

NOTES

ASSUMED LIVE LOAD = MS 93.

FOR OTHER STANDARD DATA AND NOTES SEE SHEET S-N.

76mm Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

THE CONCRETE FOR THE PRECAST UNITS SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 34.5MPa. THE CONCRETE FOR THE HEADWALLS, WINGS AND END CURTAIN WALLS SHALL BE CLASS "A" CONCRETE AS PER THE STANDARD SPECIFICATIONS.

CAST-IN-PLACE CONCRETE SHALL BE POURED IN THE FOLLOWING ORDER:
 1. WING FOOTINGS, AND CURTAIN WALL.
 2. HEADWALLS, WING WALLS.

ALL PRECAST UNITS SHALL BE PLACED PRIOR TO POURING THE WINGS, END CURTAIN WALLS AND HEADWALLS. THE EXTERIOR PRECAST UNITS SHALL BE UNDERMINED TO PROVIDE FOR THE WING FOOTINGS TO BE POURED TO THE DEPTH AND DIMENSIONS AS SHOWN ON THIS PLAN SHEET.

FOUNDATION CONDITIONING MATERIAL SHALL HAVE A THICKNESS OF AT LEAST 300mm BELOW THE BOTTOM OF THE PRECAST UNITS. THE MATERIAL SHALL BE FORMED AND SCREED TO THE PROPER ELEVATION AT LEAST 300mm BEYOND THE SIDES OF THE PRECAST UNITS.

THE PRECAST UNITS SHALL BE CAREFULLY POSITIONED ON THE PREPARED FOUNDATION CONDITIONING MATERIAL. FEMALE END UPGRADE WITH THE MALE END FULLY INSERTED AND EACH JOINT CHECKED FOR ALIGNMENT PRIOR TO JACKING THE UNIT INTO PLACE. SATISFACTORY FITTING AND PROPER GRADE SHALL BE MAINTAINED AS THE WORK PROCEEDS.

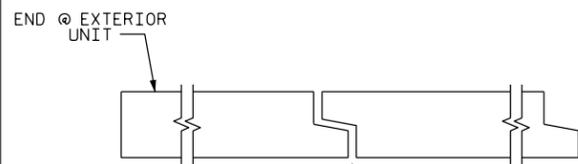
WHEN ANY PRECAST UNIT IS DAMAGED DURING HANDLING, THE ENGINEER AT HIS DISCRETION SHALL REJECT THE UNIT AS BEING UNFIT FOR INSTALLATION AND THE CONTRACTOR SHALL REMOVE SUCH REJECTED UNIT FROM THE PROJECT. MINOR DAMAGE TO THE UNIT MAY BE REPAIRED BY THE CONTRACTOR WHEN PERMITTED BY THE ENGINEER.

CARE SHALL BE TAKEN DURING BACKFILL AND COMPACTION OPERATION TO MAINTAIN ALIGNMENT AND PREVENT DAMAGE TO THE JOINTS. UNITS WHICH BECOME MISALIGNED, SHOW EXCESSIVE SETTLEMENT, OR HAVE OTHERWISE BEEN DAMAGED BY THE CONTRACTOR'S OPERATION SHALL AT THE DISCRETION OF THE ENGINEER BE REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT OF TRANSPORTATION.

CONCRETE CHAMFERS ON EXTERIOR LONGITUDINAL EDGES OF THE PRECAST UNITS MAY BE AS PER THE FABRICATORS RECOMMENDATION, HOWEVER ALL WORKMANSHIP SHALL PROVIDE CONCRETE COVER OVER THE WELDED WIRE FABRIC AS SPECIFIED ON THE PLANS AND THE CONCRETE CHAMFERS CHOSEN SHALL IN NO WAY FUNCTIONALLY LESSEN THE DESIGN SHOWN ON THE PLANS.

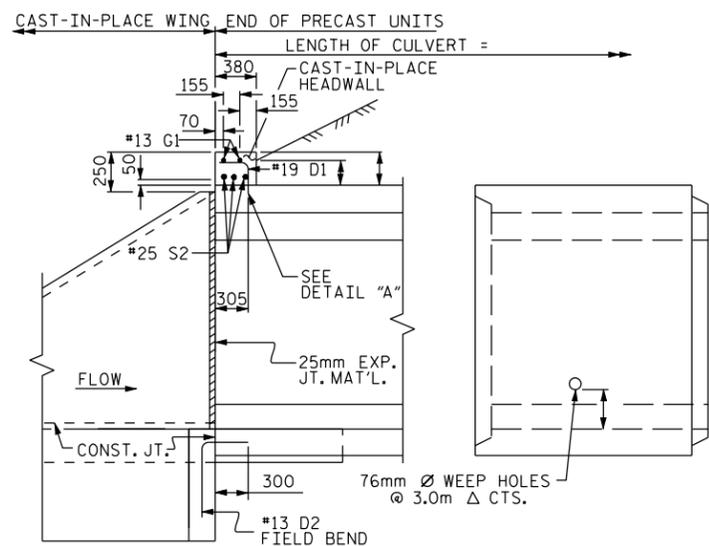
DESIGN EARTH COVER = _____

FOR PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.



SECTION THRU TOP SLAB

(BOTTOM SLAB JOINT SIMILAR)



SECTION B-B

(SHOWING INLET END UNIT)

TYPICAL PRECAST UNIT

(INTERIOR UNIT SHOWN)

NOTE: NO END UNIT SHALL BE LESS THAN 1.000m.

