

AMC- 22: PRESTRESSED CONCRETE & ADV. DESIGN OF STRUCTURE

1. INTRODUCTION TO PRESTRESSED CONCRETE

Introduction, Reinforced Concrete Versus Prestressed Concrete, Prestressing System, Loss Of Prestress, Steel For Prestressing, Basic Concepts Of Prestressed Concrete, Homogeneous Beam Concept, Pressure Line, Load Balancing Concept, Shear And Principal Stresses

2. SYSTEMS OF PRESTRESSING

Classifications Of Prestressed Concrete Members, Hoyer System, The Freyssinet System, The Magnel Balton System, Gifford Udall System, P.S.C.Monowire System, C.C.L Standards System, LEE-McCall System

3. PRESTRESSED CONCRETE BEAMS

Introduction, Limit State Of Collapse , Limit State Of Collapse In Shear , Limit State Of Serviceability , Prestressed Concrete Poles, Other Design Considerations, Selection Of Sectional Dimensions, Detailing Of Reinforcement, Limits State Of Serviceability For Deflection

4. END BLOCK

Introduction, Magnel's Method, Guyon's Method, Beam With Two Anchor Plates Symmetrically Placed On The Face Of The Beam , Cable At An Eccentricity

5. PRESTRESSED CIRCULAR TANKS AND PIPES

Introduction, Principles of Circumferential Prestressing, Methods Of Design

6. SMALL PRESTRESSED CONCRETE DAMS

Introduction, Design Requirements, Design

7. PRESTRESSED CONCRETE PILES

Introduction, Convenient Ways of Lifting A Pile, Maximum Length Of Pile
