

# MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY HIGHWAY DEPARTMENT

CONSTRUCTION PLAN FOR GRADING, BIT. SURFACING, CONC. CURB AND GUTTER, SIGNING, LIGHTING, AND SIGNALIZATION

LOCATED ON CSAH 116 FROM IODINE ST. TO ST. FRANCIS BLVD. (TH 47)

## CSAH 116 - THURSTON AVE./DYSPROSIUM ST.

STATE PROJ. NOS. 02-716-07, 103-122-12, 199-020-04  
MINN. PROJ. NO. HES 0204 (038)

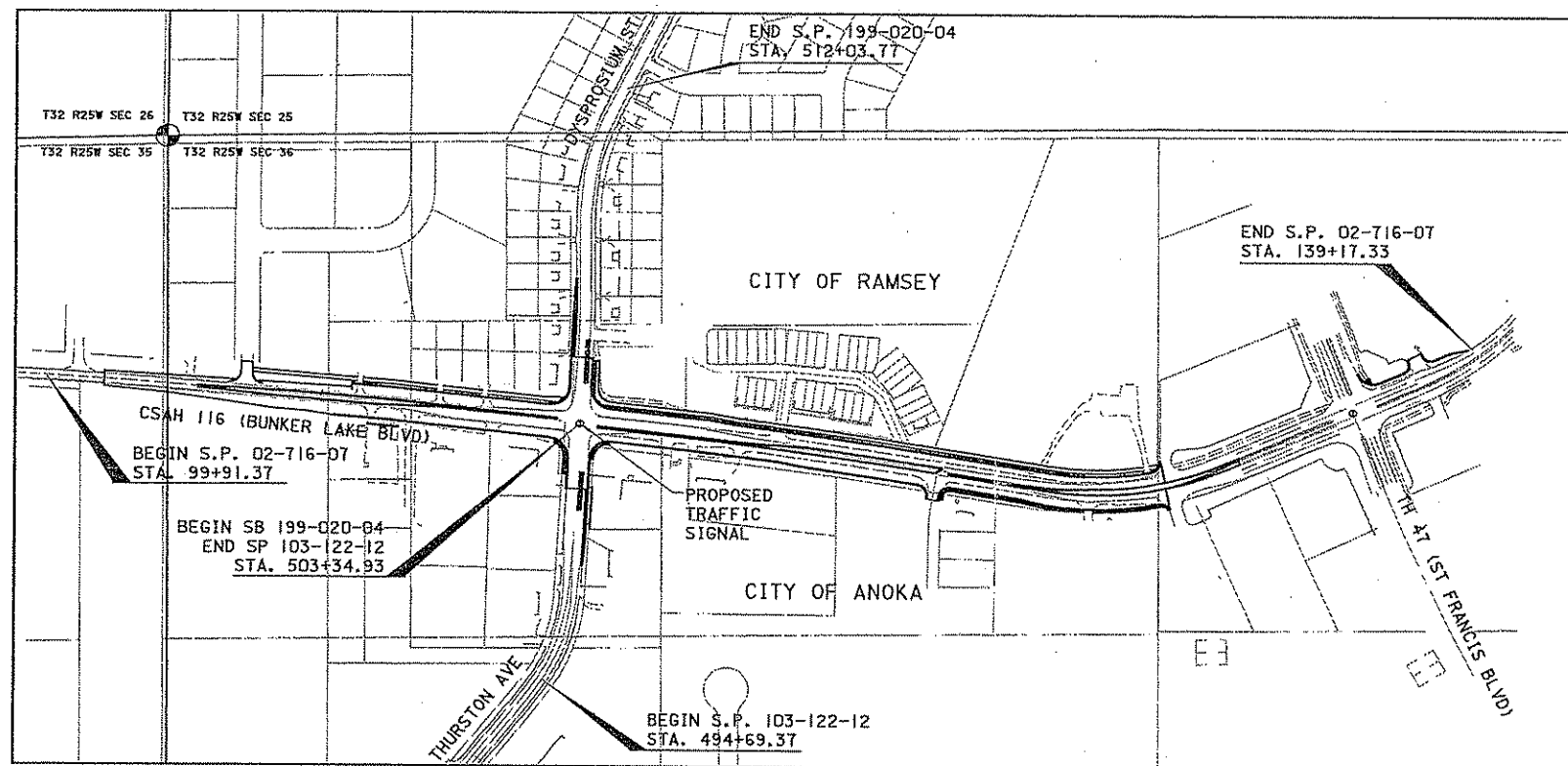
CSAH 116: S.P. 02-716-07  
GROSS LENGTH.....3928.16 FEET 0.744 MILES  
BRIDGES-LENGTH.....0.00 FEET 0.000 MILES  
EXCEPTIONS-LENGTH.....0.00 FEET 0.000 MILES  
NET LENGTH.....3928.16 FEET 0.744 MILES  
NOTE: LENGTH AND DESCRIPTION BASED ON THE CSAH 116 W.B. ALIGNMENT.

THURSTON AVE: S.P. 103-122-12  
GROSS LENGTH.....865.56 FEET 0.164 MILES  
BRIDGES-LENGTH.....0.00 FEET 0.000 MILES  
EXCEPTIONS-LENGTH.....0.00 FEET 0.000 MILES  
NET LENGTH.....865.56 FEET 0.164 MILES

DYSPROSIUM ST: S.P. 199-020-04  
GROSS LENGTH.....868.84 FEET 0.165 MILES  
BRIDGES-LENGTH.....0.00 FEET 0.000 MILES  
EXCEPTIONS-LENGTH.....0.00 FEET 0.000 MILES  
NET LENGTH.....868.84 FEET 0.165 MILES

**EQUATIONS**

- W.B. CSAH 116 STA. 135+67.57 (BK) = STA. 135+65.37 (AH)
- E.B. CSAH 116 STA. 109+58.32 (BK) = STA. 109+59.28 (AH)
- E.B. CSAH 116 STA. 122+77.08 (BK) = STA. 122+79.20 (AH)
- E.B. CSAH 116 STA. 132+15.63 (BK) = STA. 131+91.60 (AH)



MINN. PROJ. NO. HES 0204(038)

**GOVERNING SPECIFICATIONS**

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

**INDEX**

SHEET NO.	DESCRIPTION (NO. SHEETS)
1	TITLE SHEET (1)
2	GENERAL LAYOUT (1)
3-5	STATEMENT OF ESTIMATED QUANTITIES (3)
6	CONSTRUCTION NOTES/STD. PLATES (1)
7-14	QUANTITY TABULATIONS (8)
15-19	INPLACE UTILITY TABULATIONS (5)
20-23	TYPICAL SECTIONS (4)
24-26	STANDARD PLANS (3)
27-29	CONSTRUCTION STAGING/TRAFFIC CONTROL (3)
30-31	ALIGNMENT PLAN AND TABULATIONS (2)
32-33	INPLACE TOPOGRAPHY/UTILITIES/REMOVALS (2)
34-39	CONSTRUCTION PLANS AND PROFILES (6)
40-41	WATER, DRAINAGE AND SUPERELEVATION PLANS (2)
42	MISCELLANEOUS DETAILS (1)
44-45	INTERSECTION DETAILS (2)
49-51	DRAINAGE AND SEWER TABULATIONS (3)
54-57	STORM SEWER PROFILES (4)
60-61	TURF ESTABLISHMENT/PERM. EROSION CONTROL (2)
62-68	SIGNAGE AND PAVEMENT MARKING (7)
69-73	SIGNALS (5)
74-75	SIGNAL STANDARD DETAILS (2)
76-77	TH 47 SIGNALS (2)
78-82	SIGNAGE DETAILS (5)
83	WATER QUALITY POND (1)
84	CROSS SECTION LAYOUT (1)
85-115	CROSS SECTIONS (31)
116-118	MCS SERVICE TUNNEL (3)

