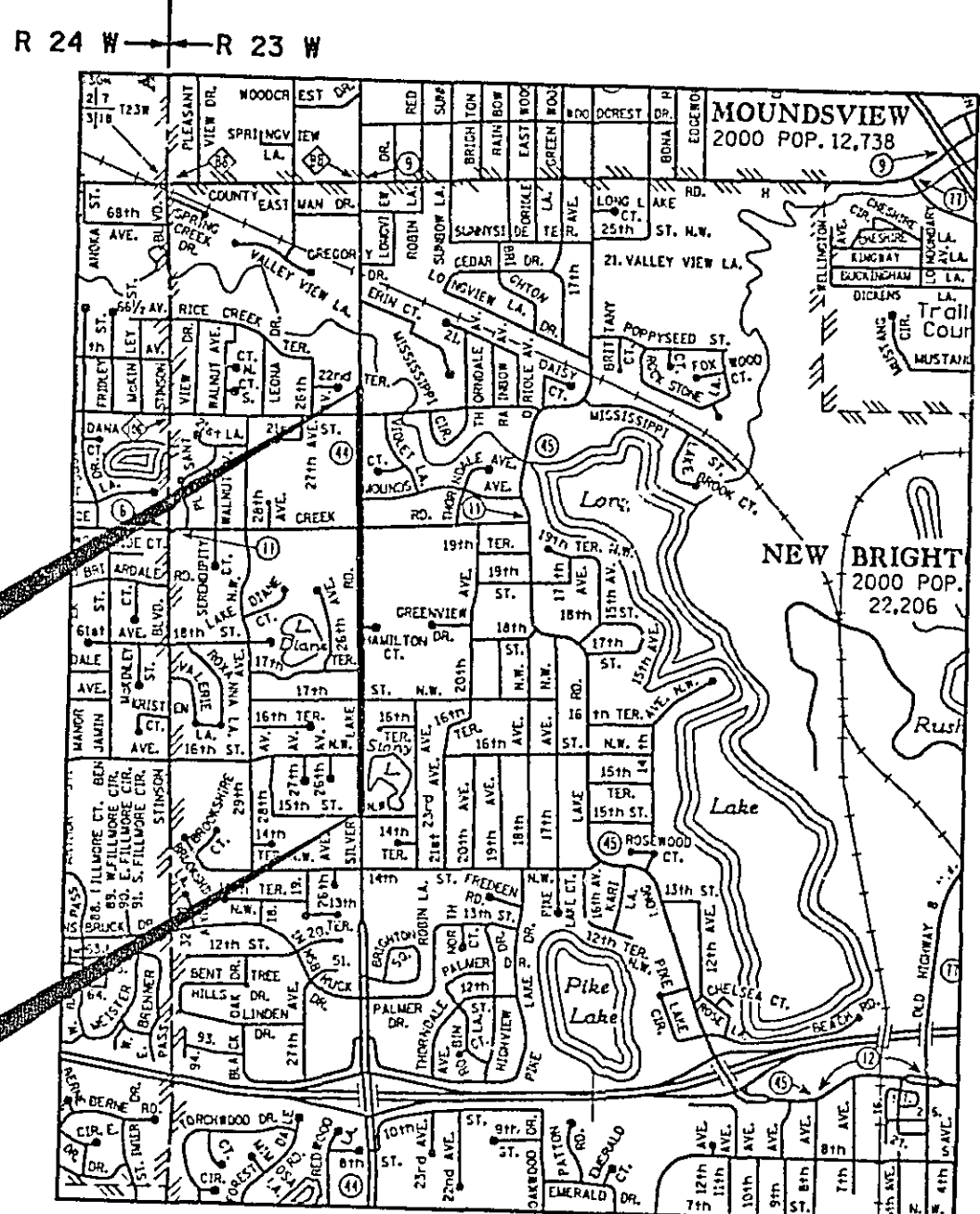


RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS
CONSTRUCTION PLAN FOR GRADING, BITUMINOUS SURFACING, DRAINAGE, AND SIGNAL SYSTEMS
LOCATED ON CSAH 44 (SILVER LAKE ROAD) FROM 15TH AVENUE NORTH TO APPROX. 645 FT NORTH OF MISSISSIPPI ST

GROSS LENGTH . . . 5080 FEET . . . 0.96 MILES
BRIDGES-LENGTH . . . 0 FEET . . . 0 MILES
EXCEPTIONS-LENGTH . . . 0 FEET . . . 0 MILES
NET LENGTH . . . 5080 FEET . . . 0.96 MILES



END S.A.P. 62-644-27
END M.S.A.P. 147-020-30
SILVER LAKE ROAD
STA. 85+40

BEGIN S.A.P. 62-644-27
BEGIN M.S.A.P. 147-020-30
SILVER LAKE ROAD
STA. 34+60

PLAN REVISIONS
DATE SHEET NO. APPROVED BY

DATE	PLAN REVISIONS	SHEET NO.	APPROVED BY

DESIGN DESIGNATION

PRESENT ADT (2002)
PROJECTED ADT (2022)
FUNCTIONAL CLASS
TRAFFIC LINES
PARKING LINES
DESIGN LOAD
DESIGN SPEED
20-Year Design Lane Flowable Esal 2,053,424
Based on Stopping Distance
Height of eye 5.50 FT
Height of object 0.50 FT

15TH ST NW TO RICE CREEK RD	RICE CREEK RD TO MISSISSIPPI ST	MISSISSIPPI ST TO COUNTY ROAD H
15,161	12,000	10,000
23,192	18,500	15,000
MINOR ARTERIAL	MINOR ARTERIAL	MINOR ARTERIAL
4-5	4-5	2-5
0	0	0
9 TON	9 TON	9 TON
40 MPH	40 MPH	40 MPH

PROJECT LOCATION
COUNTY : RAMSEY
DISTRICT : METRO

S.A.P. 62-644-27
M.S.A.P. 147-020-30

GOVERNING SPECIFICATIONS

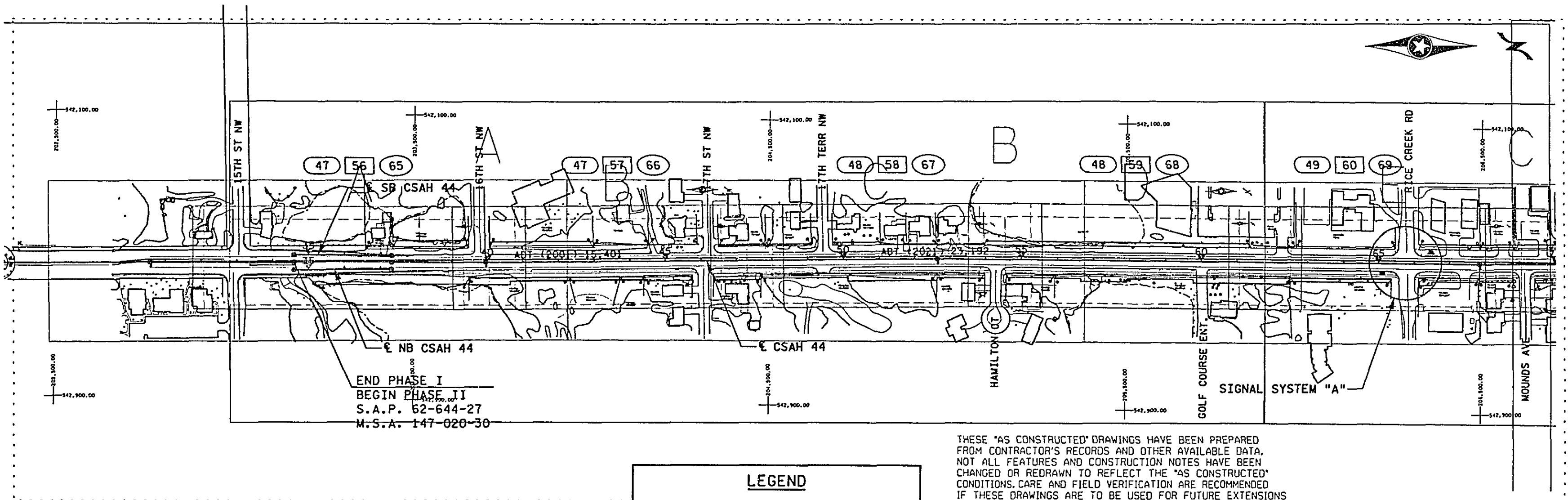
THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
ALL TRAFFIC CONTROL DEVICES AND SIGNALING SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL FOR THE TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" - JANUARY 2001.

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21-23	TYPICAL SECTIONS
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30-34	STANDARD PLAN SHEETS
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45-46	ALIGNMENT PLAN
47-51	EXISTING TOPOGRAPHY & REMOVAL PLAN
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100	SIGNING & STRIPING DETAILS
101-113	SIGNAL PLANS, TABULATIONS, AND DETAILS
114	CROSS SECTION MATCH LINE LAYOUT
115-140	CROSS SECTIONS

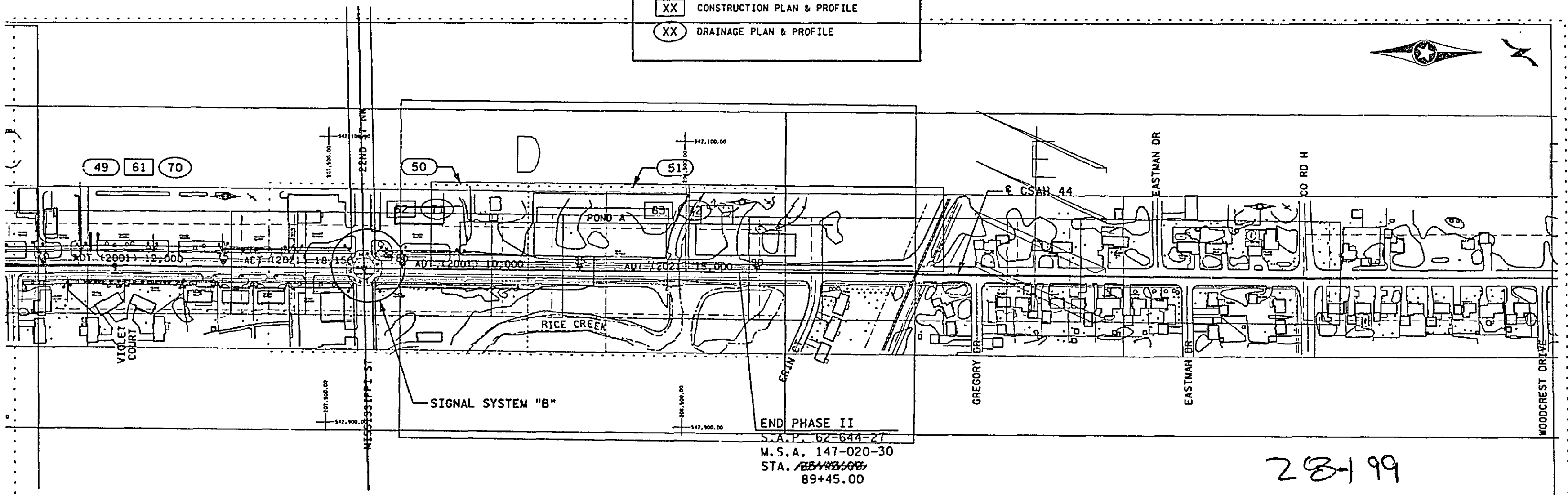
THIS PLAN CONTAINS 140 SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE 01/17/02 REG. NO. 25502
RECOMMENDED FOR APPROVAL: *Julie R. Peltier* 7/19/02
RECOMMENDED FOR APPROVAL: *R. S. Smith* 7/19/02
STATE AID APPROVALS:
DISTRICT STATE AID ENGINEER REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY
STATE AID ENGINEER APPROVED FOR STATE AID FUNDING
I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE REG. NO.



LEGEND
XX EXISTING TOPOGRAPHY & REMOVAL PLAN
XX CONSTRUCTION PLAN & PROFILE
XX DRAINAGE PLAN & PROFILE

THESE "AS CONSTRUCTED" DRAWINGS HAVE BEEN PREPARED FROM CONTRACTOR'S RECORDS AND OTHER AVAILABLE DATA. NOT ALL FEATURES AND CONSTRUCTION NOTES HAVE BEEN CHANGED OR REDRAWN TO REFLECT THE "AS CONSTRUCTED" CONDITIONS. CARE AND FIELD VERIFICATION ARE RECOMMENDED IF THESE DRAWINGS ARE TO BE USED FOR FUTURE EXTENSIONS OR REVISIONS.



RECORD DRAWINGS - FEB. 2005
BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MARKET, MN FARMINGTON, MN SLEEPY EYE, MN WELLS, MN
BURNSVILLE, MN CHASKA, MN AMES, MN LEBANON, MN

28-199

STATEMENT OF ESTIMATED QUANTITIES										A
TAB	ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED	GROUP 1 S.A.P. 62-644-27 100%	GROUP 2 S.A.P. 62-644-27 M.S.A.P. 147-020-30 500/500	GROUP 3 CITY OF NEW BRIGHTON 100%	GROUP 4 S.A.P. 147-020-30 100%	GROUP 5 S.A.P. 62-644-27 M.S.A.P. 147-020-30 252/75%	GROUP 6 STORM SEWER S.A.P. 62-644-27 100%
	2021.501	MOBILIZATION	LUMP SUM	1	1					
	2021.501	FIELD OFFICE TYPE D	EACH	1	1					
	2100.601	RELOCATE BUILDING	(19) LUMP SUM	2	2					
C	2101.501	CLEARING	ACRE	2.51	0.81					1.7
C	2101.502	CLEARING	TREE	67	67					
C	2101.506	GROUBING	ACRE	2.51	0.81					1.7
C	2101.507	GROUBING	TREE	67	67					
W	2104.501	REMOVE WATER SERVICE PIPE	LIN FT	417			417			
G	2104.501	REMOVE CURB & GUTTER	LIN FT	9,877	9,877					
I	2104.501	REMOVE PIPE CULVERT	LIN FT	285	285					
I	2104.501	REMOVE WATER MAIN	LIN FT	330	330					
H	2104.501	REMOVE SEWER PIPE (STORM)	LIN FT	1,171	1,171					
N	2104.501	REMOVE FENCE	LIN FT	14	14					
H	2104.501	REMOVE CHAIN LINK FENCE	LIN FT	242	242					
D	2104.503	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SO FT	12,025	12,025					
F	2104.503	REMOVE CONCRETE WALK	SO FT	22,750	22,750					
F	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SO YD	609	609					
D	2104.505	REMOVE BITUMINOUS PAVEMENT	SO YD	26,437	26,437					
I	2104.509	REMOVE MANHOLE OR CATCH BASIN	EACH	19	19					
I	2104.509	REMOVE CASTING	EACH	2	2					
E	2104.513	SAVING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	1,046	1,046					
H	2104.521	SALVAGE WOODEN FENCE	LIN FT	644	644					
X	2104.523	SALVAGE HYDRANT & VALVE	(2) EACH	8	8					
J	2104.523	SALVAGE SIGN PANEL TYPE C	(2) EACH	43	43					
N	2104.523	SALVAGE MAILBOX	EACH	10	10					
I	2104.525	ABANDON PIPE SEWER	EACH	2	2					
I	2104.503	SAVING CONCRETE WALK	(28) LIN FT	5	5					
B	2105.501	COMMON EXCAVATION	(F) CU YD	17,147	10,812					6,335
B	2105.505	MUCK EXCAVATION	CU YD	6,256	6,256					
B	2105.507	SUBGRADE EXCAVATION	CU YD	3,920	3,920					
B	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	11,079	11,079					
B	2105.523	COMMON BORROW (LV)	CU YD	3,679	3,679					1,062
B	2105.525	TOPSOIL BORROW (LV)	CU YD	3,357	1,681					1,476
L	2105.604	GEOTEXTILE FABRIC TYPE I	(23) SO YD	1,113						1,113
L	2105.604	GEOTEXTILE FABRIC TYPE V	(14),(15),(16) SO YD	3,002	3,002					
L	2105.604	GEOTRID	(14) SO YD	2,877	2,877					
B	2105.607	WOOD CHIPS (CV)	CU YD	4,250	4,250					
B	2015.607	SPECIAL EXCAVATION	CU YD	3,000	3,000					
W	2123.610	STREET SWEEPER WITH PICK UP BROOM	(5) HOUR	10	10					
W	2130.501	WATER	(5) MGAL	10	10					
W	2211.501	AGGREGATE BASE (CV) CLASS 7	(F)121 CU YD	31,377	31,377					
L	2350.501	TYPE MV 3 WEARING COURSE MIXTURE (B)	TON	3,194	3,194					
L	2350.502	TYPE MV 3 NON WEARING COURSE MIXTURE (B)	TON	2,849	2,849					
L	2350.502	TYPE LV 3 NON WEARING COURSE MIXTURE (B)	TON	8,334	8,334					
L	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	5,239	5,239					
D	2411.618	MODULAR BLOCK RETAINING WALL	SO FT	9,714	9,714					
L	2451.511	COURSE FILTER AGGREGATE (CV)	(23) CU YD	486						486
L	2451.607	TRENCH EXCAVATION	(23) CU YD	486						486

NA:\envs\1102031\envs\tech\est.dgn

9/6/08 AM

NOTE: SEE SHEET C FOR ESTIMATED QUANTITY NOTES

NOTE: SEE SHEET 6 FOR ESTIMATED QUANTITY NOTES.

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE 01/17/02 REG. NO. 25502

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MARKET, MN FARMINGTON, MN SLEEPY EYE, MN WELLS, MN
BURNSVILLE, MN CHASKA, MN AMES, MN LEBANON, MN

STATEMENT OF ESTIMATED QUANTITIES
S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)
M.S.A.P. 147-020-30
PLAN PAGE 1 OF 4

STATEMENT OF ESTIMATED QUANTITIES											A
TAB	ITEM NO.	ITEM	UNIT	TOTAL	GROUP 1 S.A.P. 62-644-27 100%	GROUP 2 S.A.P. 62-644-27 M.S.A.P. 147-020-30 50%/50%	GROUP 3 CITY OF NEW BRUNSWICK 100%	GROUP 4 M.S.A.P. 147-020-30 100%	GROUP 5 S.A.P. 62-644-27 M.S.A.P. 147-020-30 252/75%	GROUP 6 STORM SEWER S.A.P. 62-644-27 M.S.A.P. 147-020-30 100%	
BB	2501.515	15" RC PIPE APRON	EACH	6						6	
Z	2501.515	27" RC PIPE APRON	EACH	2						2	
Z	2501.515	30" RC PIPE APRON	EACH	1						1	
Z	2501.515	36" RC PIPE APRON	EACH	1						1	
Z	2501.515	42" RC PIPE APRON	EACH	1						1	
Z	2501.602	TRASH GUARD FOR 27" PIPE APRON	EACH	2						2	
Z	2501.602	TRASH GUARD FOR 30" PIPE APRON	EACH	1						1	
Z	2501.602	TRASH GUARD FOR 36" PIPE APRON	EACH	1						1	
Z	2501.602	TRASH GUARD FOR 42" PIPE APRON	EACH	1						1	
P	2502.541	4" PERFOR PIPE DRAIN	LIN FT	940						940	
Z, BB	2503.541	15" RC PIPE SEWER DES 3006 CLASS V	LIN FT	3,521						3,521	
Z	2503.541	18" RC PIPE SEWER DES 3006 CLASS III	LIN FT	533						533	
Z	2503.541	24" RC PIPE SEWER DES 3006 CLASS III	LIN FT	465						465	
Z	2503.541	27" RC PIPE SEWER DES 3006 CLASS III	LIN FT	271						271	
Z	2503.541	30" RC PIPE SEWER DES 3006 CLASS III	LIN FT	1,122						1,122	
Z	2503.541	36" RC PIPE SEWER DES 3006 CLASS III	LIN FT	248						248	
Z	2503.541	42" RC PIPE SEWER DES 3006 CLASS III	LIN FT	843		750				843	
Z	2503.541	42" RC PIPE SEWER DES 3006 CLASS III	LIN FT	67		30				97	
										37	
	2504.602	INSTALL HYDRANT & VALVE	(67) EACH	8						8	
	2504.602	CONNECT TO EXISTING WATERMAIN	(7) EACH	11						11	
	2504.602	ADJUST GATE VALVE	(7) EACH	30						30	
	2504.602	6" BEND 45 DEGREE	(7) EACH	1						1	
	2504.602	6" BEND 22.5 DEGREE	(7) EACH	1						1	
	2504.602	12" BEND 45 DEGREE	(7) EACH	4						4	
	2504.602	12" BEND 20 DEGREE	(7) EACH	4						4	
	2504.602	12" X 6" TEE FITTING	(7) EACH	4						4	
	2504.602	12" CORNER FITTING	(7) EACH	3						3	
	2504.602	1" CORPORATION STOP	(7) EACH	4						4	
	2504.602	6" GATE VALVE AND BOX	(7) EACH	8						8	
	2504.602	12" GATE VALVE AND BOX	(7) EACH	2						2	
	2504.602	ADJUST CURB BOX	(7) EACH	11						11	
	2504.602	1" CURB STOP & BOX	(7) EACH	3						3	
	2504.603	8" WATERMAIN DUCTILE IRON CL52	(13) LIN FT	219						219	
	2504.603	12" WATERMAIN DUCTILE IRON CL52	(24) LIN FT	219						219	
	2504.603	1" TYPE K COPPER PIPE	(11) LIN FT	30						30	
	2504.603	LOWER 12" WATERMAIN	(11) LIN FT	187						187	
	2504.604	4" POLYSTYRENE INSULATION	(131125) SO YD	128						128	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN SD-1	LIN FT	143						143	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	61						61	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN 54-4020	LIN FT	32						32	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN 60-4020	LIN FT	58						58	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN 66-4020	LIN FT	58						58	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN 70-4020	LIN FT	27						27	
Z	2506.501	CONST DRAINAGE STRUCTURE DESIGN SPECIAL	LIN FT	9						9	
AA	2506.516	CASTING ASSEMBLY	EACH	76						76	
V	2506.522	ADJUST FRAME & RING CASTING	EACH	15						15	
Z, BB	2511.501	RANDOM RIPRAP, CLASS III	CU YD	73						73	
R	2521.501	3" CONCRETE WALK	(81) SQ FT	8,812	8,812					8,812	
R	2521.501	6" CONCRETE WALK	(260) SQ FT	29,139	29,139					29,139	
U	2531.501	CONCRETE CURB & GUTTER DESIGN B624	SO FT	13,372	13,372					13,372	
R	2531.503	CONCRETE CURB & GUTTER DESIGN B612	SO YD	1,492	1,492					1,492	
S	2531.507	CONCRETE DRIVEWAY PAVEMENT	SO YD	228	228					228	
S	2531.507	CONCRETE DRIVEWAY PAVEMENT	SO YD	559	559					559	
S	2531.602	PEDESTRIAN CURB RAMP SPECIAL	(261)121	13						13	

NOTE: SEE SHEET 6 FOR ESTIMATED QUANTITY NOTES.

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE 01/17/02 REG. NO. 25502

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MARKET, MN FARMINGTON, MN SLEEPY EYE, MN WELLS, MN
BURNSVILLE, MN CHASKA, MN AMES, MN LEBANON, MN

STATEMENT OF ESTIMATED QUANTITIES
S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)
M.S.A.P. 147-020-30
PLAN PAGE 2 OF 4

STATEMENT OF ESTIMATED QUANTITIES										A
TAB	ITEM NO.	ITEM	UNIT	TOTAL	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
				ESTIMATED	S.A.P. 62-644-27	S.A.P. 62-644-27	CITY OF NEW BRIGHTON	S.A.P. 62-644-27	S.A.P. 62-644-27	S.A.P. 62-644-27
N	2540.602	INSTALL MAILBOX	(15) EACH	3	100%	50%/50%	100%	100%	25%/75%	100%
	2540.602	CONSTRUCT SURVEY MONUMENT	(15) EACH	3						
DD	2545.511	LIGHTING UNIT TYPE SPECIAL	(10) EACH	61				61		
DD	2545.521	1" 1/2" NON-METALLIC CONDUIT	(10) LIN FT	5,387				5,387		
DD	2545.531	UNDERGROUND WIRE 1 COND NO 1	(10) LIN FT	162				162		
DD	2545.531	UNDERGROUND WIRE 1 COND NO 1	(10) LIN FT	28,761				28,761		
DD	2545.531	UNDERGROUND WIRE 1 COND NO 10	(10) LIN FT	9,587				9,587		
DD	2545.541	SERVICE PANEL	(10) EACH	2				2		
	2533.603	CONCRETE MEDIAN BARRIER DESIGN B337	(22) LIN FT	500	500					
	2533.603	RELOCATE CONCRETE MEDIAN BARRIER	(22) EACH	19	19					
	2554.602	IMPACT ATTENUATOR BARRELS	(22) EACH	18	18					
	2554.602	RELOCATE IMPACT ATTENUATOR BARRELS	(22) EACH	18	18					
Q	2557.603	INSTALL CHAIN LINK FENCE	LIN FT	242	242					
Q	2557.603	INSTALL WOOD FENCE	LIN FT	544	544					
	2563.601	TRAFFIC CONTROL	(11) LUMP SUM	1	1					
EE	2564.531	SIGN PANELS TYPE C	SG FT	336	336					
HH	2564.531	SIGN PANELS TYPE D	SG FT	111	111					
FF	2564.550	DELINATOR TYPE (X4-E)	EACH	15	15					
GG	2564.602	PAVEMENT MESSAGE (LEFT ARROW)-EPOXY	EACH	24	24					
	2564.603	4" BROKEN LINE WHITE-PAINT	(18) LIN FT	10,000	10,000					
	2564.603	4" SOLID LINE WHITE-PAINT	(18) LIN FT	1,000	1,000					
	2564.603	4" DOUBLE SOLID LINE YELLOW-PAINT	(18) LIN FT	5,000	5,000					
GG	2564.603	4" BROKEN LINE WHITE-EPOXY	LIN FT	9,376	9,376					
GG	2564.603	4" SOLID LINE WHITE-EPOXY	LIN FT	632	632					
GG	2564.603	4" BROKEN LINE YELLOW-EPOXY	LIN FT	2,918	2,918					
GG	2564.603	4" SOLID LINE YELLOW-EPOXY	LIN FT	1,027	1,027					
GG	2564.603	24" SOLID LINE YELLOW-EPOXY	LIN FT	155	155					
GG	2564.603	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT	1,473	1,473					
GG	2564.618	2600A CROSSWALK WHITE - EPOXY	SG FT	1,059	1,059					
HH	2565.511	PULL Y ACT T CONTROL SIGNAL SYSTEM A	SIG SYS	1	1					
HH	2565.511	PULL Y ACT T CONTROL SIGNAL SYSTEM B	SIG SYS	1	1					
HH	2565.601	EMERGENCY VEHICLE PRE-EMPTION SYSTEM A	LS	1	1					
HH	2565.601	EMERGENCY VEHICLE PRE-EMPTION SYSTEM B	LS	1	1					
HH	2565.602	PVC HANDHOLE - INTERCONNECT	EACH	24	24					
HH	2565.603	2" NON-METALLIC CONDUIT-INTERCONNECT	LIN FT	4,300	4,300					
HH	2565.603	3" NON-METALLIC CONDUIT-INTERCONNECT	LIN FT	350	350					
HH	2565.603	6/C FIBER OPTIC CABLE - INTERCONNECT	LIN FT	5,300	5,300					
HH	2565.603	1/2" 412 - INTERCONNECT	LIN FT	9,300	9,300					
CC	2571.502	DECIDUOUS TREE, JAPANESE LILAC, 1.5" CAL. B&B	TREE	9				9		
CC	2571.502	DECIDUOUS TREE, BERGESSON, 2.5" CAL. B&B	TREE	21				21		
CC	2571.502	DECIDUOUS TREE, OHIO BUCKEYE, 2.0" CAL. B&B	TREE	9				9		
CC	2571.502	DECIDUOUS TREE 2" CAL. B&B	TREE	30				30		
	2572.501	TEMPORARY FENCE	(12) LIN FT	410	410					
U	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	1,640	1,640					
U	2573.505	FLOTATION SILT CURTAIN TYPE STILL WATER	LIN FT	1,160	1,160					
U	2573.505	FLOTATION SILT CURTAIN TYPE MOVING WATER	LIN FT	40	40					
T	2573.512	TEMPORARY DITCH CHECK	LIN FT	120	120					
NOTE: SEE SHEET 6 FOR ESTIMATED QUANTITY NOTES.										28-199
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW JERSEY.										
NAME: TIMOTHY B. ARVIDSON LIC. NO.: 25520 DATE: _____										
CJS RECORD DRAWINGS - FEB. 2005										
BOLTON & MENK, INC. CONSULTING ENGINEERS & SURVEYORS										
STATEMENT OF ESTIMATED QUANTITIES										
S.A.P. 62-644-27 CS&H 44 (SILVER LAKE RD) PLAN PAGE 3 OF 4										
M.S.A.P. 147-020-30										
SHEET 5 OF 141										

