

CEMP-ET

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

ETL 111 0-3-486

Technical Letter
No. 1110-3-486

3 November 1997

Engineering and Design
ARMY AIRFIELD/HELIPORT PAVEMENT DESIGN

1. Purpose. This letter updates guidance for the design of Army airfield/heliport pavements in accordance with TM 5-825-1/AFMAN 32-8008, Vol. 1, by providing the appropriate pavement thickness design curves.
2. Applicability. This letter applies to all HQUSACE elements and USACE commands having military construction and design responsibility.
3. References.
 - a. TM 5-8034, "Planning of Army Aviation Facilities."
 - b. TM 5-822-12, "Design of Aggregate Surfaced Roads and Airfields."
 - c. TM 5-825-1/AFMAN 32-8008, Vol. 1, "General Provisions for Airfield/Heliport Pavement Design."
 - d. TM 5-825-2/AFM 88-6, Chap. 2/DM 21.3, "Flexible Pavement Design for Airfields."
 - e. TM 5-825-3/AFM 88-6, Chap. 3, "Rigid Pavements for Airfields."
4. Distribution. Approved for public release; distribution is unlimited.
5. Background. During the past several years, the four classes of Army airfield/heliport pavements referenced in TM 5-8034 have been revised and expanded into six classes based on mission requirements for each airfield/heliport in accordance with TM 5-825-1. This change necessitated the development of new Army pavement design curves as provided in Appendix A. These design curves are already included in the USACE airfield pavement computer design programs.
6. Action. Pending publication of the revised technical manuals above, the pavement design curves provided in Appendix A will be used in the design of Army airfield/heliport pavements. These curves supersede all previous Army airfield/heliport pavement design curves contained in TM 5-822-12, TM 5-825-2/AFM 88-6, Chap. 2/DM

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21.3 and TM 5-825-3/AFM 88-6, Chap. 3.

7. Implementation. This letter will have routine application for all future military projects as defined in paragraph 8c, ER 1110-345-100.

FOR THE COMMANDER:

1 Appendix
APP A - Design Curves

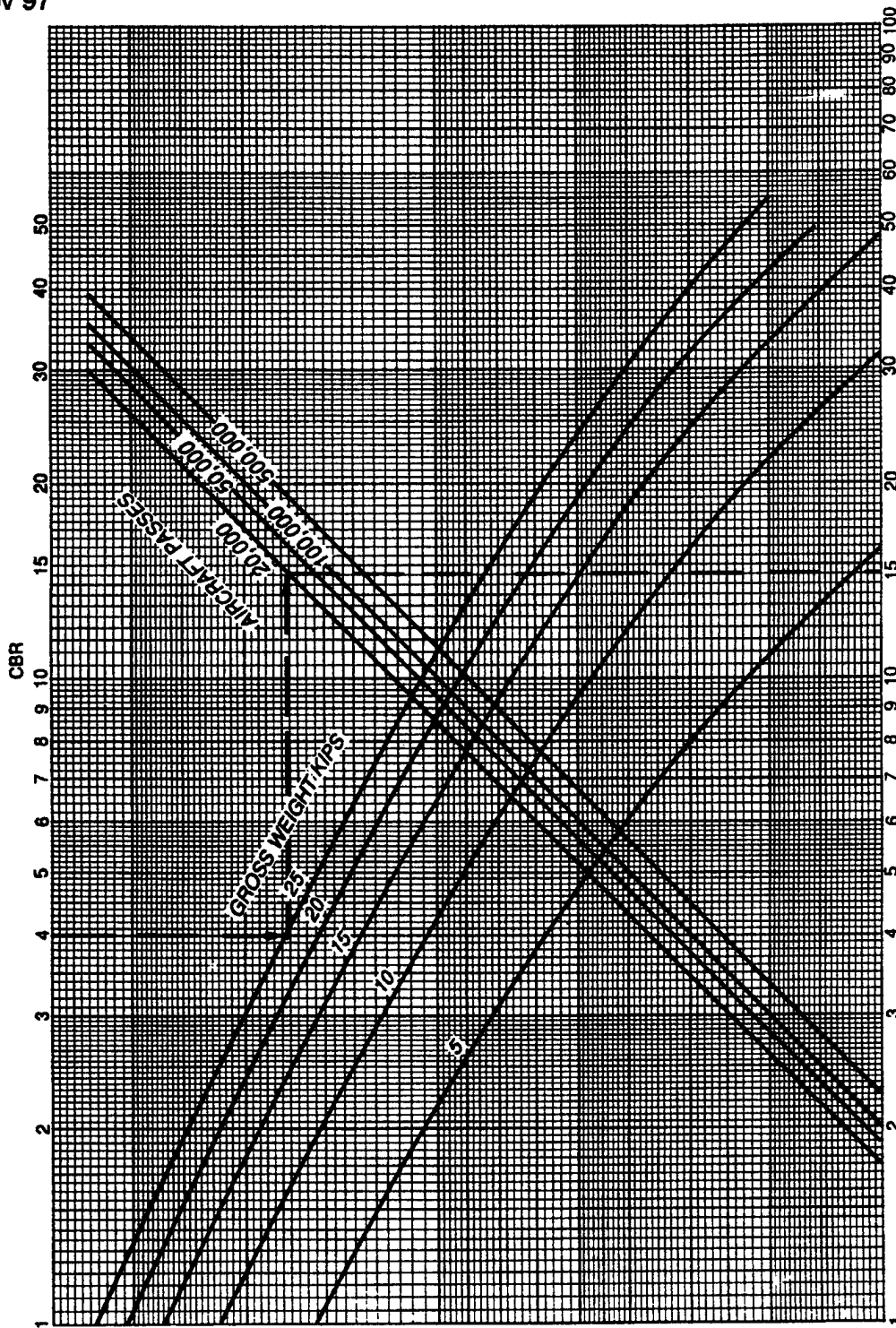
for

Phillip T. Campbell, COL

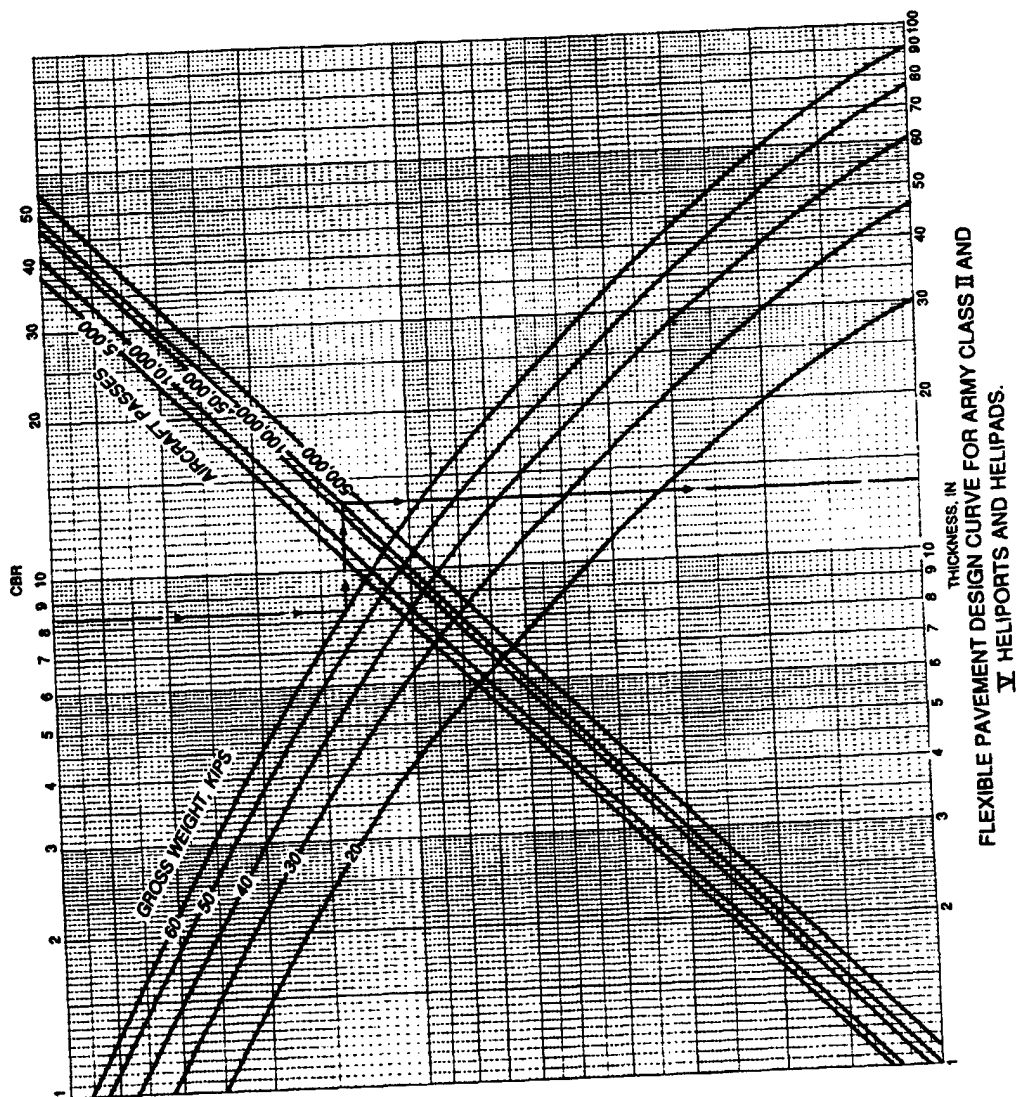
KISUK CHEUNG, P.E.
Chief, Engineering and Construction Division
Directorate of Military Programs

