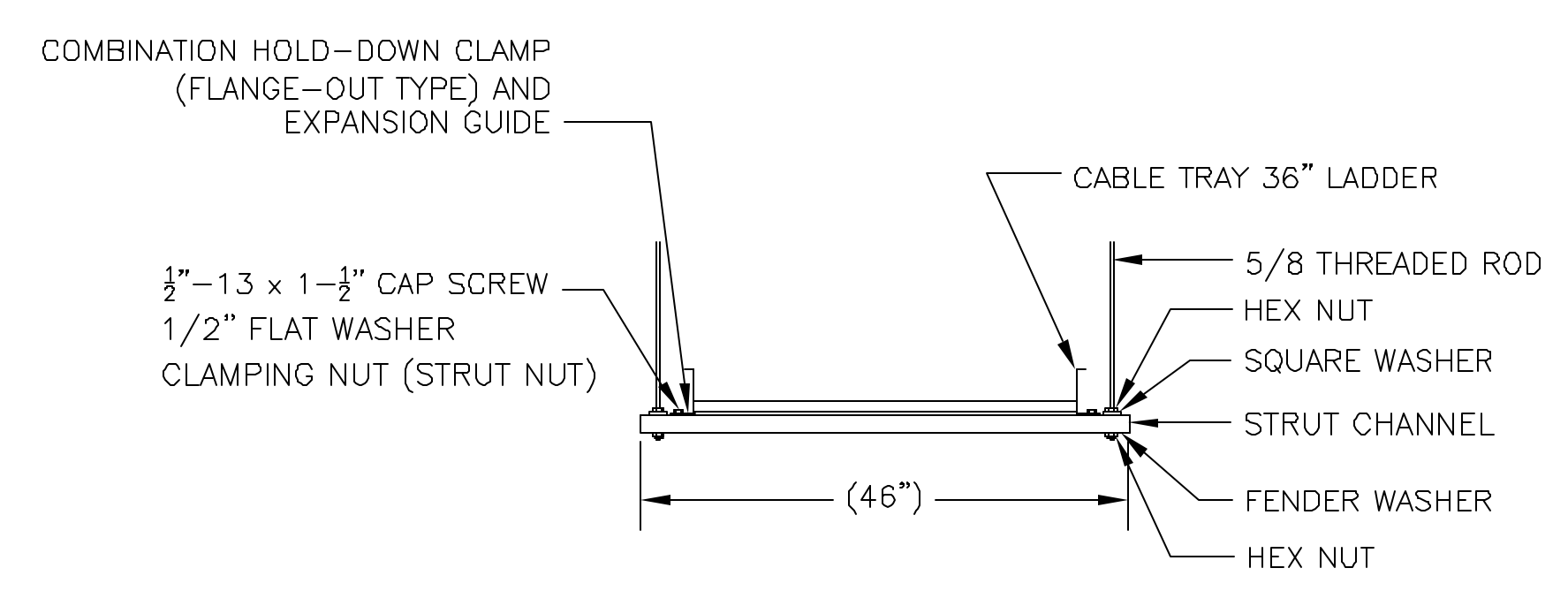


FIELD COIL POWER CONVERSION BUILDING