STATEMENT OF ESTIMATED QUANTITIES										A
TAB	ITEM NO.	ITEM	UNIT	TOTAL	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
				ESTIMATED	S.A.P. 62-644-27	S.A.P. 62-644-27	CITY OF NEW BRIGHTON	S.A.P. 62-644-27	S.A.P. 62-644-27	S.A.P. 62-644-27
Y	2575.501	SEEDING	ACRE	3	100%	50%/50%	100%	100%	25%/75%	100%
Y	2575.502	SEED MIXTURE 608	LB	67				67		
Y	2575.505	SEED MIXTURE TYPE LAWN	LB	91				91		
Y	2575.511	MULCH MATERIAL TYPE J	SG YD	8,884				8,884		
Y	2575.515	DISK ANCHORING	TON	5				5		
Y	2575.523	EROSION CONTROL BLANKET CATEGORY 3	ACRE	3				3		
Y	2575.535	COMMERCIAL FERTILIZER ANALYSIS 22-5-10	SG YD	7,835				7,835		
			LB	620	620					
ESTIMATED QUANTITY NOTES										
(1) PLAN QUANTITY ITEM										
(2) PIPE DIAMETER AND TYPE TO BE FIELD VERIFIED										
(3) SALVAGE ITEMS AND DELIVER TO CITY OR COUNTY										
(4) AS DIRECTED BY THE ENGINEER										
(5) CONTACT RON MEYER AT 651-266-2822 FOR LOCATIONS										
(6) FOR USE IN LIGHTWEIGHT FILL SECTION										
(7) FOR USE AS DIRECTED BY THE ENGINEER										
(8) FURNISHED BY THE CITY OF NEW BRIGHTON										
(9) SEE UTILITY PLAN SHEETS FOR DETAILS AND LOCATIONS										
(10) SEE LIGHTING DETAIL AND PLANS										
(11) SEE TRAFFIC CONTROL PLANS FOR STAGING										
(12) TO BE USED AT STA. 40+50 TO 45+00 AS DIRECTED BY THE ENGINEER										
(13) TO BE USED AT STORM SEWER AND WATER MAIN CROSSINGS AS DIRECTED BY THE ENGINEER										
(14) ITEM SHALL INCLUDE DECORATIVE SURFACING OF MEDIAN PLACED AS 3" CONCRETE MEDIAN										
(15) MAILBOXES SHALL BE REINSTALLED ON REPLACEMENT										
(16) 125 SG YD OF FABRIC TO BE USED ON APRONS AS DIRECTED BY THE ENGINEER										
(17) TO BE PLACED INSIDE THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER										
(18) TO BE USED UNDER WINTER										
(19) RELOCATES SHEETS SEE SHEET 49										
(20) 948 SQ FT FOR BUS PADS SEE SHEET 24										
(21) 29 CU YD FOR BUS PADS SEE SHEET 24										
(22) FOR LOCATION SEE SHEETS 39 AND 42										
(23) TO BE USED FOR ROCK INFILTRATION TRENCH IN POND A										
(24) INCLUDES 30 LIN FT TO LOWER WATERMAIN UNDER CB 74										
(25) INCLUDES 14 SQ YD TO BE USED AROUND LOWERED WATERMAIN UNDER CB 74										
(26) SEE CONSTRUCTION PLAN FOR LOCATIONS										
(27) SEE DETAIL SHEET 24										
(28) FOR LOCATION SEE SHEET 51										
(29) FOR LOCATION SEE SHEET 87										
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW JERSEY.										
NAME: TIMOTHY B. ARVIDSON LIC. NO.: 25520 DATE: _____										
CJS RECORD DRAWINGS - FEB. 2005										
BOLTON & MENK, INC. CONSULTING ENGINEERS & SURVEYORS										
STATEMENT OF ESTIMATED QUANTITIES & NOTES										
S.A.P. 62-644-27 CS&H 44 (SILVER LAKE RD) PLAN PAGE 4 OF 4										
M.S.A.P. 147-020-30										
SHEET 6 OF 141										

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (15 PLATES)
3005G	GASKET JOINT FOR 16" PIPE (2 PLATES)
3007C	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3135C	RIPRAP AT POP OUTLETS
3145E	CONCRETE PIPE TIES
4011E	PRECAST CONCRETE BASE
4020I	MANHOLE OR CATCH BASIN COVER (2 PLATES)
4022A	MANHOLE OR CATCH BASIN COVER
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4110F	COVER CASTING FOR MANHOLE
7036E	PEDESTRIAN CURB RAMP
7100C	CONCRETE CURB AND GUTTER
7111J	INSTALLATION OF CATCH BASIN CASTINGS
7113A	CONCRETE APPROACH NOSE DETAIL
8000I	STANDARD BARRICADES
8114A	PVC HANDHOLE / PULLBOX (NO VEHICLE LOAD) (2 PLATES)
8115D	PEDESTRIAN PUSH BUTTON INSTALLATION
8118C	SERVICE EQUIPMENT & POLE - TRAFFIC CONTROL SIGNALS
8119C	GROUND MOUNTED CABINET FOUNDATION
8120K	POLE FOUNDATION (PA BS)
8121D	TRANSFORMER BASE AND POLE BASE PLATE (1P&S1) (2 PLATES)
8123E	POLE AND WAST ARM (2 PLATES)
8126F	POLE FOUNDATION (PA SO AND PA100)
8127B	LIGHT BASE - DESIGN E
8128D	INSTALLATION OF CULVERT MARKERS
8307D	STEEL PLATE BEAM GUARDRAIL (WOOD POSTS) (2 PLATES)
8318C	GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND B&T'S
8317A	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER
8338B	STEEL PLATE BEAM GUARDRAIL (STEEL POSTS) (2 PLATES)
9102D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NAME TIMOTHY R. ARVIDSON (LIC. NO.) 25520 DATE _____

EARTHWORK SUMMARY											B
		EXCAVATION					EMBANKMENT				
		2105.501	2105.502	2105.501	2105.501	2105.522	2105.523	2105.525	2105.501	2105.501	
ROADWAY		COMMON REGULAR (EV, 11)	MUCK (EV)	SUBGRADE (EV)	SELECT GRANULAR (LV)	COMMON BORROW (LV)	COMMON BORROW (LV)	TOPSOIL (LV)	WOODCHIPS (EV)		
		CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	
CSAH 44		13512	8256	3920	11079	2917	1861	4350			
POND 4		6635				1052	1476				
TOTALS:		20147	8256	3920	11079	3978	3357	4350			

EARTHWORK SUMMARY											B
		EXCAVATION				EMBANKMENT					
		2105.501	2105.502	2105.501	2105.501	2105.522	2105.523	2105.525	2105.601		
ROADWAY		COMMON REGULAR (EV, 11)	MUCK (EV)	SUBGRADE (EV)	SELECT GRANULAR (LV)	COMMON BORROW (LV)		TOPSOIL (LV)	WOODCHIPS (EV)		
		CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	
CSAH 44		13512	8256	3920	11079	2917	1861	4350			
POND 4		6635				1052	1476				
TOTALS:		20147	8256	3920	11079	3978	3357	4350			

CLEARING & GRUBBING							
ROADWAY	STATION TO STATION	LOCATION	CLEARING		GRUBBING		
			2101.501 ACRE	2101.502 TREE	2101.506 ACRE	2101.507 TREE	
CELANO 44	34+60 - 46+00	RT	0.36		0.26		
	34+60 - 46+00	LT	0.26		0.36		
	44+93 - 45+46	LT		4		4	
	47+22 - 47+30	RT		2			
	48+00 - 49+10	RT		11		11	
	49+50 - 50+00	RT	0.08		0.08		
	49+50 - 60+00	LT	0.07		0.07		
	49+83 - 50+26	LT		3		3	
	52+24	LT		1		1	
	52+50	WT		1		1	
	51+24	LT		1		1	
	51+61 - 58+42	RT		5		5	
	58+09	LT		1		1	
	60+31 - 60+44	RT		3		3	
	61+48 - 61+70	RT		2		2	
	63+89 - 64+70	RT		1		1	
	61+56	LT		1		1	
	68+14	LT		1		1	
	68+91	LT		1		1	
	69+70	RT		1		1	
	70+96 - 72+11	RT		8		8	
	72+56 - 73+13	RT		1		1	
	72+94 - 73+13	LT		2		2	
	74+26	LT		1		1	
	74+75	RT		1		1	
	75+94	RT		1		1	
	77+75 - 78+13	RT		2		2	
	79+00 - 83+40	RT	0.04		2	0.04	
	83+43 - 89+05	LT	1.70			1.70	
	POND A						
	TOTALS:			2.51	67	2.51	67

CONCRETE REMOVALS					
ROADWAY	STATION TO STATION	LOCATION	2104-2003	2104-50	
			CONCRETE WALK TO FID	CONCRETE DRIVE/WALK SQ YD	
CSAH #4	34+60 - 45+89		5411		
	46+24 - 48+27		1473		
	49+61 - 54+14		2193		
	54+45 - 59+16		2513		
	60+18 - 58+57		2446		
	66+03 - 67+31		519		
	67+10				63
	67+40				86
	67+58 - 68+98		527		54
	70+67				61
	73+64				83
	74+08				27
	75+35				16
	76+34				85
	76+52				20
	77+41				18
	89+30 - 78+71		4498		58
	79+85				15
	81+46				55
	79+20 - 85+40		3006		
	TOTALS!			22750	609

BITUMINOUS REMOVAL					
ROADWAY	STATION TO STATION	LOCATION	2104.503	2104.505	REMARKS
			DRIVEWAY	PAVEMENT	
			58 F.T	52 F.T	
CSAH 44	34+60 = 41+30	L-T-RT		6930	
	47+30 = 61+00	L-T-RT		7085	
	61+00 = 76+30	L-T-RT		7680	
	76+30 = 85+50	L-T-RT		4733	
	37+10	L-T	743		
	40+70	L-T	521		
	51+61	L-T	283		
	51+95	L-T	333		
	53+16	L-T	247		
	60+04	RT	1030		
	60+25	RT	639		
	67+10	L-T	424		
	67+44	RT	335		
	68+55	L-T	387		
	69+55	L-T	707		
	70+67	L-T	318		
	71+30	L-T	620		
	73+64	L-T	290		
	74+48	RT	723		
	75+35	RT	1475		
	76+51	L-T	1258		
77+16	L-T	352			
77+42	RT	1094			
77+82	RT	470			
79+85	L-T	206			
81+47	L-T	200			
TOTALS:			12005	26437	

SAVING PAVEMENT (FULL DEPTH)				2104.513		REMARKS
ROADWAY	STATION TO STATION	LOCATION	BITUMINOUS			
			IN	FT		
CSAH 44	34+60	LT-RT	51		RUNS VERTICAL TO ALIGNMENT	
	37+00 - 37+21	47' LT	21			
	39+64 - 39+82	71' LT	28			
	44+55 - 44+68	45' LT	13			
	45+92 - 46+20	33' RT	28			
	46+07 - 46+35	100' RT	24			
	46+37				RUNS VERTICAL TO ALIGNMENT	
	49+30 - 49+58	53' LT	28			
	51+52 - 51+69	39' LT	17			
	51+86 - 52+07	39' LT	23			
	53+06 - 53+14	41' LT	10			
	54+16 - 54+44	16' RT	28			
	59+68 - 60+17	58' RT	29			
	62+13					
	65+43 - 65+43	53' LT	30			
	65+51 - 65+99	58' LT	42			
	65+98 - 66+00	59' RT	43			
	66+02 - 67+26	32' LT	36			
	67+31 - 67+57	44' RT	26			
	68+34 - 68+74	52' LT	40			
	69+00 - 69+98	53' RT	28			
69+53 - 69+76	51' RT	27				
70+53 - 70+79	53' LT	26				
71+09 - 71+31	56' LT	22				
71+36 - 71+51	55' LT	15				
73+51 - 73+76	64' LT	28				
74+51 - 74+68	54' RT	27				
75+17 - 75+55	56' RT	39				
76+17 - 76+57	56' RT	40				
76+37 - 76+65	49' LT	28				
77+01 - 77+39	64' LT	37				
77+33 - 77+54	55' RT	21				
78+71 - 79+14	62' LT	43				
78+75 - 79+17	64' RT	43				
79+73 - 79+97	49' LT	24				
81+39 - 81+60	46' LT	21				
85+39	LT-RT	43		RUNS VERTICAL TO ALIGNMENT		
TOTALS:			1046			

[illegible]

REMOVE CURB AND GUTTER				G
ROADWAY	STATION TO STATION	LOCATION	CONCRETE C & G	REMARKS
			3104.301	
			1.01 FT	
CSAH 44	34+60 - 47+30	LT	1.21	
	47+30 - 61+80	LT	1.05	
	61+80 - 76+30	LT	1.07	
	76+30 - 85+40	LT	1.87	
	34+60 - 47+30	RT	1.26	
	47+30 - 61+80	RT	1.05	
	61+80 - 76+30	RT	1.26	
	76+30 - 85+40	RT	1.86	
TOTALS:			9877	

REMOVE AND SALVAGE FENCE				H
ROADWAY	STATION TO STATION	LOCATION	2104.501	2104.501
			REMOVE FENCE LIN FT	CHAIN LINK FENCE LIN FT
			9000 FENCE LIN FT	2104.501
CS4H 44	47470 - 50412	36' RT		
	52460 - 53498	52' RT		242
	61481 - 68484	45' RT		135
	69481 - 73490	41' RT		100
	69487	40' RT		409
		41' LT	R	
		41' LT	E	
TOTAL S:			14	249 644

REMOVE MISCELLANEOUS DRAINAGE ITEMS										I
ROADWAY	STATION	LOCATION	EXISTING STRUCTURE NO.	FLOWS TO EXISTING STRUCTURE NO.	2104.501	2104.501	2104.509	2104.525	REMARKS	
					REMOVE PIPE ELUVENTS	REMOVE SOWER PIPE (STORM) LIN FT	REMOVE MANHOLE OR CATCH BASIN EACH	REMOVE PIPE SEWER EACH		
CSAN 44	35+13	RT-LT			100					
	37+55	RT-LT			100					
	38+81	27 LT	CB-301	APR-300		14	1		18" CMP1 APRON REMOVAL INCIDENTAL TO PIPE REMOVAL	
	39+82	27 RT	CB-302	APR-303		16	1		18" CMP1 APRON REMOVAL INCIDENTAL TO PIPE REMOVAL	
	56+97	27 LT	CB-304	POND		28	3		18" CMP	
	56+97	27 RT	CB-305	POND		32	1		18" CMP	
	57+00	RT-LT			80					
	65+51	31 LT	CB-306	EXISTING		30	1	1	REMOVE 24" RCP TO PROPOSED CB-48, PLUG AND ABANDON TO THE WEST	
	65+51	31 RT	CB-307	CB-302		62			21" RCP	
	66+03	30 RT	CB-308	CB-307		59	1		PIPE TYPE AND SIZE TO BE FIELD VERIFIED	
	71+00	34 LT	MH-309	MH-310		235	1		REMOVE 36" RCP TO PROPOSED MH 90	
	71+06	LT								
	73+60	31 LT	MH-310	MH-311		243	1		REMOVE 36" RCP TO PROPOSED MH 91	
	73+60	LT								
	76+03	32 LT	MH-311	MH-313		251	3		36" RCP	
	78+13	32 RT	CB-312	CB-314		253			18" RCP	
	78+53	32 LT	CB-313	MH-318		30	1		42" RCP1 NORTH SD TO MH-318 TO REMAIN	
	78+46	20+5 LT	CB-314	CB-315		37	1		15" RCP	
	78+48	20+5 RT	CB-315	CB-316		34			15" RCP	
	78+76	46 RT	CB-316	EXISTING				1	PLUG AND ABANDON 15" RCP TO THE EAST	
	79+14	31 LT	CB-317	CB-312		37	1		12" RCP	
79+34	32 LT	MH-318								
84+15	25 LT	CB-319								
84+14	25 RT	CB-320								
TOTAL 51					285	1171	19	2		

AGGREGATE SUMMARY					K
ROADWAY	STATION TO STATION	LOCATION	2211.503 BASE (CV) CL. T	REMARKS	
CSAH 44	34+59 - 39+78	RT-LT	1263		
	39+78 - 45+00	RT-LT	1093		
	45+00 - 50+00	RT-LT	1000		
	50+00 - 55+00	RT-LT	1008		
	55+00 - 60+00	RT-LT	963		
	60+00 - 65+00	RT-LT	938		
	65+00 - 70+00	RT-LT	1127		
	70+00 - 75+00	RT-LT	1053		
	75+00 - 80+00	RT-LT	1200		
	80+00 - 85+40	RT-LT	902		
	34+59 - 85+40	RT	610	TEMPORARY CONSTRUCTION - STAGE ONE	
TOTALS:			11177		

BITUMINOUS SUMMARY								L
ROADWAY	STATION TO STATION	LOCATION	AREA	TYPE MV 3 WEAR MWN35035B	TYPE MV 3 NON WEAR MWN35035B	TYPE LV 3 NON WEAR LVN35035B	TACK COAT	REMARKS
CSAH 44 NB	34+60 - 66+00	LT-RT	1042.2	860	860	2437	1564	
	66+00 - 79+00	LT-RT	481.0	397	397	1124	722	NORTHBOUND ONLY
	79+00 - 85+40	LT-RT	1630	134	134	381	245	
CSAH 44 SB	34+60 - 66+00	LT-RT	1023.3	849	849	2406	1544	
	66+00 - 79+00	LT-RT	478.8	390	390	1105	709	SOUTHBOUND ONLY
	79+00 - 85+40	LT-RT	2645	218	218	618	397	
CSAH 44	37+12 - 85+40	RT	2377	261		261	119	TEMPORARY - STAGE ONE
	37+10 - 85+40	LT-RT	381	84				DRIVEWAY PATCHING AT 4"
TOTALS:			37291	3194	2849	8334	5299	

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

NAME: JIMMY B. ARVIDSON LIC. NO.: 25520 DATE:

C/S RECORD DRAWINGS - FEB. 2005

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MILWAUKEE, WI FARMINGTON, NH SLEEPY EYE, MN MILWAUKEE, WI
BURNINGWELL, WI CHASKA, WI WALES, WI LIBERTY, WI

TABULATIONS
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S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)
M.S.A.P. 147-020-30

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CURB AND GUTTER					M
ROADWAY	STATION TO STATION	LOCATION	2531.501 B612 C & G	B624 C & G	REMARKS
NB CSAH 44	34+60 - 37+32	LT	272		
	34+60 - 40+32	RT		1144	MEDIAN ISLAND
	40+30 - 44+24	LT	614		
	44+19 - 54+16	RT		621	MEDIAN ISLAND
	54+00 - 55+00	LT	416		
	54+43 - 65+00	RT		1144	MEDIAN ISLAND
	56+25 - 59+74	LT	131	349	MEDIAN ISLAND
	64+09 - 65+40	LT		134	MEDIAN ISLAND
	66+15 - 67+48	RT		331	MEDIAN ISLAND
	68+01 - 69+02	LT		980	
	69+02 - 70+17	RT		129	MEDIAN ISLAND
	77+28 - 78+57	LT		118	MEDIAN ISLAND
SB CSAH 44	34+60 - 39+64	LT	516		
	34+60 - 36+18	RT		114	MEDIAN ISLAND
	36+18 - 37+32	RT		642	MEDIAN ISLAND
	39+50 - 40+08	LT	414		
	40+10 - 44+24	RT		319	MEDIAN ISLAND
	46+35 - 49+30	LT		1932	MEDIAN ISLAND
	49+57 - 51+57	LT	71	416	MEDIAN ISLAND
	49+80 - 53+94	LT		349	MEDIAN ISLAND
	54+25 - 59+74	RT		131	MEDIAN ISLAND
	64+50 - 65+40	RT		131	MEDIAN ISLAND
	66+15 - 67+55	RT	139	131	MEDIAN ISLAND
	65+97 - 70+13	LT	446	1311	
TOTALS:			1492	13372	

RETAINING WALL					O
ROADWAY	STATION TO STATION	LOCATION	2411.618 MODULAR BLOCK RETAINING WALL	REMARKS	
CSAH 44	41+25 - 44+28	LT	1802	RETAINING WALL #1	
	41+78 - 45+74	RT	1736	RETAINING WALL #2	
	46+23 - 47+27	RT	433	RETAINING WALL #3	
	49+75 - 51+01	LT	358	RETAINING WALL #4	
	50+25 - 53+94	RT	1352	RETAINING WALL #5	
	52+50 - 51+25	LT	795	RETAINING WALL #6	
	74+88 - 75+18	RT	100		
	75+55 - 76+76	RT	100		
	76+27 - 76+17	RT	100		
	77+52 - 78+17	RT	100		
	79+50 - 83+50	RT	2065	RETAINING WALL #7	
TOTALS:			9714		

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

NAME: JIMMY B. ARVIDSON LIC. NO.: 25520 DATE:

C/S RECORD DRAWINGS - FEB. 2005

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MILWAUKEE, WI FARMINGTON, NH SLEEPY EYE, MN MILWAUKEE, WI
BURNINGWELL, WI CHASKA, WI WALES, WI LIBERTY, WI

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S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)
M.S.A.P. 147-020-30

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EDGE DRAIN					P
ROADWAY	STATION	LOCATION	CATCH BASIN NO.	2502.541 PERF PE PIPE DRAIN	REMARKS
CSAH 44	36+20	LT	4	20	20' S
	36+15	RT	5	20	20' S
	38+30	LT	17	80	40' N & S
	38+30	RT	19	80	40' N & S
	39+55	LT	14	20	20' N
	39+40	RT	15	20	20' N
	40+25	LT	10	20	20' N
	42+40	LT	7	20	20' N
	42+45	RT	8	20	20' N
	49+00	LT	23	20	20' S
	49+50	RT	22	20	20' S
	51+50	LT	26	20	20' S
	52+50	RT	25	20	20' S
	54+75	LT	31	20	20' S
	54+44	RT	30	20	20' S
	57+00	LT	35	20	20' S
	57+50	RT	33	20	20' S
	60+40	LT	41	20	20' S
	60+40	RT	40	20	20' S
	63+10	LT	44	20	20' S
	63+10	RT	43	20	20' S
	65+30	LT	49	20	20' S
	65+30	RT	46	20	20' S
	67+30	LT	52	20	20' S
	67+30	RT	51	20	20' S
	70+50	LT	54	20	20' S
	70+50	RT	53	20	20' S
	72+00	LT	57	20	20' S
	72+00	RT	56	20	20' S
	74+75	LT	60	20	20' S
	74+75	RT	58	20	20' S
	76+75	LT	63	20	20' S
	76+75	RT	62	20	20' S
	78+50	LT	68	20	20' S
	78+50	RT	65	20	20' S
	81+00	LT	71	20	20' S
	81+00	RT	70	20	20' S
	82+85	LT	74	20	20' S
	84+05	RT	73	20	20' S
	84+70	LT	77	20	20' S
	84+70	RT	76	20	20' S
TOTALS:				940	

INSTALL FENCE					Q
ROADWAY	STATION TO STATION	LOCATION	2557.603 INSTALL CHAIN LINK FENCE	2557.603 INSTALL WOOD FENCE	
CSAH 44	47+70 - 50+12	RT	242	135	
	52+43 - 53+98	RT		409	
	69+81 - 73+90	RT			
TOTALS:			242	544	

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

NAME: JIMMY B. ARVIDSON LIC. NO.: 25520 DATE:

C/S RECORD DRAWINGS - FEB. 2005

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MILWAUKEE, WI FARMINGTON, NH SLEEPY EYE, MN MILWAUKEE, WI
BURNINGWELL, WI CHASKA, WI WALES, WI LIBERTY, WI

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M.S.A.P. 147-020-30

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CONCRETE SIDEWALK					R
ROADWAY	STATION TO STATION	LOCATION	2521.501 CONCRETE WALK SQ FT	2531.503 CONCRETE WALK SQ FT	REMARKS
CSAH 44	34+60 - 37+32	MED	1764		
	37+25 - 37+30	LT		13	
	34+60 - 45+82	RT		5610	
	40+10 - 44+01	MED		3135	
	40+12 - 40+17	LT-RT		13	348
	44+17 - 44+22	LT-RT		13	
	46+25 - 54+09	RT		3920	
	54+49 - 65+48	RT		5354	
	56+55 - 59+70	MED	2533		
	56+27 - 59+32	LT-RT		13	281
	59+67 - 59+72	LT-RT		13	
	64+15 - 65+25	MED	320		36
	64+71 - 64+76	LT-RT		13	
	65+33 - 65+38	LT-RT		13	
	66+17 - 66+22	LT-RT		13	
	66+23 - 67+46	MED	320		36
	68+06 - 70+64	LT		5457	
	68+11 - 68+22	LT		1405	
	67+79 - 67+84	LT-RT		13	
	69+35 - 70+66	RT		4535	
	77+33 - 78+50	MED	312		35
	77+30 - 77+35	LT-RT		13	
	78+50 - 78+55	LT-RT		13	
	79+27 - 85+40	RT		2918	
	79+35 - 79+40	LT-RT		13	
	79+40 - 80+48	MED	430		48
TOTALS:			8812	29199	156

CONCRETE DRIVEWAY PAVEMENT					S
ROADWAY	STATION TO STATION	LOCATION	2531.507 CONCRETE DRIVEWAY SQ FT	REMARKS	
CSAH 44	37+10	LT	34	18" WIDTH	
	44+61	LT	23	18" WIDTH	
	51+61	LT	16	18" WIDTH	
	51+95	LT	23	24" WIDTH	
	53+10	LT	13	12" WIDTH	
	60+02	RT	46	30" WIDTH	
	62+27	LT	44	30" WIDTH	
	67+10	LT	44	30" WIDTH	
	67+44	RT	33	26" WIDTH	
	68+64	LT	25	16" WIDTH	
	68+64	LT	39	24" WIDTH	
	70+67	LT	42	28" WIDTH	
	71+24	LT	67	30" WIDTH	
	73+64	LT	46	30" WIDTH	
	74+60	RT	25	16" WIDTH	
	75+37	RT	47	32" WIDTH	
	76+52	LT	47	32" WIDTH	
	77+20	LT	44	28" WIDTH	
TOTALS:			228	558	

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

NAME: JIMMY B. ARVIDSON LIC. NO.: 25520 DATE:

C/S RECORD DRAWINGS - FEB. 2005

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MILWAUKEE, WI FARMINGTON, NH SLEEPY EYE, MN MILWAUKEE, WI
BURNINGWELL, WI CHASKA, WI WALES, WI LIBERTY, WI

TABULATIONS
PROPOSED QUANTITIES
S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)
M.S.A.P. 147-020-30

PLAN PAGE 7 OF 8

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TURF ESTABLISHMENT											T
ROADWAY	STATION TO STATION	LOCATION	2575.512	2575.501	2575.502	2575.503	2575.505	2575.511	2575.519	2575.523	2575.532
			SEEDING CHECK (1)	SEEDING AREA (2)	SEED MIXTURE 60B	SEED MIXTURE 60B	SEEDING TYPE LAWN	MULCH MATERIAL TYPE 1	DISK ANCHORING	EROSION CONTROL CAT. 3	COMMERCIAL FERTILIZER ANALYSIS 22-05-10
CSAH 44	34+60 - 39+65	LT	1.0	0.145	6	105	0.290	0.145	447	23	
	34+60 - 45+50	RT	10	0.347	14	916	0.690	0.347	1389	69	
	40+50 - 46+00	LT	10	0.086	3	893	0.170	0.086	380	17	
	46+40 - 54+00	LT	10			749					
	49+25 - 54+40	RT		0.073	1	829	0.150	0.073	354	15	
	54+00 - 65+40	LT		0.086	1	725	0.200	0.086	447	23	
	64+52 - 65+40	RT	30	0.035	1	1055	0.070	0.035	171	7	
	66+00 - 78+70	LT				1402					
	66+00 - 78+70	RT				1023					
	79+15 - 82+05	LT				254					
POND A	79+15 - 85+40	RT		0.048		936	0.960	0.048	232	10	
	82+06 - 87+86	LT		0.906	36		1.012	0.906	435	181	
	87+74 - 87+64	LT		0.906		91	1.812	0.906		272	
TOTALS:			120	3	67	91	8884	6	3	7835	620

(1) TO BE USED AT CULVERT ENDS AND AS DIRECTED BY THE ENGINEER.