ELEVATION

TOTAL BILL OF MATERIAL

PRECAST REINFORCED CONCRETE BOX CULVERT @ STA.LUMP SUM
CULVERT EXCAVATION.....LUMP SUM
FOUNDATION CONDITIONING MATERIAL BOX CULVERT METRIC TONS
REMOVAL OF EXISTING STRUCTURE....LUMP SUM

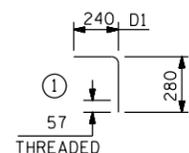
BAR SCHEDULE

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
D1		19	1	520	
D2		13	STR	1020	
G1		16	STR		
S2		25	STR		
TOTAL					kg

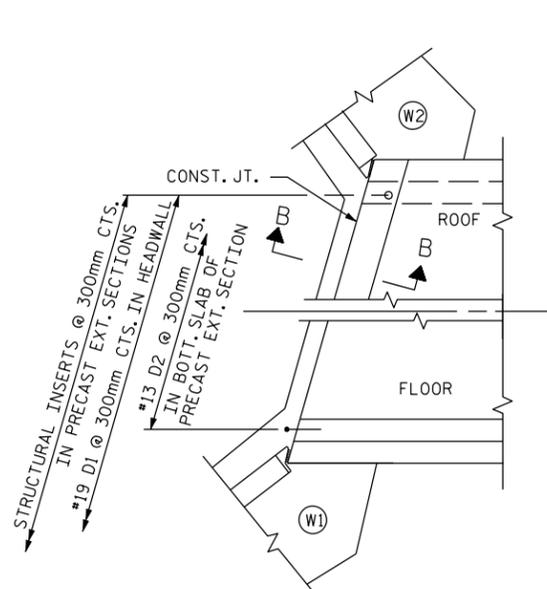


DETAIL A

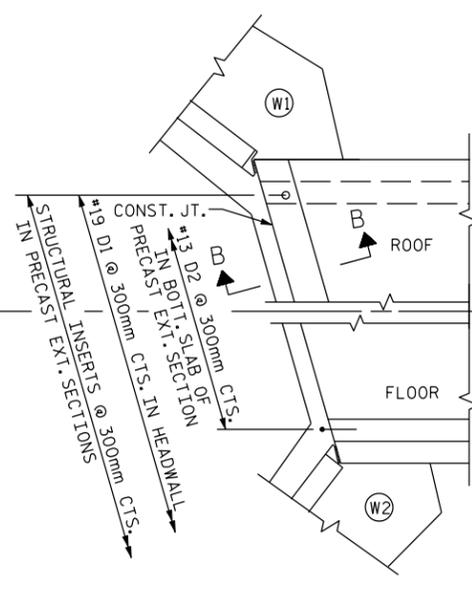
** STRUCTURAL CONNECTION INSERTS
 2 STRUT OR EQUAL;
 LENGTH = 114mm, INSERT WIDTH = 51mm,
 DIA. = 19.05mm. NO. REQUIRED



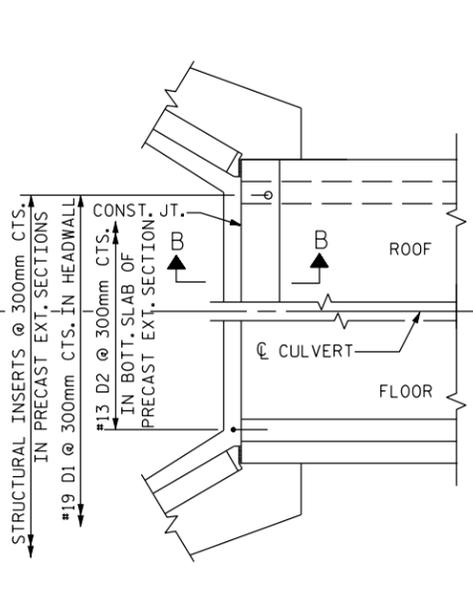
BAR TYPE



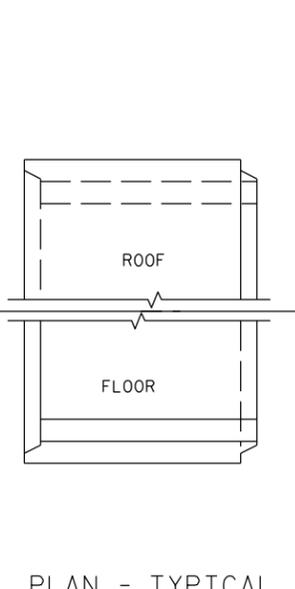
PLAN - END UNIT



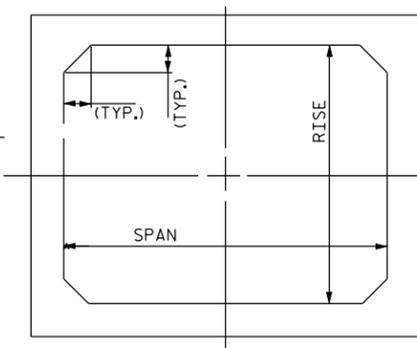
PLAN - END UNIT



PLAN - END UNIT



PLAN - TYPICAL PRECAST UNIT
 (INTERIOR UNIT SHOWN)



TYPICAL SECTION

PROJECT NO. _____

_____ COUNTY

STATION: _____

SHEET - OF -

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
STANDARD PRECAST REINFORCED CONCRETE BOX CULVERT
 ----- m X ----- m
 ----- ° SKEW

ASSEMBLED BY :	DATE :
CHECKED BY :	DATE :
DRAWN BY : EEM 2/98	REV. 5-14-99 RWW/LES
CHECKED BY : SDR 2/98	REV. 2-15-02 RWW/JTE
	REV. 7-14-08 MAA/GM

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