



414 - 787 - 0443
WAUSHARA COUNTY LAND CONSERVATION DEPARTMENT

209 S. St. Marie St. P.O. Box 1109 WAUTOMA, WISCONSIN 54982

January 14, 1997

Vic:

Enclosed are 3 copies of the Storm water Management plan for Silver Lake. We'll keep the original on file at the Waushara County Land Conservation office, in case there are any modifications.

May I suggest that a copy be mailed to Rich Wissink, D.N.R., as soon as possible to initiate the permit process. The other copies are for the Silver Lake Sanitary District files and a copy for potential contractors to bid the job.

The Waushara County LCD staff will be available for pre-construction conferences and construction supervision, to assure the project is installed according to the plan.

We are looking forward to getting started on the project. If there is anything we can do to expedite a starting date, or if you have any questions, feel free to call us at 787-0443.

Respectfully,

Gay LeBeaton
dr

Land Conservation Dept.

TL/dr
enc.

**WAUSHARA COUNTY LAND CONSERVATION DEPARTMENT**

209 S. St. Marie St. P.O. BOX 1109 WAUTOMA, WISCONSIN 54982

MEMO

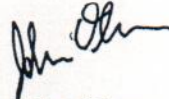
To: All Concerned Parties
From: Waushara County Land Conservation Department
Subject: Silver Lake Stormwater Diversion Project
Date: February 4, 1998

Enclosed is the final draft of the Stormwater Diversion Plan for Silver Lake. The lead organization for this project is the Silver Lake Sanitary District. Any technical questions in regard to this plan can be referred to Waushara County Land Conservation Department.

If you have any questions, feel free to call our office at (920)787-0443.

Respectfully,


Tom Littwin

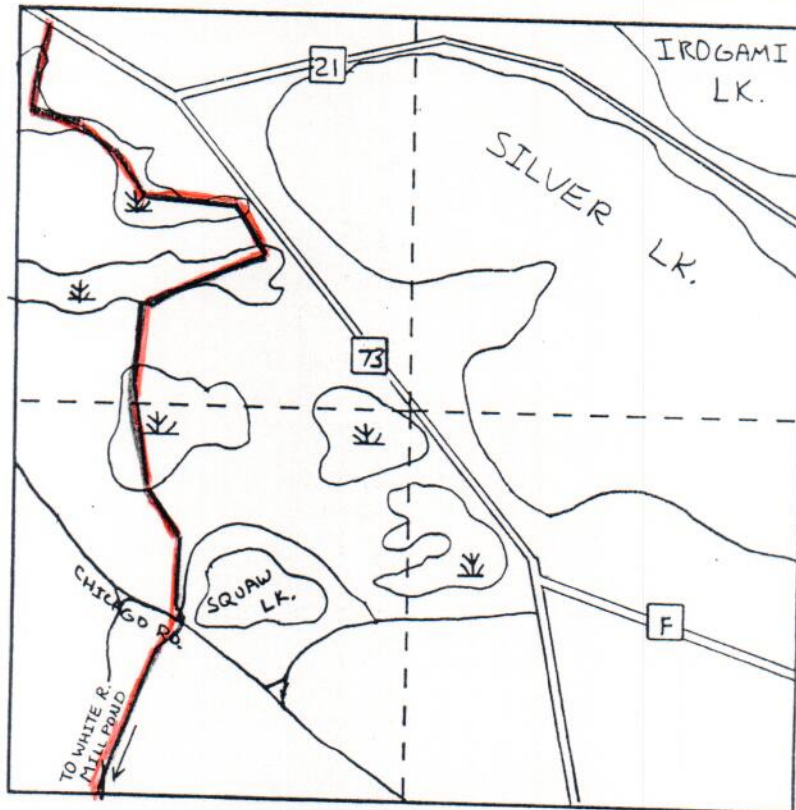

John Olsen

enc.

cc: V. Bartel-Silver Lake Sanitary District
B. Anderson-Wisconsin Department of Transportation
S. Eisch-Wisconsin Department of Natural Resources
C. Knotts-U.S. Army Corp. Of Engineers

CONSTRUCTION PLAN

PRACTICE STORMWATER RUNOFF
OWNER SILVER LAKE SANITARY DISTRICT
ADDRESS RFD 4 WAUTOMA WI 54982
COUNTY WAUSHARA LANDOWNER PHONE NO. (414) 787-7622 C/O VIC BARTEL
TOWNSHIP MARION & DAKOTA
SECTION 6/7 - 1/12 TOWNSHIP 14 N RANGE 10 & 11
FIELD OFFICE WAUTOMA TELEPHONE NO. (414) 787-0443



PROPOSED
STORM WATER
RUN OFF
OUTLET

NOT TO
SCALE

LOCATION MAP

NOTICE TO LANDOWNERS AND CONTRACTORS REGARDING UTILITIES

NO REPRESENTATION IS MADE BY THE USDA SOIL CONSERVATION SERVICE OR THE WAUSHARA COUNTY LAND AND WATER CONSERVATION DEPARTMENT AS TO THE EXISTENCE OR NONEXISTENCE OF UNDERGROUND HAZARDS. PRIOR TO THE START OF CONSTRUCTION THE OWNERS OF UTILITIES MUST BE NOTIFIED OF THE PENDING CONSTRUCTION. YOU WILL BE LIABLE FOR DAMAGES RESULTING FROM CONSTRUCTION ACTIVITIES.

CONSTRUCTION DRAWINGS AND SPECIFICATIONS ACCEPTANCE

I/WE HAVE REVIEWED AND DO ACCEPT THE ATTACHED PLANS. I/WE AGREE TO HAVE THIS PROJECT CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND TO NOTIFY ALL AFFECTED UTILITY COMPANIES.

