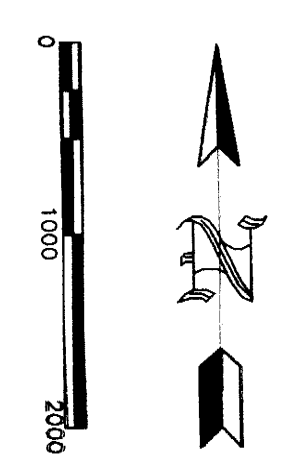


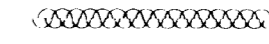
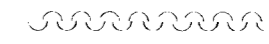





RECLASSIFICATION PLAT
 DRAINAGE DISTRICT NO. 82
 CALHOUN COUNTY, IOWA
 1995

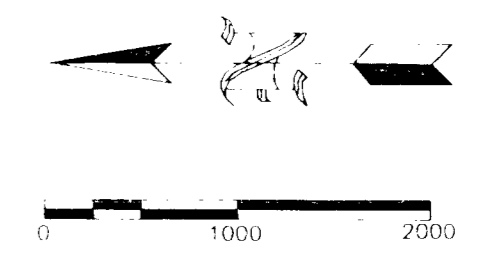
- LEGEND**
- INTERIOR WATERSHED BOUNDARY
 - WATERSHED BOUNDARY
 - OPEN DITCH
 - TILE BRANCHES
 - DRAINAGE DISTRICT BOUNDARY



REPAIRS MAIN OPEN DITCH DRAINAGE DISTRICT NO. 82 CALHOUN COUNTY, IOWA 1994

LEGEND

-  INTERIOR WATERSHED BOUNDARY
-  WATERSHED BOUNDARY
-  OPEN DITCH
-  TILE BRANCHES
-  1954 WATERSHED BOUNDARY
-  DRAINAGE DISTRICT BOUNDARY
-  LAND AREAS OUTSIDE D.D. BOUNDARY