THIS 100% PLAN SET CONTAINS 110 SHEETS  
SHEETS 43, 46-48, 52, 53, 58, 59,  
AND 119-120 ARE NOT INCLUDED

SIGNATURE: NAME: ALAN J. PALMER, P.E.  
DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN 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.  
DATE: 18 JUNE 2005 LICENSE NUMBER: 42462



APPROVED 6/22 2005 ANOKA COUNTY ENGINEER  
APPROVED 7/7 2005 CITY OF ANOKA  
APPROVED 8/31 2005 CITY OF RAMSEY  
REVIEWED FOR COMPLIANCE WITH FEDERAL AND STATE AID RULES AND POLICY  
 3/1 2006 METRO DISTRICT STATE AID ENGINEER  
APPROVED FOR FEDERAL AND STATE AID FUNDING  
 3-1 2006 STATE AID ENGINEER

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MMUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL C. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38.2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."



PROJECT LOCATION  
COUNTY: ANOKA  
DISTRICT: METRO

**SCALES**

PLAN	100'
PROFILE HORIZ.	100'
PROFILE VERT.	10'
INDEX MAP	500'
GENERAL LAYOUT	300'

	CSAH 116	THURSTON AVE	DYSPROSIUM ST	TRAIL
DESIGN ESALS, R VALUE	1,900,000 (58.6)	1,900,000 (58.6)	1,900,000 (58.6)	
PAVEMENT DESIGN	BITUMINOUS	BITUMINOUS	BITUMINOUS	
FUNCTIONAL CLASSIFICATION	A-MINOR ARTERIAL	MINOR ARTERIAL	MINOR ARTERIAL	
NO. OF TRAFFIC LANES	4	2	2	
ADT (CURRENT YEAR) 2005	12,400	6,400	2,700	
ADT (FUTURE YEAR) 2025	22,500	9,000	3,800	
D (DIRECTIONAL DISTR.)	50/50	50/50	50/50	
T (HEAVY COMMERCIAL)	1%	1%	1%	
DESIGN SPEED	50 MPH	30 MPH	30 MPH	20 MPH
BASED ON SIGHT DISTANCE	STOPPING	STOPPING	STOPPING	STOPPING
HEIGHT OF EYE	3.5'	3.5'	3.5'	4.5'
HEIGHT OF OBJECT	0.5'	0.5'	0.5'	0.0'
DESIGN LOADING				
LANE WIDTH	12'	12'	12'	10'
NO. PARKING LANES	0	0	0	0

CSAH 116 DESIGN SPEED IS NOT ACHIEVED BETWEEN STATION 138+49.47 TO STATION 140+79.32 - DESIGN EXCEPTION FOR HORIZONTAL CURVE (40 MPH)

NO	DATE	BY	CKD	APPR	REVISION

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PRINT NAME: ALAN J. PALMER, P.E.  
SIGNATURE:   
DATE: 18 JUNE 2005 LICENSE NO. 42462

DRAWN BY: RLH/DJS DATE: 02/18/05  
DESIGN BY: AJP/EDD DATE: 02/18/05  
CHECKED BY: AJP DATE: 02/18/05

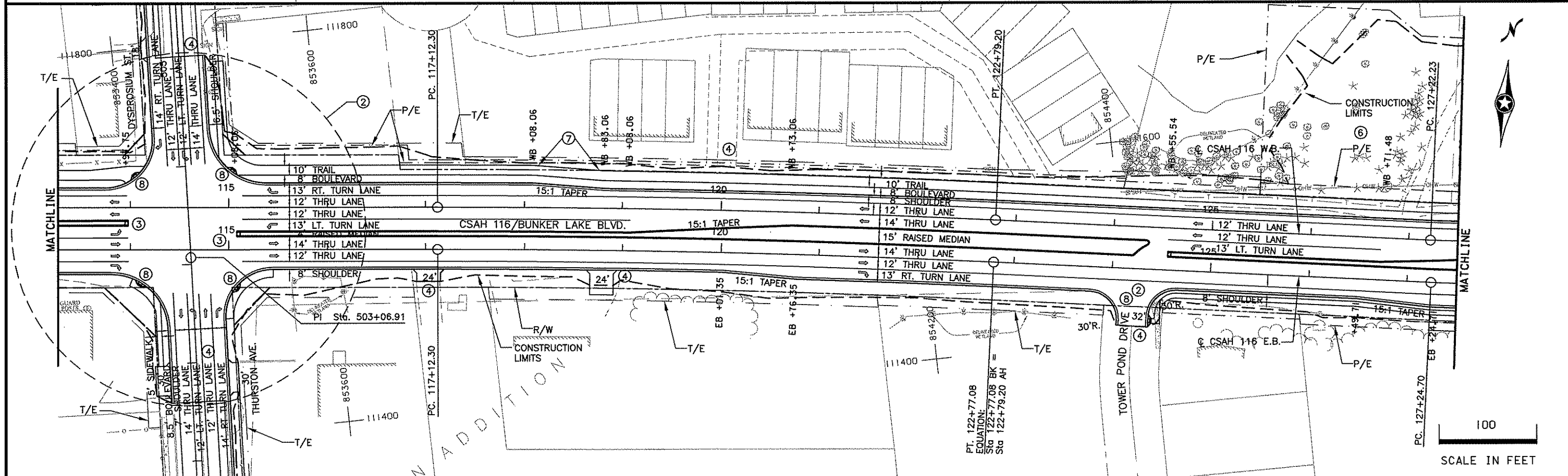
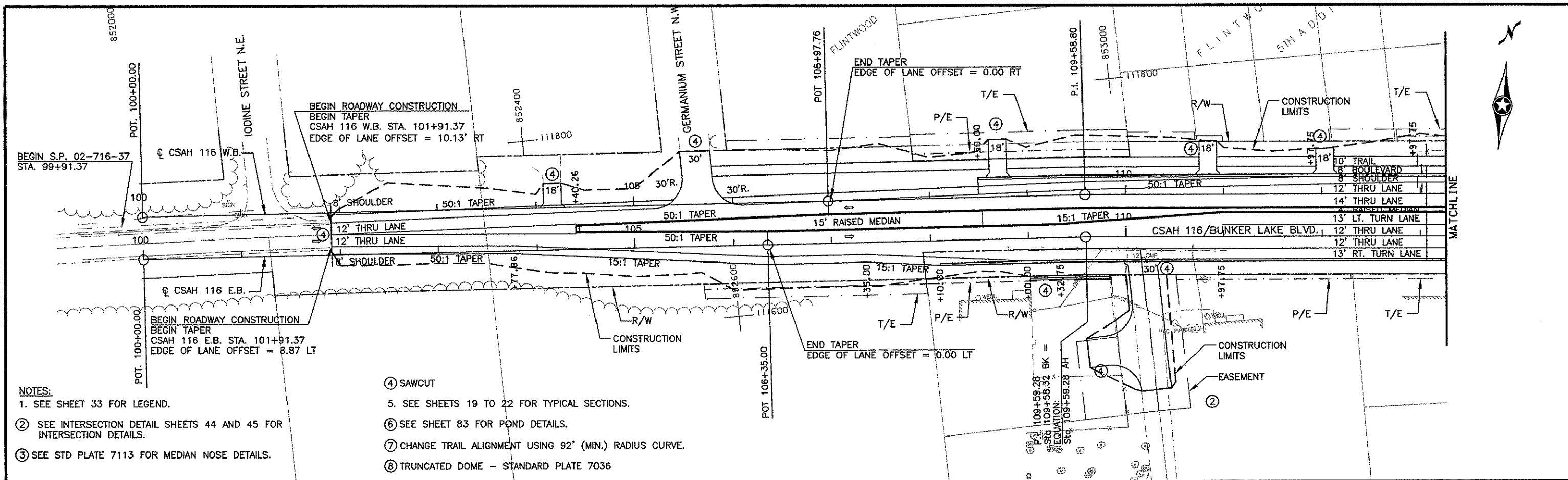


