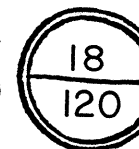


# GENERAL NOTES

LAKE COUNTY  
LAK-90-13.00



## ITEM SPECIAL - SURFACE PREPARATION OF CULVERT INVERT

THIS ITEM SHALL CONSIST OF PREPARING THE CULVERT BY REMOVING ALL DEBRIS, DIRT, AND ANY OTHER MATERIAL THAT MIGHT BE PRESENT. ALL AREAS OF THE CULVERT SURFACE THAT ARE RUSTED SHALL BE SANDBLASTED SUFFICIENTLY TO REMOVE ALL VISIBLE RUST AND SCALE.

FOR DETAILS AND QUANTITIES, SEE SHEET NO. 68  
PAYMENT OF THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	LUMP	SURFACE PREPARATION OF CULVERT INVERT

## ITEM SPECIAL - DEWATERING

THIS ITEM SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO DEWATER THE CULVERT FOR THE PERFORMANCE OF THIS WORK. CONTRACTOR SHALL SUBMIT PLANS FOR DEWATERING THE CULVERT TO THE PROJECT ENGINEER PRIOR TO BEGINNING OF WORK. ALL MATERIALS AND DEVICES PLACED IN THE STREAM AND CULVERT TO REGULATE OR DIVERT FLOW SHALL BE REMOVED AT THE CONCLUSION OF THE WORK.

FOR DETAILS AND QUANTITIES, SEE SHEET NO. 68  
PAYMENT OF THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	LUMP	DEWATERING

## ITEM 511 - CLASS C CONCRETE, INVERT REPAIR AS PER PLAN

THIS ITEM SHALL CONSIST OF ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO FILL ALL VOIDS FOUND TO BE PRESENT BELOW THE BOTTOM OF THE EXISTING GALVANIZED PIPE. THESE AREAS SHALL BE FILLED WITH CLASS C CONCRETE (USING THE FOLLOWING MIXTURE) UP TO THE BOTTOM OF THE PIPE.  
NOTE: THE MAXIMUM SIZE OF COARSE AGGREGATE IS TO BE #8 LIMESTONE.

FINE AGG.	COARSE AGG. (#8 MAX. STONE)	TOTAL AGG./1YD	CEMENT	MAX.W/C RATIO
1440 LBS.	1410 LBS.	2850 LBS.	600 LBS	0.50

FOR DETAILS AND QUANTITIES, SEE SHEET NO. 68  
PAYMENT OF THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
511	C.Y.	CLASS C CONC., INVERT REPAIR, AS PER PLAN

## ITEM 511 - CLASS C CONCRETE, INVERT PAVING AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING THE CONCRETE INVERT PAVING AS SHOWN ON THE CULVERT INVERT DETAIL (SEE SHEET NO. 68). THE CONTRACTOR SHALL HAVE THE OPTION OF PLACING THIS CONCRETE IN A CONVENTIONAL MANNER USING THE MIX AS SPECIFIED ABOVE FOR INVERT REPAIR OR USING PNEUMATICALLY PLACED MORTAR. IN EITHER CASE THE SURFACE OF THE INVERT REPAIR SHALL CONFORM TO THE RADIUS OF THE EXISTING PIPE AS SHOWN ON THE DETAIL. THE CONCRETE SHALL BE FINISHED AS PER SEC. 511.17. IF PNEUMATICALLY PLACED MORTAR IS USED. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 520 IN "CONSTRUCTION & MATERIALS SPECIFICATIONS" BOOK EXCEPT THAT WIRE MESH AS SHOWN ON THE DETAIL WILL BE USED IN LIEU OF WIRE FABRICS. THE UNIT PRICE BID ON THIS ITEM SHALL ALSO INCLUDE FURNISHING THE WIRE REINFORCING MESH (AS PER SEC. 520.04).

THIS ITEM SHALL ALSO INCLUDE TACK WELDING OF THE WIRE REINFORCING MESH TO THE CORRUGATIONS OF THE PIPE. THIS TACKWELDING SHALL BE PERFORMED AS SHOWN ON THE DETAIL AND AS DIRECTED BY THE ENGINEER TO HOLD THE MESH IN PLACE DURING POURING OF THE CONCRETE.

PAYMENT OF THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
511	C.Y.	CLASS C CONC., INVERT PAVING, AS PER PLAN

## ITEM SPECIAL - SUBSEALING BEHIND THE EXISTING GALVANIZED CORRUGATED CULVERT

### A. DESCRIPTION

AFTER INVERT PAVING AS PER PLAN HAS BEEN DONE, THIS ITEM OF WORK SHALL CONSIST OF SEALING VOIDS BEHIND THE EXISTING CULVERT.

### B. SUBSEALING LOCATIONS

THE LOCATIONS FOR SUBSEALING SHALL BE 2 HOLES FOR EVERY 10 FEET ON THE SIDES OF THE CULVERT OR AS DIRECTED BY THE ENGINEER.

### C. MIX DESIGN

THE MIX DESIGN FOR SUBSEALING IS AS FOLLOWS:

- 1 PART (BY VOLUME) PORTLAND CEMENT TYPE I OR II TO
- 2 PARTS (BY VOLUME) SAND AND
- WATER TO ACHIEVE REQUIRED FLUIDITY AS DIRECTED BY THE ENGINEER.

### D. EQUIPMENT

THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT NECESSARY TO DO THIS WORK. EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO THIS WORK. EQUIPMENT SHALL BE CAPABLE OF DRILLING THE GROUT INJECTION HOLES THROUGH THE EXISTING PIPE.

### E. SUBSEAL MATERIAL

THE SUBSEAL MATERIAL SHALL BE PAID FOR ON THE BASIS PER CUBIC FOOT (DRY MEASURED OF MATERIAL INCORPORATED INTO THE VOID AREAS.) THE UNIT CONTRACT PRICE PER CUBIC FOOT (DRY MATERIAL) SHALL BE FULL COMPENSATION FOR THE FURNISHING OF ALL LABOR, MATERIALS, INCLUDING WATER AND TOOLS, AND ALL OTHER COSTS NECESSARY AND INCIDENTAL TO ACCOMPLISH THE SUBSEALING BEHIND THE EXISTING PIPE.

### F. QUANTITIES

FOR DETAILS AND QUANTITIES, SEE SHEET NO. 68  
PAYMENT OF THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	EACH	HOLE FOR SUBSEALING
SPECIAL	C.F.	SUBSEAL MATERIAL