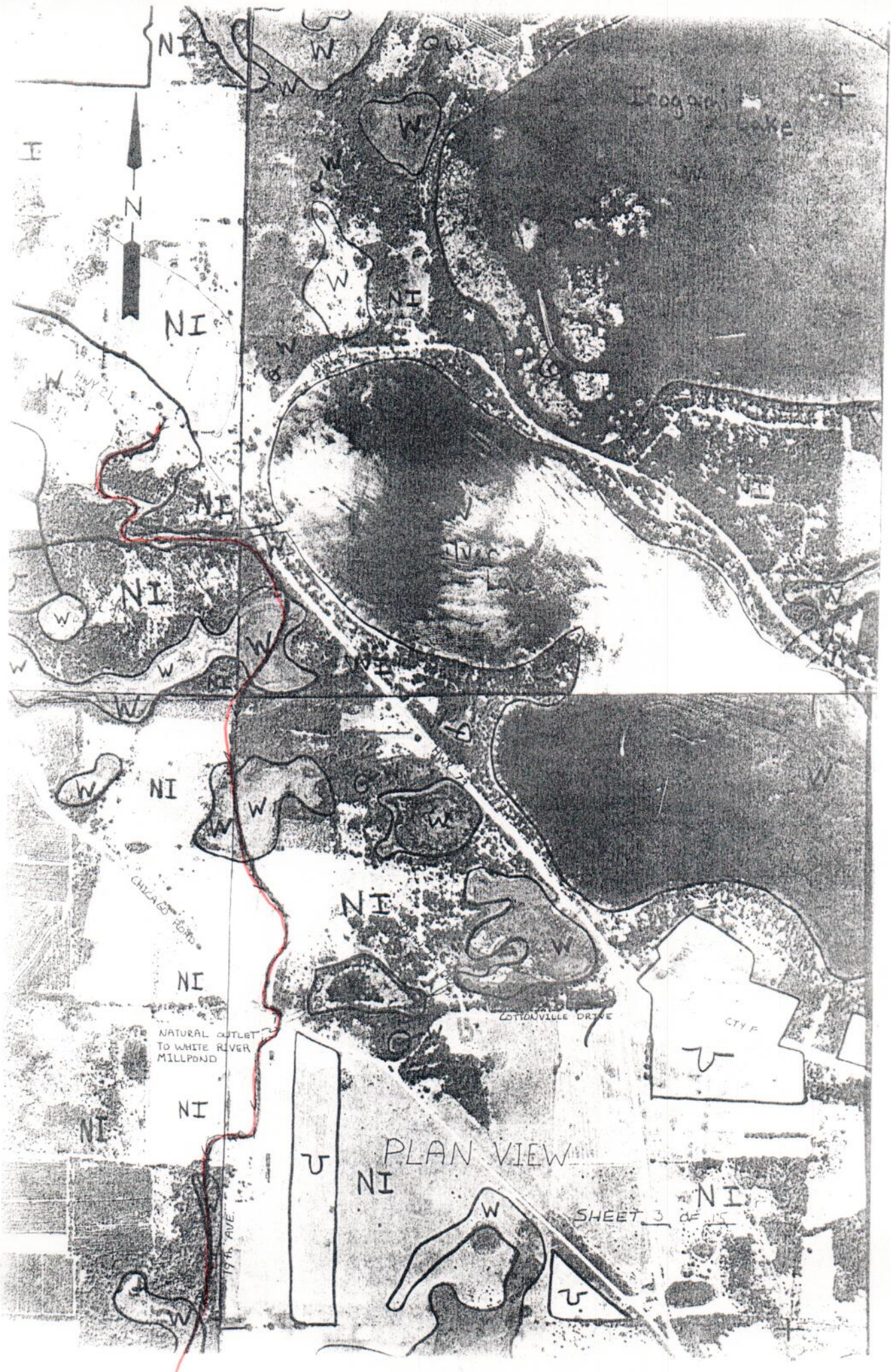
SIGNED: _____ DATE: _____
DESIGNED BY: WAUSHARA CO. LCD DATE: 2-2-98
CHECKED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY	SHEET NUMBER	WI. CONSTRUCTION SPEC OR JOB SHEET NO.
EXCAVATION / FILL / CLEARING	Cubic Yds.	3044	2-11	WI. CONST. SPEC. 1-2-3
24 IN. FLOWGATE CONTROL STRUCTURE WITH ANTI-SEEP COLLAR	EACH	2	12	WI. CONST. SPEC 6
CMP FLARED INLET W/ TRASH GUARD	EACH	4	5,7,8	WI. CONST. SPEC 6
30 IN. CULVERT CAP (CAP TO S.L.)	EACH	1	4	WI. CONST. SPEC 6
24" CMP ^{CONNECTING BANDS} (TOTAL FOR PROJECT)	FEET	750	4,5,7,8	WI. CONST. SPEC 6
CONCRETE SEWER CLEANOUT 4 FT. DIA. W/MANHOLE @ GND LEVEL	EACH	1	13	_____
X-INGS: 2'-3" QUARRY RUN LIMESTONE 20 yds. LIMESTONE SCREENINGS 20 yds.	Cubic Yds	40	5,7	_____
SEEDING	LBS.	198	15	CPA-123
MULCH (CLEAN STRAW)	BALES	150	15	CPA-123
BENCHMARKS (PVC / CONCRETE)	EACH	3	7,8,10	_____

ESTIMATED QUANTITIES

SILVER LAKE S.D.	
OWNER	
WAUSHARA	LCC, WI
COUNTY	
Designed:	Checked:
SHEET <u>2</u> OF <u>15</u>	



NATURAL OUTLET
TO WHITE RIVER
MILLPOND

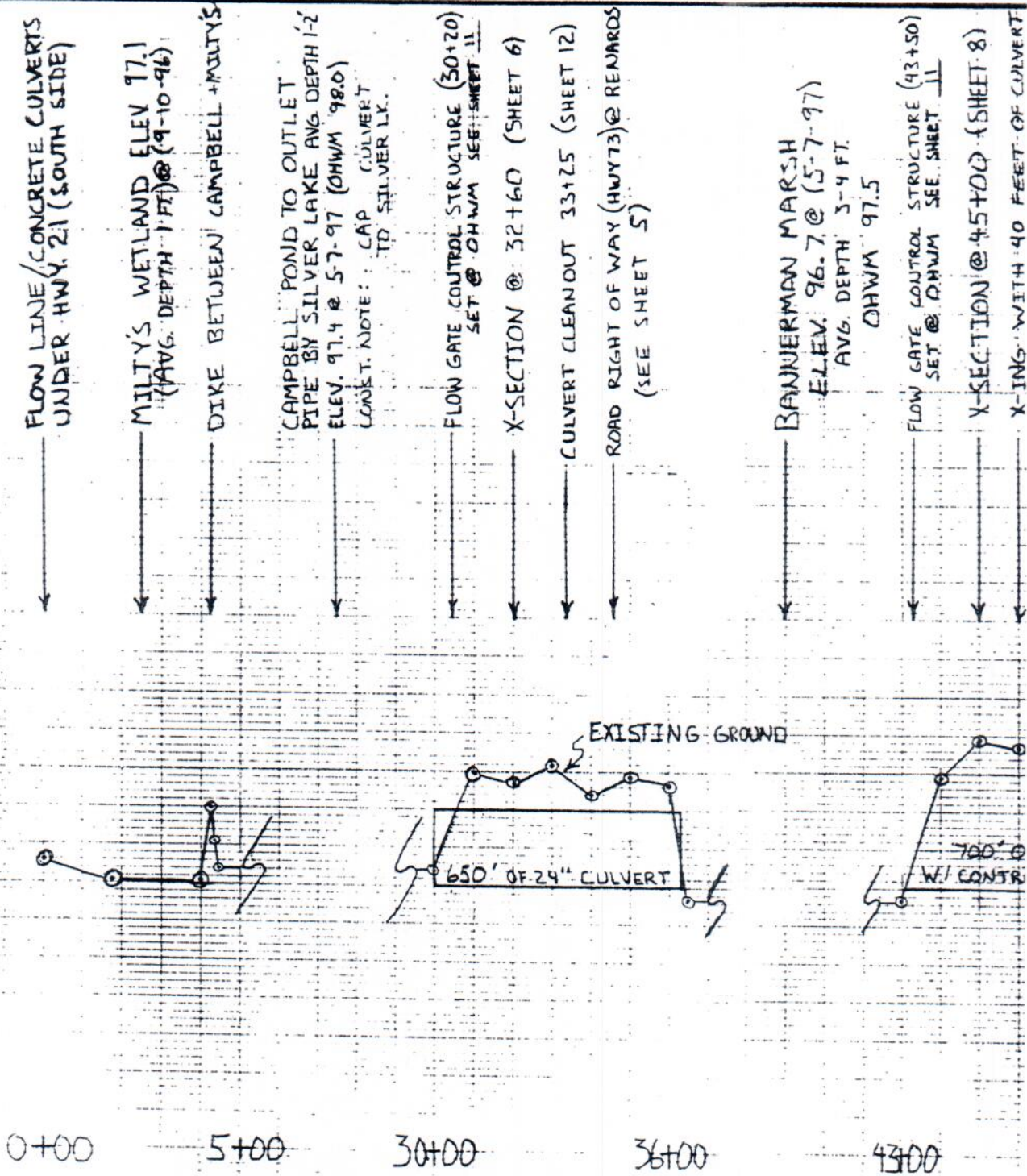
PLAN VIEW

SHEET 3 OF 15

CTY F

ELEVATION IN FEET

108
106
104
102
101
100
98
96
94
92
90



FLOW LINE / CONCRETE CULVERTS UNDER HWY 21 (SOUTH SIDE)

MILTY'S WETLAND ELEV 97.1 (AVG. DEPTH 1 FT) @ (9-10-96)

DIKE BETWEEN CAMPBELL + MILTY'S

CAMPBELL POND TO OUTLET PIPE BY SILVER LAKE AVG DEPTH 1-2 ELEV. 97.4 @ 5-7-97 (OHWM 98.0)
CONC. NOTE: CAP CULVERT TO SILVER LK.

