060
  - C. SITE CLASS D (ASSUMED)
  - D. DESIGN SPECTRAL COEFFICIENTS (Sds, Sd1) 0.186, 0.096
  - E. SEISMIC DESIGN CATEGORY B

**C. WOOD FRAMING**

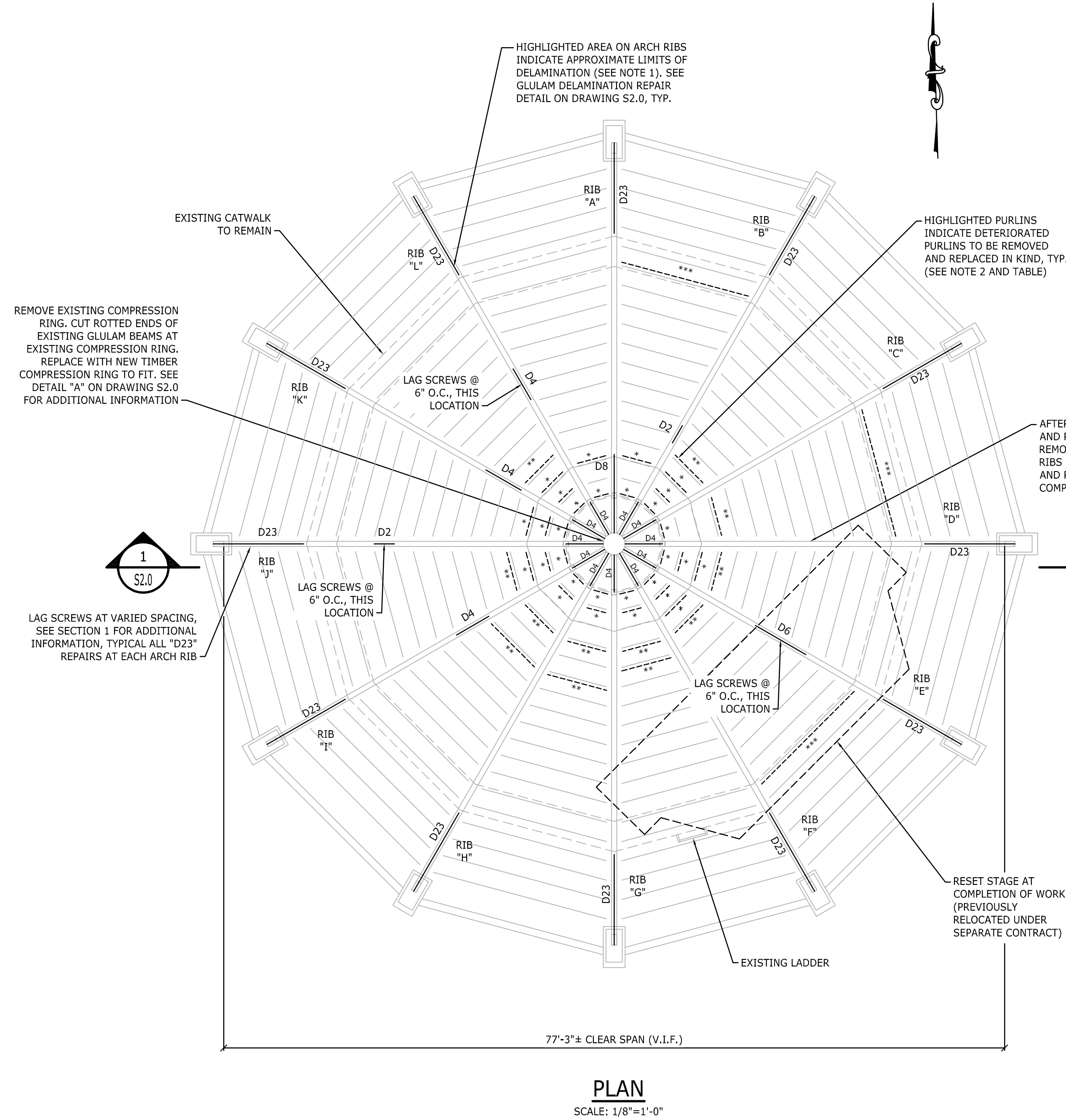
- ALL LUMBER FRAMING AND BUILDING COMPONENTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE STATE CODE, MANUFACTURER'S REQUIREMENTS, THE AMERICAN FOREST AND PAPER ASSOCIATION (APPA)/NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS), AND THESE DRAWINGS. LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 15%. WOOD FRAMING SHALL BE AS FOLLOWS \*:
  - A. TYPICAL FRAMING, U.N.O.: SPRUCE-PINE-FIR No. 1/2 OR BETTER (Fb=875 PSI)
  - B. PURLINS: DOUGLAS FIR-LARCH NO. 1 & BETTER (Fb = 1,200 PSI)
  - C. COMPRESSION RING: DOUGLAS FIR-LARCH NO. 1 (Fc = 1,000 PSI)
  - D. STUD FRAMING: SPRUCE-PINE-FIR STUD GRADE OR BETTER (Fc=725 PSI)
  - E. PRESSURE TREATED LUMBER (P.T.): SOUTHERN YELLOW PINE No.2 OR BETTER
  - \* ALL STRENGTH VALUES NOTED IN ( ) ARE MINIMUM BASE DESIGN VALUES \*
- COMPONENTS, ANCHORS, AND FASTENERS DESIGNATED AS "GALVANIZED" OR "GALV." SHALL BE HOT-DIPPED GALVANIZED (G90 MINIMUM) IN ACCORDANCE WITH ASTM A123, A153, OR A653 AS APPROPRIATE.

