

# DRAINAGE AND EROSION CONTROL

## ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIALS SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 932 AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL . . . . . 10,000 LBS.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

## REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

## CASTINGS ADJUSTED TO GRADE

ALL CASTINGS SHALL BE ADJUSTED TO THE FINISHED ROADWAY ELEVATION BY THE CONTRACTOR. THE DEPTH OF AN ADJUST TO GRADE SHALL BE 1 FT OR LESS AND THE WORK SHALL BE AS OUTLINED IN 604.03. ANY WORK BEYOND 1 FT DEPTH SHALL BE PAID UNDER THE ITEM 604 - CATCH BASIN, MONUMENT BOX OR MANHOLE RECONSTRUCTED TO GRADE. THE TIME BETWEEN ADJUSTING THE CASTINGS AND RESURFACING SHALL BE KEPT TO AN ABSOLUTE MINIMUM. NO ADJUSTING RINGS SHALL BE PERMITTED. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 604-MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN . . . 1 EACH  
 ITEM 604-CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN. . . 2 EACH  
 ITEM 604-MANHOLE ADJUSTED TO GRADE, AS PER PLAN. . . 2 EACH

## ITEM 604 - CATCH BASIN, MONUMENT BOX OR MANHOLE RECONSTRUCTED TO GRADE

THE CONTRACTOR AND FIELD ENGINEER SHALL FIELD CHECK ALL EXISTING CATCH BASINS, MONUMENT BOXES OR MANHOLES LOCATED WITHIN THE LIMITS OF THE THE PROJECT. ANY CATCH BASIN, MONUMENT BOX OR MANHOLE FOUND THAT EXHIBITS SUBSTANTIAL DETERIORATION AND REQUIRES MORE WORK THAN IS SPECIFIED UNDER CASTINGS ADJUSTED TO GRADE, SHALL BE RECONSTRUCTED TO GRADE AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 604 - CATCH BASIN, RECONSTRUCTED TO GRADE . . . . . 2 EACH  
 ITEM 604 - MONUMENT BOX, RECONSTRUCTED TO GRADE . . . . . 1 EACH  
 ITEM 604 - MANHOLE, RECONSTRUCTED TO GRADE . . . . . 3 EACH

## ITEM 604 - CATCH BASIN, BY TYPE, AS PER PLAN

PRIOR TO REMOVING THE EXISTING CATCH BASINS, THE CONTRACTOR SHALL FIELD VERIFY THE FLOW LINE ELEVATIONS BEFORE ORDERING THE PRECAST BASINS.

ALL COSTS INCLUDING EQUIPMENT, LABOR AND MATERIALS TO PLACE AND SURVEY THE CATCH BASINS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 604 - CATCH BASIN, BY TYPE, AS PER PLAN.

## ITEM 203 - DITCH CLEANOUT

THIS WORK SHALL CONSIST OF RE-ESTABLISHING THE CROSS-SECTION OF AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 203.05. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203.07 EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED

THE ORIGINAL DITCH CROSS SECTION AND GRADE SHALL BE RE-ESTABLISHED, AS SHOWN ON THE PREVIOUS CONSTRUCTION PLANS REFERENCED IN THE "EXISTING TYPICAL SECTIONS" NOTE ON SHT 9. THE DITCHES SHALL BE SEEDED AND MULCHED AS PER ITEM 659, INCLUDING FERTILIZER. THE LOCATIONS FOR THIS WORK SHALL BE AS DIRECTED BY THE ENGINEER.

MEASUREMENT OF THE DITCH CLEANOUT SHALL BE THE ACTUAL LINEAR FEET MEASURED ALONG THE CENTERLINE OF THE DITCH.

IN ADDITION, THIS ITEM SHALL INCLUDE THE INSTALLATION OF ITEM 670 - DITCH EROSION PROTECTION IN ALL DISTURBED DITCHES. PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN THE COST FOR THE DITCH CLEANOUT. THIS ITEM SHALL BE PLACED WITHIN 7 DAYS OF THE DITCH OPERATION. THE 7 DAY LIMIT SHALL BEGIN WHEN THE CONTRACTOR FINISHES A CONTINUOUS CLEANOUT LENGTH AND MOVES TO ANOTHER LOCATION.

ALL MATERIALS REMOVED FROM DITCHES, STREAMS, OR WETLANDS MUST BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E. SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. (IMMEDIATE REMOVAL IS DEFINED BY THE CORPS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE: PLACEMENT OF REMOVED MATERIALS INTO A WETLAND OR ON THE BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION).