ANOKA COUNTY  
HIGHWAY DEPT.

PROJECT NO.  
ANOKA COUNTY S.P. 02-716-07  
CITY OF ANOKA S.P. 103-122-12  
CITY OF RAMSEY S.P. 199-020-04

TITLE SHEET

Sheet 1 of 120 Sheets



NO	DATE	BY	CKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN 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.

PRINT NAME: ALAN J. PALMER, P.E.

SIGNATURE: *[Signature]*

DATE: 18 JUNE 2005 LICENSE NO. 42462

ANOKA COUNTY HIGHWAY DEPT.

DRAWN BY RLH/DJS DATE 02/18/05

DESIGN BY AJP/EDD DATE 02/18/05

CHECKED BY AJP DATE 02/18/05

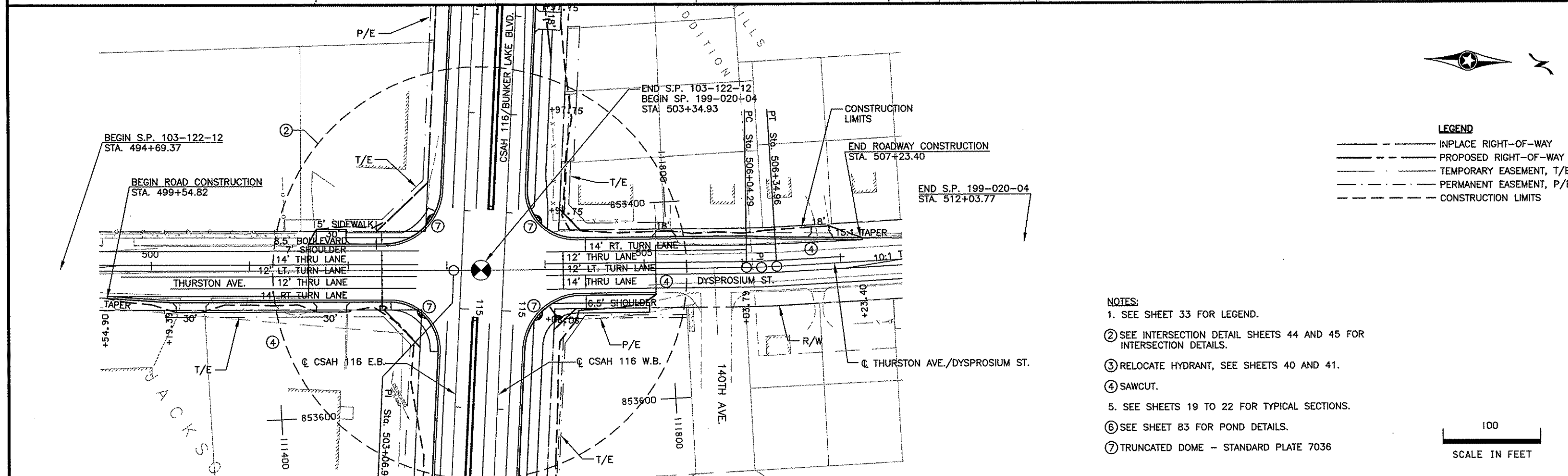
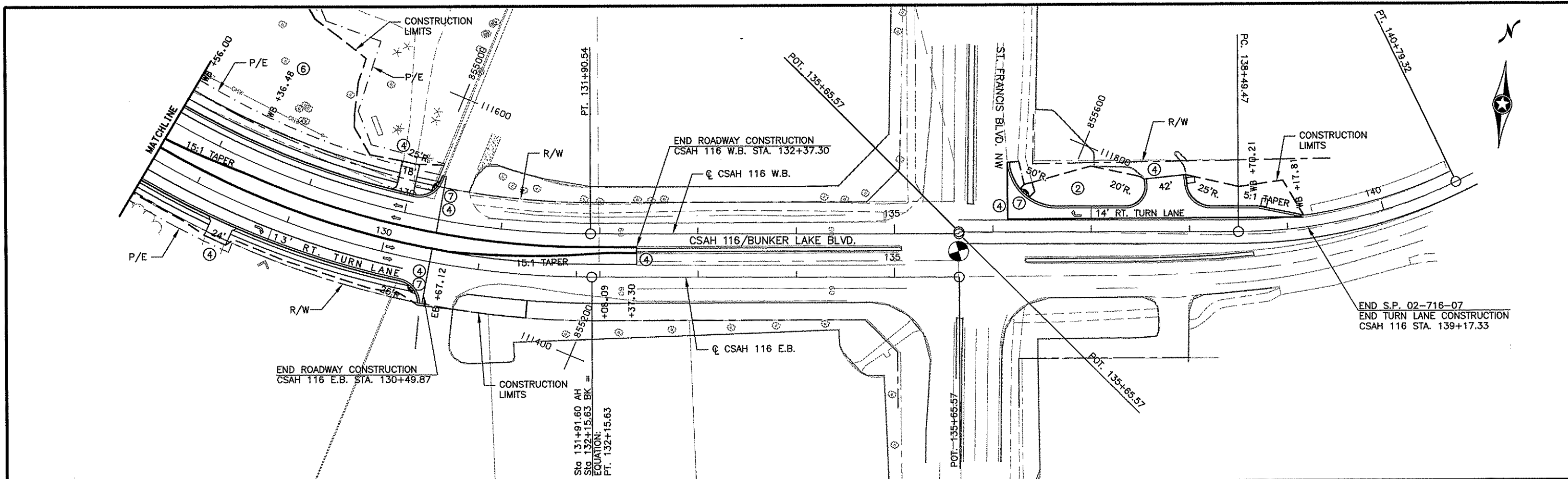
PROJECT NO. ANOKA COUNTY S.P. 02-716-07