EROSION CONTROL					U
ROADWAY	STATION TO STATION	LOCATION	2575.502	2575.505	
			SILT FENCE (1)(2)	FLUTATION SILT CURTAIN	
CSAH 44	34+60 - 40+50	RT		590	
	37+50 - 39+50	LT		220	
	53+20 - 55+00	LT		180	
	55+00 - 58+50	LT		350	
	58+00 - 59+80	RT		380	
	81+60 - 87+50	LT		940	
	84+00 - 85+40	RT		140	
TOTALS:			1540	1160	

(1) TO BE USED AT CULVERT ENDS AND AS DIRECTED BY THE ENGINEER.

(2) MACHINE-SLICED

QUANTITIES COMPUTED ON THE FOLLOWING BASIS

QUANTITIES COMPUTED ON THE FOLLOWING BASIS:
SEED MIXTURE 28B = 40 Lbs / Acre - Dry
SEED MIXTURE 60B = 100 Lbs / Acre - Dry
MULCH TYPE 1 = 2 Tons / Acre
COMM. FERT. = ANALYSIS 22-05-10

With Seed Mix 28B = 200 Lbs / Acre
With Seed Mix 60B = 300 Lbs / Acre

CJS		RECORD DRAWINGS - FEB. 2005		BOLTON & MENK, INC.		TABULATIONS		SHEET	
DESIGNED BY		DRAWN BY		CHECKED BY		DATE		17	
TIMOTHY R. ARVIDSON		LIS. NO. 25520		DATE				141	
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.									
CONSULTING ENGINEERS & SURVEYORS		MANKATO, MN		FARMINGTON, MN		SLEEPY EYE, MN		WELLS, MN	
PROPOSED QUANTITIES		S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)		PLAN PAGE 0 OF 8					
M.S.A.P. 147-0220-30									

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SANITARY SEWER MANHOLES							V
STRUCTURE NUMBER	ROADWAY	STATION	LOCATION	INPLACE TOP OF RING ELEV.	PROPOSED TOP OF RING ELEV.	2506.522 ADJUST FRAME CASTING EACH	REMARKS
102	CSAH 44	36+34	15' 5" LT	930.05	930.95	1	
103	CSAH 44	39+70	39' LT	928.92	930.61	1	
104	CSAH 44	46+12	6' LT	939.02	939.81	1	
105	CSAH 44	49+40	6' LT	933.92	934.81	1	
106	CSAH 44	52+60	6' LT	922.99	923.69	1	
107	CSAH 44	54+23	27' RT	918.36	918.79	1	
108	CSAH 44	55+90	6' LT	916.56	917.41	1	
109	CSAH 44	59+20	6' LT	914.70	915.10	1	
110	CSAH 44	62+50	6' 5" LT	912.52	912.79	1	
111	CSAH 44	65+80	6' LT	908.82	908.87	1	
112	CSAH 44	69+12	21' LT	902.27	902.60	1	
113	CSAH 44	72+28	35' RT	896.10	896.54	1	
114	CSAH 44	75+71	35' RT	890.08	891.74	1	
115	CSAH 44	78+96	35' RT	886.58	886.61	1	
123	CSAH 44	49+40	48' LT	934.84	934.84	1	
TOTALS:						15	

REMOVE WATER SERVICE PIPE				W
ROADWAY	STATION	LOCATION	REMOVE WATER SERVICE PIPE (1) LIN FT	2104.501
CSAH 44	50+06	28' LT - 35' RT		63
	50+95	27' LT - 35' RT		63
	51+50	27' LT - 37' RT		71
	63+70	23' LT - 48' RT		34
	65+95	23' LT - 50' LT		72
	68+12	23' LT - 50' LT		72
	69+20	24' RT - 48' LT		23
	72+70	25' RT - 48' RT		23
TOTALS:				417

(1) REMOVAL OF CURB STOP AND BOX INCIDENTAL

SALVAGE HYDRANTS AND VALVES				X
ROADWAY	STATION	LOCATION	2104.523 SALVAGE HYDRANT & VALVE EACH	
CSAH 44	37+29	29' LT		1
	40+35	30' LT		1
	42+92	30' LT		1
	46+05	46' LT		1
	49+67	39' RT		1
	52+13	24' LT		1
	62+90	28' LT		1
	68+16	27' RT		1
TOTALS:				8

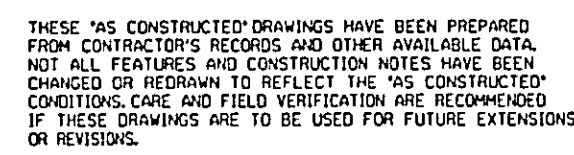
28-199

PUBLIC UTILITIES						Y
ROADWAY	STATION	LOCATION	ITEM INPLACE	REMARKS	OWNERSHIP	
CSAH 44	33+32	35' RT	VAULT	RELOCATE	QWEST	
	33+32 - 79+23	30' RT	BURIED TELEPHONE	RELOCATE	QWEST	
	33+34	31' LT	POWER POLE	RELOCATE	XCEL	
	33+36	29' RT	POWER POLE	RELOCATE	XCEL	
	34+91	31' LT	POWER POLE	RELOCATE	XCEL	
	35+54	32' LT	POWER POLE	RELOCATE	XCEL	
	36+96 - 39+98	29' LT	BURIED GAS	RELOCATE	XCEL	
	36+97	32' LT	POWER POLE	RELOCATE	XCEL	
	38+27	35' LT	POWER POLE	RELOCATE	XCEL	
	39+62	37' LT	POWER POLE	RELOCATE	XCEL	
	39+97	38' LT	POWER POLE/LIGHT	RELOCATE	XCEL	
	39+98	25' LT - 59' LT	BURIED GAS	RELOCATE	XCEL	
	40+19	33' LT	POWER POLE	RELOCATE	XCEL	
	41+71	34' LT	POWER POLE W/ ANCHOR	RELOCATE	XCEL	
	42+15	29' RT	TELEPHONE PEDESTAL	RELOCATE	QWEST	
	42+15	29' RT - 35' LT	BURIED TELEPHONE	RELOCATE	QWEST	
	43+02	33' LT	POWER POLE	RELOCATE	XCEL	
	43+60	32' LT	POWER POLE	RELOCATE	XCEL	
	45+52	32' LT	POWER POLE	RELOCATE	XCEL	
	45+80 - 75+51	29' LT	BURIED GAS	RELOCATE	XCEL	
	46+42	29' LT - 55' RT	BURIED GAS	RELOCATE	XCEL	
	46+42	30' RT	TELEPHONE VAULT	RELOCATE	QWEST	
	46+42	30' RT - 69' LT	BURIED TELEPHONE	RELOCATE	QWEST	
	46+45	31' LT	POWER POLE/LIGHT W/ ANCHOR	RELOCATE	XCEL	
	46+51	31' LT	CABLE TV PEDESTAL	RELOCATE	AT&T	
	48+17	31' LT	POWER POLE	RELOCATE	XCEL	
	48+59	34' LT - 45' LT	BURIED GAS	RELOCATE	XCEL	
	49+25	33' LT	POWER POLE	RELOCATE	XCEL	
	49+26	35' RT	POWER POLE	RELOCATE	XCEL	
	49+62	36' LT - 1' LT	POWER POLE	RELOCATE	XCEL	
	49+67	33' LT	POWER POLE/LIGHT	RELOCATE	XCEL	
	49+71	31' LT	CABLE TV PEDESTAL	RELOCATE	AT&T	
	50+04	29' RT	TELEPHONE VAULT	RELOCATE	QWEST	
	50+49	31' LT - 48' LT	BURIED GAS	RELOCATE	XCEL	
	50+96	34' LT	POWER POLE W/ ANCHOR	RELOCATE	XCEL	
	51+12	31' LT - 55' LT	BURIED GAS	RELOCATE	XCEL	
	52+31	35' LT	POWER POLE	RELOCATE	XCEL	
	52+45	30' LT - 42' LT	BURIED GAS	RELOCATE	XCEL	
	52+63	30' LT - 42' LT	BURIED GAS	RELOCATE	XCEL	
	53+72	34' LT	POWER POLE	RELOCATE	XCEL	
	53+74	31' RT	POWER POLE	RELOCATE	XCEL	
	54+62	30' RT	POWER POLE/LIGHT	RELOCATE	XCEL	
	55+45	31' LT	POWER POLE	RELOCATE	XCEL	
	57+08	30' LT	POWER POLE	RELOCATE	XCEL	
	58+07	37' RT	TELEPHONE VAULT	RELOCATE	QWEST	
	58+07	32' LT	TELEPHONE PEDESTAL	RELOCATE	QWEST	
	58+07	37' RT - 32' LT	BURIED TELEPHONE	RELOCATE	QWEST	
	58+72	30' LT	POWER POLE	RELOCATE	XCEL	
	58+73	30' LT	POWER PEDESTAL	RELOCATE	XCEL	
	60+29	27' RT	POWER POLE/LIGHT	RELOCATE	XCEL	
	60+37	31' LT	POWER POLE	RELOCATE	XCEL	
	61+36	34' LT	POWER POLE	RELOCATE	XCEL	
	62+50	34' LT	POWER POLE W/ ANCHOR	RELOCATE	XCEL	
	62+62	60' RT	POWER POLE	RELOCATE	XCEL	
	64+23	34' LT	POWER POLE	RELOCATE	XCEL	
	65+48	36' LT	POWER POLE/LIGHT	RELOCATE	XCEL	
	66+04	59' RT - 59' LT	BURIED GAS	RELOCATE	XCEL	
	66+08	35' LT	POWER POLE W/ ANCHOR	RELOCATE	XCEL	
	66+09	50' RT	POWER POLE	RELOCATE	XCEL	
	66+10	54' RT	POWER POLE	RELOCATE	XCEL	
	66+13	32' RT	TELEPHONE PEDESTAL	RELOCATE	QWEST	
	66+13	32' RT - 54' LT	BURIED TELEPHONE	RELOCATE	QWEST	
	67+33	26' LT - 52' LT	BURIED GAS	RELOCATE	XCEL	
	67+71	42' RT	POWER POLE/LIGHT	RELOCATE	XCEL	
	67+85	41' LT	POWER POLE/LIGHT	RELOCATE	XCEL	
	68+86	26' LT - 54' LT	BURIED GAS	RELOCATE	XCEL	
	69+33	38' RT	POWER POLE	RELOCATE	XCEL	
	69+81	26' LT - 55' LT	BURIED GAS	RELOCATE	XCEL	
	70+29	27' LT - 55' LT	BURIED GAS	RELOCATE	XCEL	
	72+42	33' RT	TELEPHONE PEDESTAL	RELOCATE	QWEST	
	74+05	27' LT - 52' RT	BURIED GAS	RELOCATE	XCEL	

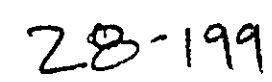
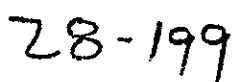
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DESIGNED BY		DRAWN BY		CHECKED BY		DATE		19	
TIMOTHY R. ARVIDSON		LIS. NO. 25520		DATE				141	
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.									
CONSULTING ENGINEERS & SURVEYORS		MANKATO, MN		FARMINGTON, MN		SLEEPY EYE, MN		WELLS, MN	
PUBLIC UTILITIES		S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)		PLAN PAGE 2 OF 3					
M.S.A.P. 147-0220-30									

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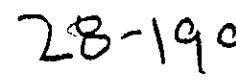
PUBLIC UTILITIES						Y
ROADWAY	STATION	LOCATION	ITEM INPLACE	REMARKS	OWNERSHIP	
CSAH 44	75+51	31' RT	TELEPHONE PEDESTAL			
	75+81	27' LT - 44' RT	BURIED GAS	RELOCATE	QWEST	
	75+84	27' LT - 44' RT	BURIED GAS	RELOCATE	XCEL	
	75+91	27' LT - 51' LT	BURIED GAS	RELOCATE	XCEL	
	76+51	32' RT	TELEPHONE PEDESTAL	RELOCATE	XCEL	
	76+51	37' RT	BURIED GAS	RELOCATE	QWEST	
	76+82	25' LT	CABLE TV PEDESTAL	RELOCATE	AT&T	
	76+88	42' LT	POWER POLE/LIGHT	RELOCATE	XCEL	
	78+65	37' RT	E LIGHT	RELOCATE	XCEL	
	78+68	38' LT	CABLE TV PEDESTAL	RELOCATE	AT&T	
78+70	85' RT - 58' LT	BURIED TELEPHONE	RELOCATE	AT&T		



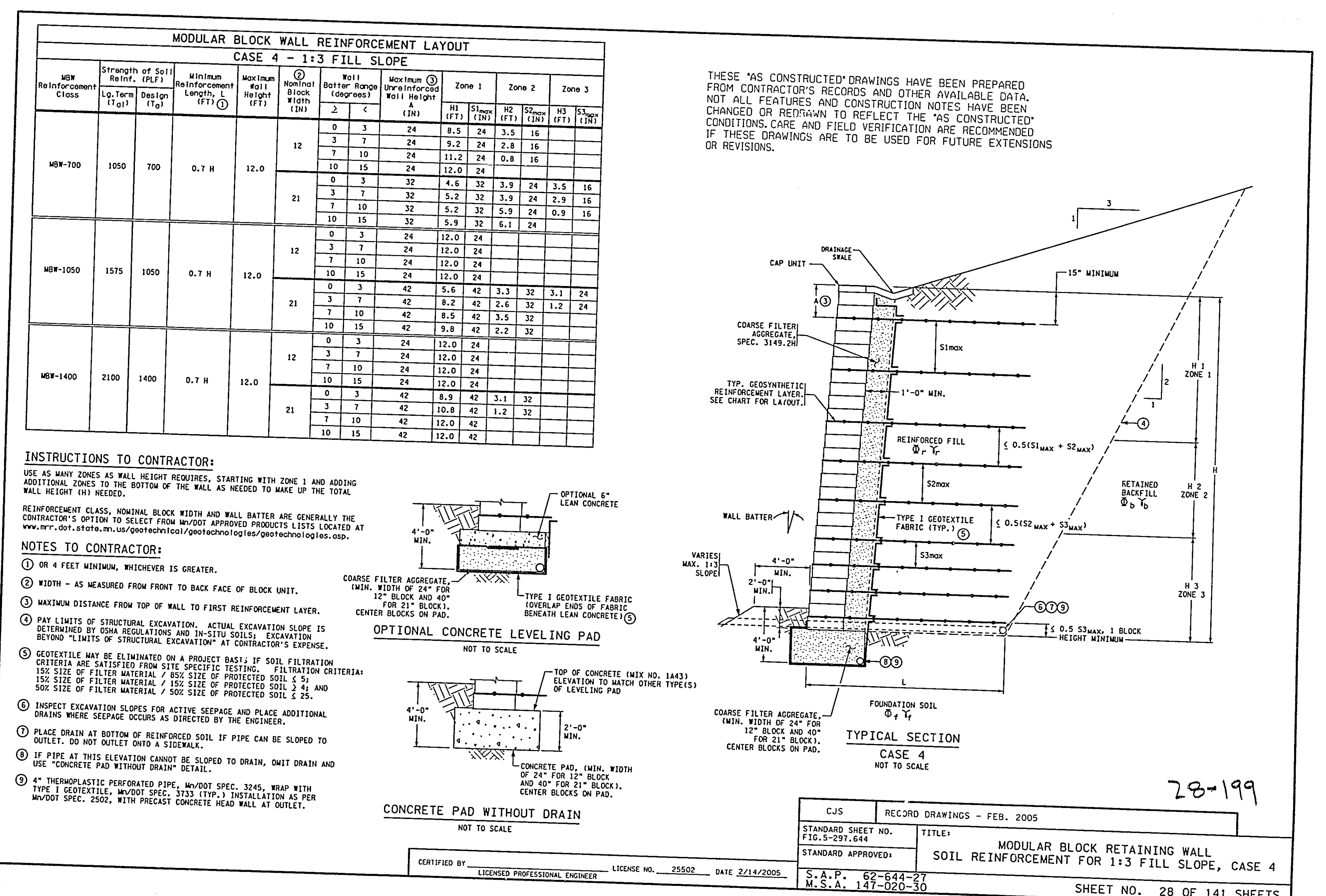
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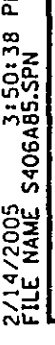
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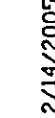
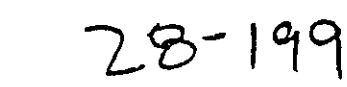
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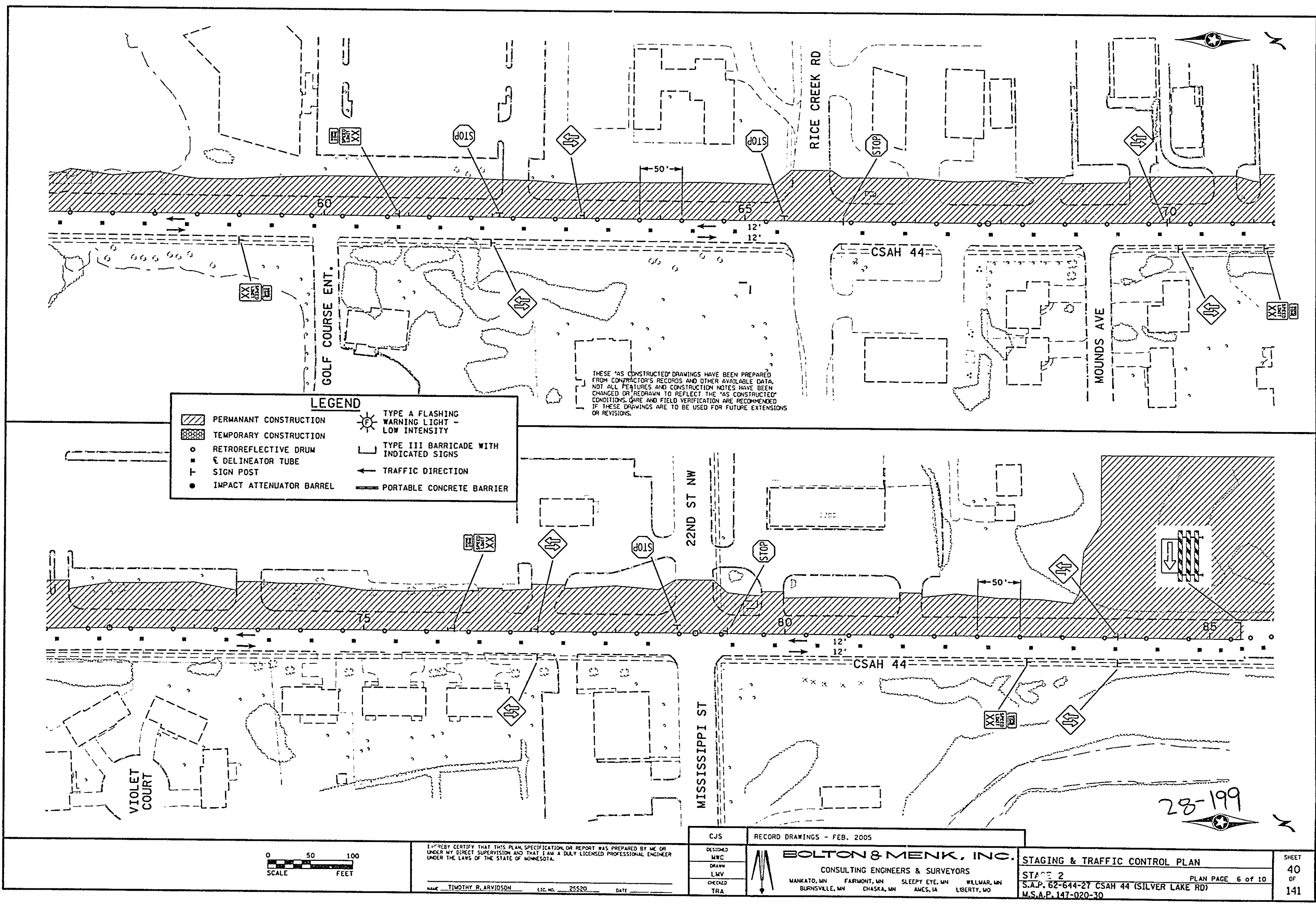
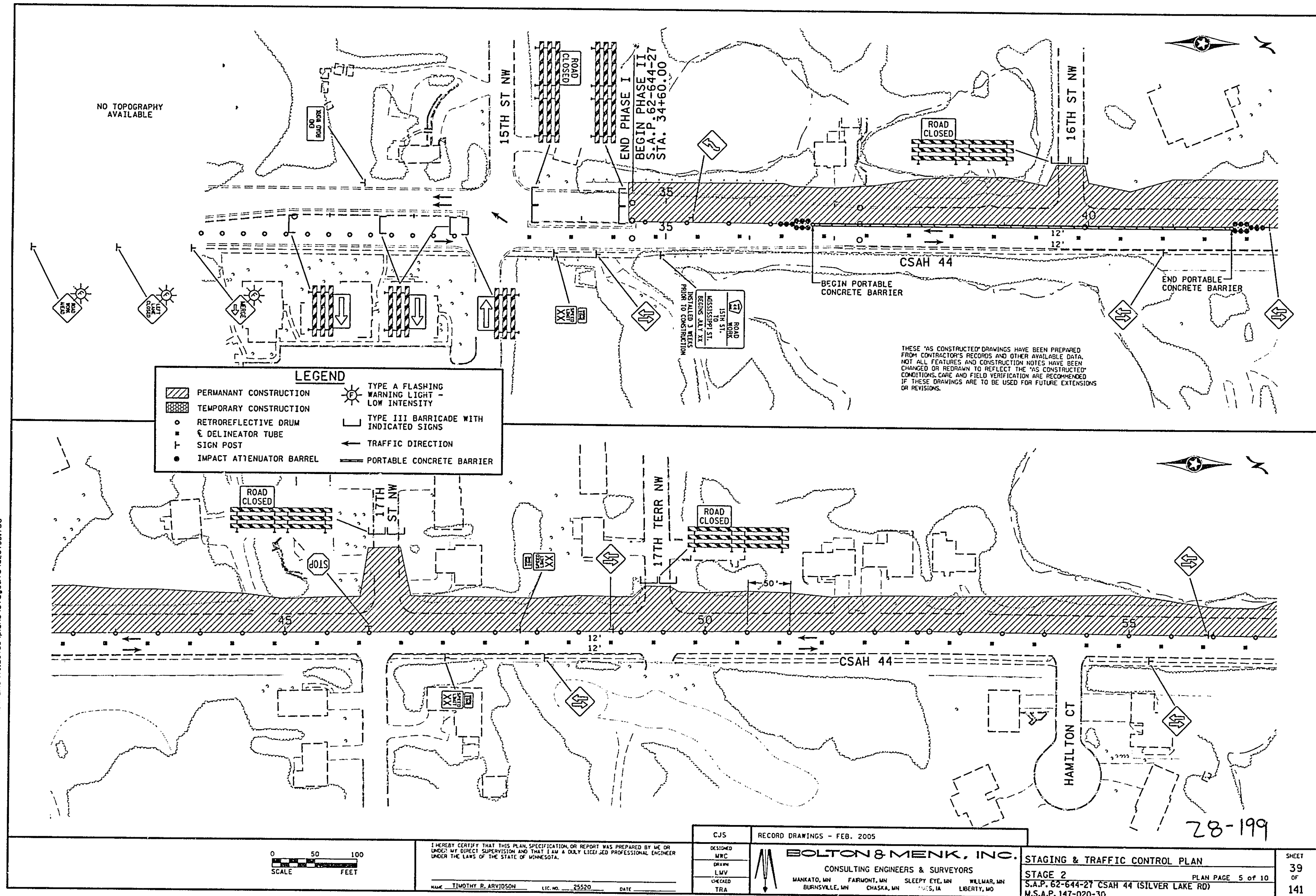
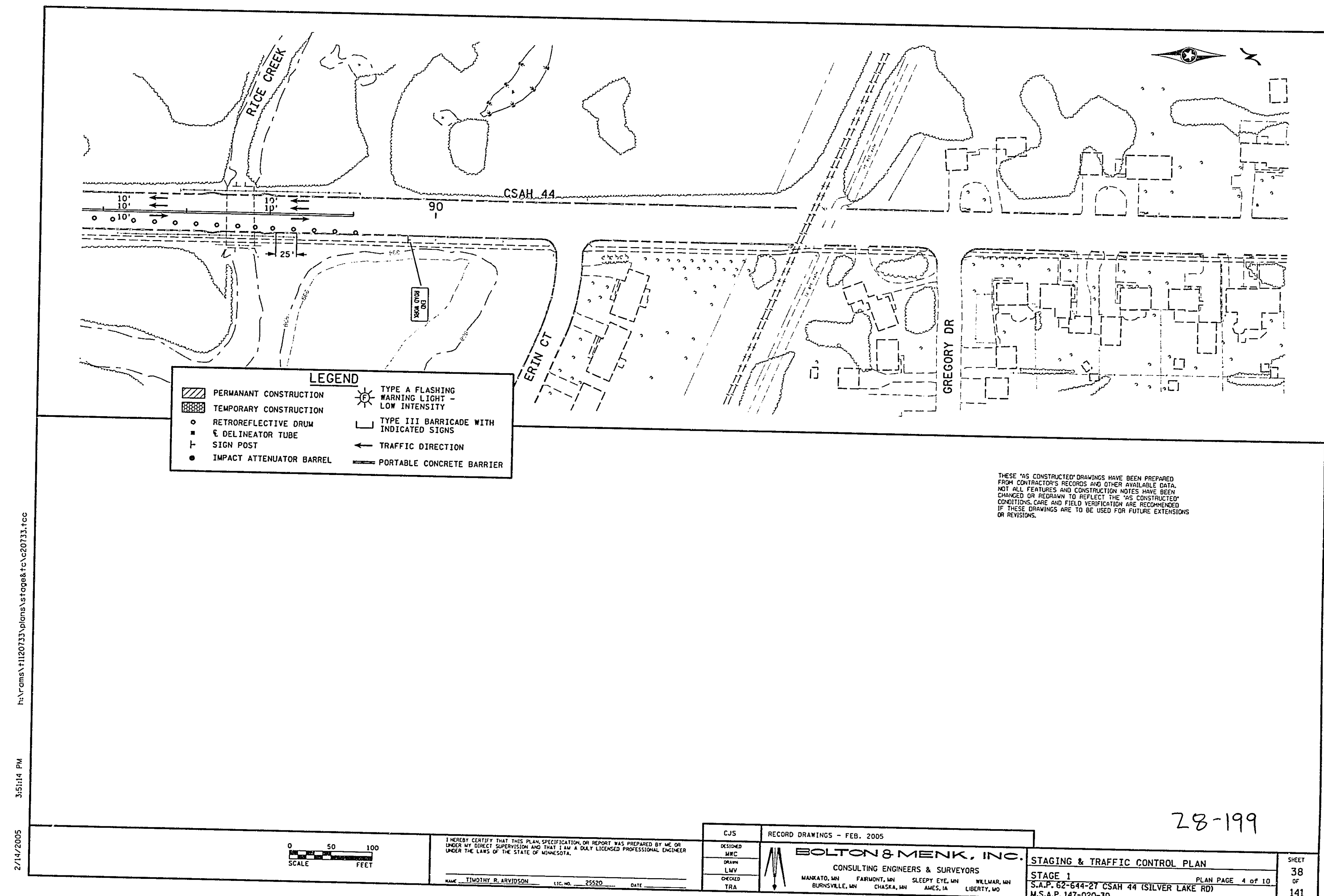
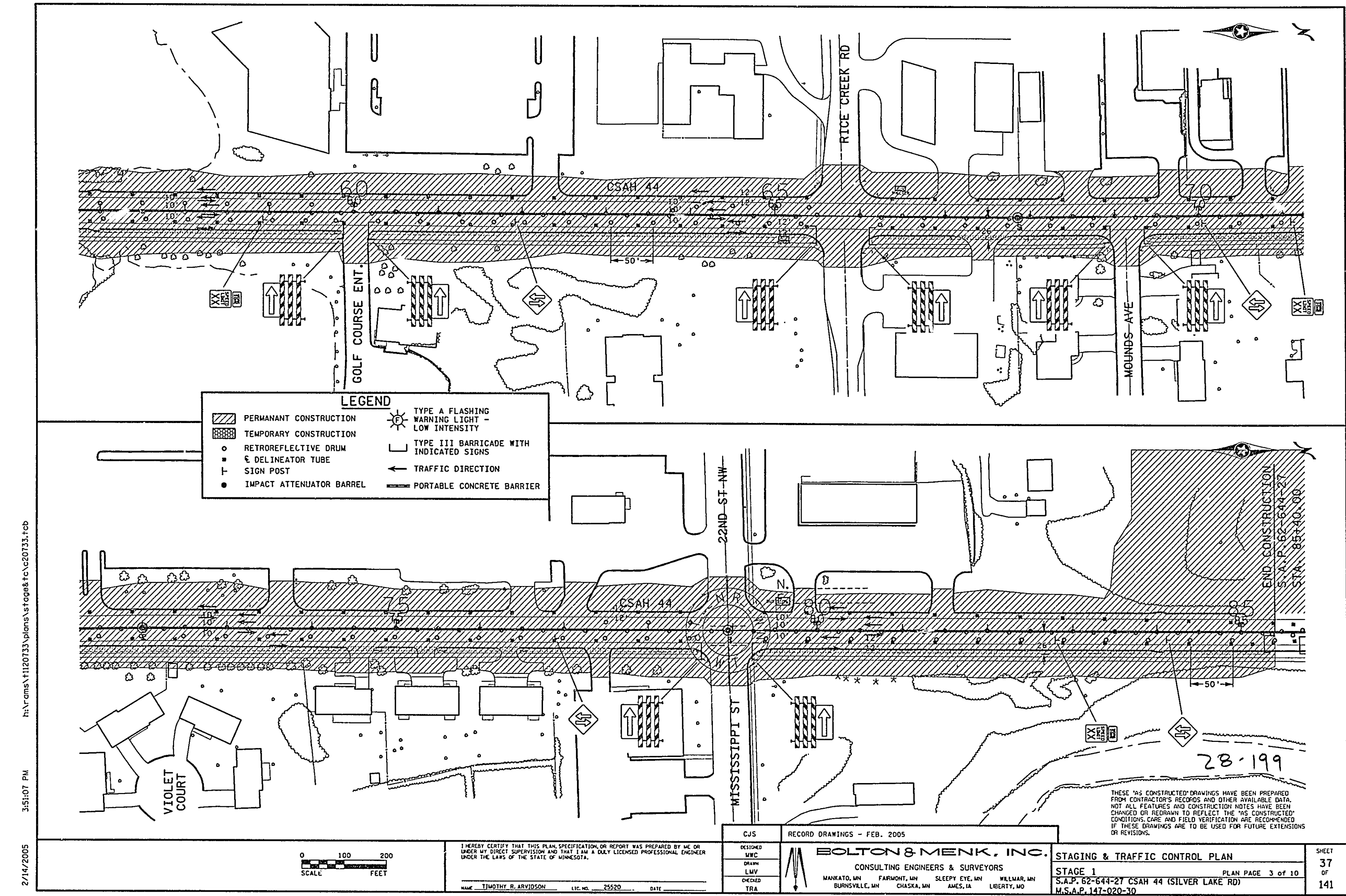
72-1