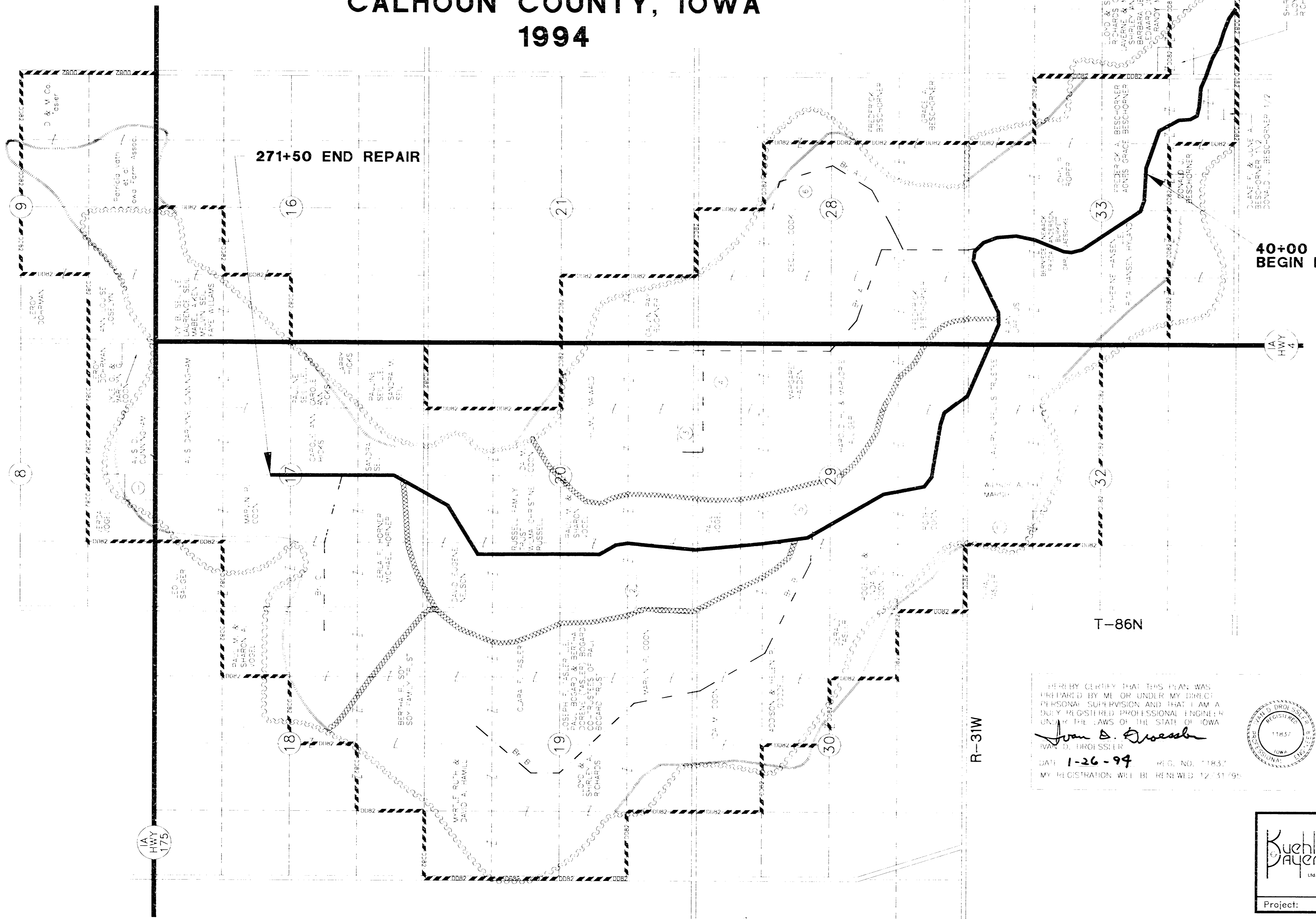


- LANDOWNERS**
- ① MARVIN P. COON
 - ② MICHAEL VOGEL
 - ③ HELMUT & NORMA J. MAIWALD
 - ④ ELONA HADDEN E.L.
LINDA HADDEN HADDEN
NEAL EDWARDS HADDEN
LAWRENCE DAVID HADDEN
 - ⑤ COMMERCIAL NATIONAL BANK
MARTHA MILLER ESTATE 1/2
JUDY 1/2 INT. TO PERFORMANCE &
JERRY MOHSWANGER
 - ⑥ CLEO HENRICHS
KATHY SANDBURG
RUSSELL SANDBURG
KENT SANDBURG
ELIZABETH SANDBURG
 - ⑦ EVELYN FERGUSON E.L.
DUANE FERGUSON
MARIYNN FERHANTE

NOTE: FOR LOCATION OF PROPERTIES REFER TO NUMBERED AREAS ON THE MAP

TABLE OF CONTENTS


1	TITLE SHEET
2	CONSTRUCTION NOTES
3	ROADWAY PIPE PLAN
4-6	PROFILE SHEETS
7-8	CROSS SECTIONS



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

John D. Drossler
JOHN D. DROSSLER
DATE: 1-26-94 REG. NO. 11837
MY REGISTRATION WILL BE RENEWED 12-31-95



	CONSULTING ENGINEERS 1725 NORTH LAKE AVE. STORM LAKE, IOWA 50588 712-732-7745	design by: I.D.D. drawn by: SEJ/TGM checked by: D.D.E. date: JAN., 1994 proj. no. E2640
	Project: D.D. # 82	Dwg. No. 1 of 8

FILED
JAN 26 1994
JUDY HOWREY
AUDITOR CALHOUN COUNTY, IOWA

CONSTRUCTION NOTES

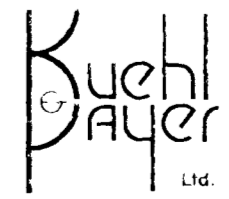
THESE NOTES APPLY SPECIFICALLY TO WORK UNDER DIVISION I UNLESS STATED OTHERWISE. NOTES FOR DIVISIONS II ARE FOUND ON SHEET 3 OF THE PLANS. DIVISION I INCLUDES ALL DRAINAGE DISTRICT WORK. DIVISION II APPLIES TO ROAD CROSSING WORK AT STA. 181+30.

