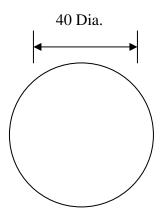
INTEROFFICE MEMORANDUM

DATE: December 19, 1972

TO: BRIDGE DESIGN PERSONNEL

- FROM: Frank Harrison, Assistant Bridge Engineer
- **SUBJECT:** Round Ties

The bending diagram for round ties should be changed from that shown on our standard bending diagram sheet with end bends similar to a rectangular or square tie to a simple lap as shown below.



INTEROFFICE MEMORANDUM

DATE: December, 1972

TO: Mr. Bert Rownd, State Maintenance Engineer

FROM: Veral Pinkerton, Bridge Engineer

SUBJECT: Approach Slab and Gutters

Please give us your opinion and ideas as to the value of approach slab and gutters at bridge ends. What has the maintenance experience been for both, with and without these items?

Your assistance will be appreciated.

cc: Director Chief Engineer Roadway Design Secondary Roads