STAGING AND TRAFFIC CONTROL

PLAN PAGE 1 of 10

S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)

M.S.A.P. 147-020-30

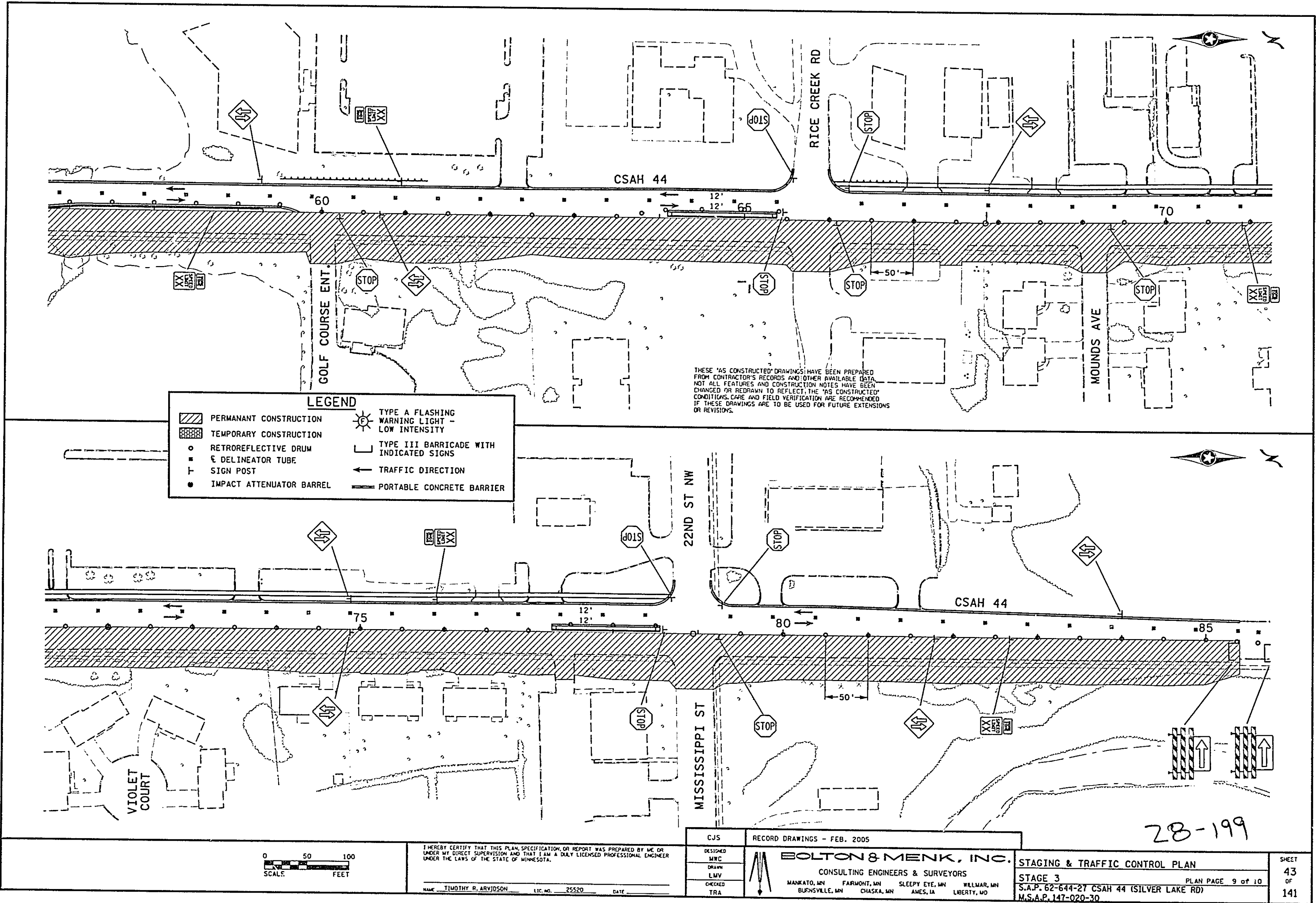


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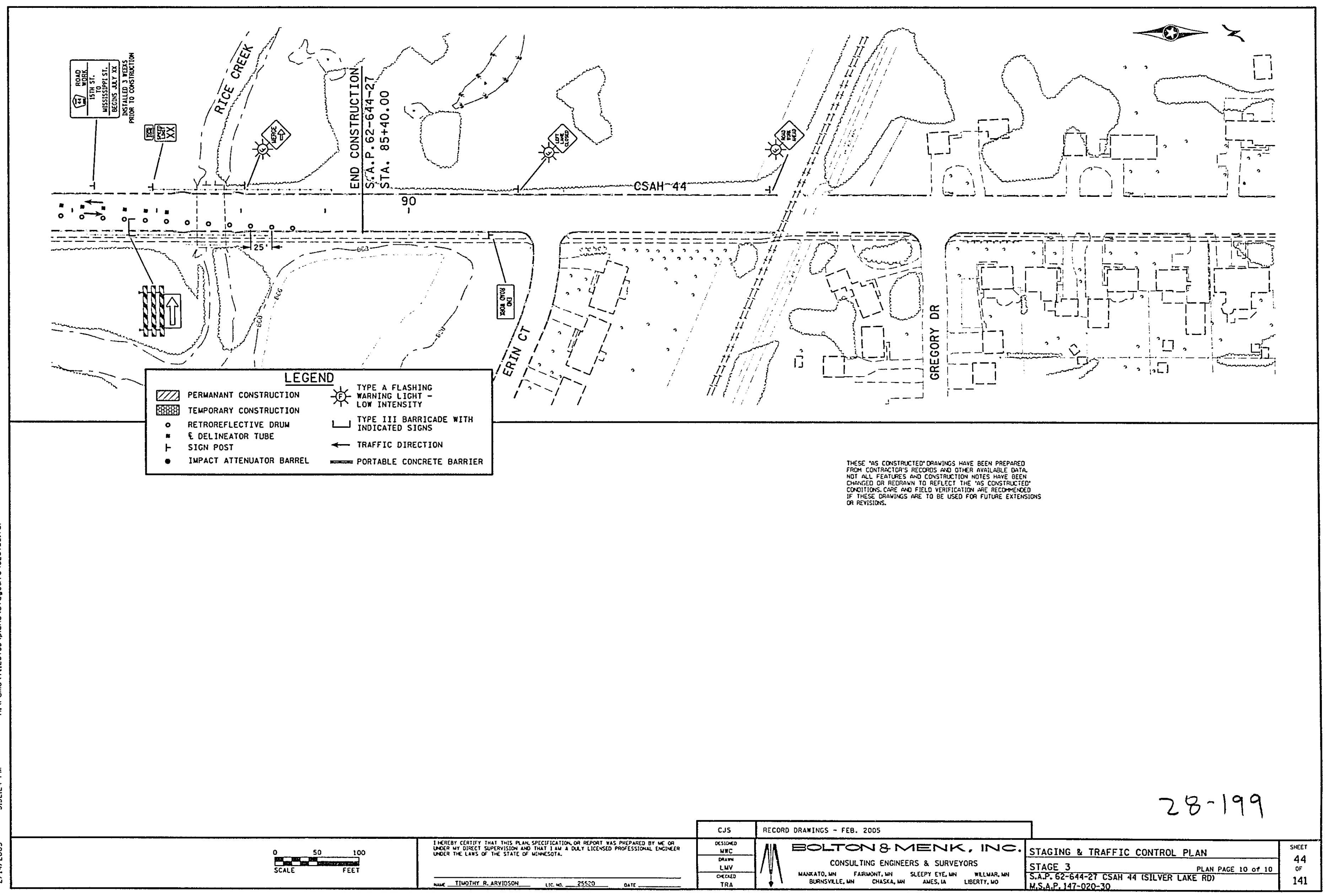