1. WORK LIMITS. WORK LIMITS ARE 100 FEET FROM THE DITCH CENTERLINE, LIMITED BY ROAD RIGHT-OF-WAY WHERE APPLICABLE. ENGINEER WILL MARK THE WORK LIMITS.
2. ACCESS IS AVAILABLE AT INTERSECTIONS OF WORK LIMITS AND PUBLIC ROADS OR AS CAN BE OTHERWISE ARRANGED BY CONTRACTOR. CONTRACTOR IS RESPONSIBLE TO SECURE PERMISSION OF COUNTY ENGINEER TO CONSTRUCT TEMPORARY ACCESSSES IF NECESSARY.
3. EXCAVATION AND BANK SHAPING IS REQUIRED TO BE CARRIED OUT FROM BOTH SIDES OF THE DITCH WITH SOIL DEPOSITED ROUGHLY EQUALLY ON EACH SIDE.
4. NEW PIPE SPECIFICATIONS. (AMENDS SPECIFICATION SECTIONS 02521 AND 02522)
 - ALL NEW PIPE IS TO BE FABRICATED FROM CORRUGATED STEEL OR IRON.
 - ALL NEW PIPE USED IN SURFACE DRAIN INSTALLATIONS ARE TO HAVE ANNULAR CORRUGATIONS AND RIVETED OR RESISTANCE SPOT WELDED SEAMS.
 - NEW PIPE USED IN TILE DRAIN INSTALLATIONS AND GREATER THAN 10 INCHES IN DIAMETER ARE TO HAVE EITHER 1) ANNULAR CORRUGATIONS WITH RIVETED OR RESISTANCE SPOT WELDED SEAMS OR 2) HELICAL CORRUGATIONS WITH CONTINUOUS WELDED SEAMS.
 - ANTI-SEEP COLLARS ARE NOT REQUIRED.
5. FENCE REMOVAL. ALL INTERFERING SALVAGEABLE FENCE WITHIN WORK LIMITS SHALL BE REMOVED BY DISASSEMBLING THE FENCE AND SALVAGING & STOCKPILING POSTS, WIRE AND BRACES. STOCKPILE AT LOCATIONS DESIGNATED BY ENGINEER. ENGINEER SHALL DETERMINE IF FENCE IS SALVAGEABLE. NON-SALVAGEABLE FENCE IS OTHER FENCE NOT CONSIDERED RUBBISH. (SEE PARAGRAPH 1.04 OF TECHNICAL SPECIFICATION SECTION 02230.) IN REMOVING NON-SALVAGEABLE FENCES ALL POSTS SHALL BE PULLED. FENCES INSIDE WORK LIMITS BUT OUTSIDE RIGHT-OF-WAY MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF ENGINEER. LANDOWNERS WILL BE NOTIFIED BY THE DISTRICT OF THE PLANNED FENCE REMOVAL AND WILL BE ALLOWED FIRST CHANCE TO REMOVE THE FENCE(S). CONTRACTOR NOT REQUIRED TO REINSTALL FENCES. ALL FENCE REMOVAL WILL BE CONSIDERED EXTRA WORK.
6. DRAIN TILE LINES. WHERE IT IS NECESSARY TO EXTEND OR RELAY TILE LINES TO REACH TILE EXTENSION PIPES THE EXTENSION SHALL BE WITH CONCRETE OR SITE-SALVAGED TILE IN A TRENCH WITH A MAXIMUM WIDTH OF 24" OR 12" WIDER THAN THE TILE SECTIONS, WHICHEVER IS WIDER (SEE STD. DWG.). THE TILE SHALL BE INSTALLED IN COMPLIANCE WITH SPECIFICATION 02576. USE NEW EXTRA QUALITY CONCRETE DRAIN TILE OR SITE-SALVAGED SOUND TILE SECTIONS WHERE COVER DOES NOT EXCEED 8.0 FEET. USE NEW HEAVY-DUTY EXTRA QUALITY CONCRETE DRAIN TILE UNDER DEEPER COVER. NECESSARY EXTENSIONS OR RELAYS LESS THAN 15 FEET IN LENGTH MAY BE COMPLETED WHEN DISCOVERED. LONGER EXTENSIONS MUST BE FIRST APPROVED BY ENGINEER. CORRUGATED PLASTIC DRAIN TILE IS NOT PERMITTED.