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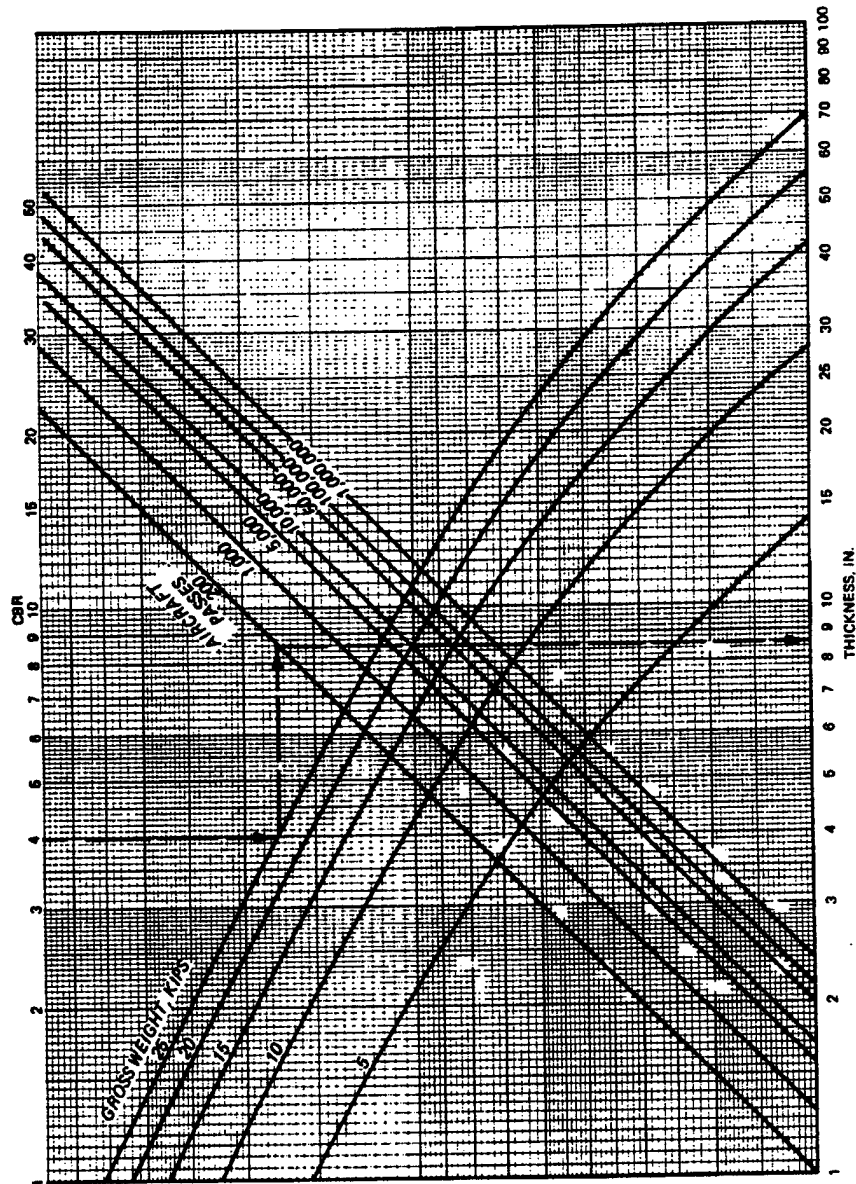
APPENDIX A
DESIGN CURVES



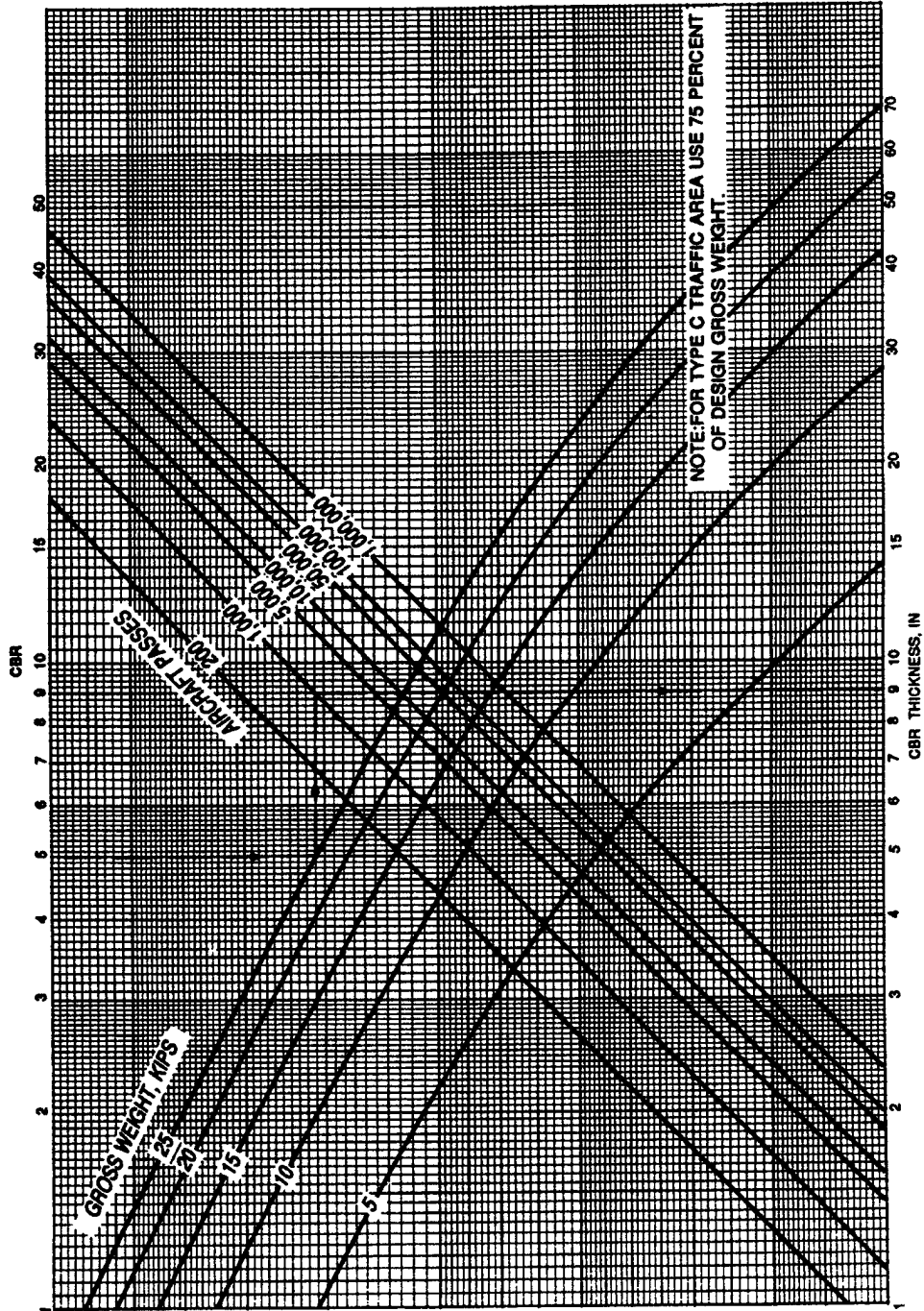
FLEXIBLE PAVEMENT DESIGN CURVE FOR ARMY CLASS I
HELIPORTS AND HELIPADS.