**D. STRUCTURAL STEEL**

- DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC SPECIFICATION FOR BUILDINGS.
- NEW STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
  - A. TYPICAL PLATES AND ANGLES ASTM A36 Fy=36 KSI
  - B. BOLTS ASTM 307 Fy=36 KSI
- SHAPES NOTED "GALV." ON DRAWINGS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
- AFTER ERECTION IS COMPLETE, TOUCH-UP ALL COATINGS DAMAGED DURING TRANSPORT AND ERECTION.

**ABBREVIATIONS**

ADDL	ADDITIONAL	L.W.	LONG WAY
ARCH	ARCHITECT	MAX.	MAXIMUM
BM	BEAM	MECH	MECHANICAL
BOF	BOTTOM OF FOOTING	M.W.	MISCELLANEOUS METAL
BRG	BEARING	MAX.	MINIMUM
CFMF	COLD FORMED METAL FRAMING	MTL.	METAL
CLR.	CLEAR	NF	NEAR FACE
CONC.	CONCRETE	NTS	NOT TO SCALE
CMU	CONCRETE MASONRY UNIT	O.C.	ON CENTER
CJ	CONTROL JOINT	OPNG.	OPENING
CONST. JT.	CONSTRUCTION JOINT	R & D	REMOVE AND DISPOSE
CONT.	CONTINUOUS	REINF.	REINFORCING
DIA or Ø	DIAMETER	SC	SHEAR CONNECTOR
DWG	DRAWING	SGS	SLAB ON GRADE
EA.	EACH	S.S.	STAINLESS STEEL
EF	EACH FACE	SJ	SAWN JOINT
EW	EACH WAY	TGX	TOP CHORD EXTENSION
EL.	ELEVATION	THK	THICK
E.J.	EXPANSION JOINT	TOC	TOP OF CONCRETE
EQ.	EQUAL	TOF	TOP OF FOOTING
F.F.	FAK FACE	TOW	TOP OF WALL
FFE	FINISH FLOOR ELEVATION	TRANS.	TRANSVERSE
FND	FOUNDATION	TSL	TOP OF SLAB
FTG	FOOTING	TST	TOP OF STEEL
GA.	GAUGE	TYP.	TYPICAL
GALV.	GALVANIZED	U.N.O.	UNLESS NOTED OTHERWISE
G.C.	GENERAL CONTRACTOR	VERT.	VERTICAL
HORIZ.	HORIZONTAL	V.I.F.	VERIFY IN FIELD
HSS	HOLLOW STRUCTURAL SHAPE	WWF	WELDED WIRE FABRIC
I.F.	INSIDE FACE	W	WITH
L.V.	LONG LESS VERTICAL	W.P.	WORKING POINT