FLOW GATE CONTROL STRUCTURE (30+20) SET @ OHWM SEE SHEET 11

X-SECTION @ 32+60 (SHEET 6)

CULVERT CLEANOUT 33+25 (SHEET 12)

ROAD RIGHT OF WAY (HWY 21) @ REARDS (SEE SHEET 5)

BANNERMAN MARSH ELEV. 96.7 @ (5-7-97) AVG. DEPTH 3-4 FT. OHWM 97.5

FLOW GATE CONTROL STRUCTURE (43+50) SET @ OHWM SEE SHEET 11

X-SECTION @ 45+00 (SHEET 8) X-ING WITH 40 FEET OF CULVERT

TBM # 1 ELEV: 100.00

NAIL IN TELEPHONE POLE @ KLEIN'S LANDING

TBM # 2 ELEV: 97.58

FLOWLINE OF CONCRETE CULVERT, SOUTH SIDE HWY 21

TBM # 3 ELEV: 96.34

FLOWLINE OF CMP, NORTH SIDE OF CHICAGO ROAD.

DISTANCE IN FEET

(PROFILE 0+00 - 72+00)
HWY 21 - CHICAGO RD

UPPER PART OF FINISH

ELEV. 96.7 @ (5+7-97)
AVG. DEPTH 3-4 FT.
OHWM 97.5

FLOW GATE CONTROL STRUCTURE (43+50)
SET @ OHWM SEE SHEET 11

X-SECTION @ 45+00 (SHEET 8)

X-ING WITH 40 FEET OF CULVERT
WEISSJOHN PROPERTY
(SEE SHEET 7)

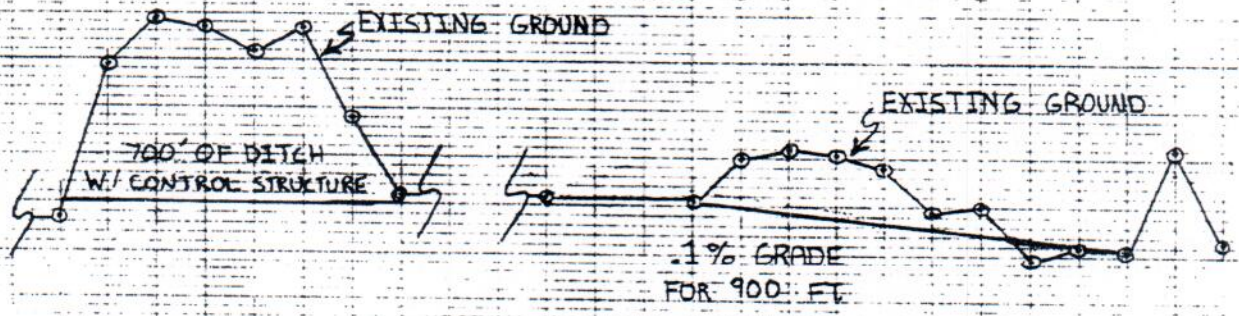
CAMPBELL/WEISSJOHN WETLAND
ELEV. 97.2 @ (5+7-97)
OHWM 97.0

PERMANENT BENCHMARK (SET @ 97.0)