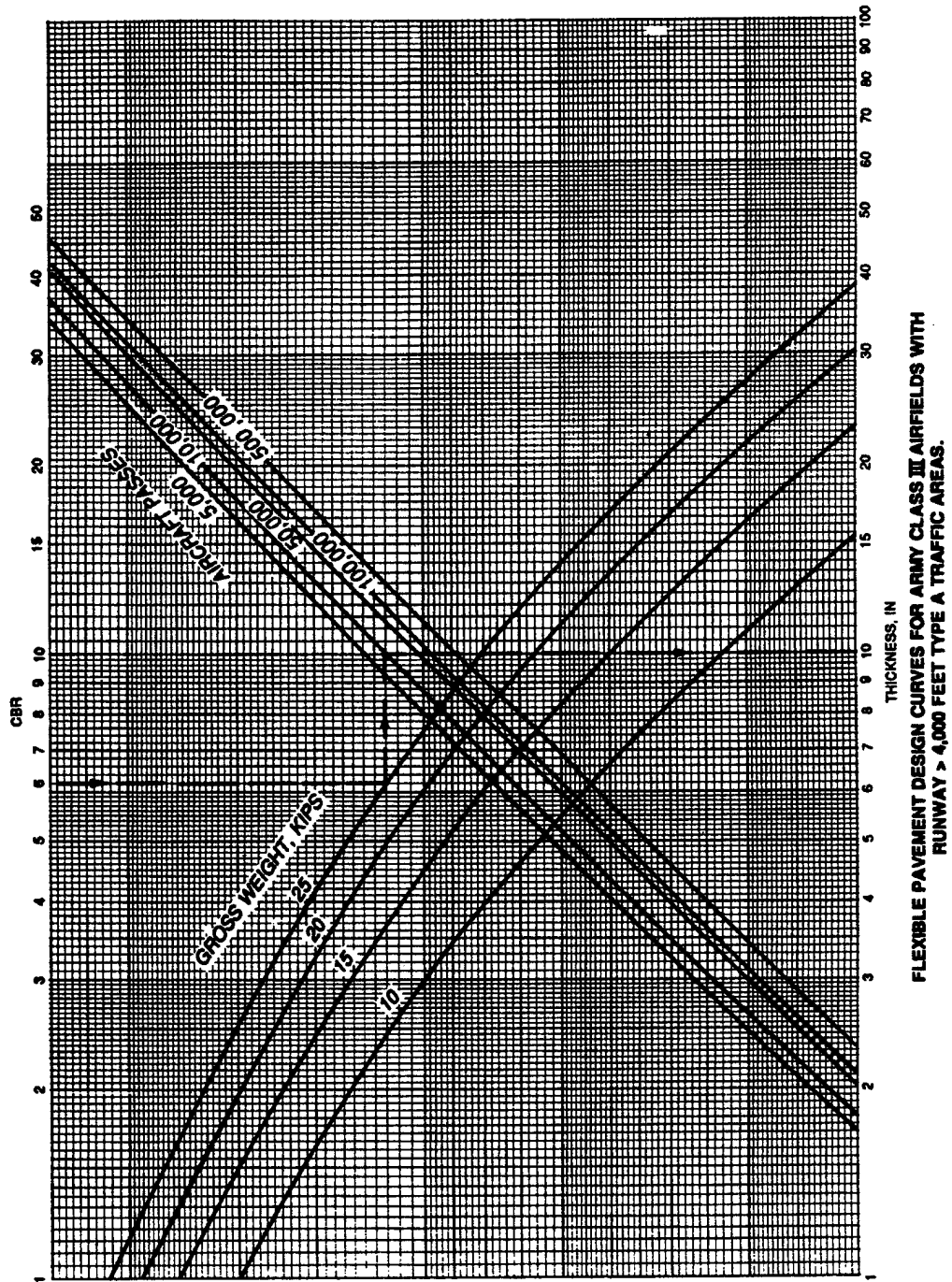
FLEXIBLE PAVEMENT DESIGN CURVE FOR ARMY CLASS II AND
HELIPORTS AND HELIPADS.



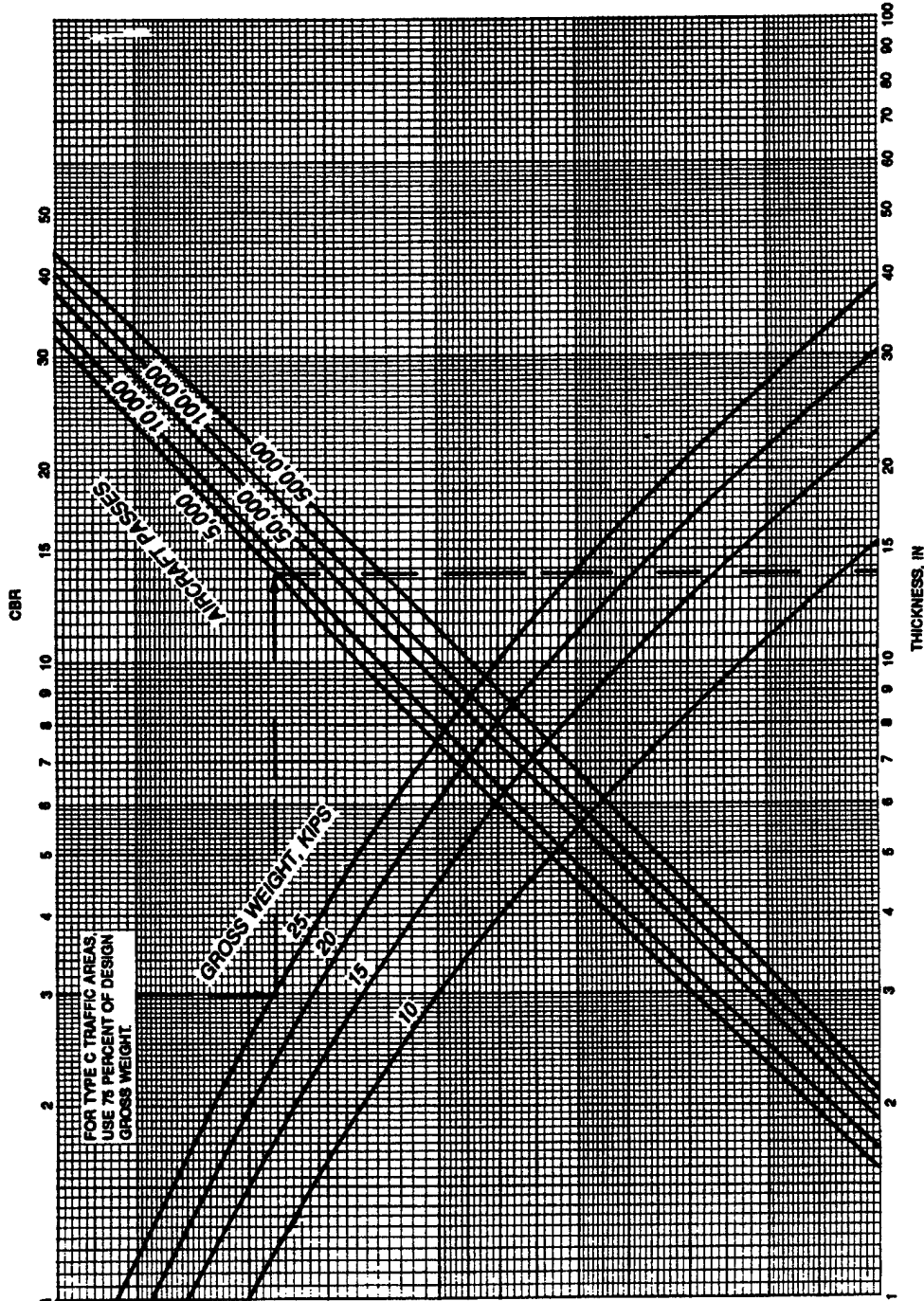
FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS III AIRFIELDS WITH
RUNWAY \leq 4,000 FEET. TYPE A TRAFFIC AREAS



