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FIXED END
( TYPE I - 20 REQ'D )

## ELASTOMERIC BEARING DETAILS

ELASTOMER IN ALL BEARINGS SHALL BE 60 DUROMETER HARDNESS.

| CORED SLABS REQUIRED | | | |
|---|---|---|---|
| | NUMBER | LENGTH | TOTAL LENGTH |
| 70' UNIT | | | |
| EXTERIOR C.S. | 2 | 70'-0" | 140'-0" |
| INTERIOR C.S. | 8 | 70'-0" | 560'-0" |
| TOTAL | 10 | | 700'-0" |

| DEAD LOAD DEFLECTION AND CAMBER | |
|---|---|
| | 3'-0" x 2'-0" |
| 70' CORED SLAB UNIT | 0.6" Ø L.R. STRAND |
| CAMBER ( SLAB ALONE IN PLACE ) | 2 1/4" ↑ |
| DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD** | 3/4" ↑ |
| FINAL CAMBER | 1 1/2" ↑ |

** INCLUDES FUTURE WEARING SURFACE

## BAR TYPES

ALL BAR DIMENSIONS ARE OUT TO OUT

| BILL OF MATERIAL FOR ONE 70' CORED SLAB UNIT | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | EXTERIOR UNIT | | INTERIOR UNIT | |
| BAR | NUMBER | SIZE | TYPE | LENGTH | WEIGHT | LENGTH | WEIGHT |
| B22 | 6 | #4 | STR | 24'-6" | 98 | 24'-6" | 98 |
| | | | | | | | |
| S10 | 8 | #5 | 3 | 4'-10" | 40 | 4'-10" | 40 |
| S11 | 148 | #4 | 3 | 5'-10" | 577 | 5'-10" | 577 |
| *S12 | 79 | #5 | 1 | 5'-7" | 460 | | |
| S14 | 4 | #4 | 4 | 5'-8" | 15 | 5'-8" | 15 |
| S15 | 4 | #5 | 3 | 7'-1" | 30 | 7'-1" | 30 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| REINFORCING STEEL | | | LBS. | | 760 | | 760 |
| *EPOXY COATED REINFORCING STEEL | | | LBS. | | 460 | | |
| 7000 P.S.I. CONCRETE | | | CU. YDS. | | 12.0 | | 12.0 |
| | | | | | | | |
| 0.6" Ø L.R. STRANDS | | | No. | | 28 | | 28 |

| CONCRETE RELEASE STRENGTH | |
|---|---|
| | |
| UNIT | PSI |
| 70' UNITS | 5500 |

| GRADE 270 STRANDS | |
|---|---|
| | 0.6" Ø L.R. |
| AREA ( SQUARE INCHES ) | 0.217 |
| ULTIMATE STRENGTH ( LBS. PER STRAND ) | 58,600 |
| APPLIED PRESTRESS ( LBS. PER STRAND ) | 43,950 |

PROJECT NO. DF16905.2091011
VANCE COUNTY
STATION: 16+14.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE

**3'-0" X 2'-0"**
**PRESTRESSED CONCRETE**
**CORED SLAB UNIT**

105° SKEW

WGI
5640 Dillard Drive, Suite 200
Cary, NC 27518
LICENSURE NO. C-4434

NORTH CAROLINA PROFESSIONAL SEAL 11268 ENGINEER BETSY S. COX
6/21/2022 | 6:39 AM EDT

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

| REVISIONS | | | | | | |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | |
| 2 | | | 4 | | | |

SHEET NO. S-8
TOTAL SHEETS 16

DRAWN BY : S.D. COOPER DATE : 4-22
CHECKED BY : B.S. COX DATE : 4-22
DESIGN ENGINEER OF RECORD: B.S. COX DATE : 4-22

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