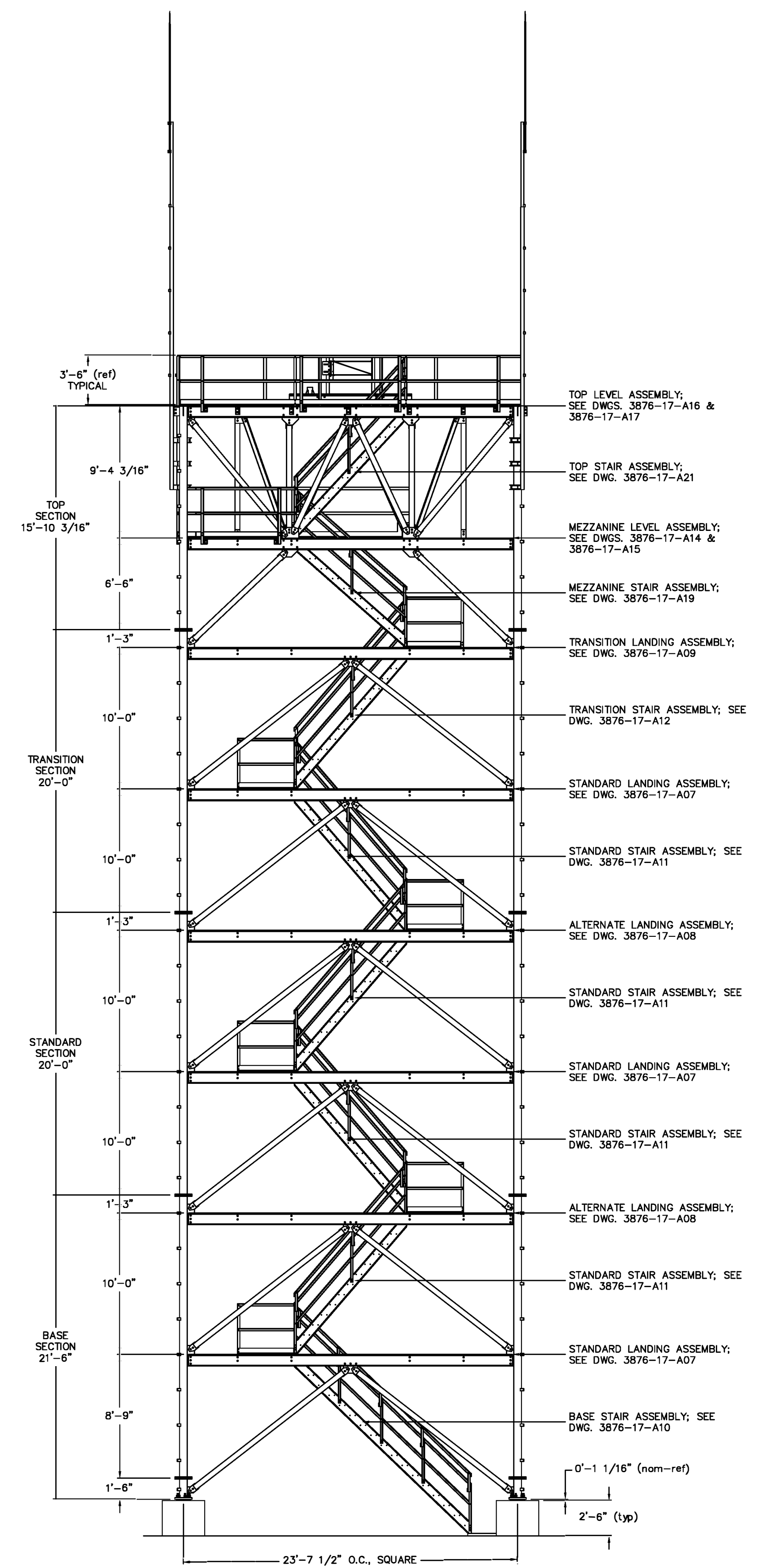


LET	REVISION	DATE	APP'D
-	INITIAL RELEASE	03/13/18	D.S.