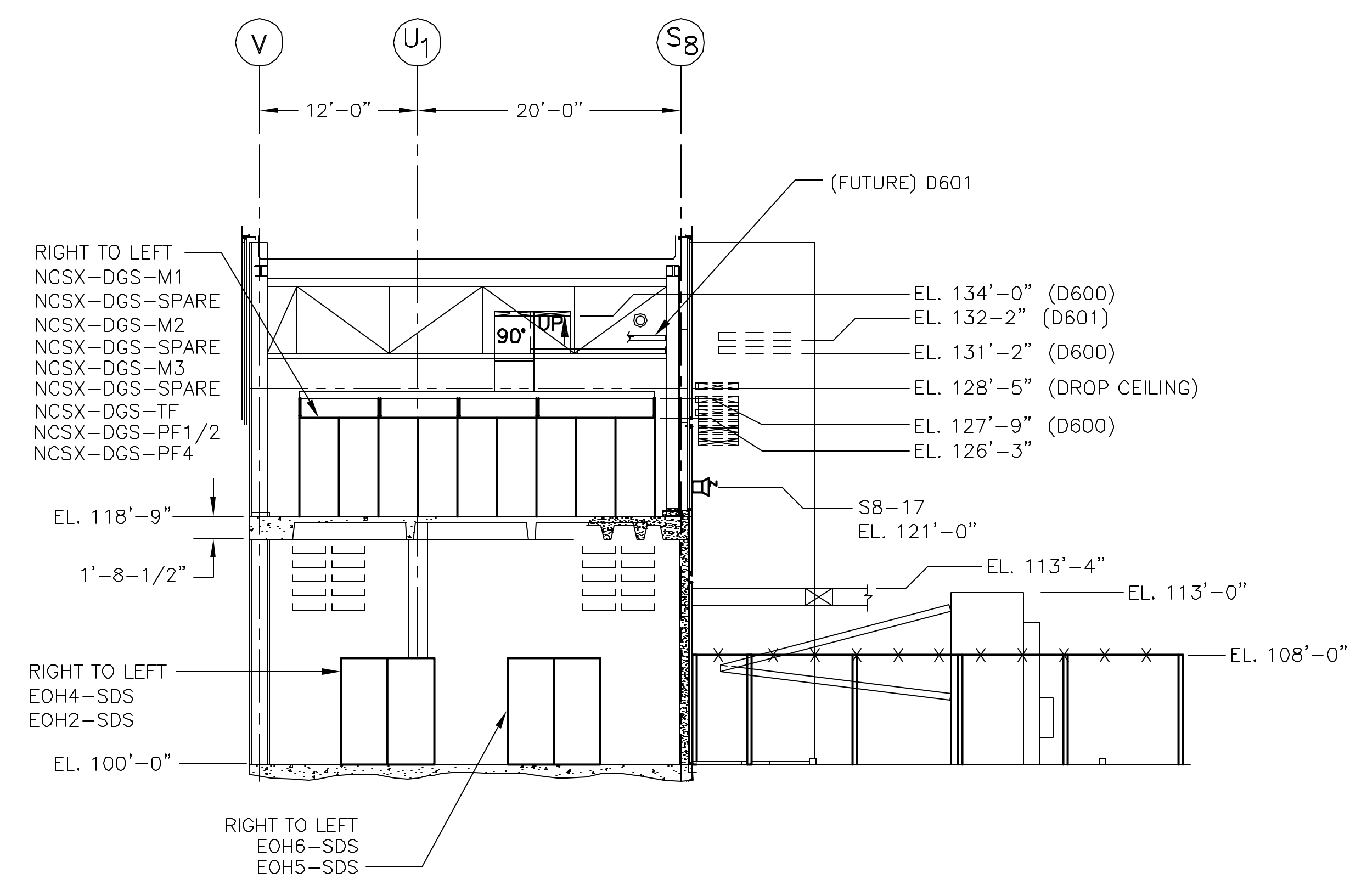
MAX LOAD: 410lbs./Sq. Ft.