CAMPBELL TREE & LAND CO.
PROPERTY (SECTION 7)
SEE SHEET 10 AND SHEET 11
FOR X-SECTION 63+00

OUTLET INTO EXISTING ROAD DITCH

CHICAGO ROAD
ELEV. 96.3
FLOW LINE CULVERT @ CHICAGO RD. 96.3



43+00 50+00 58+00 65+00 70+00

100 FEET

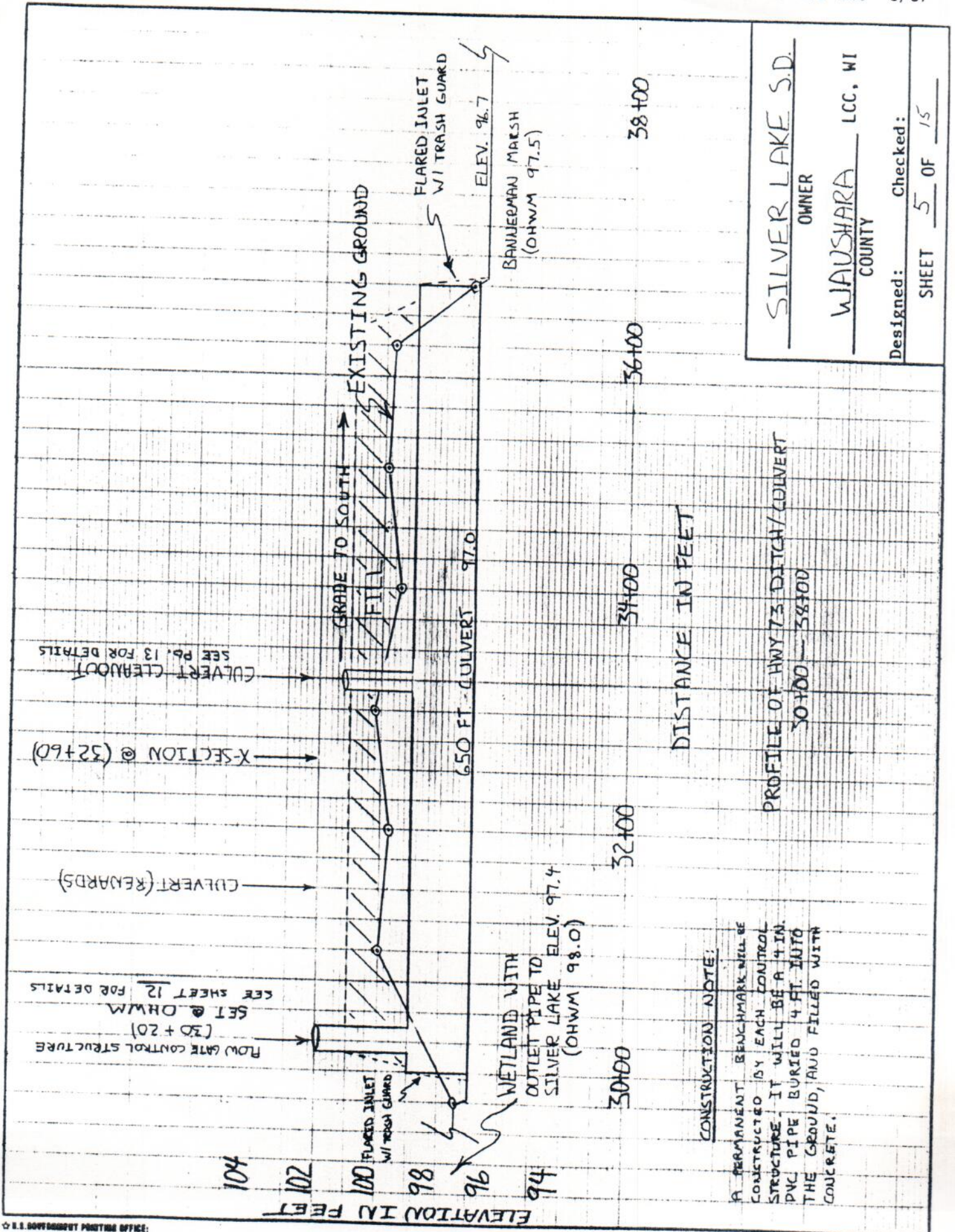
(4+00 - 72+00)
CHICAGO RD

S. D

HWY 21 CULVERT TO CHICAGO ROAD

**U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE**

Date _____ Designed _____ Drawn _____ Traced _____ Checked _____	Approved by _____ Title _____ Title _____ Sheet No. <u>4</u> Drawing No. _____ of 15
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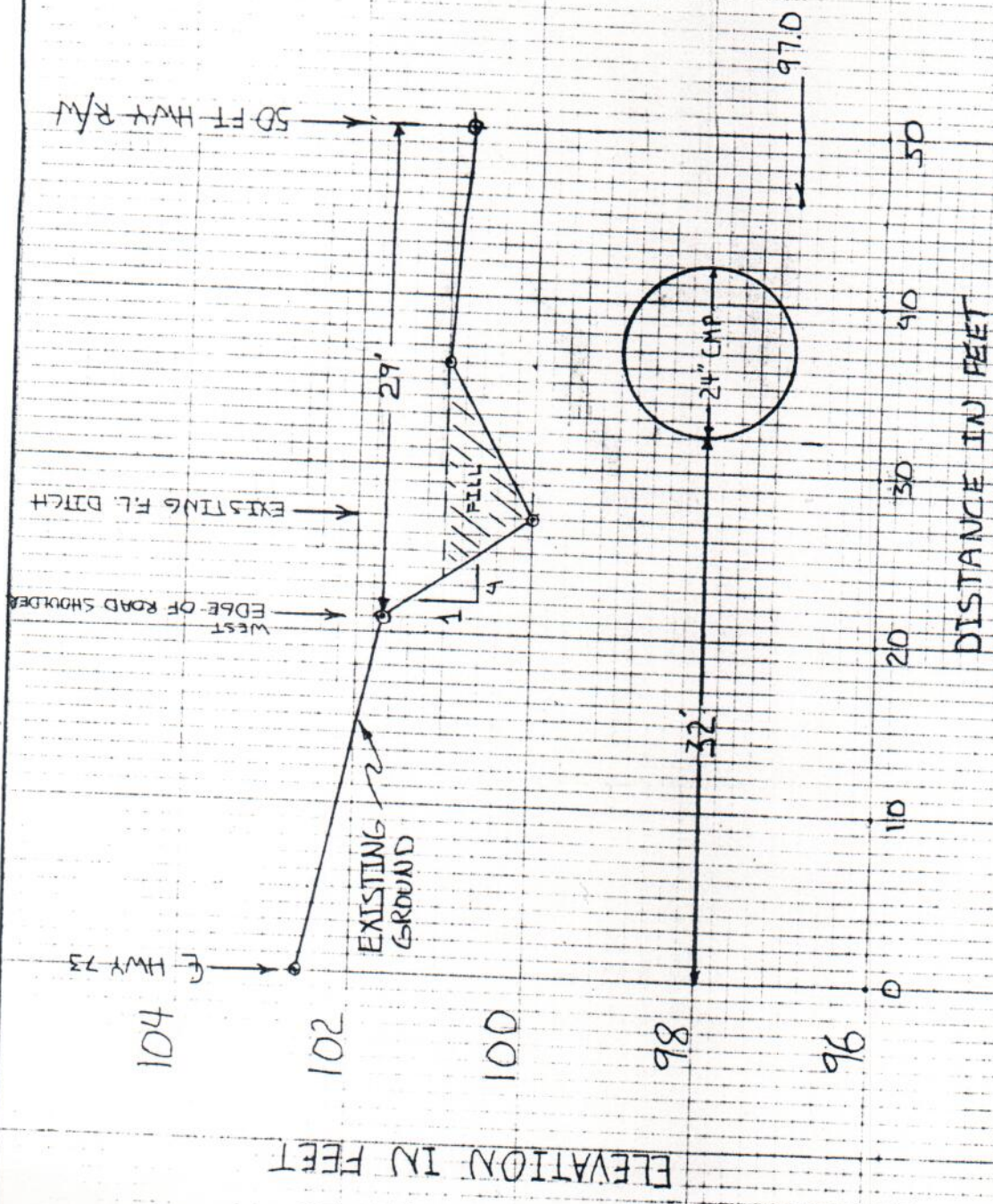


SILVER LAKE S.D.
OWNER
WAUSHARA COUNTY LCC, WI
Designed: _____ Checked: _____
SHEET 5 OF 15

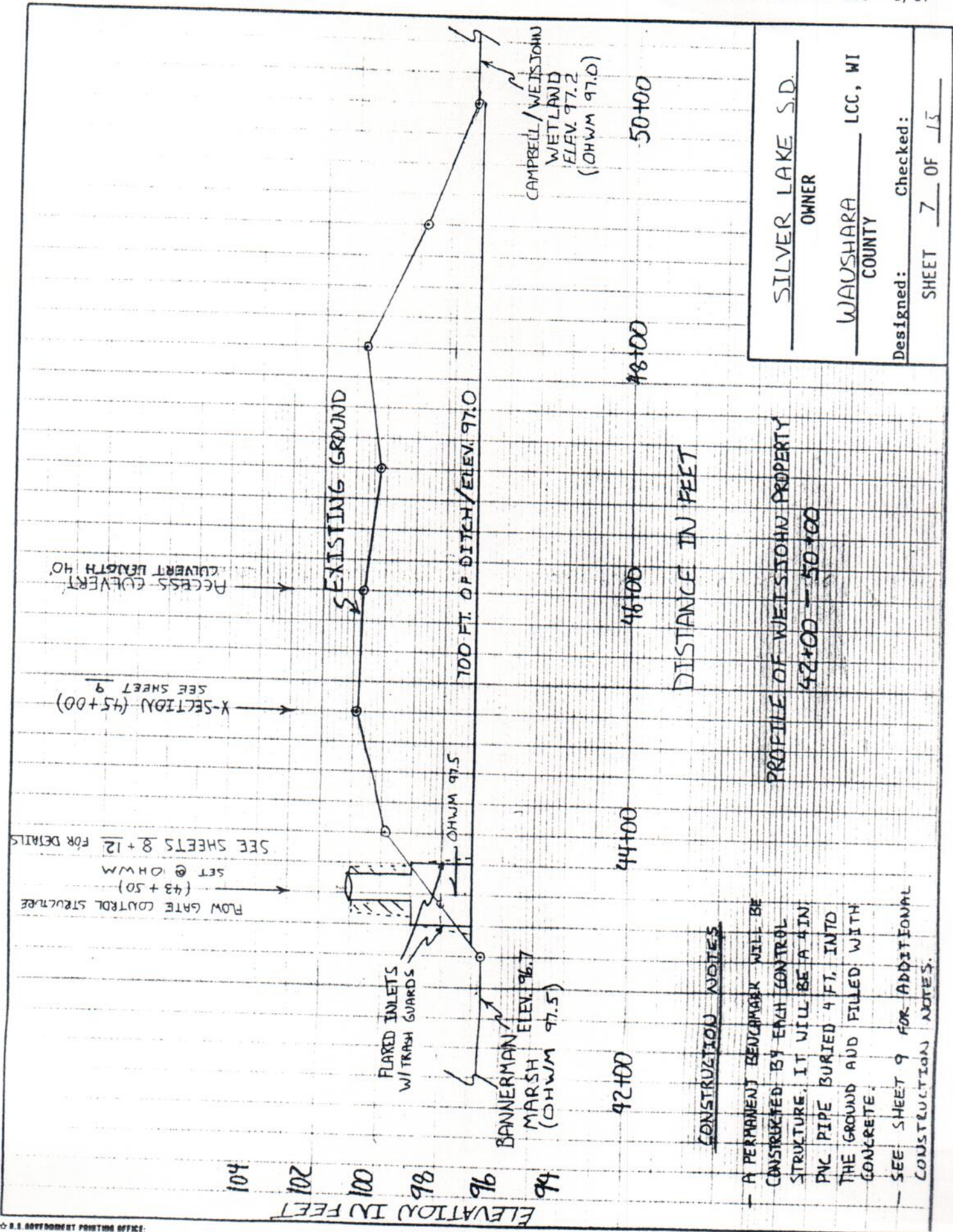
PROFILE OF HWY 73 DITCH/CULVERT
30+00 - 38+00

CONSTRUCTION NOTE:
A PERMANENT BENCHMARK WILL BE
CONSTRUCTED BY EACH CONTROL
STRUCTURE. IT WILL BE A 4 IN.
PVC PIPE BURIED 4 FT. INTO
THE GROUND, AND FILLED WITH
CONCRETE.