WHERE A LATERAL TILE LINE IS FOUND TO BE CRUSHED, CRACKED AND/OR FILLED WITH SEDIMENT CONTRACTORS IS TO NOTIFY ENGINEER PRIOR TO DOING ADDITIONAL WORK. ENGINEER WILL DETERMINE IF REPLACEMENT OR ABANDONMENT IS WARRANTED. TILE REPLACEMENT WILL NOT EXTEND BEYOND THE WORK LIMITS.

CONTRACTOR IS REQUIRED TO MAINTAIN AND PROVIDE A LOG OF ALL DRAIN TILE LINE EXTENSION AND REPLACEMENT WORK RECORDING LOCATION, EXISTING TILE MATERIAL, SIZE, STRENGTH & LENGTH OF MATERIALS INSTALLED, OTHER WORK PERFORMED AND MACHINE AND LABOR TIME. LOG KEEPING IS SUBSIDIARY TO THE CONTRACT. ALL APPROVED DRAIN TILE WILL BE CONSIDERED EXTRA WORK. FAILURE TO MAINTAIN AN ACCURATE LOG WILL RESULT IN CONTRACTOR HAVING TO UNCOVER HIS WORK FOR VERIFICATION AT HIS COST.
7. SPOIL BANK LEVELING. THE TOP 8 INCHES OF ALL LEVELED SPOIL, OLD AND NEW, IS TO BE FILLED BY CONTRACTOR WITH A CHISEL PLOW OR SIMILAR IMPLEMENT. DISPOSE OF ROCKS AND OTHER DEBRIS EXPOSED BY THIS OPERATION. ENTIRE SPOIL BANK BACKSLOPE IS THEN TO BE FINISH GRADED WITH A MOTOR PATROL. CHISELING AND FINISH GRADING ARE SUBSIDIARY TO THE SPOIL BANK LEVELING BID ITEM.