- REFERENCE DRAWINGS:**
- SE433E001_3 - D-SITE FIELD COIL POWER CONVERSION BUILDING, EL. 118'-9" GENERAL ARRANGEMENT - EQUIPMENT LAYOUT
 - SE433E001_4 - D-SITE FIELD COIL POWER CONVERSION BUILDING, EL. 118'-9" FLOOR AND ELEVATION PENETRATION LAYOUT
 - SE433E001_5 - D-SITE FIELD COIL POWER CONVERSION BUILDING, 1ST FL. WEST WING GENERAL ARRANGEMENT - EQUIPMENT LAYOUT
 - E-1 SH. 12 - D-SITE TO C-SITE DC TRANSMISSION CABLE TRAY BRIDGE PLAN
 - E-2 SH. 13 - D-SITE TO C-SITE DC TRANSMISSION CABLE TRAY BRIDGE ELEVATION AND STRUCTURAL SUPPORT ASSEMBLIES AND DETAILS
 - E-3 SH. 14 - D-SITE TO C-SITE DC TRANSMISSION CABLE TRAY BRIDGE ELEVATION AND STRUCTURAL SUPPORT ASSEMBLIES AND PENETRATION DETAILS
 - SE431E001_1 - C-SITE POWER BUILDING GENERAL EQUIPMENT ARRANGEMENT - EQUIPMENT LAYOUT
 - SE431E001_2 - C-SITE POWER BUILDING CONDUIT AND TRAY LAYOUT
 - SE431E001_3 - C-SITE POWER BUILDING CONDUIT AND TRAY LAYOUT

- NOTES: UNLESS OTHERWISE SPECIFIED**
1. INSIDE TRAY ROUTE SHOWN DIAGRAMMATICALLY, RELATIVE LOCATION IS NOT CRITICAL AND MAY BE ADJUSTED.
 2. INSIDE TRAYS SHALL BE NEMA 12C AND OF T.J. COPE ALUMINUM LADDER, SYSTEM NUMBER 3B48, 36" WIDE, 4" LOAD DEPTH, 13/16" FLANGE, 9" RUNG SPACING AND OF 24" RADIUS FITTINGS.
 3. INSIDE HORIZONTAL TRAY STRAIGHT SECTIONS SHOULD BE SUPPORTED AT INTERVALS NOT TO EXCEED 8'.
 4. ALL TRAY ELEVATIONS ARE TO BOTTOM OF TRAY.
 5. TRAY SHALL BE INSTALLED TO LATEST VERSION OF NEMA VE-1, 2 AND MANUFACTURER'S RECOMMENDED INSTALLATION NOTES.
 6. TRAYS AND SUPPORT ASSEMBLIES SHALL BE ASSEMBLED WITH MANUFACTURER'S RECOMMENDED HARDWARE AND ACCESSORIES.
 7. TRAY SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDED THERMAL CONTRACTION AND EXPANSION GUIDELINES.
 8. INSIDE ALUMINUM TRAYS SHALL BE SUPPORTED AT EACH SECTION WITH A TRAPEZE HANGER SUPPORT SYSTEM OF 5/8" STEEL ROD AND HOT-DIPPED GALVANIZED CHANNEL OR ANGLE PER MANUFACTURER'S RECOMMENDED INSTALLATION. DEPICTED BY
 9. PROVIDE CABLE SUPPORTS FROM TRAY TO EQUIPMENT WITH UNISTRUT CHANNEL, PERMA GREEN II FINISH. HARDWARE MUST MEET OR EXCEED SAE GRADE 3 CARBON STEEL, BE ELECTRO-GALVANIZED PLATED AND INSTALLED TO ASTM TORQUE SPECIFICATIONS.
 10. 1/0 AWG COPPER BONDING JUMPER SHALL BE REQUIRED ACROSS ALL TRAY SECTIONS.
 11. ▲ DENOTES A PLAN POINT WHICH REPRESENTS A LOCATION WITHIN A TRAY SYSTEM FOR ROUTING OF CABLES.
 12. TRAY IDENTIFICATIONS INDICATE TRAY VOLTAGE CLASS:
 - D-5KV TO 15KV DC POWER
 - S-13.8KV POWER
 - Q-4160V (1KV TO 5KV) POWER
 - P-480V POWER
 - L-120V CONTROL
 - N- (50V) LOW LEVEL INSTRUMENTATION
 13. CABLE TRAY SHALL REQUIRE AN EXPANSION CONNECTOR AT OR NEAR BUILDING THERMAL EXPANSION JOINTS.
 14. CABLE TRAY ROUTE SHALL NOT HAVE A SLOPE GREATER THAN 20'.
 15. CABLE TRAY TRAPEZE HANGER SUPPORT SYSTEM SHALL HAVE NO HORIZONTAL OR LATERAL MOVEMENT.
 16. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF PROCEDURE EM-002. VISUAL WELD INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE ACCEPTANCE OF CRITERIA OF AWS D1.3 WHERE APPLICABLE.



