

JOHANNNS TILING

Route 5 — Box 129

Osage, IA. 50461

Phone 982-4983

DATE 7-18 1983

West Melrose - Certified tile -
terrace Project

	DESCRIPTION	Y	CREDIT	BALANCE
	BALANCE FORWARD			
100'	12" tile	@	3.62	\$ 362.00
1100'	10" "	@	3.27	3597.00
2250'	8" "	@	1.50	3375.00
3070'	6" "	@	.802	2462.14
2850'	5" "	@	.614	1749.90
9320'	4" "	@	.527	4911.64
20'	C.M.P. + Rodent guard	@	14.00	280.00
34	Intakes	@	95.00	3230.00
21	Extensions	@	10.00	210.00
28	4" Tee	@	1.90	53.20
3	5" "	@	2.50	7.50
3	6" "	@	3.10	9.30
16	8" "	@	9.60	153.60
2	10" Clay Tee	@	9.50	19.00
32	Plugs	@	.50	16.00
				\$ 20436.28

PAY LAST AMOUNT IN BALANCE COLUMN ▲

A service charge of 1½% per month will be added after 30 days.
This is an annual rate of 18%.

Copy: Soil Conservation 7/21/83

Wesley P. Malenke - Harold A. Jones Trust Farms
 Field #2 Quantities/Cost Estimate
 Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

18,500'	of Narrowbase	@	/ft.	=
42	Intakes (Higgenbottom) Mfg.	@	/ea.	=
7,850'	of 4" pl. tubing	@	/ft.	=
210'	of 5" pl. tubing	@	/ft.	=
2,960'	of 6" pl. tubing	@	/ft.	=
1,700'	of 8" pl. tubing	@	/ft.	=
1,200'	of 10" clay/concrete tile	@	/ft.	=
100'	of 12" clay/concrete tile	@	/ft.	=
20'	of 15" CMP W/Rodent Guard	@	/ft.	=
20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200' of terrace @ /ft. =

Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

Edge O' Town - RR1 - Box 11 Floyd, Ia 50435
Wesley P. Malenke is seeking formal bid quotations for conservation improvements to the cropland located Sec. 35 - Niles Twp., Floyd County

Improvements planned include:

- 1) Construction of narrow base terraces 18,500 feet in fall of 1982. Topsoil to be stock piled, build the initial lift of terrace, and place the soil back. Rocks not to be under, or included in terrace construction but to be buried with minimum of 4 foot of cover.
- 2) Installation of 42 tile intakes for terraces will be Orange Higgenbottom (manufacturer).
- 3) Installation of gully control structure -- 1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity.
- 4) Diversion terrace construction -- 1200 feet.
- 5) Installation of 10" tile across county gravel road.

Options:

- 1) Well to be sealed off. Water system to be sold to highest bidder.
- 2) Bury barn.
- 3) Bury 7 rock piles with minimum of 4 foot cover. May be rocks buried at groundlevel in abandoned driveway.
- 4) May do additional tiling in lower area indicated as Area A.
- 5) May consider moving 8" to 10" of dirt to terraces from approximately 10 acres.

Please call or leave all quotes, installation rates, and material quotes with Wesley P. Malenke (Office: 515-257-3432/Home: 515-398-2487), R.R. #1, Box 11, Floyd, Iowa 50435 before October 1, 1982.

Technical assistance may be directed to James P. Allen - District Conservationist, 623 Beck Street, Charles City, Iowa 50616, 515-228-2725.

Earthmovers: Price quotes on a per foot basis.

Drainage Contractors: Price quotes on a per foot basis with and without tile.

Vendors: Price quotes on a per foot basis on plastic tubing, concrete tile and corrugated metal pipe with Rodent Guards.

No "mole or plow" drain tube installation will be permitted.

I reserve the right to accept as many or as few contractors/vendors as necessary to satisfy the conservation plans.

Wesley P. Malenke

QUOTED

NAME Wesley P. Malenke

Address Edgemoor Town, RR1 Box 11

Floyd, Iowa 50435

PROJECT Sect. 35, Nile township, Floyd Co.

10799

Quantity - Size - Class - Price - Terms

1200'	-	10' x 1'	C.D.T.	@	^{\$} 1.35/ft.
100'	-	12' x 1'	C.D.T.	@	1.75/ft.

By J. Durenkamp Date 9-28-68

JOHANN'S TILING

Route 5 — Box 129

Osage, IA. 50461

Phone 982-4983

DATE _____ 19____

Wesley P. Melenke

Cost Estimate using mole plow

DESCRIPTION	Y	CREDIT	BALANCE
BALANCE FORWARD			
Tile			
7850' 4" pl. tubing	@	.18	1413.00
210' 5" " "	@	.274	57.54
2960' 6" " "	@	.448	1326.08
1700' 8" " "	@	.82	1394.00
1200' 10" " "	@	1.70	2040.00
100' 12" " "	@	2.08	208.00
14000' mole plow installed	@	.18	2523.60

PAY LAST AMOUNT IN BALANCE COLUMN ▲

A service charge of 1½% per month will be added after 30 days.
 This is an annual rate of 18%.

Wesley P. Malenke - Harold A. Jones Trust Farms
 Field #2 Quantities/Cost Estimate
 Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

18,500'	of Narrowbase	@	/ft.	=	
42	Intakes (Higgenbottom) Mfg.	@	55.00/ea.	=	2310.00
7,850'	of 4" pl. tubing	@	.18 /ft.	=	1413.00
210'	of 5" pl. tubing	@	.274 /ft.	=	57.54
2,960'	of 6" pl. tubing	@	.448 /ft.	=	1326.08
1,700'	of 8" pl. tubing	@	.82 /ft.	=	1394.00
1,200'	of 10" clay/concrete tile	@	1.40 /ft.	=	1680.00
100'	of 12" clay/concrete tile	@	1.82 /ft.	=	182.00
20'	of 15" CMP W/Rodent Guard	@	12.00/ft.	=	240.00
20'	of 8" CMP W/Rodent Guard	@	5.20/ft.	=	104.00
20'	of 6" CMP W/Rodent Guard	@	3.25/ft.	=	65.00

4" 5" 6" 8" Installed with Trencher @ .35 ft. = 4452.00
 10" 12" " " " " @ .85 ft. = 1105.00

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200' of terrace @ /ft. =

Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

Wesley P. Malenke is seeking formal bid quotations for conservation improvements to the cropland located Sec. 35 - Niles Twp., Floyd County

Improvements planned include:

- 1) Construction of narrow base terraces 18,500 feet in fall of 1982. Topsoil to be stock piled, build the initial lift of terrace, and place the soil back. Rocks not to be under, or included in terrace construction but to be buried with minimum of 4 foot of cover.
- 2) Installation of 42 tile intakes for terraces will be Orange Higgenbottom (manufacturer).
- 3) Installation of gully control structure -- 1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity.
- 4) Diversion terrace construction -- 1200 feet.
- 5) Installation of 10" tile across county gravel road.

Options:

- 1) Well to be sealed off. Water system to be sold to highest bidder.
- 2) Bury barn.
- 3) Bury 7 rock piles with minimum of 4 foot cover. May be rocks buried at groundlevel in abandoned driveway.
- 4) May do additional tiling in lower area indicated as Area A.
- 5) May consider moving 8" to 10" of dirt to terraces from approximately 10 acres.

Please call or leave all quotes, installation rates, and material quotes with Wesley P. Malenke (Office: 515-257-3432/Home: 515-398-2487), R.R. #1, Box 11, Floyd, Iowa 50435 before October 1, 1982.

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Earthmovers: Price quotes on a per foot basis.

Drainage Contractors: Price quotes on a per foot basis with and without tile.

Vendors: Price quotes on a per foot basis on plastic tubing, concrete tile and corrugated metal pipe with Rodent Guards.

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I reserve the right to accept as many or as few contractors/vendors as necessary to satisfy the conservation plans.



Harold Jones Estate

Floyd S.C.D.

May, 1982

320

CONSERVATION PLANNING INFORMATION

Estimated Cost - Harold Jones Estate

Terrace Earthwork:

29,700' of N.B.	@	\$1.35/Ft.	=	40,095.00
62 Intakes	@	60.00/Each	=	3,720.00
10.91 Acres - Seeding	@	100.00/Ac.	=	1,091.00
11,550' of 4" Pl Tubing	@	.55/Ft.	=	6,352.50
1,910' of 5" Pl Tubing	@	.65/Ft.	=	1,241.50
3,410' of 6" Pl Tubing	@	.85/Ft.	=	2,898.50
4,950' of 8" Pl Tubing	@	1.50/Ft.	=	7,425.00
1,200' of 10" Clay or Concrete Tile	@	3.27/Ft.	=	3,924.00
100' of 12" Clay or Concrete Tile	@	3.62/Ft.	=	362.00
20' of 15" CMP	@	14.00/Ft.	=	280.00
20' of 8" CMP	@	6.80/Ft.	=	136.00
20' of 6" CMP	@	6.20/Ft.	=	124.00
<u>23,180.00</u>				<u>\$67,649.50</u>

Invest \$6800/yr for 10 years (\$3400.00 net)

Drainage 187 wet acres

550' tile needed per wet acre	=	103,000'
Existing tile (estimated)	minus	25,000'
Tile for terrace systems	minus	<u>23,000'</u>
		55,000'

Additional tile laterals 4" and 5" @ .60/Ft. = \$33,000.00

COOPERATOR AGREEMENT

Iowa Department of Soil Conservation
Floyd County Soil Conservation District

Harold A. Jones Estate

Name of Landowner Wesley Malenke, Executor Telephone 398-2487
 Name of Farm Operator Claire Jaeger Telephone 228-3434
 Mailing Address: Name Wesley Malenke Telephone _____
 RR, P.O. Box Edge O'Town
 City, State, Zip Floyd, Iowa 50435

Legal Description of Land Covered by This Agreement:

(No. Acres)	(Qtr.)	(Sec.)	(Township-Range)	(County)
320	NW $\frac{1}{4}$ NE $\frac{1}{4}$	Sec. 35 Sec. 34	34, 35 Niles T96N, R15W	Floyd

I hereby request assistance from the soil conservation district in planning, applying, and maintaining soil conservation and water management practices on my land. I hereby grant to the members of the soil conservation district, or their designated representative, the right of ingress and egress to my land for the purpose of conducting surveys, planning, or inspecting conservation works of improvement during the period this agreement is in force.

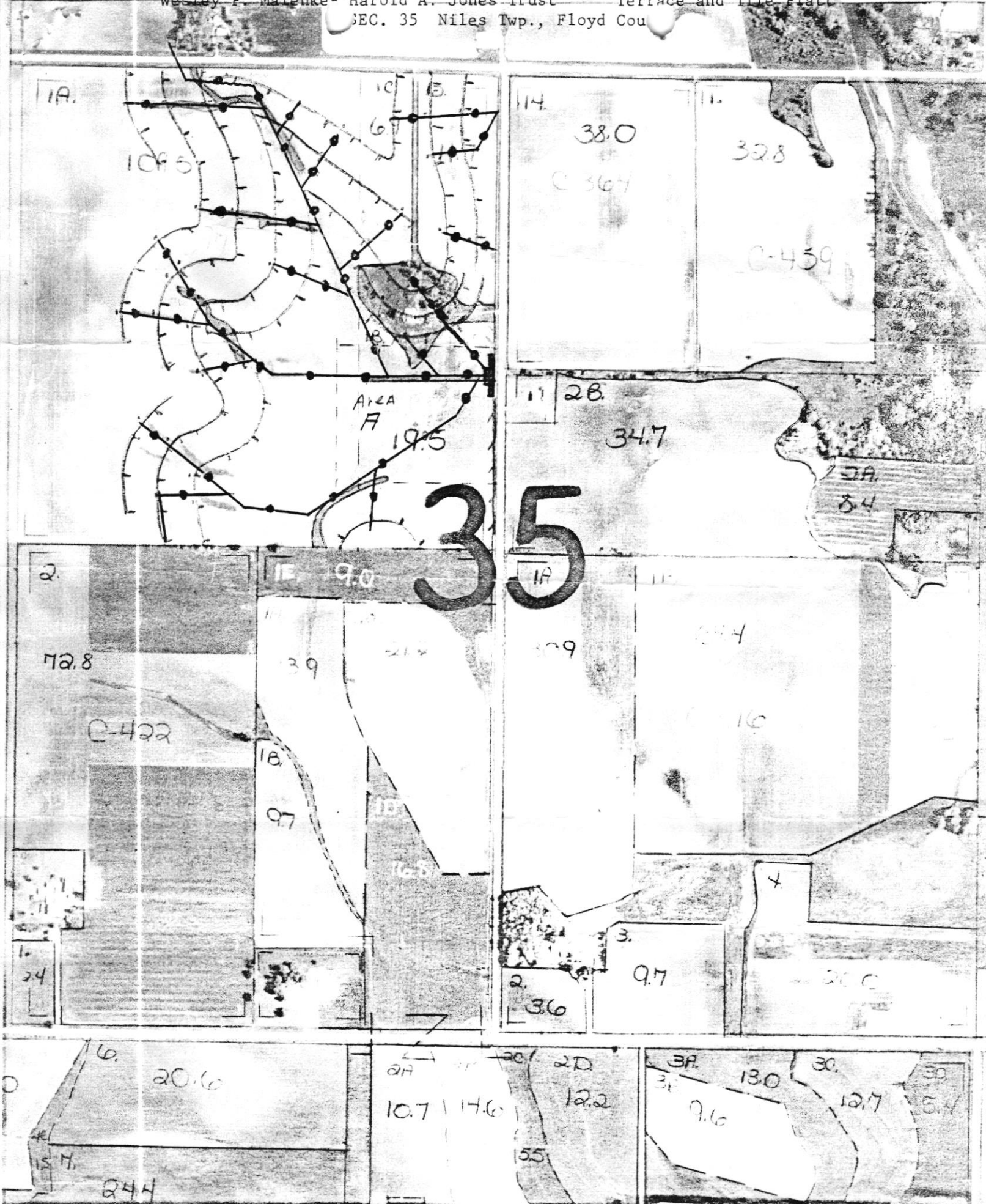
Harold A Jones Estate
Wesley Malenke Executor 12/29/81
 (Signature) (Landowner) (Date)

The soil conservation district hereby agrees to furnish assistance in planning, applying, and maintaining soil conservation and water management practices on the land designated in this agreement. Such assistance will be in accordance with the policies of the district. This agreement will remain in effect until mutually terminated or by either party giving thirty (30) days written notice.

The Floyd County Soil Conservation District has approved and entered into this agreement by action taken at the meeting of the district commissioners held Jan. 4, 1982.
 (Date)

John F. Ruzicka 1/4/82
 (Chairman - SCD) (Date)

Distribution:
 Landowner
 SCD



Popp Excavating

~~Here~~ this includes Raking of terraces

15,500 Narrow Base terrace $1.08 \text{ \$/ft} = \$16,740.00$

3,000 Haul in terrace $1.65 \text{ \$/ft} = \$4,965.00$

Average Cost per foot $1.17 \text{ \$/ft}$

1,200 Division terrace $.70 \text{ \$/ft} = \840.00

Bury Barn, Silopacks Jackoff Well

Estimate $\$900.00$
 $\$2,345.00$

Haul top Soil From Low Land

4" deep per Acre = $\$536.00$

6" deep per Acre = $\$804.00$

Work to Be done Hourly Rate

$7/8 \text{ cu/yd}$ Backhoe = 45.00 per hour

13 cu/yd John Deere Motorized Scraper = 60.00 per hour

11 cu/yd John Deere Motorized Scraper = 50.00 per hour

12' Blade 185 hp Fiat Allis Dozer = 60.00 per hour

$1/4 \text{ cu/yd}$ John Deere Crawler Loader = 48.00 per hour

Wesley P. Malenke - Harold A. Jones Trust Farms
 Field #2 Quantities/Cost Estimate
 Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

18,500'	of Narrowbase	@	/ft.	=
- 42	Intakes (Higgenbottom) Mfg.	@ 41.00	/ea.	= 1722.00
- 7,850'	of 4" pl. tubing	@ .18	/ft.	= 1413.00
- 210'	of 5" pl. tubing	@ .27	/ft.	= 56.70
- 2,960'	of 6" pl. tubing	@ .44	/ft.	= 1302.40
- 1,700'	of 8" pl. tubing	@ .75	/ft.	= 1275.00
1,200'	of 10" clay/concrete tile	@	/ft.	=
100'	of 12" clay/concrete tile	@	/ft.	=
20'	of 15" CMP W/Rodent Guard	@	/ft.	=
20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200'	of terrace	@	/ft.	=
				5769.10
				- 115.38
				5653.72

less 270-15 days

Intake (Higgenbottom) will be top and bottom orange, 1 blind tee and A.D.S 6" to 4" reducer.

All fittings, such as couplers and tee, will be on a net basis as needed.

Thank you for asking A.D.S to submit a bid on the above marked material.

all work



Sheffield Brick & Tile Company

Sheffield, Iowa, 50475 Phone 892-4360

ESTABLISHED 1907

R. J. GALVIN
PRESIDENT

TILE PLAN & COST ESTIMATE FOR Wesley Malenke FARM
 SECT. 35 Niles TWP. Floyd COUNTY
 ADDRESS _____ IOWA

MATERIALS REQUIRED:

SHEFFIELD CLAY DRAIN TILE

FEET	SIZE	\$/M-FT.	AMOUNT
_____	4" @ _____	= _____	
_____	5" @ _____	= _____	
_____	6" @ _____	= _____	
_____	8" @ _____	= _____	
<u>1200</u>	10" @ <u>1489</u>	= <u>1786.80</u>	
<u>100</u>	12" @ <u>2287</u>	= <u>228.70</u>	
SUBTOTAL \$			<u>2015.50</u>

SHEFFIELD PLASTIC TUBING

FEET	SIZE	\$/M-FT.	AMOUNT
_____	3" @ _____	= _____	
<u>7850</u>	4" @ <u>214</u>	= <u>1679.90</u>	
<u>210</u>	5" @ <u>314</u>	= <u>65.94</u>	
<u>2960</u>	6" @ <u>506</u>	= <u>1497.76</u>	
<u>1700</u>	8" @ <u>913</u>	= <u>1552.10</u>	
_____	10" @ _____	= _____	
_____	12" @ _____	= _____	
SUBTOTAL \$			<u>4795.70</u>

MISCELLANEOUS MATERIALS:

<u>20' - 15" CMP w/Rodent Guard</u>	@ _____	= <u>219.50</u>
<u>20' - 8" CMP w/Rodent Guard</u>	@ _____	= <u>114.50</u>
<u>20' - 6" CMP w/Rodent Guard.</u>	@ _____	= <u>77.00</u>
<u>42 - Higgenbottom Intakes.</u>	@ <u>56.10 each.</u>	= <u>2356.20</u>
_____	@ _____	= _____
_____	@ _____	= _____
SUBTOTAL \$		<u>2767.20</u>

CONSTRUCTION:

_____ FT.	3", 4", 5" INSTALLATION	@ _____ /FT.	= _____
_____ FT.	6" INSTALLATION	@ _____ /FT.	= _____
_____ FT.	8" INSTALLATION	@ _____ /FT.	= _____
_____ FT.	10" INSTALLATION	@ _____ /FT.	= _____
_____ FT.	12" INSTALLATION	@ _____ /FT.	= _____
_____ FT.	INSTALLATION	@ _____ /FT.	= _____
_____ FT.	INSTALLATION	@ _____ /FT.	= _____
_____	@ _____	= _____	
_____	@ _____	= _____	
_____	@ _____	= _____	
SUBTOTAL \$			

COMBINED TOTAL \$ 9578.40

NOTE: ~~PRICES OF MATERIAL AND CONSTRUCTION MAY VARY AT THE TIME OF ACTUAL CONSTRUCTION.~~

SINCERELY YOURS,

John McCreary
 DRAINAGE CONSULTANT
 SHEFFIELD BRICK & TILE COMPANY
 SHEFFIELD, IOWA 50475

Quotation Submitted by
Cole Excavating RR # 2
Greene, Iowa 50636

September 30, 1982

Quotation submitted to Wesley P. Malenke, R # 1, Box 11, Floyd, IA
for work located in Sec. 35 Niles Township.

18,500 ft. Narrow Base Terraces @ 1.02 per/ft. \$18,870.00

Topsoil will be stockpiled and replaced. All rocks
hit in terracing will be buried with at least 4(four)
feet of cover. Ravine behind barn will be leveled off
at this price also.

1,200 ft. Diversion Terrace @ .75 per/ft. 900.00

Topsoil will be removed and rocks taken care of as
stated above. \$19,770.00

Reference jobs as requested:

James Gambaiani, Sec. 35 Pleasant Grove twp., Floyd Co.

Berniece Johnson, Sec 15 Dayton twp., Butler Co.

Claude Kanter, Sec 15 Dayton twp., Butler Co.

Bob Cole

9-30-82

Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

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Improvements planned include:

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- 3) Installation of gully control structure -- 1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity.
- 4) Diversion terrace construction -- 1200 feet.
- 5) Installation of 10" tile across county gravel road.

Options:

- 1) Well to be sealed off. Water system to be sold to highest bidder.
Will Seal off Well for used equipment.
- 2) Bury barn.
Dozer work @ \$45.00 per hour.
- 3) Bury 7 rock piles with minimum of 4 foot cover. May be rocks buried at groundlevel in abandoned driveway. (Dozer work @ \$45.00 per hour).
- 4) May do additional tiling in lower area indicated as Area A.
- 5) May consider moving 8" to 10" of dirt to terraces from approximately 10 acres. (Self loading scraper @ \$52.00 per hour).

Please call or leave all quotes, installation rates, and material quotes with Wesley P. Malenke (Office: 515-257-3432/Home: 515-398-2487), R.R. #1, Box 11, Floyd, Iowa 50435 before October 1, 1982.

Technical assistance may be directed to James P. Allen - District Conservationist, 623 Beck Street, Charles City, Iowa 50616, 515-228-2725.

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Respectfully submitted,

Gil White

Gil White, President Gil White, Inc.

Wesley P. Malenke

Wesley P. Malenke - Harold A. Jones Trust Farms
Field #2 Quantities/Cost Estimate
Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

18,500'	of Narrowbase	@ 1.05	/ft.	= \$ 19,425.00
42	Intakes (Higgenbottom) Mfg.	@ 100.00	/ea.	= 4,200.00
7,850'	of 4" pl. tubing	@	/ft.	=
210'	of 5" pl. tubing	@	/ft.	=
2,960'	of 6" pl. tubing	@	/ft.	=
1,700'	of 8" pl. tubing	@	/ft.	=
1,200'	of 10" clay/concrete tile	@	/ft.	=
100'	of 12" clay/concrete tile	@	/ft.	=
20'	of 15" CMP W/Rodent Guard	@	/ft.	=
20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200' of terrace @ .35 /ft. = \$ 420.00

Sept. 28, 1982

Respectfully submitted,

Gil White, Inc.

Gil White

Gil White, President

KAMM EXCAVATING

DOUG KAMM
R.R. 1, GREENE, IOWA 50636
PHONE 515-228-7965

October 1, 1982

The following is to be submitted as the price quote for Wesley P. Malenke for Conservation Improvements:

Improvement Plans:

1. Narrow Base Terraces--
\$1.20/ft., The terrace plow will not be used; rocks encountered during construction of such size that can be handled with my equipment will be piled in a manner conducive to burial later.

I would like cornstalks to be disced or chopped before construction starts.

- 1A. Terraces to be constructed with dirt from below would be \$2.20/ft. Jim Allan indicated approximately 3000 ft. to be built in this manner.
- 3-4. The exact price quote will be given when specifications become available.

All efforts will be made to complete total construction within the 1982 year, however, due to any uncontrollable, adverse weather conditions ect., the work will then be completed at the first opportunity during the 1983 year.

If there are any questions with regards to any of the above information, I will be more than happy to discuss them with you. Thank you for the opportunity to bid on this job.

Sincerely,


Douglas A. Kamm



Zurcher Construction Inc.

HWY 14 AND NORTH HIGH ST. • GREENE, IOWA 50636
TELEPHONE (515) 823-5354

The Dirty Diggers

September 30, 1982

Quotation submitted to Wesley P. Maleake, R # 1, Box 11, Floyd, IA.
for work located in Sec. 35 Niles Township.

	Tile	Labor	Unit Price	Total
7,850' - 4" Plastic Tile	.19	.30	.49	3,846.50
210' - 5" Plastic Tile	.28	.30	.58	121.80
2,960' - 6" Plastic Tile	.46	.30	.76	2,249.60
1,700' - 8" Plastic Tile	.85	.70	1.55	2,635.00
1,200' -10" Concrete Tile	1.55	1.35	2.90	3,480.00
100' -12" Concrete Tile	1.93	2.00	3.93	393.00
20' -15" CMP	9.45'		9.45'	189.00
1 -15" Rodent Guard	14.70		14.70	14.70
20' - 8" CMP	4.57'		4.57'	91.40
1 - 8" Rodent Guard	8.25		8.25	8.25
20' - 6" CMP	3.95'		3.95'	79.00
1 - 6" Rodent Guard	7.00		7.00	7.00
				<u>\$13,115.25</u>
42 Intakes installed using Higgenbottom intakes.---				
			\$115.00@	\$ 4,830.00
42 Intakes installed using 6" metal pipe intakes---				
			\$ 85.00@	\$ 3,570.00
Structure 3' drop 120 CFS -----				\$1,532.50
Labor to install structure -----				1,556.00
Other material: Contrete, Rerods, Forms, Cement, Sealer, etc. ---				<u>864.18</u>
				\$ 3,952.68

A. H. Zurcher
9-30-82.

Schafer Bros. Tiling
R R 3
Charles City 228-6765

42 intakes at \$40/intake installed=\$1,680 without materials	\$45.00
42 intakes at \$95/intake installed=\$3990 with materials	
7,850' 4" pl. tubing at \$.30/ft. installed=\$2,355 without tubing	.23
7,850' 4" pl. tubing at \$.53/ft. installed=\$4,160.50 with tubing	
210' 5" pl. tubing at \$.30/ft. installed=\$63.00 without tubing	.33
210' 5" pl. tubing at \$.63/ft. installed=\$132.30 with tubing	
2,960' 6" pl. tubing at \$.30/ft. installed = \$888.00 without tubing	.53
2,960' 6" pl. tubing at \$.83/ft. installed = \$2,456.80 with tubing	
1700' 8" pl. tubing at \$.50/ft installed = \$850.00 without tubing	1.00
1,700' 8" pl. tubing at \$1.50/ft. installed = \$2,550.00 with tubing	
1,200 10" tile at \$.85/ft. installed = \$1,020.00 without tile	
1,200 10" clay tile at \$2.33/ft. installed = \$2,796.00 with clay tile	
1,200 10" cement tile at \$2.32/ft. installed = \$2,784.00 with cement	
100' 12" tile at \$.85/ft installed = \$85.00 without tile	
100' 12" clay tile at \$3.13/ft installed = \$313.00 with clay tile	
100' 12" cement tile at \$2.66/ft. installed = \$266.00 with cement	
20' of 15" CMP w/rodent guard = \$219.50	
20' of 8" CMP w/rodent guard = \$114.50	
20' of 6" CMP w/rodent guard = \$77.00	

Total Bill Without Materials=\$6,941.00
Total Bill With Materials using Clay Tile = \$16,809.60
Total Bill With Materials using Cement Tile = \$16,750.60

Sept. 22, 1982

Phillip J. Schafer
Phillip J. Schafer

15,500 of Narrowbase Terraces	@ .85 = 13,175	@ 1.35 = 20,925
1,800 of Diversion Terrace & Waterway	@ .50 = 900	@ 2.00 = 3,600
2,500 of Carry in Terrace 4,000	@ 2.00 = 5,000	@ 2.80 = 7,000
19,200 Structure	<u>3,000</u>	<u>4,000</u>
	22,075	35,525 ✓

$22,075 \div 4 = 5,518.75 \times 3 = 16,556.25 \checkmark$

$35,525 \div 4 = 8,881.25 \times 3 = 26,643.75 \checkmark$

13,450.00 ^{Gross} Difference ✓ 10087.50 ÷ 4 = 2521.87 ✓

Conservation Share 16,556.25
 Wes Share 5,118.75
 To Date " EXTRAS 7,255.00
 Projected " " 1,500.00
 Floyd Sinkhole 1,000.00
31,430.00 ✓

35,525.00
31,430.00
 4,095.00 ✓
2,521.87
 1,573.13 ✓

2/18 8600 Part Payment

Brush on Old site

	1 Moving To Old	2 Dirt Site	3	4 Rock Piles	6	7 Fence AND Line	9
1		495.00		617.50		247.50	
2		165.00		130.00		440.00	
3		32.50		137.50			
4		27.50		325.00			
5		260.00		650.00			
6		467.50		552.50			
7		715.00		162.50			
8		302.50		130.00			
9		330.00		330.00			
10		455.00		55.00			
11				227.50			
AS of 12							TOTAL
12/16/82		3250.00		3317.50		687.50	7255.00
14							
15							
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HOLLATZ
EXCAVATING
CLEAR
LAKE

Wesley P. Malenke - Harold A. Jones Trust Farms
Field #2 Quantities/Cost Estimate
Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

18,500'	of Narrowbase	@	.85 /ft.	=	15,725. ⁰⁰
42	Intakes (Higgenbottom) Mfg.	@	70.00 /ea.	=	3,780. ⁰⁰
7,850'	of 4" pl. tubing	@	.57 /ft.	=	4,474. ⁵⁰
210'	of 5" pl. tubing	@	.67 /ft.	=	140. ⁷⁰
2,960'	of 6" pl. tubing	@	.87 /ft.	=	2,575. ⁰⁰
1,700'	of 8" pl. tubing	@	1.40 /ft.	=	2,380. ⁰⁰
1-1/2 1,200'	of 10" clay/concrete tile	@	2.20 /ft.	=	2,640. ⁰⁰
1-3/4 100'	of 12" clay/concrete tile	@	2.50 /ft.	=	250. ⁰⁰
1-1/2 20'	of 15" CMP W/Rodent Guard	@	16.50 /ft.	=	330. ⁰⁰
1-1/2 20'	of 8" CMP W/Rodent Guard	@	12.00 /ft.	=	240. ⁰⁰
1-1/2 20'	of 6" CMP W/Rodent Guard	@	12.00 /ft.	=	240. ⁰⁰