CITY OF ANOKA S.P. 103-122-12

CITY OF RAMSEY S.P. 199-020-04

CONSTRUCTION PLAN PAGE 1 OF 2

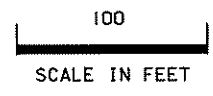
Sheet 34 of 120 Sheets



**LEGEND**

---	INPLACE RIGHT-OF-WAY
---	PROPOSED RIGHT-OF-WAY
---	TEMPORARY EASEMENT, T/E
---	PERMANENT EASEMENT, P/E
---	CONSTRUCTION LIMITS

- NOTES:**
- SEE SHEET 33 FOR LEGEND.
  - SEE INTERSECTION DETAIL SHEETS 44 AND 45 FOR INTERSECTION DETAILS.
  - RELOCATE HYDRANT, SEE SHEETS 40 AND 41.
  - SAWCUT.
  - SEE SHEETS 19 TO 22 FOR TYPICAL SECTIONS.
  - SEE SHEET 83 FOR POND DETAILS.
  - TRUNCATED DOME - STANDARD PLATE 7036



NO	DATE	BY	CKD	APPR	REVISION

NAME: Q:\SHEET\17366\_FV\_02.DWG

I HEREBY CERTIFY THAT THIS PLAN 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.

PRINT NAME: ALAN J. PALMER, P.E.

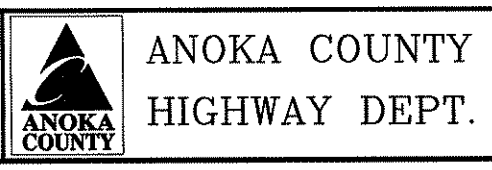
SIGNATURE: *[Signature]*

DATE: 18 JUNE 2005 LICENSE NO. 42462

DRAWN BY: RLH/DJS DATE: 02/18/05

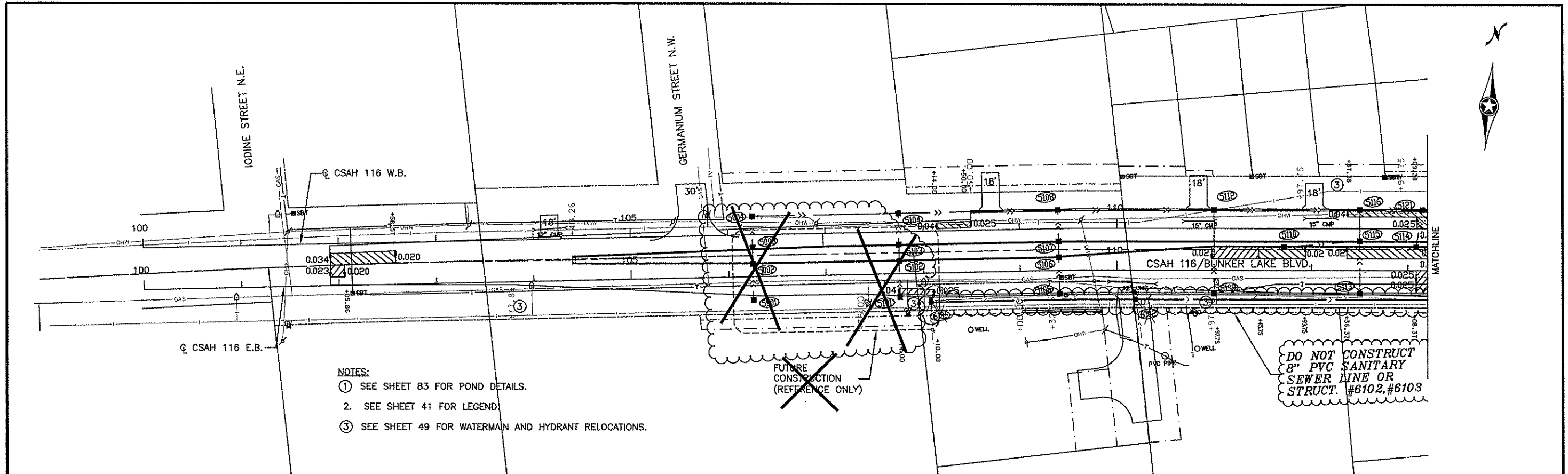
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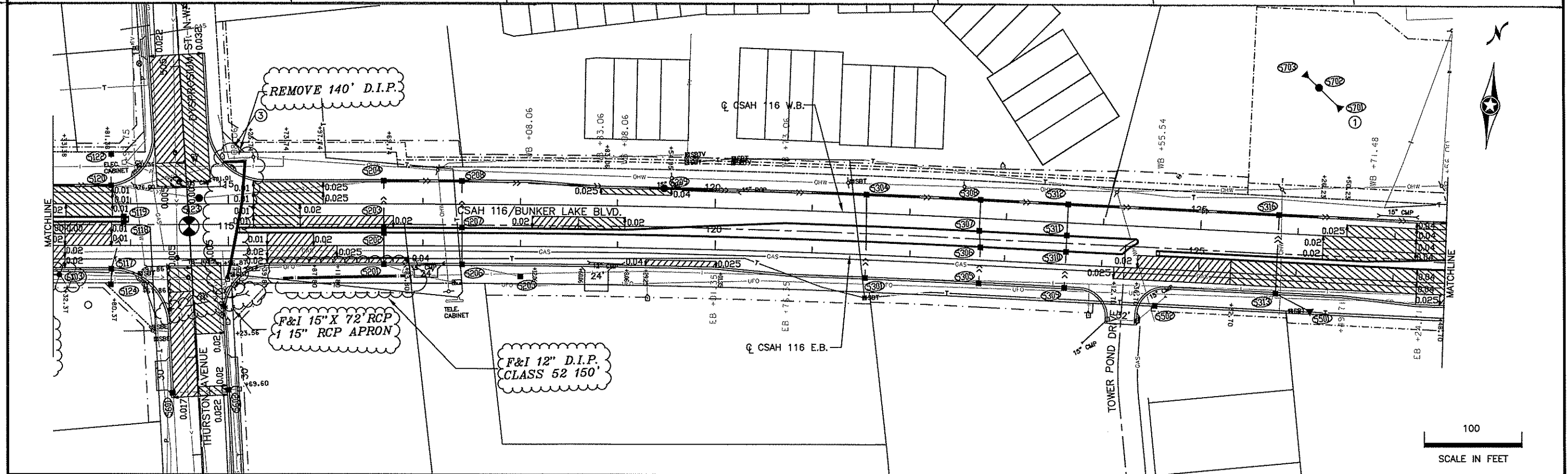


PROJECT NO. ANOKA COUNTY S.P. 02-716-07  
CITY OF ANOKA S.P. 103-122-12  
CITY OF RAMSEY S.P. 199-020-04

CONSTRUCTION PLAN  
PAGE 2 OF 2  
Sheet 35 of 120 Sheets



- NOTES:
- ① SEE SHEET 83 FOR POND DETAILS.
  - ② SEE SHEET 41 FOR LEGEND.
  - ③ SEE SHEET 49 FOR WATERMAN AND HYDRANT RELOCATIONS.



NO	DATE	BY	CHKD	APPR	REVISION
4/21/06		BH	LAR	LAR	BID ADDENDUM #2
NAME: Q:\SHEET\REV 17366_GZ_01.DWG					

I HEREBY CERTIFY THAT THIS PLAN 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.