MINOR SURFACE GRADING TO DRAIN SMALL IMPOUNDED AREAS, THE CONSTRUCTION OF FIELD ENTRANCES OR SURFACE WATER CONTROL DIKES IN THE PUBLIC ROAD DITCHES ARE SUBSIDIARY TO THE SPOIL BANK LEVELING BID ITEM.
8. FERTILIZING & SEEDING BETWEEN APRIL 1 AND OCTOBER 1. ALL DISTURBED OPEN DITCH BANK SLOPES ABOVE THE NORMAL WATER SURFACE ARE TO BE FERTILIZED AND SEEDED AFTER EXCAVATING & SHAPING AT THE END OF EACH DAY'S OPERATION. DITCH BANK SLOPES FINISHED AFTER OCTOBER 1 ARE TO BE FERTILIZED AND SEEDED BETWEEN APRIL 1 AND APRIL 20, OF THE FOLLOWING YEAR. FOR COMPLETE FERTILIZING & SEEDING SPECIFICATIONS SEE SECTION 02824.
9. WORK AND STORAGE IN ROAD RIGHT-OF-WAY. NO WORK OR EQUIPMENT OR MATERIAL STORAGE TO BE DONE WITHIN COUNTY ROAD RIGHT-OF-WAY WITHOUT THE KNOWLEDGE AND PERMISSION OF THE COUNTY ENGINEER. CONTRACTOR IS RESPONSIBLE TO CONTACT COUNTY ENGINEER AND TO COOPERATE IN OBSERVANCE OF REQUIRED SAFETY MEASURES.
10. UTILITIES. CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES AND TO COOPERATE WITH THEM IN THE LOCATION, MARKING & PROTECTION OF THEIR FACILITIES. CONTRACTOR IS TO IMMEDIATELY NOTIFY ENGINEER OF APPARENT CONFLICTS OF EXISTING UTILITIES WITH THE PLAN GRADE OR CROSS-SECTIONS OF THE OPEN DITCH.
11. CLEARING & GRUBBING; ROCK, JUNK & RUBBISH DISPOSAL. THERE ARE A VERY FEW SMALL TREES AND LITTLE BRUSH ON THE OPEN DITCH. THERE IS ALSO VERY LITTLE JUNK AND ROCK PILES. NO MEASUREMENTS HAVE BEEN MADE. CONTRACTOR SHALL MAKE OWN DETERMINATION. ALL TREES & BRUSH WITHIN 50 FEET OF THE DITCH CENTERLINE ARE TO BE CLEARED AND GRUBBED. NO CHEMICAL TREATMENT REQUIRED. ALL ROCK PILES, JUNK & RUBBISH WHICH INTERFERE WITH THE WORK ARE TO BE DISPOSED OF BY BURIAL OR OTHER APPROVED MEANS. THIS WORK IS SUBSIDIARY TO THE EXCAVATION, EXCEPT FOR WORK THAT PERTAINS TO BID ITEM NO. 21.
12. CROSS SECTIONS USED BY THE ENGINEER IN PREPARATION OF THE PLANS MAY BE REVIEWED AT THE OFFICE OF SAC CITY SURVEYING & MAPPING, SAC CITY, IOWA.
13. DIVISIONS II WORK HAS BEEN DESIGNED BY AND WILL BE STAKED, INSPECTED AND APPROVED BY THE CALHOUN COUNTY ENGINEER. QUESTIONS SHOULD BE DIRECTED TO THE CALHOUN COUNTY ENGINEER'S OFFICE 712-297-8322.
14. TILE MAIN CAPS SHALL BE BROKEN TILE PIECES AND PORTLAND CEMENT CONCRETE FORMED & PLACED IN EXPOSED ENDS OF 22" OR LARGER DRAIN TILE SO AS TO SEAL THE OPENING. CAPPED ENDS SHALL BE RECESSED IN DITCH BANKS AND BACK FILLED.
15. FARM BRIDGE CENTER SUPPORTS REMOVAL UNDER BID ITEM NO. 19 PERTAINS TO CONCRETE FARM BRIDGE AT STA. 83+25. CENTER SUPPORTS ARE TO BE REMOVED TO OPEN UP CHANNEL WITHOUT DAMAGE TO BRIDGE.
16. REMOVE & SALVAGE FARM CROSSING PIPE UNDER BID ITEM NO. 20 PERTAINS TO FIELD CROSSING AT STA. 135+33. 84" DIA. PIPE IS TO BE SALVAGED AND STORED WITHIN THE WORK LIMITS. PIPE AND APPURTENANCES ARE PROPERTY OF THE LANDOWNER.

	CONSULTING ENGINEERS 1725 NORTH LAKE AVE. STORM LAKE, IOWA 50588 712-732-7745	design by: I.D.D. drawn by: T.G.M. checked by: D.D.E date: JAN., 1994 proj. no. E2640
	Project: D.D. # 82	Dwg. No. 2 of 8

The Standard Specifications, Series Of 1992, Of The Iowa Department Of Transportation Shall Apply To Construction Work On This Project

Plus Current Special Provisions And Supplemental Specifications

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly Registered Professional Engineer under the laws of the State of Iowa.

Signature: *Ronald R. Haden*
 Name: Ronald R. Haden
 Date: 1-4-94 (Month, Day, Year) Reg. No. 9936

My registration renewal date is December 31, 1995.