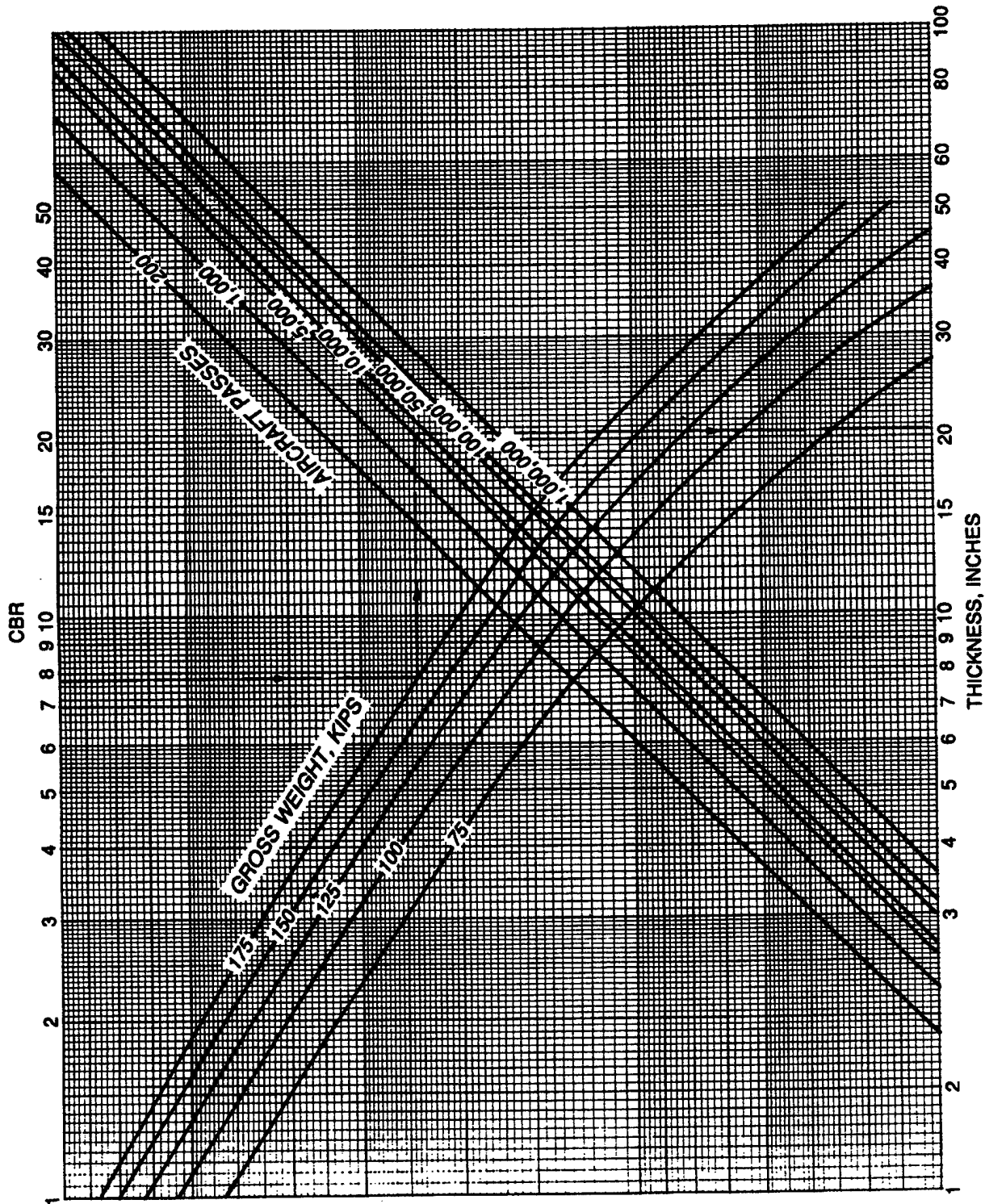
FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS III AIRFIELDS WITH
RUNWAY \approx 4,000 FEET, TYPE B AND C TRAFFIC AREAS



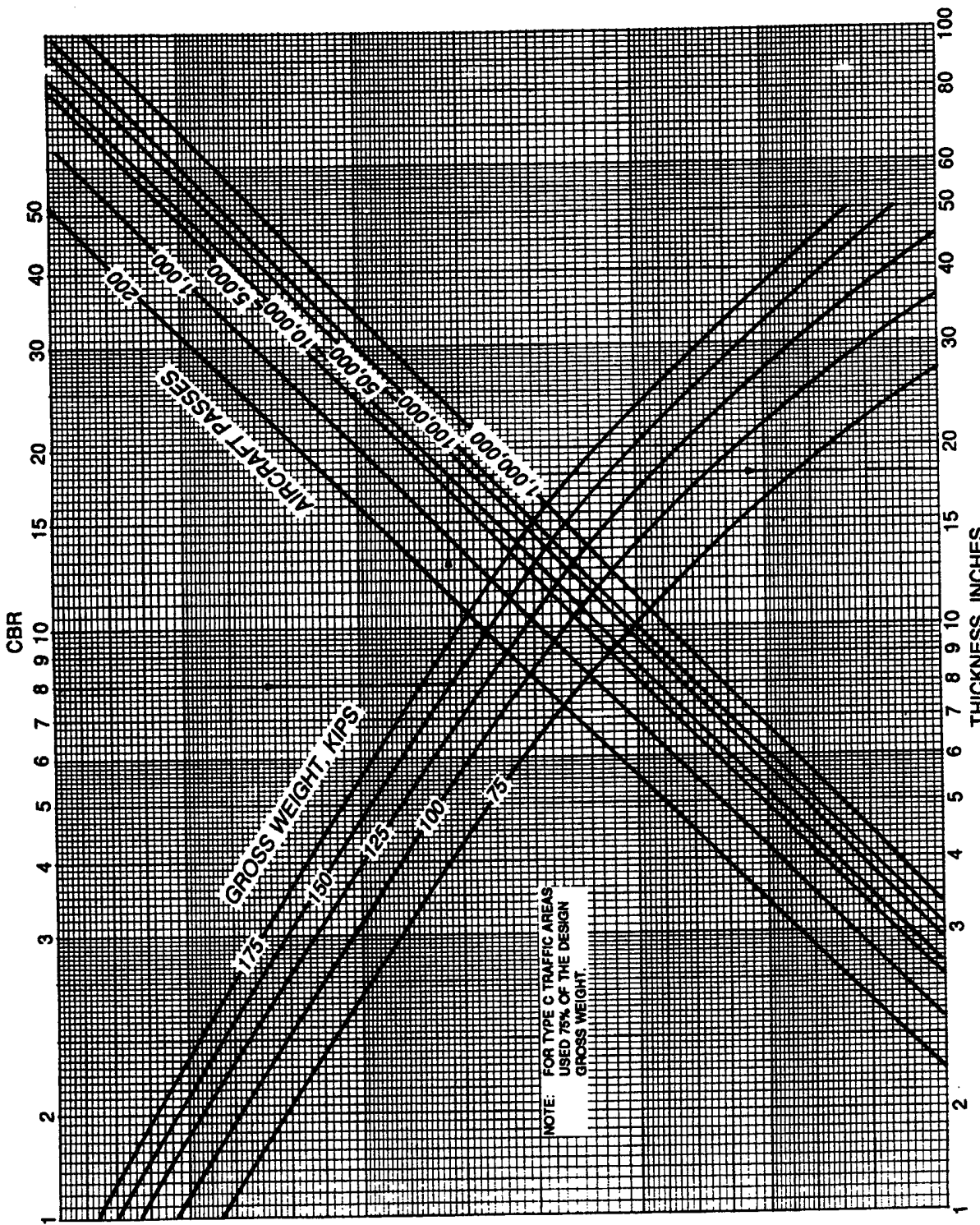
FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS III AIRFIELDS WITH
RUNWAY > 4,000 FEET TYPE A TRAFFIC AREAS.



