

**705-UNDERDRAIN NOTES:**

THE PROPOSED UNDERDRAIN PIPE WILL BE CONSTRUCTED IN ACCORDANCE WITH ITEM 705 "PIPE UNDERDRAINS FOR AIRPORTS" AS STATED ON PAGE 109 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING 6" P.E. TUBING (WRAPPED) AND UNDERDRAIN INSPECTION HOLES AT THE LOCATIONS AND TO THE GRADES SHOWN ON THE CONSTRUCTION PLANS.

705-3.3 LAYING AND INSTALLING PIPE. REVISE THIS SECTION AS FOLLOWS:

"PIPE DRAINS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. THE PIPE SHALL BE BEDDED IN THE UNDERLYING MATERIAL TO A DEPTH NOT LESS THAN 10 PERCENT OF THE EXTERNAL DIAMETER OF THE PIPE, AND WHERE TRENCHING IS REQUIRED, THE TRENCH SHALL HAVE A WIDTH OF NOT LESS THAN 12 IN. THE BOTTOM OF THE TRENCH SHALL BE COMPACTED IN A MANNER MEETING THE APPROVAL OF THE ENGINEER.

JOINTS AND FITTINGS MAY BE ASSEMBLED WITHOUT GASKETS OR SOLVENT CEMENT IF THE JOINT IS SAND TIGHT AND THE SPIGOT ENTERS THE SOCKET NOT LESS THAN 1/3 OF THE SOCKET DEPTH FOR SOLVENT CEMENT JOINTS AND FULL-DEPTH FOR ELASTOMERIC GASKET JOINTS.

NO PIPE SHALL BE PLACED IN THE TRENCH UNTIL IT AND THE PREPARED FOUNDATION HAVE BEEN APPROVED BY THE RESIDENT ENGINEER. THE PIPE SHALL BE LAID SO THAT THE FLOWLINE WILL BE AT THE GRADE SHOWN ON THE PLANS OR ESTABLISHED BY THE RESIDENT ENGINEER. THE PERMISSIBLE MINIMUM COVER OVER A PIPE SHALL BE 6 IN.

LAYING OF PIPES SHALL COMMENCE AT THE OUTLET END AND PROCEED TOWARD THE INLET END WITH THE PIPES TRUE TO LINE AND GRADE.

THE ENDS OF THE PIPE SHALL BE CAREFULLY CLEANED BEFORE THEY ARE PLACED, AND SHALL BE PLACED TO AVOID UNNECESSARY HANDLING ON THE FOUNDATION. AS EACH LENGTH OF PIPE IS LAID, THE ENDS OF THE PIPE SHALL BE PROTECTED TO PREVENT THE ENTRANCE OF ANY MATERIAL.

LONGITUDINAL LAPS SHALL BE PLACED AT THE SIDES AND SEPARATE SECTIONS OF PIPE SHALL BE JOINED WITH TIGHTLY-DRAWN, APPROVED CONNECTING BANDS.

THE TRENCH SHALL BE BACKFILLED WITH SELECT MATERIAL, MEETING THE APPROVAL OF THE ENGINEER, PLACED IN 8 IN. LAYERS, LOOSE MEASUREMENT, AND COMPACTED TO THE ENGINEER'S SATISFACTION."

705-3.6 BACKFILLING; ADD THE FOLLOWING TO THIS SECTION:

"THE EDGE DRAIN TRENCH WILL BE BACKFILLED WITH POROUS BACKFILL IDOT (CA-14 OR CA-16) IN ACCORDANCE WITH THE DETAIL ON THE CONSTRUCTION PLANS. THE POROUS BACKFILL WILL BE COMPACTED TO THE SATISFACTION OF THE RESIDENT ENGINEER.

THE PROPOSED UNDERDRAIN PIPE WILL BE PAID FOR UNDER ITEM:  
AR705526 6" PERFORATED UNDERDRAIN W/SOCK \_\_\_\_\_ 6,875 L.F.

THE PROPOSED POROUS BACKFILL WILL BE PAID FOR UNDER ITEM:  
AR705410 POROUS BACKFILL \_\_\_\_\_ 1146 C.Y.

**INSPECTION HOLE NOTES**

DIAMETER OF PIPE AS SPECIFIED.

