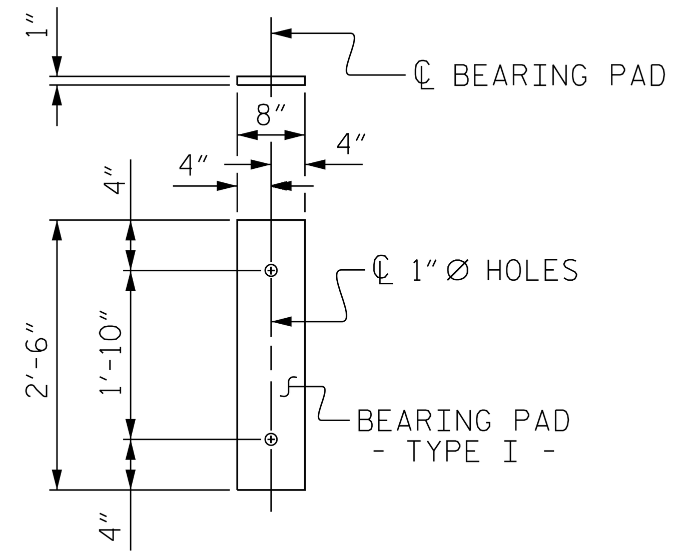


FIXED END
(TYPE I - 22 REQ'D)

ELASTOMERIC BEARING DETAILS

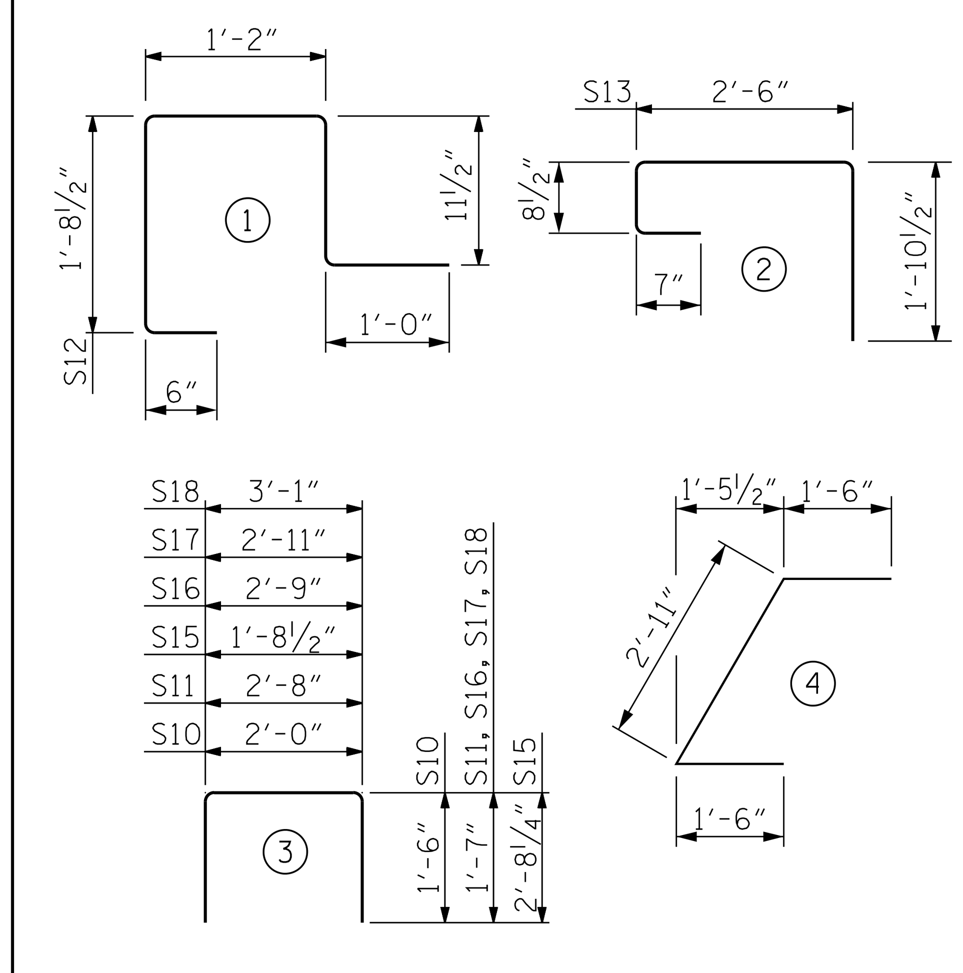
ELASTOMER IN ALL BEARINGS SHALL BE 60 DUROMETER HARDNESS.