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity = ^{1800 COST}

Diversion Terrace

1200' of terrace @ .85 /ft. = 1,020.⁰⁰

Sheffield Tubing
4" Tile - .20
5" Tile - .30
6" Tile - .50
8" Tile - .85

Higgenbottom Intakes \$ 55.00

AREA A
Drow - .22 less than 50 acres
Drow .21 more than 50 acres

To: Bob Egbert
From: Wes MALENKE
Subject: Conservation Project Harold A Jones ESTATE
Date: 10/20/83

HOLLATZ EXCAVATING
EARTH WORK (TERRACE CONSTRUCTION, WATERWAY AND GULLY CONTROL STRUCTURE)
TOTAL COST \$45,370.00

Payments From H.A. Jones ESTATE ACCOUNT

2/18/83	\$8,600.00	Personal loan from Wesley P. Malenke Check # 2512 2/18/83 @ 10% Interest
9/12/83	29,000.00	STATE Comptroller's WARRANT
9/12/83	7,770.00	" " " AND Personal loan from Wesley P. Malenke
	<u>45,370.00</u>	of \$3677.63 Check # 2588 4/12/83 @ 10% Interest

Payments From Wesley P. Malenke ACCOUNT Personal loan @ 10% Interest

To: Colwell Cooperative

9/12/83	860.97	Fertilizer & Brass Seed For Terraces
	<u>17.35</u>	OATS Seed for Terraces
	878.32	

JOHANN'S Tiling

Tiling

Payments From H.A. Jones ESTATE ACCOUNT

1/25/83	*3515.20	Personal loan from Wesley P. Malenke Check # 2513 1/25/83 @ 10% Interest
9/12/83	* <u>16921.08</u>	STATE Comptroller's WARRANT
	20436.28	

Steve Molstad

Terrace Inlet Tile Protections

Payment From Wesley P. Malenke ACCOUNT Personal loan @ 10% Interest
\$230.00

Project TOTAL COST \$66914.60

To: Bob Ebbert
 From: Wes Malenke
 Subject: Checking Account Activity
 Date: 10/20/83

Deposits To Harold A Jones ESTATE ACCOUNT

9/13/83	Treasurer STATE of Iowa	Conservation Project (STATE Share)	44,538.45
9/13/83	"	" " " " " "	3,675.00
9/13/83	"	" " " " " "	1,800.00
9/13/83	Wesley P. Malenke	Personal loan for Conservation Project	3,677.63
9/13/83	Transfer From Savings	To Checking for TAX Payment	<u>1,698.74</u>
			55,389.82
9/30/83	Government PIK	Payment	872.25
10/14/83	American Cyanamid	Dividend	4.38

Accounts Payable From Harold A. Jones ESTATE ACCOUNT

9/12/83	HOLLATZ EXCAVATING	Conservation Project Terraces	29,000.00
9/12/83	"	" " " "	7,770.00
9/12/83	Johanns Tiling	Conservation Project Tile	16,921.08
9/13/83	Floyd County Treasurer	FARM TAXES 35-96-15	791.46
9/13/83	"	" " 34-96-15	907.28

To: Bob Ebert
 From: Wes Malenke
 Subject: CONSERVATION PROJECT HAROLD A JONES ESTATE TOTAL COST
 DATE: 9/12/83

HOLLATZ EXCAVATING EARTH WORK	OWNERS SHARE	STATE SHARE
7/21/83 TOTAL \$45,370.00 ÷ 4 =	11,342.50	34,027.50

Payments	2/18/83	\$8600.00
	9/12/83	29000.00
	9/12/83	<u>7770.00</u>
		45370.00

JOHANNIS TILING TILING	OWNERS SHARE	STATE SHARE
7/18/83 TOTAL \$20,436.28 ÷ 4	5,109.07	15,327.21

Payments	1/25/83	3515.20
	9/12/83	<u>16921.08</u>
		20436.28

Colwell Cooperative Fertilizer & Grass Seed & OATS Seed	OWNERS SHARE	STATE SHARE
860.97		
<u>17.35</u>		
\$878.32 ÷ 4	219.58	658.74

Steve Molstad MATERIALS	\$230.00	230.00	0.00
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<u>\$16,901.15</u>	<u>\$50013.45</u>
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Staple
To B
IFAS #A (7/83)
INVOICE NUMBER

Malenke's Copy

STATE OF IOWA
CLAIM ORDER/CLAIM VOUCHER

INVOICE DATE: _____ ORDER NUMBER: _____
 INVOICE DATE: _____ ORDER DATE: 07-21-83
 Cost-Share Agreement No. Mandatory No. 1 (82-83)

VENDOR: Harold A. Jones Estate
% Wesley Malenke
Edge-O-Town
Floyd, Iowa 50435

BILL TO (ORDERING AGENCY): Soil Conservation
Floyd S.C.D.
623 Beck Street
Charles City, Iowa 50616

SHIP TO: SAME

TERMS FOB: _____ ORDER APPROVED BY: *Certified as a just claim*
 DATE: 07-21-83 INITIAL: *OS*
 Signature: *Anthony P. ...*
 Commissioner

QUANTITY		MEASURE	DESCRIPTION OF ITEM	UNIT PRICE
ORDERED	RECEIVED			
			Hollatz Excavating Co.	\$ 38,070.00
			Johanns Tiling	20,436.28
			Colwell Cooperative	860.97
			Colwell Cooperative	17.35
			Total Actual Cost	\$ 59,384.60
			Estimated Cost - \$42,521.00	
			Payment of 75% of Actual Cost	\$ 44,538.45

CLAIMANT'S CERTIFICATION
 I CERTIFY THAT THE ITEMS FOR WHICH PAYMENT IS CLAIMED WERE FURNISHED FOR STATE BUSINESS UNDER THE AUTHORITY OF THE LAW AND THAT THE CHARGES ARE REASONABLE, PROPER, AND CORRECT, AND NO PART OF THIS CLAIM HAS BEEN PAID.
 CLAIMANT'S SIGNATURE (TITLE & DATE)
Wesley Malenke Executor 07-21-83

AGENCY CERTIFICATION
 I CERTIFY THAT THE ABOVE EXPENSES WERE INCURRED AND THE AMOUNTS ARE CORRECT AND SHOULD BE PAID FROM THE FUNDS APPROPRIATES BY:
 CODE SECTION OR CHAPTER SECTION
 AUTHORIZED SIGNATURE TITLE

THE FOLLOWING ITEMS ARE FOR STATE ACCOUNTING USE

TRANSACTION CODE ('CO' OR 'CV')	DOCUMENT NO.	DOCUMENT DATE	BUDGET FY	ACTION <input type="checkbox"/> E = ORIGINAL ENTRY <input type="checkbox"/> M = ADJUSTMENT	DOCUMENT TYPE (1 or 2) <input type="checkbox"/> (1) CLAIM ORDER <input type="checkbox"/> (1) OUTSIDE VENDOR <input type="checkbox"/> (2) CONTRACT	FIXED ASSET (F)								
VENDOR CODE			CONTRACT I.D.		COMMENTS									
LINE NO.	REF DOC LINE	FUND	AGENCY	ORGANIZATION	SUB ORGN	OBJECT	SUB OBJT	ACTIVITY	JOB NUMBER	AGENCY REPT CAT.	DESCRIPTION	AMOUNT	I / D	P / F
REFERENCE DOCUMENT NUMBER		WARRANT NUMBER		AUDITED BY		TOTAL								

CONTINGENT FUND - CONTINGENT CHECK NO. INVENTORY I.D. NO. SCHEDULED PAYMENT DATE

**IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
APPLICATION FOR FINANCIAL INCENTIVES**

Iowa Department of Soil Conservation
Floyd County Soil Conservation District

Name of Landowner Harold A. Jones Estate % Wesley Malenke Telephone 398-2487
RR, P.O. Box Edge-O-Town
City, State, Zip Floyd, Iowa 50435
Legal Description NW 1/4 25 Niles T96N, R15W Floyd
(Qtr.) (Sec.) (Township-Range) (County)

Applicant Same Telephone _____
RR, P.O. Box _____
City, State, Zip _____

Applicant is Owner (owner, operator, agent, contract buyer)
Power of Attorney on File _____ (Required if another person signs for the owner.) (yes or no)
Cooperator Agreement No. 1297 Administrative Order No. _____ (Cooperator Agreement not required.)

REQUEST

I hereby request financial assistance through the mandatory cost-share program (1) to partially defray the cost associated with applying the soil conservation practices listed below on 120 acres.
(total acres to be treated)

(1) Eligible programs are listed in the Department's rules Chapter 5.60.

Practice Name	Quantity	Unit	Field No.	Estimated Cost
<u>600D</u>	<u>18,500</u>	<u>Ft.</u>		<u>\$12,521.00</u>

None of the area* where these practices are to be applied has been in conservation cover as defined on attached Form IP-1B.
(None, Part, All)

I have reviewed the attached Form IP-1B and understand the conditions which apply to my application concerning the required Maintenance/Performance Agreement and other conditions which must be met prior to receipt of payment.

Harold A. Jones Estate 10/1/82 (Applicant's Signature if other than owner of record) (Date)
Wesley Malenke - Executor 10/1/82 (Owner's or Designated Power of Attorney's Signature required in all cases) (Date)

TECHNICIANS CERTIFICATION

I have viewed the site* where the above listed practices are to be applied and find them to be appropriate and concur in the estimated quantities and costs.

James P. Allen 9-9-82
(Technician's Signature) (Date)

APPLICATION APPROVAL

This application has been approved by the Floyd Soil Conservation District commissioners at their October 29, 1982 meeting and has been assigned APPLICATION NO. Mandatory # 1 (82-83).
(denied/approved)

Signed: Richard J. Thuesner 10/29/82
(SCD Chairperson) (Date)

FUND OBLIGATION

\$ 31,890.75 dollars from the Mandatory Cost-Share 1982-83 program funds are obligated to the applicant. (2)
(See Department Rule 5.60)

Signed: William B. McCall 11-9-82 Title Revenue Com.
(District or DSC Employee as Appropriate) (Date)

*Sketch attached if appropriate.

(2) Permanent practice construction must be started by _____ and completed by _____
(Date) (Date)

Distribution:
Applicant
SCD Case File
DSC

Malenke's Copy

STATE OF IOWA CLAIM ORDER/CLAIM VOUCHER

INVOICE DATE	Cost-Share Agreement No. Mandatory No. 1 (82-83)	ORDER NUMBER
VENDOR Harold A. Jones Estate % Wesley Malenke Edge-O-Town Floyd, Iowa 50435	BILL TO (ORDERING AGENCY) Soil Conservation Floyd S.C.D. 623 Beck Street Charles City, Iowa 50616	ORDER DATE 07-21-83
TERMS FOB	ORDER APPROVED BY <i>Certified as a just claim</i> <i>Anthony P. Malenke</i> Commissioner	SHIP TO SAME
		MDSE. RECEIVED IN GOOD ORDER AND/OR SERVICES RENDERED DATE: 07-21-83 INITIAL: D.S.

QUANTITY		MEASURE	DESCRIPTION OF ITEM	UNIT PRICE
ORDERED	RECEIVED			
			Hollatz Excavating Co. Inc. (Diversion)	\$ <u>2,400.00</u>
			Total Actual Cost	\$ 2,400.00
			Estimated Cost - \$630.00	
			Payment of 75% of actual cost	\$ 1,800.00

CLAIMANT'S CERTIFICATION

I CERTIFY THAT THE ITEMS FOR WHICH PAYMENT IS CLAIMED WERE FURNISHED FOR STATE BUSINESS UNDER THE AUTHORITY OF THE LAW AND THAT THE CHARGES ARE REASONABLE, PROPER, AND CORRECT, AND NO PART OF THIS CLAIM HAS BEEN PAID.
CLAIMANT'S SIGNATURE (TITLE & DATE)

Wesley Malenke Executor
07-21-83

AGENCY CERTIFICATION

I CERTIFY THAT THE ABOVE EXPENSES WERE INCURRED AND THE AMOUNTS ARE CORRECT AND SHOULD BE PAID FROM THE FUNDS APPROPRIATES BY:

CODE SECTION	OR	CHAPTER	SECTION
AUTHORIZED SIGNATURE		TITLE	

THE FOLLOWING ITEMS ARE FOR STATE ACCOUNTING USE

TRANSACTION CODE ("CO" OR "CV")	DOCUMENT NO.	DOCUMENT DATE	BUDGET FY	ACTION <input type="checkbox"/> E = ORIGINAL ENTRY <input type="checkbox"/> M = ADJUSTMENT	DOCUMENT TYPE (1 or 2) <input type="checkbox"/> (1) CLAIM ORDER <input type="checkbox"/> (1) OUTSIDE VENDOR <input type="checkbox"/> (2) CONTRACT	FIXED ASSET (F)									
VENDOR CODE			CONTRACT I.D.		COMMENTS										
LINE NO.	REF DOC LINE	FUND	AGENCY	ORGANIZATION	SUB ORGN	OBJECT	SUB OBJT	ACTIVITY	JOB NUMBER	AGENCY REPT. CAT.	DESCRIPTION	AMOUNT	I	P	
REFERENCE DOCUMENT NUMBER										WARRANT NUMBER		AUDITED BY		TOTAL	
CODE										INVENTORY I.D. NO.		SCHEDULED PAYMENT DATE			

CONTINGENT FUND - CONTINGENT CHECK NO.

Staple Documentation
To Back of Form
IFAS #A-1 (7/83)
INVOICE NUMBER

STATE OF IOWA
CLAIM ORDER/CLAIM VOUCHER

ORDER NUMBER

INVOICE DATE

Cost-Share Agreement No. Mandatory No. 1 (82-83)

ORDER DATE
07-21-83

VENDOR
Harold A. Jones Estate
Wesley Malenko
Edge-O-Town
Floyd, Iowa 50435

BILL TO (ORDERING AGENCY)
Soil Conservation
Floyd S.C.D.
623 Beck Street
Charles City, Iowa 50616

SHIP TO
SAME

TERMS
FOB

ORDER APPROVED BY **Certified as a just claim**
Anthony P. Rathjens
Commissioner

MDSE. RECEIVED IN GOOD ORDER
AND/OR SERVICES RENDERED
DATE: 07/21/83 INITIAL: OS

QUANTITY		MEASURE	DESCRIPTION OF ITEM	UNIT PRICE
ORDERED	RECEIVED			
			Hollatz Excavating Co. Inc. (Structure)	\$ 4,900.00
			Total Actual Cost	\$ 4,900.00
			Estimated Cost - \$2,810.00	
			75% of Actual Cost	\$ 3,675.00

CLAIMANT'S CERTIFICATION

I CERTIFY THAT THE ITEMS FOR WHICH PAYMENT IS CLAIMED WERE FURNISHED FOR STATE BUSINESS UNDER THE AUTHORITY OF THE LAW AND THAT THE CHARGES ARE REASONABLE, PROPER, AND CORRECT, AND NO PART OF THIS CLAIM HAS BEEN PAID.
CLAIMANT'S SIGNATURE (TITLE & DATE)

07-21-83

Wesley Malenko Executor

AGENCY CERTIFICATION

I CERTIFY THAT THE ABOVE EXPENSES WERE INCURRED AND THE AMOUNTS ARE CORRECT AND SHOULD BE PAID FROM THE FUNDS APPROPRIATES BY:

CODE SECTION OR CHAPTER SECTION
AUTHORIZED SIGNATURE TITLE

THE FOLLOWING ITEMS ARE FOR STATE ACCOUNTING USE

TRANSACTION CODE ("CO" OR "CV")	DOCUMENT NO.	DOCUMENT DATE	BUDGET FY	ACTION <input type="checkbox"/> E = ORIGINAL ENTRY <input type="checkbox"/> M = ADJUSTMENT	DOCUMENT TYPE (1 or 2) <input type="checkbox"/> (1) CLAIM ORDER <input type="checkbox"/> (1) OUTSIDE VENDOR <input type="checkbox"/> (2) CONTRACT	FIXED ASSET (F)									
VENDOR CODE			CONTRACT I.D.		COMMENTS										
LINE NO.	REF DOC LINE	FUND	AGENCY	ORGANIZATION	SUB ORGN	OBJECT	SUB OBJT	ACTIVITY	JOB NUMBER	AGENCY REPT CAT.	DESCRIPTION	AMOUNT	I D	P F	
REFERENCE DOCUMENT NUMBER										WARRANT NUMBER		AUDITED BY		TOTAL	
CODE										INVENTORY I.D. NO.		SCHEDULED PAYMENT DATE			

CONTINGENT FUND - CONTINGENT CHECK NO.

**IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
APPLICATION FOR FINANCIAL INCENTIVES**

Iowa Department of Soil Conservation
Floyd County Soil Conservation District

Name of Landowner Harold A. Jones Estate % Wesley Malenke Telephone 398-2487
RR, P.O. Box Edge-O-Town
City, State, Zip Floyd, Iowa 50435
Legal Description NW 1/4 25 Niles T96N, R15W Floyd
(Qtr.) (Sec.) (Township-Range) (County)

Applicant Same Telephone _____
RR, P.O. Box _____
City, State, Zip _____

Applicant is Owner Power of Attorney on File _____
(owner, operator, agent, contract buyer) (Required if another person signs for the owner.) (yes or no)
Cooperator Agreement No. 1297 Administrative Order No. _____
(Cooperator Agreement not required.)

REQUEST

I hereby request financial assistance through the mandatory cost-share program (1) to partially defray the cost associated with applying the soil conservation practices listed below on 120 acres.
(total acres to be treated)

(1) Eligible programs are listed in the Department's rules Chapter 5.60.

Practice Name	Quantity	Unit	Field No.	Estimated Cost
<u>410</u>	<u>1</u>	<u>No.</u>		<u>\$2810.00</u>

None of the area* where these practices are to be applied has been in conservation cover as defined on attached Form IP-1B.
(None, Part, All)

I have reviewed the attached Form IP-1B and understand the conditions which apply to my application concerning the required Maintenance/Performance Agreement and other conditions which must be met prior to receipt of payment.

Harold A. Jones Estate 10/7/82 Wesley Malenke 10/7/82
(Applicant's Signature if other than owner of record) (Date) (Owner's or Designated Power of Attorney's Signature required in all cases) (Date)

TECHNICIANS CERTIFICATION

I have viewed the site* where the above listed practices are to be applied and find them to be appropriate and concur in the estimated quantities and costs.

James P. Allen 9-9-82
(Technician's Signature) (Date)

APPLICATION APPROVAL

This application has been approved by the Floyd Soil Conservation District commissioners at their October 29, 1982 meeting and has been assigned APPLICATION NO. Mandatory # 1 (82-83)
(denied/approved)

Signed: Richard J. Thuesen 10/29/82
(SCD Chairperson) (Date)

FUND OBLIGATION

\$2107.50 dollars from the 1982-83 Mandatory program funds are obligated to the applicant. (2)
(See Department Rule 5.60)

Signed: William B. Miller Title Resource Com. 11-9-82
(District or DSC Employee as Appropriate) (Date)

*Sketch attached if appropriate. (2) Permanent practice construction must be started by _____ and completed by _____
(Date) (Date)

Distribution:
Applicant
SCD Case File
DSC

Application No. _____
Mandatory # 1 (82-83)

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
CERTIFICATION OF PRACTICE QUANTITIES AND COST
Iowa Department of Soil Conservation

Floyd County Soil Conservation District

Name of Landowner Wesley Malenke
Name of Applicant Same

Practice - 600D - Terraces
Amount Approved - 18,500 ft. (lin. ft., acres, no.)
Estimated Cost - \$ 42,521.00
Actual Cost - \$ 59,384.60
Cost Share - \$ 44,538.45
Amount Installed - 18,000 ft. (lin. ft., acres, no.)
Acres Benefited - 136

$$\frac{44,538.45}{\text{State Cost-Share Payment}} \div \frac{59,384.60}{\text{Actual Cost}} = \frac{75}{\% \text{ of Cost Share}}$$

WIND EROSION CONTROL INCENTIVE PROGRAM (WECIP) - Conservation Tillage _____ acres
Grass Strips _____ acres
Field Windbreaks _____ acres

NO-TILL INCENTIVE PROGRAM - Conservation Tillage _____ acres

Certification:

I certify that I have inspected the site where: 1) the above conservation practice was installed and report that it qualifies for state cost-share funding; or 2) the no-till planting is practiced and report that the field meets the minimum specifications for the no-till incentive payment.

Dennis Sorel 7-22-83
Technician's Signature Date

Application No. _____

Mandatory # 1 (82-83)

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
CERTIFICATION OF PRACTICE QUANTITIES AND COST
Iowa Department of Soil Conservation

Floyd County Soil Conservation District

Name of Landowner Wesley Malenke
Name of Applicant Same

Practice - 362 - Diversion
Amount Approved - 1200 ft. (lin. ft., acres, no.)
Estimated Cost - \$ 630.00
Actual Cost - \$ 2,400.00
Cost Share - \$ 1,800.00
Amount Installed - 1300 ft. (lin. ft., acres, no.)
Acres Benefited - 1 ac.

$$\frac{\$1,800.00}{\text{State Cost-Share Payment}} \div \frac{\$2,400.00}{\text{Actual Cost}} = \frac{75}{\% \text{ of Cost Share}}$$

WIND EROSION CONTROL INCENTIVE PROGRAM (WECIP) - Conservation Tillage _____ acres
Grass Strips _____ acres
Field Windbreaks _____ acres

NO-TILL INCENTIVE PROGRAM - Conservation Tillage _____ acres

Certification:

I certify that I have inspected the site where: 1) the above conservation practice was installed and report that it qualifies for state cost-share funding; or 2) the no-till planting is practiced and report that the field meets the minimum specifications for the no-till incentive payment.

Dennis Sand 7-22-83
Technician's Signature Date

Application No. _____
Mandatory # 1, (82-83)

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
 CERTIFICATION OF PRACTICE QUANTITIES AND COST
 Iowa Department of Soil Conservation

Floyd County Soil Conservation District

Name of Landowner Wesley Malenke
 Name of Applicant Same

Practice - 410 - Structure

Amount Approved - 1 no. (lin. ft., acres, no.)

Estimated Cost - \$ 2,810.00

Actual Cost - \$ 4,900.00

Cost Share - \$ 3,675.00

Amount Installed - 1 no. (lin. ft., acres, no.)

Acres Benefited - 1 ac.

<u>\$3,675.00</u>	\div	<u>\$4,900.00</u>	$=$	<u>75</u>
State Cost-Share Payment		Actual Cost		% of Cost Share

WIND EROSION CONTROL INCENTIVE PROGRAM (WECIP) - Conservation Tillage _____ acres
 Grass Strips _____ acres
 Field Windbreaks _____ acres

NO-TILL INCENTIVE PROGRAM - Conservation Tillage _____ acres

Certification:

I certify that I have inspected the site where: 1) the above conservation practice was installed and report that it qualifies for state cost-share funding; or 2) the no-till planting is practiced and report that the field meets the minimum specifications for the no-till incentive payment.

Dennis Sande 7-22-83
 Technician's Signature Date

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL

RECEIPT OF PAYMENT

Iowa Department of Soil Conservation
Floyd County Soil Conservation District

I hereby acknowledge receipt of Iowa State Warrant No. 01622170
in the amount of \$ 1,800.00 as reimbursement for a portion of the costs of
installing or performing soil and water conservation practices on my land. This
payment is received in accordance with Iowa Financial Incentive Application No. _____
Mandatory No. 1 (82-83) filed with the Floyd County Soil
Conservation District.

[Signature] 9/12/83
(Signature - Recipient) (Date)

The district has received \$ _____ to defray the cost of
recording the Declaration of Agreement, Form IP-4B.*

Received By _____
(Signature - SCD) (Date)
(Representative)

*Recording is required for all maintenance agreements.

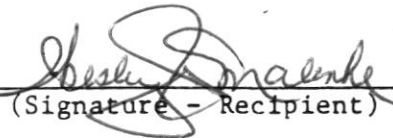
Distribution:
Recipient
SCD Case File
SCD Maintenance/Performance Agreement File
DSC

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL

RECEIPT OF PAYMENT

Iowa Department of Soil Conservation
Floyd County Soil Conservation District

I hereby acknowledge receipt of Iowa State Warrant No. 04622169
in the amount of \$ 3,675.00 as reimbursement for a portion of the costs of
installing or performing soil and water conservation practices on my land. This
payment is received in accordance with Iowa Financial Incentive Application No. _____
Mandatory No. 1 (82-83) filed with the Floyd County Soil
Conservation District.


(Signature - Recipient) 9/12/83
(Date)

The district has received \$ _____ to defray the cost of
recording the Declaration of Agreement, Form IP-4B.*

Received By _____
(Signature - SCD) (Date)
(Representative)

*Recording is required for all maintenance agreements.

Distribution:
Recipient
SCD Case File
SCD Maintenance/Performance Agreement File
DSC


IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL

RECEIPT OF PAYMENT

Iowa Department of Soil Conservation

Floyd County Soil Conservation District

I hereby acknowledge receipt of Iowa State Warrant No. 04622168
in the amount of \$ 44,538.45 as reimbursement for a portion of the costs of
installing or performing soil and water conservation practices on my land. This
payment is received in accordance with Iowa Financial Incentive Application No. _____
Mandatory No. 1 (82-83) filed with the Floyd County Soil
Conservation District.


(Signature - Recipient) 9/12/83
(Date)

The district has received \$ _____ to defray the cost of
recording the Declaration of Agreement, Form IP-4B.*

Received By _____
(Signature - SCD) (Date)
(Representative)

*Recording is required for all maintenance agreements.

Distribution:
Recipient
SCD Case File
SCD Maintenance/Performance Agreement File
DSC

ACCOUNT NUMBERS

State Comptroller's Warrant

001-MY-480 - -3340-4830

VOID 12 MONTHS AFTER 09-02-83 No. 04622169

TO THE

Treasurer of State
Des Moines, Iowa 50319

33-72
730

Pay to the order of

DEPARTMENTAL REFERENCE NO'S

AMOUNT

HAROLD A JONES ESTATE

480DG238009 CU000004800 8 \$****3,675.00

William Kraft
ACTING

STATE COMPTROLLER

69FD887809AA4930

9/13/83

Deposited to H.A. Jones Estate account

Conservation Project (Sully Control Structure)

ACCOUNT NUMBERS

State Comptroller's Warrant

001-MY-480 - -3340-4830

VOID 12 MONTHS AFTER 09-02-83 No. 04622170

TO THE

Treasurer of State
Des Moines, Iowa 50319

33-72
730

Pay to the order of

DEPARTMENTAL REFERENCE NO'S

AMOUNT

HAROLD A JONES ESTATE

48006238010 C0000004800 3 \$***1,800.00

William Krall
ACTING

STATE COMPTROLLER

4788886809AA4F80

9/13/83

Deposited to H.A. Jones Estate account

Conservation Project (Waterway Construction)

ACCOUNT NUMBERS

State Comptroller's Warrant

001-MY-480 - -3340-4830

VOID 12 MONTHS AFTER 09-02-83 No. 04622168

TO THE Treasurer of State
Des Moines, Iowa 50319

33-72
730

Pay to the order of

DEPARTMENTAL REFERENCE NO'S

AMOUNT

HAROLD A JONES ESTATE

480D6238008 C0000004800 4 \$***44,538.45

William Kraft
ACTING
STATE COMPTROLLER

00D670D0809AA4970

9/13/83

Deposited to H.A. Jones Estate account
Conservation Project (Terrace Construction + Siding)

SEEDING PLAN

Name Wes Malenke Date July 14, 1983 Field No. _____

Seeding Area Narrow Base Terraces
(Structure, Waterway, Pasture, etc.)

Method of Seedbed Preparation & Planting Broadcast
(Drill, Broadcast, Interseed, etc.)

SPECIES	Total Acres	Pounds Per Acre	Total Pounds Needed
<u>Smooth Bromegrass</u>	<u>8.2 Ac</u>	<u>45</u> ⁽¹⁾ PLS	<u>353</u> ⁽¹⁾ PLS
<u>Oats</u>		<u>32</u> PLS	<u>263</u> PLS
		PLS	PLS
		PLS	PLS
Lime (ECCE)	<u>8.2 Ac</u>		
Nitrogen		<u>50</u>	<u>410</u>
Phosphate (P ₂ O ₅)		<u>200</u>	<u>1640</u>
Potash (K ₂ O)		<u>100</u>	<u>820</u>
Type of Mulch			

4940 lbs

(1) Percent Pure Live Seed = $\frac{\% \text{ germination} \times \% \text{ purity}}{100}$

Seeding will be completed 4/1 to 5/20 or 8/1 to 9/15 or 4/1 to 9/30 or (now)
(Circle one)

Additional seeding criteria Seed as soon as possible to help insure the life of the terraces.
(see attached sheets)

Seeding was completed 7/18/83 according to the above requirements.
(date)

(Landowner's Signature) (Date)

WHEN SEEDING IS COMPLETED RETURN TO: Floyd Soil Cons. District 623 Beck St.
Soil, Fertilizer, Lime & Mulch receipts to be attached: Yes No Charles Cit,

<u>Terrace No.</u>	<u>Feet</u>	<u>Ac.</u>	<u>Bromegrass</u>	<u>Oats</u>
Road Terrace 640'	630'	0.3	14	10
T-1 630	630'	0.2	9	6
T-2 1710	1710'	0.6	27	19
T-3	2630'	1.0	45	32
T-4 2900	2900'	1.1	50	35
T-5 4230	4210'	1.5	68	48
T-6 1120	1090'	0.4	18	13
T-7 906	890'	0.3	14	10
T-8 780	780'	0.3	14	10
T-9 1950'	1890'	0.7	32	22
Circle Terrace 650'	<u>640'</u>	<u>0.2</u>	<u>9</u>	<u>6</u>
	18,000'	6.6 Acres	300 lbs.	211 lbs.

3502-2

Road Ditch and Dike - 0.3 Ac. -

14 lbs. of Brome grass
10 lbs. of Oats

Diversion on east side of farm - 0.5 Ac.