TOP OF INSPECTION HOLES SHALL BE 2" ABOVE FINISH GROUND LINE AT LOCATION SHOWN ON PLANS.

1/2" CHAMFER TO BE USED ON ALL EXPOSED EDGES OF INSPECTION HOLES.

THE CONCRETE SHALL BE STRUCTURAL PORTLAND CEMENT CONCRETE (NON-REINFORCED).

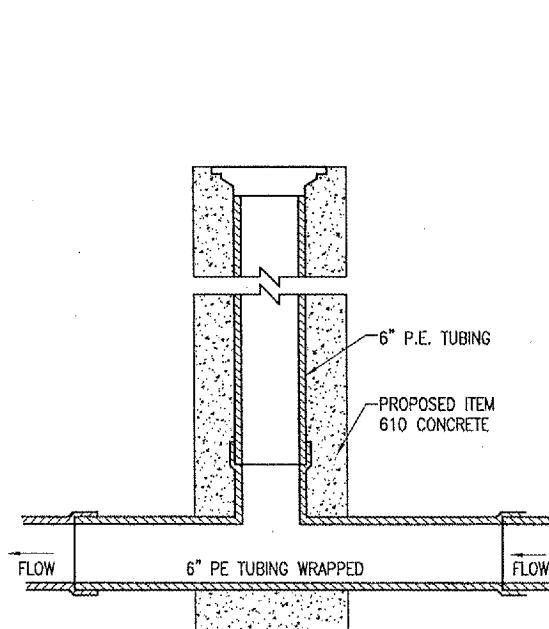
NUMBER OF PROPOSED UNDERDRAIN INSPECTION HOLES:

- TYPE A-1 - 15 EACH
- TYPE A-2 = 6 EACH

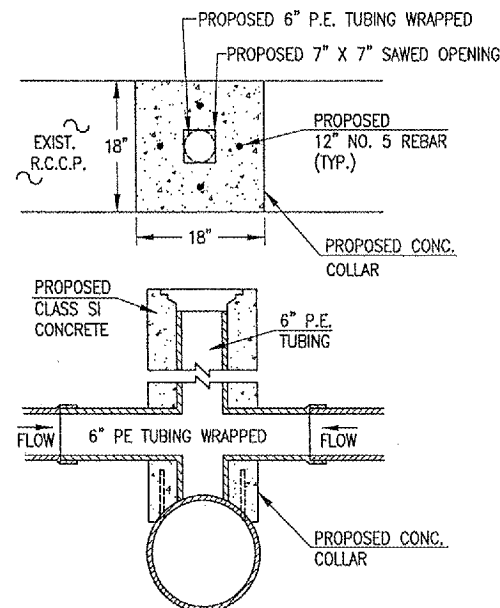
THE PROPOSED UNDERDRAIN INSPECTION HOLES WILL BE PAID FOR UNDER ITEM  
AR705530 UNDERDRAIN INSPECTION HOLE \_\_\_\_\_ 21 EACH.  
AR705640 UNDERDRAIN CLEANOUT \_\_\_\_\_ 5 EACH.

**POROUS BACKFILL NOTES**

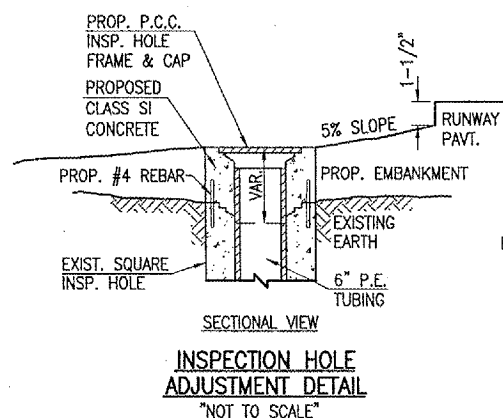
THE QUANTITY OF POROUS BACKFILL WAS CALCULATED USING AN AVERAGE DEPTH OF 36" AND AVERAGE WIDTH OF 18". THE MINIMUM TRENCH WIDTH IS 12".