SECONDARY ROAD SYSTEM CALHOUN COUNTY

ESTIMATE OF QUANTITIES			
ITEM	DESCRIPTION	UNIT	TOTAL
1	CULVERT, REMOVE & RELAY CORR. METAL ROADWAY PIPE, 120 IN. DIA.	L.F.	66
2	CULVERT, FURNISH & INSTALL CORR. METAL ROADWAY PIPE, 120 IN. DIA.	L.F.	22
3	TRAFFIC CONTROL	L.S.	LUMP SUM

GENERAL NOTES

- EXISTING CULVERT IS A FOUR SECTION, 10 GAUGE, 120" X 66'-0" CORR. METAL PIPE. BID PRICE FOR THE CULVERT WILL BE CONSIDERED FULL PAYMENT FOR REMOVAL, BEDDING AND PLACING PIPE.
 - CONTRACTOR TO FURNISH 8 GAUGE, 120" X 22'-0", 3 X 1 CORR., CORR. METAL PIPE AND INSTALL AT MIDDLE JOINT OF EXISTING CULVERT. CONTRACTOR TO FURNISH 2-120" X 2'-0" BANDS INCIDENTAL TO ITEM NO. 2.
- BEDDING FOR THE PIPE TO BE AS PER STANDARD SPECIFICATION 2420.03 SERIES 1992. ANY GRANULAR MATERIAL NEEDED IN THE BEDDING OF THE PIPE WILL BE FURNISHED BY CALHOUN COUNTY AND PLACED BY THE CONTRACTOR. COST OF PLACEMENT WILL BE CONSIDERED INCIDENTAL TO THE BID PRICE.
- ALL EXCAVATED MATERIAL WILL BE REUSED FOR BACKFILL AS DIRECTED BY THE ENGINEER.
- CALHOUN COUNTY TO FURNISH ADDITIONAL DIRT FOR BACKFILL. CONTRACTOR TO PLACE.
- CALHOUN COUNTY TO FURNISH PERMANENT EROSION CONTROL AND GRANULAR SURFACING UPON COMPLETION OF PROJECT.
- SURFACE DRAINS TO BE RELAYED BY DRAINAGE DITCH CLEANOUT CONTRACTOR.

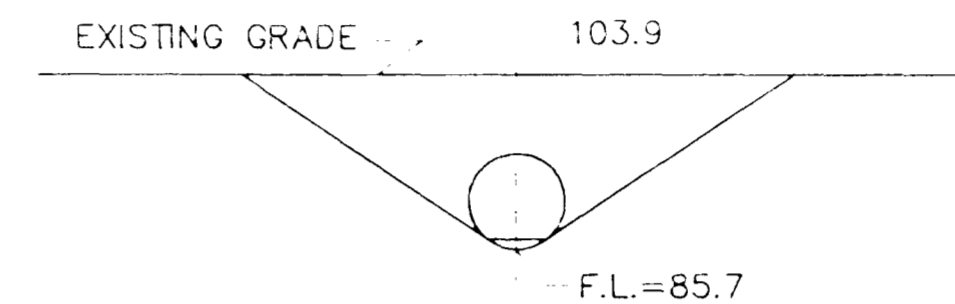
ARCHAEOLOGICAL MATERIALS

IF ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE OFFICE OF PROJECT PLANNING AND/OR THE OFFICE OF LOCAL SYSTEMS (I.D.O.T.) MUST BE CONTACTED IMMEDIATELY SO THE PROPER AUTHORITIES CAN BE NOTIFIED ACCORDING TO THE EXISTING FEDERAL REGULATIONS AND STATE PROCEDURES. ADDITIONALLY, IT SHOULD BE NOTED THAT FINDINGS AND RECOMMENDATIONS FOR CLEARANCE FOR FURTHER TESTING CANNOT BE CONSIDERED FINAL UNTIL CONCURRENCE IS RECEIVED FROM THE OFFICE OF THE STATE HISTORIC PRESERVATION OFFICE.

OFFICE OF PROJECT PLANNING 515-239-1225
 OFFICE OF LOCAL SYSTEMS 515-239-1528

PROJECT TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08, 1992 STANDARD SPECIFICATIONS. PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES AND LAYOUTS SHALL BE AS PROVIDED FOR BY SUPPLEMENTAL SPECIFICATIONS FOR TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS, SPECIFICATION 5055. THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING THE SIGNS AND SNOW FENCE.