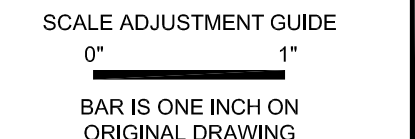
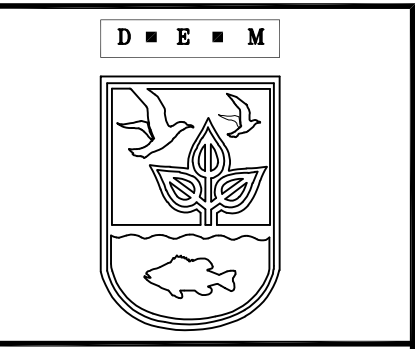


- SUGGESTED CONSTRUCTION SEQUENCE:**
- REMOVE EXISTING CUPOLA.
  - JACK UP ALL GLULAM ARCHES UNTIL EQUILIBRIUM IS REACHED AND PRESSURE IS REMOVED FROM COMPRESSION RING.
  - REMOVE EXISTING COMPRESSION RING, CUT BACK ROTTED GLULAM ENDS, INSTALL NEW COMPRESSION RING AND GUSSET, AND ATTACH GLULAMS TO NEW RING.
  - INSTALL LAG SCREWS AT AREAS OF DELAMINATION AT GLULAM ARCHES.
  - REMOVE AND REPLACE DETERIORATED PURLINS WHERE INDICATED ON PLAN.
  - INSTALL NEW CUPOLA.
  - APPLY NEW WOOD SEALER TO ALL ROOF MEMBERS AND DECK.
  - RESET STAGE, TENSION RODS, AND LIGHTING RING.

- NOTES:**
- "D#" INDICATES LOCATION OF DELAMINATION ALONG THE EXISTING GLULAM ARCH RIB. NUMBER "#" INDICATES THE LENGTH IN FEET OF DELAMINATION TO BE REPAIRED. INSTALL REGULARLY-SPACED LAG SCREWS THRU BOTTOM OF GLULAM WITHIN LIMITS OF DELAMINATION, TYP., SEE DETAIL ON DRAWING S2.0.
  - REMOVE AND REPLACE DETERIORATED PURLINS AS SHOWN. REFER TO DETAIL ON DRAWING S2.0 FOR ADDITIONAL INFORMATION AND TABLE BELOW FOR PURLIN SIZE. NEW PURLIN SHALL BE STAINED TO MATCH EXISTING, SEE SPECIFICATION SECTION 09931.
  - UPON COMPLETION OF ROOF REPAIRS, APPLY CLEAR WOOD PRESERVATIVE/SEALER TO ALL EXPOSED SIDES OF ROOF FRAMING, COMPRESSION RING, AND ROOF DECKING (INCLUDING TOP OF GLULAMS, RING, AND DECKING WITHIN LIMITS OF CUPOLA). REFER TO SPECIFICATION SECTION 09931 FOR ADDITIONAL INFORMATION.

PURLIN REPLACEMENT SYMBOL	PURLIN REPLACEMENT TYPE
*	2X4
**	2X6
***	2X8

REFER TO WOOD FRAMING NOTES FOR MATERIAL TYPE. SIZES GIVEN ARE NOMINAL.



GODDARD PARK CAROUSEL BUILDING  
 ROOF REPAIR PROJECT  
 WARWICK, RHODE ISLAND

**REVISIONS:**

NO.	DATE	DESCRIPTION
0	04/05/24	100% CONSTRUCTION DOCUMENTS

PROJECT NO.: 23042.01  
 DATE: APRIL 05, 2024  
 SCALE:  
 DESIGNED BY: CJH  
 CHECKED BY: CJH  
 DRAWN BY: MSS  
 APPROVED BY: KMC  
 DRAWING TITLE:

**GENERAL NOTES AND REPAIR PLAN**

DRAWING NO.:  
S1.0  
 SHEET NO. OF

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REPAIR SECTIONS AND DETAILS

DRAWING NO.: **S2.0**  
 SHEET NO. OF

