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BELL SYSTEM PRACTICES **SECTION G56.135.3**
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BURIED CABLE PLACING
DRAW-BAR-PULL REQUIRED IN VARIOUS SOILS

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1. GENERAL

1.01 This section contains information about the amount of effort required to move a 1-3/8″ thick blade through various types of soil at disturbed depths ranging from 15 to 30 inches.

1.02 The curves shown in this section were based on extensive tests conducted by the Bell Laboratories in conjunction with cable plow tests and evaluation. It is planned to supplement this data as additional information becomes available.

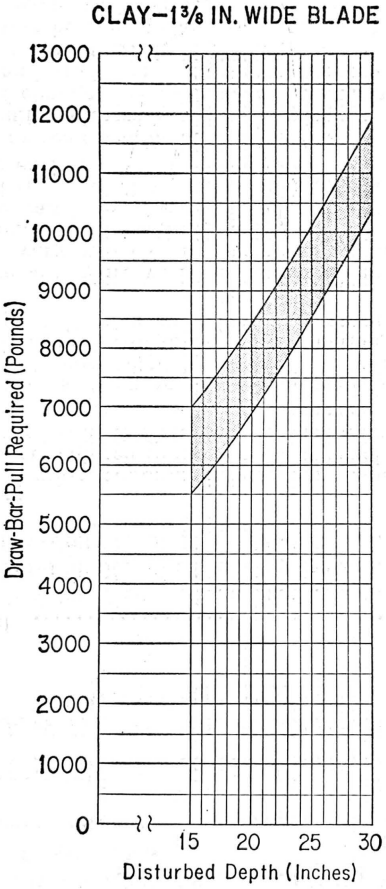
1.03 There are many variable factors involved in plowing. Soils vary widely with moisture content and degree of compaction. Therefore, it is not practicable to attempt to pick a single value for a type of soil and always expect this value to hold true. For this reason a shaded (or working) area is shown for each curve.

1.04 It is extremely difficult to classify soils, and even more difficult to describe variations within a given soil type as a result of changes in moisture content. Although there are many types and grades of soil, information has been provided on only three rather easily described types. Therefore, local experience must be relied upon to determine the classification of any soil encountered and how to use the curves presented to determine the draw-bar-pull required.

1.05 Consideration should be given to the fact that the disturbed depth and depth of cover (the distance from the top of the cable to the original grade line) provided over the facility being buried are not the same. Generally, depending on the plow configuration, the disturbed depth will be from 2 to 5 inches greater than the final depth of cover that is provided over the facility.

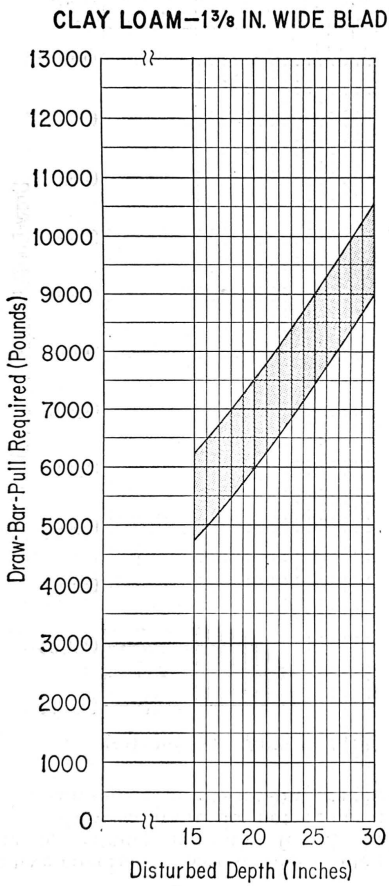
2. DRAW-BAR-PULL REQUIRED IN CLAY

2.01 This curve covers tests conducted in a moist beam clay. This type of clay is often used for tennis courts and baseball diamonds and the soil is heavy in comparison with other soils. Variations in moisture content result in sizable variations in the amount of draw-bar-pull required.



3. DRAW-BAR-PULL REQUIRED IN CLAY LOAM

3.01 This curve covers tests conducted in a moist, rocky clay loam. This type of soil might be encountered while plowing across tillable land or as a base under secondary roads.



4. DRAW-BAR-PULL REQUIRED IN SAND

4.01 This curve covers tests conducted in fine sand. The sand has the consistency normally found in builders sand. Variations in moisture content do not result in any sizable variations in the amount of draw-bar-pull required.