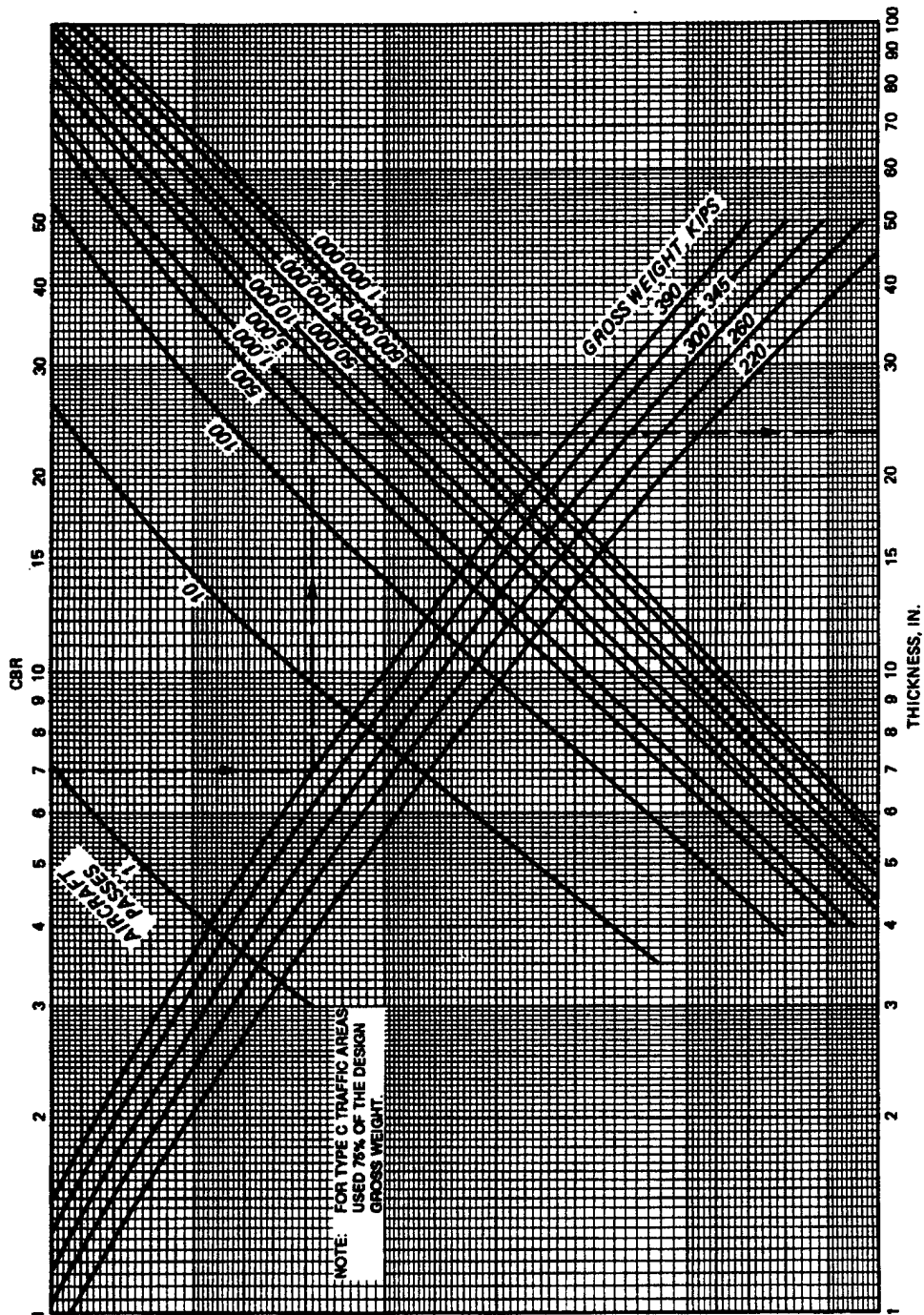
FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS II AIRFIELDS WITH
RUNWAY > 4,000 FEET, TYPE B AND C TRAFFIC



FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS IV AIRFIELDS WITH
RUNWAY 2 5,000 FEET. TYPE A TRAFFIC AREAS.

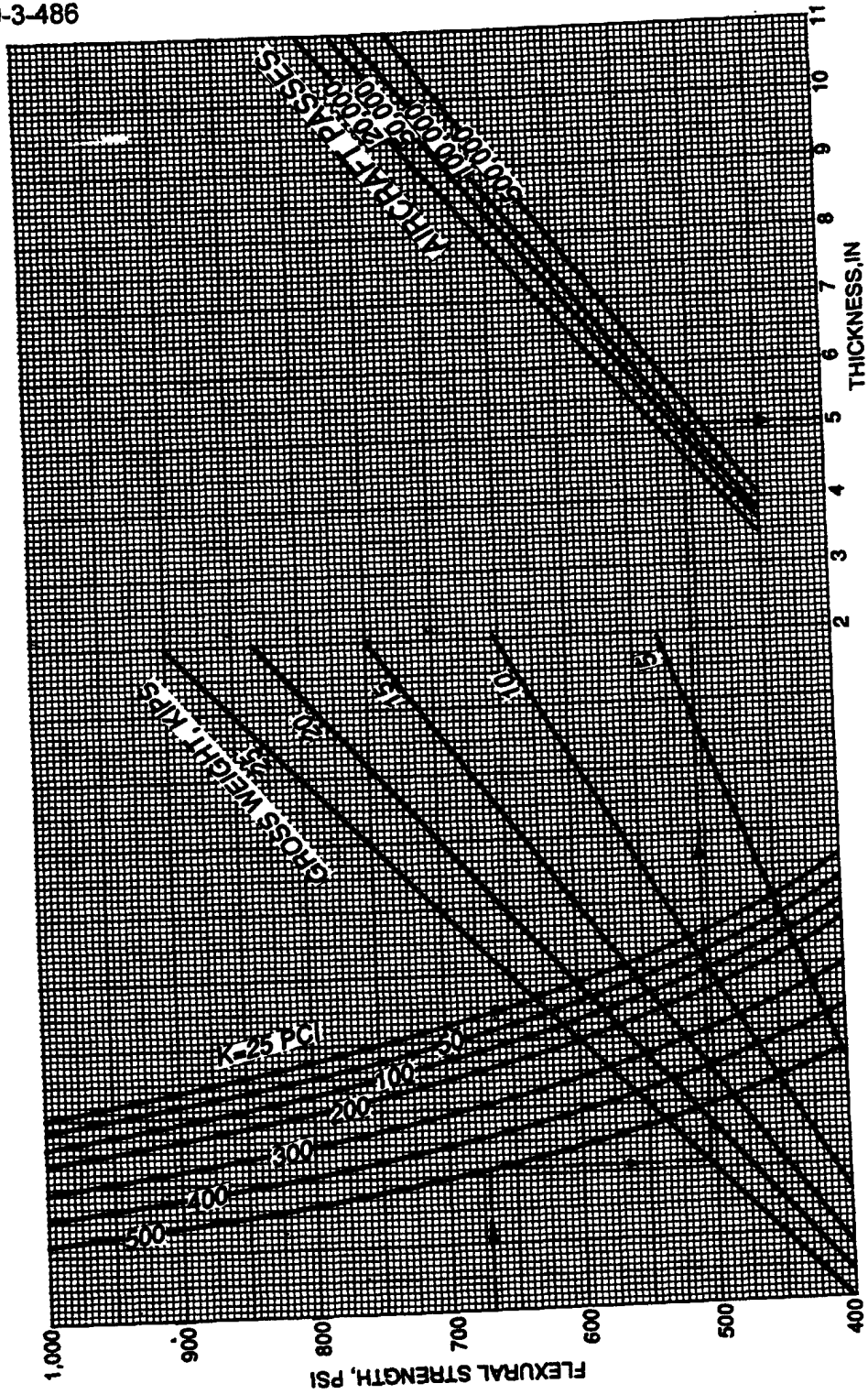


FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS IV AIRFIELDS WITH RUNWAY \geq 5,000 FEET. TYPE B AND C TRAFFIC AREAS.

