

2D TRUSS

D.L= 10K, L.L= 20K, FY = 36KSI, FY=58KSI.

STEPS:

- Unit = K-ft.
- New model 2d truss, sloped truss. Number of division = 3, length (division)=15, Height= 12ft.
- Option>preference > steel frame design, ALSC-LRFD-93.
- Define > material, steel, modify, fy=36 ksi, fy= 58ksi.
- Define > frame section, import angle. Add angles, add auto select insert – all angles.
- Define > load cases, add line load, self xple=0.

- Define > add default combo, select steel, convert.
- Select all members.
- Assign > frame > frame sections, select autos elect.
- Select joint.
- Assign > join load > forces, apply loads.
- Select all.
- Assign > frame > release > partial fixity.
- Design > steel > steel design combo, UDSR1, UDSR2.
- Design > steel > select design/check.
- Design > steel > verify analysis Vs designed section.
- If members changed, reanalyze structure till no change, then select max x-sections & apply to all membrane & analyze for economy purpose.
- Display > show forces> joint UDSR2. It gives joint reaction.

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- Display > show forces/stresses > frame, axial. It gives member forces.