1178'

23 lbs. of Brome grass
16 lbs. of Oats

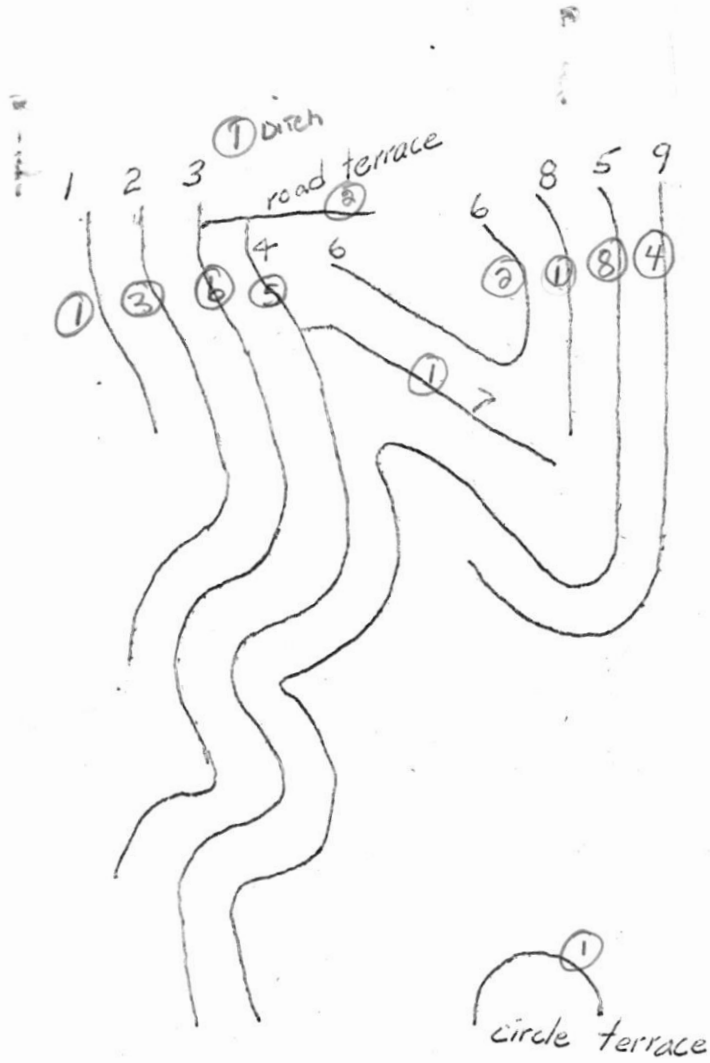
Waterway above structure, 600' x 60' - 0.8 Ac

* 20 lbs of Brome per acre = 16 lbs. of Brome

690'

26 lbs. of Oats

Number ○ of Inlets



WEST

Terrace 1	1 of 1	low	18"	= ①	WEST
"	2	18"	SAND CONSIDER SOCK	= ③	
	3	18"	18	= 6	OK
	4	18"	18" 12"	5	
	5	16"	12" 12 8 8	8	
	6	EAST OF 3/4		4	
	7	WEST OF 3/4	8"	1	
	8	8"		2	
	9	16"	Barrel	1	
	10		⊙	3	
				<u>34</u>	

5 - 18" 3 + 4 angle

2 - 16" 3 1/2 SMALL

3 - 12"

39" OVER ALL

low

Harold Jones Estate - Wes Malenke Farm
 Field # 2 Quantities/Cost Estimate
 Sec. 35 Niles Twp., Floyd County 9/9/82

Terraces:

45,370	18,500'	of Narrowbase	@	1.35/ft.	=	\$24,975.00
	42	Intakes	@	60.00/ea.	=	2,520.00
878.32	8.268	Ac. Seed/Fertilizer	@	100.00/ac.	=	680.00
	7,850'	of 4" pl. tubing	@	.55/ft.	=	4,317.50
	210'	of 5" pl. tubing	@	.65/ft.	=	136.50
	2,960'	of 6" pl. tubing	@	.85/ft.	=	2,516.00
#20436.28	1,700'	of 8" pl. tubing	@	1.50/ft.	=	2,550.00
	1,200'	of 10' clay/concrete tile	@	3.27/ft.	=	3,924.00
	100'	of 12" clay/concrete tile	@	3.62/ft.	=	362.00
	20'	of 15" CMP W/Rodent Guard	@	14.00/ft.	=	280.00
	20'	of 8" CMP W/Rodent Guard	@	6.80/ft.	=	136.00
	20'	of 6" CMP W/Rodent Guard	@	6.20/ft.	=	124.00

} 16,866

Gully Control Structure

#4000.00	1	- Aluminum W/ 3.0' drop 120 c.f.s. capacity	=			2,800.00
	0.1	Acre seed/fertilizer	@	100.00/ac.	=	10.00

Diversion Terrace

	1200'	of terrace	@	.50/ft.	=	600.00
	0.3	Acre Seed/Fertilizer	@	100.00/ac.	=	30.00

Grand Total	\$45,961.00
75% State funds via mandatory	\$34,470.75
Net Cost	\$11,490.25

Prepared by: James P. Allen
 District Conservationist

~~70,684.60~~
 66,684.60

4 24,723.60 over original

M. Jones (S)
Terraces

U.S.H. 12-1-'82
South Circle Terrace

3.0
5.6 Ac.

$$D.A. = \frac{\pi R^2}{2} - R=188 = 222073$$

$$+ 50 \times 400 = 20000 = 131036 \times 2 \frac{1}{2} = 262072 \text{ cu. ft.}$$

Station	Elevation	Ridge	Fill	Storage		
0	49.7	45.2				
50	47.0	46.0				
3% 1	45.5	↑	0.5	3		
50	45.0		1.0	14		
2	44.2	1	1.8	75	23	
2% 50	43.8	1.4	2.2	119	45	
3	43.2	2.0	2.8	184	93	
50	42.2	3.0	3.8	102	62	
3% 4	41.8	3.4	4.2	126	82	fill 0.2
50	41.8	3.4	4.2	126	82	
5	41.5	3.7	4.5	90	60	
2.5% * 50	41.1	4.1	4.9	107	77	
6	41.8	3.4	4.2	78	50	
50	43.1	2.1	2.9	36	18	
7	45.2	↓	0.8	2	570 x 50 = 27500	
50	47.0	46.0		1956 x 50 = 52800		
		45.2				

Terraces

WSH 11-17-82

T-1 Northwest design

$L.A. = 700 \times 196 = 137200 \text{ sq. ft} \times \frac{2.4}{12} = 27440 \text{ cu. ft. needed}$

Slope	Station	Elevation	Ridge 1.8 block 64.0	fill	Storage	Channel
-	0	62.2	↑ ↓	1.0	23	63.0 fill 0.8
	50	62.6		1.2	33	62.8 fill 0.2
2%	1	62.6		1.4	45	62.6 O.K.
	50	61.2		2.8	184	
	2	60.8		3.2	89	
5% *	50	59.9		4.1	147	
	3	61.4		2.6	58	
	50	62.4		1.6	27	
4%	4	63.1		0.9	8	
	50	63.7		0.3	1	
	5	64.1				
	50	64.6				
	6	65.0				
	50	65.7				
	7	65.9				

$615 \times 50 = 30750 \text{ cu. ft. avail.}$

W.S.H. 11-11-'82
T-2 Northwest design

D.A. = $700 \times 196 = 137200 \text{ sq. ft.} \times \frac{2.4}{12} = 27440 \text{ cu. ft. needed}$

Slope	Station	Elevation	Ridge	Fill	Storage	Channel
	0	52.8	55.2	2.4	87	53.2 fill 0.4
39°	50	52.9	↑ ↓	2.3	80	
	1	52.6		2.6	103	
	50	52.6		2.6	103	52.3 fill 0.3
*2		52.0		3.2	114	
47°	50	52.9		2.3	58	52.4 cut 0.5
	3	52.3		1.9	39	52.6 cut 0.7
	50	52.2	2.0	34	52.8 cut 0.4	
	4	53.4	1.8	27	53.0 cut 0.4	
57°	50	53.3	1.9	30		
	5	54.0	1.2	12		
	50	54.4	0.8	5		
	6	55.8	55.2		<u>5</u>	
					$692 \times 50 = 34600 \text{ cu. ft. available}$	

HAROLD JONES L.S.

Terraces - East side of farm

W.J.H. 11-23-82

T-2 Northwest Middle

D.A. = $1250 \times 200 = 250,000 \text{ sq. ft} \times \frac{2.4}{12} = 50,000 \text{ cu. ft.}$

Slope	Station	Elevation	Ridge	fill	Storage
4	7+50	57.8			
	8	56.9			
5		55.7			
	9 *	54.7			
		54.8			
	10	54.8			
		54.7			
	11	53.4			
		50.8	50.7		
4%	12	49.2	↑	1.5	24
		47.8		2.9	93
	13	46.7		4.0	180
		46.3		4.4	218
	14 *	45.7		5.0	282
		46.7		4.0	180
	15	48.4		2.3	45
		49.2		1.5	18
5%	16	49.0		1.7	24
		49.7	↓	1.0	8
	17	51.2	50.7		<u>1072</u>
		53.4			<u>8</u>
	18				
	19				
	20				

Fill 0.5

$1072 \times 50 = 53600 \text{ cu. ft.}$

HAROLD JONES
terraces

W.S.H. 11-17-82
T-3 Northwest design

D.A.: $700 \times 196 = 137200 \text{ Sq. ft.} \times \frac{2\frac{1}{2}}{12} = 27440 \text{ cu. ft.}$
needed

Slopes	Station	Elevation	Ridge	Fill	Storage
	0	49.5			
	50	48.0	47.5		
1.6%	1	46.8		0.7	11
—	50	46.7		0.8	14
	2	47.1		0.4	3
2%	50	45.9		1.6	59
—	3	46.0		1.5	52
	50	45.0		2.5	9.5
3%	4	44.7		2.8	119
*	50	44.7		2.8	119
	5	44.7		2.8	68
5.8%	50	45.0		2.5	53
	6	46.1		1.4	14
	50	46.9		0.6	3
5.2%	7	47.9			

$610 \times 50 = 30,500 \text{ cu. ft. avail.}$

	7	47.9			
	50	47.9			
4%	8	46.6	47.5	0.9	8
	50	45.3		2.2	53
	9	44.5		3.0	100
4% *	50	44.1		3.4	129
	10	45.2		2.3	58
	50	46.6		0.9	8
4%	11	47.6			
	50	47.6			

$356 \times 50 = 17,800 \text{ cu. ft.}$
avail.

D.A.: $400 \times 196 = 78,400 \text{ sq. ft.} \times \frac{2\frac{1}{2}}{12} = 15,680 \text{ cu. ft.}$
needed

114.84 - one
 Iowa
 BLV Nov. 23, 1982
 T-3 middle
 Narrow Base Terraces

DA. = $196 \times 8.50 = 166600 \times 2.4/2 = 33320$

Slope	Station	Elevation	Ridge	Fill	Storage
	11	47.6			
	12	45.0			
	13	42.6			
	14	40.7			
5%	14	39.9		1.7	24
	15	39.3		2.5	53
3	* 15	38.7	42.4	3.1	147
	16	39.0		3.7	210
	17	40.3		3.4	177
5%	* 16	40.0		2.1	37
	17	40.3		2.4	49
	18	41.9		2.1	37
	18	43.0		0.5	2
	50	45.3			
	50	47.1			
					<u>736</u> x 50 = 36800

Harold Jones Est.

Iowa

Narrow Base Terraces

BKV Nov. 24, 1982

T-4 Northwest middle

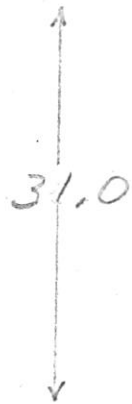
P.A. = $196 \times 850 \times 166600 \times 2.4/12 = 33320$ cu. ft. needed

Slope	Station	Elevation	Ridge	Fill	Storage
2%	13	37.8			
	50	36.5			
	14	34.3			
1	50	32.0			
	15	29.3		2.6	328
	* 50	29.4	31.9	3.5	137
4	16	28.7		3.2	114
	50	29.7		2.2	53
	17	29.7		2.2	89
2.5%	50	32.8			<u>721</u> × 50 = 36050
	18	34.0			
	50	35.0			
	19	35.5			
	50	35.7			
	20	35.7			
	50	36.3			
	21	36.7			
	50	36.9			

Harold Jones Est.
 Iowa Narrow Base Terraces
 B.M. Nov. 24, 1982
 T-4 Northwest - south end

D.A. = $196 \times 1000 = 196000 \times 2 \frac{1}{2} = 39200$ cu. ft. needed

Slope	Station	Elevation	Ridge	Fill	Storage
	21+50	36.9			
	22	35.9			
	50	34.5			
5%	23	32.8			
	50	30.9		0.1	—
	24	29.3		1.7	24
	50	27.7		3.3	95
5	25	27.3		3.7	119
	* 50	27.2		3.8	126
3	26	27.6		3.4	177
	50	27.9		3.1	147
	27	28.9		2.1	66
	50	28.9		2.1	66
3	28	29.9		1.1	18
	50	31.6			<u>18</u>
	29	32.2			838 × 50 = 41900
	50	33.1			
4%	30	33.9			
	50	34.6			
	31	34.8			
	50	36.0			



Terraces Northwest area on East

W. J. H. 12-1-'82

T-5 South end design

D.A. $1000' \times 196 = 196000 \text{ sq. ft.} \times \frac{2.4}{12} = 39200 \text{ cu. ft. needed}$

Slope	Station South	Elevation	Ridge	fill	storage
	0	27.5			
		25.5			
4%	1	25.0			
-		24.4			
	2	24.0			
3%		23.7			
-	3	23.2			
		23.1	23.0		
1%	4	22.2		0.8	30.
-		20.9		2.1	213
	5	19.9		3.1	147
3%*		19.5		3.5	188
-	6	19.8		3.2	157
		20.1		2.9	73
5%	7	20.5		2.5	53
		21.5			
	8	23.2	23.0		
		25.0			
	9	27.1			
		28.7			
	10	29.3			

$861 \times 50 = 43050 \text{ cu. ft.}$

T-5 10+50 - 18+00

W.S.A. 12-2-'82

D.A. = $800 \times 196 = 156800 \text{ sq. ft.} \times \frac{2.4}{12} = 31360 \text{ cu. ft.}$

Slope	Station	Elev.	Ridge	fill	Storage
	10	29.3			
		29.2			
	11	28.6			
4		27.5	26.6		
	12	26.3	↑	0.3	1
		25.4		1.2	15
4	13	25.3		1.3	18
		24.5		2.1	48
	14 *	22.5		4.1	259
3		23.3		3.3	167
	15	23.6		3.0	137
		24.9	↓	1.7	31
4	16	26.7	26.6		<u>31</u>
		27.6			
	17	28.4			
		29.4			
	18	30.1			

$676 \times 50 = 33800 \text{ cu. ft.}$

MAROLE JONES & SONS

Iowa

Narrow Base Terrace Design

B.L.V

Dec. 2, 1982

T-5

D.A. = $196 \times 1450 = 284200$

$+ \frac{20000}{304200}$

$304200 \times 2.4/12 = 60840 \text{ cu. ft.}$

Slope	Station	Elevation	Ridge	Fill	Storage		
	18	30.1					
	50	29.2					
6%	19	27.0					
	50	24.5		1.2	9		
	20	23.1		2.6	47		
6%	* 50	22.3		3.4	82		
	21	22.5		3.2	72		
	50	22.7		3.0	63		
5%	22	23.1		2.6	58		
	50	23.3		2.4	49		
	23	24.7		1.0	8		
	50	24.8		0.9	6		
	24	24.8		0.9	6		
	50	24.8		0.9	18		
2%	25	24.1		1.6	59		
	50	23.6		2.1	103		
	26	23.0		2.7	171		
5%	* 50	22.5	25.7	3.2	89	c.o.f	22.1
	27	23.2		2.5	53	c.o.f	22.5
	50	22.8		2.9	73		
6%	28	23.0		2.7	51		
	50	23.2		2.5	43		
	29	22.3		3.4	82		
8%	* 50	22.1		3.6	65		
	30	23.0		2.7	36		
	50	23.4		2.3	26		
	31	25.6		0.1	-		
	50	27.7					
4%	32	28.8					
	50	29.4					

$1269 \times 50 = 63450$

Terraces

W.S.H. 12-16-82
T-5 32+50 to 44+00

D.A. = $1150 \times 136 = 156400 \text{ sq. ft.} \times \frac{24}{12} = 31280 \text{ cu. ft.}$

Slope	Station	Elevation	Ridge	Fill	Storage	Channel
	32+50	29.4				
	33	29.2				$\frac{68000}{5} =$
		26.9				13 600 Needed
10	34	24.9	23.8			
		* 21.7	↑	2.1	16	
9.4	35	22.9		0.9	3	
		21.6		2.2	20	
	36	* 20.8		3.0	39	
6.2		22.2		1.6	10	
	37	22.4	↓	1.4	8	
		23.8	23.8		<u>96</u> x 50	$\frac{4800 \text{ cu. ft.}}{8800 \text{ overflow}}$
6	38	22.2				
		20.5				
	39	18.8	18.6			
4		17.7	↑	0.9	8	
	40	17.0		1.6	27	
		15.9		2.7	63	$\frac{88400}{5} = 17680$
5	41	15.6		3.0	78	
		15.2		3.4	101	26480 Needed
	42	* 14.4		4.2	198	
4		15.8		2.8	87	
	43	18.2	↓	0.4	1	
		20.2	18.6		<u>1</u>	
	44	19.2				Out 1.2 19.0
	Gross	20.0				Fill 0.4 19.5

$563 \times 50 = 28150 \text{ cu. ft.}$

32950 cu. ft.



11.11.1982 Jones Est.

Iowa

Narrow Base Terrace Design

BLV Dec. 3, 1982

T-6 Design

$$D.A. = 136 \times 950 = 129200 \times \frac{2}{12} = 25840 \text{ cu. ft. needed}$$

Slope	Station	Elevation	Ridge	Fill	Storage
	0	36.4			
3%	* 1	36.4			
	50	35.4			
	2	35.5			
3%	2	35.9			
	50	35.0			
	3	35.0			
	50	33.7		1.3	14
5%	4	32.4		2.6	58
	50	31.7		3.3	95
	* 5	31.6	35.0	3.4	129
4%	5	31.8		3.2	114
	50	32.6		2.4	63
	6	33.3		1.7	31
4%	6	33.9		1.1	13
	50	34.2		0.8	6
	7	34.6		0.4	1
3%	7	36.0			
	50	36.9			
	8	38.1			
	50	38.1			

$$\frac{524}{50} \times 50 = 26200$$

Harold Jones Est.

Iowa
LKY

Dec. 3, 1982

T-7

Narrow Base Terrace Design

$$QA = 5Ac \times 43560 = 217800 \times 2.4/12 = 43560 \text{ cu. ft. needed}$$

Slope	Station	Elevation	Ridge	Fill	Storage	
	0	43.0				
	50	43.2				
	1	43.2				
5%	50	42.8				
	2	41.5				
	50	40.2		0.7	4	
	3	39.8		1.1	10	
5% *	50	39.5	40.9	1.4	16	c. 0.4 39.1
	4	39.5		1.4	16	
6%	50	39.9		1.0	6	
	5	40.5		0.4	1	
	50	40.5		0.4	1	
	6	40.9				
	50	40.7				
	7	39.9				
4%	50	37.5		0.6	3	
	8	35.5		2.6	75	
	50	34.4		3.7	153	
*	9	33.9	38.1	4.2	198	c. 0.4 33.5
	50	33.9		4.2	155	
	10	34.7		3.4	101	
5%	50	35.5		2.6	58	
	11	35.8		2.3	45	
	50	36.3		1.8	27	
	12	36.3		1.8	27	
	50	36.7		1.4	16	
	13	36.9		1.2	12	
	50	37.3		0.8	5	
					<u>929</u>	
					929 x 50 = 46450	

Harold Jones Est.

Iowa

Narrow Base Terrace Design

BLV

Dec. 15, 1982

T-8

$$LA = 750 \times 136 = 102000 \times 2.4/12 = 20400 \text{ cu. ft. needed}$$

Slope	Station	Elevation	Ridge	Fill	Storage
	0	28.0		0.4	-
	50	27.9		0.5	1
	1	27.8		0.6	1
	50	26.6		1.6	10
	2	25.5		2.9	36
	50	25.4		3.0	39
9%	3	25.1		3.3	47
	50	24.2		4.2	78
9%	* 4	23.8		4.6	94
	50	24.6		3.8	63
9%	5	24.5		3.9	67
	50	26.9		1.5	9
	6	28.5		<u>445</u>	
5%	50	30.8		445 x 50 = 22250	
	7	31.4			
	50	31.4			

Harold Jones Est.

Iowa
B.S.

Dec. 15, 1982

T-9 North

Narrow Base Terrace Design

$$DA = 650 \times 136 = 88400 \times 2 \frac{1}{12} = 17680 \text{ cu. ft. needed}$$

Slope	Station	Elevation	Ridge	Fill	Storage
7%	5+50	55.4			
	50	54.7			
5%	50	53.2			
	50	52.4			
6%	50	51.5		0.7	4
	50	51.5		0.6	3
3%	50	51.0		1.1	8
	50	49.5		2.6	47
3%	*10	49.8		2.3	36
	50	48.5	52.1	3.6	199
3%	50	49.8		2.3	80
	50	51.4		0.7	7
	50	52.2			
	50	52.7			

Fill 0.2 51.6
 Cut 0.2 51.3
 Fill 0.3 49.8
 Cut 0.5 49.3

 384 * 50 = 19200

Iowa

Harold Jones Estate

JPA-BV

12-17-82

T-9 South

D.A. = 850 x 136 = 115,600 x 2.4/12 = 23,120 cu.ft. needed

Slope	Station	Elev	Ridge	Fill Ht.	Storage
	-3	60.6			
	50	55.1			
10%	-2	51.9		2.0	14
	50	50.1		3.8	56
	-1	49.8		4.1	58
11%	* 50	49.5	53.9	4.4	67
	0	49.8		4.1	58
	50	49.9		4.0	95
7%	1	50.3		3.6	77
	50	50.6		3.3	64
	* 2	50.0		3.9	90
	50	51.0		2.9	49
7%	3	51.8		2.1	25
	50	52.0		1.9	20
	4	54.2			<u>673 x 50 = 33650</u>
5%	50	54.6			
	5	55.3			
	50	55.4			

D.A. = 400 x 136 = 54,400 x 2.4/12 = 10,880 cu.ft. needed

	Station	Elev.	Ridge	Fill Ht.	Storage
	-3+50	64.9			
	4	61.7			
	- 50	56.4			
11%	5	52.4	55.7	3.3	37
8%	* 50	51.7	↓	4.0	81
4%	6	53.6		2.1	48
	- 50	53.5		2.2	<u>53</u>
	7	56.7			219 x 50 = 10950 available

12,650	Narrow base Terraces	@ 1.50	18,975
1200'	Diversion Terrace	@ 2.00	* 2400.
600'x60	Waterway	@ 1.50	* 900.
1	Structure		* 4,000
630'	Road Terrace	@ 4.50	2,835
			<hr/>
			29,110
5420'	Carry	@ 3.00	<hr/>
			16,260
			<hr/>
			45,370

Road Dick Terrace 350' x 2

Road 630' Carry

T-1 Push up

T-2 " "

T-3 " "

T-4

T-5 2400' Carry

T-6 500' Carry

T-7 Push up

T-8 780' Carry

T-9 1100' Carry

Circle 640' Carry

5420' Carry 12,650 Push

^{11,532}
 $45,370 \div 4 = 11,342.50$
 Prepayment 8,600.00

 Owner share Balance Due 2,742.50
 Conservation share Due 34,027.50

 36,770.00

low serv.

	1	2	3 Bid Price	4	5 ACTUAL COST	6	7 EXTRA Tile by owner	8	9
		Installed	Centified		@.36	@.527		@.36	
4"	52917'	9320'	3355.20		4911.64		43600'	15,696.00	
			@.454		@.61.4				
5"	2550'	2850'	1293.90		1749.90		0	0	
			@.62.8		@.802			@.628	
6"	1820'	3070'	1927.96		2462.14		110'	69.08	
			@1.01		@1.50			@1.01	
8"	3500'	2250'	2272.50		3375.00		550'	555.50	
			@2.25		@3.27				
10"	1100'	1100'	2475.00		3597.00		0		
			@2.67		@3.62				
12"	100'	100'	267.00		362.00		0		
			@12.85		@14.00				
15"	20'	20'	257.00		280.00		0		
	62,207.00	18710'							
			@69.00		@95.00				
INTAKES	34	34	2346.00		3230.00		0		
			@10.00		@10.00				
EXTENSIONS	21	21	210.00		210.00		0		
SUB TOTALS									
			@1.90						
4" TS	28	28	53.20		53.20		6	11.40	
			@2.50						
5" TS	3	3	7.50		7.50		13	32.50	
			@3.10						
6" TS	3	3	9.30		9.30		5	15.50	
			@9.60						
8" TS	16	16	153.60		153.60		15	144.00	
			@9.50						
10" TS	2	2	19.00		19.00		0	0	
			@.50						
PLUGS	32	32	16.00		16.00		33	16.50	
			14663.16		20436.28				
				5773.12					
							Tile Hookup		
							BRYANT	26.50	
									16,566.98

$$14,663.16 \div 4 = 3665.79 \times 3 = 10997.37$$

1443.28 Difference

$$20,436.28 \div 4 = 5109.07 \times 3 = 15327.21$$

Personal loan From: Wesley P. Malenke
To: Harold A. Jones Estate

Johanns Tiling

1/26/83 16,566.98
3,515.20
20,082.18

EXTRA TILE OVER CONSERVATION PLAN
PART PAYMENT ON CONSERVATION PLAN

20436.28
14663.16
5773.12 $\div 2 = 2886.56$

14663.16
9335.70 $\div 2 = 4667.85$

20,436.28
3515.20 Paid on account
16921.08

Tile Certification Conservation Project

1/13/83

Conservation Program Projected	Installation Final		
100' - 12"	100' - 12"		
1200' - 10"	1200' - 10"		
1700' - 8"	3500' - 8"	} 5320	= 660
2960' - 6" } 4660	1820' - 6" }		
210' - 5" } 2550	2550' - 5"		2950
7850' - 4"	9317' - 4"		1710
20' - CMP	20' - CMP		
<u>14040</u>	<u>18407</u>		

42 INTAKES

3

26 INTAKES

3 INTAKE EXTENSION

3

26 - 4" TS ~~*9~~

16 - 5" TS ~~*2~~

8 - 8" TS

31 - 8" TS

2 - 10" TS CLAY

65 - Plugs Connection Per No. INTAKE



1467
1795
517

Ditch Drainage
Areas between Terraces

Tile Certification Conservation Project

1/13/83

Conservation Program Projected	INSTALLATION FINAL
100' - 12"	100' - 12"
1200' - 10"	1200' - 10"
1700' - 8"	3500' - 8"
2960' - 6"	1820' - 6"
210' - 5"	2550' - 5"
7850' - 4"	9317' - 4"
20' - CMP	20' - CMP

42 INTAKES

26 INTAKES	CONNECTION PEN NO.	INTAKE
3 INTAKE EXTENSION		
26 - 4" TS	CONNECTION PEN NO.	INTAKE
16 - 5" TS		
8 - 8" TS		
31 - 8" TS		
2 - 10" TS		CLAY
65 - PLUGS	CONNECTION PEN NO.	INTAKE

Ditch Drainage
Areas between Terraces

ESTIMATED REQUIREMENTS	TERRACE PLAN					
40,000' - 4"	7,850' - 4"	* 27657	.35	9679.95	.36	9956.52
700' - 5"	210' - 5"	490	.44	215.60	.454	222.46
4,000' - 6"	2960' - 6"	1040	.61	634.40	.628	653.12
1,700' - 8"	1700' - 8"	0				
1,200' - 10"	1200' - 10"	0				
100' - 12"	100' - 12"	0				
				10,529.95		10,832.10
47700 TOTAL						
<u>4493</u> INSTALLED						difference 302.15
43,207 NET						

* 750.00 .25% of 3000 Sully Control unit.

10,832.10
4216.50 .25%
 15048.60

10,832.10
6,183.32
 4,648.78

* 32150		12,217.22	12,217.22*
<u>4493</u> PAST INSTALLATIONS		<u>10529.95</u>	<u>10,832.10</u>
* 27657		22747.17	ACTUAL COST 23049.32
		<u>16866.00</u>	ESTIMATED COST <u>16866.00</u>
		5881.17	6183.32

CONSERVATION ESTIMATE		JOHANN'S				ADS		
		LABOR	TILE	PER/FT.	TOTAL	TILE	INTAKE ONLY	
42 INTAKES	60.00 = 2520.00	INSTALLED @		\$55.00	2310.00	.41.00		1722.00
(1) blind Tie and (1) 6" to 4" Reducer PER INTAKE							+ Tee & Reducer	
7850' 4"	.55 = 4317.50	.18	.18	.36	2826.00	.17	.35	2747.50
210' 5"	.65 = 136.50	.18	.274	.454	95.34	.26	.44	92.40
2960' 6"	.85 = 2516.00	.18	.448	.628	1858.88	.43	.61	1805.60
1700' 8"	1.50 = 2550.00	.18	.82	1.00	1700.00	.75	.93	1581.00
1200' 10"	3.27 = 3924.00	.85	1.40	2.25	2700.00			
100' 12"	3.62 = 362.00	.85	1.82	2.67	267.00			
20' 1.5" CMP (w/ Reducer Guard)	14.00 = 280.00	.85	12.00	12.85	257.00			
20' 8" "	6.80 = 136.00	.85	5.20	6.05	121.00			
20' 6" "	6.20 = 124.00	.85	3.25	4.10	82.00			
	<u>16,866.00</u>							<u>12,217.22</u>

15,500' of Narrowbase Terraces @ 1.35 = 20,925.	@ .85 = 13,175.
3,000 ^{2,500} of Carry in Terraces @ 2.80 = 7,000.	@ 2.00 = 5,000.
1,200 of Diversion Terraces @ 1.35 = 1,620.	@ 1.50 = 1,600.
19,200	
<u>29,545</u>	<u>18,775</u>

Clean Ditch E.O.T
 " Fence Row Farm
 Build Terrace Between Farms
 WATERWAY

10,770 difference
2500 - BARR
 6000
 1000 - E.O.T



HOLTZ TILING, INC.