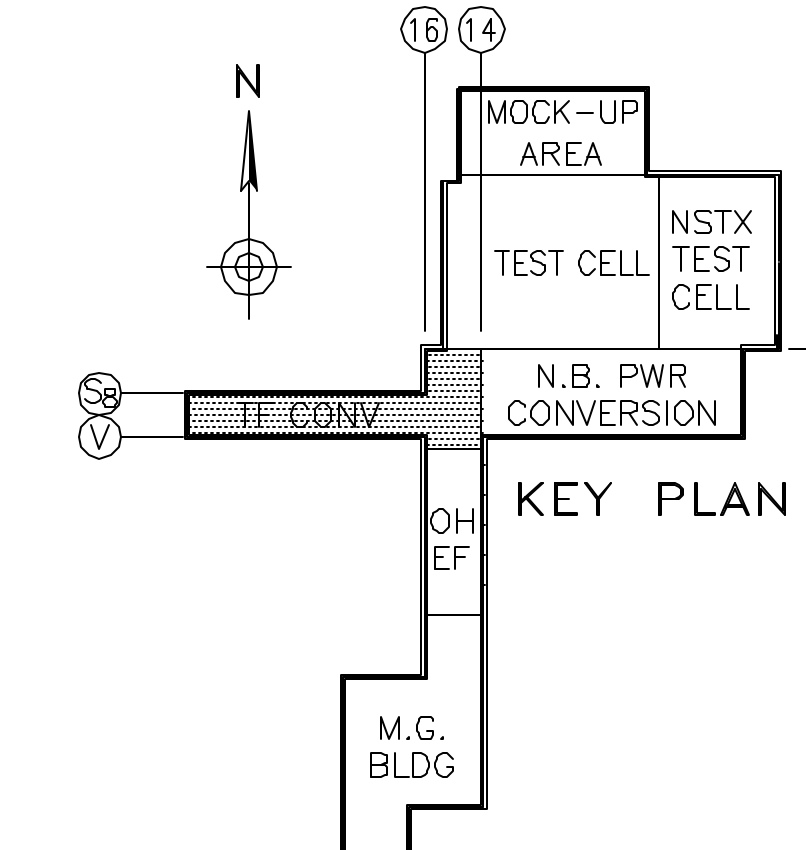
SECTION B-B (D9)
TYPICAL TRAPEZE HANGER SUPPORT
SCALE 3/4"=1'-0"



SECTION A-A (E11)

- 5-1/4" D600 EL. ~127'-9" 1(D11)
- 5-1/4" D600 EL. ~134'-0" 2(D10)
- 5-1/4" D600 EL. 131'-2" 3(C8)

RELEASED FOR BID
JULY 19 2004



RELEASED FOR
FABRICATION / INSTALLATION

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED AUTOCAD 2002 DO NOT VERIFY INFORMATION BY SCALING DRAWING	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT ELECTRICAL POWER SYSTEMS DC SYSTEMS D-SITE FIELD COIL POWER CONVERSION BUILDING, EL. 118'-9" CONDUIT AND TRAY LAYOUT	DWG FILE: SE433E001.DWG
SCALE: 1/8" = 1'	DGN: R.VAN KIRK	CADD FILE: SE433E001.DWG
NEXT ASSEMBLY	CHK: J.NELSON	NCSX
	ENGR: S.RAMAKRISHNAN	SE433E001_1
CENTRAL FILES: 8-01-03	SUPV: J.SIEGEL	SHEET 1 REV 0