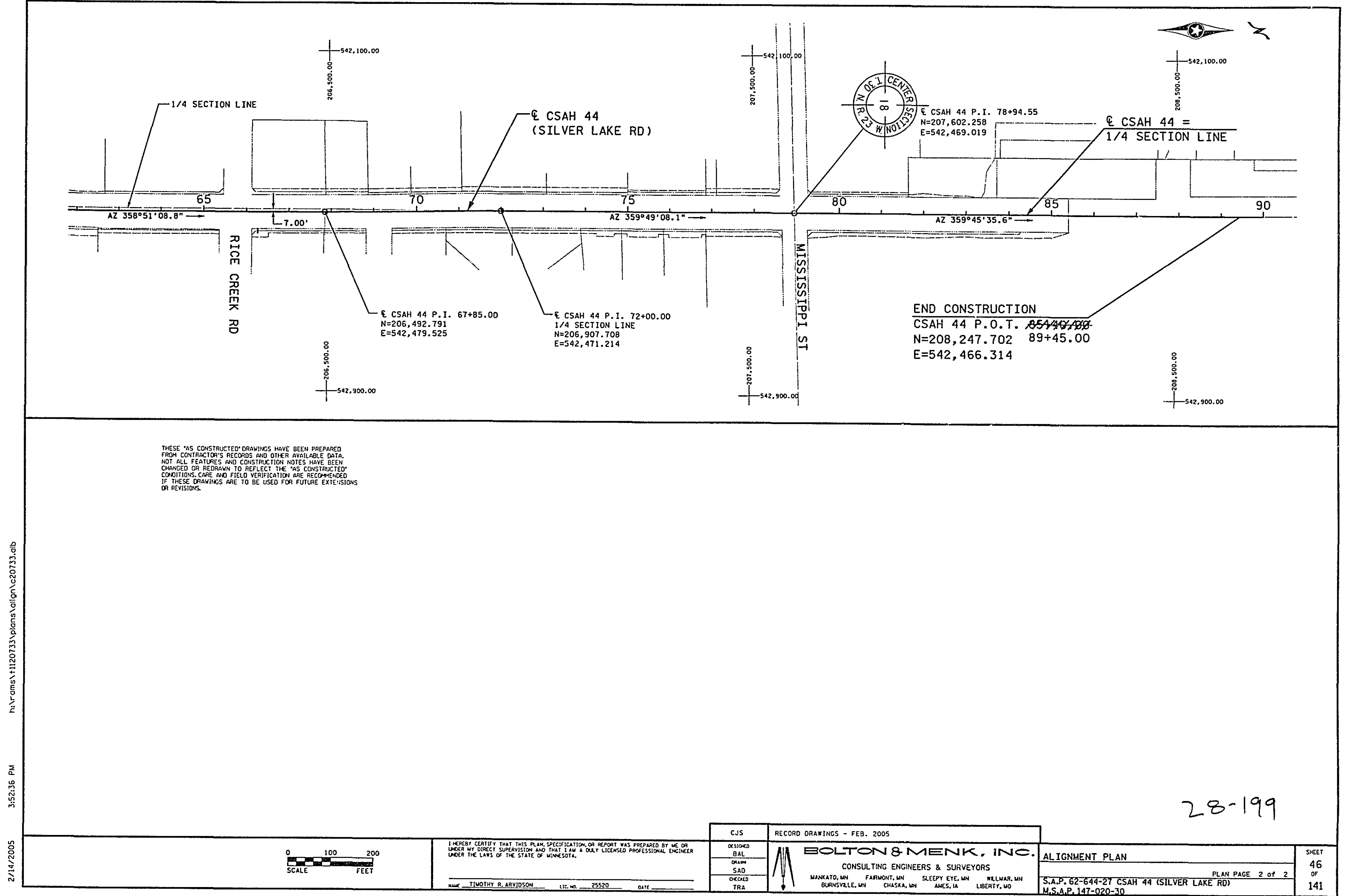
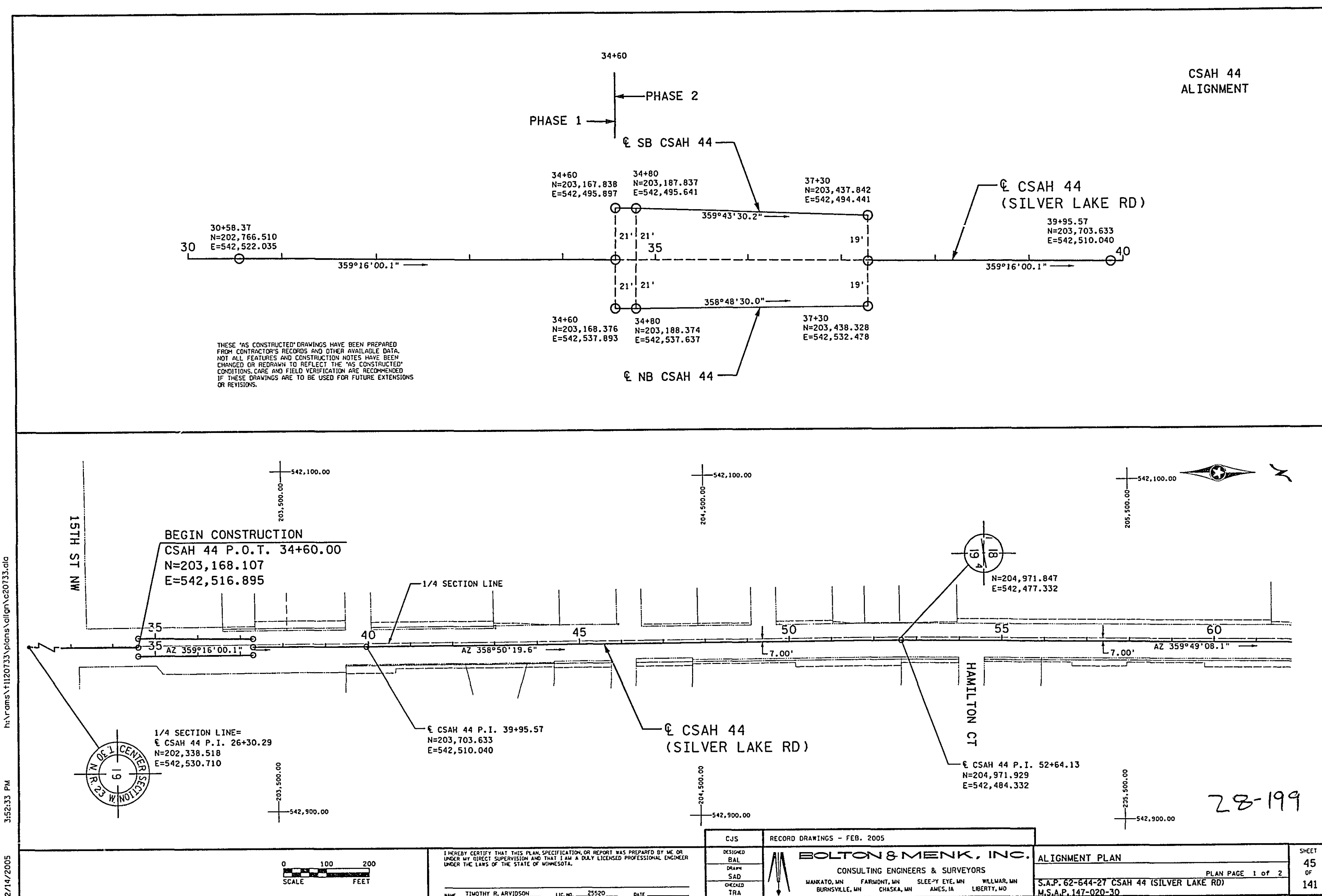
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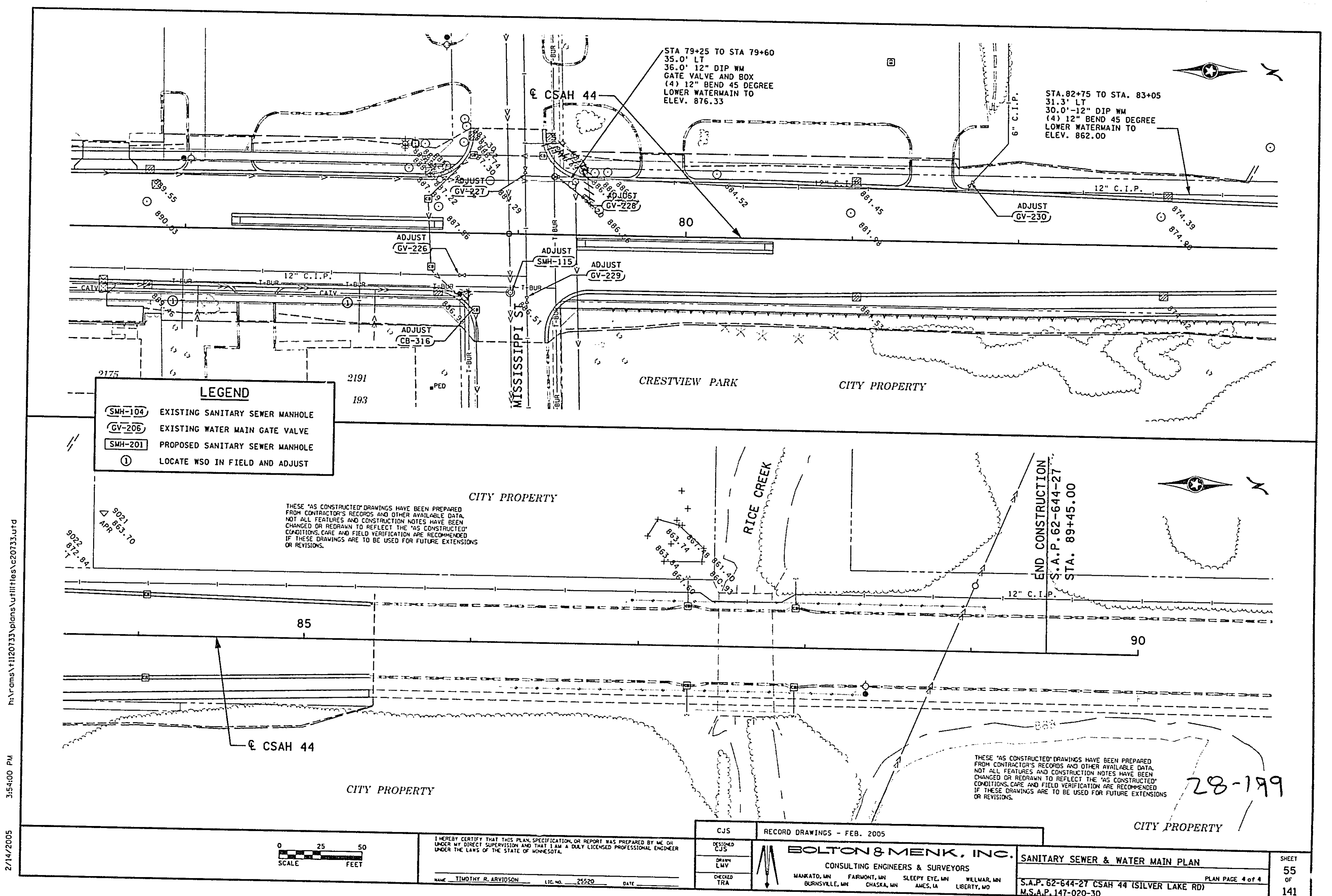
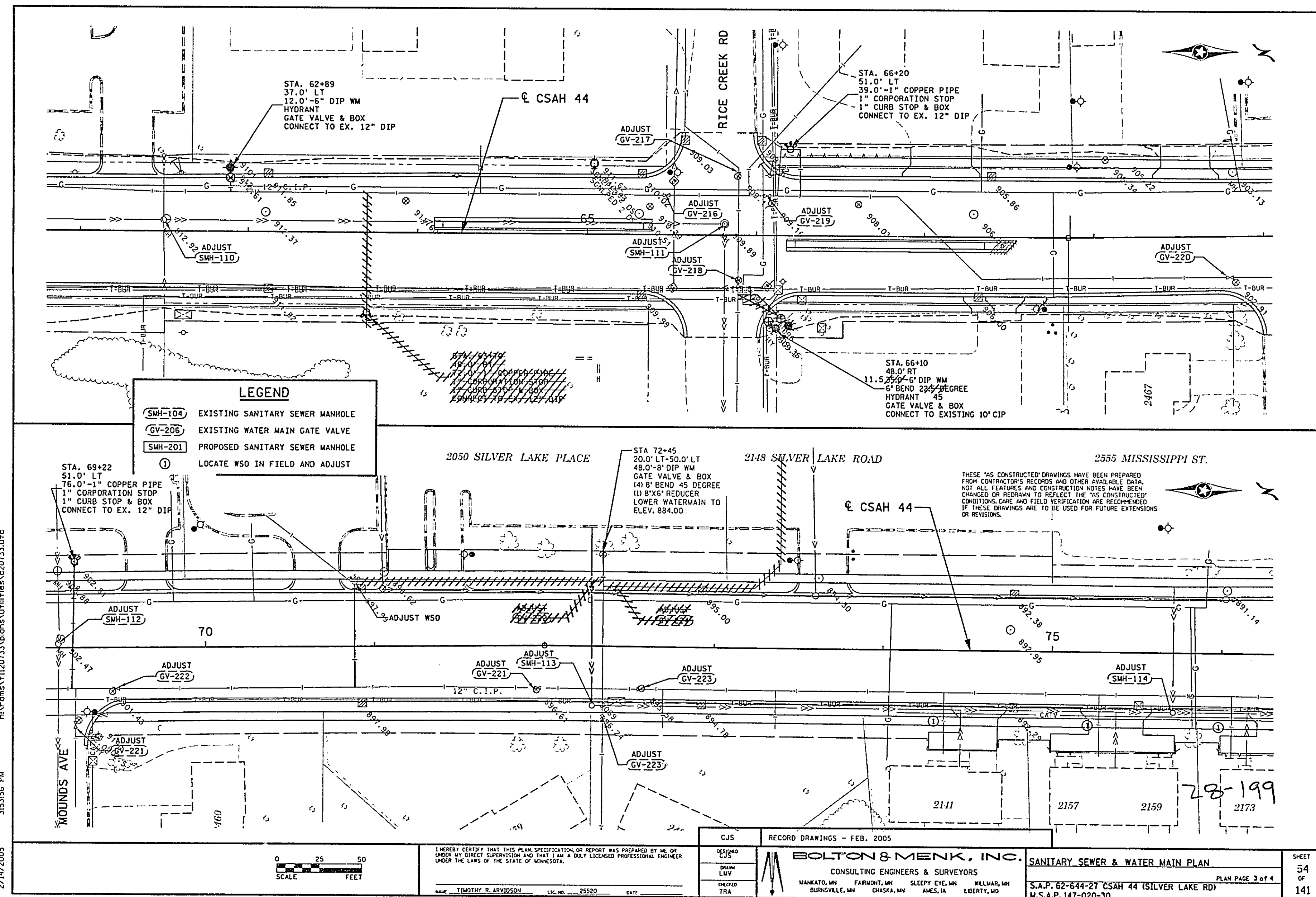
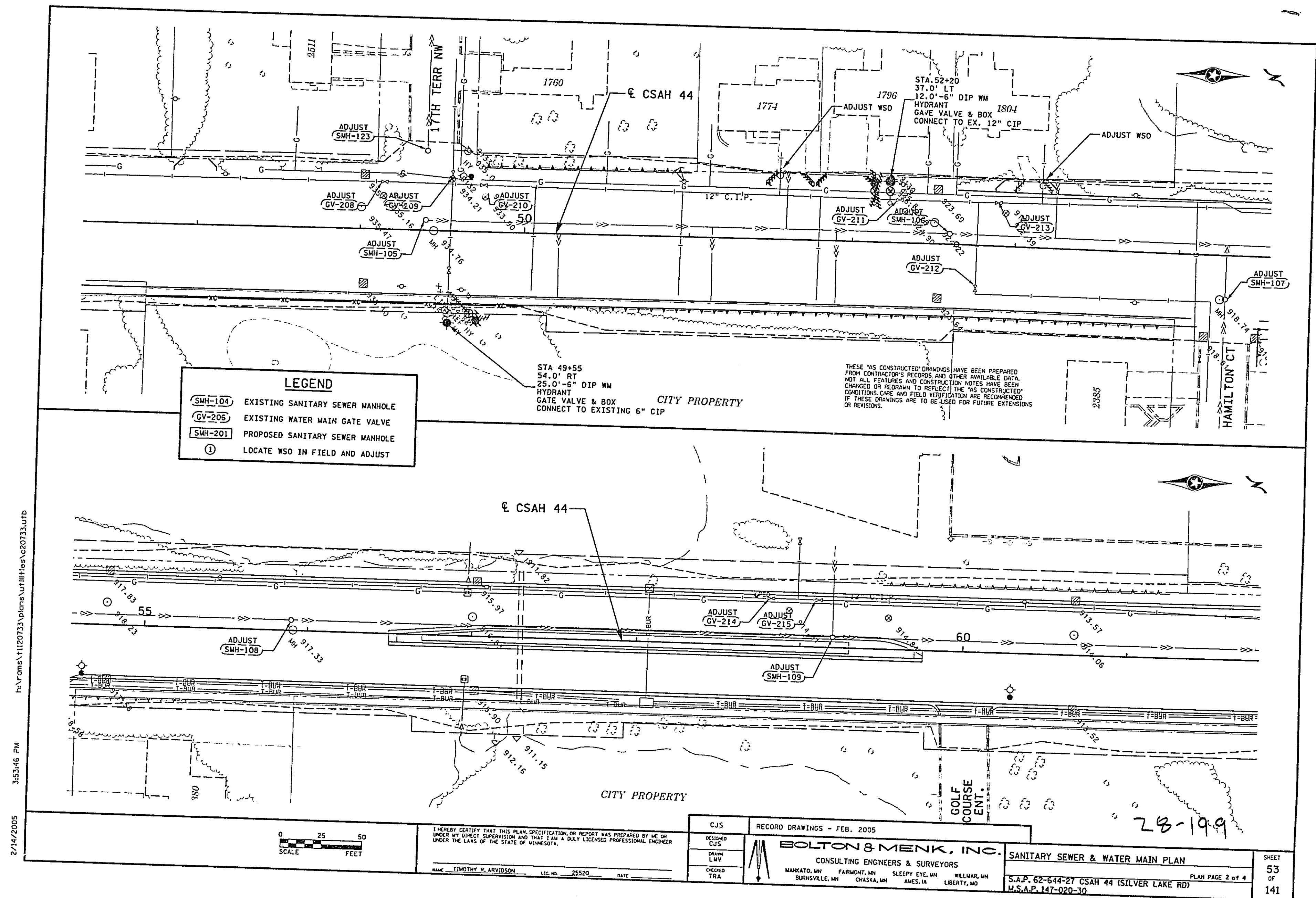
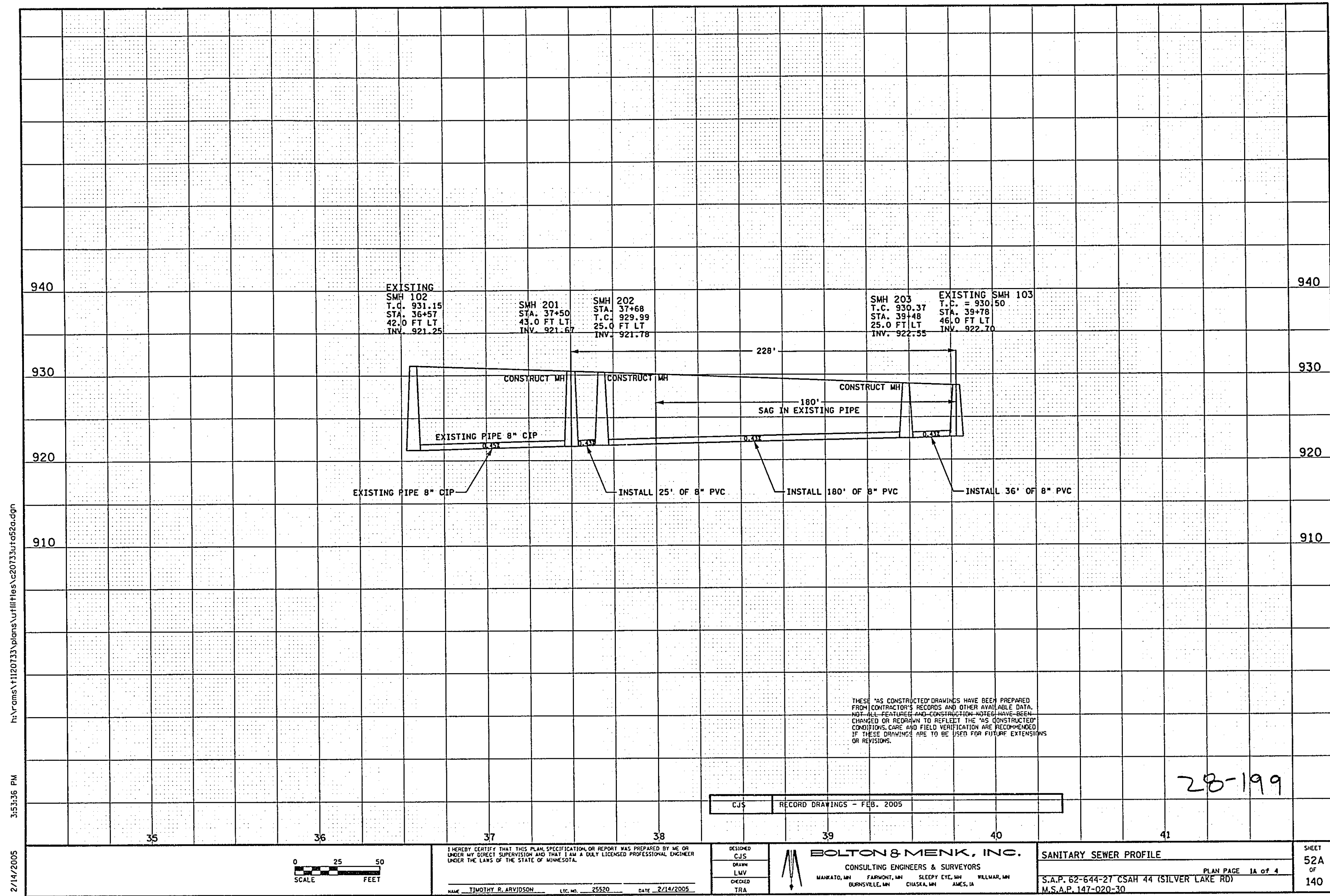
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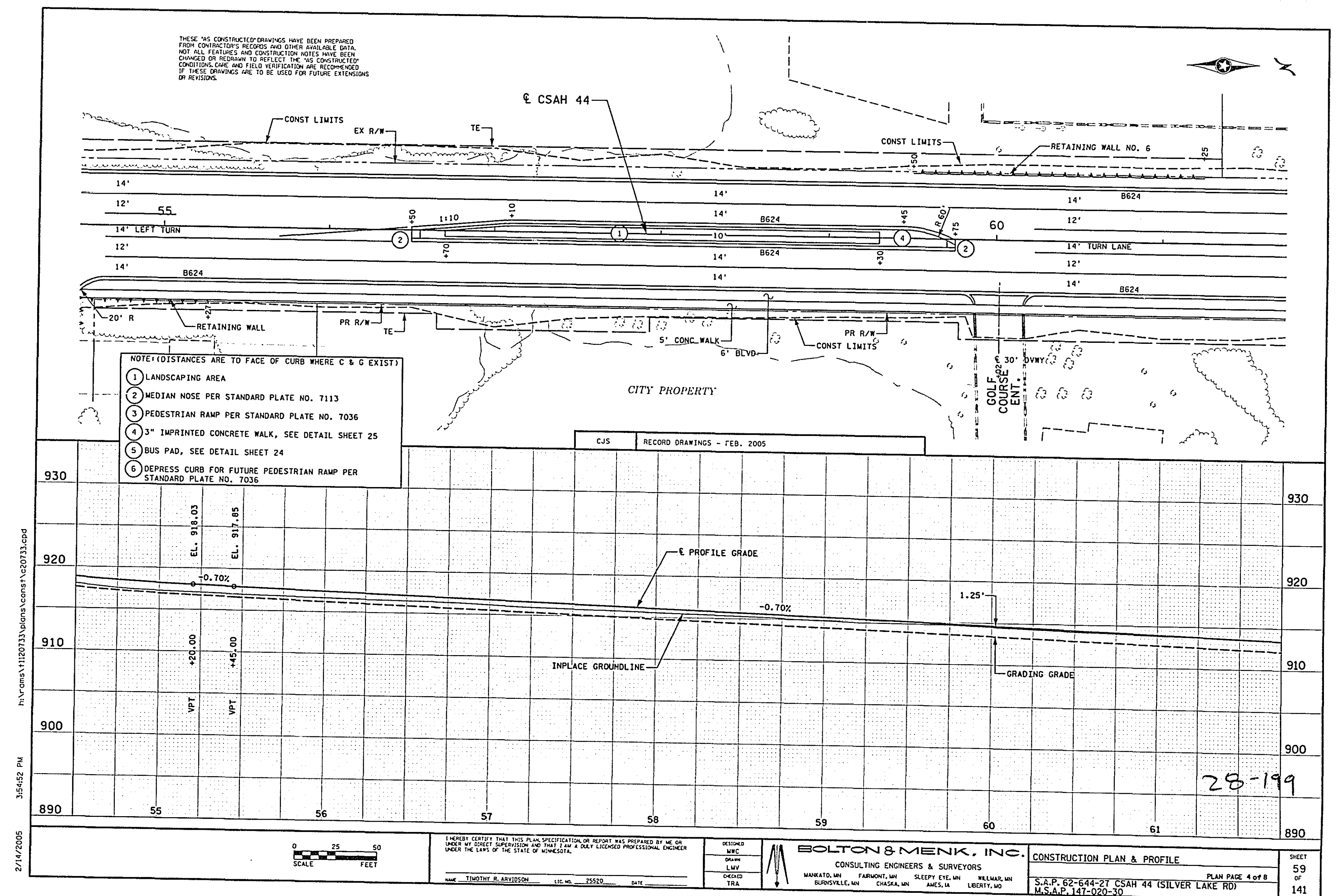
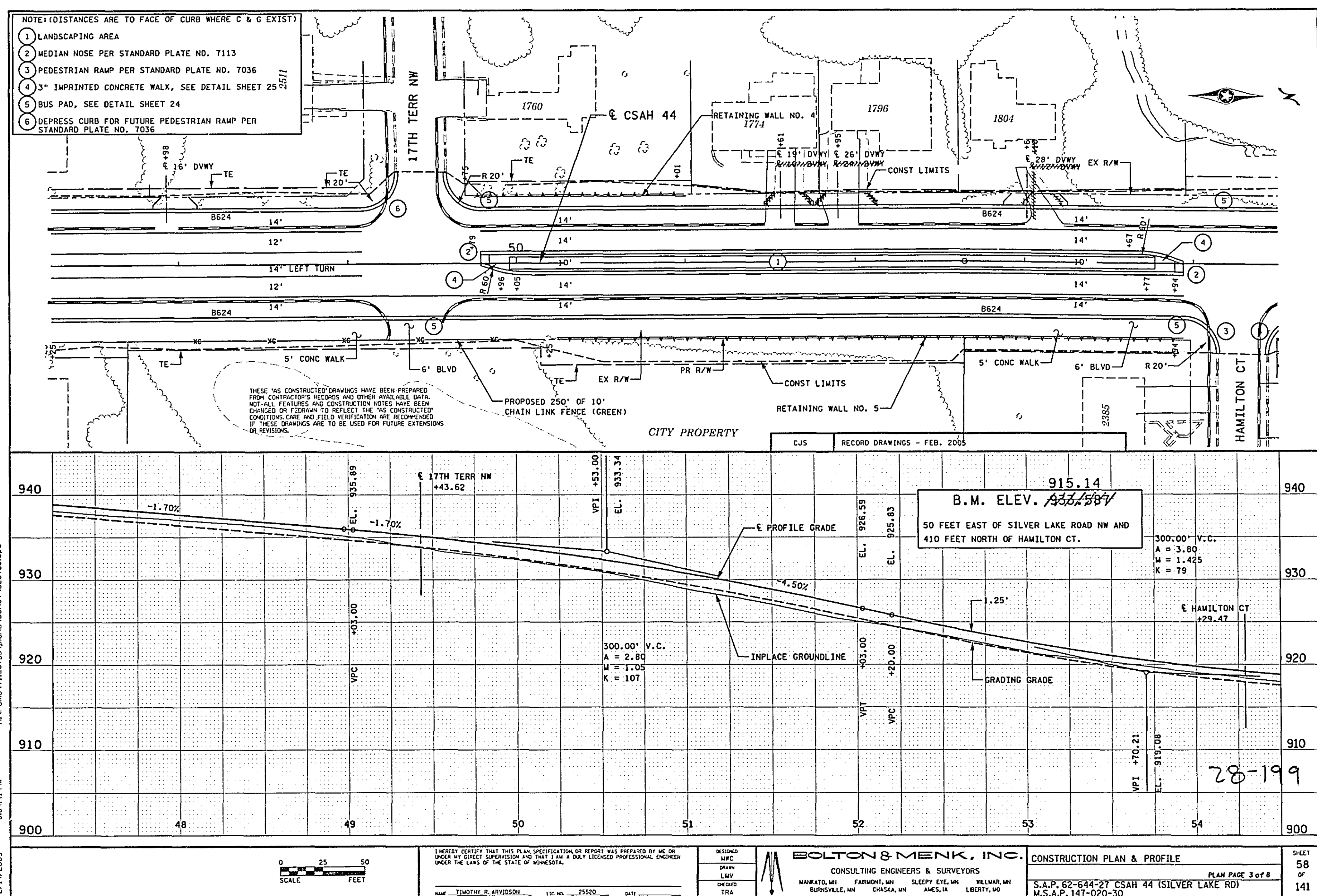
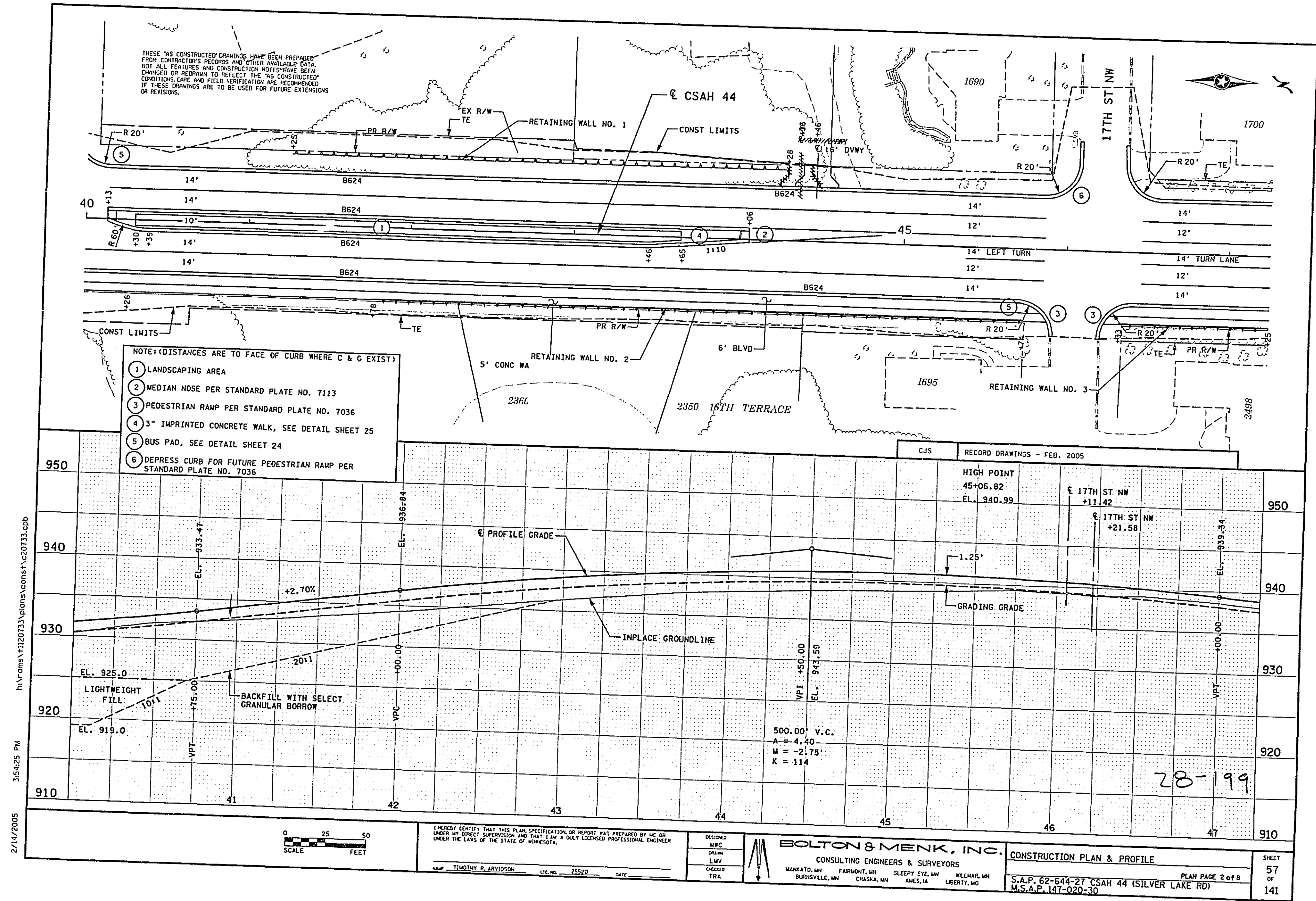
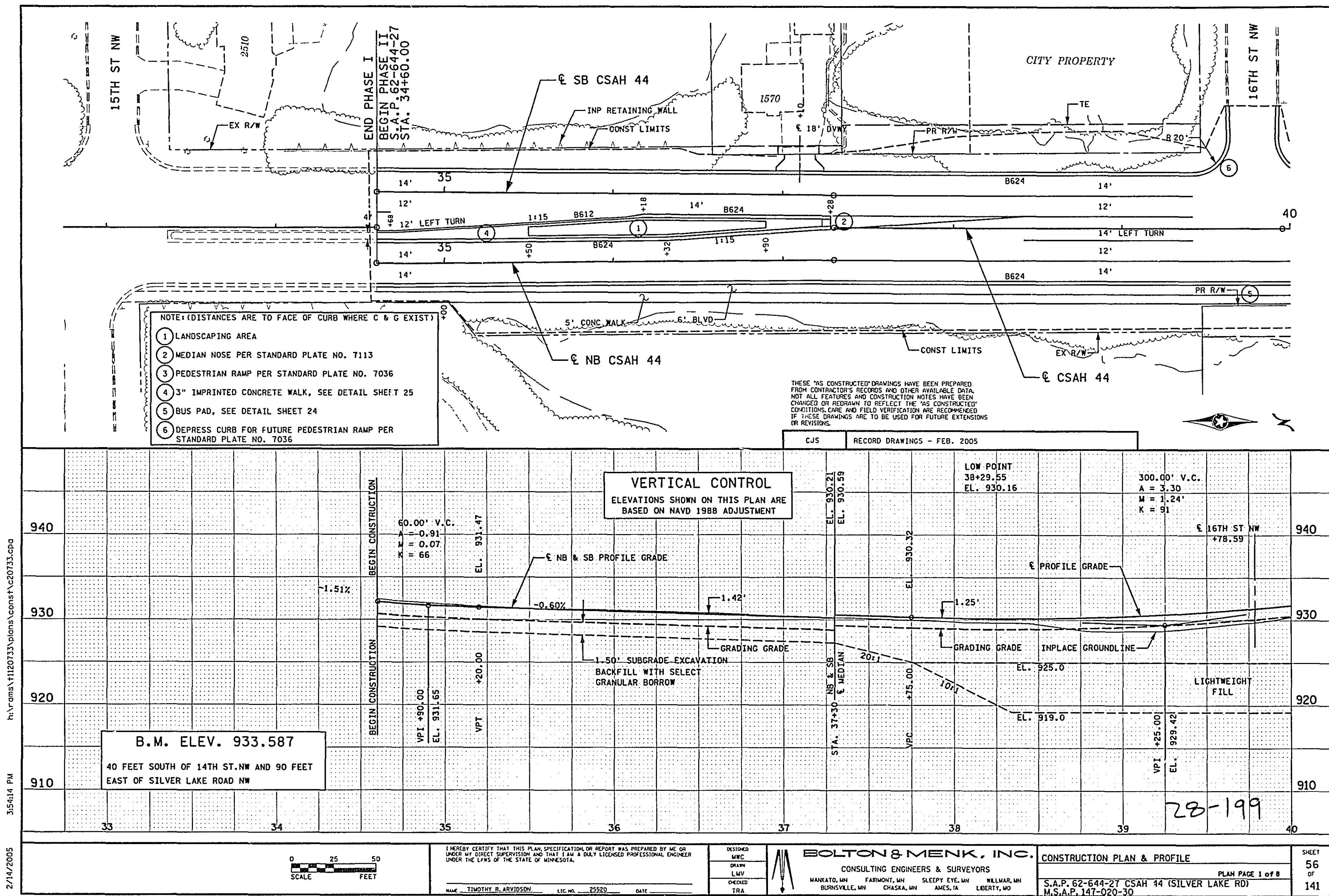
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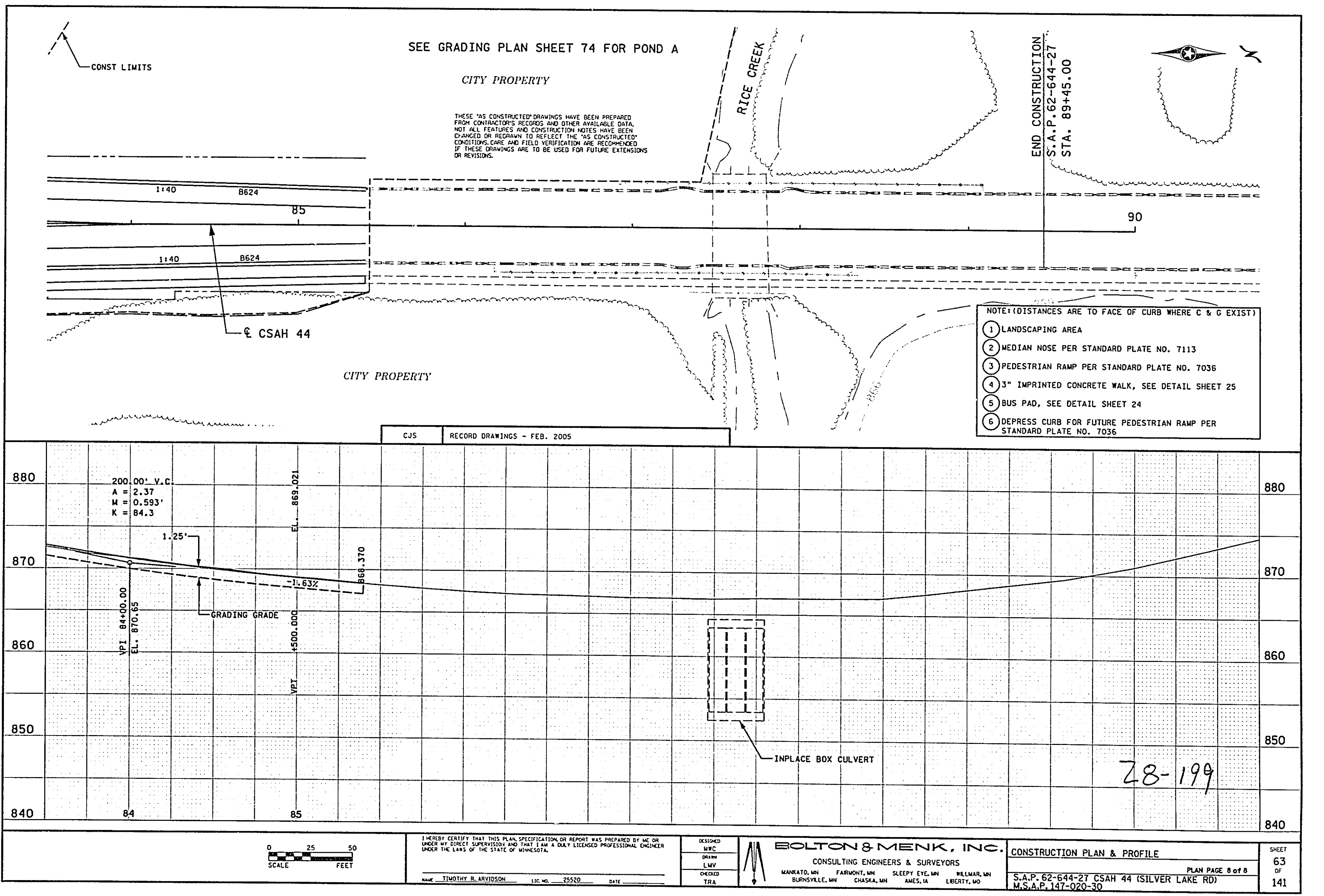
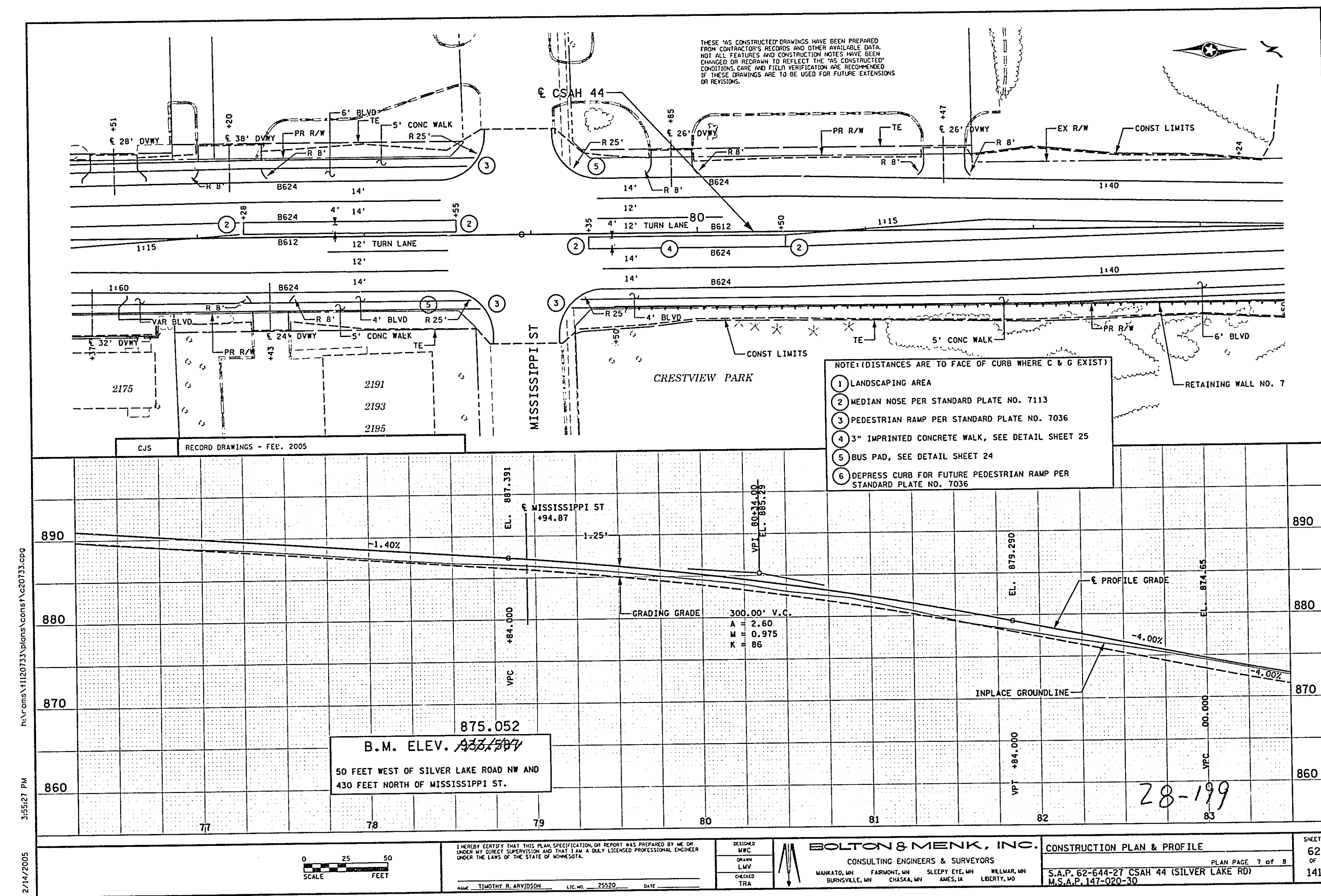
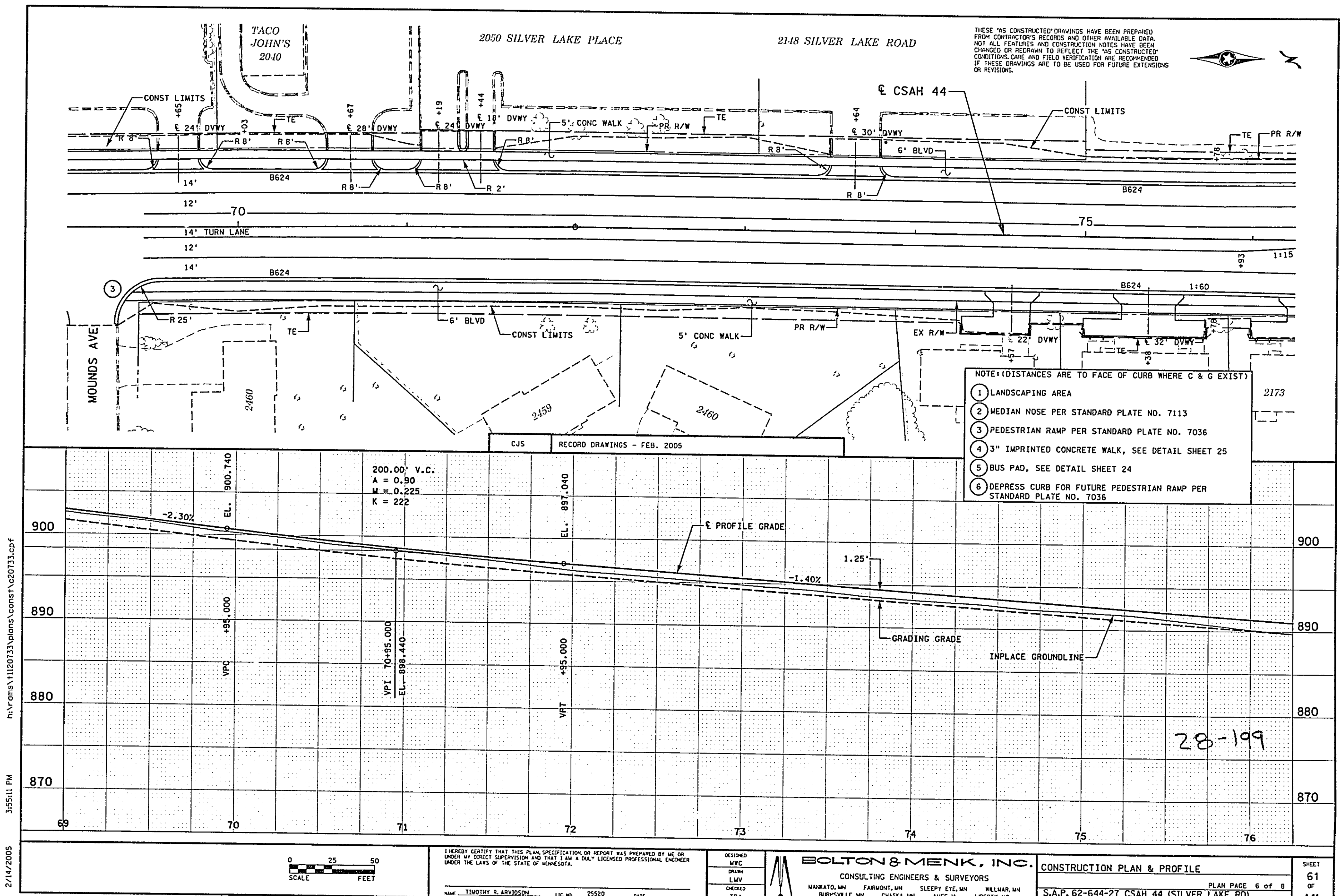
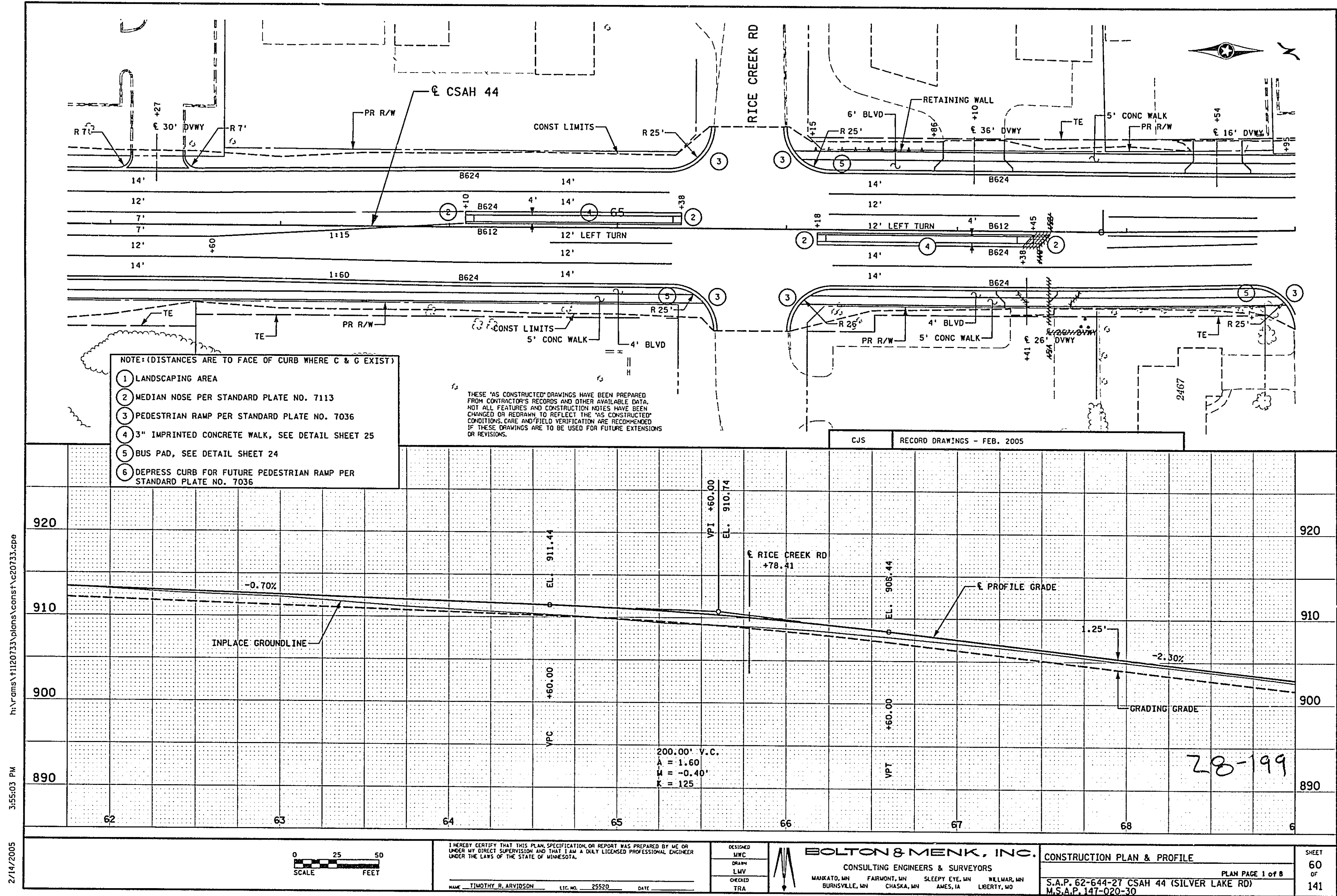
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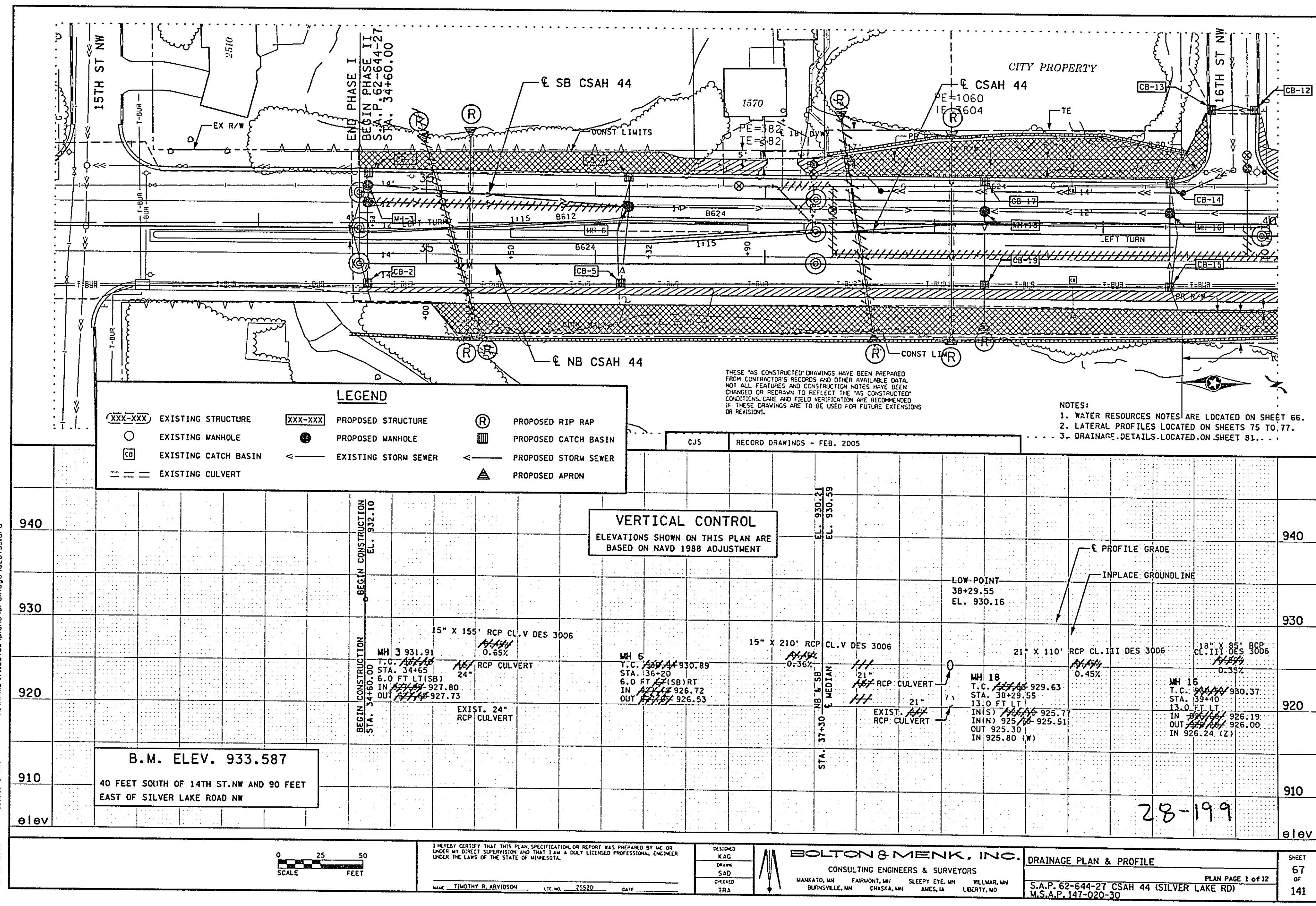
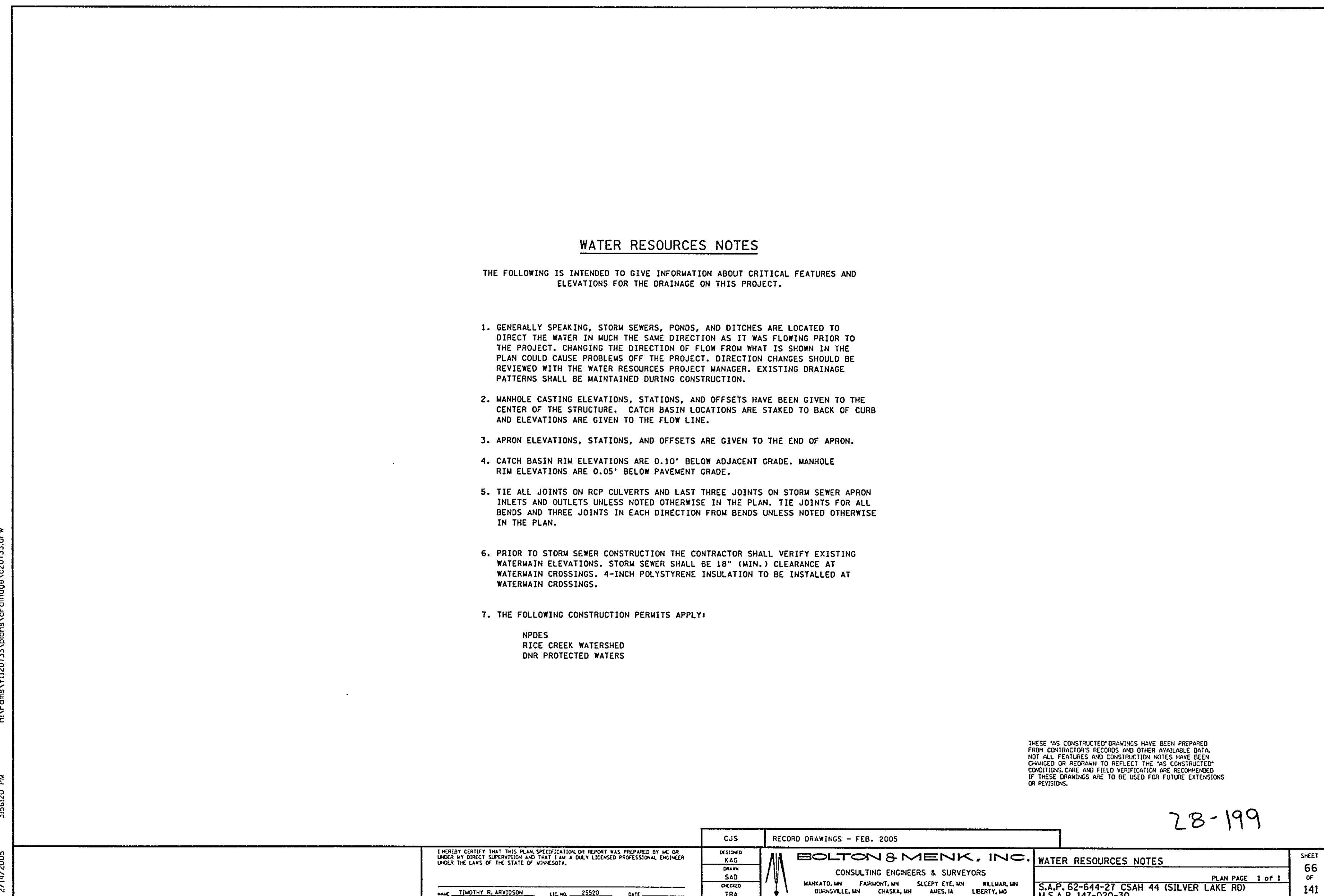
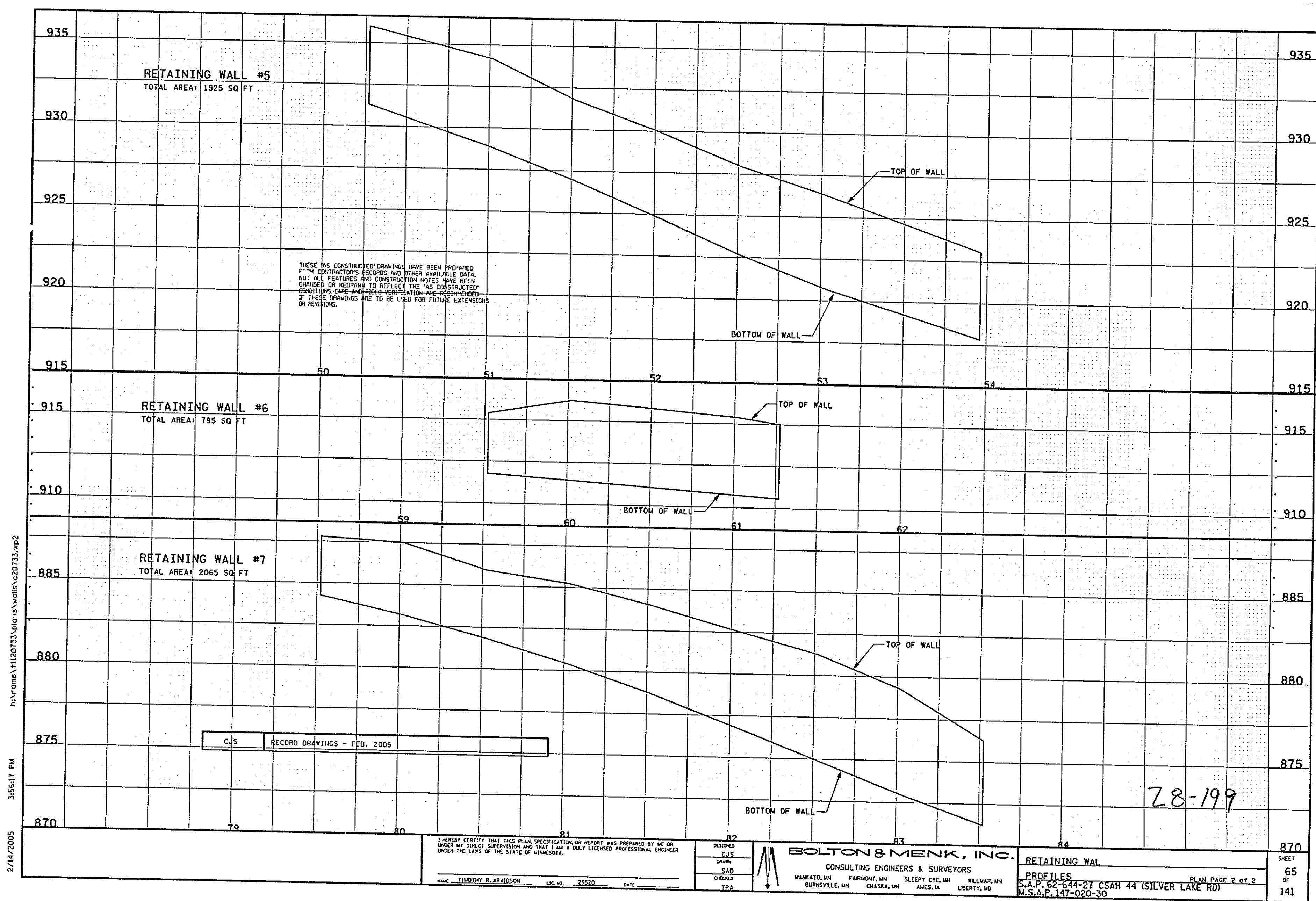
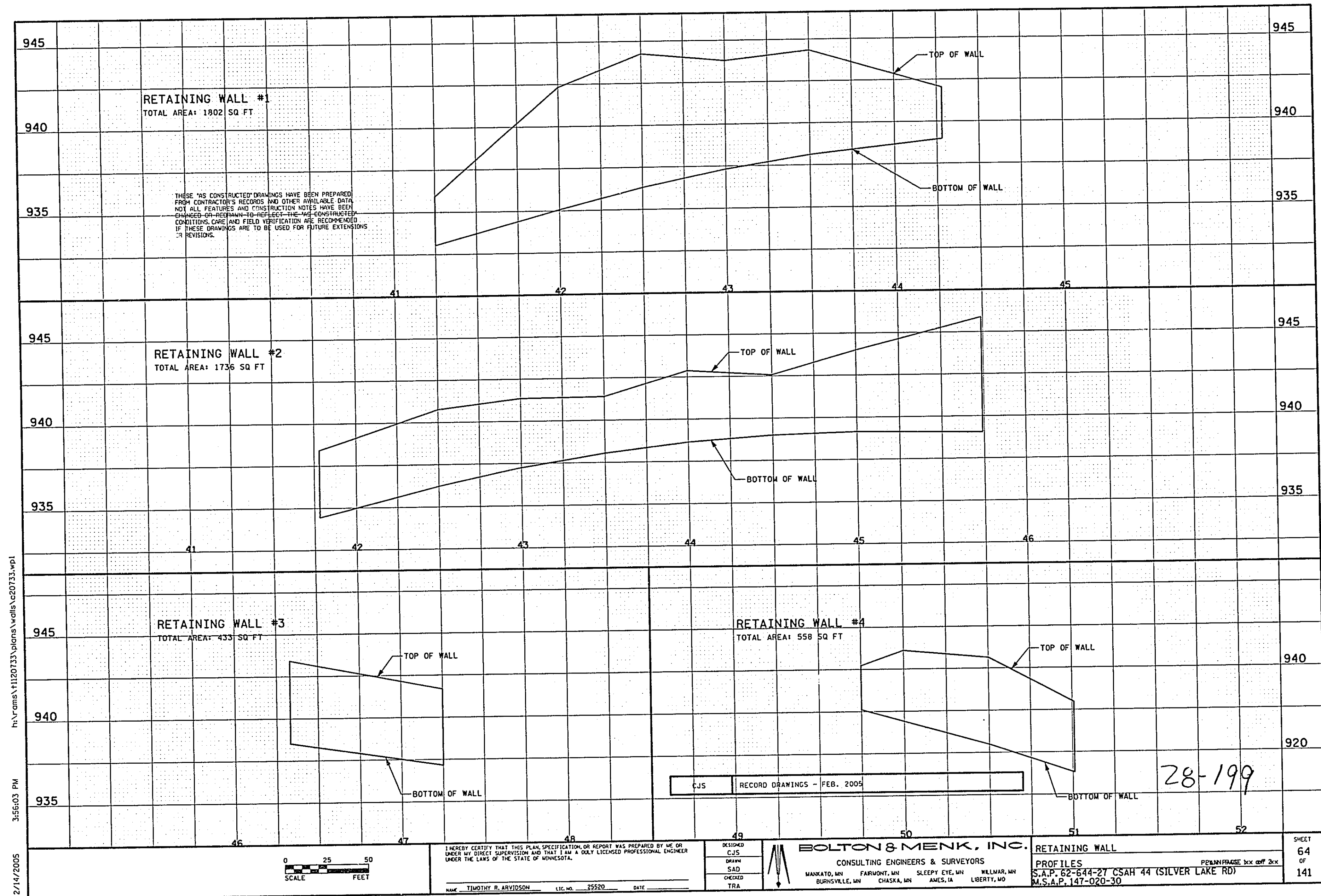