CORED SLABS REQUIRED	NUMBER	LENGTH	TOTAL LENGTH
65' UNIT			
TYPE I	1	65'-0"	65'-0"
TYPE II	8	65'-0"	520'-0"
TYPE III	2	65'-0"	130'-0"
TOTAL	11		715'-0"

DEAD LOAD DEFLECTION AND CAMBER	3'-0" x 2'-0"
65' CORED SLAB UNIT	0.6" Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE)	1⅞" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD **	9/16" ↓
FINAL CAMBER	1 5/16" ↑

** INCLUDES FUTURE WEARING SURFACE

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR ONE CORED SLAB UNIT — TYPE I

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B21	6	#4	STR	22'-10"	92
S10	8	#5	3	5'-0"	42
S11	176	#4	3	5'-10"	686
*S12	66	#4	1	5'-4"	235
S14	4	#4	4	5'-11"	16
S15	4	#5	3	7'-1"	30
S16	4	#4	3	5'-11"	16
S17	4	#4	3	6'-1"	16
S18	4	#4	3	6'-3"	17
REINFORCING STEEL		LBS.			915
* EPOXY COATED REINFORCING STEEL		LBS.			235
8000 P.S.I. CONCRETE		CU. YDS.			12.8
0.6" Ø L.R. STRANDS		No.			24

BILL OF MATERIAL FOR ONE CORED SLAB UNIT — TYPE II

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B21	6	#4	STR	22'-10"	92
S10	8	#5	3	5'-0"	42
S11	158	#4	3	5'-10"	616
S14	4	#4	4	5'-11"	16
S15	4	#5	3	7'-1"	30
S16	4	#4	3	5'-11"	16
S17	4	#4	3	6'-1"	16
S18	4	#4	3	6'-3"	17
REINFORCING STEEL		LBS.			845
8000 P.S.I. CONCRETE		CU. YDS.			11.2
0.6" Ø L.R. STRANDS		No.			24

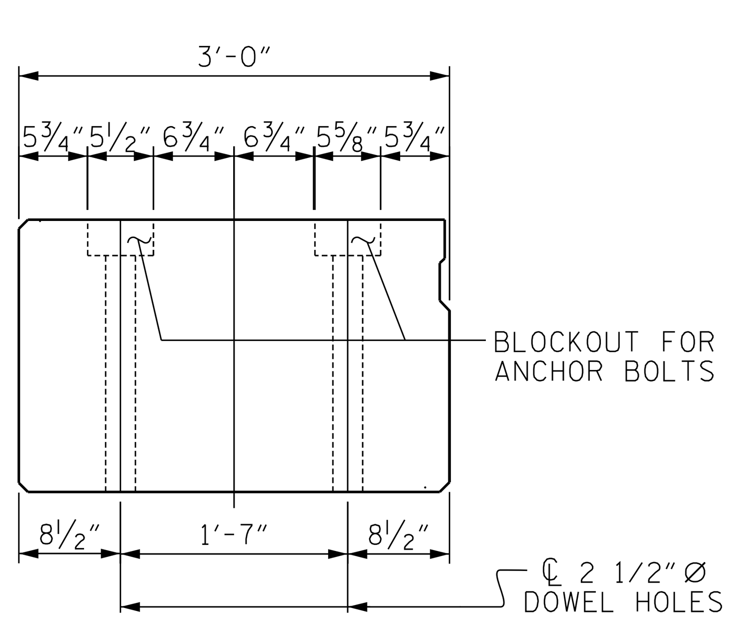
BILL OF MATERIAL FOR ONE CORED SLAB UNIT — TYPE III

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B21	6	#4	STR	22'-10"	92
S10	8	#5	3	5'-0"	42
S11	158	#4	3	5'-10"	616
*S13	11	#4	2	5'-8"	42
S14	4	#4	4	5'-11"	16
S15	4	#5	3	7'-1"	30
S16	4	#4	3	5'-11"	16
S17	4	#4	3	6'-1"	16
S18	4	#4	3	6'-3"	17
REINFORCING STEEL		LBS.			845
* EPOXY COATED REINFORCING STEEL		LBS.			42
8000 P.S.I. CONCRETE		CU. YDS.			11.2
0.6" Ø L.R. STRANDS		No.			24