Farm Drainage — It Pays To Tile

Rural Route No. 3 Charles City, Iowa 50616

Office and Shop Phone 228-5301 — Home Phone 228-4540

Harold Jones Sept 73

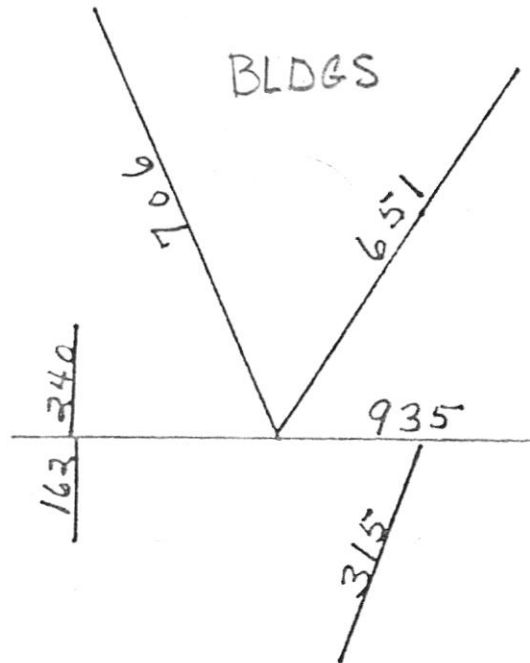
EAST Farm

363

356

345

440



5" PLASTIC Tile - 4493 feet

1200' of terrace

1 aluminum w/3.0' drop 120 C.F.S capacity

42 Intakes (Higgenbottom) Steel Post also 1/4 Barrels

Rocks during construction of terraces

County Engineer

- (1) Installing a tile across the road (Cost)
- (2) Cleaning road ditch piling dirt on farm

Robert. Guards on CFP outlets

Well salvage, Permit, Capping off exit

Size Cats #P.

Use Buckets w/ blades

600B-Terraces

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
MAINTENANCE AGREEMENT
Iowa Department of Soil Conservation
Floyd County Soil Conservation District

THIS AGREEMENT, is made and entered into this 21st day of July, 19 83, by and between
Floyd Soil Conservation District, herein called DISTRICT, and
Wesley Malenke, herein called RECIPIENT.

WITNESSETH:

DISTRICT and RECIPIENT hereby agree that this covenant is executed to satisfy the requirements of Section 467A.7(17)(as amended) of the Iowa Code and should be interpreted in a manner that promotes the policies of Chapter 467A of the Iowa Code. Section 467A.7(16)(as amended) requires this covenant as a condition for receiving DISTRICT cost-share assistance and provides that the owner, present or future, of the property herein described is personally liable through this AGREEMENT if the soil and water conservation practices herein listed are not maintained or are removed, altered, or modified while this AGREEMENT is effective.

DISTRICT hereby agrees to provide \$ 44,538.45 to RECIPIENT for partially or completely financing the herein listed permanent soil and water conservation practices on the following described agricultural land in the County of Floyd and State of Iowa to-wit:

NE 1/4 Sec. 25 Niles Twp. T96N, R15W

RECIPIENT hereby agrees to maintain the erosion control capabilities of the soil and water conservation practices herein listed by complying with DEPARTMENT maintenance requirements for twenty years from the date of this AGREEMENT.

RECIPIENT hereby agrees that no action shall be taken by the RECIPIENT of his agents or successors to remove, alter or modify any soil and water conservation practices herein listed for twenty years unless prior written authorization is obtained from the DISTRICT and incorporated into this AGREEMENT

RECIPIENT hereby agrees that if any unauthorized removal, alteration or modification of soil and water conservation practices herein listed occurs that the RECIPIENT will maintain, repair or reconstruct the practices at his or her own expense.

RECIPIENT hereby agrees to notify any prospective purchaser of the property herein described of the landowner's obligations created by this AGREEMENT and Section 467A.7(16) of the Iowa Code before legal or equitable title to any portion of this property is transferred.

COVERAGE OF THIS AGREEMENT:

DISTRICT and RECIPIENT agree that the soil and water conservation practices detailed in the following description and on the attached sketch (hereby made part of this AGREEMENT) were partially or completely installed with DISTRICT funds and are covered by this AGREEMENT. (Attach sketch detailing practice location).

SIGNATURES:

Richard D. Pruessner (Chairman) Wesley J. Malenke (Recipient)

for the Floyd (Recipient)
Soil Conservation District

7/26/83 (Date) 7/21/83 (Date)

CONTRACT SALE

The parties acknowledge that the above-described real property is the subject of a real property contract sale wherein the RECIPIENTS are the contract buyers and _____ is(are) contract seller(s).

The DISTRICT and the contract sellers hereby agree that in the event of contract default, forfeiture or any action resulting in the contract seller's acquiring the real property, the contract sellers shall be responsible for compliance with all provisions of this agreement and shall be liable to the same extent as the RECIPIENT would be if no such action had occurred. The contract seller acknowledges the duty imposed upon landowners pursuant to Section 467A.43, The Code, the requirements of Section 467A.7(16) of The Code, as amended by the 1980 Session of the 68th General Assembly, and that by virtue of the improvements installed upon the land with the aid of the funds provided by this agreement, the contract seller will have received a benefit and an improvement to said property, and also received assistance in complying with the above statutory duties.

SIGNATURES:
_____ (Chairman) _____ (Contract Seller)

for the _____
Soil Conservation District

_____ (Date) _____ (Date)

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
MAINTENANCE AGREEMENT
Iowa Department of Soil Conservation
Floyd County Soil Conservation District

410 - Structure

THIS AGREEMENT, is made and entered into this 21st day of July, 19 83, by and between Floyd Soil Conservation District, herein called DISTRICT, and Wesley Malenke, herein called RECIPIENT.

WITNESSETH:

DISTRICT and RECIPIENT hereby agree that this covenant is executed to satisfy the requirements of Section 467A.7(17)(as amended) of the Iowa Code and should be interpreted in a manner that promotes the policies of Chapter 467A of the Iowa Code. Section 467A.7(16)(as amended) requires this covenant as a condition for receiving DISTRICT cost-share assistance and provides that the owner, present or future, of the property herein described is personally liable through this AGREEMENT if the soil and water conservation practices herein listed are not maintained or are removed, altered, or modified while this AGREEMENT is effective.

DISTRICT hereby agrees to provide \$ 3,675.00 to RECIPIENT for partially or completely financing the herein listed permanent soil and water conservation practices on the following described agricultural land in the County of Floyd and State of Iowa to-wit:

NW 1/4 Sec. 25 Miles Twp. T96N, R15W

RECIPIENT hereby agrees to maintain the erosion control capabilities of the soil and water conservation practices herein listed by complying with DEPARTMENT maintenance requirements for twenty years from the date of this AGREEMENT.

RECIPIENT hereby agrees that no action shall be taken by the RECIPIENT of his agents or successors to remove, alter or modify any soil and water conservation practices herein listed for twenty years unless prior written authorization is obtained from the DISTRICT and incorporated into this AGREEMENT.

RECIPIENT hereby agrees that if any unauthorized removal, alteration or modification of soil and water conservation practices herein listed occurs that the RECIPIENT will maintain, repair or reconstruct the practices at his or her own expense.

RECIPIENT hereby agrees to notify any prospective purchaser of the property herein described of the landowner's obligations created by this AGREEMENT and Section 467A.7(16) of the Iowa Code before legal or equitable title to any portion of this property is transferred.

COVERAGE OF THIS AGREEMENT:

DISTRICT and RECIPIENT agree that the soil and water conservation practices detailed in the following description and on the attached sketch (hereby made part of this AGREEMENT) were partially or completely installed with DISTRICT funds and are covered by this AGREEMENT. (Attach sketch detailing practice location).

SIGNATURES:

Richard D. Pruessner (Chairman)
for the Floyd
Soil Conservation District
7/26/83
(Date)

Wesley Malenke (Recipient)
Wesley Malenke (Recipient)
7/21/83
(Date)

CONTRACT SALE

The parties acknowledge that the above-described real property is the subject of a real property contract sale wherein the RECIPIENTS are the contract buyers and _____ is(are) contract seller(s).

The DISTRICT and the contract sellers hereby agree that in the event of contract default, forfeiture or any action resulting in the contract seller's acquiring the real property, the contract sellers shall be responsible for compliance with all provisions of this agreement and shall be liable to the same extent as the RECIPIENT would be if no such action had occurred. The contract seller acknowledges the duty imposed upon landowners pursuant to Section 467A.43, The Code, the requirements of Section 467A.7(16) of The Code, as amended by the 1980 Session of the 68th General Assembly, and that by virtue of the improvements installed upon the land with the aid of the funds provided by this agreement, the contract seller will have received a benefit and an improvement to said property, and also received assistance in complying with the above statutory duties.

SIGNATURES:

(Chairman)
for the _____
Soil Conservation District

(Date)

(Contract Seller)

(Date)

362 - Diveraion

IOWA FINANCIAL INCENTIVE PROGRAM FOR SOIL EROSION CONTROL
MAINTENANCE AGREEMENT

Iowa Department of Soil Conservation

Floyd County Soil Conservation District

THIS AGREEMENT, is made and entered into this 21st day of July, 19 83, by and between
Floyd Soil Conservation District, herin called DISTRICT, and
Wesley Malerke, herein called RECIPIENT.

WITNESSETH:

DISTRICT and RECIPIENT hereby agree that this covenant is executed to satisfy the requirements of Section 467A.7(17)(as amended) of the Iowa Code and should be interpreted in a manner that promotes the policies of Chapter 467A of the Iowa Code. Section 467A.7(16)(as amended) requires this covenant as a condition for receiving DISTRICT cost-share assistance and provides that the owner, present or future, of the property herein described is personally liable through this AGREEMENT if the soil and water conservation practices herein listed are not maintained or are removed, altered, or modified while this AGREEMENT is effective.

DISTRICT hereby agrees to provide \$ 1,300.00 to RECIPIENT for partially or completely financing the herein listed permanent soil and water conservation practices on the following described agricultural land in the County of Floyd and State of Iowa to-wit:

1/4 Sec. 25 Miles Twp. 196N, R15W

RECIPIENT hereby agrees to maintain the erosion control capabilities of the soil and water conservation practices herein listed by complying with DEPARTMENT maintenance requirements for twenty years from the date of this AGREEMENT.

RECIPIENT hereby agrees that no action shall be taken by the RECIPIENT of his agents or successors to remove, alter or modify any soil and water conservation practices herein listed for twenty years unless prior written authorization is obtained from the DISTRICT and incorporated into this AGREEMENT.

RECIPIENT hereby agrees that if any unauthorized removal, alteration or modification of soil and water conservation practices herein listed occurs that the RECIPIENT will maintain, repair or reconstruct the practices at his or her own expense.

RECIPIENT hereby agrees to notify any prospective purchaser of the property herein described of the landowner's obligations created by this AGREEMENT and Section 467A.7(16) of the Iowa Code before legal or equitable title to any portion of this property is transferred.

COVERAGE OF THIS AGREEMENT:

DISTRICT and RECIPIENT agree that the soil and water conservation practices detailed in the following description and on the attached sketch (hereby made part of this AGREEMENT) were partially or completely installed with DISTRICT funds and are covered by this AGREEMENT. (Attach sketch detailing practice location).

SIGNATURES:

Richard D. Proessner (Chairman) Wesley Malerke (Recipient)
Floyd (Recipient)
for the Soil Conservation District
7/26/83 (Date) 7/21/83 (Date)

CONTRACT SALE

The parties acknowledge that the above-described real property is the subject of a real property contract sale wherein the RECIPIENTS are the contract buyers and _____ is(are) contract seller(s).

The DISTRICT and the contract sellers hereby agree that in the event of contract default, forfeiture or any action resulting in the contract seller's acquiring the real property, the contract sellers shall be responsible for compliance with all provisions of this agreement and shall be liable to the same extent as the RECIPIENT would be if no such action had occurred. The contract seller acknowledges the duty imposed upon landowners pursuant to Section 467A.43, The Code, the requirements of Section 467A.7(16) of The Code, as amended by the 1980 Session of the 68th General Assembly, and that by virtue of the improvements installed upon the land with the aid of the funds provided by this agreement, the contract seller will have received a benefit and an improvement to said property, and also received assistance in complying with the above statutory duties.

SIGNATURES:

(Chairman) _____ (Contract Seller)
for the Soil Conservation District

(Date) _____ (Date)

JOHANNS TILING

Route 5 — Box 129

Osage, IA. 50461

Phone 982-4983

DATE 7-18 1983

Wes Melcher - Certified tile -
terrace Project

DESCRIPTION	Y	CREDIT	BALANCE
BALANCE FORWARD			
100' 12" tile	@	3.62	\$ 362.00
1100' 10" "	@	3.27	3597.00
2250' 8" "	@	1.50	3375.00
3070' 6" "	@	.80	2462.14
2850' 5" "	@	.614	1749.90
9320' 4" "	@	.527	4911.64
20' CMP + Rodent guard	@	14.00	280.00
34 Sinks	@	95.00	3230.00
21 Extensions	@	10.00	210.00
28 4" Tr	@	1.90	53.20
3 5" "	@	2.50	7.50
3 6" "	@	3.10	9.30
16 8" "	@	9.60	153.60
2 10" Clay Tr	@	9.50	19.00
32 Plug	@	.50	16.00
			\$ 20436.28

PAY LAST AMOUNT IN BALANCE COLUMN ▲

A service charge of 1½ % per month will be added after 30 days.
This is an annual rate of 18%.



Illatz Excavating Co. Inc

P.O. Box A Clear Lake, Iowa 50428

(515) 357-5601

Excavating & Grading

STATEMENT

Page 2

Date: 12/27/82

Terms:
Net 30 Days

SOLD TO: Wes Malinke
RR
Dloyd Lawa 50435

JOB NAME:
E ptias

DATE	DESCRIPTION	CHARGES	CREDITS	BALANCE
	Balance brought forward			3345.00
12/13	10 hours 800 heavy rocks	- 650.00		3995.00
12/14	8 1/2 hours 800 dig heavy holes	- 552.50		4547.50
12/13	11 hours D7 push dirt	715.00		5262.50
	5 1/2 hours D6 push dirt	302.50		5565.00
12/14	6 hours D6 push mud uphill	330.00		5895.00
	7 hours D7	455.00		6350.00
12/15	2 1/2 hours D7 level rock piles	- 162.50		6512.50
12/16	2 hours D7 rock piles	- 130.00		6642.50
	6 hours D6	- 330.00		6972.50
	1 hour D6 heavy rocks	- 55.00		7027.50
	3 1/2 hours D7 heavy rocks	- 227.50		7255.00

WHITE: Customers Copy, YELLOW: Return with Payment

THANK YOU

Pay Last Amount
In This Column

D6 @ 455/Hr
D7 @ 651



Hollatz Excavating Co. Inc

P.O. Box A Clear Lake, Iowa 50428

(515) 357-5601

Excavating & Grading

STATEMENT

Page 1

Date: 12/27/82

Terms:
Net 30 Days

SOLD TO: Wes Malenke
R R
Floyd Iowa 50435

JOB NAME:
Ertias

DATE	DESCRIPTION	CHARGES	CREDITS	BALANCE
✓ 11/15	4 1/2 hours D6 Cat fence line, push brush	247.50		247.50
✓ 11/16	8 hours D6 Cat fence line, rock level ditches, push up waterway	440.00		687.50
✓ 11/17	9 hours D6 Cat push up silt, level tile ditch	495.00		1182.50
✓ 11/18	3 hours D6 Cat push silt	165.00		1347.50
✓ 11/26	1/2 hours D7 Cat	32.50		1380.00
	1/2 hour D6. skinned dirt uphill	37.50		1407.50
✓ 11/27	4 hours D7	260.00		1667.50
	8 1/2 hours D6 skinned dirt uphill	467.50		2135.00
12/2	9 1/2 hours 800 Ausley heavy rock	617.50		2752.50
OK	2 hours D7 Cat	130.00		2882.50
OK	2 1/2 hours D6 closing holes	137.50		3020.00
12/3	5 hours D7	325.00		3345.00

WHITE: Customers Copy, YELLOW: Return with Payment

THANK YOU

Pay Last Amount
In This Column



STATEMENT

HOLTZ TILING, INC.

Farm Drainage — It Pays To Tile

Rural Route No. 3 Charles City, Iowa 50616

Office and Shop Phone 228-5301 — Home Phone 228-4540

Date Oct. 9, 1973

Work Started _____ Work Completed _____

QUANTITY	PRICE	TOTAL
Installing		
32' of 6" CMP	.20	6.40
<u>4461' of 5" plastic tile</u>	.20	892.20
4493' total		
Material furnished		
4461' of 5" Hancor plastic tile	.16	713.76
32' of 6" CMP	1.70	54.40
2 - 6" outlet lids	5.58	11.16
sales tax	.03	23.38
due		<u>\$1701.30</u>
You may deduct .01 per ft. (4461 4493) if paid within 10 days.		



STATEMENT

Jones

HOLTZ TILING, INC.

Farm Drainage — It Pays To Tile

Rural Route No. 3 Charles City, Iowa 50616

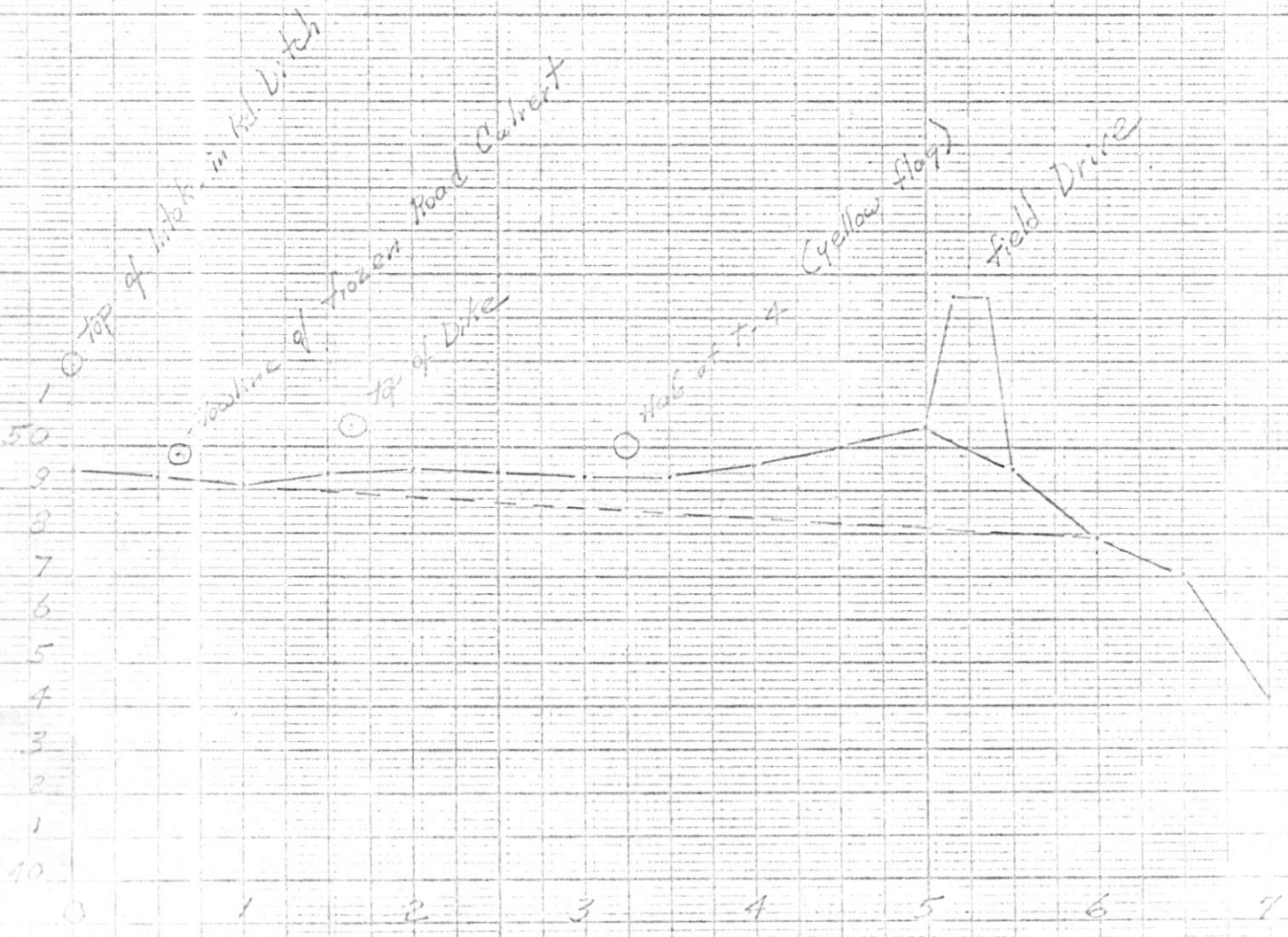
Office and Shop Phone 228-5301 — Home Phone 228-4540

Date Oct. 9, 1973

Work Started _____ Work Completed _____

QUANTITY	PRICE	TOTAL
Installing		
3896' of 5" plastic tile	.20	779.20
Material furnished		
3896' of 5" Hancor plastic tile	.16	623.36
sales tax	.03	1.87
		<u>\$1404.43</u>

You may deduct .01 per ft. (\$38.96)
if paid within 10 days.



Profile of North Road Ditch from the intake to the East.

----- = 0.2% Grade - Proposed Ditch grade



ENGINEER'S OFFICE

FLOYD COUNTY

CHARLES CITY, IOWA

LYLE R. LAARTZ P.E.
County Engineer

May 20, 1983

Richard Pruessner
Chairman, Floyd County Soil
Conservation District Commission
623 Beck Street
Charles City, Iowa 50616

Dear Mr. Pruessner,

From reading a copy of the May 11, 1983 letter from Mr. Wesley Malenke to you, I believe a few clarifications are in order.

At both of the meetings referred to, I represented the Floyd County Secondary Road Department. I did not represent any "super fund" that comes along and bails everybody out when things go sour. I represented a road department that, if any benefit can be derived from a project, is willing to participate to a proportionate extent. I have yet to see the benefits to this road department when a waterway is diverted from its natural course to a road side ditch. This is not to say that this road department does not allow this work to be done at the benefitors expense with proper agreements, etc. This has been done in the past and has been a policy perpetuated. We do not believe that taxpayers contributing to roadway maintenance should also subsidize waterway diversion or other private landowner gains unless a proportionate benefit can be seen or derived by the road department.

This secondary road department has been very careful that concessions have not been granted to the Washington School Watershed that have not been done elsewhere. Mr. Malenke should be reminded that cleaning was performed in the road ditch and the material used for a diversion terrace along his property. This also was done in the Washington School Watershed and will be done or allowed on other future projects.

Please be reminded that in the future, however and whenever, this secondary road department stands ready to cooperate in any soil conservation effort in terms of monetary to vocal support as benefits are seen.

Your District Commissioners are to be commended on the soil conversation promotion activities and nature in which their business is conducted.

Very truly yours,

Lyle R. Laartz, P.E.
Floyd County Engineer

LRL/ml

cc: Wesley Malenke

Application for Approval of Underground Construction
on Floyd County Right-of-Way

228-4045

Applicant:

Harold A. Jones Estate & Peter Bjelica
Wesley P. Malenke (Exec.)
RR1 Box 11, Floyd, IA 50435
Charles City, IA
Incorporated under the laws of the State of _____ with principal place of business in _____
City State

Date: 10/19/82

Floyd County Board of Supervisors,
Charles City, Iowa

Gentlemen: —

Approval is hereby requested of underground construction of underground
16 crossing - Place Intakes - Both sides
(Describe fully work contemplated)

→ Plat of proposed underground construction showing location and other pertinent information, shall be attached to each copy of the application. ←

The proposed line will be located 3 1/2 miles from Charles City more specifically described as follows:
(Direction) (Place, Town, etc.)

10" 16 crossing - Place intake
N. side of Road to drain ditch from
east - terrace outlet

AGREEMENTS. The applicant agrees that the following stipulations shall govern under this permit:

1. All trenches constructed longitudinally along the road shall be placed not closer than _____ feet from the edge of the pavement, or not closer than _____ feet from the centerline of unpaved highways.

2. The applicant will at any time subsequent to placing the cable, pipe line or tile line, and at his own expense, relay, reconstruct or encase his lines as may become necessary to conform to new grades, alignment or widening right-of-way, resulting from maintenance or construction operations by Floyd County irrespective of whether or not additional right-of-way is acquired in connection with such highway improvement. The applicant agrees to do this promptly on order by the Board of Supervisors, and without cost to the County. If the applicant is unable to comply promptly, the County may cause the work to be done, and the applicant will pay the cost thereof upon receipt of statement.

The County will endeavor to give the applicant sufficient notice of any proposed construction or maintenance work, on either existing or newly acquired right-of-way, that is likely to expose, cover up, or disturb any cable, pipe line, or tile line belonging to the applicant, in order that the applicant may arrange to protect his lines. The County will inform contractors, and others working on the job, of the location of the lines so that reasonable care may be taken to avoid damaging the lines. The County assumes no responsibility however, for failure to give such notice.

3. The County assumes no responsibility for damages to the applicant's property occasioned by any construction or maintenance operations on said highway, including new or additional right-of-way acquired in connection therewith, subsequent to the building of the said pipe line, conduit or tile line.

4. The applicant shall take all reasonable precaution during the construction of said cable, pipe line, or tile line to protect and safeguard the lives and property of the traveling public and adjacent property owners and shall save the County harmless of any damage or losses that may be sustained by the traveling public or adjacent property owners on account of such construction operations.

5. Operations in the construction and maintenance of said cable, pipe line, or tile line shall be carried on in such a way as to not interfere with, or interrupt traffic on said highway.

6. The applicant shall hold the County harmless from any damage that may result to said highway because of the construction or maintenance of said cable, pipe line, or tile line, and shall reimburse the County for any expenditure that the County may have to make on said highway on account of said applicant's cable, pipe line, or tile line having been constructed thereon.

7. The applicant agrees to give the County forty-eight hours' notice of its intention to start construction on the highway right-of-way. Said notice shall be made in writing to the County Engineer.

8. Cable, pipe line and tile line crossings shall be constructed as follows: Water mains 2" or less inside diameter shall be copper, lead or cast iron. Water mains of more than 2" inside diameter shall be cast iron and be encased. The casing shall be of adequate strength, and of sufficient length to extend 2' beyond the edge of the shoulder line. Pressure sewer lines shall meet the same requirements as water mains. Gravity sewer lines and tile lines shall be cast iron pipe or an approved extra strength pipe and need not be encased. Underground telephone and electric cables shall be installed in a casing. Natural gas service lines and mains in town distribution systems need not be encased except as may be required of (9) below. On paved roads cables, pipe lines and casings may be placed through the subgrade by jacking, or by boring a hole just large enough to take the line; or if the county engineer approves, a tunnel may be dug through and the cable, pipe line or casing placed therein. On roads not paved an open trench may be dug and the cable, pipe line or tile line placed therein, and the trench backfilled over the line. All backfill of tunnels and trenches shall be thoroughly compacted in layers of 6" or less in depth. All work shall be done in a workmanlike manner, and the ground left in a neat condition satisfactory to the county engineer.

9. Pine lines conveying gas, natural or artificial, oil, gasoline, motor fuel or other inflammable substances under and across County roads shall be installed in accord with rules of the Iowa State Commerce Commission and American Standard Transmission and Distribution Piping System requirements.

10. This permit is subject to any laws now in effect or any laws which may be hereafter enacted.

11. This application is subject to revocation by the Board of Supervisors at any time, when in the judgment of the Board it is necessary in the improvement or maintenance of the highway or for other reasonable cause.

RECOMMENDATIONS

Recommended for Approval:

By *R. W. Pearty*
County Engineer
Date 10/19/82

Harold A Jones Estate
Wesley J Malonke Executor
By _____ Title _____
Address *RTT Box 11 Albia*

By *Pete Bjelun*
Name _____ Title _____
Address *RR#4 Charles City Iowa*
Date *10/19/82*

**APPROVAL OF BOARD OF SUPERVISORS
FLOYD COUNTY, IOWA**

Walter S. Marsh
Chairman Board of Supervisors

Robert D. Monson
Sale Koehler

(4 copies of the application and plat must be filed with the County Engineer, Charles City, Iowa for each underground construction project on County right-of-way.)

AGREEMENT: The applicant agrees that the following stipulations shall govern under this permit:
1. All trenches constructed hereunder shall be placed and covered so that they do not interfere with the travel of traffic on the highway.
2. The applicant will at any time subsequent to placing the cable, pipe line or tile line, and at its own expense, repair, reconstruct or replace any damage to the highway or to any structure on the highway caused by the construction of the cable, pipe line or tile line.
3. The County reserves its responsibility for damages to the applicant's property resulting from any construction or maintenance of the cable, pipe line or tile line on the highway.
4. The County reserves its responsibility for damages to the applicant's property resulting from any construction or maintenance of the cable, pipe line or tile line on the highway.
5. The County reserves its responsibility for damages to the applicant's property resulting from any construction or maintenance of the cable, pipe line or tile line on the highway.