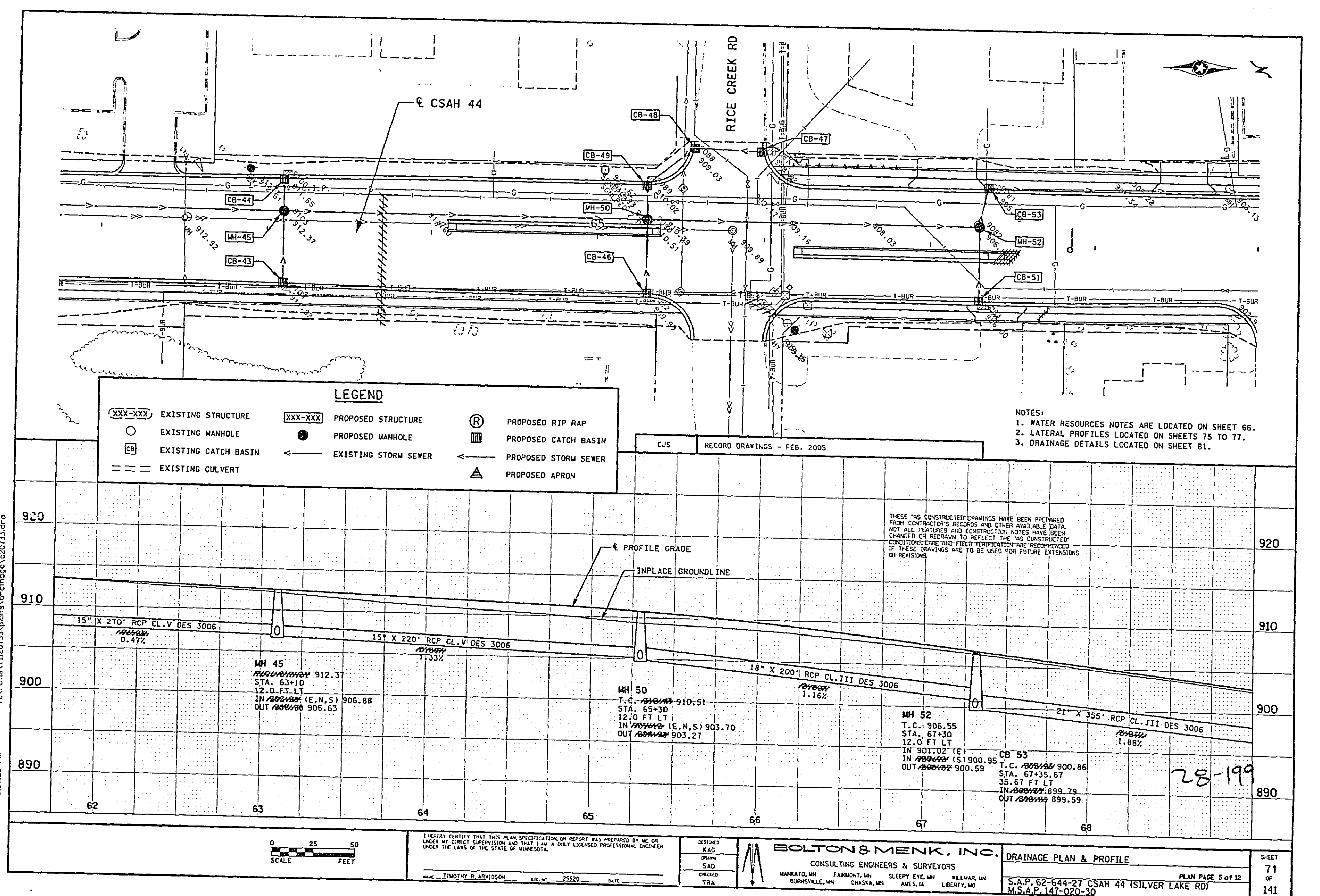
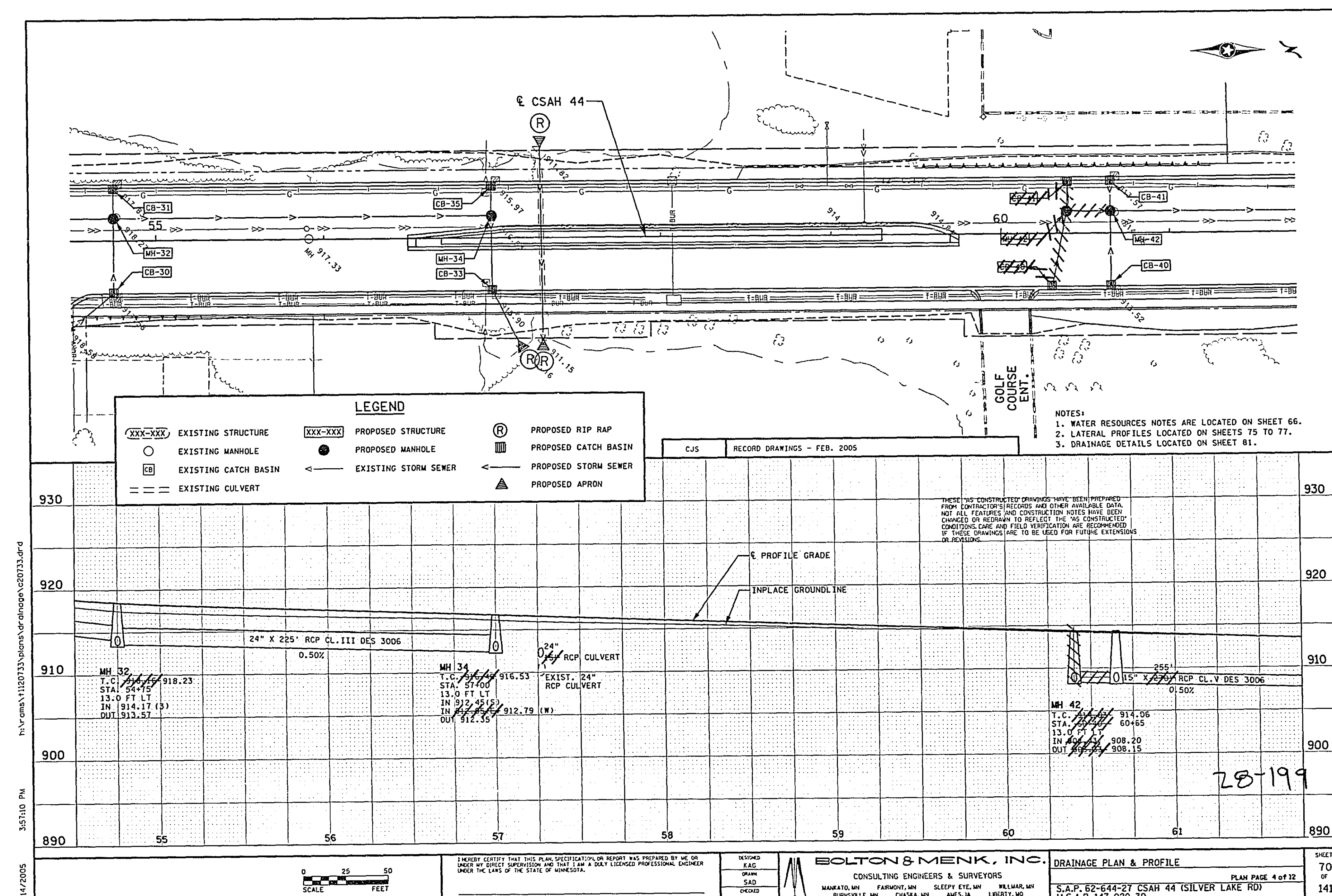
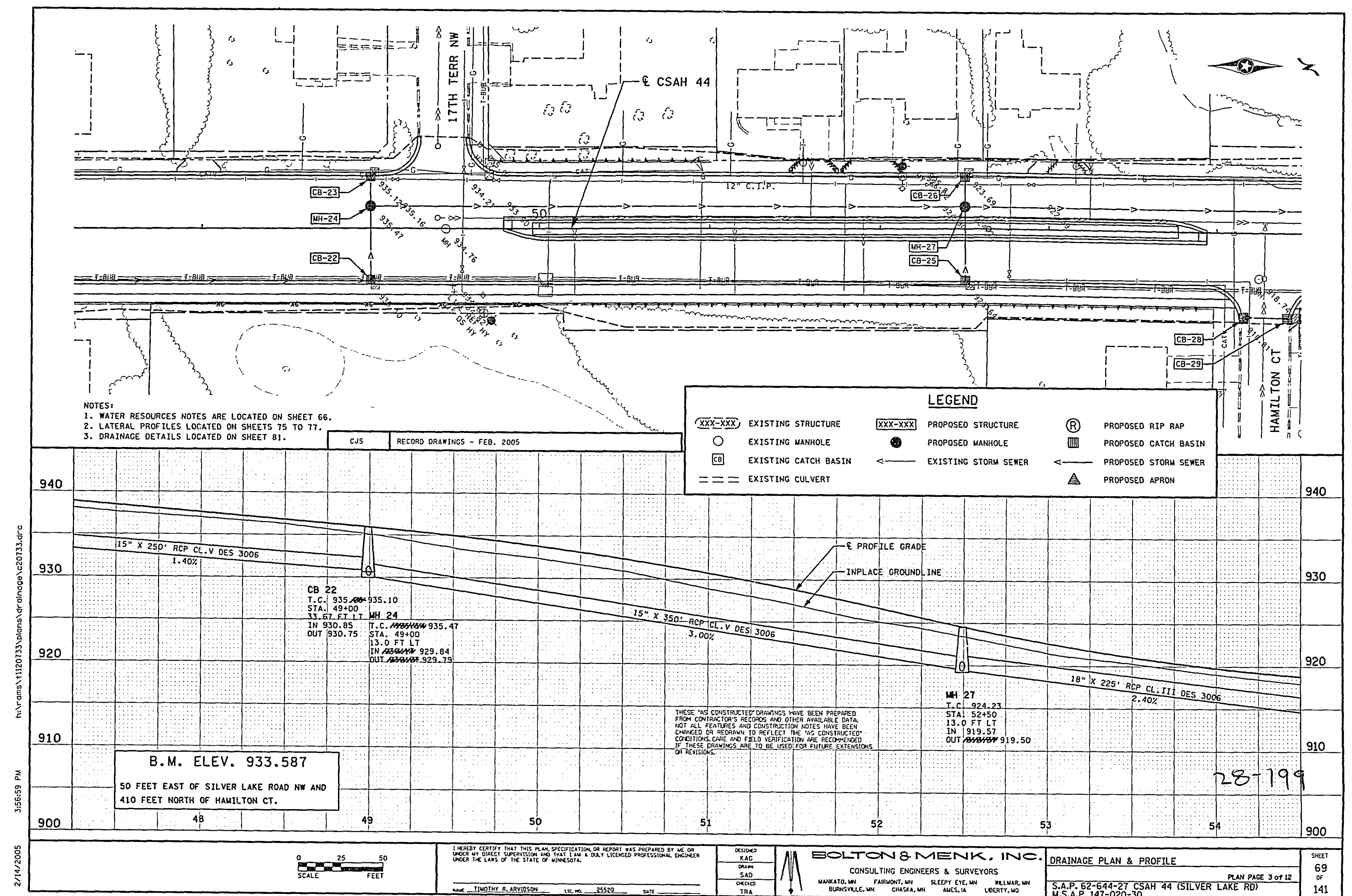
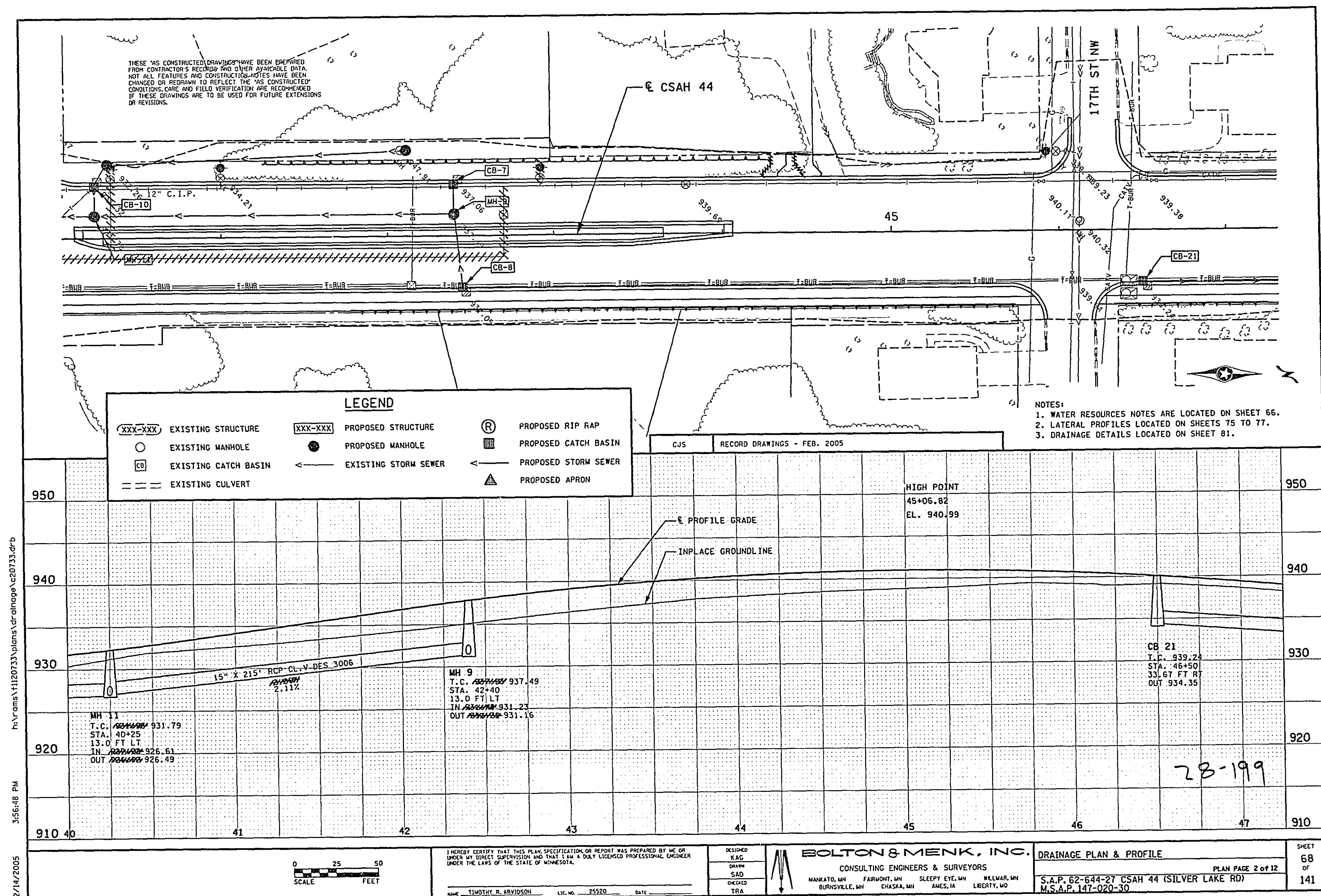