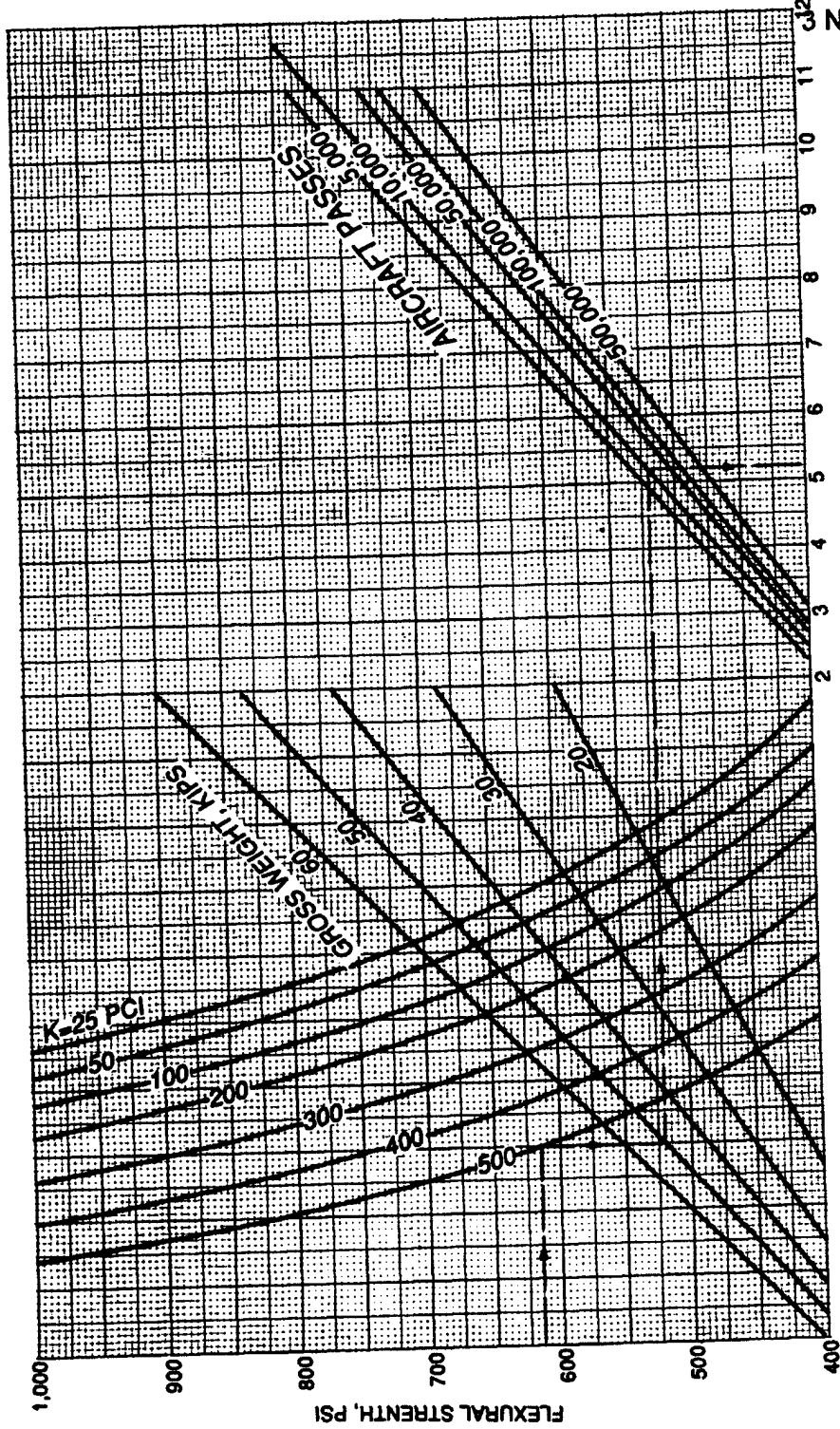


FLEXIBLE PAVEMENT DESIGN CURVES FOR ARMY CLASS IV AIRFIELDS WITH RUNWAY > 5,000 FEET. TYPE B AND C TRAFFIC AREAS.

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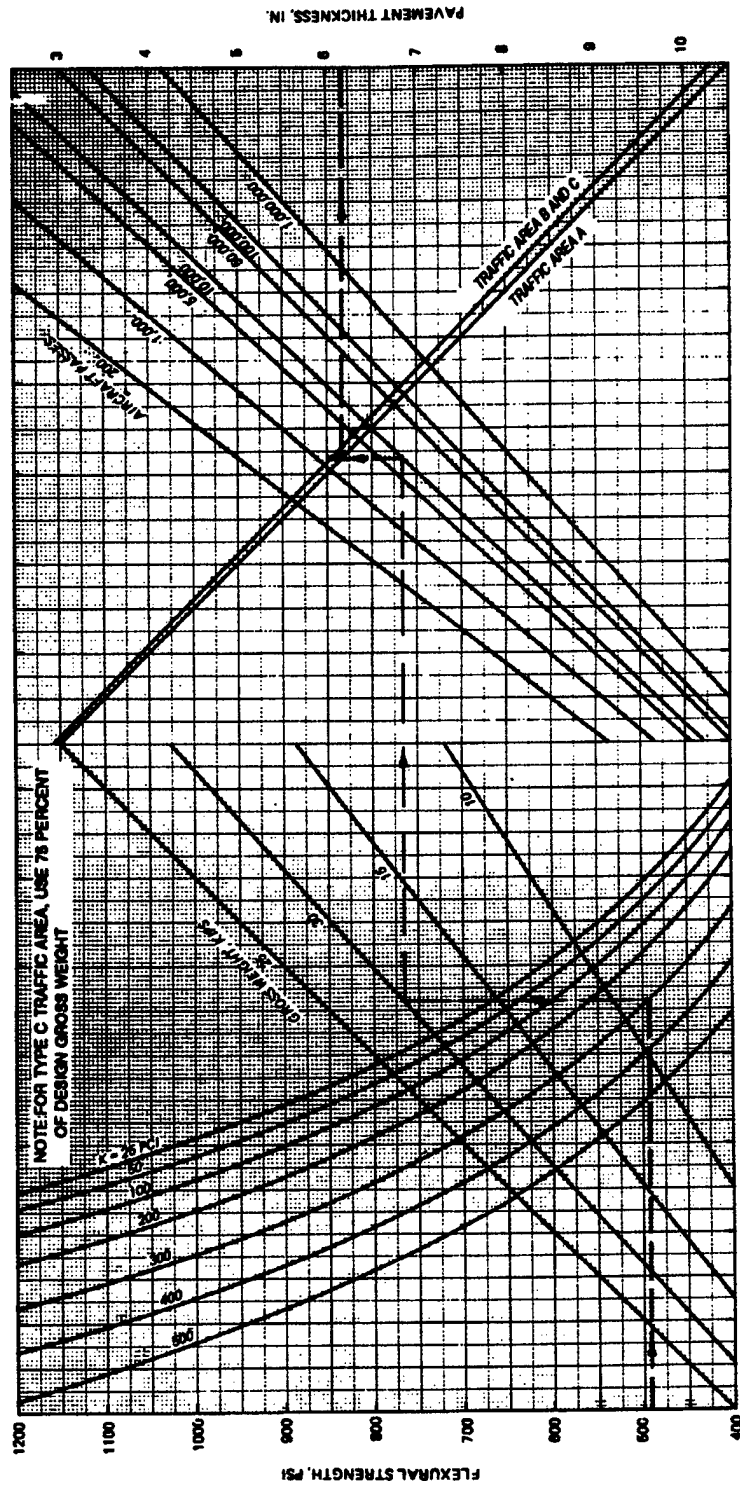


RIGID PAVEMENT DESIGN CURVE FOR ARMY CLASS I
HELIPORTS AND HELIPADS.