GENERAL HIGHWAY AND TRANSPORTATION MAP

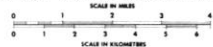
FLOYD COUNTY

IOWA

PREPARED BY THE IOWA DEPARTMENT OF TRANSPORTATION DIVISION OF PLANNING AND RESEARCH OFFICE OF TRANSPORTATION INVENTORY



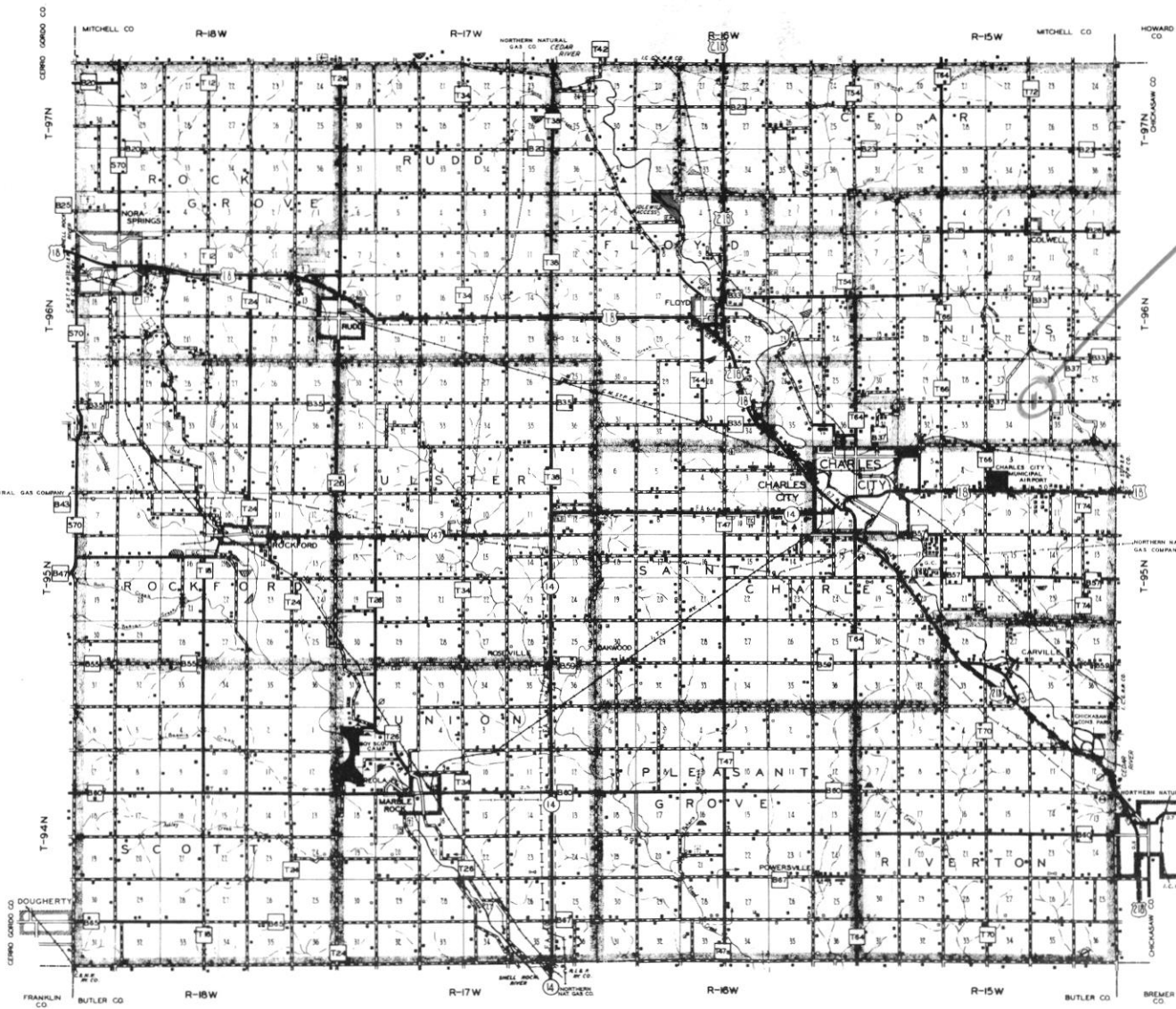
UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION



1980

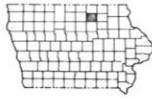
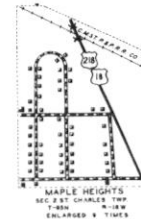
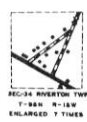
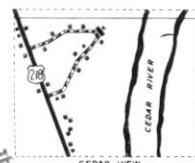
LEGEND table with symbols for County Line, Civil Township, Conspicuous Line, Section Line, Intermittent Stream, Masonry Stream, Highway Bridge Small, Railroad Shell, Railroad Station, Railroad Below Overhead, Railroad Over Subway, Railroad Electric, Center of County Seat, Railroad Grade Crossing, etc.

LEGEND table with symbols for Farm Unit, Dwelling Other Than Farm, Rows or Groups of Dwellings, Store or Small Business Establishment, Church or Other Religious Institution, School or Other Educational Institution, Cemetery, Canal, etc.



Handwritten note: 7.6 Crossing

Handwritten note: North West 35-96-15



JANUARY 1, 1981

SENT TO HOLLATZ

10/18/82

Harold Jones (Estate)

Malenke (EX)

Aluminum Drop Toewall Structure -
Q 120 C.F.S.
Headwall Height $A = 5.4$ ft.
Overfall Height $F = 3$ ft.
Notch Depth $H = 1.9$ ft.
Notch Width $W = 8$ ft.
Weir Length $L = 17.4$ ft.
Headwall Length $S = 11.3$ ft.

R.R. #1, Box 11
Floyd, Iowa 50435
May 11, 1983

Richard Pruessner
Chairman, Floyd County Soil
Conservation District Commissioner
R.F.D.
Rudd, Iowa 50471

Dear Mr. Pruessner:

Subject: Reply to meeting of 5/9/83 regarding in handling
of water from Peter Bjelica and county road ditch property.

Date: 5/10/83

On September 23, 1982, a complaint had been filed with Floyd County Soil Conservation District Commissioners of soil erosion originating on my farm. A order was issued to take corrective measurers.

From November 18, 1982 to December 23, 1982, 95% of terrace construction had been completed the length of approximately $4\frac{1}{2}$ miles. Seven to ten acres of crop land taken out of production with terraces and waterway.

Floyd County Road maintenance representative asked if a driveway could be removed to facilitate the ditch drainage, I agreed they could.

On February, 1983, a special meeting held with Soil Conservation representative, Lyle Laartz, Floyd County Engineer, Peter Bjelica to address the problem of handling of water from Bjelica, and county road ditch property. In conclusion Lyle Laartz agreed to take approximately 70% of water down road ditch to the north and east of property and approximately 30% would be taken down main field tile drain.

On May 9, 1983, another meeting addressing the same problem but this time the rules were changed to the following:

- (1) The property owner's responsibility to maintain or pay for maintenance of ditches to the river, one mile in length from gully erosion.
- (2) The maintenance of driveways in which culverts are located, three in number.
- (3) Written permission from land owners between my property and the river, to allow for the possibility of additional water.

In response I feel this is unfair and a discriminatory request, as a taxpayer I have already payed for road maintenance, without being asked to do it again.

After viewing work completed in Washington Watershed Project, water being held in ditches allowing to drain out by tile, diverting from natural flow, I am not asking for special treatment only same consideration that has been afforded others.

Now I am being asked by Soil Conservation Representatives to:

- (1) Remove some terraces already constructed.
- (2) Construct a terrace 500 feet long, 5 feet high and approximately 20 feet at the base, 75 feet into my property to hold the glut of unmetered water from Bjelica, and county road ditch property.

I feel like I am being asked to make all the concessions; a victim in a soil conservation effort.

I will reluctantly agree to the following:

- (1) Construction of the proposed 500 foot long terrace.
- (2) Road ditch to be cleaned and shaped to the ditch drain outlet for the ditch to accommodate a portion of this water.
- (3) A spillway structure to be installed from ditch where water enters my property.
- (4) The terrace at the ditch property line to run parallel to proposed field terrace in length.
- (5) One inlet to be located directly across from spillway structure.

Sincerely,



Wesley P. Malenke

WPM/lmm

cc: Jim Evans
Dennis Sandie
Lyle Laartz



FLOYD COUNTY

Soil Conservation District

515 228-2725

623 BECK STREET

CHARLES CITY, IOWA 50616

September 23, 1982

Harold A. Jones Estate
% Wesley Malenke
Edge-O-Town
Floyd, Iowa 50435

Dear Mr. Malenke:

You are hereby advised that a complaint has been filed with the Floyd County Soil Conservation District Commissioners by Alton Hendrix stating that sediment damages are being sustained on his property and alleging that such sediment is originating from soil erosion occurring on your land at rates in excess of limits established by the district for such lands.

The complaint was filed under provisions of the Iowa Soil Conservation Districts Law, Chapter 467A, Code of Iowa, 1981. The law requires soil conservation district commissioners to establish soil erosion control regulations for all lands in the district and to act upon complaints charging such regulations are being violated.

The district commissioners, with the technical assistance of the U.S. Soil Conservation Service, have viewed the property allegedly being damaged by sediment and have found that sediment damage is taking place. We further examined your land that lies above the damaged area and which is described as follows: NW $\frac{1}{4}$ Sec. 25 Niles Twp. (T96N, R15W). It was found that soil loss is occurring thereon in excess of the limitations established by the district soil erosion control regulations. A map of your land is enclosed.

You are hereby notified of our finding that you are in violation of the district's soil erosion control regulations on those portions of your land as designated on the aforementioned map and that average annual rates of erosion, expressed in tons per acre per year, on fields or smaller areas of your farm have been determined to be that shown on Form SI-1.

You are further notified that you should take action to apply proper soil and water conservation practices on those areas of your farm where erosion rates are in excess of the district's regulations, such action to be initiated not later than six (6) months from date of this notice and to be completed not later than twelve (12) months from date of this notice. You are advised that

action to be taken by the commissioners is contingent upon the availability of cost-share assistance, in an amount not less than 75 percent of the cost of installing the needed permanent soil and water conservation practices. An application for cost-share assistance, attached hereto, when filed with this soil conservation district will be recognized as complying with the requirement to initiate action to control erosion on your land.

The Floyd County Soil Conservation District Commissioners will advise you when your application for cost-share assistance is approved. Upon receipt of such notice, you will again be notified by supplemental order of the district commissioners that installation of the needed soil and water conservation practices shall be started within six (6) months from date of such approval of your application for cost-share assistance and shall be completed within twelve (12) months from date of such approval.

You are also advised that, should work not be initiated to properly correct the erosion occurring on the areas described above, within the six (6) month period provided, or should you notify us that you do not intend to control said erosion, you will be subject to court action as prescribed by law.

The district commissioners stand ready to assist you in any way possible to plan and install the needed soil and water conservation practices within the time limits prescribed.

Signed:



Chairman, Floyd County Soil
Conservation District Commissioners

DEPARTMENT OF SOIL CONSERVATION
 Grimes State Office Building
 Des Moines, Iowa 50319

Record of Rates of Erosion Computations
 (Sheet Erosion)

Owner: Name Harold A. Jones Estate Date May 1982 Present Conditions X
Wesley Malenke
 Address Edge-0-Town, Floyd, Iowa 50435 Prepared by Jim Allen Projected Conditions _____
 Operator: Name Claire & Duane Jaeger Checked by TI-59 Program
 Address Route 2, Charles City, Iowa 50616 (R) Rainfall Factor 150

Farm Location: Twp. Niles T96N Range 15W Sec. 25

(Engr. Complete)

Field No.	Soil		Slope		Prac.* Apld.	Crop* Rot.	"C" Value	RKLSP Value	Soil Loss T/Ac/Yr	Acres	Acres Tolerant Soil Loss	Soil Loss Tons Per Acre	Terr. Fac.	Sed. Removed Tot. Tons
	Type No.	"K" Factor	Length	%										
2 30	171	.28	300	5	1.0	C-Sb	.33		12.8					
2 31	171	.28	400	6	1.0	C-Sb	.33		18.6					
2 32	171	.28	200	7	1.0	C-Sb	.33		16.2					
2 33	171	.28	250	4	1.0	C-Sb	.33		8.0					
2 34	171	.28	250	8	1.0	C-Sb	.33		21.7					
2 35	171	.28	350	7	1.0	C-Sb	.33		21.4					
2 36	171	.28	300	6	1.0	C-Sb	.33		16.1					
2 37	171	.28	300	6	1.0	C-Sb	.33		16.1					
2 38	171	.28	250	7	0.5	C-Sb	.33		18.1					
2 39	171	.28	350	5	1.0	C-Sb	.33		13.9					
2 40	171	.28	350	6	0.5	C-Sb	.33		17.4					
2 41	776	.32	200	8	1.0	C-Sb	.33		22.2					
2 42	171	.28	300	7	1.0	C-Sb	.33		19.8					
2 43	171	.28	200	6	1.0	C-Sb	.33		13.2					
2 44	776	.32	300	9	1.0	C-Sb	.33		32.2					
2 45	171	.28	200	3	1.0	C-Sb	.33		4.9					
2 46	407	.32	200	5	1.0	C-Sb	.33		12.0					
2 47	482	.32	350	5	1.0	C-Sb	.33		15.9					

*Information obtained from: Wesley Malenke
 date: May 1982

Other land
 Total _____
 Grand Total _____

(Over)

DEPARTMENT OF SOIL CONSERVATION
Grimes State Office Building
Des Moines, Iowa 50319

Record of Rates of Erosion Computations
(Sheet Erosion)

Owner: Name Harold A. Jones Estate

Date May 1982

Present Conditions X

Wesley Malenke
Address Edge-O-Town, Floyd, Iowa 50435

Prepared by Jim Allen

Projected Conditions _____

Operator: Name Claire & Duane Jaeger

Checked by TI-59 Program

Address Route 2, Charles City, Iowa 50616

(R) Rainfall Factor 150

Farm location: Twp. Niles T96N Range 15W Sec. 25

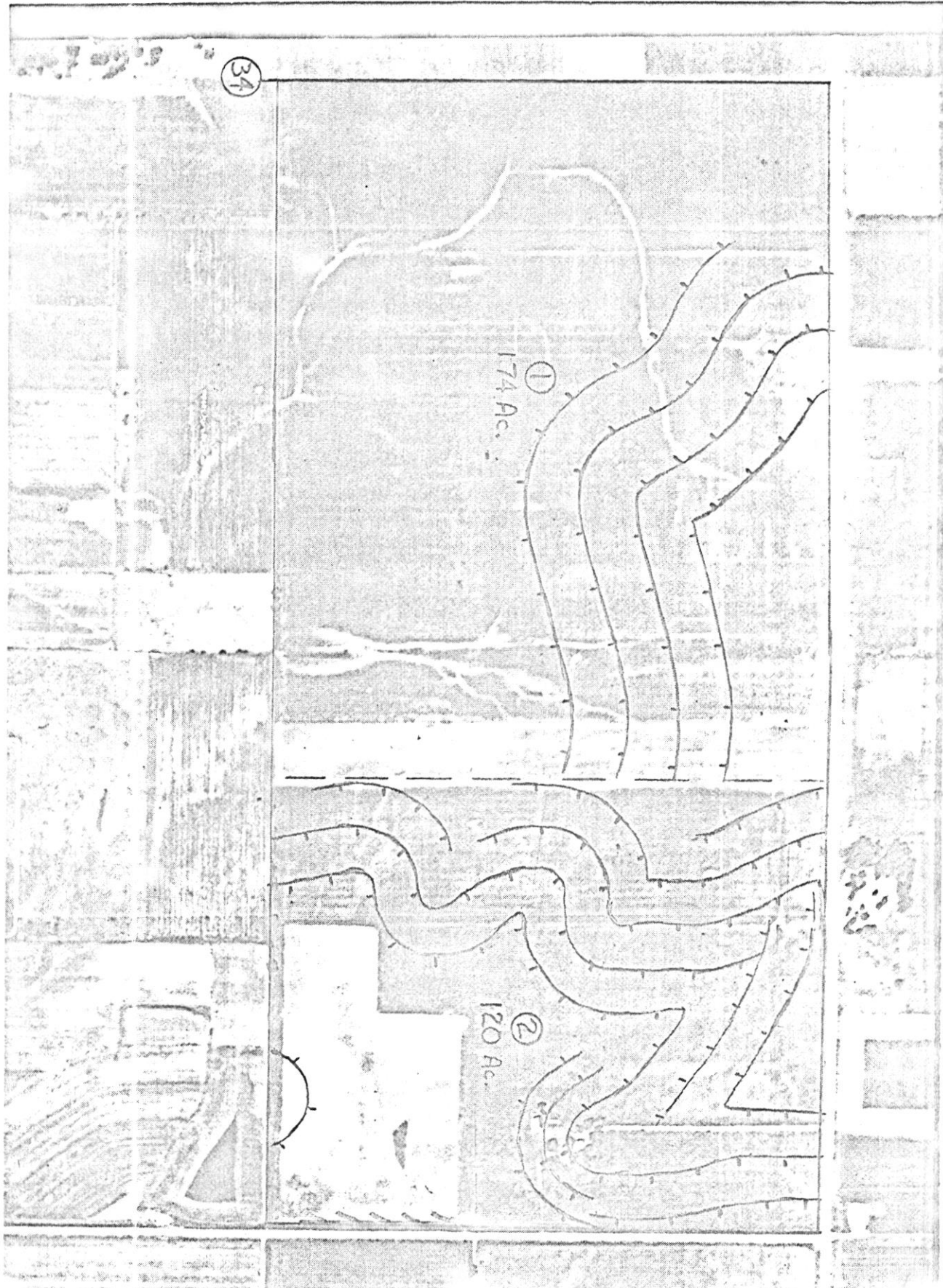
Field No.	Soil		Slope Length	% Slope	Prac.* Apld.	Crop* Rot.	"C" Value	RKLSP Value	Soil Loss T/Ac/Yr	Acres	Acres Tolerant Soil Loss	Soil Loss Tons Per Acre	Terr. Fac.	Sed. Removed Tot. Tons
	Type No.	"K" Factor												
2 48	L82	.32	250	5	1.0	C-Sb	.33		13.4					
2 49	407	.32	350	5	0.5	C-Sb	.33		15.9					
2 50	171	.28	300	5	1.0	C-Sb	.33		12.8					
2 51	171	.28	300	6	1.0	C-Sb	.33		16.1					
2 52	776/407	.32	250	5	1.0	C-Sb	.33		13.4					
2 53	776/407	.32	300	6	1.0	C-Sb	.33		18.4					
2 54	776/407	.32	250	7	1.0	C-Sb	.33		20.7					
2 55	171	.28	250	7	1.0	C-Sb	.33		18.1					
2 56	171	.28	350	7	1.0	C-Sb	.33		21.4					
2 57	171	.28	350	6	1.0	C-Sb	.33		17.4					
2 58	171	.28	300	5	1.0	C-Sb	.33		12.8					
2 59	781/784	.37	300	6	1.0	C-Sb	.33		21.3					
2 60	781	.37	200	5	1.0	C-Sb	.33		13.9					
2 61	784	.32	300	7	0.5	C-Sb	.33		22.6					
2 62	784	.32	250	7	0.5	C-Sb	.33		20.7					
2 63	777	.28	150	9	1.0	C-Sb	.33		19.9					
2 64	781	.28	200	6	1.0	C-Sb	.33		13.2					
2 65	777	.28	350	6	0.5	C-Sb	.33		17.4					

*Information obtained from: Wesley Malenke
date: May 1982

Other Land _____
Total _____
Grand Total _____ (Over)

CONSERVATION PLAN MAP

Owner Harold Jones Estate
County Floyd State Iowa Date
Approximate acres 320
Cooperating with FLOYD Conservation District
PLAN IDENTIFICATION
ASSISTED BY PHOTO NUMBER
USDA SOIL CONSERVATION SERVICE



Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

Wesley P. Malenke is seeking formal bid quotations for conservation improvements to the cropland located Sec. 35 - Niles Twp., Floyd County

Improvements planned include:

- 1) Construction of narrow base terraces 18,500 feet in fall of 1982. Topsoil to be stock piled, build the initial lift of terrace, and place the soil back. Rocks not to be under, or included in terrace construction but to be buried with minimum of 4 foot of cover.
- 2) Installation of 42 tile intakes for terraces will be Orange Higgenbottom (manufacturer).
- 3) Installation of gully control structure -- 1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity.
- 4) Diversion terrace construction -- 1200 feet.
- 5) Installation of 10" tile across county gravel road.

Options:

- 1) Well to be sealed off. Water system to be sold to highest bidder.
- 2) Bury barn.
- 3) Bury 7 rock piles with minimum of 4 foot cover. May be rocks buried at groundlevel in abandoned driveway.
- 4) May do additional tiling in lower area indicated as Area A.
- 5) May consider moving 8" to 10" of dirt to terraces from approximately 10 acres.

Please call or leave all quotes, installation rates, and material quotes with Wesley P. Malenke (Office: 515-257-3432/Home: 515-398-2487), R.R. #1, Box 11, Floyd, Iowa 50435 before October 1, 1982.

Technical assistance may be directed to James P. Allen - District Conservationist, 623 Beck Street, Charles City, Iowa 50616, 515-228-2725.

Earthmovers: Price quotes on a per foot basis.

Drainage Contractors: Price quotes on a per foot basis with and without tile.

Vendors: Price quotes on a per foot basis on plastic tubing, concrete tile and corrugated metal pipe with Rodent Guards.

No "mole or plow" drain tube installation will be permitted.

I reserve the right to accept as many or as few contractors/vendors as necessary to satisfy the conservation plans.



Wesley P. Malenke - Harold A. Jones Trust Farms
 Field #2 Quantities/Cost Estimate
 Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

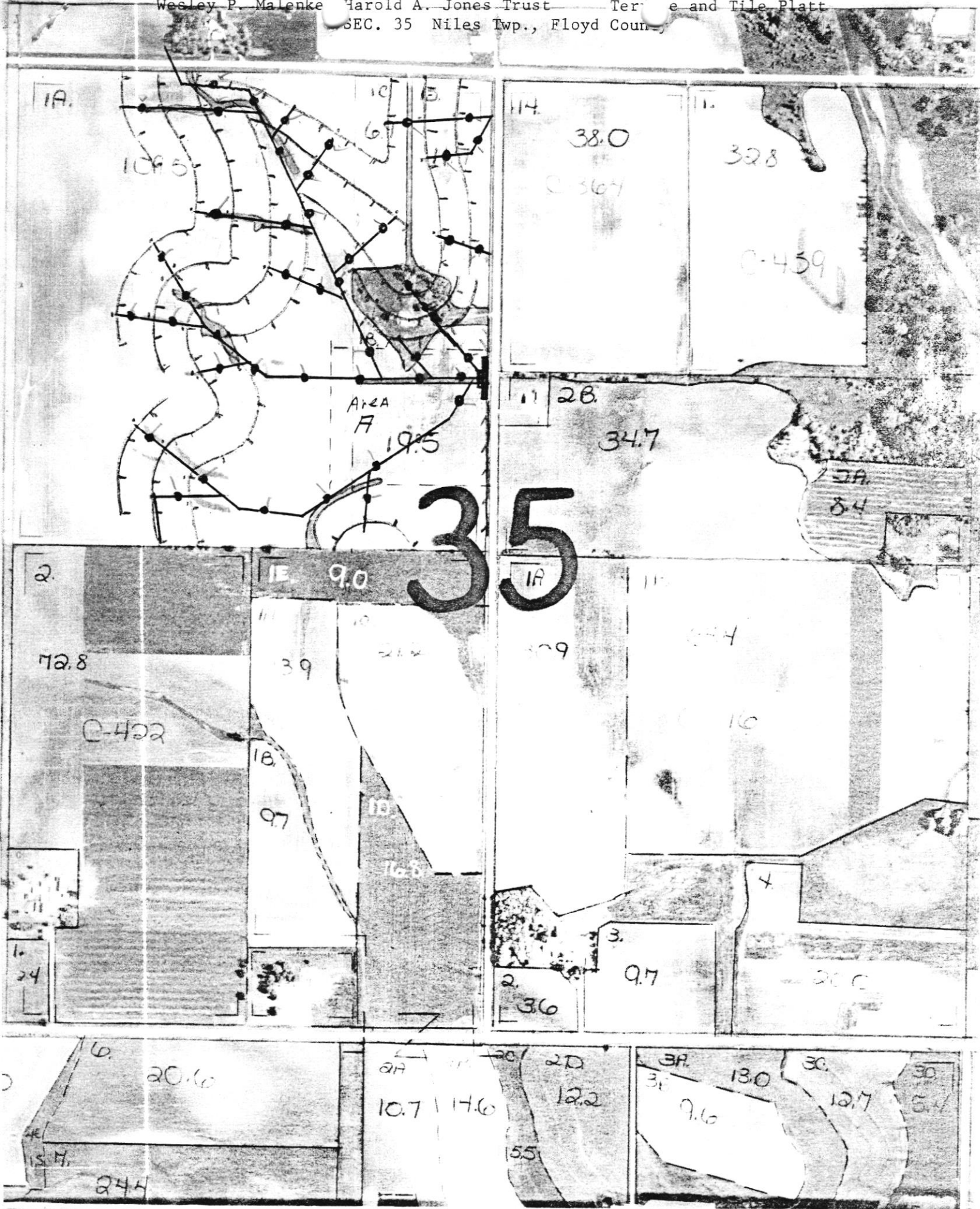
18,500'	of Narrowbase	@	/ft.	=
42	Intakes (Higgenbottom) Mfg.	@	/ea.	=
7,850'	of 4" pl. tubing	@	/ft.	=
210'	of 5" pl. tubing	@	/ft.	=
2,960'	of 6" pl. tubing	@	/ft.	=
1,700'	of 8" pl. tubing	@	/ft.	=
1,200'	of 10" clay/concrete tile	@	/ft.	=
100'	of 12" clay/concrete tile	@	/ft.	=
20'	of 15" CMP W/Rodent Guard	@	/ft.	=
20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 -	Aluminum W/ 3.0' drop 120 c.f.s. capacity			=
-----	---	--	--	---

Diversion Terrace

1200'	of terrace	@	/ft.	=
-------	------------	---	------	---



Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

Wesley P. Malenke is seeking formal bid quotations for conservation improvements to the cropland located Sec. 35 - Niles Twp., Floyd County

Improvements planned include:

- 1) Construction of narrow base terraces 18,500 feet in fall of 1982. Topsoil to be stock piled, build the initial lift of terrace, and place the soil back. Rocks not to be under, or included in terrace construction but to be buried with minimum of 4 foot of cover.
- 2) Installation of 42 tile intakes for terraces will be Orange Higgenbottom (manufacturer).
- 3) Installation of gully control structure -- 1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity.
- 4) Diversion terrace construction -- 1200 feet.
- 5) Installation of 10" tile across county gravel road.

Options:

- 1) Well to be sealed off. Water system to be sold to highest bidder.
- 2) Bury barn.
- 3) Bury 7 rock piles with minimum of 4 foot cover. May be rocks buried at groundlevel in abandoned driveway.
- 4) May do additional tiling in lower area indicated as Area A.
- 5) May consider moving 8" to 10" of dirt to terraces from approximately 10 acres.

Please call or leave all quotes, installation rates, and material quotes with Wesley P. Malenke (Office: 515-257-3432/Home: 515-398-2487), R.R. #1, Box 11, Floyd, Iowa 50435 before October 1, 1982.

Technical assistance may be directed to James P. Allen - District Conservationist, 623 Beck Street, Charles City, Iowa 50616, 515-228-2725.

Earthmovers: Price quotes on a per foot basis.

Drainage Contractors: Price quotes on a per foot basis with and without tile.

Vendors: Price quotes on a per foot basis on plastic tubing, concrete tile and corrugated metal pipe with Rodent Guards.

No "mole or plow" drain tube installation will be permitted.

I reserve the right to accept as many or as few contractors/vendors as necessary to satisfy the conservation plans.



Wesley P. Malenke - Harold A. Jones Trust Farms
Field #2 Quantities/Cost Estimate
Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

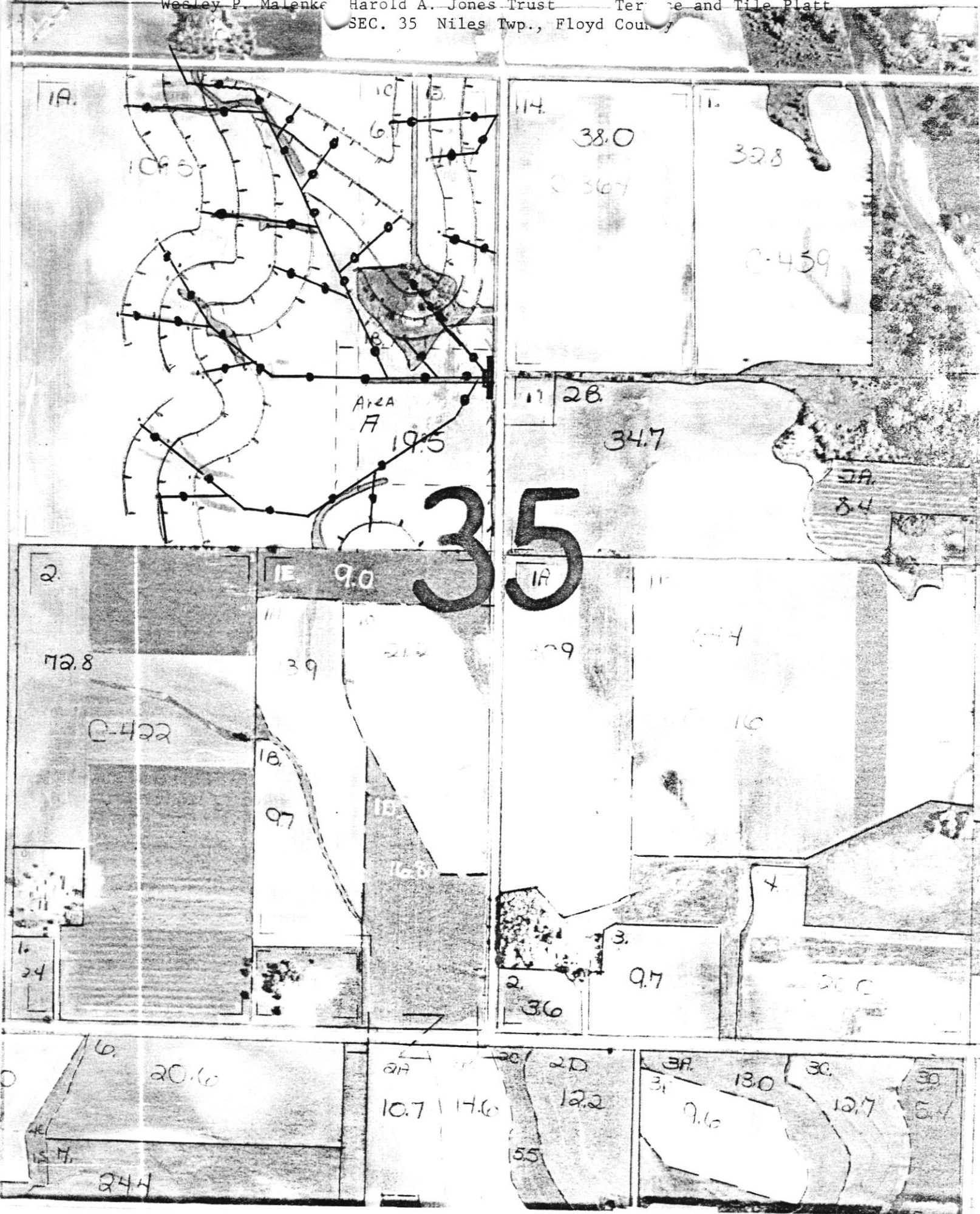
18,500'	of Narrowbase	@	/ft.	=
42	Intakes (Higgenbottom) Mfg.	@	/ea.	=
7,850'	of 4" pl. tubing	@	/ft.	=
210'	of 5" pl. tubing	@	/ft.	=
2,960'	of 6" pl. tubing	@	/ft.	=
1,700'	of 8" pl. tubing	@	/ft.	=
1,200'	of 10" clay/concrete tile	@	/ft.	=
100'	of 12" clay/concrete tile	@	/ft.	=
20'	of 15" CMP W/Rodent Guard	@	/ft.	=
20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200' of terrace @ /ft. =



NOT TO SCALE

CROP YEAR -

Floyd

L-6

Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

Wesley P. Malenke is seeking formal bid quotations for conservation improvements to the cropland located Sec. 35 - Niles Twp., Floyd County

Improvements planned include:

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Field #2 Quantities/Cost Estimate
Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