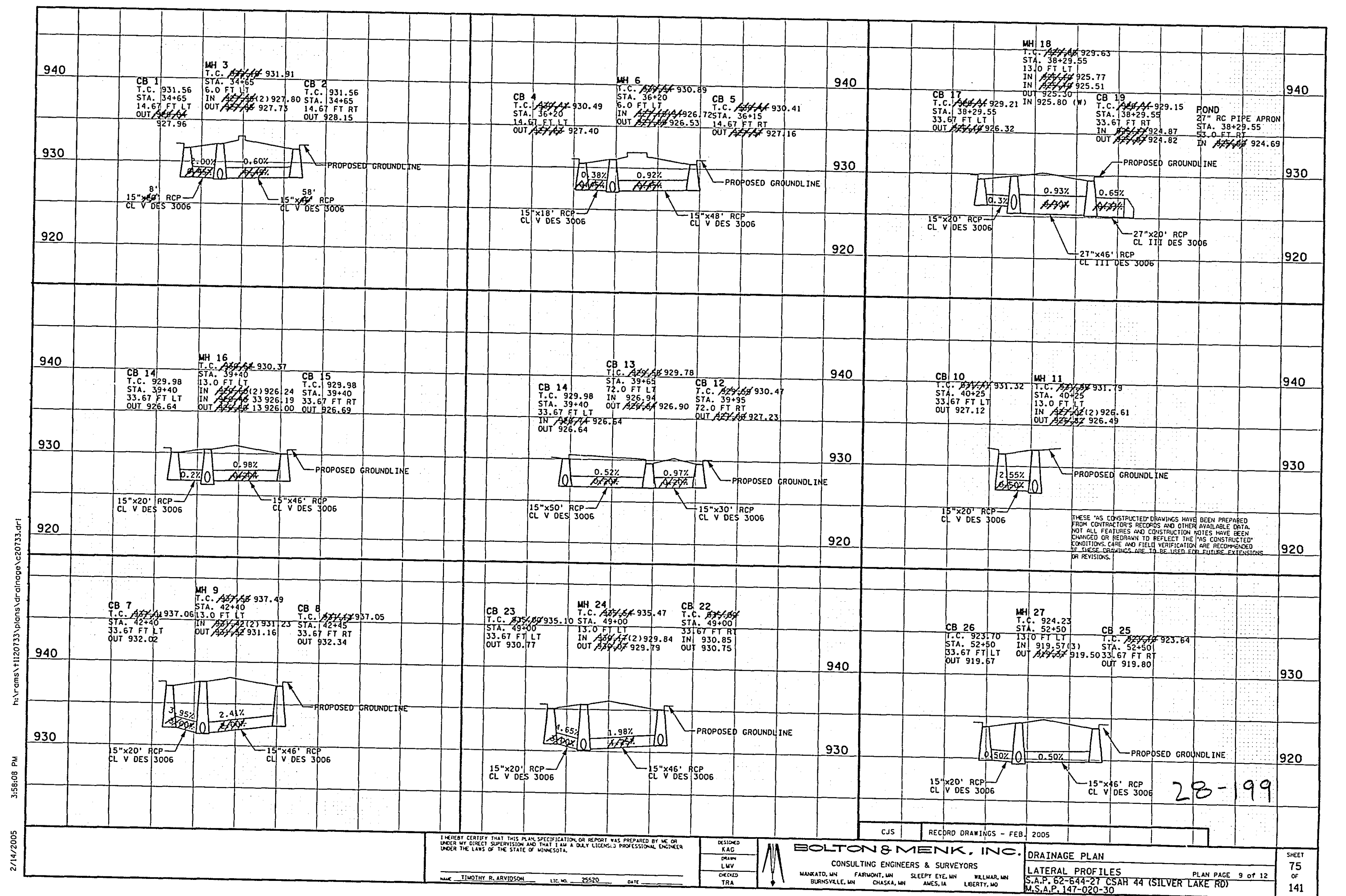
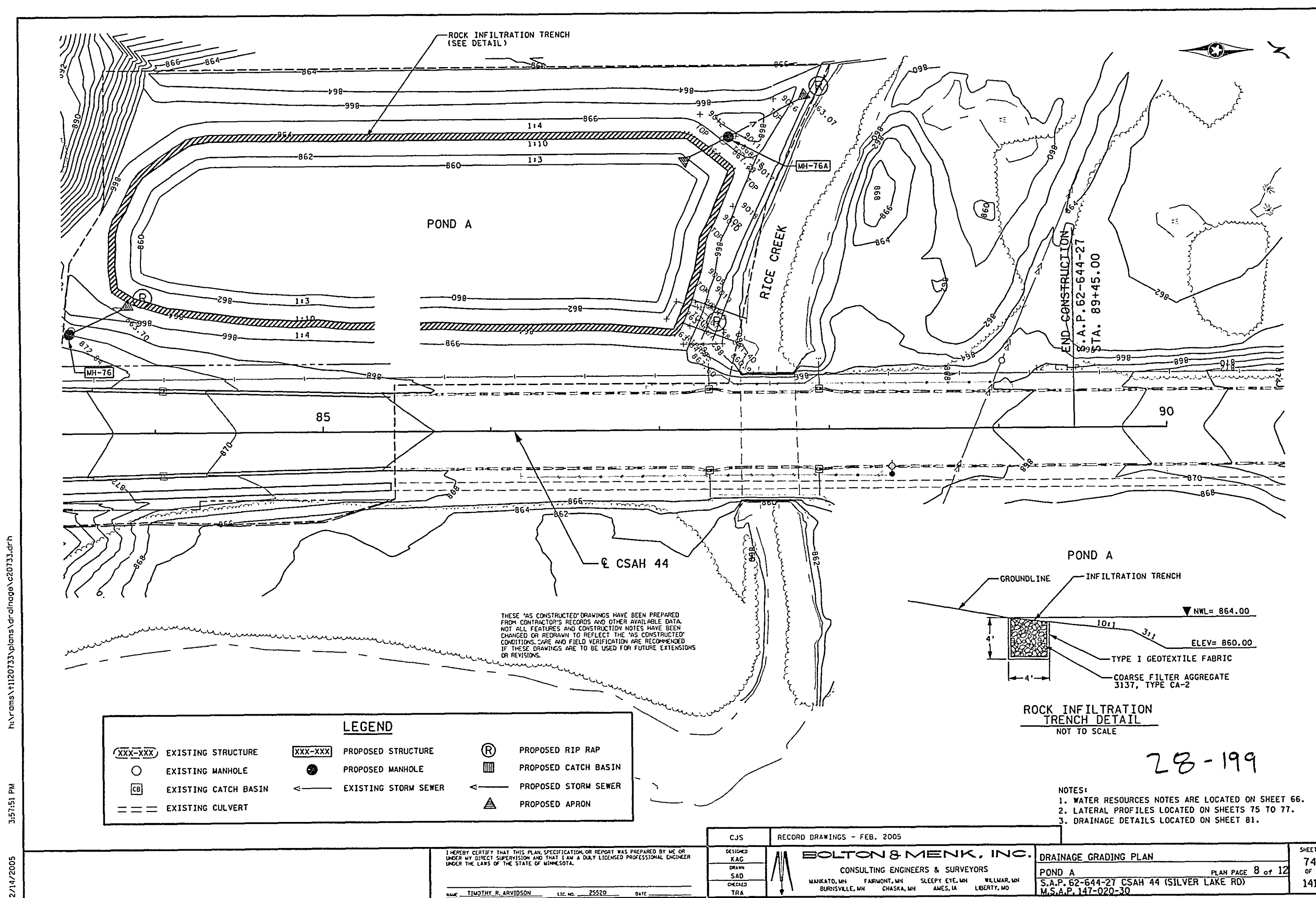
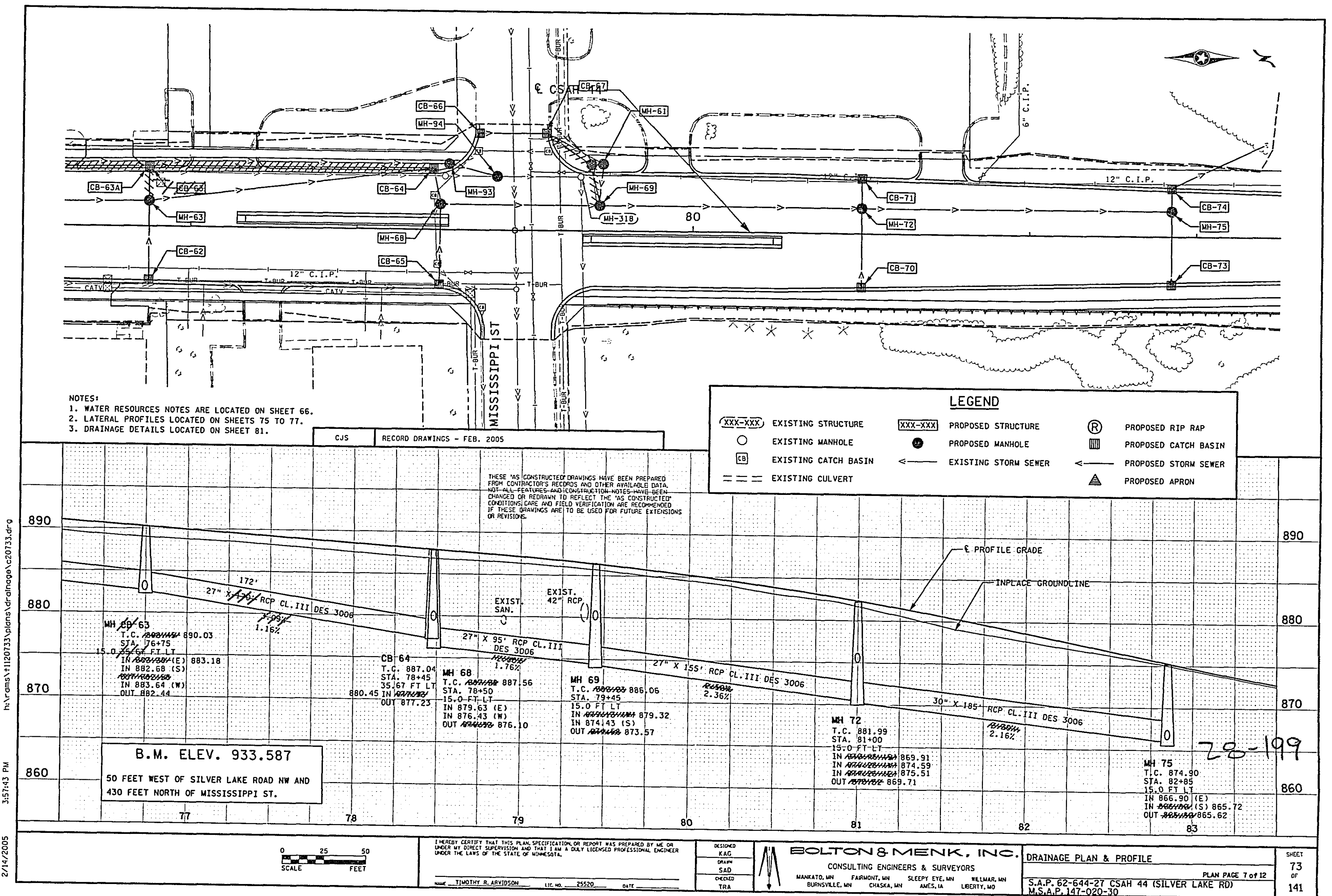
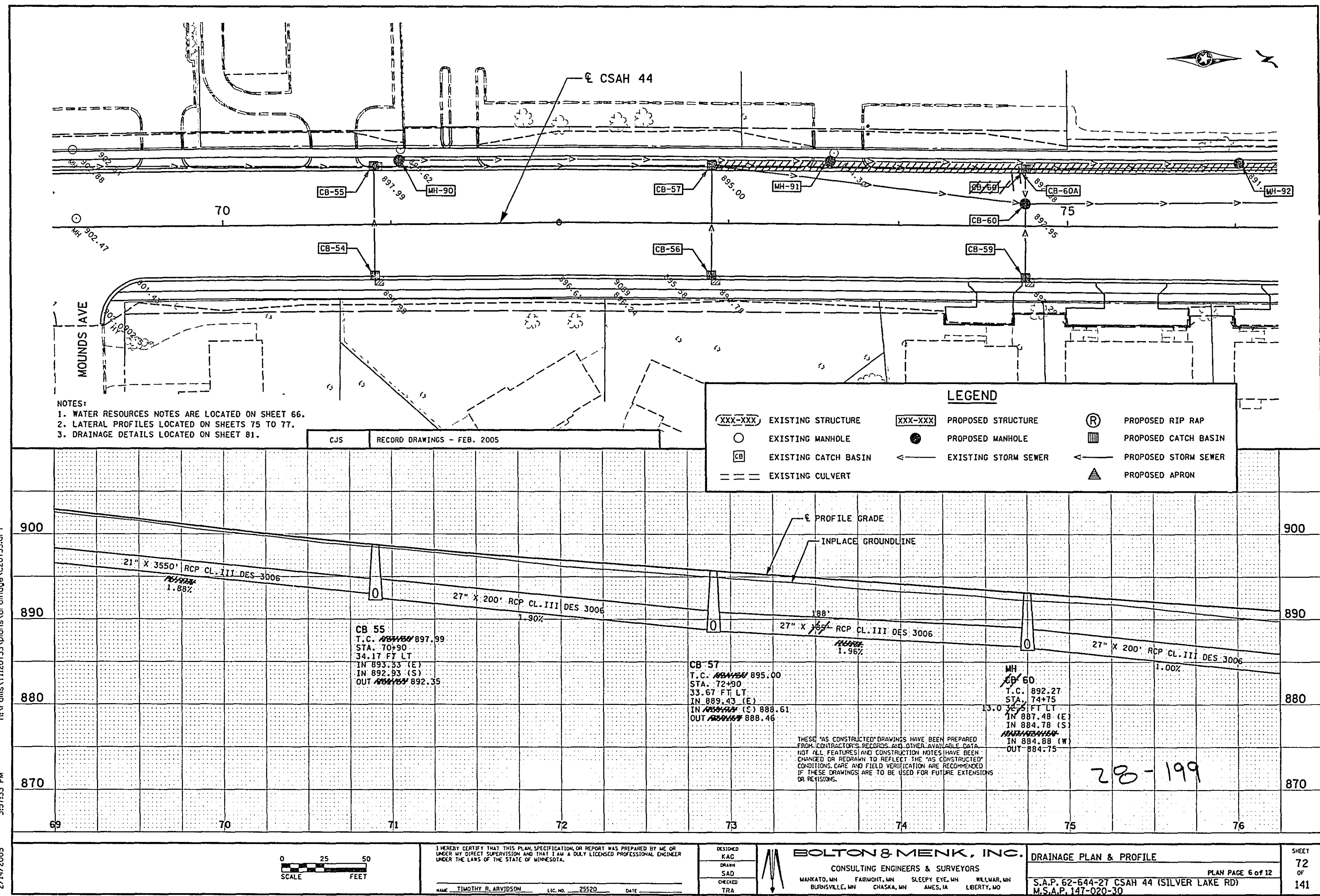