## ITEM 203 - DITCH CLEANOUT (CONT.)

SEE SHEET 46 FOR DETAILS AND LOCATIONS.

PAYMENT FOR THE ABOVE WORK, INCLUDING EARTHWORK, SEEDING, MULCHING, FERTILIZER, AND ALL LABOR, EQUIPMENT AND INCIDENTALS SHALL BE MADE AT THE UNIT BID FOR ITEM 203, DITCH CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITY, IN ADDITION TO THE TOTALS TABULATED ON SHEET 46, IS PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO PERFORM THE ABOVE DETAILED WORK: —

ITEM 203 - DITCH CLEANOUT . . . . . 500 LIN. FT.

## UNDERDRAIN SUPPLEMENT

THE EXISTING UNDERDRAIN SYSTEM IS TO BE SUPPLEMENTED THROUGHOUT THIS PROJECT WITH ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN. THE NEW UNDERDRAINS SHALL BE INSTALLED AT THE SAME LOCATIONS AS EXISTING, EXCEPT THAT THEY SHALL BE LOCATED AT THE EDGE OF THE CONCRETE PAVEMENT AS SHOWN ON THE TYPICALS.

THE FLOWLINE ELEVATIONS SHOWN IN THE PLANS ARE APPROXIMATE. THE PROPOSED UNDERDRAINS SHALL BE PLACED AT A DEPTH AS DETAILED ON SHEET 5.

NEW UNDERDRAIN AT THE EDGE OF CONCRETE PAVEMENT SHALL BE OUTLETTED IN THE SAME LOCATIONS AS THE EXISTING. THE OUTLETS SHALL BE CONSTRUCTED AT THE SAME LINE AND GRADE AS THE EXISTING OUTLET CONDUITS AND SHALL CONNECT BOTH THE OLD AND NEW UNDERDRAIN SYSTEMS INTO THE OUTLET. THE COST FOR ALL PIPE BENDS AND BRANCHES TO CONNECT THE EXISTING AND PROPOSED UNDERDRAIN SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN. THE OUTLET CONDUIT SHALL BE ITEM 603 - 6" CONDUIT, TYPE F, 707.41 NON-PERFORATED ASTM D3034, SDR35, 707.42 OR 707.33. FOR ADDITIONAL DETAILS SEE SHEET NO. 47.

THE FOLLOWING ESTIMATED QUANTITIES SHALL BE USED TO REPLACE THE ASPHALT REMOVED TO CONSTRUCT THE PROPOSED UNDERDRAINS WITH ITEM 301 - BITUMINOUS AGGREGATE BASE, PG64-22, AS DETAILED ON THE TYPICAL SECTIONS:

ITEM	DESCRIPTION	QUANTITY	UNIT
301	BITUMINOUS AGGREGATE BASE, PG64-22 . . . . .	1200	CU YD

## ITEM 603 - CONDUIT BORED OR JACKED, 6" TYPE B

AT LOCATIONS SHOWN IN THE PLANS, THE EXISTING UNDERDRAIN IS CONNECTED TO AN EXISTING 6" CONDUIT RUNNING UNDER THE ROADWAY. THE EXISTING 6" CONDUIT IS CONSIDERED TO BE NON-FUNCTIONAL. THE FOLLOWING ESTIMATED QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER TO ESTABLISH FLOW EITHER BY BORING OR JACKING A PIPE UNDER THE EXISTING PAVEMENT OR BY OUTLETTING THE UNDERDRAIN AT A LOCATION OUTSIDE THE PAVEMENT:

ITEM	DESCRIPTION	QUANTITY	UNIT
603	6" CONDUIT, TYPE B . . . . .	100	LIN FT
603	CONDUIT BORED OR JACKED: 6" TYPE B . . . . .	100	LIN FT
604	PRECAST REINFORCED CONCRETE OUTLET . . . . .	3	EACH
605	6" CONDUIT, TYPE F, 707.14 NON-PERFORATED ASTM D3034, SDR35, 707.42 OR 707.33 . . . . .	150	LIN FT

PLOTTED FROM: \\PROJECTS\PI\18391\dgn\18391qna.dgn

CALCULATED  
EMK  
CHECKED  
LDH

GENERAL NOTES

LAKE COUNTY  
LAK-2/44-13.05/4.14