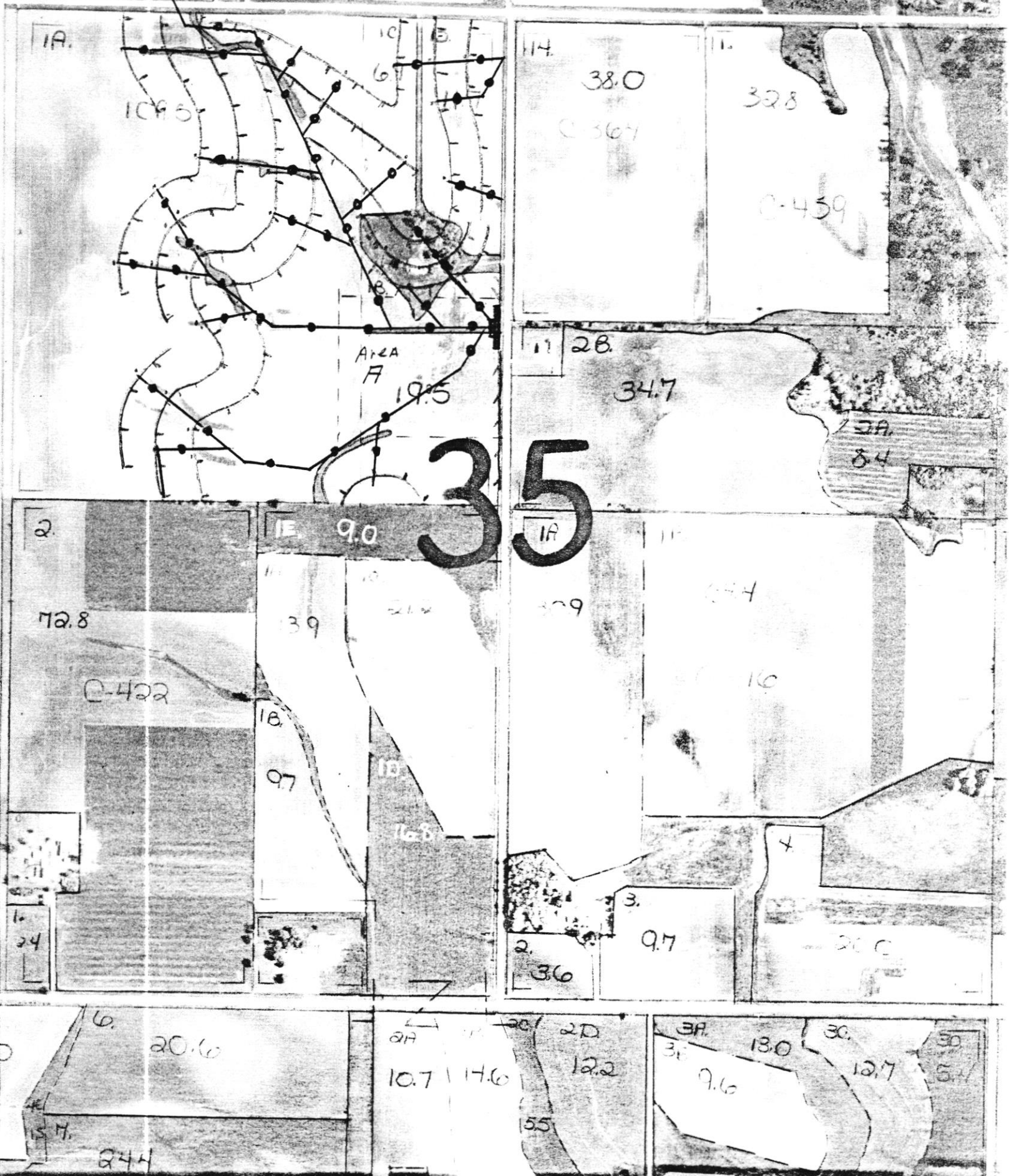
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20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200' of terrace @ /ft. =



35

Sept. 14, 1982

Conservation Contractors - Vendors
Drainage Contractors

Re: Conservation Project - Price Quote Solicitation

Wesley P. Malenke is seeking formal bid quotations for conservation improvements to the cropland located Sec. 35 - Niles Twp., Floyd County

Improvements planned include:

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 Field #2 Quantities/Cost Estimate
 Sec. 35 Niles Twp., Floyd County 9/14/82

Terraces:

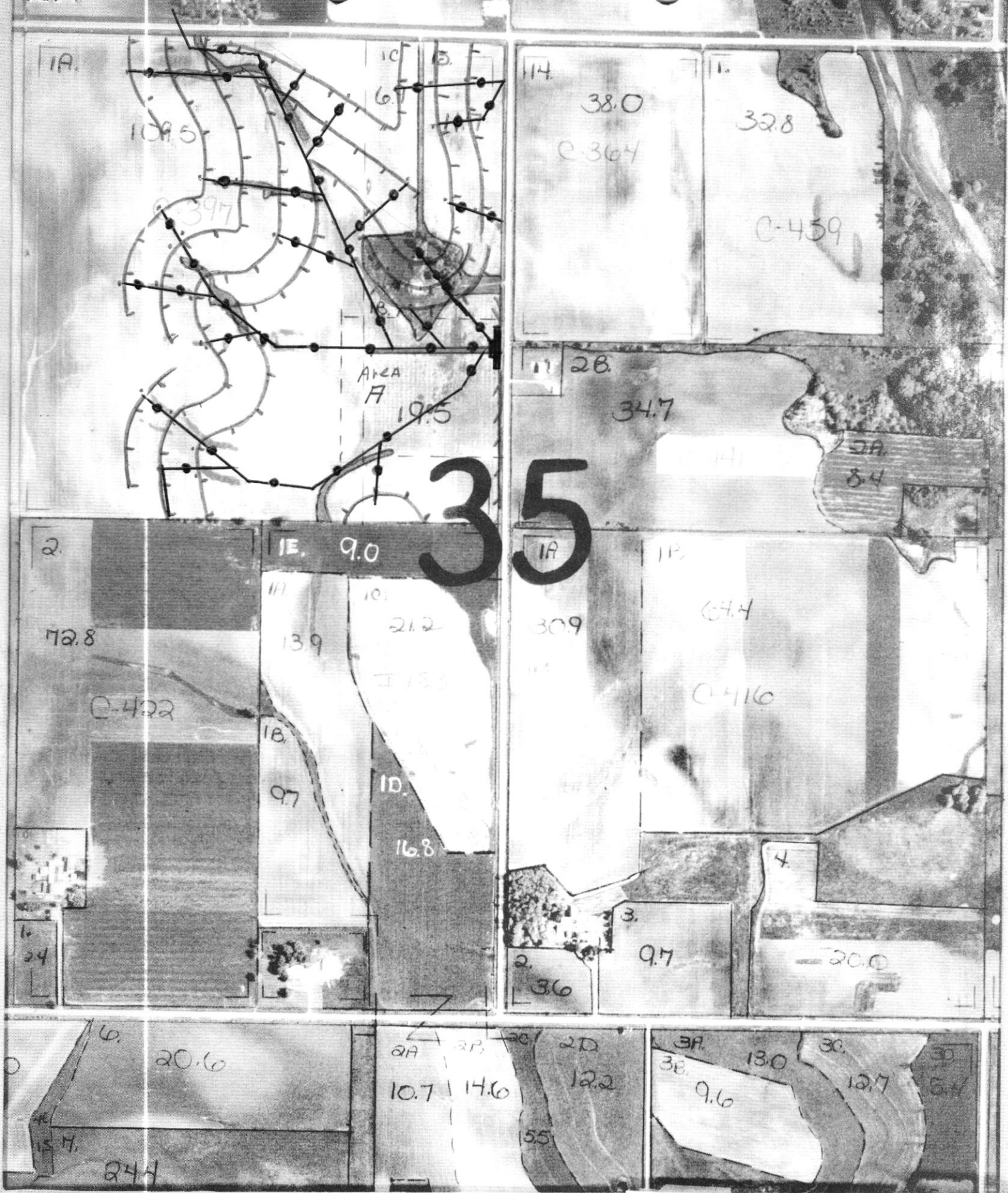
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2,960'	of 6" pl. tubing	@	/ft.	=
1,700'	of 8" pl. tubing	@	/ft.	=
1,200'	of 10" clay/concrete tile	@	/ft.	=
100'	of 12" clay/concrete tile	@	/ft.	=
20'	of 15" CMP W/Rodent Guard	@	/ft.	=
20'	of 8" CMP W/Rodent Guard	@	/ft.	=
20'	of 6" CMP W/Rodent Guard	@	/ft.	=

Gully Control Structure

1 - Aluminum W/ 3.0' drop 120 c.f.s. capacity =

Diversion Terrace

1200' of terrace @ /ft. =



Harold A. Jones Trust / Wesley P. Malenke
 Terrace Earthwork / East Field # 2

18,500'	of N.B.	@	FT.	=	
7,850'	of 4" PL Tubing	@	Each	=	
210'	of 5" PI Tubing	@	FT.	=	
2960'	of 6" PL Tubing	@	FT.	=	
1700'	of 8" PL Tubing	@	FT.	=	
1200'	of 10" Clay or Concrete Tile	@	FT.	=	
114,020	100'	of 12" " " " "	@	FT.	=
20'	of 15" CMP with Rodent Guards	@	FT.	=	
20'	of 8" CMP	@	FT.	=	
20'	of 6" CMP	@	FT.	=	

Options

- (1) Bury Band
- (2) Bury 7 Rock Piles
- (3) MAY be Rock now buried in Abandoned Driveway
- (4) MAY consider Clearing Road ditch on EAST side of Farm
- (5) MAY consider Moving 8" to 10" of dirt to Terraces
 from APPROXIMATELY 10 Acres

ESTIMATED COST - Harold A. Jones Trust / Wesley P. Malenke

TERRACE EARTHWORK / EAST Field #2

18,500' of N.B.	@ 1.35/FT	=	24975.00
42 INTAKES	@ 60.00/EACH	=	2520.00
6.8 Acres-Seeding	@ 100.00 / AC	=	680.00
7850' 4" of DI Tubing	@ .55/FT.	=	4317.50
210' 5" of PL Tubing	@ .65/FT	=	136.50
2960' 6" of PL Tubing	@ .85/FT	=	2516.00
1700' 8" of PL Tubing	@ 1.50/FT	=	2550.00
1200' of 10" Clay on Concrete Tile	@ 3.27/FT	=	3924.00
100' of 12" " " "	@ 3.62	=	362.00
20' of 15" CMP	@ 14.00	=	280.00
20' of 8" CMP	@ 6.80	=	136.00
20' of 6" CMP	@ 6.20	=	124.00
			<hr/>
			42,521.00

Harold Jones Estate Aug. 2, 1982

West Field # 1

Terraces N.B.	11,200'	@	1.35	=	\$15,120.00
Intakes	20	@	60.00	=	1,200.00
Seed/Fertilizer	4.11	@	100.00	=	411.00
Tile Drains 4" -	3700'	@	.55	=	2,035.00
Tile Drains 5" -	1700'	@	.65	=	1,105.00
Tile Drains 6" -	450'	@	.85	=	382.50
Tile Drains 8" -	3250'	@	1.50	=	4,875.00
					<u>\$25,128.50</u>

Total erosion control estimate for field 1 & 2:

\$67,649.50

Total e.c.e. for field # 1

25,128.50

\$42,521.00

Total erosion control estimate for field # 2

\$42,521.00

50% cost sharing = \$21,260.50

\$3200.00 maximum invested annually

6.6 years to complete the work with 50%

75% cost sharing = \$10,630.25

\$3200.00 maximum invested annually

3.3 years to complete the work with 75%

R.R. #1, Box 11
Floyd, Iowa 50435
August 30, 1982

Floyd County Soil Conservation District
Richard Pruessner, Chairman
623 Beck Street
Charles City, Iowa 50616

Dear Mr. Pruessner:

This is in regard to complaint filed, June 24, 1982, by Alton Hendrix of water and sediment damage originating from Wesley P. Malenke, Harold A. Jones Trust Farm.

In response to your letter dated, August 24, 1982, you are correct in assuming I will not voluntarily apply soil and water conservation practices.

Sincerely,

Wesley P. Malenke
Harold A. Jones Trust Farm



FLOYD COUNTY

Soil Conservation District

515 228-2725

623 BECK STREET

CHARLES CITY, IOWA 50616

August 24, 1982

Wesley Malenke, Executor
Harold A. Jones Estate
Edge-O-Town
Floyd, Iowa 50435

Wesley:

Action was taken at a special meeting of the district soil commissioners on August 19, 1982 in regard to the soil loss complaint filed with the Floyd Soil Conservation District, dated June 24, 1982, from Alton Hendrix.

The following motions were made:

That the district notify the landowners Alton Hendrix, complainant, and Wesley P. Malenke, Harold A. Jones Trust Farm, who are named as the source of the damage, that the district has determined that there is sediment damage to the Alton Hendrix farm because of water and sediment originating on the Wesley P. Malenke, Harold A. Jones Trust Farm. Motion carried unanimously.

That since the conservation plan for the Harold Jones-Wes Malenke farm indicates excessive soil losses above established district soil loss limits, that the district issue an administrative order to initiate corrective measures to bring soil losses down to established soil loss limits. Motion carried unanimously.

Technical assistance from our District Conservationist was previously provided providing you with two or more alternative resource management systems to bring average annual soil losses down to "T" (tolerable) levels.

We understand from our conversation with you on August 2 that you prefer the alternative including terraces. We further understand that you are not in a financial position to continue on a voluntary basis at this time. We need a letter from you indicating you will not voluntarily apply the needed soil and water conservation practices. Should we receive such a letter, we will issue an administrative order.

Sincerely,

Richard Pruessner
Chairman

June 24, 1982
R. R. 4
Charles City, Iowa 50616

Floyd County Soil Conservation Service
623 Beck Street
Charles City, Iowa 50616

Gentlemen:

This letter is to report that water runoff from the Wes Malinke Farm is carrying soil from his farm and depositing it on the farm owned by Alton Hendrix. Legal description for the victim farm is 35-96-15, S3/4SWNE for 29.25 acres and 35-96-15, S3/4SENE for the remaining 30 acres.

Last year we spent \$740 to clean out a drainage ditch along the north side of this property to prevent all the water that runs off the Malinke farm from running across the fields. In addition to eroding the field, the runoff carries a lot of weed seeds and herbicide. The herbicide kills the hay or soybeans, and weeds grow in their place. Already this ditch we cleaned out is filling up again. Eroded soil has also filled both ditches for the road that separates the two farms. The county cleaned out part of one side last year, but this is also filling up.

Considering the rate at which the road ditch and the ditch we cleaned out are filling up, the soil loss rate must surely exceed district loss limits. We are most anxious for something to be done that will prevent further erosion from the Malinke farm from filling these ditches.

Please investigate the situation and see what can be done to reduce the runoff, erosion, and deposition rates. Thanking you for your consideration, we remain

Very truly yours,

Alton R. Hendrix, Landowner

Raymond D. Hendrix, Resident Tenant

Wes,
This is a copy of the letter we sent.
Hope it does the job for you. If we can
be of additional help please don't hesitate to
call.

Ray H.

June 24, 1982
R. R. 4
Charles City, Iowa 50616

Floyd County Soil Conservation Service
623 Beck Street
Charles City, Iowa 50616

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Alton R. Hendrix, Landowner

Raymond D. Hendrix, Resident Tenant

Wes,
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be of additional help please don't hesitate to
call.

Ray H.



HOLTZ TILING, INC.

Farm Drainage — It Pays To Tile

Rural Route No. 3 Charles City, Iowa 50616

Office and Shop Phone 228-5301 — Home Phone 228-4540

Harold Jones

Sept 73

West Farm

363

356

345

420



Blds

1001

651

163
340

935

315

4461'

Total footage includes 2 - 6" x 16' CMP

WRITE OR CALL
HANGOR OF IOWA, INC.

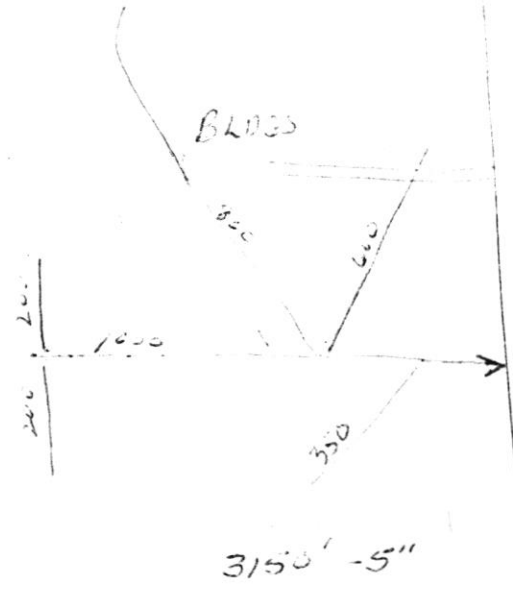
PHONE 283-3324 AREA CODE 319
 OELWEIN, IOWA 50662



1134
 932
 1308
 2934

300
 300
 300
 1200
 700
 500
 300

3150
 1200
 3800
 8150



3150
 1200
 9400
 13700

CORRUGATED PLASTIC DRAIN TUBING

- Channel - Flow** For Septic Tank Systems • **AGRYflow** For Farm Drainage
- TURflow** For Golf Course and Athletic Field Drainage
- PERflow** For Residential and Commerical Drainage



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Harold Jones

Sept. 73



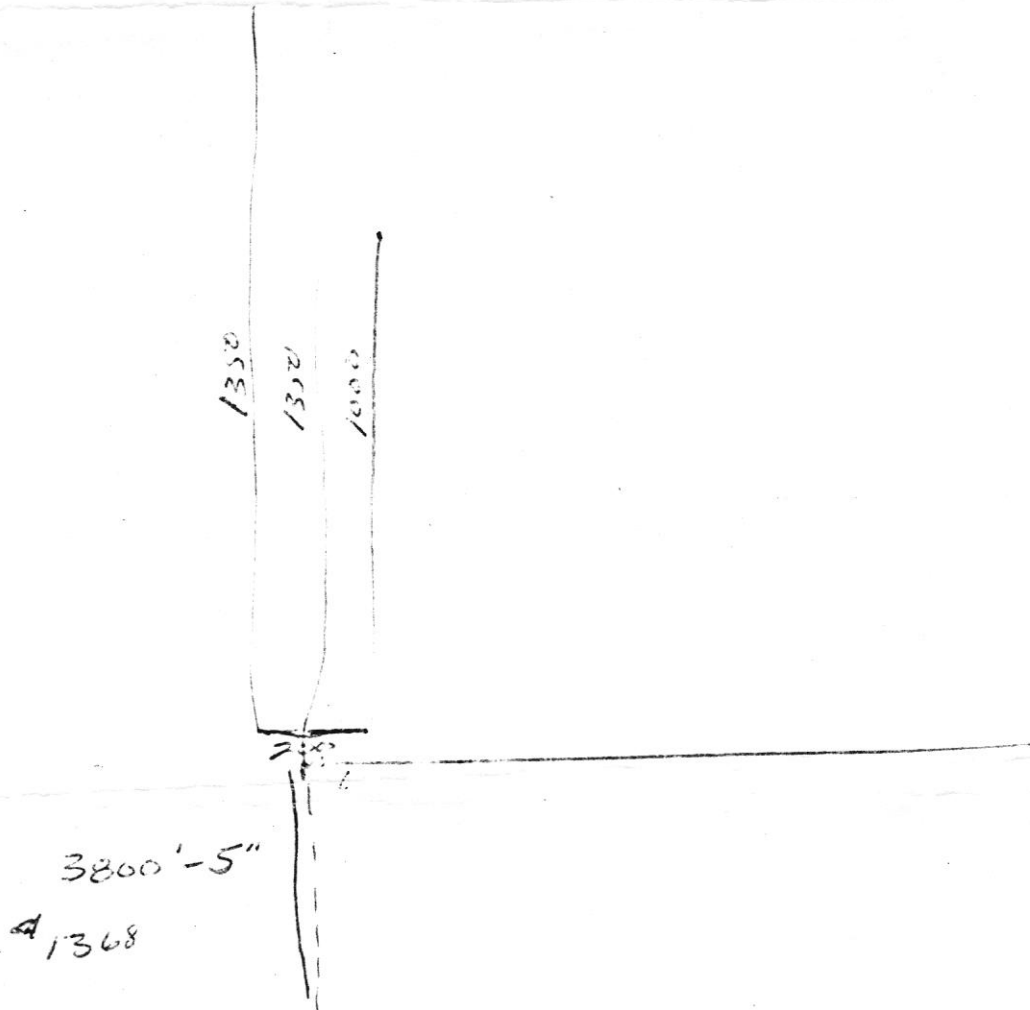
3896'



190'
12" country main

WRITE OR CALL
HANGOR OF IOWA, INC.

PHONE 283-3324 AREA CODE 319
OELWEIN, IOWA 50662



CORRUGATED PLASTIC DRAIN TUBING

Channel - Flow For Septic Tank Systems • **AGFlow** For Farm Drainage
Flow For Golf Course and Athletic Field Drainage
PERflow For Residential and Commercial Drainage

1. Not HEL
67.0
70.0

Farm # 1187
T-1622
Wayne Hoeft
Oo- Marian Hoeft
Ow- Kent Hoeft

2. Not HEL
7.8 HEL

1. Not HEL
159.9

Farm # 340
1630
Oo- Harold Jones Est

8. Not HEL
11.6

Farm # 294
T-1628
Donald Vetter
Oo- Walter Schiffl

34

7-2/27
Farm # 2174
T-550
Not HEL
516

OP- Koebrick
Dairy Fm.
Ow- Douglas Koebrick

Not HEL

3 Not HEL
5.6

Not HEL

Not HEL

0-130

1. Not HEL
15.0

2. Not HEL
103.3
88.3
88.3 AC

Farm # 284
T-1629
OP- James Frasca
Ow- Raymond Hoeft

39.0
I-40

Farm # 958
T-1631
OP- Ron Venz
Ow- Madonna Venz

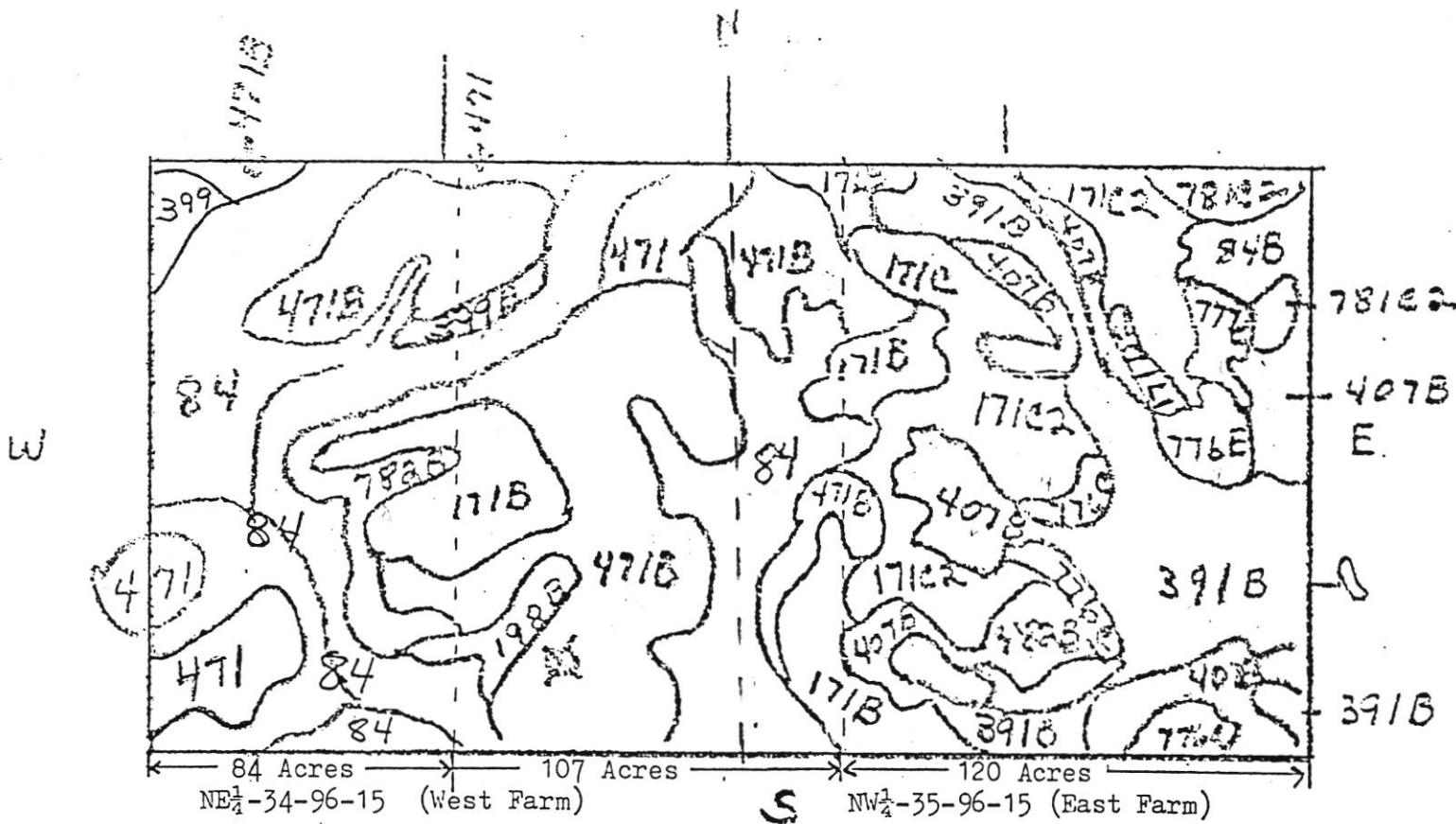
UN

1. 9.7
37.8

2.

3.

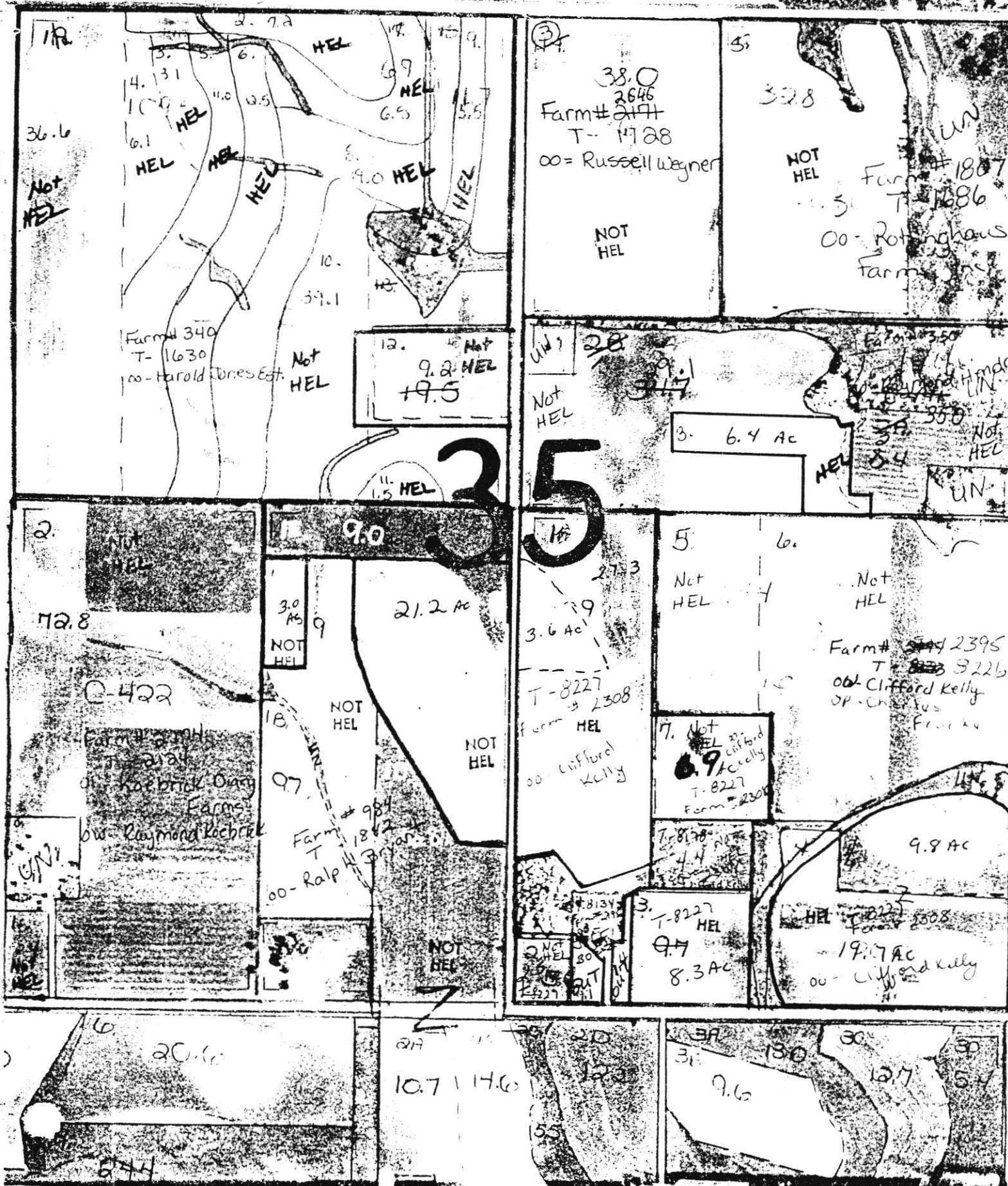
FARM : Charles City
 SUBJECT : Soil Type
 Wesley P. Malenke, Floyd Iowa



- 84 - Clyde
- 171 - Bassett
- 198 - Floyd
- 391 - Kenyon
- 398 - Tripoli
- 399 - Readlyn
- 407 - Schley

- 471 - Oran
- 776 - Lilan
- 777 - Wapsie
- 781 - Lourdes
- 782 - Donnan
- 784 - Riceville