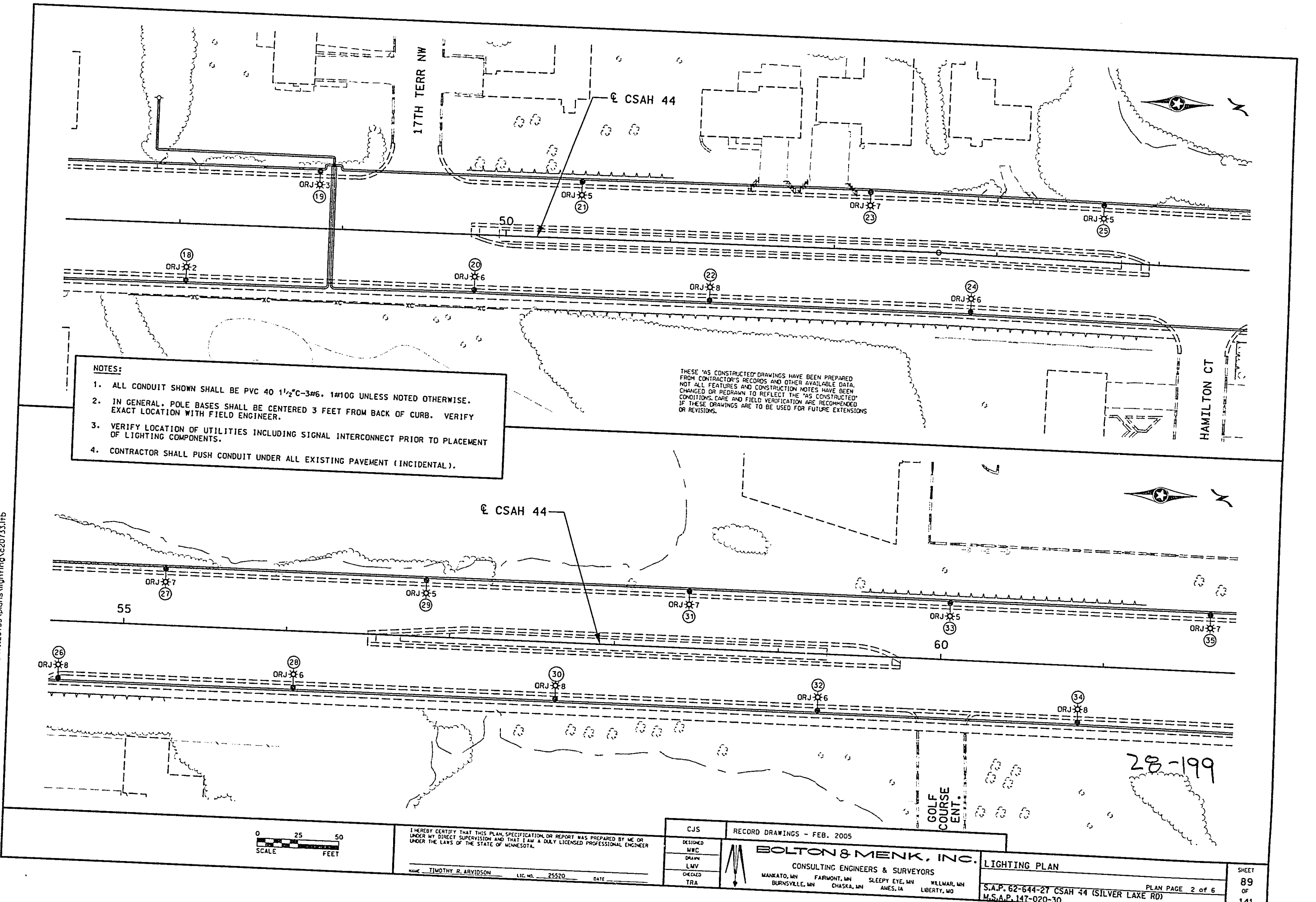
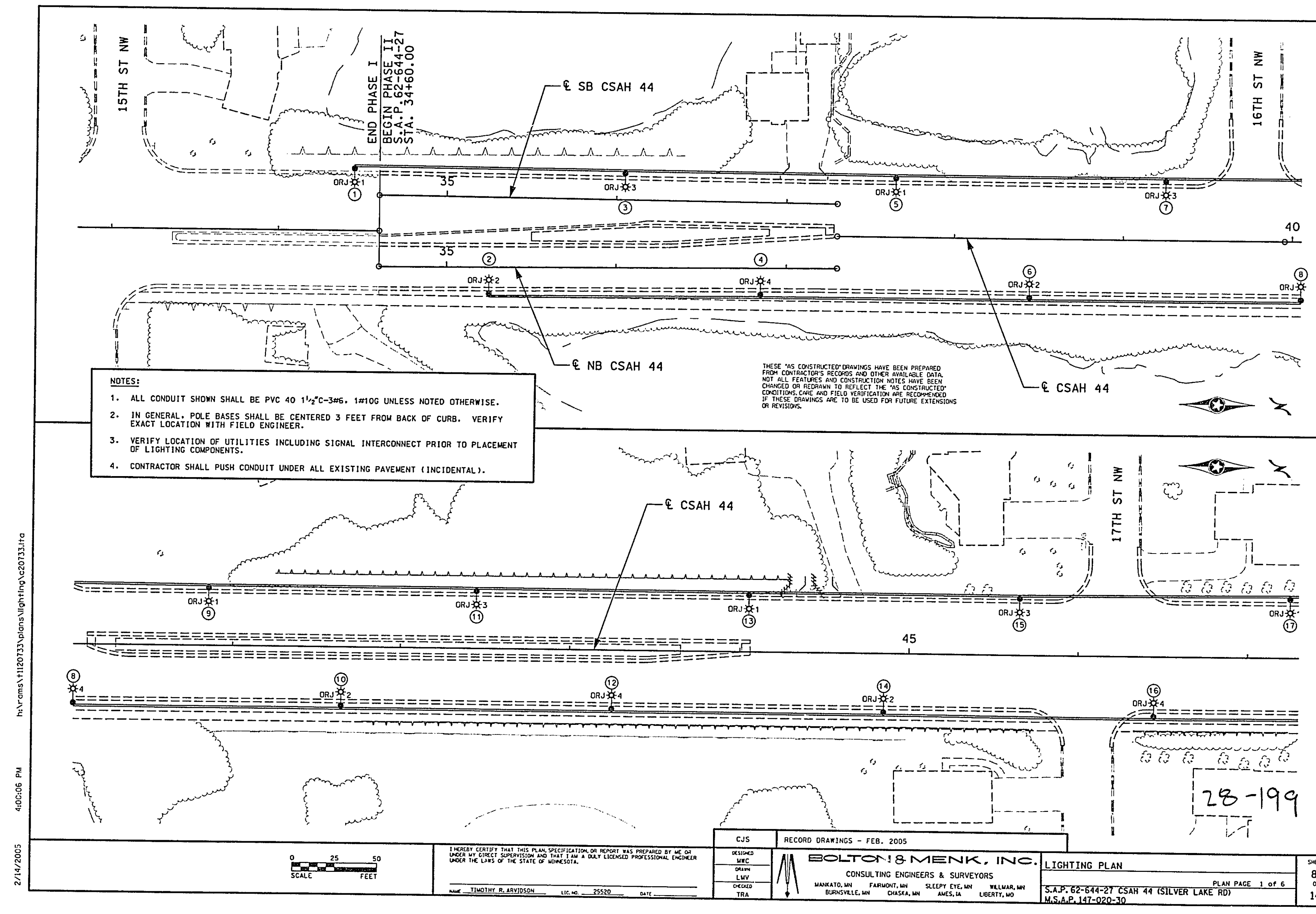
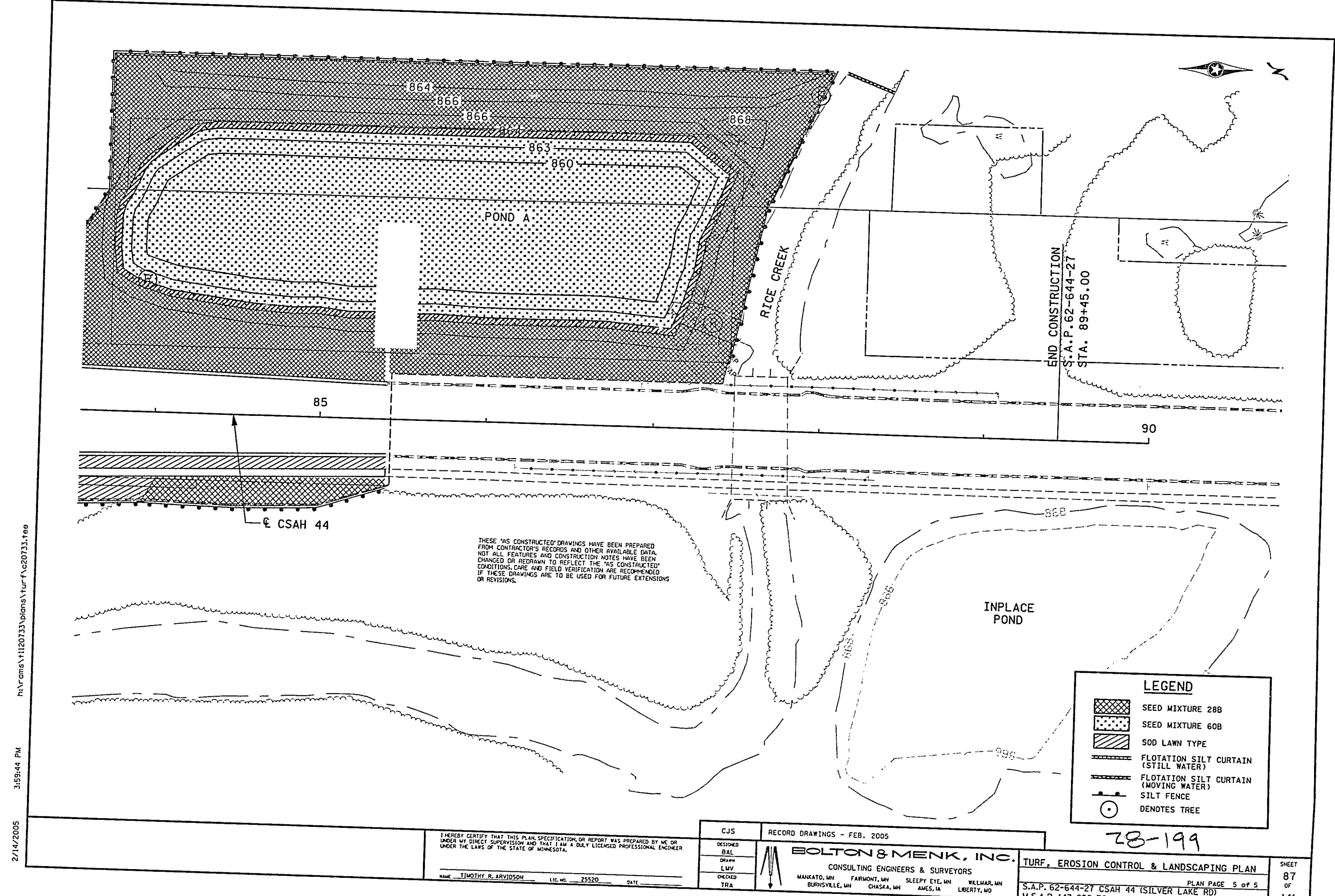
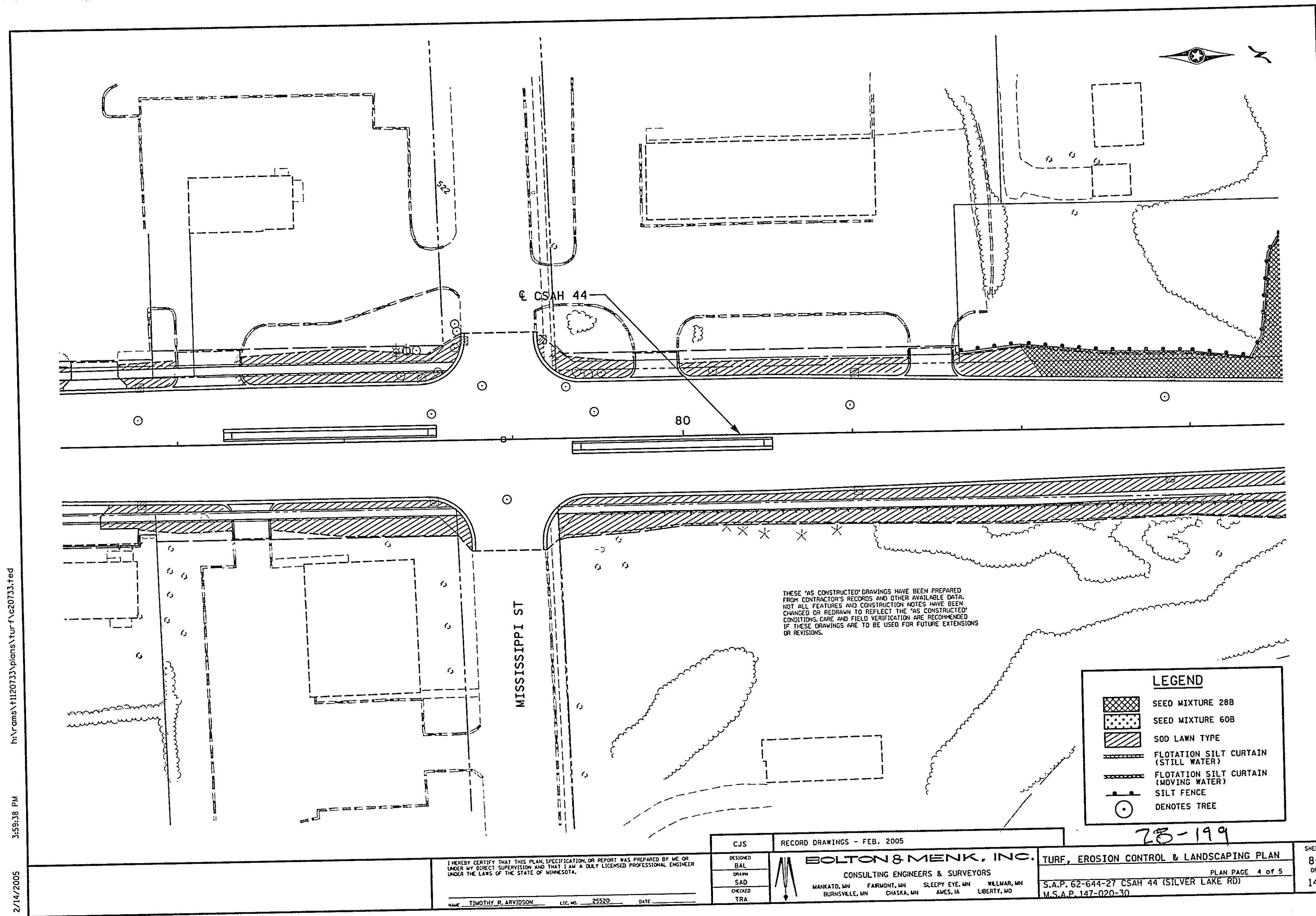


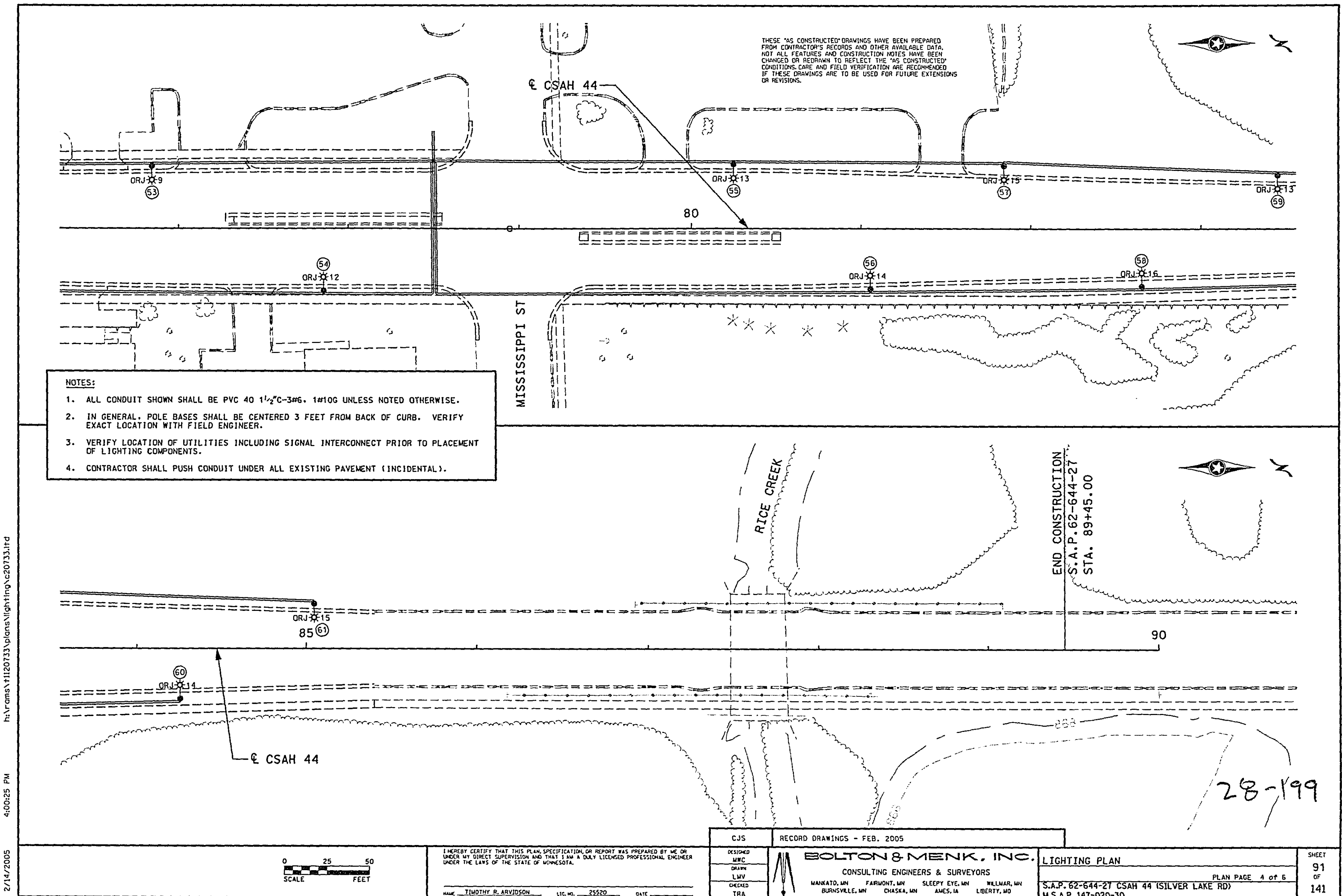
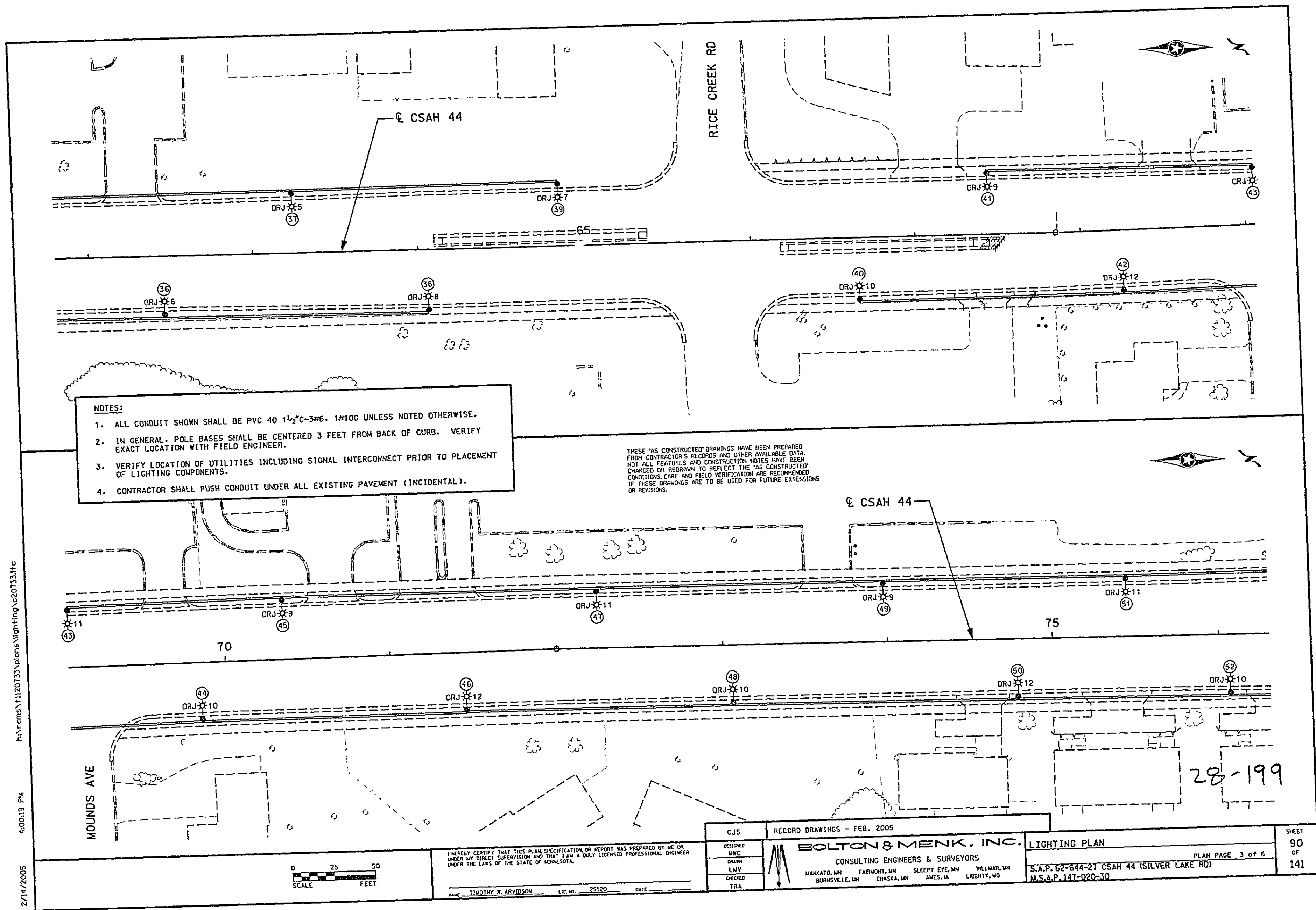






PLAN PAGE 1 of 1
R LAKE RD)





LIGHTING										DD
STATION	LOCATION	NUMBER	2545.511 LIGHTING UNIT TYPE SPECIAL EACH	2545.523 1-1/2" NON-MET CONDUIT LIN FT	2545.531 UNDERGROUND WIRE 1 COND #1 LIN FT	2545.531 UNDERGROUND WIRE 1 COND #6 LIN FT	2545.541 UNDERGROUND WIRE 1 COND #10 LIN FT	SERVICE PANEL EACH		
34+45	LT	1								
35+25	RT	2								
36+05	RT	3								
36+85	RT	4								
37+65	LT	5								
38+45	RT	6								
39+25	LT	7								
40+05	RT	8								
40+85	LT	9								
41+65	RT	10								
42+45	LT	11								
43+25	RT	12								
44+05	LT	13								
44+85	RT	14								
45+65	LT	15								
46+45	RT	16								
47+25	LT	17								
48+05	RT	18								
48+85	LT	19								
49+65	RT	20			145					
50+45	LT	21								
51+25	RT	22								
52+05	LT	23								
52+85	RT	24								
53+65	LT	25								
54+45	RT	26								
55+25	LT	27								
56+05	RT	28								
56+85	LT	29								
57+65	RT	30								
58+45	LT	31								
59+25	RT	32								
60+05	LT	33								
60+85	RT	34								
61+65	LT	35								
62+45	RT	36								
63+25	LT	37								
64+05	RT	38								
64+85	LT	39								
65+65	RT	40								
67+45	LT	41								
68+25	RT	42								
69+05	LT	43								
69+85	RT	44								
70+65	LT	45								
71+45	RT	46								
72+25	LT	47								
73+05	RT	48								
74+00	LT	49								
74+18	RT	50								
75+45	LT	51								
76+05	RT	52								
76+85	LT	53								
77+85	RT	54								
78+50	LT	55								
80+25	RT	56								
81+05	LT	57								
81+85	RT	58								
82+65	LT	59								
83+45	RT	60								
84+25	LT	61								
85+05	RT	62								
34+45 - 48+94	LT		1449		4347		1449			
35+25 - 48+94	RT		1441		4323		1441			
48+94 - 64+85	LT		1591		4773		1591			
48+94 - 64+85	RT		1511		4533		1511			
64+85 - 78+50	LT		1105		3315		1105			
64+85 - 78+50	RT		1260		3780		1260			
67+45 - 78+50	LT		655		1965		655			
78+50 - 85+05	RT		725		1725		575			
TOTALS			61	9587	162	28761	9587			

TITLE BLOCK:

C/S RECORD DRAWINGS - FEB. 2005

BOLTON & MENK, INC.
CONSULTING ENGINEERS & SURVEYORS
MARKATO, WI FARMINGTON, WI SLEEPY EYE, WI WILKINSON, WI
BURNINGWELL, WI CHASKA, WI AMES, IA LIBERTY, MO

LIGHTING TABULATIONS
S.A.P. 62-644-27 CSAH 44 (SILVER LAKE RD)
M.S.A.P. 141-020-30

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SHEET 92 OF 141

