

SEAL

MAP IS FOR VENTILATION & SUBSIDENCE

**QUEMAHONING COLLIERIES**

MINE NO. 1

UPPER KITTANNING SEAM

QUEMAHONING TWP., SOMERSET CO., PA.

DATE: FEB 20 1995

SCALE: 1" = 100'

**MUSSER ENGINEERING**

R.D. 1, Central City, PA 15926

(814) 754-8477

Professional Engineer  
RANDALL BEE MUSSER  
ENGINEER  
30079-E

Dept. of Environmental Resources  
McMurry District Office

APPROVED

FEB 21 1995

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CKD. BY  
Revised  
Revised

**Subsidence Legend**

Permit No. 56821304

Contemplated Mining  From \_\_\_\_\_ To \_\_\_\_\_

Amendment Area  Dwelling Constructed Prior To April 27, 1966  Dwelling Constructed After April 27, 1966

Minimum Plan For Protected Structures

Length of SA =  $21.27 \times D \times 1.5 \times L$   
 Width of SA =  $21.27 \times D \times 1.5 \times W$   
 Length of LD =  $21.27 \times D \times 1.5 \times L$   
 Width of LD =  $21.27 \times D \times 1.5 \times W$

Previous Six Month's Mining

Subsidence Permit Line

Definitions of Abbreviations, Symbols, Etc., Used in Formulas & Examples

SA = Support Area Under Protected Structure From Which Only 50% of Coal is Extracted

LD = Additional Support Added On Each Downhill Side Of Support Area. Required If Structure is Located On Terrain Sloping Greater Than 5%

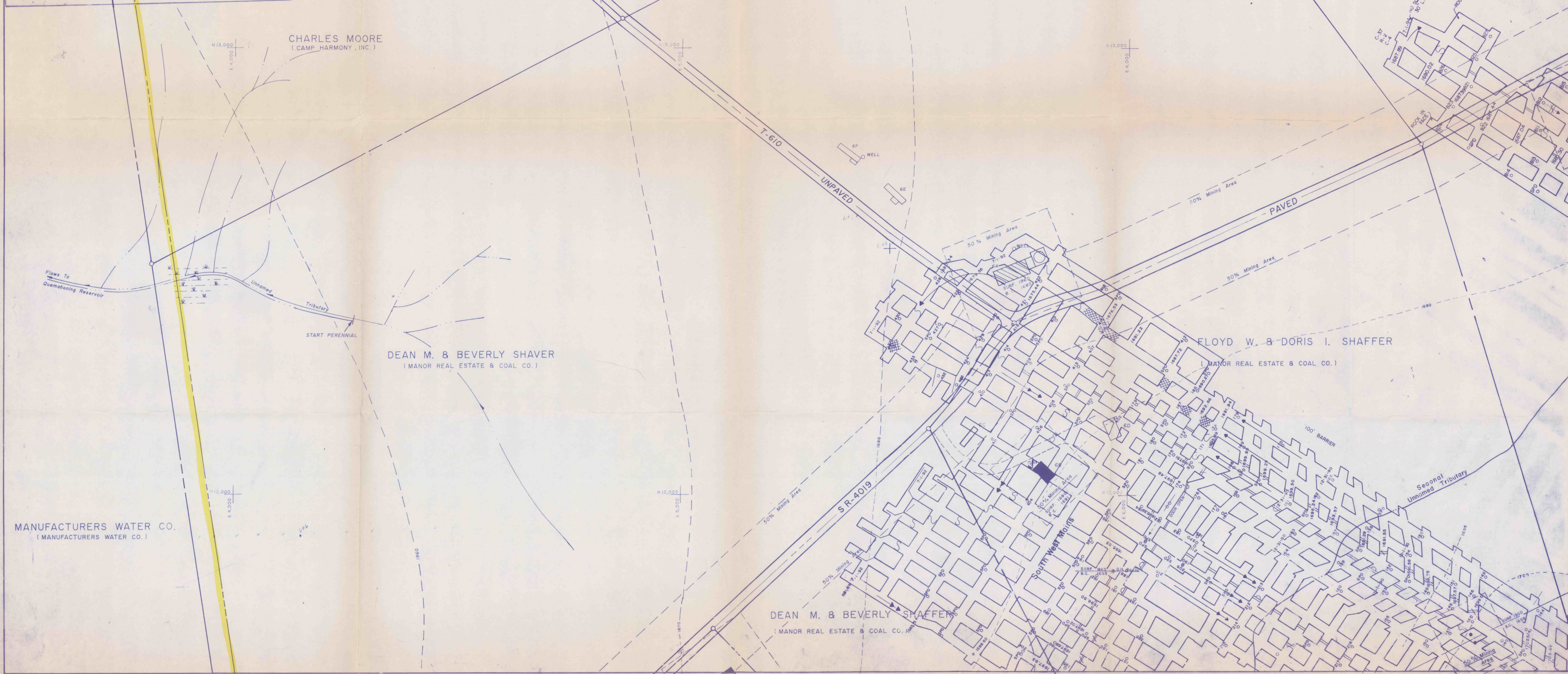
D = Depth Of Cover Of Overburden

L = Length Of Structure

15 FEET = Safety Factor

W = Width Of Structure

27 = Tangent Of 15 Degrees



MANUFACTURERS WATER CO.  
(MANUFACTURERS WATER CO.)