SILVER LAKE SD.
OWNER
WAUSHARA LCC, WI
COUNTY
Designed: _____ Checked: _____
SHEET 6 OF 15



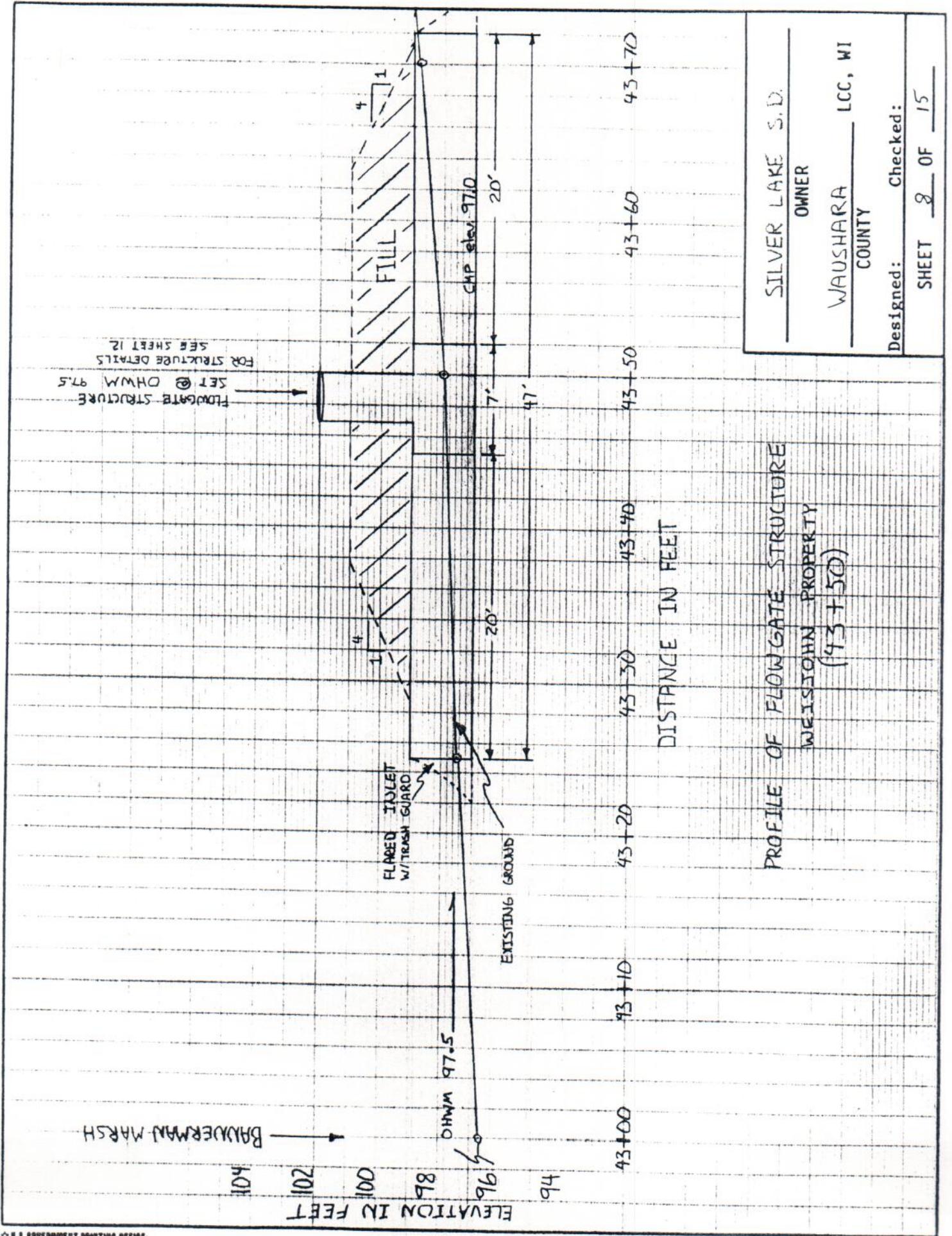
X-SECTION
(32+60)

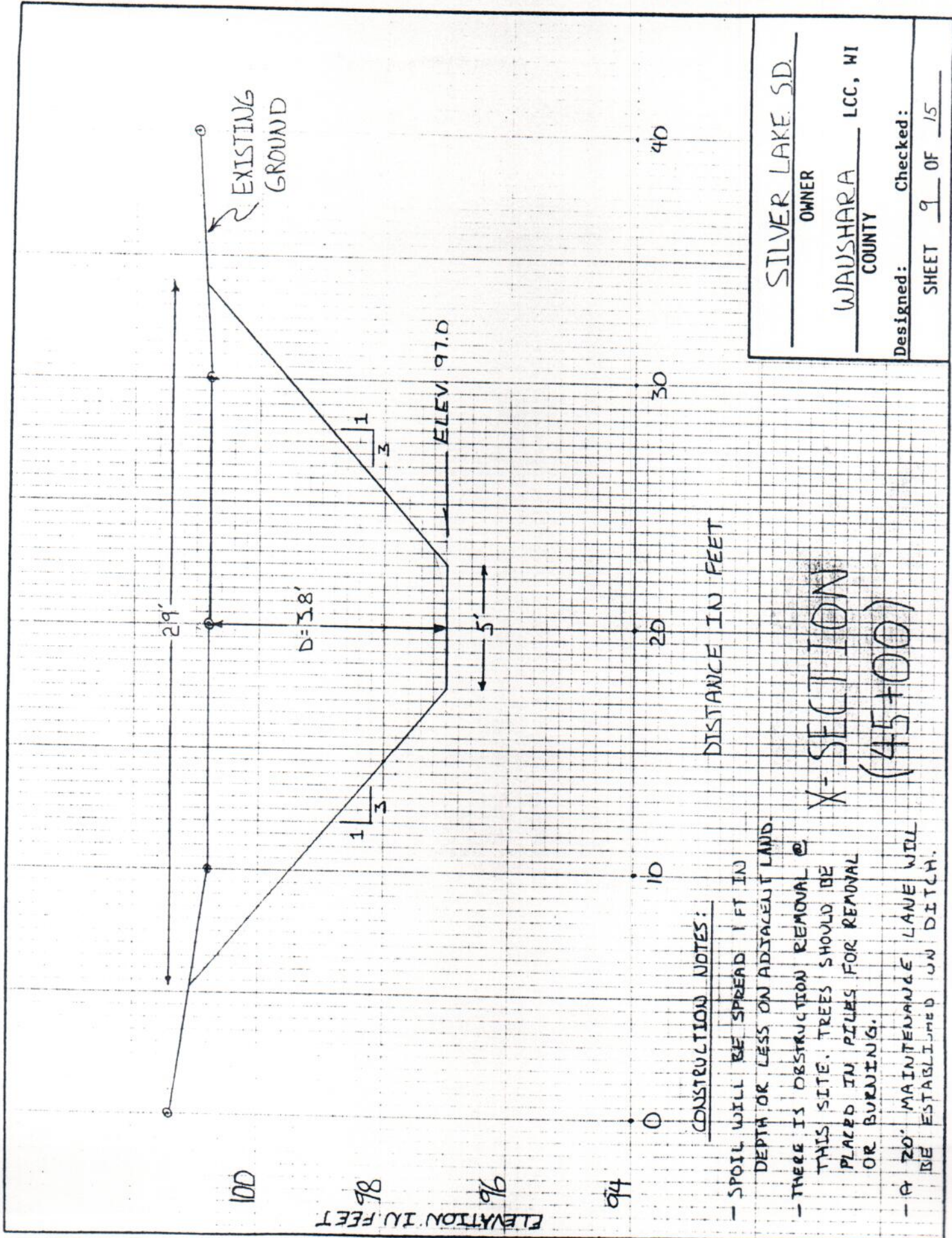


CONSTRUCTION NOTES

- A PERMANENT BENCHMARK WILL BE CONSTRUCTED BY EACH CONTROL STRUCTURE. IT WILL BE A 4 IN PVC PIPE BURIED 4 FT. INTO THE GROUND AND FILLED WITH CONCRETE.
- SEE SHEET 9 FOR ADDITIONAL CONSTRUCTION NOTES.