ASTM-A500, Gr. C (50ksi)	6" Sch 80 PIPE
ASTM-A53 (35/36ksi)	4" Sch 40 PIPE
ASTM-A36 (36ksi)	C10 x 15.3 CHANNEL
ASTM-A36 (36ksi)	CB x 11.5 CHANNEL w/3 x 3 x 1/4 L (SEE LANDING ASSEMBLIES)
ASTM-A36 (36ksi)	
LEGS	
DIAGONALS	
HORIZONTALS	
INTERIOR BRACES	



**BASE REACTIONS, CURRENT LOADING:**  
TOTAL SHEAR = 84kips  
AXIAL LOAD = 75kips  
UPLIFT PER LEG = 145kips  
COMPRESSION PER LEG = 182kips  
OVERTURN MOMENT = 5,460ft-kips

**BASE REACTIONS, FUTURE LOADING:**  
TOTAL SHEAR = 87kips  
AXIAL LOAD = 76kips  
UPLIFT PER LEG = 145kips  
COMPRESSION PER LEG = 189kips  
OVERTURN MOMENT = 5,669ft-kips

**NOTES:**

- TOWER IS DESIGNED TO CONFORM TO THE REQUIREMENTS OF TIA-222-G-2006 WITH CONSIDERATIONS OF 120mph 3-SECOND GUST WIND SPEED WITH NO ICE, AND 100mph WIND SPEED WITH 1/2" RADIAL ICE. ADDITIONAL CONSIDERATION HAS BEEN GIVEN TO: I = 1.0; Kzt = 1.0; EXPOSURE = "C".
- INITIAL TOWER LOADING IS AS FOLLOWS:
  - ASR-8 RADAR ASSEMBLY ON PLATFORM AT TOP, WITH ASSOCIATED FEEDLINE/WAVEGUIDE FOR THE FULL TOWER HEIGHT
  - FULL PLATFORM, COMPLETE WITH OSHA-COMPLIANT HANDRAIL & TOEBOARD AT TOP; PLATFORM SHALL INCLUDE FLOOD LIGHTS & (4) DUPLEX CONVENIENCE RECEPTACLES
  - 500lb. RATED ELECTRIC HOIST ON PLATFORM AT TOP
  - OSHA-COMPLIANT STAIR ACCESS, FULL TOWER HEIGHT; LANDINGS TO INCLUDE FLOODLIGHTS
  - LED DOUBLE OBSTRUCTION LIGHTING KIT
  - LIGHTNING PROTECTION/GROUNDING KIT w/DUAL DOWN CONDUCTORS
  - WAVEGUIDE & ELECTRICAL CONDUITS ROUTED THROUGH THE TOWER'S CENTER CELL.
- FUTURE TOWER LOADING IS AS FOLLOWS:
  - ESSCO RADOME SUITABLE FOR AN ASR-8 RADAR ANTENNA
  - PLATFORM OVERHANG EXTENSION TO SUPPORT THE RADOME, ABOVE.
- ALL STRUCTURAL STEEL PIPE LEG MATERIALS SHALL CONFORM TO THE REQUIREMENTS ASTM-A500, GRADE C (50ksi YIELD STRENGTH MATERIAL); ALL OTHER STRUCTURAL STEEL PIPE MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A53 (35/36ksi YIELD STRENGTH MATERIAL); ALL ADDITIONAL STRUCTURAL STEEL PLATES, BARS, RODS, ANGLES, SHAPES, ETC., SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A36 (36ksi YIELD STRENGTH MATERIAL).
- ALL STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED, AFTER FABRICATION, AND CONFORM TO THE REQUIREMENTS OF ASTM-A123.
- ALL BOLTS AND BOLTED CONNECTIONS OF 1/2"Ø AND GREATER SHALL BE HOT-DIPPED GALVANIZED AND CONFORM TO THE REQUIREMENTS OF ASTM-F3125, GRADE A325. BOLTS OF 3/8"Ø AND LESS SHALL BE HOT-DIPPED GALVANIZED AND CONFORM TO THE REQUIREMENTS OF GRADE 5. EACH BOLT ASSEMBLY SHALL INCLUDE EITHER A HEAVY-HEX OR STANDARD-HEX NUT AS WELL AS A LOCK WASHER APPROPRIATE TO EACH BOLT'S DIAMETER. NUTS SHALL BE TIGHTENED USING THE "SNUG-TIGHT JOINTS" METHOD, AS DEFINED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM-A325 OR A490 BOLTS", DATED 06/20/04, SECTION 4.1.
- ALL WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY: A.W.S. D1.1.

SWAGER COMMUNICATIONS INC. P.O. BOX 656; 501 E. SWAGER DR.; FREMONT, IN 46737			
THIS DRAWING IS THE PROPERTY OF SWAGER COMMUNICATIONS, INC. IT IS NOT TO BE REPRODUCED, COPIED, OR TRACED IN WHOLE, OR IN PART WITHOUT OUR WRITTEN CONSENT.			
SCALE	DWN	J. NEFF	
1:72	APP'D	D. SWAGER	
TITLE	MODEL: 77ft ASR-8 RADAR TOWER		
77ft ASR-8 RADAR TOWER ELEVATION			
DATE	DRAWING NUMBER		
03/13/18	3876-17-A01		