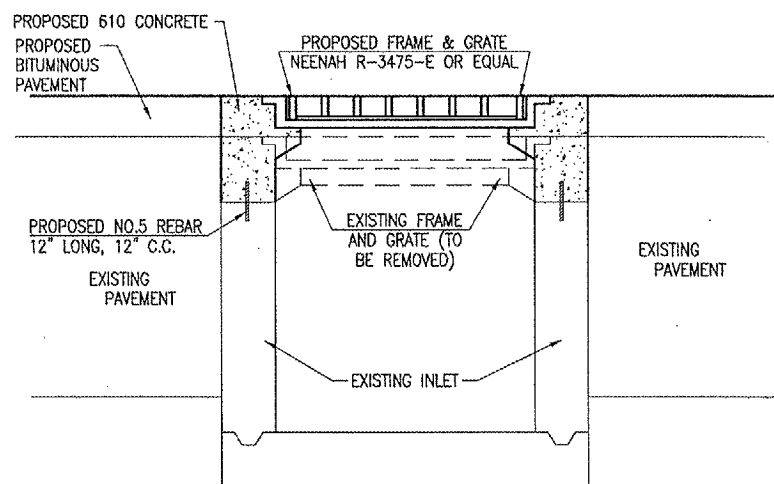
**INSPECTION HOLE DETAIL - TYPE A-1**  
"NOT TO SCALE"



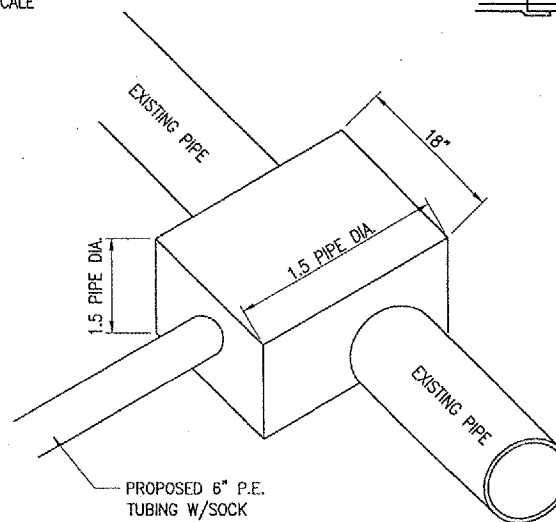
**INSPECTION HOLE DETAIL - TYPE A-2**  
"NOT TO SCALE"



**INSPECTION HOLE ADJUSTMENT DETAIL**  
"NOT TO SCALE"



**PROPOSED INLET ADJUSTMENT DETAIL**  
"NOT TO SCALE"



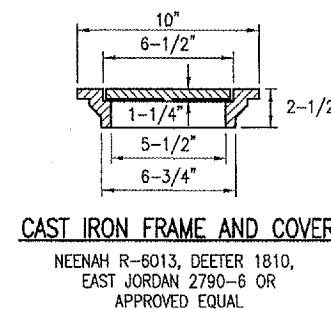
**CONCRETE COLLAR DETAIL**  
NOT TO SCALE

**NOTES**

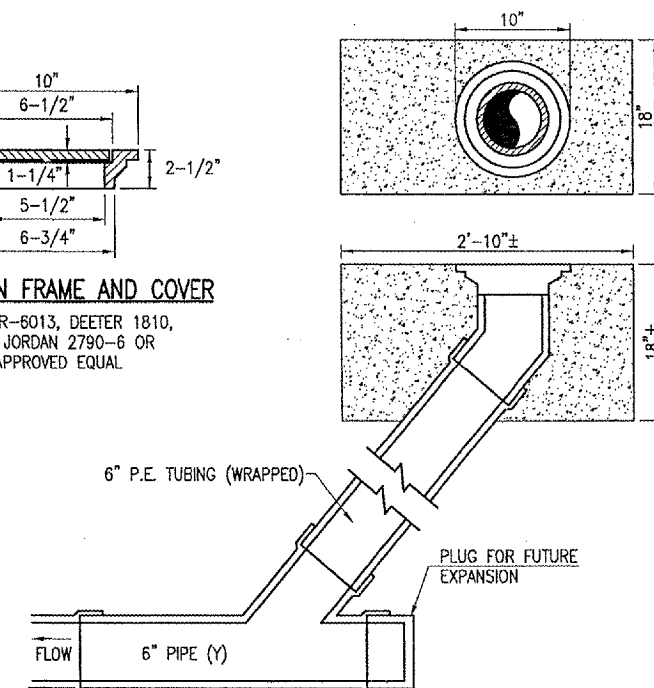
THE EXISTING INLET WILL BE ADJUSTED AS SHOWN ON THE DETAIL ON THIS SHEET AND IN ACCORDANCE TO THE SPECIAL PROVISIONS.