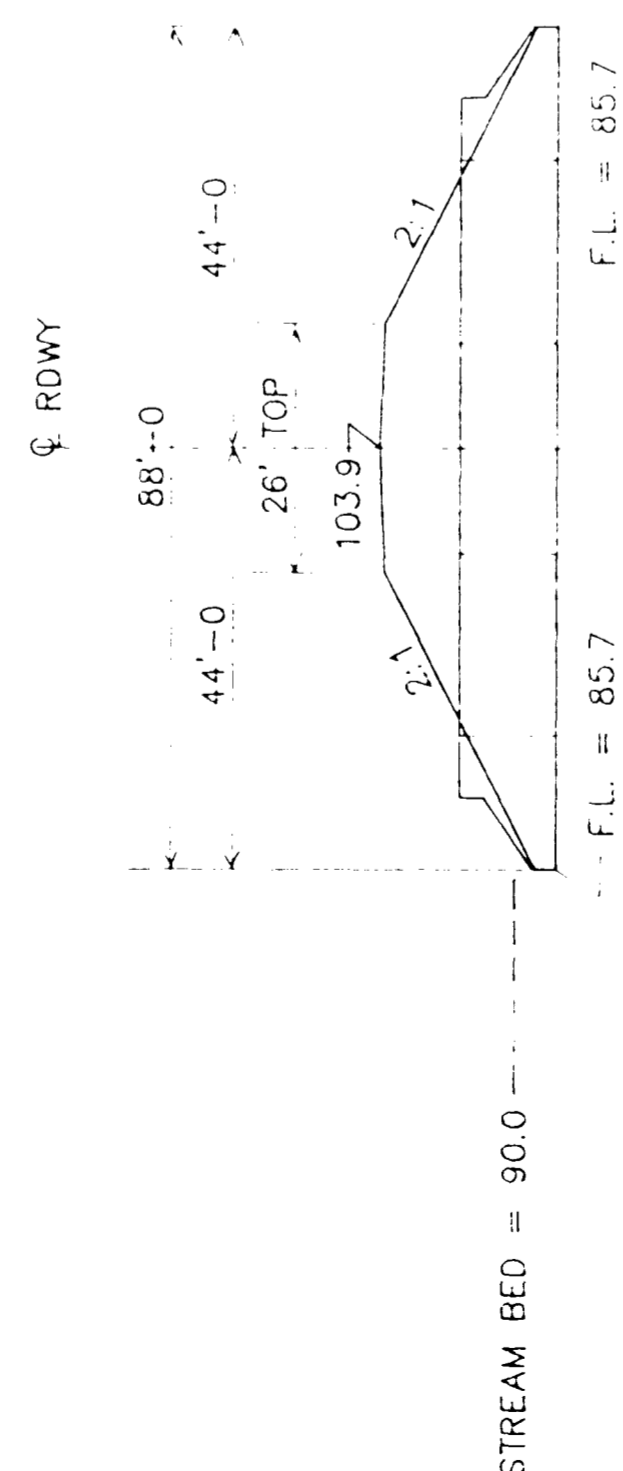


SECTION ALONG ROADWAY
SCALE 1" = 20'