PRINT NAME: LYNDON A. ROSENTHAL, P.E.  
 SIGNATURE: *[Signature]*  
 DATE: APRIL 21, 2006 LICENSE NO. 25066

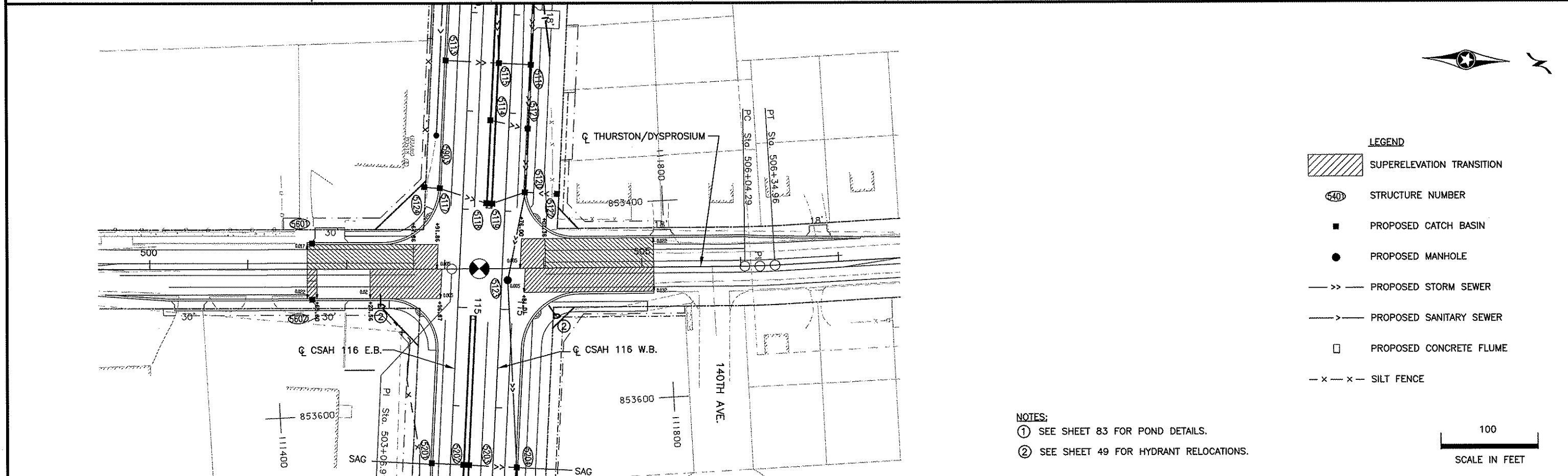
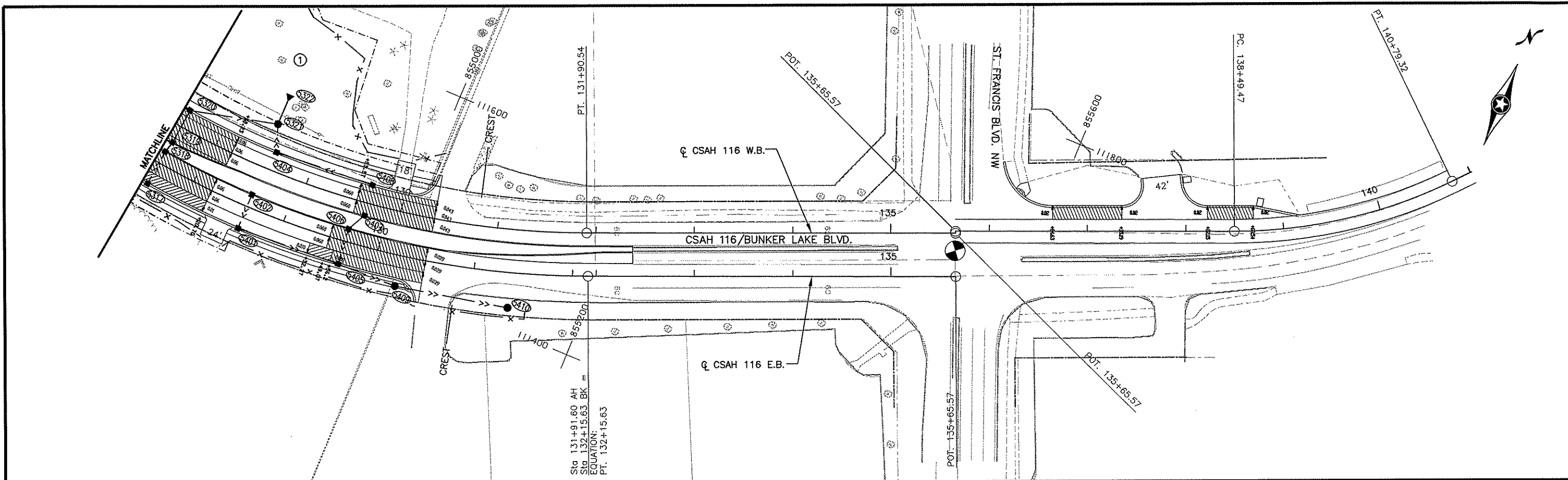
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









ANOKA COUNTY  
 HIGHWAY DEPT.

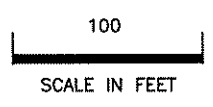
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 ANOKA COUNTY S.P. 02-716-07  
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 CITY OF RAMSEY S.P. 199-020-04

WATER, DRAINAGE AND SUPERELEVATION PLAN  
 PAGE 1 OF 2  
 Sheet 40 of 120 Sheets




- LEGEND**
-  SUPERELEVATION TRANSITION
  -  STRUCTURE NUMBER
  -  PROPOSED CATCH BASIN
  -  PROPOSED MANHOLE
  -  PROPOSED STORM SEWER
  -  PROPOSED SANITARY SEWER
  -  PROPOSED CONCRETE FLUME
  -  SILT FENCE

**NOTES:**  
 ① SEE SHEET 83 FOR POND DETAILS.  
 ② SEE SHEET 49 FOR HYDRANT RELOCATIONS.



NO	DATE	BY	CKD	APPR	REVISION

NAME: Q:\SHEET\17366\_GZ\_02.DWG

I HEREBY CERTIFY THAT THIS PLAN 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.  
 PRINT NAME: ALAN J. PALMER, P.E.  
 SIGNATURE:   
 DATE: 18 JUNE 2005 LICENSE NO. 42462