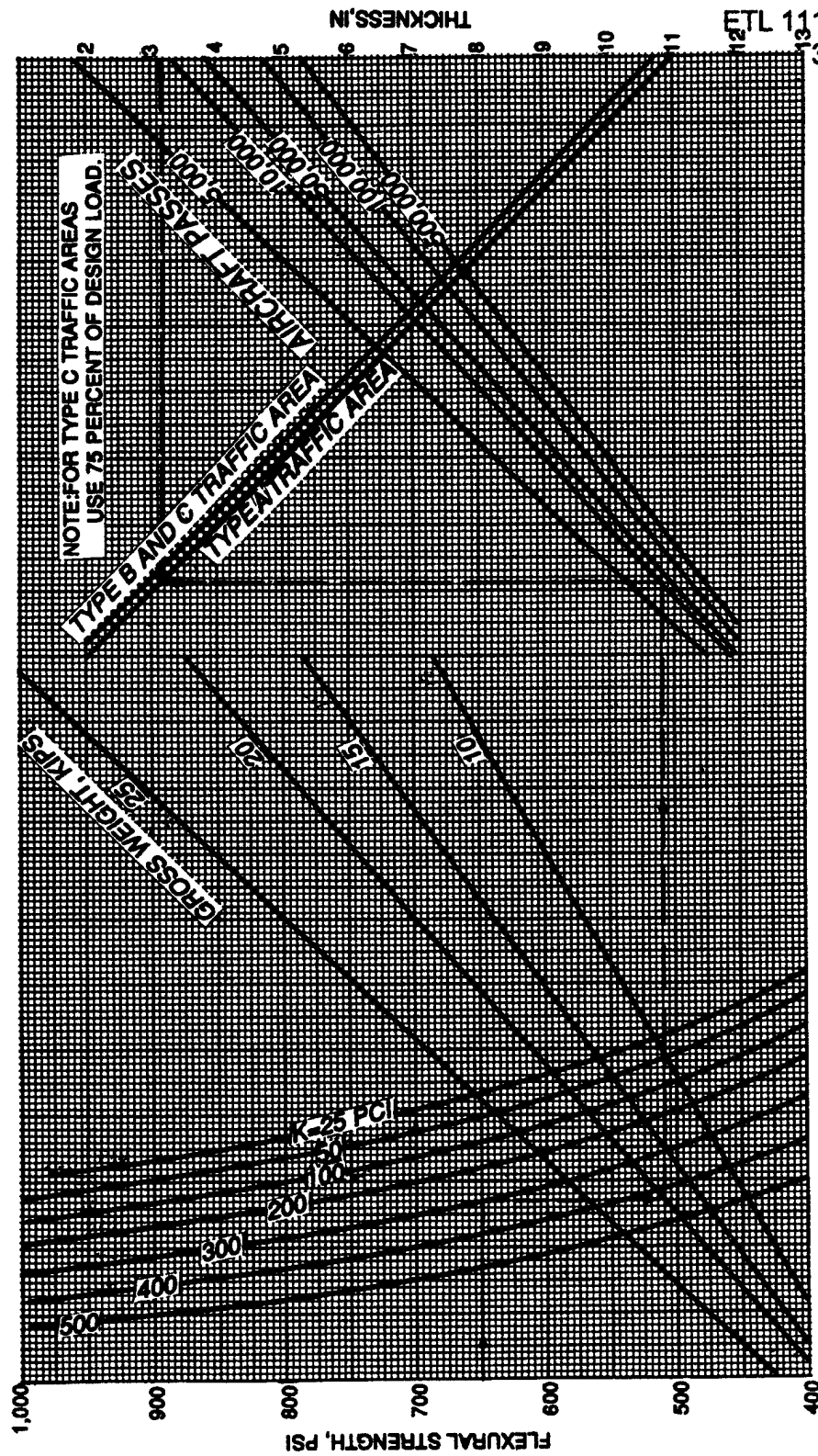


THICKNESS, IN
RIGID PAVEMENT DESIGN CURVE FOR ARMY CLASS I AND V
HELIPORTS AND HELIPADS

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RIGID PAVEMENT DESIGN CURVE FOR ARMY CLASS III AIRFIELD
 WITH RUNWAY \leq 4,000 FEET

