

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL CAST WITH THE CORED SLAB SECTIONS SHALL BE GRADE 60 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE CORED SLABS.

RECESSES FOR TRANSVERSE STRANDS SHALL BE GROUDED AFTER THE TENSIONING OF THE STRANDS.

THE 1/2" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH GROUT.

THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF TYPE B LOW MODULUS SILICONE SEALANT. THE 2" Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, A POSITIVE HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. THIS SYSTEM SHALL BE DESIGNED TO BE LEFT IN PLACE UNTIL THE CONCRETE HAS REACHED RELEASE STRENGTH. AT LEAST THREE WEEKS PRIOR TO CASTING CORED SLABS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND COMMENT, DETAILED DRAWINGS OF THE PROPOSED HOLD-DOWN SYSTEM. IN ADDITION TO STRUCTURAL DETAILS, LOCATION AND SPACING OF THE HOLD-DOWNS SHALL BE INDICATED.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE CORED SLAB UNIT SHALL BE DONE WHEN THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI.

ALL REINFORCING STEEL IN PARAPETS SHALL BE EPOXY COATED.

PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT ENDS.

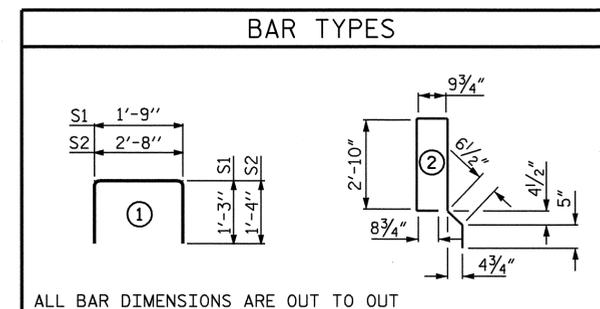
APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS. FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.

PRESTRESSED CONCRETE CORED SLAB UNITS SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR. SEE SPECIAL PROVISION FOR CALCIUM NITRITE CORROSION INHIBITOR.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

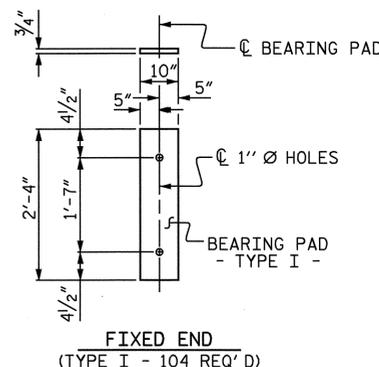
| BILL OF MATERIAL FOR ONE CORED SLAB SECTION | | | | | | | | | | | | | | | |
|---|--------|------|------|-------------|--------|--------------|--------|---------------|--------|--------------|--------|-------------|--------|--------------|--------|
| SPAN "A", "B", "C", OR "D" | | | | | | | | | | | | | | | |
| | | | | STAGE 1 | | | | | | | | STAGE 2 | | | |
| | | | | TYPE I UNIT | | TYPE II UNIT | | TYPE III UNIT | | TYPE IV UNIT | | TYPE V UNIT | | TYPE VI UNIT | |
| BAR | NUMBER | SIZE | TYPE | LENGTH | WEIGHT | LENGTH | WEIGHT | LENGTH | WEIGHT | LENGTH | WEIGHT | LENGTH | WEIGHT | LENGTH | WEIGHT |
| B1 | 4 | #4 | STR | 26'-0" | 69 | 26'-0" | 69 | 26'-0" | 69 | 26'-0" | 69 | 26'-0" | 69 | 26'-0" | 69 |
| S1 | 8 | #5 | 1 | 4'-3" | 35 | 4'-3" | 35 | 4'-3" | 35 | 4'-3" | 35 | 4'-3" | 35 | 4'-3" | 35 |
| S2 | 98 | #4 | 1 | 5'-4" | 349 | | | | | | | | | 5'-4" | 349 |
| S2 | 78 | #4 | 1 | | | 5'-4" | 278 | 5'-4" | 278 | 5'-4" | 278 | 5'-4" | 278 | | |
| *S3 | 51 | #5 | 2 | 8'-2" | 434 | | | | | | | | | 8'-2" | 434 |
| REINFORCING STEEL | | | | LBS. | 453 | | 382 | | 382 | | 382 | | 382 | | 453 |
| *EPOXY COATED REINFORCING STEEL | | | | LBS. | 434 | | | | | | | | | | 434 |
| 5,000 P.S.I. CONCRETE | | | | CU. YDS. | 7.0 | | 7.0 | | 8.4 | | 7.0 | | 6.9 | | 7.0 |
| 1/2" Ø L.R. STRANDS | | | | No. | 22 | | 22 | | 25 | | 22 | | 22 | | 22 |



| DEAD LOAD DEFLECTION AND CAMBER | | | | | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | STAGE 1 | | | | STAGE 2 | |
| | TYPE I | TYPE II | TYPE III | TYPE IV | TYPE V | TYPE VI |
| | 1/2" Ø L.R. STRAND |
| CAMBER (SLAB ALONE IN PLACE) | 2" ↑ | 2" ↑ | 2 1/16" ↑ | 2" ↑ | 2" ↑ | 2" ↑ |
| DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD ** | 5/16" ↓ | 5/16" ↓ | 1/4" ↓ | 5/16" ↓ | 5/16" ↓ | 5/16" ↓ |
| FINAL CAMBER | 1 11/16" ↑ | 1 11/16" ↑ | 1 13/16" ↑ | 1 11/16" ↑ | 1 11/16" ↑ | 1 11/16" ↑ |

** INCLUDES FUTURE WEARING SURFACE

| GRADE 270 STRANDS | |
|-------------------------------------|--------|
| AREA (SQUARE INCHES) | 0.153 |
| ULTIMATE STRENGTH (LBS. PER STRAND) | 41,300 |
| APPLIED PRESTRESS (LBS. PER STRAND) | 30,980 |

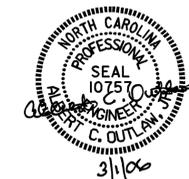


ELASTOMERIC BEARING DETAILS

| CORED SLABS REQUIRED | | | |
|---------------------------|---------------|--------------|--------------|
| SPAN "A", "B", "C", & "D" | NUMBER | LENGTH | TOTAL LENGTH |
| STAGE 1 | TYPE I | 4 | 49'-10 1/2" |
| | TYPE II | 20 | 49'-10 1/2" |
| | TYPE III | 4 | 49'-10 1/2" |
| | TYPE IV | 4 | 49'-10 1/2" |
| | STAGE 1 TOTAL | 32 | 1596'-0" |
| STAGE 2 | TYPE V | 16 | 49'-10 1/2" |
| | TYPE VI | 4 | 49'-10 1/2" |
| | STAGE 2 TOTAL | 20 | 997'-6" |
| TOTAL | 52 | 2593.50 L.F. | |

PROJECT NO. B-3348
HYDE COUNTY
 STATION: 22+85.00 -L-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 3'-0" X 1'-9"
 PRESTRESSED
 CONCRETE CORED
 SLAB UNIT



| REVISIONS | | | | | | SHEET NO. | |
|-----------|-----|-------|-----|-----|-------|-----------------|--|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-49 | |
| 1 | | | 3 | | | TOTAL SHEETS 76 | |
| 2 | | | 4 | | | | |

ASSEMBLED BY : P.C. BREWER DATE : 1/16/03
 CHECKED BY : T.N. CARROLL DATE : 3/10/03