DRAWN BY: RLH/DJS DATE 02/18/05  
 DESIGN BY: AJP/EDD DATE 02/18/05  
 CHECKED BY: AJP DATE 02/18/05

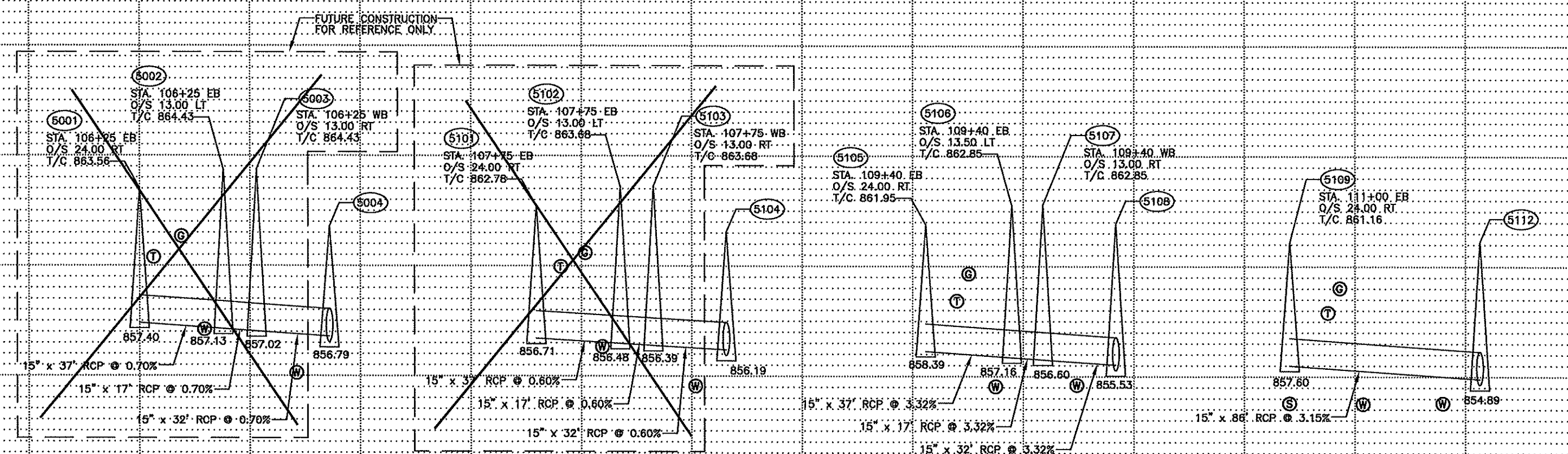
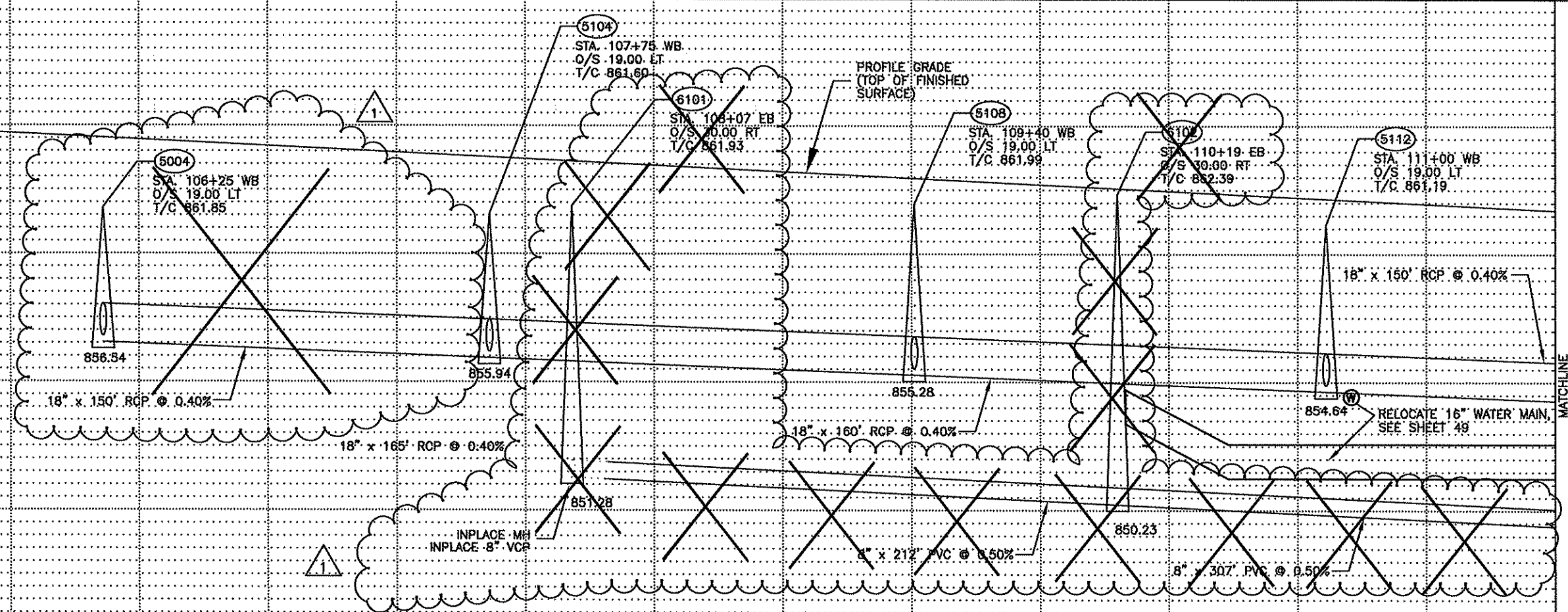
**ANOKA COUNTY HIGHWAY DEPT.**

PROJECT NO.  
 ANOKA COUNTY S.P. 02-716-07  
 CITY OF ANOKA S.P. 103-122-12  
 CITY OF RAMSEY S.P. 199-020-04

**WATER, DRAINAGE AND SUPERELEVATION PLAN**  
 PAGE 2 OF 2  
 Sheet 41 of 120 Sheets



- LEGEND**
- (F) BURIED FIBER OPTIC
  - (G) BURIED GAS
  - (S) SANITARY SEWER
  - (T) BURIED TELEPHONE
  - (W) WATER MAIN



NO	DATE	BY	CHKD	APPR	REVISION
1	4/21/06	BH	LAR	LAR	BID ADDENDUM #1

NAME: C:\SHEET\REV 17368\_JCH\_01.DWG

I HEREBY CERTIFY THAT THIS PLAN 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.