7/26/89



NOT TO SCALE

CROP YEAR -

Floyd

L-6

2

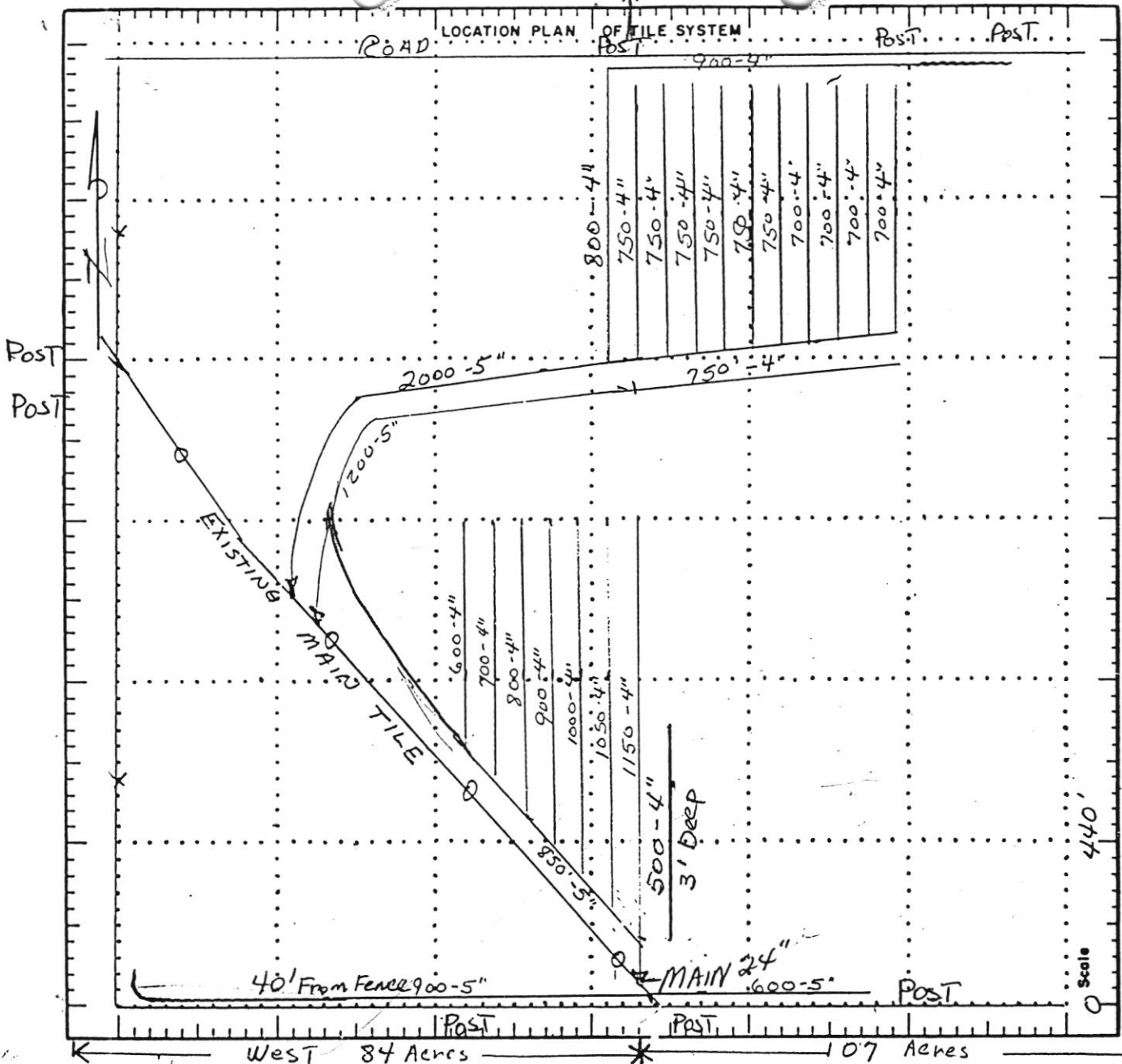
S. Floyd W.
Soil Survey

CSR Values (1A-CAN-9)

Soil Map Symbol	CSR	Symbol	CSR	(Subject To Change)	CSR	Symbol	CSR
27	87	174	75	216	70	394 B	85
27B	82	174B	70	216 B	65	394 C	70
41 B	42	174C	55	217	84	394 C2	68
41C	25	175	61	217 B	79	394 D	60
53B	38	175B	56	221 B	45	398	80
53	40	175C	41	225	66	399	90
53B	85	175C2	39	X225	75	399E	85
53C	70	177	63	226	78	401	72
53C2	68	177B	58	X226	75	407E	70
54	75	177C	38	284	50	412C	73
96	90	177D	28	284B	45	412E	5
R-104C2	35	178	79	284C	30	412G	5
110	52	178 B	74	284 C2	28	444	65
110B	47	184	95	284 D	20	444 B	60
110 C	32	188	78	285 B	27	457	72
135	80	188 B	73	285 C	5	471	85
151	64	198 B	75	285 E	5	471 B	80
152	72	R-204	84	285 F	5	487	85
153	60	R-204 B	79	285 G	5	482E	80
171	85	213	79	302 B	75	482C	65
171 B	80	213 B	74	371	95	482C2	63
171C	65	214	63	371 B	90	485	92
171C2	63	214 B	58	382	90	507	80
171D2	53	214C	38	391 B	72	536	70
171E2	43	214D	33	394	90	536 a.	65

TILE RECORD MAP

Peter B. Jelica



NAME Wes Malonke 80' spacing
 Section 34 Township Niles County Floyd
 Contractor Johanns Tiling Date Installed 4/30/82
 Amount of Tile Installed: 5" 6620' 6" _____ 8" _____
 4" 19,350' 10" _____ 12" _____ Larger _____

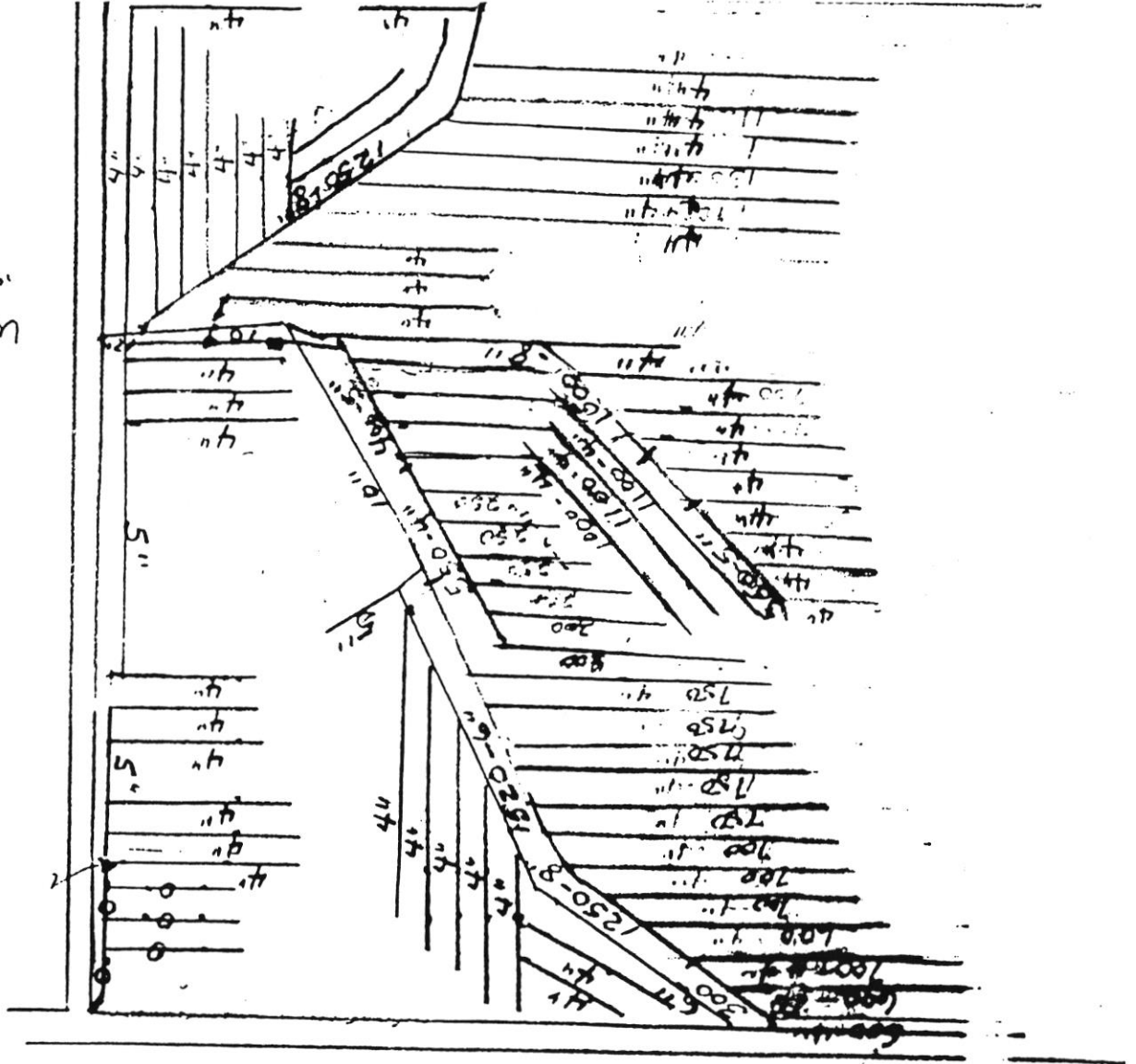
540' / A = 90' spacing

$23,970 \div 540 = 44.4$ Acres

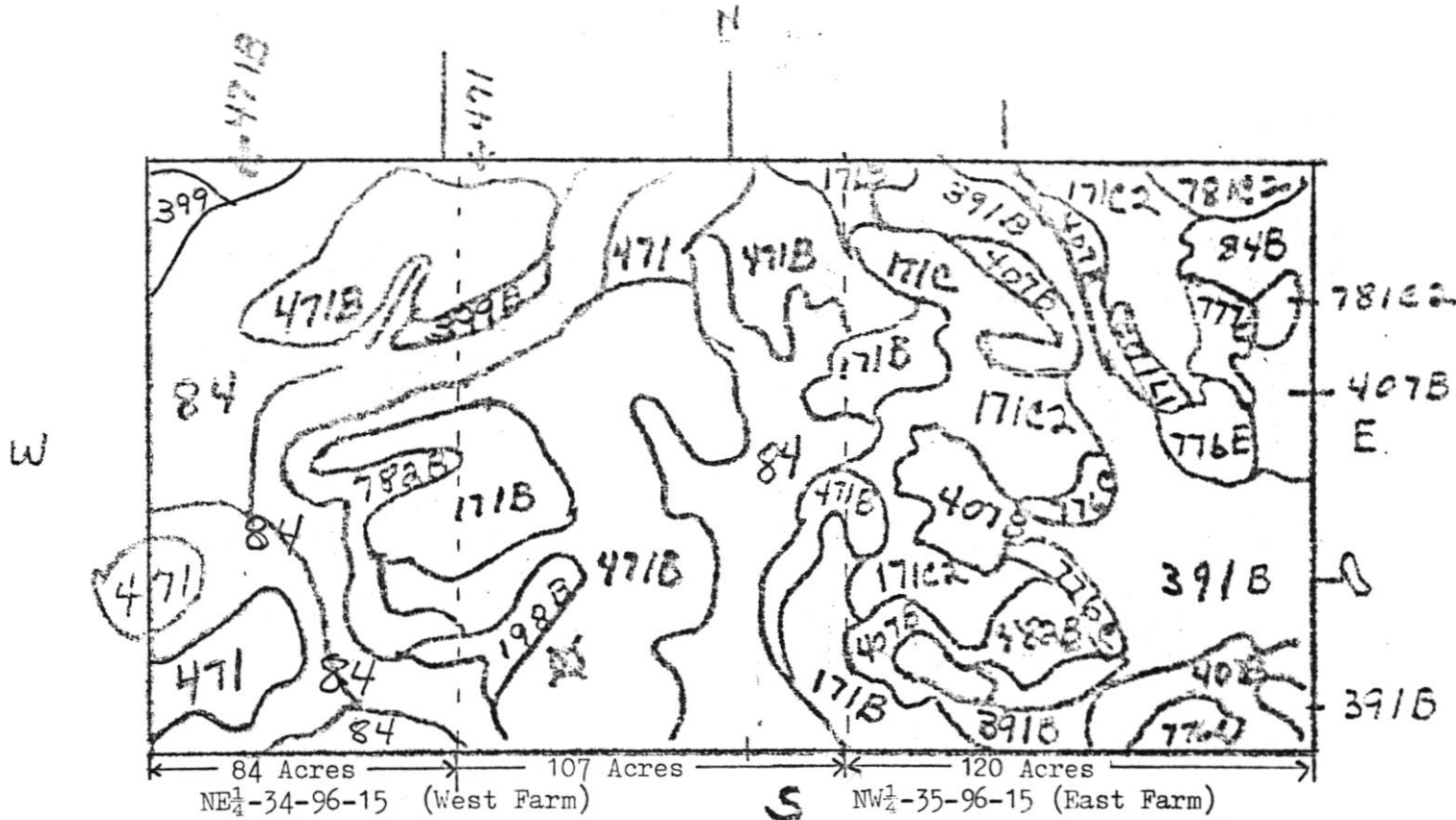
Regular inspection of the tile system is essential. Prompt repair of any failure will keep the system in working order and maintenance costs low.

Uses Malonke
"As Built" Plans -

1" = 660'

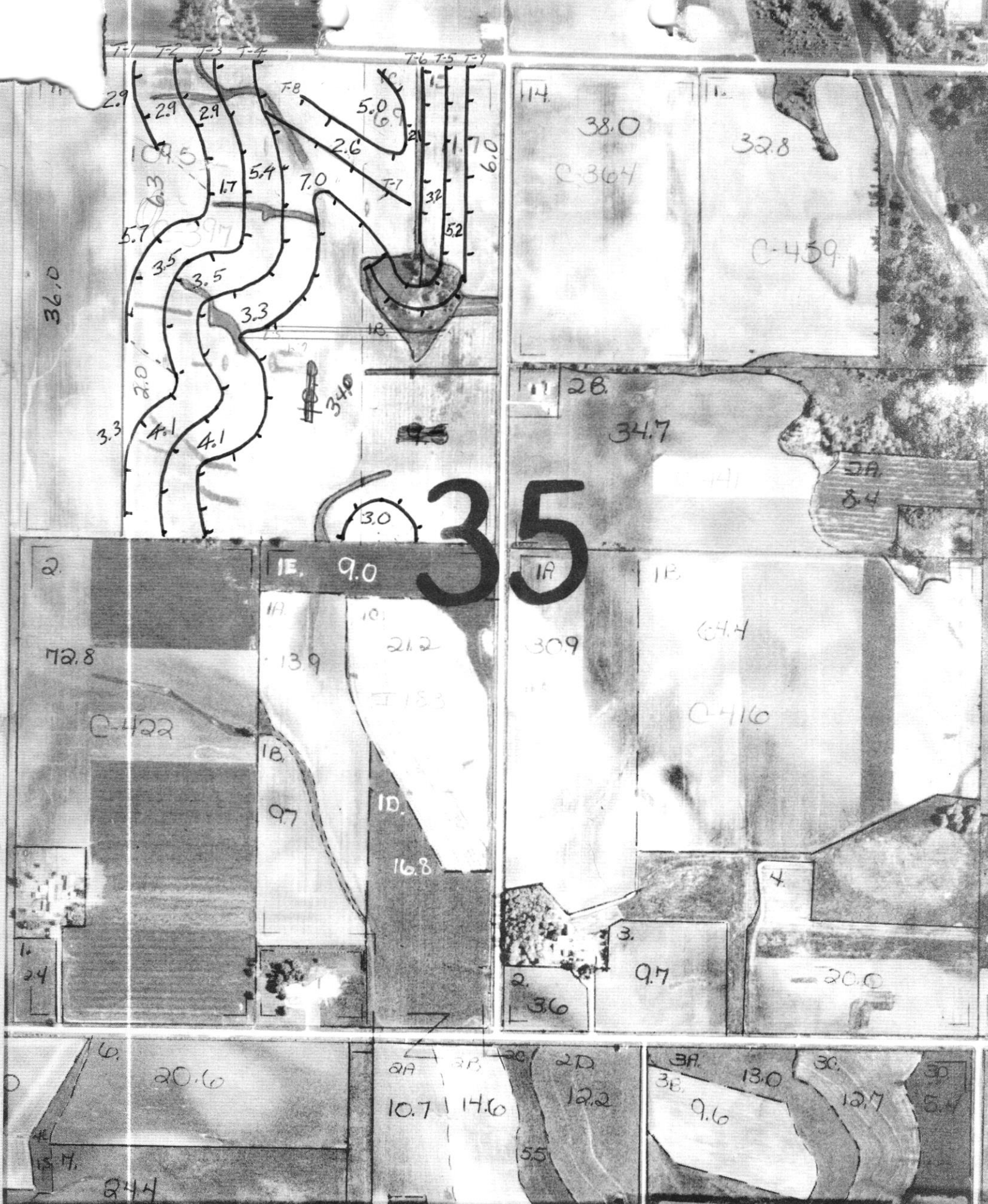


FARM : Charles City
 SUBJECT : Soil Type
 Wesley P. Malenke, Floyd Iowa



- | | |
|---------------|-----------------|
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| 391 - Kenyon | 781 - Lourdes |
| 398 - Tripoli | 782 - Donnan |
| 399 - Readlyn | 784 - Riceville |
| 407 - Schley | |

Acres between terraces



LAND USE	
Harold Jones Estate	
ASSISTED BY	
Floyd S.C.D.	
DATE	ACRES
May, 1982	320
OTHER	

CONSERVATION PLANNING INFORMATION

CROPLAND - 29 $\frac{1}{4}$ Acres

Objective: Control excessive soil erosion that threatens soil productivity and field efficiency. Provide drainage where needed to insure high yields.

Current Farming Situation: Corn-soybean crop rotation, corn fall plowed, soybeans fall chiseled ($C = .33$). Rows are all straight north-south.

Little to no vegetation protects drainageways on the farm. Some areas have been drained including tile installed spring of '82. Drainage district # 9 provides outlets for field # 1 (see land use map). Field # 2 drains east toward the Little Cedar River, with outlets available at the road ditch. Severe sheet erosion has virtually filled the road ditch along your east property line. There is also a considerable silt deposit which indicates excessive soil erosion in field # 2. The old building site is being razed and converted to cropland.

Soils with erosion limitations include Oran (471), Readlyn (399), Riceville (784), Donnan (782), Bassett (171), Lourdes (781), Wapsie (777), and Lilah (776). Tolerable soil losses for these soils range from 2-5 ton/acre/year.

Erosion Analysis

Field # 1 and # 2 were checked to determine average annual soil loss using the Universal Soil Loss Equation.

Field # 1: Characterized by long flat slopes in the 1-5% range. Typical slopes are 2-3%. Of twenty-nine (29) calculations, almost all calculations were under the tolerable soil loss level. Average annual soil loss is 4 ton/acre/year on sloping cropland. However, gully erosion in natural drainageways was serious.

Field # 2: This portion of the farm is characterized by moderately steep, short slopes. Typical slopes are 5-7%. Of thirty-five (35) calculations, only one slope length calculation was under the tolerable level. Average annual soil loss is 17 ton/acre/year on sloping ground subject to erosion. Gully erosion is also significant in drainageways.

Land Treatment Decisions

The following conservation alternatives will bring average annual soil erosion down to tolerable levels of 5 ton/acre/year, and control gully erosion.

Field # 1

Alternative A - Terraces - Contouring

Terraces on 240' spacing, approximately on the contour, with tile drainage and the same tillage system and rotation that is presently used. ($C = .33$). Terraces would take 4.1 acres out of crop production. Gully erosion would be eliminated with this conservation system.

Alternative B - Grassed Waterways - Contouring

Construct grassed waterways in all drainageways with 1% + gradient. Tillage and planting operations on the contour. ($C = .33$). Tile drainage added where necessary. Grassed waterways will take 4.8 acres out of crop production.

CONSERVATION PLANNING INFORMATION

Field # 2

Alternative C - Terraces - Contouring

This alternative is like alternative A, except terrace spacing is on 120' and 180' spacings. (C = .33) Terraces will take 6.8 acres out of crop production.

Alternative D - Conservation Tillage - Contouring - Grassed Waterways

1. Change tillage practices so that corn residue is chisel-disked in fall, soybean residue is chiseled in the spring, follow a corn-corn-soybean rotation (C = .18) All tillage and planting operations performed across the slope. Grassed waterways shaped and seeded in drainageways. Waterways would take 9.5 acres out of crop production.
2. Modify planter to allow ridge planting across the slope. Corn-soybean rotation would be followed. (C = .12)
3. Move completely to no-till, with a corn-corn-soybean rotation. (C = .09)) Maintain grassed waterways in drainageways to prevent gully erosion. This alternative does not require contouring, but contouring would still be beneficial for proper maintenance of waterways.

The soils map indicates a number of soils which will benefit from tile drainage. These are colored yellow on the soil map. A total of 187 acres potentially need drainage. This is 64% of the tillable acres and quite realistic in comparison with neighboring farms that are adequately drained. At a tile spacing of 80', a total of 103,000' of tile are needed. An estimated 25,000' are already installed and it's likely an additional 23,000' will be installed as you adopt the soil conservation systems mentioned above. This would leave 55,000' for areas not covered by cost share.

Since recent discussions with you indicate a preference for the terrace system, I've included an estimated cost for this system and the approximate orientation of terraces is shown on the land use map.

Cost estimate is also included for drainage work. Additional brochures explaining specific practices mentioned in this narrative will answer some questions that may arise.

Other Land - 6 Acres

Includes road right-of-way.

Land treatment may include cleaning the road ditch on the east side of farm and cooperating with Peter Bjelica and County Engineer in installing a tile across the road (to permit construction of a terrace on the Bjelica property). These two options will be considered in conjunction with alternatives presented for field # 2.

228-3095

CONSERVATION PLANNING INFORMATION

ASSISTED BY

Floyd S.C.D.

DATE

May, 1982

ACRES

320

OTHER

Estimated Cost - Harold Jones Estate

Terrace Earthwork:

29,700' of N.B.	@	\$1.35/Ft.	=	40,095.00
62 Intakes	@	60.00/Each	=	3,720.00
10.91 Acres - Seeding	@	100.00/Ac.	=	1,091.00
11,550' of 4" Pl Tubing	@	.55/Ft.	=	6,352.50
1,910' of 5" Pl Tubing	@	.65/Ft.	=	1,241.50
3,410' of 6" Pl Tubing	@	.85/Ft.	=	2,898.50
4,950' of 8" Pl Tubing	@	1.50/Ft.	=	7,425.00
1,200' of 10" Clay or Concrete Tile	@	3.27/Ft.	=	3,924.00
100' of 12" Clay or Concrete Tile	@	3.62/Ft.	=	362.00
20' of 15" CMP	@	14.00/Ft.	=	280.00
20' of 8" CMP	@	6.80/Ft.	=	136.00
20' of 6" CMP	@	6.20/Ft.	=	124.00
				<u>\$67,649.50</u>

Invest \$6800/yr for 10 years (\$3400.00 net)

Drainage 187 wet acres

550' tile needed per wet acre	=	103,000'
Existing tile (estimated)	minus	25,000'
Tile for terrace systems	minus	<u>23,000'</u>
		55,000'

Additional tile laterals 4" and 5" @ .60/Ft. = \$33,000.00

COOPERATOR AGREEMENT

Iowa Department of Soil Conservation
Floyd County Soil Conservation District

Harold A. Jones Estate

Name of Landowner Wesley Malenke, Executor Telephone 398-2487
 Name of Farm Operator Claire Jaeger Telephone 228-3434
 Mailing Address: Name Wesley Malenke Telephone _____
 RR, P.O. Box Edge O'Town _____
 City, State, Zip Floyd, Iowa 50435

Legal Description of Land Covered by This Agreement:

<u>320</u>	<u>NW$\frac{1}{4}$ Sec. 35</u> <u>NE$\frac{1}{4}$ Sec. 34</u>	<u>34, 35</u>	<u>Niles T96N, R15W</u>	<u>Floyd</u>
(No. Acres)	(Qtr.)	(Sec.)	(Township-Range)	(County)

I hereby request assistance from the soil conservation district in planning, applying, and maintaining soil conservation and water management practices on my land. I hereby grant to the members of the soil conservation district, or their designated representative, the right of ingress and egress to my land for the purpose of conducting surveys, planning, or inspecting conservation works of improvement during the period this agreement is in force.

Harold A Jones Estate
Wesley Malenke Executor 12/29/81
 (Signature - Landowner) (Date)

The soil conservation district hereby agrees to furnish assistance in planning, applying, and maintaining soil conservation and water management practices on the land designated in this agreement. Such assistance will be in accordance with the policies of the district. This agreement will remain in effect until mutually terminated or by either party giving thirty (30) days written notice.

The Floyd County Soil Conservation District has approved and entered into this agreement by action taken at the meeting of the district commissioners held Jan. 4, 1982.
(Date)

John F. Ruzicka 1/4/82
 (Chairman - SCD) (Date)

Distribution:
Landowner
SCD

RECORD NO: 1A0054

SOIL SURVEY INTERPRETATIONS

LILAH SERIES

SOIL DESCRIPTION:

DATE: 1976

THE LILAH SERIES CONSISTS OF EXCESSIVELY DRAINED, COARSE TEXTURED SOILS FORMED IN 10 TO 20 INCHES OF SANDY LOAM MATERIAL CONTAINING A FEW PEBBLES OVER GRAVELLY AND SANDY MATERIALS ON STREAM TERRACES. THE SURFACE LAYER IS VERY DARK GRAYISH-BROWN SANDY LOAM 6 INCHES THICK. THE SUBSOIL IS DARK YELLOWISH-BROWN SANDY LOAM AND BROWN FINE GRAVELLY SANDY LOAM IN UPPER 9 INCHES AND STRONG-BROWN FINE GRAVELLY LOAMY SAND AND SAND IN LOWER 24 INCHES. THE SUBSTRATUM IS STRONG-BROWN LOAMY SAND. SLOPES RANGE FROM 0 TO 20 PERCENT. MOST AREAS ARE IN PASTURE.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CCRN	% ORGANIC MATTER	PERMEABILITY	PF-RANGE	EROSION FACTORS	
				SUITABILITY RATING				PLCW LAYER	PLCW LAYER
776	0-2	NONE	4S	33	0.5-1.0	VERY RAPID	5.1-7.3	.20	2
776B	2-5	SLIGHT	4S	28	0.5-1.0	VERY RAPID	5.1-7.3	.20	2
776C	5-9	SLIGHT	4S	3	0.5-1.0	VERY RAPID	5.1-7.3	.20	2
776D	5-9	MODERATE	4S	5	<0.5	VERY RAPID	5.1-7.3	.20	2
776D	9-14	SLIGHT	6S	5	0.5-1.0	VERY RAPID	5.1-7.3	.20	2
776E	9-14	MODERATE	6S	5	<0.5	VERY RAPID	5.1-7.3	.20	2
776E	14-18	SLIGHT	7S	5	0.5-1.0	VERY RAPID	5.1-7.3	.20	2
776E2	14-18	MODERATE	7S	5	<0.5	VERY RAPID	5.1-7.3	.20	2

LAND TREATMENT NEEDS:

These soils are very droughty. Conservation practices that reduce moisture loss, such as minimum tillage, will prove beneficial. They are subject to wind and water erosion. Leaving mulch on the surface reduces erosion.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CCRN (BU/AC)		SCYBEANS (BU/AC)		OATS (BU/AC)	GRASS (TONS/AC)	BRCMEGRASS (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
776	45		17		36	1.6	2.6	1.3
776B	43		16		34	1.5	2.5	1.1
776C	38		15		30	1.3	2.1	1.0
776C2	36		13		28	1.2	2.0	0.8
776D	-		-		-	1.0	0.6	0.7
776D2	-		-		-	0.5	0.6	0.7
776E	-		-		-	0.5	0.6	0.7
776E2	-		-		-	0.5	0.6	0.7

South road
BK site

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
>50 F. MAAT	RUSSIAN PEASHRUB	6	KOSTER REDCEDAR	6	NORTHERN EYBERRY	15		
	GRAY DOGWOOD	6	RUSSIAN-OLIVE	10	EASTERN REDCEDAR	15	COMMON HACKBERRY	22
<50 F. MAAT	EASTERN REDCEDAR	15	BUR OAK	18	NORTHERN WHITE-CEDAR	11	RUSSIAN-GLIVE	15
	PONDEROSA PINE	20	SIBERIAN CRABAPPLE	12	JACK PINE	20	SILVER BUFFALOBERRY	12
	GREEN ASH	20	TATARIAN HONEYSUCKLE	10	COMMON HACKBERRY	18	SIBERIAN PEASHRUB	10

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:				
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD	WOODLD	WETLAND	RANGELD
0-5%	POOR	FAIR	FAIR	FAIR	FAIR	-	V. POOR	V. POOR	PCOR	FAIR	V. POOR	-
5-15%	POOR	FAIR	FAIR	FAIR	FAIR	-	V. POOR	V. POOR	PCOR	FAIR	V. POOR	-
15% +	V. POOR	POOR	FAIR	FAIR	FAIR	-	V. POOR	V. POOR	PCOR	FAIR	V. POOR	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CCRN AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

OK Bill with
South road

RECORD NO: 1A0056

SOIL SURVEY INTERPRETATIONS

WAPSIE SERIES

SCIL DESCRIPTION: DATE: 1978
THE WAPSIE SERIES ARE WELL DRAINED SOILS FORMED IN STRATIFIED LOAMY ALLUVIUM OVER LOAMY SAND AND SAND WITH SOME GRAVEL UNDER MIXED DECIDUOUS TREES AND GRASSES ON TERRACES AND CUTWASH AREAS. THESE SOILS HAVE VERY DARK GRAYISH-BROWN LOAM SURFACE LAYER 3 INCHES THICK AND BROWN LOAM SUBSURFACE LAYERS 5 INCHES THICK. THE SUBSIL IS DARK YELLOWISH-BROWN LOAM AND SANDY CLAY LGAM IN UPPER 16 INCHES AND DARK YELLOWISH-BROWN GRAVELLY LOAMY SAND IN LOWER 9 INCHES. THE SUBSTRATUM IS YELLOWISH-BROWN GRAVELLY SAND. SLOPES RANGE FROM 0 TO 9 PERCENT. MOST AREAS ARE CULTIVATED.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY		% ORGANIC MATTER PLow LAYER	PERMEABILITY	PH-RANGE		EROSION FACTORS	
				RATING	PLow LAYER			PLow LAYER	K	T	
777	0-2	NONE	2S	58	1.5-2.5	MCD/VRP	5.6-7.3	.28	4		
777B	2-5	SLIGHT	2E	53	1.5-2.5	MCD/VRP	5.6-7.3	.28	4		
777C	5-9	SLIGHT	3E	32	1.5-2.0	MCD/VRP	5.6-7.3	.28	4		
777C2	5-9	MODERATE	3E	28	0.5-1.5	MCD/VRP	5.6-7.3	.28	4		