CONCRETE RELEASE STRENGTH	
UNIT	PSI
65' UNITS	5300

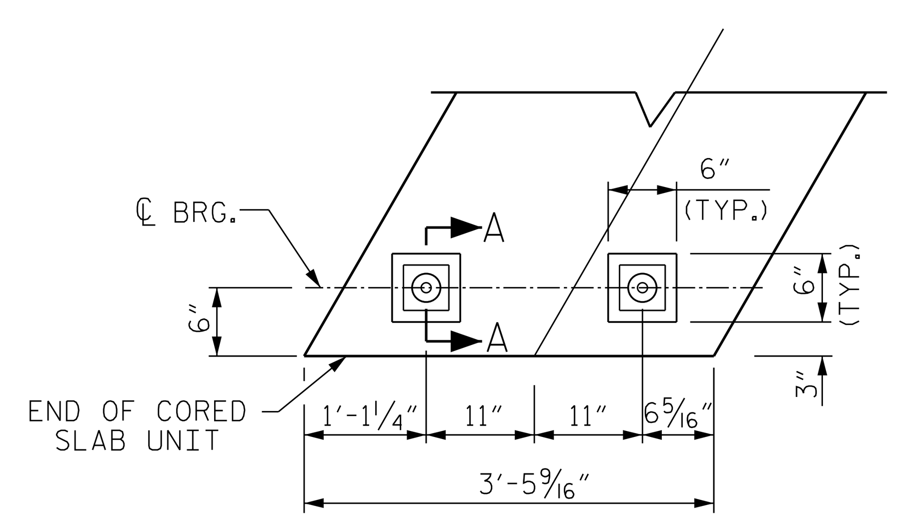
GRADE 270 STRANDS	0.6" Ø L.R.
AREA (SQUARE INCHES)	0.217
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950

GUTTERLINE ASPHALT THICKNESS	ASPHALT OVERLAY THICKNESS @ MID-SPAN
65' UNITS	2 3/16"



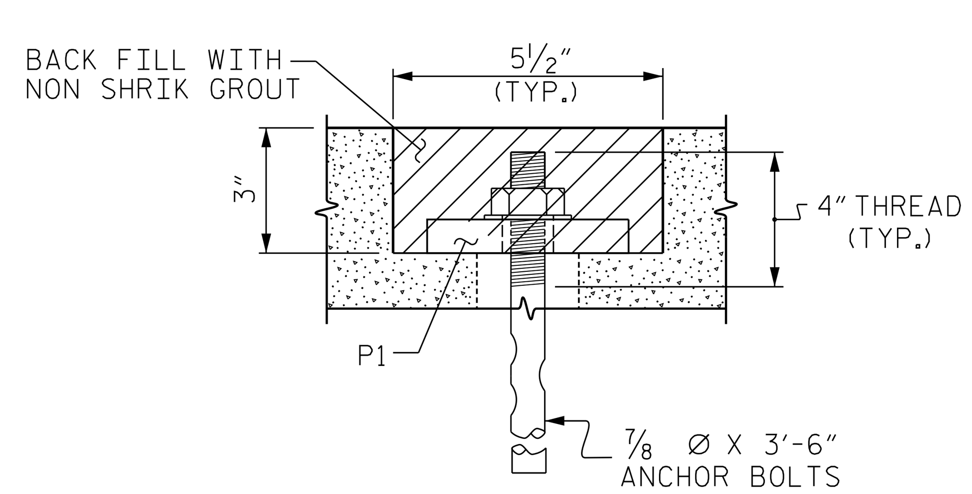
END ELEVATION

SHOWING LOCATION OF BLOCKOUT FOR ANCHOR BOLTS AND ANCHOR BOLT HOLES.



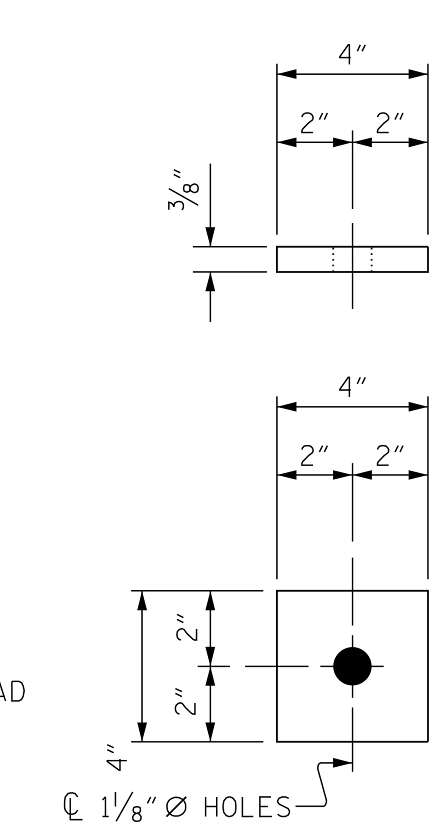
TYPICAL PLAN

(TYP. FOR EXTERIOR CORED SLABS) (60° SHOWN)



SECTION A-A

(FIXED)



P1
(FIXED)
P1 (16 REQ'D.)