THE EXISTING FRAME SHALL BE JACKHAMMERED FROM THE EXISTING INLET AND A NEW FRAME RESET AS SHOWN IN THE DETAIL AND IN ACCORDANCE WITH SHEET NO. 13

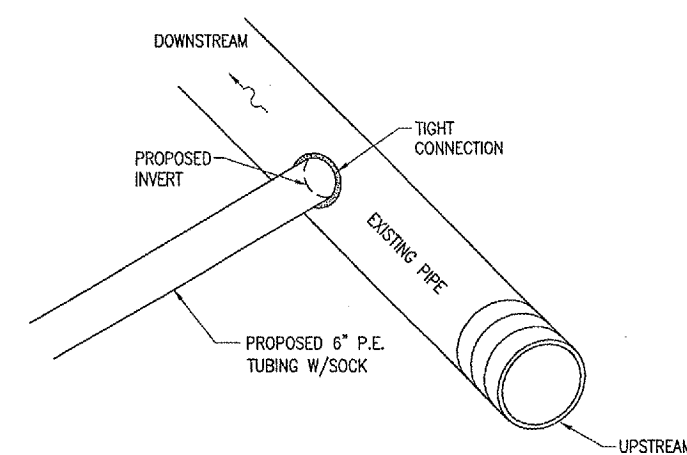
THE PROPOSED INLET ADJUSTMENT WILL BE PAID FOR UNDER THE FOLLOWING:  
AR751940 "ADJUST INLET" \_\_\_\_\_ 1 EACH.



**CAST IRON FRAME AND COVER**  
NEENAH R-6013, DEETER 1810,  
EAST JORDAN 2790-6 OR  
APPROVED EQUAL



**UNDERDRAIN CLEANOUT - TYPE B**  
"NOT TO SCALE"



**DISCHARGE INTO C.M.P. DETAIL**  
NOT TO SCALE

NOTE: THE CONNECTION OF THE UNDERDRAIN INTO THE EXISTING PIPE (CMP AND RCP) WILL BE CONSTRUCTED IN ACCORDANCE WITH ITEM 705 "PIPE UNDERDRAINS FOR AIRPORTS" INCLUDED IN THE SUPPLEMENTAL AND RECURRING SPECIAL PROVISIONS DATED JULY 1, 2004 AND THE DETAILS ON THIS SHEET. THE CONNECTION SHALL BE CONSTRUCTED TO THE INVERT ELEVATIONS SHOWN ON THESE CONSTRUCTION PLANS. ONCE THE UNDERDRAIN PIPE HAS BEEN CONNECTED INTO THE EXISTING PIPE THE CONTRACTOR WILL POUR A CONCRETE COLLAR AROUND THE CONNECTION AS SHOWN IN THE DETAIL ON THIS SHEET. THE CONNECTION OF THE UNDERDRAIN TO THE EXISTING PIPE SHALL BE CONSIDERED INCIDENTAL TO ITEM AR705526 - 6" PERFORATED UNDERDRAIN W/SOCK, INCLUDING ALL LABOR, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE TASK, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

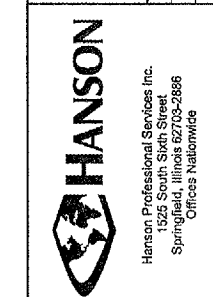
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BY	
REVISION	
DATE	

SHELBY COUNTY AIRPORT  
SHELBYVILLE, ILLINOIS  
A.I.P. PROJ.: 3-17-0093-87  
IL PROJ.: 240-3615

REVISED	06/05/06
DRAWN	06/05/06
LAYOUT	06/05/06
DATE	06/06/06
SCALE	N/A
DESIGNER	R-531DRN.DWG
PROJECT NO.	827-06APN



OVERLAY RWY. & APN.  
INSTALL UNDERDRAINS  
PROPOSED DRAINAGE DETAILS