LAND TREATMENT NEEDS:

Drainage is adequate. Conservation practices that conserve moisture, such as minimum tillage which leaves residues on the surface, will be beneficial. Slopes are generally short and irregular, making some conservation practices difficult to use. Sands and gravels are at depths of 20 to 30 inches, so cuts should be held to a minimum.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		CATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BERMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
777	72		27		57	3.0	5.0	2.7
777B	70		27		56	2.9	4.8	2.6
777C	65		25		52	2.7	4.5	2.3
777C2	62		24		50	2.6	4.3	2.1

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
ALL	REDOSIER DOGWOOD	7	BLOODTWIG DOGWOOD	12	EASTERN REDCEDAR	20	FED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORWAY SPFUCE	30	EASTERN COTTENWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:				
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
	0-5%	GOOD	GOOD	GOOD	GOOD	GOOD	-	POOR	V. POOR	GOOD	GOOD	V. POOR
5+%	FAIR	GOOD	GOOD	GOOD	GOOD	-	POOR	V. POOR	GOOD	GOOD	V. POOR	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0101

SOIL SURVEY INTERPRETATIONS

LOURDES SERIES

SOIL DESCRIPTION:

DATE: 1978

THE LOURDES SERIES CONSISTS OF MODERATELY WELL DRAINED SOILS FORMED IN LOAMY SEDIMENTS OVER GLACIAL TILL UNDER MIXED PRAIRIE AND FOREST VEGETATION ON UPLANDS. THE SURFACE LAYER IS VERY DARK BROWN LOAM 8 INCHES THICK. THE SUBSURFACE LAYER IS BROWN LOAM 3 INCHES THICK. THE SUBSOIL IS YELLOWISH-BROWN LOAM IN UPPER 7 INCHES AND MOTTLED STRONG-BROWN, LIGHT-GRAY, AND GRAY CLAY LOAM IN LOWER 33 INCHES. THE SUBSTRATUM IS MOTTLED STRONG-BROWN AND GRAY CLAY LOAM. SLOPES RANGE FROM 2 TO 14%. MOST AREAS ARE CULTIVATED.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS	
								K	T
781B	2-5	SLIGHT	2E	60	2.5-3.5	MOD. SLOW	5.6-7.3	.37	3-2
781C	5-9	SLIGHT	3E	40	2.5-3.0	MOD. SLOW	5.6-7.3	.37	3-2
781C2	5-9	MODERATE	3E	35	2.0-2.5	MOD. SLOW	5.6-7.3	.37	3-2
781D	9-14	SLIGHT	4E	25	1.5-2.5	MOD. SLOW	5.6-7.3	.37	3-2
781D2	9-14	MODERATE	4E	20	1.0-1.5	MOD. SLOW	5.6-7.3	.37	3-2

LAND TREATMENT NEEDS: The problems of providing adequate drainage and controlling erosion are difficult ones on these soils because they conflict to some extent. Conservation practices tend to slow down the movement of surface water and let more soak into the soil. The extra water complicates drainage. A combination of practices such as terracing or mulch tillage and tile drainage may prove to be the most successful.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
781B	82		31		65	3.4	5.6	3.3
781C	77		29		62	3.2	5.3	2.6
781C2	72		27		57	3.0	5.0	2.4
781D	68		25		54	2.8	4.6	2.3
781D2	63		23		50	2.6	4.3	2.0

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
ALL	REDOSIER DOGWOOD	7	BLOODTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORWAY SPRUCE	30	EASTERN COTTONWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERR.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD	WOODLD	WETLAND	RANGELD	
2-5%	GOOD	GOOD	GOOD	GOOD	GOOD	-	FAIR	FAIR	GOOD	GOOD	FAIR	-	
5-14%	FAIR	GOOD	GOOD	GOOD	GOOD	-	POOR	POOR	GOOD	GOOD	POOR	-	

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

EAST - 5/A

RECORD NO: IA0062

SOIL SURVEY INTERPRETATIONS

BASSETT SERIES

SOIL DESCRIPTION:

DATE: 1978

THE BASSETT SERIES CONSISTS OF MODERATELY WELL DRAINED SOILS FORMED IN LOAMY SEDIMENTS OVER GLACIAL TILL UNDER MIXED FOREST AND PRAIRIE VEGETATION ON UPLANDS. THE SURFACE LAYER IS VERY DARK BROWN LOAM 8 INCHES THICK. THE SUBSURFACE LAYER IS BROWN LOAM 2 INCHES THICK. THE SUBSOIL IS BROWN AND YELLOWISH-BROWN, FRIABLE LOAM IN UPPER 12 INCHES AND MOTTLED YELLOWISH-BROWN, STRONG BROWN, GRAYISH-BROWN AND LIGHT-GRAY, FIRM LOAM IN LOWER 37 INCHES. THE SUBSTRATUM IS YELLOWISH-BROWN AND LIGHT-GRAY LOAM. SLOPES RANGE FROM 0-25 PERCENT. MOST AREAS ARE CROPPED.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN	% ORGANIC	PERMEABILITY	PH-RANGE	EROSION FACTORS	
				SUITABILITY RATING	MATTER PLOW LAYER		PLOW LAYER	PLOW LAYER	K
171	0-2	NONE	1	85	2.0-3.0	MODERATE	5.1-7.3	.28	5-4
171B	2-5	SLIGHT	2E	80	2.0-3.0	MODERATE	5.1-7.3	.28	5-4
171C	5-9	SLIGHT	3E	65	2.0-2.5	MODERATE	5.1-7.3	.28	5-4
171D	5-9	MODERATE	3E	63	1.0-2.0	MODERATE	5.1-7.3	.28	5-4
171D3	9-14	SLIGHT	3E	55	2.0-2.5	MODERATE	5.1-7.3	.28	5-4
171E	9-14	MODERATE	3E	53	1.0-2.0	MODERATE	5.1-7.3	.28	5-4
171E2	9-14	SEVERE	4E	50	.5-1.0	MODERATE	5.1-7.3	.28	5-4
171E3	14-18	SLIGHT	4E	45	1.5-2.5	MODERATE	5.1-7.3	.28	5-4
171F	14-18	MODERATE	4E	43	1.0-1.5	MODERATE	5.1-7.3	.28	5-4
171F	18-25	SEVERE	6E	40	.5-1.0	MODERATE	5.1-7.3	.28	5-4
171F	18-25	SLIGHT	6E	25	1.5-2.5	MODERATE	5.1-7.3	.28	5-4

LAND TREATMENT NEEDS:

The problems of providing adequate drainage and controlling erosion are difficult ones on these soils because they conflict to some extent. Conservation practices tend to slow down the movement of surface water and let more soak into the soil. The extra water complicates drainage. A combination of practices, such as terracing or mulch tillage and tile drainage, may prove to be the most successful.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
171	107		40		85	4.5	7.5	4.0
171B	107		40		85	4.5	7.5	4.0
171C	102		39		81	4.3	7.1	4.0
171C2	99		38		80	4.0	6.6	3.5
171D	93		35		74	4.0	6.6	3.5
171D2	90		34		72	3.8	6.3	3.2
171D3	84		32		67	3.5	5.8	3.0
171E	78		30		62	3.3	5.5	3.0
171E2	75		28		60	3.1	5.1	3.0
171E3	-		-		-	2.9	4.8	2.5
171F	-		-		-	2.7	4.5	2.3

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
ALL	REDDISIER DOGWOOD	7	BLOODTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORWAY SPRUCE	30	EASTERN COTTONWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS						POTENTIAL AS HABITAT FOR:				
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WILDLF	WOODLD WILDLF	RANGELD WILDLF
1-5%	GOOD	GOOD	GOOD	GOOD	GOOD	-	FAIR	FAIR	GOOD	GOOD	FAIR
5-15%	FAIR	GOOD	GOOD	GOOD	GOOD	-	POOR	FAIR	GOOD	GOOD	FAIR
15+%	POOR	FAIR	GOOD	GOOD	GOOD	-	POOR	POOR	FAIR	GOOD	POOR

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

COR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0039

SOIL SURVEY INTERPRETATIONS

DONNAN SERIES

SOIL DESCRIPTION:

DATE: 1978

THE DONNAN SERIES CONSISTS OF SOMEWHAT POORLY TO MODERATELY WELL DRAINED SOILS FORMED IN LOAMY AND CLAYEY MATERIALS OVER VERY FIRM, HIGHLY WEATHERED GLACIAL TILL UNDER MIXED GRASS AND FOREST VEGETATION ON UPLANDS. THESE SOILS HAVE A VERY DARK-GRAY LOAM SURFACE LAYER 8 INCHES THICK. THE SUBSOIL IS BROWN, FRIABLE LIGHT CLAY LOAM TO A DEPTH OF 25 INCHES AND GRAY, VERY FIRM CLAY WITH HIGH CHROMA MOTTLES TO A DEPTH OF 52 INCHES. SLOPES RANGE FROM 0 TO 9 PERCENT. MOST AREAS ARE IN CULTIVATED CROPS.

W-3

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS PLOW LAYER	
								K	T
782	0-2	NONE	2W	55	2.5-3.5	MOD/VSL	5.1-7.3	.28	4
782B	2-5	SLIGHT	2E	50	2.0-3.0	MOD/VSL	5.1-7.3	.28	4
782B2	2-5	MODERATE	2E	45	1.5-2.5	MOD/VSL	5.1-7.3	.28	4
782C	5-9	SLIGHT	3E	35	2.0-3.0	MOD/VSL	5.1-7.3	.28	4
782C2	5-9	MODERATE	3E	30	1.0-2.0	MOD/VSL	5.1-7.3	.28	4

LAND TREATMENT NEEDS:

The problems of providing adequate drainage and controlling erosion are difficult ones on these soils because they conflict to some extent. Conservation practices tend to slow down the movement of surface water and let more soak into the soil. The extra water complicates drainage, especially in wet years. A combination of practices such as terracing or mulch tillage and tile drainage may prove to be the most successful.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
	782	72		26				
782B	70		24		56	2.8	4.6	2.7
782B2	65		24		52	2.6	4.3	2.5
782C	65		24		52	2.6	4.3	2.5
782C2	60		22		48	2.4	4.0	2.3

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
>50 F. NAAT	REDOSIER DOGWOOD	7	BLOODTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORWAY SPRUCE	30	EASTERN COTTONWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36
<50 F. NAAT	NORTHERN WHITE-CEDAR	20	COMMON HACKBERRY	34	WHITE SPRUCE	22	BUR OAK	30
	EASTERN WHITE PINE	28	SIBERIAN CRABAPPLE	18	PONDEROSA PINE	26	AMUR MAPLE	23
	SILVER MAPLE	45	TATARIAN HONEYSUCKLE	11	GREEN ASH	35	LILAC	12

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:				
	GRAIN SEED	GRASS LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WOODLD	WETLAND WOODLD	RANGELD WOODLD	
1-5%	GOOD	GOOD	GOOD	GOOD	GOOD	-	FAIR	FAIR	GOOD	GOOD	FAIR	-
5+	FAIR	GOOD	GOOD	GOOD	GOOD	-	POOR	POOR	GOOD	GOOD	POOR	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
NAAT -- MEAN ANNUAL AIR TEMPERATURE

CRR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0087

SOIL SURVEY INTERPRETATIONS

SCHLEY SERIES

SOIL DESCRIPTION:

DATE: 1978

THE SCHLEY SERIES CONSISTS OF ~~SOMEWHAT POORLY DRAINED~~ SOILS FORMED IN LOAMY SEDIMENTS OVER GLACIAL TILL ON UPLANDS. THESE SOILS HAVE A BLACK SILT LOAM SURFACE LAYER 7 INCHES THICK AND DARK GRAYISH-BROWN SILT LOAM SUBSURFACE LAYERS 10 INCHES THICK. THE SUBSOIL IS MOTTLED GRAYISH-BROWN AND STRONG-BROWN LOAM AND SANDY LOAM 29 INCHES THICK. THE SUBSTRATUM IS MOTTLED YELLOWISH-BROWN, LIGHT GRAY AND STRONG BROWN LOAM. SLOPES RANGE FROM 1 TO 4%. MOST AREAS ARE CULTIVATED.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS	
								K	T
407B	1-4	SLIGHT	2W	70	2.5-3.5	MCDERATE	4.5-7.3	.32	5
<i>cont + 40 drainage</i>									

LAND TREATMENT NEEDS:

Wetness in Schley soils is due at least in part to sidehill seepage; therefore, a drainage system that intercepts lateral movement of water is most likely to be successful. In areas where erosion is a problem, a combination of terracing and tiling can be used.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
407B	100		38		80	4.2	7.0	4.0

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES			HT	SPECIES			HT	SPECIES			HT
	SPECIES	HT	SPECIES		SPECIES	HT	SPECIES		HT			
ALL	REDOSTER DOGWOOD	7	BLOODTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30				
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORWAY SPRUCE	30	EASTERN COTTONWOOD	40				
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36				

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS						POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
ALL	GOOD	GOOD	GOOD	GOOD	GOOD	-	GOOD	GOOD	GOOD	GOOD	GOOD	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0085

SOIL SURVEY INTERPRETATIONS

RICEVILLE SERIES

SOIL DESCRIPTION:

DATE: 1978

THE RICEVILLE SERIES CONSISTS OF SOMEWHAT POORLY DRAINED SOILS FORMED IN LOAMY MATERIAL OVER GLACIAL TILL ON UPLANDS. THESE SOILS HAVE A BLACK SILT LOAM SURFACE LAYER 6 INCHES THICK AND DARK GRAYISH-BROWN SILT LOAM SUBSURFACE LAYER 3 INCHES THICK. THE SUBSOIL IS MOTTLED DARK GRAYISH-BROWN AND BROWN LOAM AND CLAY LOAM IN UPPER 11 INCHES AND MOTTLED GRAY AND YELLOWISH-BROWN. VERY FIRM CLAY LOAM IN LOWER 40 INCHES. SLOPES RANGE FROM 0 TO 5%. MOST AREAS ARE CULTIVATED.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS PLOW LAYER	
								K	T
784	0-2	NONE	2W	55	3.5-4.5	MOD. SLOW	4.5-7.3	.32	4
784B	2-5	SLIGHT	2E	50	3.0-4.0	MOD. SLOW	4.5-7.3	.32	4

LAND TREATMENT NEEDS:

Due to the slow permeability, tile drainage is not fully effective on the soils but is the best method of subsurface drainage that is currently available. Conservation practices tend to slow down the movement of surface water with more water soaking into the soil. On the more sloping land a combination of terraces and tiling may prove to be the most successful.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
784	85		32		68	3.5	5.8	3.5
784B	82		31		66	3.4	5.6	3.3

NE - 5

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES		HT	SPECIES		HT	SPECIES		HT	SPECIES		HT
ALL		REDOSIER DOGWOOD	7	BLOODTWIG DOGWOOD	12		EASTERN REDCEDAR	20		RED PINE	30	
		GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12		NORWAY SPRUCE	30		EASTERN COTTONWOOD	40	
		SIBERIAN DOGWOOD	12	AMUR MAPLE	20		COMMON HACKBERRY	30		SILVER MAPLE	36	

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:						
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD	WOODLD	WETLAND	RANGELD		
ALL	GOOD	FAIR	GOOD	FAIR	FAIR	-	GOOD	GOOD	FAIR	FAIR	GOOD	-		

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: 1A0340

SOIL SURVEY INTERPRETATIONS

FLOYD SERIES

SOIL DESCRIPTION: DATE: 1978
THE FLOYD SERIES CONSISTS OF SOMEWHAT POORLY DRAINED SOILS. THEY FORMED IN LOCAL LOAMY ALLUVIUM ABOUT 3 FEET THICK OVER GLACIAL TILL. THE SURFACE LAYER IS A BLACK AND VERY DARK GRAYISH-BROWN LOAM 24 INCHES THICK. THE UPPER PART OF THE SUBSOIL EXTENDS TO 41 INCHES IS OLIVE-BROWN FRIABLE SANDY CLAY LOAM AND YELLOWISH-BROWN SANDY LOAM. THE LOWER SUBSOIL EXTENDS TO 50 INCHES AND IS A MOTILED YELLOWISH-BROWN FRIABLE LOAM. THE SUBSTRATUM IS YELLOWISH-BROWN, FRIABLE, CALCAREOUS LOAM. SLOPES RANGE FROM 1 TO 4%. DRAINED AREAS ARE CULTIVATED, UNDRAINED AREAS ARE IN PASTURE.

MAP UNIT SYMBOL	SLOPE	ERUSION	CAPABILITY	CORN	% ORGANIC	PERMEABILITY	PH-RANGE	EROSION FACTORS	
				SUITABILITY RATING	MATTER PLCW LAYER			PLCW LAYER	PLCW LAYER
198B	1-4	SLIGHT	2W	75	5.0-6.0	MODEPATE	6.6-7.3	.24	5

W-5
over 24" MAAT

LAND TREATMENT NEEDS:

Wetness in the Floyd soils is due at least in part to sidehill seepage; therefore, a drainage system that intercepts lateral movement of water is most likely to be successful. In areas where erosion is a problem a combination of terracing and tile can be used.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BERMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED	(BU/AC)	(TONS/AC)	(AUM/AC)	(AUM/AC)
198B	106		40		85	4.5	7.5	4.1

WINDBREAKS

CLASS-DETERMINING PHASE	SPECIES	IHT	SPECIES	IHT	SPECIES	IHT	SPECIES	IHT
>50 F. MAAT	REDOSIER DOGWOOD	7	BLOCDTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NGRWAY SPRUCE	30	EASTERN COTTONWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	36	SILVER MAPLE	36
<50 F. MAAT	EASTERN COTTONWOOD	60	SIBERIAN CRABAPPLE	20	SILVER MAPLE	35	AMUR MAPLE	16
	GOLDEN WILLOW	35	NORTHERN WHITE-CEDAR	15	GREEN ASH	30	REDOSIER DOGWOOD	15
	EASTERN WHITE PINE	25	MEDIUM PURPLE WILLOW	14	WHITE SPRUCE	22	TATARIAN HONEYSUCKLE	10

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:				
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOE WATER	OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
ALL	GOOD	GOOD	GOOD	GOOD	GOOD	-	GOOD	GOOD	GOOD	GOOD	GOOD	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0061

SOIL SURVEY INTERPRETATIONS

READLYN SERIES

SOIL DESCRIPTION:

THE READLYN SERIES CONSISTS OF SOMEWHAT POORLY DRAINED SOILS FORMED IN LOAMY SEDIMENTS OVER LOAM GLACIAL TILL UNDER PRAIRIE VEGETATION ON UPLANDS. THEY HAVE BLACK, VERY DARK-BROWN AND VERY DARK GRAYISH-BROWN LOAM SURFACE LAYERS 17 INCHES THICK. THE SUBSOIL IS MOTTLED OLIVE-BROWN, DARK YELLOWISH-BROWN AND YELLOWISH-BROWN LOAM 35 INCHES THICK. THE SUBSTRATUM IS MOTTLED-YELLOWISH-BROWN, FIRM LOAM. SLOPES RANGE FROM 0 TO 5 PERCENT. MOST AREAS ARE USED FOR CULTIVATED CROPS.

DATE: 1978

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS PLOW LAYER	
								K	T
399	0-2	NONE	1	90	4.5-5.5	MODERATE	5.1-7.3	.24	5
399B	2-5	SLIGHT	2E	85	4.5-5.5	MODERATE	5.1-7.3	.24	5

LAND TREATMENT NEEDS:

Not all areas need tile, but most areas benefit in wet years and timeliness of field operations is greatly improved. Tile function well. On the sloping land a combination of terraces and tiling may prove to be the most successful. Terraces tend to increase infiltration and increase the need for drainage.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
399	115		44		92	4.8	8.0	4.2
399B	113		43		90	4.7	7.8	4.1

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
>50 F. MAAT	REDOSTER DOGWOOD	7	BLOODTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORWAY SPRUCE	30	EASTERN COTTONWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36
<50 F. MAAT	NORTHERN WHITE-CEDAR	20	COMMON HACKBERRY	34	WHITE SPRUCE	22	BUR OAK	30
	EASTERN WHITE PINE	28	SIBERIAN CRABAPPLE	18	PONDEROSA PINE	26	AMUR MAPLE	23
	SILVER MAPLE	45	TATARIAN HONEYSUCKLE	11	GREEN ASH	35	LILAC	12

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS						POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERB	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPEN D WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
ALL	GOOD	GOOD	GOOD	FAIR	FAIR	-	FAIR	FAIR	GOOD	FAIR	FAIR	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: 1A0093

SOIL SURVEY INTERPRETATIONS

ORAN SERIES

SOIL DESCRIPTION: THE ORAN SERIES CONSISTS OF SOMEWHAT POORLY DRAINED SOILS FORMED IN LOAMY SEDIMENTS OVER LOAMY GLACIAL TILL ON UPLANDS. THESE SOILS HAVE A VERY DARK GRAY LOAM SURFACE LAYER 8 INCHES THICK AND A DARK GRAYISH-BROWN LOAM SUBSURFACE LAYER 6 INCHES THICK. THE SUBSOIL IS MOTTLED DARK GRAYISH-BROWN, GRAYISH-BROWN, AND YELLOWISH-BROWN LOAM 28 INCHES THICK. THE SUBSTRATUM IS MOTTLED YELLOWISH-BROWN LOAM. SLOPES RANGE FROM 0 TO 5%. MOST AREAS ARE CULTIVATED. DATE: 1978

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLCW LAYER	PERMEABILITY	PH-RANGE PLCW LAYER	EROSION FACTORS	
								K	T
471	0-2	NONE	1	85	2.0-3.0	MCDERATE	5.1-7.3	.2E	5
471B	2-5	SLIGHT	2E	80	2.0-3.0	MCDERATE	5.1-7.3	.2E	5

LAND TREATMENT NEEDS:

Not all areas need tile, but most will benefit in wet years, and timeliness of field operations is greatly improved. Tile function satisfactorily. On the sloping land a combination of terraces and tiling may prove to be the most successful. Terraces tend to increase infiltration and increase need for drainage.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SCYBEANS (BU/AC)		CATS (BU/AC)	GRASS (TONS/AC)	ERGRASS ALFALFA (TUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
471	109		41		87	4.6	7.6	4.0
471B	107		40		85	4.5	7.5	3.8

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
ALL	REDOSIER DOGWOOD	7	BLCCDTWIG DOGWOOD	12	EASTERN REDCEDAR	20	RED PINE	30
	GRAY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NGRWAY SPRUCE	30	EASTERN COTTONWOOD	40
	SIBERIAN DOGWOOD	12	AMUR MAPLE	20	COMMON HACKBERRY	30	SILVER MAPLE	36

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS						POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLCW WATER	OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
ALL	GOOD	GOOD	GOOD	GOOD	GOOD	-	FAIR	FAIR	GOOD	GOOD	FAIR	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO:

SOIL SURVEY INTERPRETATIONS

CLYDE-FLOYD
COMPLEX

SOIL DESCRIPTION:

DATE: 1978

This complex consists of dark colored, ~~poorly to somewhat poorly drained~~ soils of the upland drainageways in the Clyde-Floyd-Kenyon areas. They have developed in 3 or more feet of loamy glacial alluvium and glacial till. Much of the wetness of this complex is due to seepage from soils upslope. The Floyd soils are somewhat poorly drained and occur upslope from the Clyde soils. The Clyde soils are poorly drained and occupy the center of the delineations near the drainageway. The drainageway may not always be well defined. Gullies may form where water concentrates.

*E+20
Summary*

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS	
								K	T
391B	1 - 4	Slight	2W	72	5.0 - 11.0	Moderate	6.6 - 7.3	--	--

LAND TREATMENT NEEDS:

Wetness in the Floyd soils is due at least in part to sidehill seepage; therefore, a drainage system that intercepts lateral movement of water is most likely to be successful. In areas where erosion is a problem, a combination of terracing and tile can be used.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS (TONS/AC)	BRCMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
391B	104		40		83	4.2	7.0	4.1

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT

WILDLIFE HABITAT SUITABILITY

CLASS-DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS						POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF

REMARKS:

REFER TO INDIVIDUAL INTERPRETATION SHEETS FOR ADDITIONAL INFORMATION.

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE

CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0046

SOIL SURVEY INTERPRETATIONS

CLYDE SERIES

DATE: 1977
SOIL DESCRIPTION:
THE CLYDE SERIES CONSISTS OF POORLY DRAINED SOILS IN UPLAND DRAINAGEWAYS. THEY FORMED IN LOCAL ALLOVIUM 2 1/2 FEET THICK AND THE UNDERLYING GLACIAL TILL. THE 23-INCH SURFACE LAYER IS BLACK AND DARK GRAY SILTY CLAY LOAM. THE SUBSOIL TO 41 INCHES IS MOTTLED GRAYISH-BROWN, OLIVE-GRAY AND YELLOWISH-BROWN FRIABLE SILTY CLAY LOAM AND FROM 41 TO 54 INCHES IS MOTTLED GRAY AND YELLOWISH BROWN FIRM LOAM. THE SUBSTRATUM IS MOTTLED GRAY AND YELLOWISH-BROWN FIRM LOAM THAT IS CALCAREOUS BELOW 62 INCHES. SLOPES RANGE FROM 0 TO 3%. DRAINED AREAS ARE CULTIVATED; UNDRAINED AREAS ARE IN PASTURE OR IDLE.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN	% ORGANIC	PERMEABILITY	PH-RANGE	EROSION FACTORS	
				SUITABILITY RATING	MATTER PLOW LAYER		PLOW LAYER	K	T
84	1-3	NONE	2V	75	9.0-11.0	MODERATE	6.6-7.3	.20	5

W-80
And between
to Farms

LAND TREATMENT NEEDS:

Wetness of the Clyde soils is due, at least in part, to hillside seepage from the Floyd and Kenyon soils that occur upslope. So a tile drainage system designed to intercept laterally moving water is most likely to be successful. Large granite boulders are common in many unimproved areas and need to be removed before cropping.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS (TONS/AC)	BROMEGRASS (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
84	102		39		82	4.0	6.6	6.6

WINDBREAKS

CLASS-DETERMINING PHASE	SPECIES	IHI	SPECIES	IHI	SPECIES	IHI	SPECIES	IHI
>50 F. MAAT	REDDISIER DOGWOOD	7	BLOODTWIG DOGWOOD	12	AMUR MAPLE	20	GREEN ASH	30
	SILKY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORTHERN WHITE- CEDAR	20	EASTERN COTTONWOOD	42
	SIBERIAN DOGWOOD	12	ZABEL HONEYSUCKLE	12	LAUREL WILLOW	20	SILVER MAPLE	40
<50 F. MAAT	EASTERN COTTONWOOD	60	SIBERIAN CRABAPPLE	20	SILVER MAPLE	35	AMUR MAPLE	16
	GOLDEN WILLOW	35	NORTHERN WHITE- CEDAR	15	GREEN ASH	30	REDDISIER DOGWOOD	15
	EASTERN WHITE PINE	25	MEDIUM PURPLE WILLOW	14	WHITE SPRUCE	22	TATARIAN HONEYSUCKLE	10

WILDLIFE HABITAT SUITABILITY

CLASS- DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS						POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERB	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WILDF	WOODLD WILDF	WETLAND WILDF	RANGELD WILDF
ALL	GOOD	GOOD	GOOD	FAIR	POOR	-	GOOD	GOOD	GOOD	FAIR	GOOD	-

REMARKS:

AUM -- ANIMAL UNIT MONTHS
MAAT -- MEAN ANNUAL AIR TEMPERATURE
CSR AND YIELDS ARE FOR HIGH MANAGEMENT AND REPRESENT AVERAGE FIGURES FOR THESE SOILS IN IOWA.

RECORD NO: IA0053

SOIL SURVEY INTERPRETATIONS

TRIPOLI SERIES

SOIL DESCRIPTION:

DATE: 1978

THE TRIPOLI SERIES CONSISTS OF POORLY DRAINED SOILS FORMED IN LOAMY MATERIAL ABOUT 20 INCHES THICK OVER LOAM GLACIAL TILL UNDER PRAIRIE VEGETATION ON BROAD UPLAND FLATS. THE SURFACE LAYER IS BLACK AND VERY DARK-GRAY CLAY LOAM 18 INCHES THICK. THE SUBSOIL IS MOTTLED VERY DARK GRAYISH-BROWN AND DARK GRAYISH-BROWN, FRIABLE CLAY LOAM IN UPPER 6 INCHES AND MOTTLED OLIVE-BROWN AND YELLOWISH-BROWN FRIABLE AND FIRM LOAM. THE SUBSTRATUM IS MOTTLED YELLOWISH-BROWN, STRONG-BROWN AND GRAYISH-BROWN LOAM. SLOPES RANGE FROM 0 TO 2 PERCENT. MOST AREAS ARE CULTIVATED.

MAP UNIT SYMBOL	SLOPE	EROSION	CAPABILITY	CORN SUITABILITY RATING	% ORGANIC MATTER PLOW LAYER	PERMEABILITY	PH-RANGE PLOW LAYER	EROSION FACTORS	
								K	T
398	0-2	NONE	2W	80	6.0-7.0	MODERATE	6.6-7.3	.24	5

LAND TREATMENT NEEDS:

There is an appreciable difference in the rate at which water moves through the loamy overburden as compared to the rate of movement in the glacial till. Water tends to accumulate at the till contact, giving rise to a perched water table. Tile drainage is needed for satisfactory production. Tile drains will work if properly installed. Some boulders may be encountered when installing tile drains.

YIELD PREDICTIONS--HIGH MANAGEMENT

MAP UNIT SYMBOL	CORN (BU/AC)		SOYBEANS (BU/AC)		OATS (BU/AC)	GRASS LEGUME HAY (TONS/AC)	BROMEGRASS ALFALFA (AUM/AC)	BLUEGRASS (AUM/AC)
	STATE	PREDICTED	STATE	PREDICTED				
398	111		42		89	4.5	7.5	4.1

WINDBREAKS

CLASS-DETERMIN'G PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
>50 F. MAAT	REDOSIER DOGWOOD	7	BLOODTWIG DOGWOOD	12	AMUR MAPLE	20	GREEN ASH	30
	SILKY DOGWOOD	7	TATARIAN HONEYSUCKLE	12	NORTHERN WHITE-CEDAR	20	EASTERN COTTONWOOD	42
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WILDLIFE HABITAT SUITABILITY

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ALL	GOOD	GOOD	GOOD	FAIR	POOR	-	GOOD	GOOD	GOOD	FAIR	GOOD	-

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