PLATE DETAILS

BLOCKOUT DETAIL FOR ANCHOR BOLTS

NOTES

ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A449. ANCHOR PLATES, WASHER, AND NUT SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. ANCHOR BOLTS, ANCHOR PLATES, WASHERS, AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

NO SEPARATE PAYMENT SHALL BE MADE FOR THE ANCHOR BOLTS, ANCHOR PLATES, WASHER, AND NUTS. THE COST OF THE MATERIAL AND INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

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 GROUTED AFTER THE TENSIONING OF THE STRANDS.

THE 2½" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH NON-SHRINK GROUT.

THE BACKER RODS SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, AN INTERNAL HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. AT LEAST SIX 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 THE REQUIRED STRENGTH SHOWN IN THE "CONCRETE RELEASE STRENGTH" TABLE.

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

APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS.

FLAME CUTTING OF THE TRANSVERSE POST-TENSIONING STRAND IS NOT ALLOWED.

MAINTAIN A SYMMETRIC TENSION FORCE BETWEEN EACH PAIR OF TRANSVERSE POST TENSIONING STRANDS IN THE DIAPHRAGM.

THE #4 S11 STIRRUPS MAY BE SHIFTED AS NECESSARY TO MAINTAIN 1" CLEAR TO THE GROUTED RECESS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE PERMITTED THREADED INSERTS ARE DETAILED AS AN OPTION FOR THE CONTRACTOR TO ATTACH FALSEWORK AND FORMWORK DURING CONSTRUCTION.

THE PERMITTED THREADED INSERTS IN THE EXTERIOR UNITS SHALL BE SIZED BY THE CONTRACTOR, SPACED AT 4'-0" CENTERS AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. STAINLESS STEEL THREADED INSERTS MAY BE USED AS AN ALTERNATE.

THE PERMITTED THREADED INSERTS SHALL BE GROUTED BY THE CONTRACTOR IMMEDIATELY FOLLOWING REMOVAL OF THE FALSEWORK.

THE COST OF THE PERMITTED THREADED INSERTS SHALL BE INCLUDED IN THE PRICE BID FOR THE PRECAST UNITS.

AT ALL FIXED AND EXPANSION ENDS OF EXTERIOR CORED SLAB SECTIONS WITH HOLD-DOWN ANCHOR BOLTS, NUTS FOR ANCHOR BOLTS SHALL BE FINGER-TIGHTENED AND THEN BACKED OFF ½ TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

THE 2½" O DOWEL HOLES AT FIXED ENDS OF EXTERIOR CORED SLAB SECTIONS WITH HOLD-DOWN ANCHOR BOLTS SHALL BE FILLED WITH NON-SHRINK GROUT TO THE BOTTOM OF THE ANCHOR BOLT BLOCKOUT PRIOR TO INSTALLING THE ANCHOR PLATES, WASHERS, AND NUTS. THE 2½" O DOWEL HOLES AT EXPANSION ENDS OF EXTERIOR CORED SLAB SECTIONS WITH HOLD-DOWN ANCHOR BOLTS SHALL BE FILLED WITH JOINT SEALER MATERIAL TO THE BOTTOM OF THE ANCHOR BOLT BLOCKOUT PRIOR TO INSTALLING THE ANCHOR PLATES, WASHERS, AND NUTS.

THE ANCHOR BOLT BLOCKOUTS IN EXTERIOR CORED SLAB SECTIONS SHALL BE FILLED WITH NON-SHRINK GROUT PRIOR TO PLACEMENT OF THE WEARING SURFACE.

PROJECT NO. B-5929
HENDERSON COUNTY
STATION: 13+45.76 -L-

SHEET 3 OF 3

DocuSigned by: Hardy Willis
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6/4/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

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

ASSEMBLED BY :	WC	DATE : 6/2017
CHECKED BY :	RTS	DATE : 7/2017
DRAWN BY : MAA 6/10	REV. 11/14	MAA/TMG
CHECKED BY : MKT 7/10		

Johnson, Mirmiran, & Thompson Inc.
1318 Patton Ave Suite F.
Asheville, NC. 28806
License No: C-3097

DWN. BY: WC DATE: 06/17
CHKD. BY: HLW DATE: 06/17
DSG. ENG. OF RECORD.: RTS DATE: 06/17

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

SHEET NO. S-7
TOTAL SHEETS 25

V & M PROJECT NO.: 31640-05 (HENDERSONVILLE B-5929)