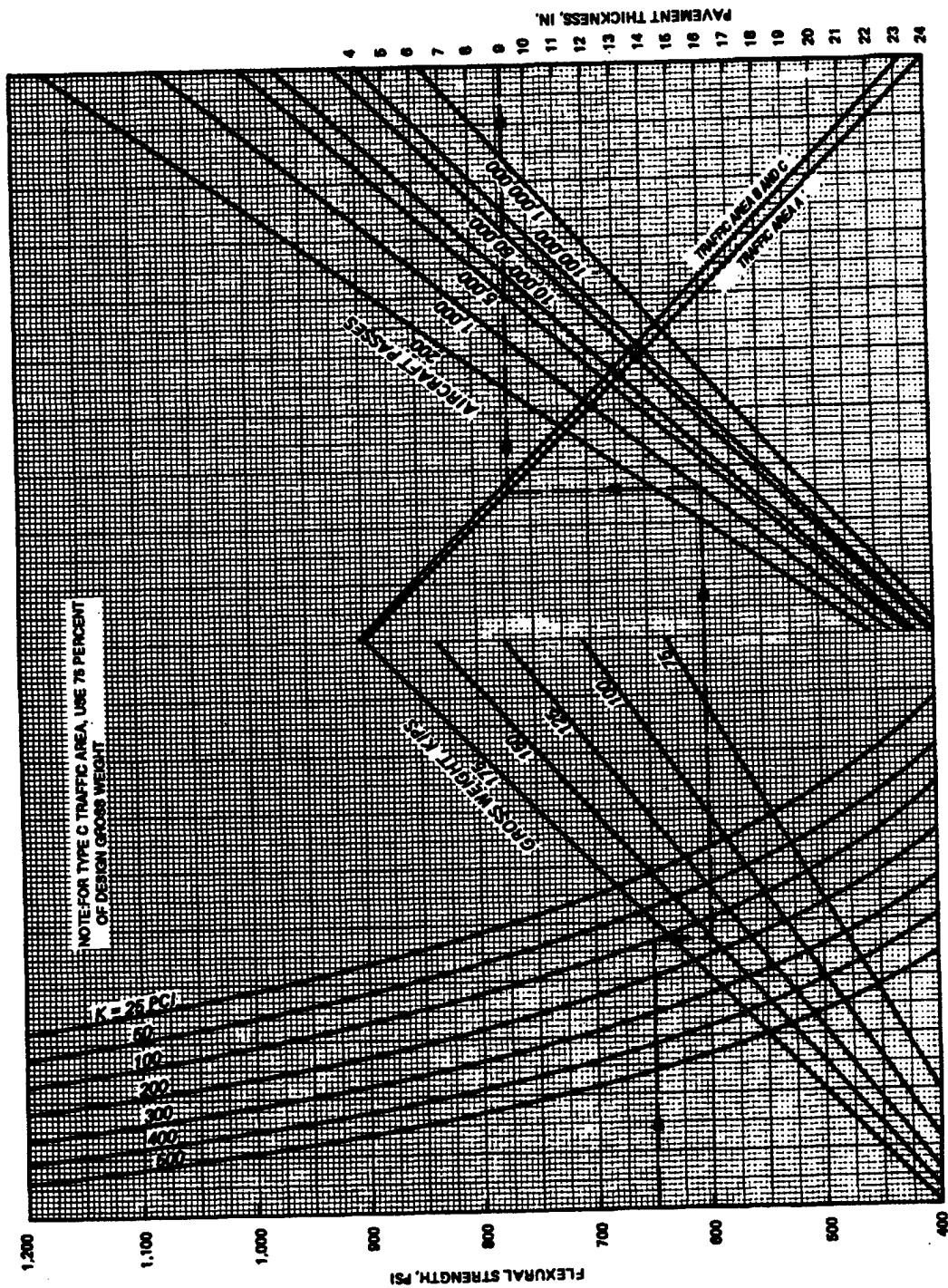


NOTE FOR TYPE C TRAFFIC AREAS
USE 75 PERCENT OF DESIGN LOAD

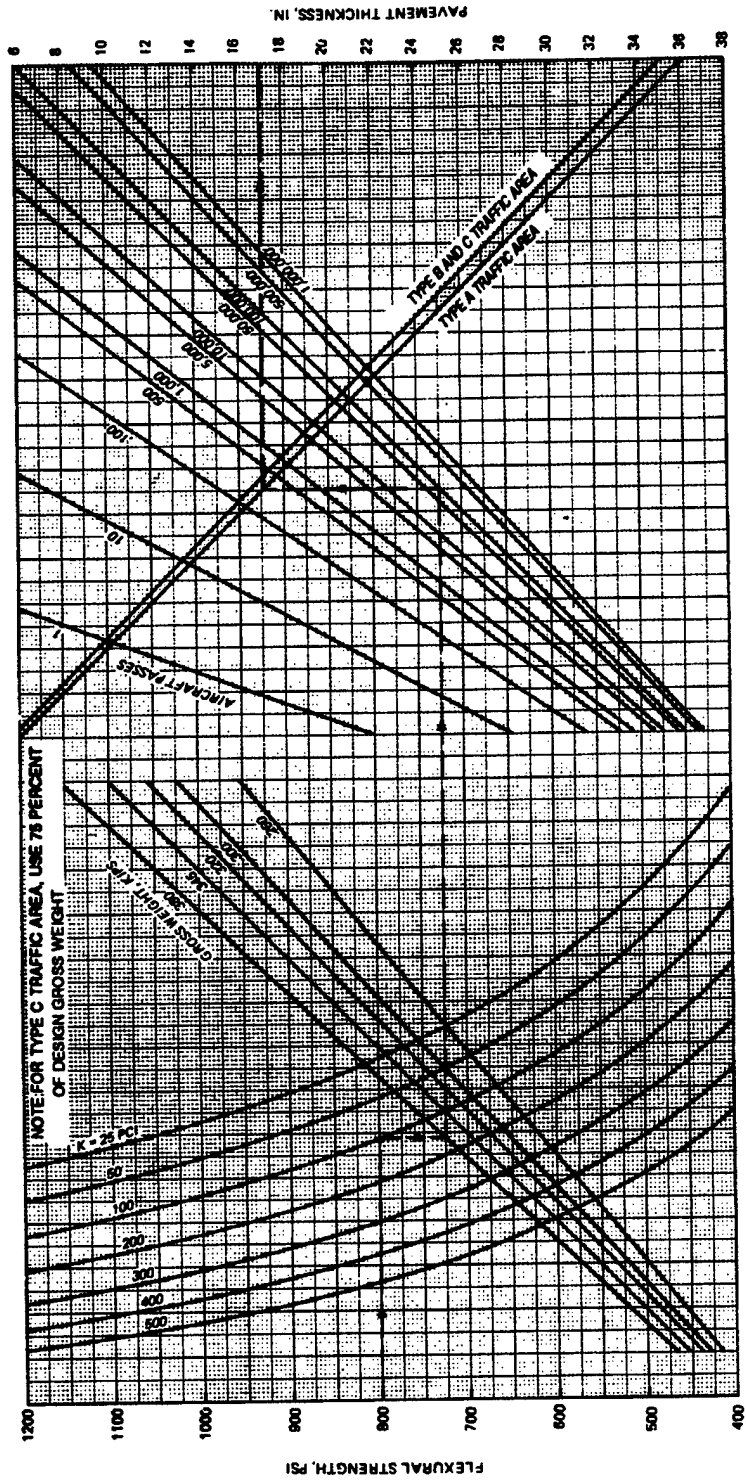
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RIGID PAVEMENT DESIGN CURVE FOR ARMY CLASS III AIRFIELDS
WITH RUNWAY > 4,000 FEET.

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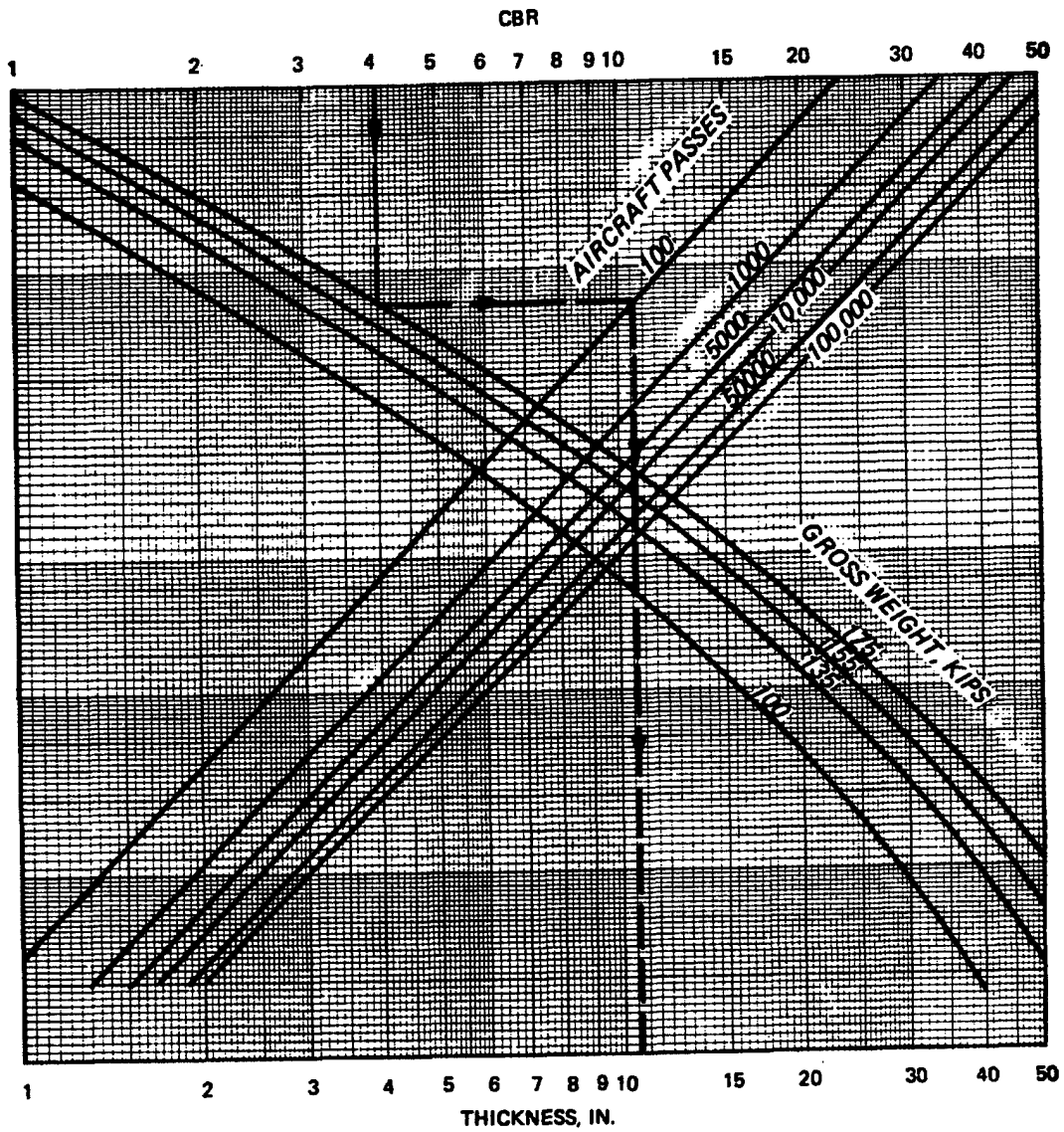


**RIGID PAVEMENT DESIGN CURVE FOR ARMY CLASS IV AIRFIELD
 WITH RUNWAY $\leq 5,000$ FEET**



RIGID PAVEMENT DESIGN CURVE FOR ARMY CLASS IV AIRFIELD
WITH RUNWAY > 5,000 FEET

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AGGREGATE SURFACE DESIGN CURVES FOR ARMY CLASS VI AIRFIELDS.

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