SILVER LAKE S.D. OWNER
WAUSHARA COUNTY LCC, WI
Designed: _____
Checked: _____
SHEET 7 OF 15

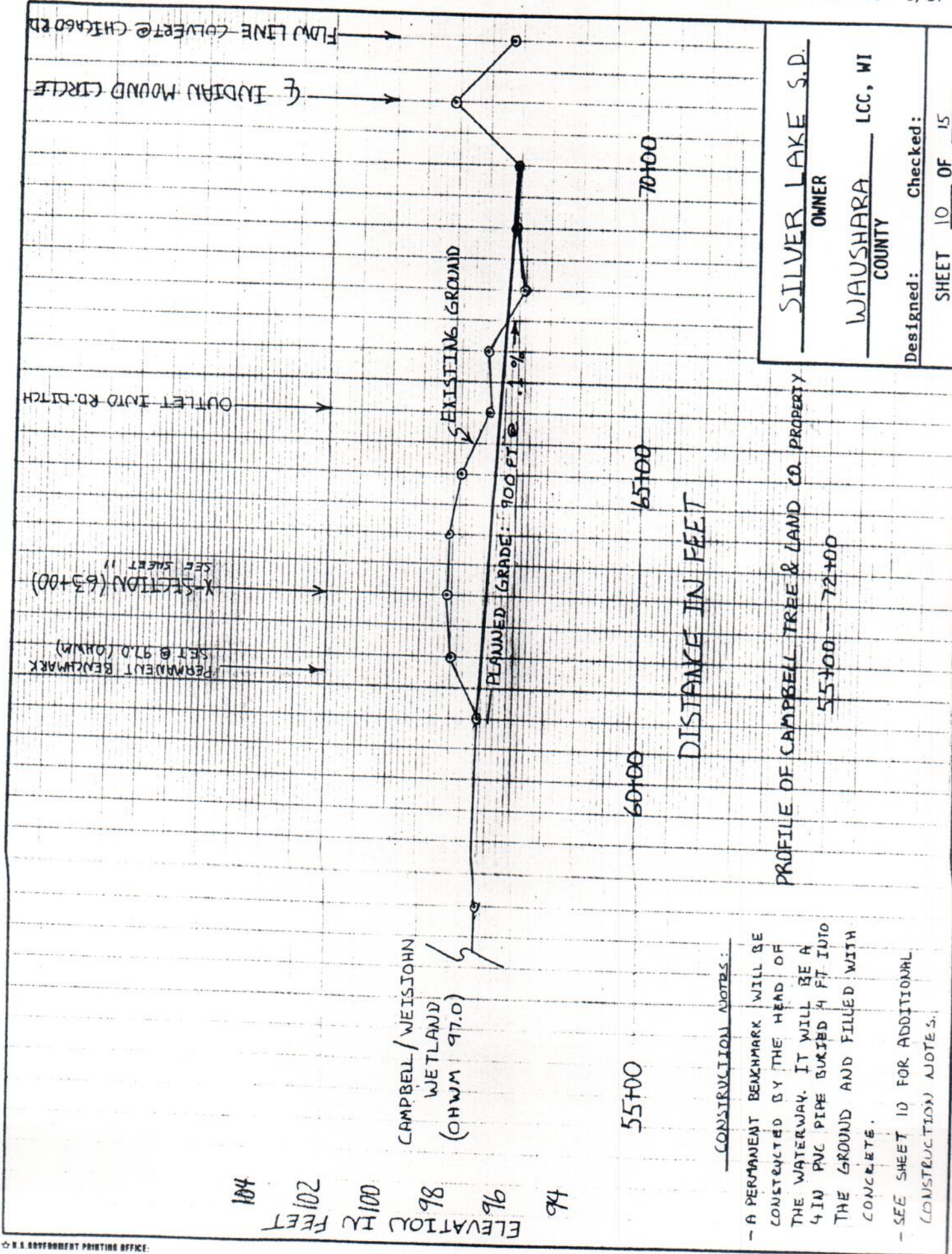


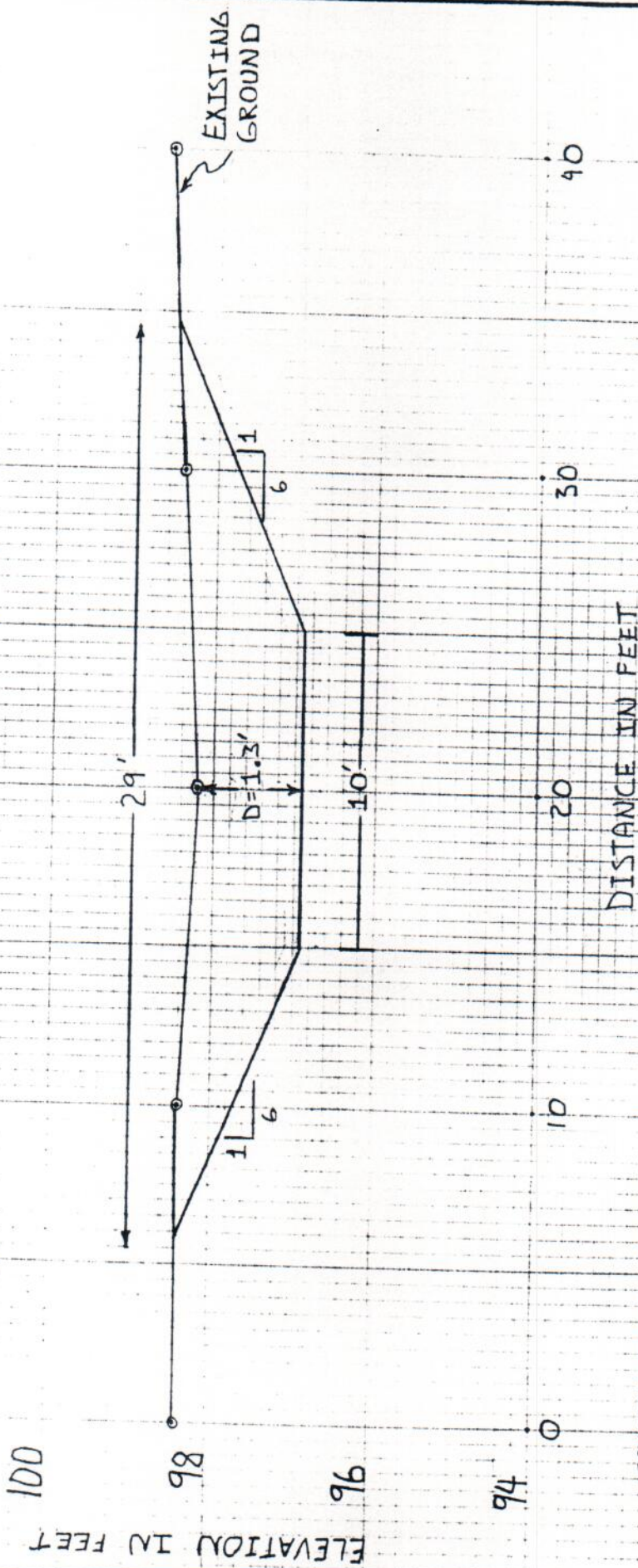


SILVER LAKE SD.
OWNER
WAUSHARA COUNTY LCC, WI
COUNTY
Designed: _____ Checked: _____
SHEET 9 OF 15

CONSTRUCTION NOTES:

- SPOIL WILL BE SPREAD 1 FT IN DEPTH OR LESS ON ADJACENT LAND
- THERE IS OBSTRUCTION REMOVAL @ THIS SITE. TREES SHOULD BE PLACED IN PILES FOR REMOVAL OR BURNING.
- A 20' MAINTENANCE LANE WILL BE ESTABLISHED ON DITCH.





