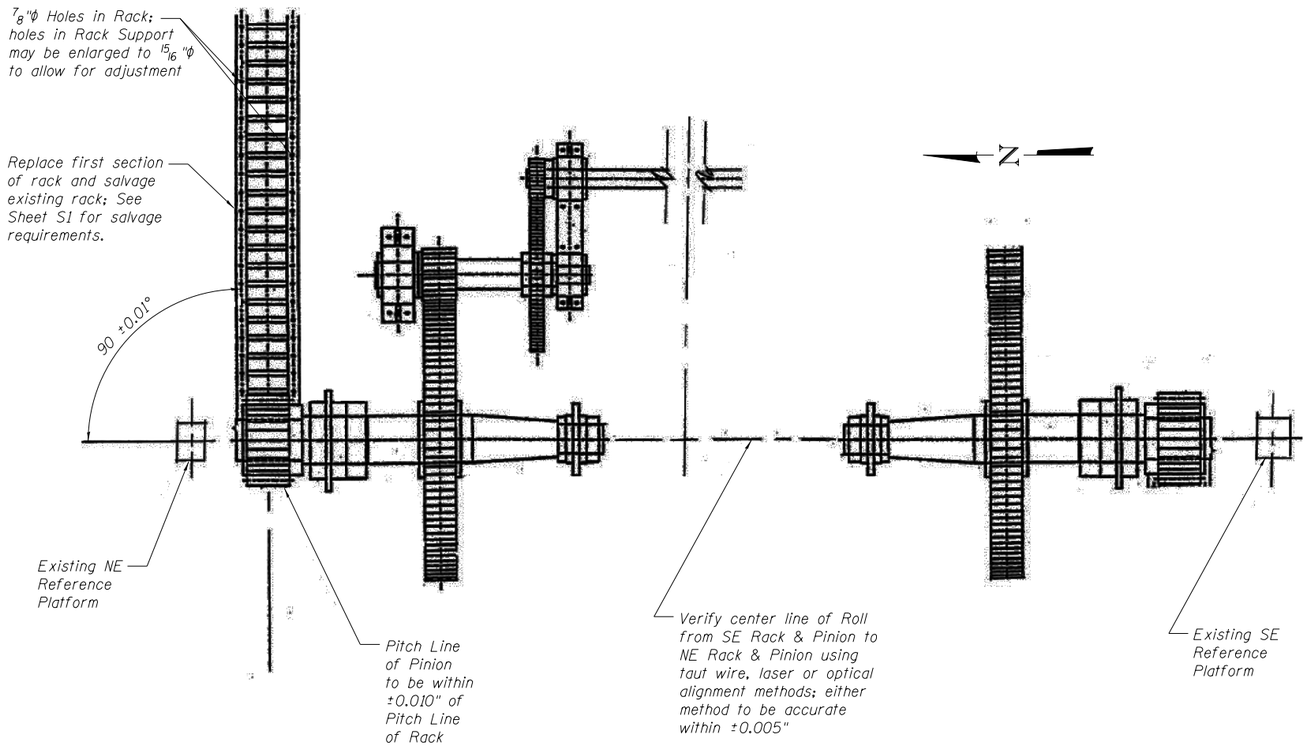
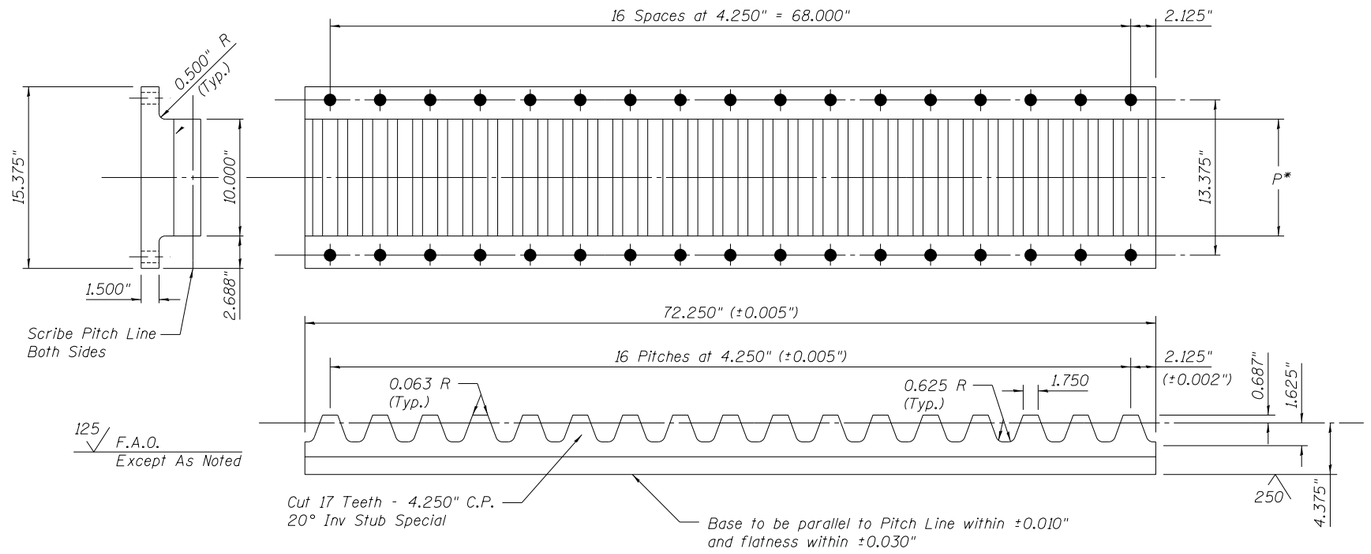


EAST MACHINE ROOM - OPERATING MACHINERY PLAN



RACK DETAILS

Tolerances Non-Accumulative

Notes:

1. P* = Parallelism of each Rack side shall be within ±0.005" of its center line.
2. Starting Material: ASTM A829, SAE 4140 alloy steel, stress relieved and annealed, fine grain practice, with Charpy V-Notch toughness 25 Ft-lbs at 40°F minimum average required, tested as per ASTM A370.
3. Shop drill 7/8"ϕ holes for 7/8"-9 UNC ASTM A325 bolts, ASTM A563 Grade DH Nuts, and ASTM F436 hardened steel extra thick washers. Nuts may be tightened in either side (top or bottom), as long as there is no interference with the Pinion Gear. If nuts are on top, washers will be used on top and bottom. The 7/8" ID holes at the top of the Rack shall be chamfered at 45° to 0.070". For adjustment purposes, holes in the Rack Support Channel may be enlarged to 15/16" using either twist drills, reamers or hole cutters. 3/4" bolts may be used for temporary fit-up for alignment and verification of Pitch Line correspondance. Bolts shall be preloaded on final assembly to 65% of proof load using copper anti-seize or molydenum disulfide thread lubricants. New 7/8" rack bolts shall be torqued to 175 Ft-Lbs. Pitch Line of the Rack must be within ±0.010" of Pitch Line the Pinion Gear throughout the entire length of the Rack. Deviations shall be corrected by use of either flat or tapered shims.
4. All dimensions are in inches, unless noted otherwise.

FILE NAME =	USER NAME =	DESIGNED - JMS	REVISED -
		CHECKED - JMH	REVISED -
	PLOT SCALE =	DRAWN - PRH	REVISED -
	PLOT DATE =	CHECKED - JMH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTHEAST RACK REPAIR DETAILS
STRUCTURE NO. 099-0101
SHEET NO. S4 OF S6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	2011-065-BR	WILL	33	11
		CONTRACT NO. 60P84		
	ILLINOIS FED. AID PROJECT			