PRINT NAME: LYNDON A. JOHNSON, P.E.  
SIGNATURE: *[Signature]*  
DATE: APRIL 21, 2006 LICENSE NO. 25086

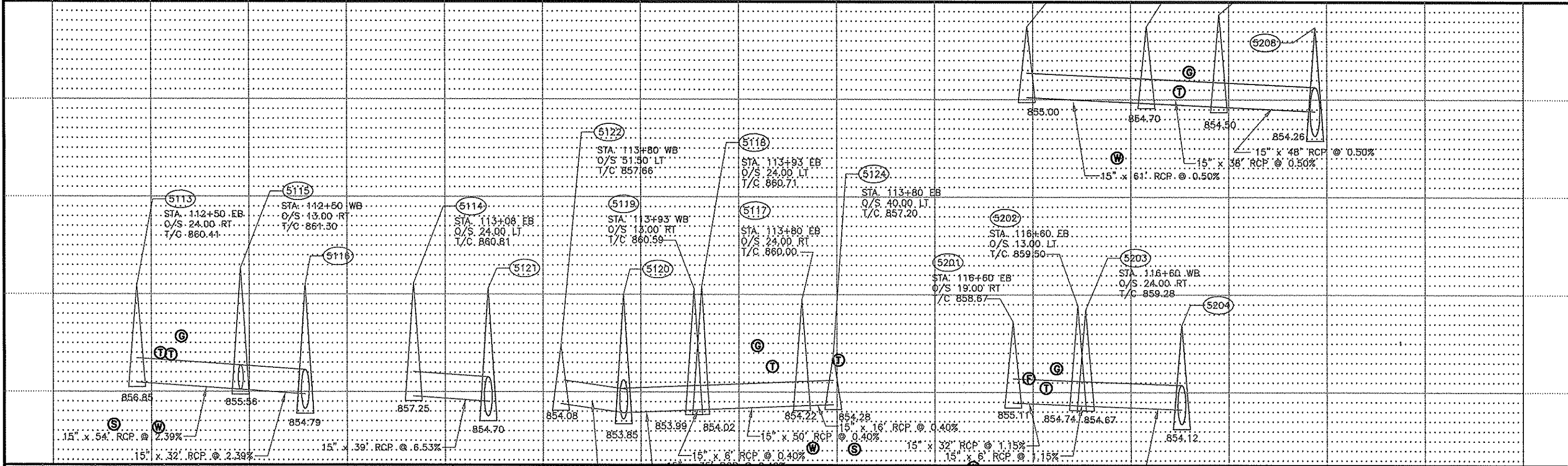
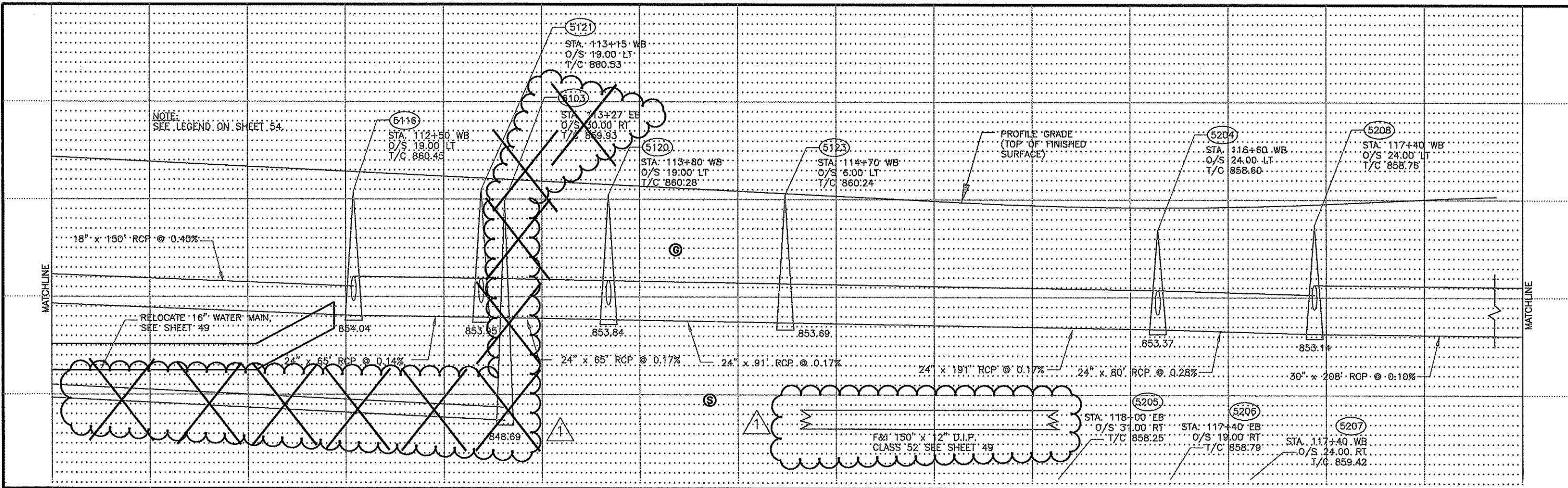
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DESIGN BY: LAR/BH DATE: 04/21/06  
CHECKED BY: LAR DATE: 04/21/06



**ANOKA COUNTY  
HIGHWAY DEPT.**

PROJECT NO.  
ANOKA COUNTY S.P. 02-716-07  
CITY OF ANOKA S.P. 103-122-12  
CITY OF RAMSEY S.P. 199-020-04

**DRAINAGE PROFILE**  
PAGE 1 OF 4  
Sheet 54 of 120 Sheets



NO	DATE	BY	CKD	APPR	REVISION
1	4/21/06	BH	LAR	LAR	BID ADDENDUM #1

NAME: Q:\SHEET\REV 17366\_KH\_02.DWG

I HEREBY CERTIFY THAT THIS PLAN 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.

PRINT NAME: ALAN PALDES, P.E.

SIGNATURE: *[Signature]*

DATE: 18 JUNE 2005 LICENSE NO. 42482

DRAWN BY: RLH/DJS DATE: 02/18/05

DESIGN BY: AJP/EDD DATE: 02/18/05

CHECKED BY: AJP DATE: 02/18/05



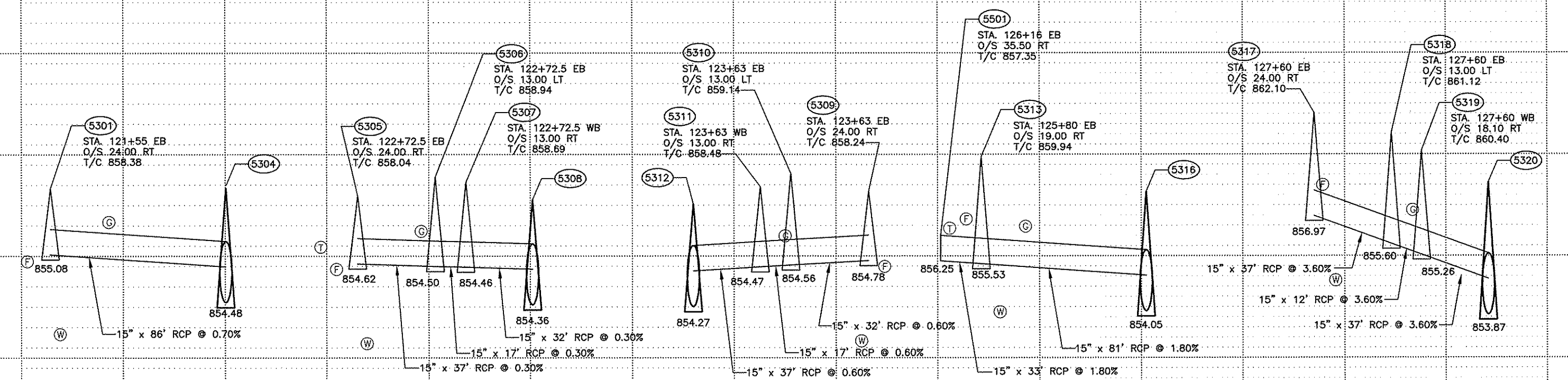
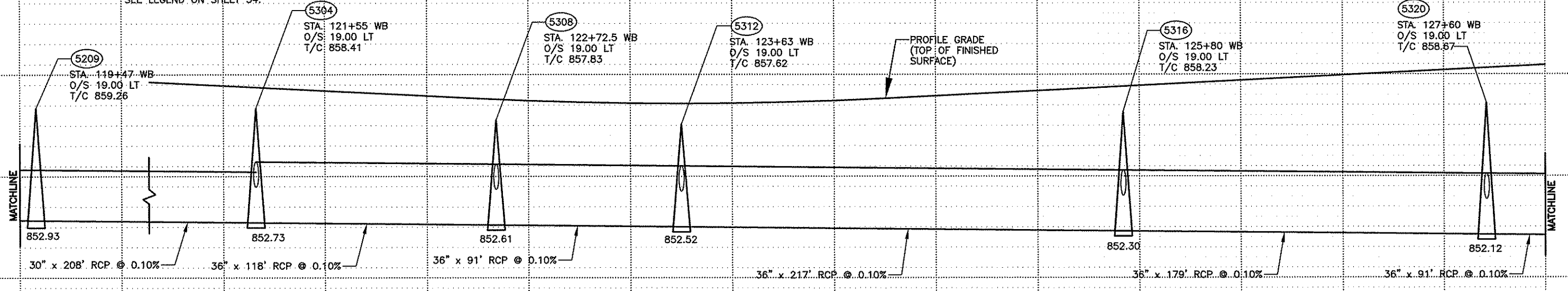
ANOKA COUNTY  
HIGHWAY DEPT.