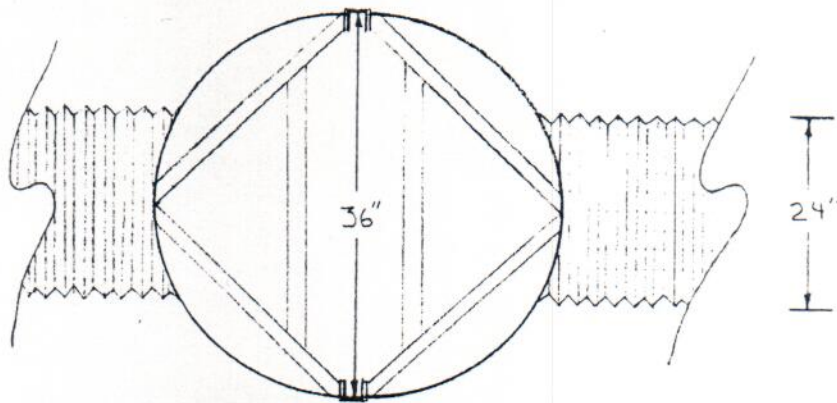
SILVER LAKE SD.
OWNER
WAUSHARA LCC, WI
COUNTY
Designed: _____ Checked: _____
SHEET 11 OF 15

DISTANCE IN FEET

X-SECTION
(63+00)

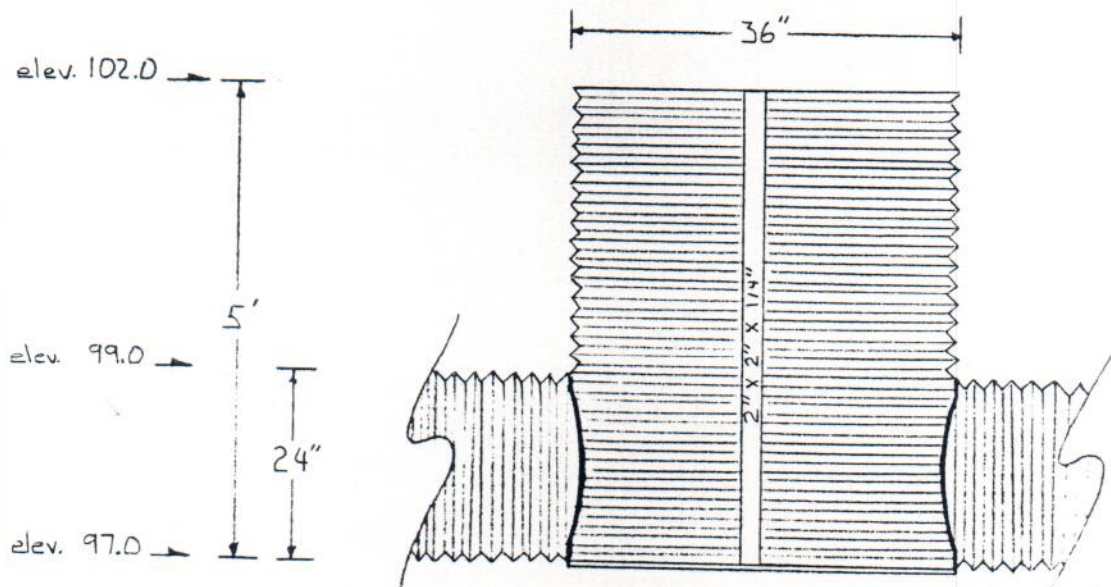
CONSTRUCTION NOTES:

- SPOIL WILL BE SPREAD 1 FT OR LESS IN DEPTH ON ADJACENT LAND.
- A 20' MAINTENANCE LANE WILL BE ESTABLISHED ALONG WATERWAY.
- TOP SOIL SHOULD BE STOCKPILED AND PUT BACK IN WATERWAY. (APPROX. 6 IN)
- THIS WILL REQUIRE OVER EXCAVATION!



CONSTRUCTION NOTE:
FLOW GATE WILL HAVE
A LOCKED COVER.

TOP VIEW



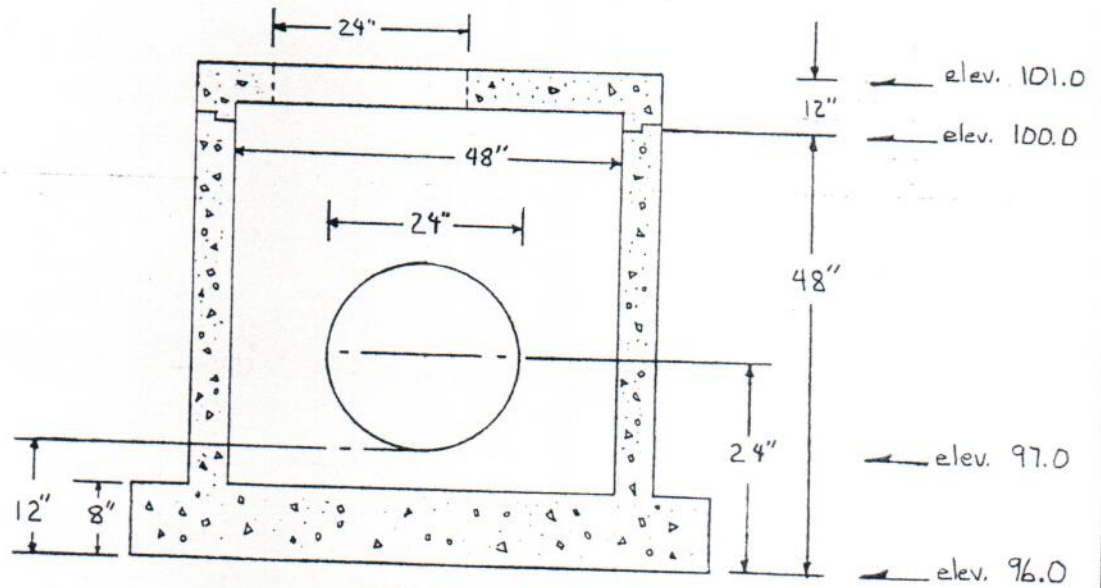
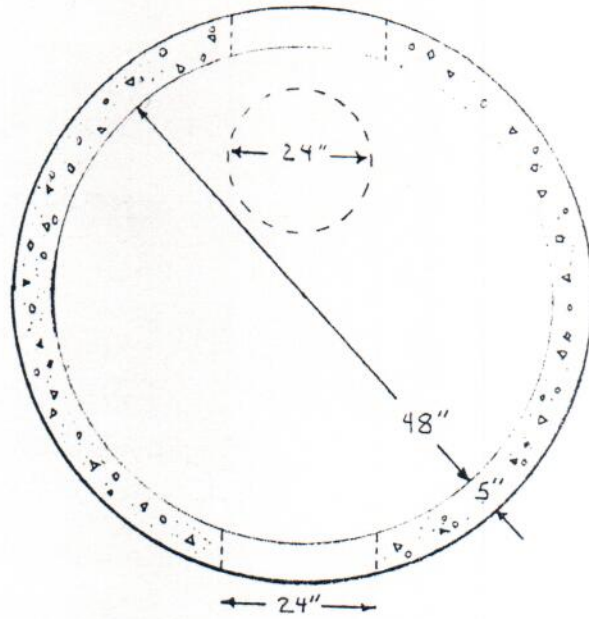
SIDE VIEW

ALUMINUM
FLOW GATE

NOT TO SCALE

SILVER LAKE S.E.	
OWNER	
WAUCHAMA	LCC, WI
COUNTY	
Designed:	Checked:
SHEET 12 OF 15	

TOP VIEW



SIDE VIEW

CONCRETE
48" MANHOLE BASE
WITH 8" MONOLITHIC BOTTOM

NOT TO SCALE

SILVER LAKE S.D.