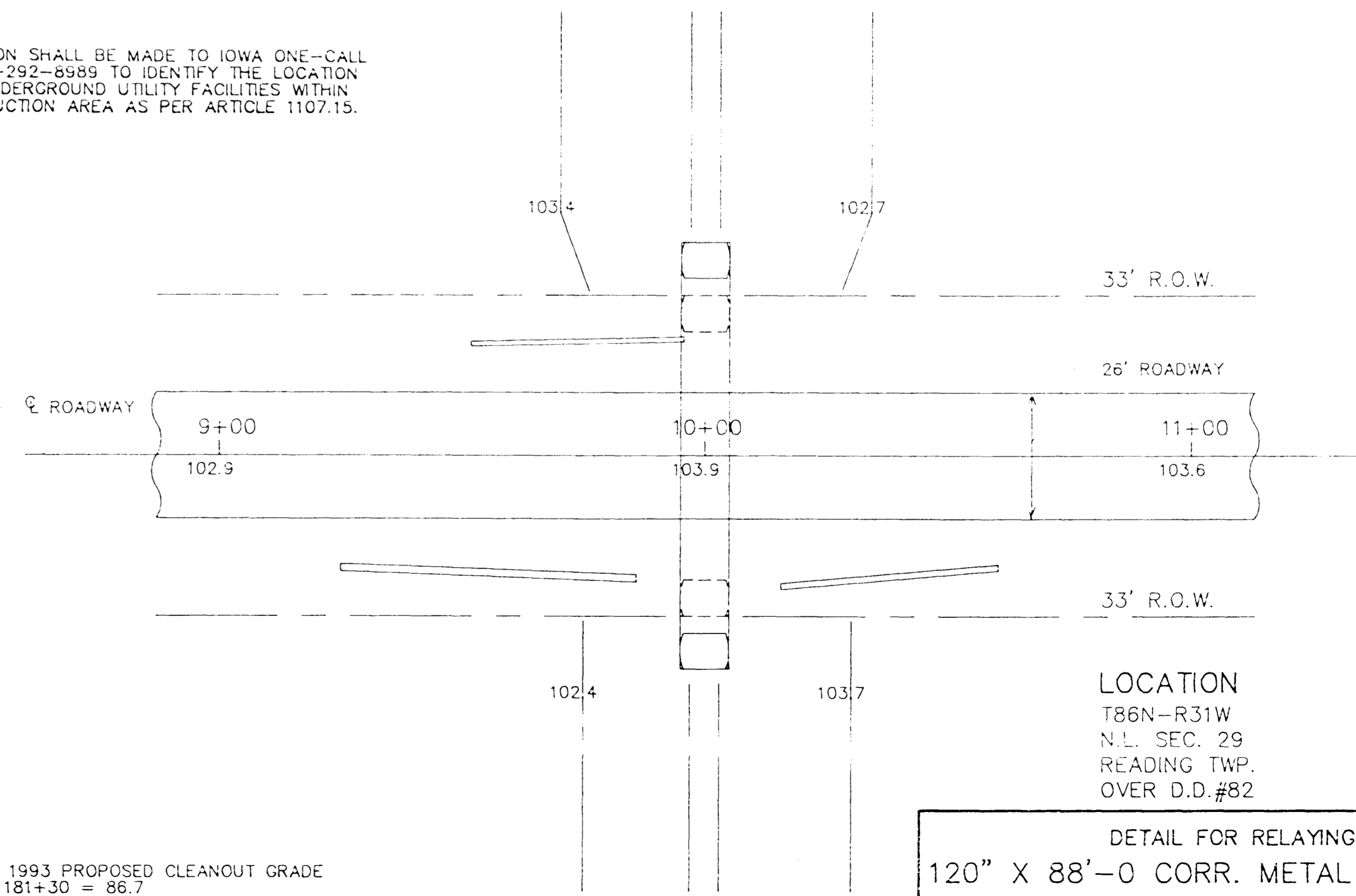
D.D. B.M. # 9 - TOP OF NORTH END OF 10' DIA. C.M.P.
 AT NORTH LINE OF N.W. 1/4 SEC. 29-86-31 ELEV. 99.59

UTILITIES
 POWER-CALHOUN COUNTY R.E.C.
 ROCKWELL CITY, IA
 297-7112

NOTIFICATION SHALL BE MADE TO IOWA ONE-CALL AT 1-800-292-8989 TO IDENTIFY THE LOCATION OF ALL UNDERGROUND UTILITY FACILITIES WITHIN A CONSTRUCTION AREA AS PER ARTICLE 1107.15.



TYPICAL SECTION



SITUATION PLAN
SCALE 1" = 20'

LOCATION
 T86N-R31W
 N.L. SEC. 29
 READING TWP.
 OVER D.D.#82

DETAIL FOR RELAYING
 120" X 88'-0" CORR. METAL PIPE CULV.
 D.D. STA. 181+30 0° SKEW

CALHOUN COUNTY