PROJECT NO.  
ANOKA COUNTY  
CITY OF ANOKA  
CITY OF RAMSEY

S.P. 02-716-07  
S.P. 103-122-12  
S.P. 199-020-04

DRAINAGE PROFILE  
PAGE 2 OF 4  
Sheet 55 of 120 Sheets

NOTE:  
SEE LEGEND ON SHEET 54.



NO	DATE	BY	CKD	APPR	REVISION

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PRINT NAME: ALAN J. PALMER, P.E.

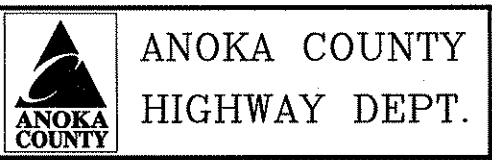
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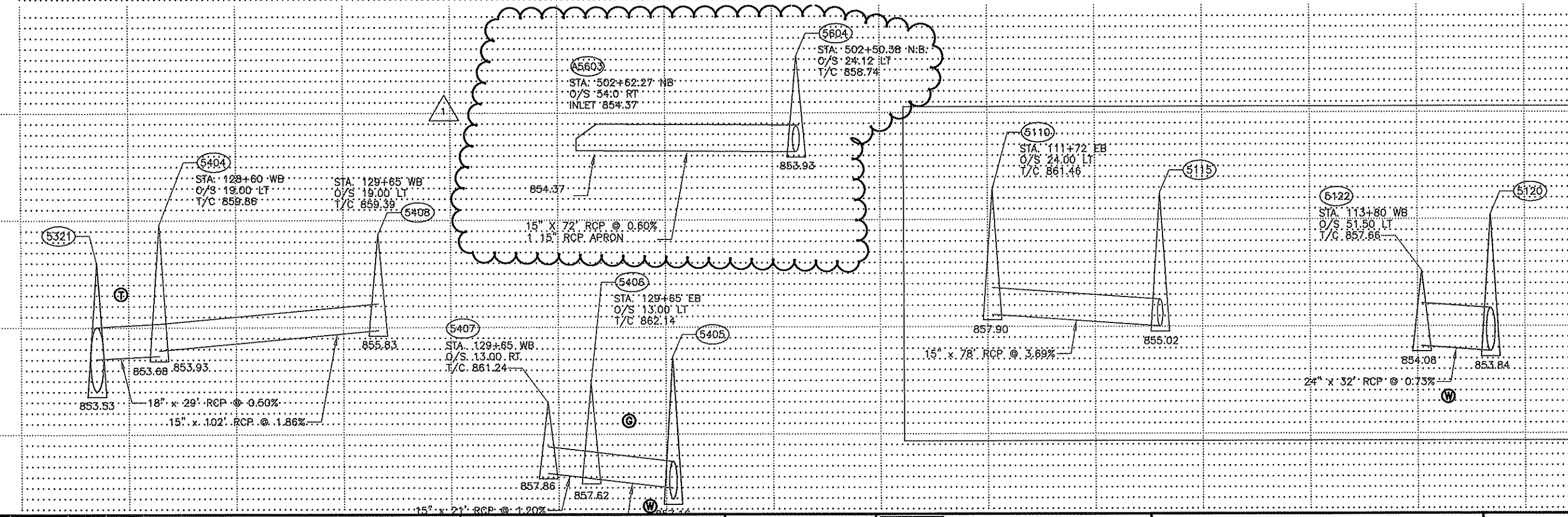
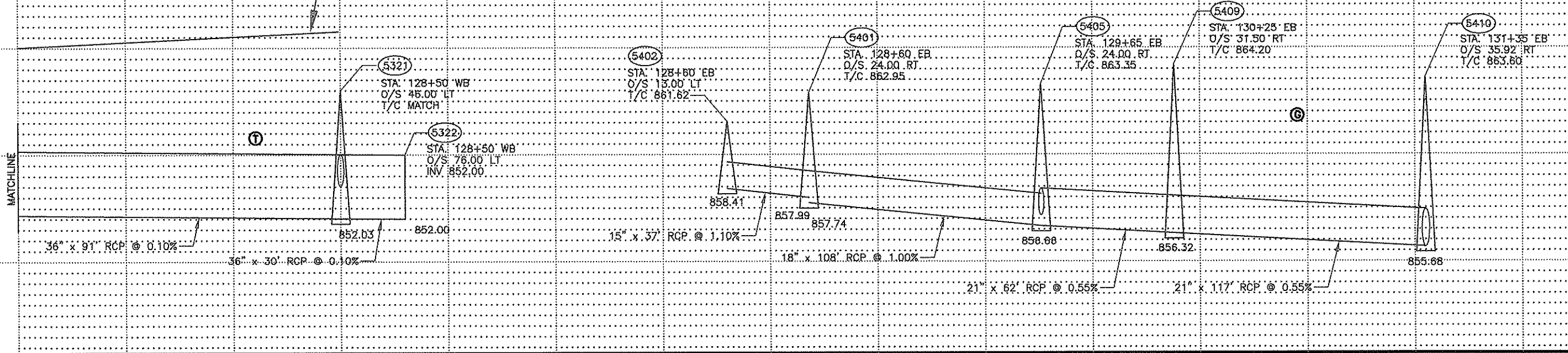
DRAINAGE PROFILE  
PAGE 3 OF 4  
Sheet 56 of 120 Sheets



NOTE:  
SEE LEGEND ON SHEET 54.

PROFILE GRADE  
(TOP OF FINISHED  
SURFACE)

MATCHLINE



NO	DATE	BY	CKD	APPR	REVISION
1	4/21/06	BH	LAR	LAR	BID ADDENDUM #1

NAME: Q:\SHEET\REV 17366\_KH\_04.DWG

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PRINT NAME: ALAN J. PATNER, P.E.  
SIGNATURE: *[Signature]*  
DATE: 18 JUNE 2005 LICENSE NO. 42462

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CHECKED BY: AJP DATE: 02/18/05



ANOKA COUNTY  
HIGHWAY DEPT.

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CITY OF RAMSEY S.P. 199-020-04

DRAINAGE PROFILE  
PAGE 4 OF 4  
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