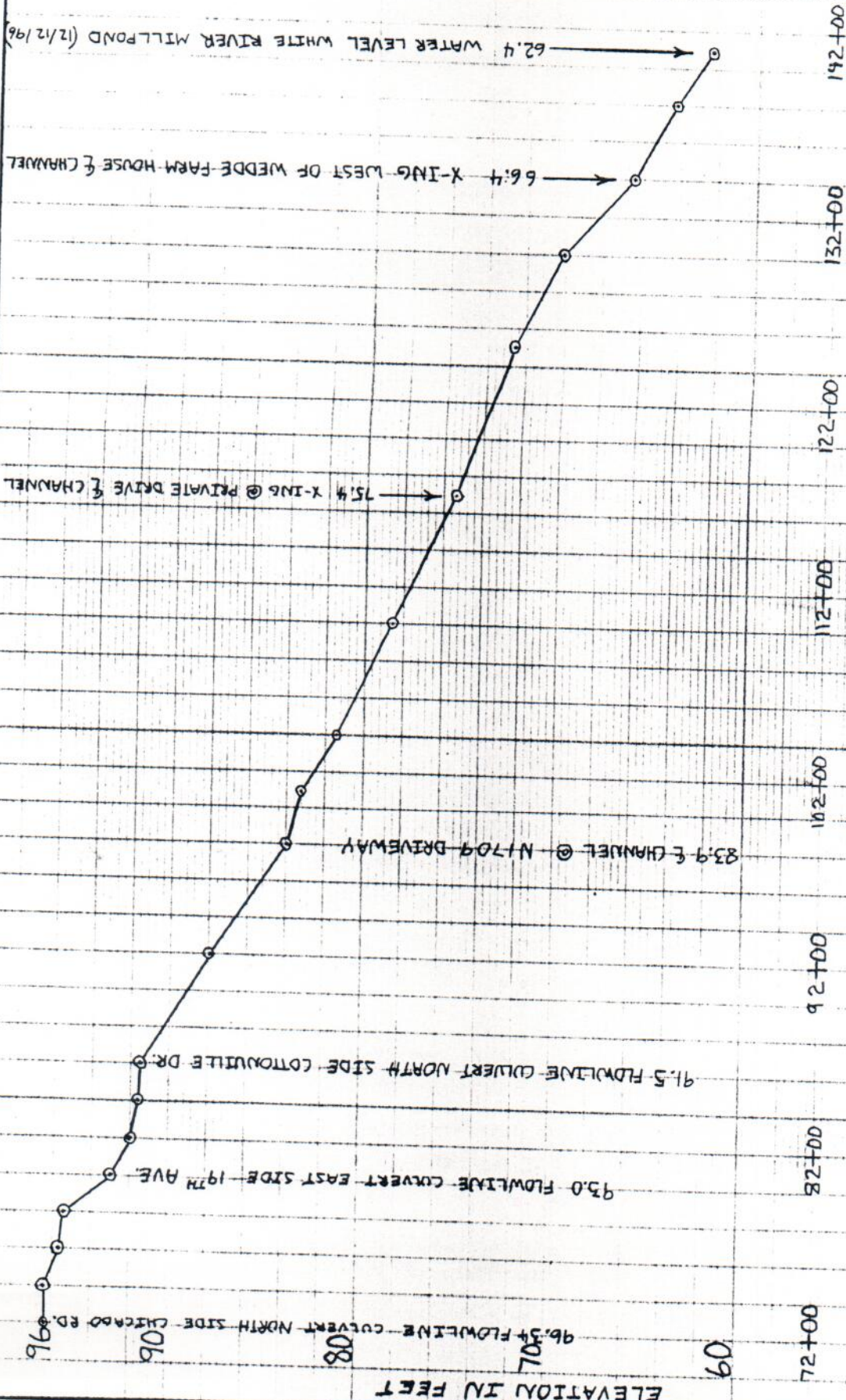
OWNER

WAUSHARA LCC, WI

COUNTY

Designed: _____ Checked: _____

SHEET 13 OF 15



SILVER LAKE S.D.
OWNER
WAUSHARA COUNTY LCC, WI
Designed: _____ Checked: _____
SHEET 14 OF 15

PROFILE: (72+00 - 192+00)
CHICAGO ROAD CULVERT TO WHITE RIVER MILLPOND

U.S. GOVERNMENT PRINTING OFFICE:

ESTABLISHING AND MAINTAINING VEGETATION

1. Make Plans for Seeding after Construction! Seed within 24 hours after construction. If construction finishes after SEPT. 15 make a temporary seeding of AWN RYE, or a dormant seeding. If a temporary seeding is done, plan to reseed in early spring. Where possible and practical, divert runoff until vegetation is established. Use soil retention blankets, jute matting, or sod in critical areas where water concentrates.
2. Obtain Needed Materials! Test soil. Secure lime, fertilizer, seed, seed inoculation and mulching materials before construction starts.
 - a. Lime. If needed, apply lime at the rate of AS PER SOIL TEST tons per acre.
 - b. Fertilizer. In lieu of a soil test, apply 400-600 pounds per acre of 20-10-10.
 - c. Seed. Always check the label and seed in pure live seed rates.
 - d. Mulch Materials. Mulch with 1 1/2 tons/acre of straw or hay reasonably free from grain and weed seed, or strawy manure at the rate of 6-8 T/A may be used.

Mix # <u>15</u> (From Critical Area Planting Mixtures-342) Species	SEED RATES PER ACRE AND SEED NEEDED IN POUNDS					
	Location <u>DISTURBED AREAS</u>		Location _____		Location _____	
	Acres <u>6</u>	Acres _____	Acres _____	Acres _____	Acres _____	Acres _____
	Rate Per Acre	# Seed Needed	Rate Per Acre	# Seed Needed	Rate Per Acre	# Seed Needed
ALFAFA	5	30				
RED CLOVER	3	18				
SMOOTH BROMEGRASS	15	90				
TALL FESCUE	10	60				

3. Prepare the Seedbed! THE SUCCESS OF THIS SEEDING DEPENDS ON THE PROPER SEEDBED. With a disk or harrow, work the soil to a 3 inch depth. On small areas, handwork may be necessary.
4. Mulch Properly! Spread mulch uniformly. 1 1/2 T/A is 60 bales per acre or 6-7 stems thick. Anchor mulch by pressing into the soil with a dull, weighted disc set straight or other approved methods. Work waterways crosswise when possible.
5. Seed! Inoculate birdsfoot trefoil and crownvetch properly. Seed shallow at 1/4 to 1/2 inch deep immediately after seedbed preparation. A cultipacker seeder works good. A hydro-seeder or hand seeder can be used.
6. Maintain Properly! Control weeds and undesirable woody vegetation. Delay mowing until after July 15 to accommodate ground-nesting wildlife. If pastured, always regulate grazing. Where grasses alone are used, an occasional application of fertilizer, high in nitrogen helps to maintain the stand.

ADDITIONAL COMMENTS:

SILVER LAKE S.D.	
OWNER	
WAUSHARA	
COUNTY	
Designed:	Checked:
SHEET <u>15</u>	<u>15</u>