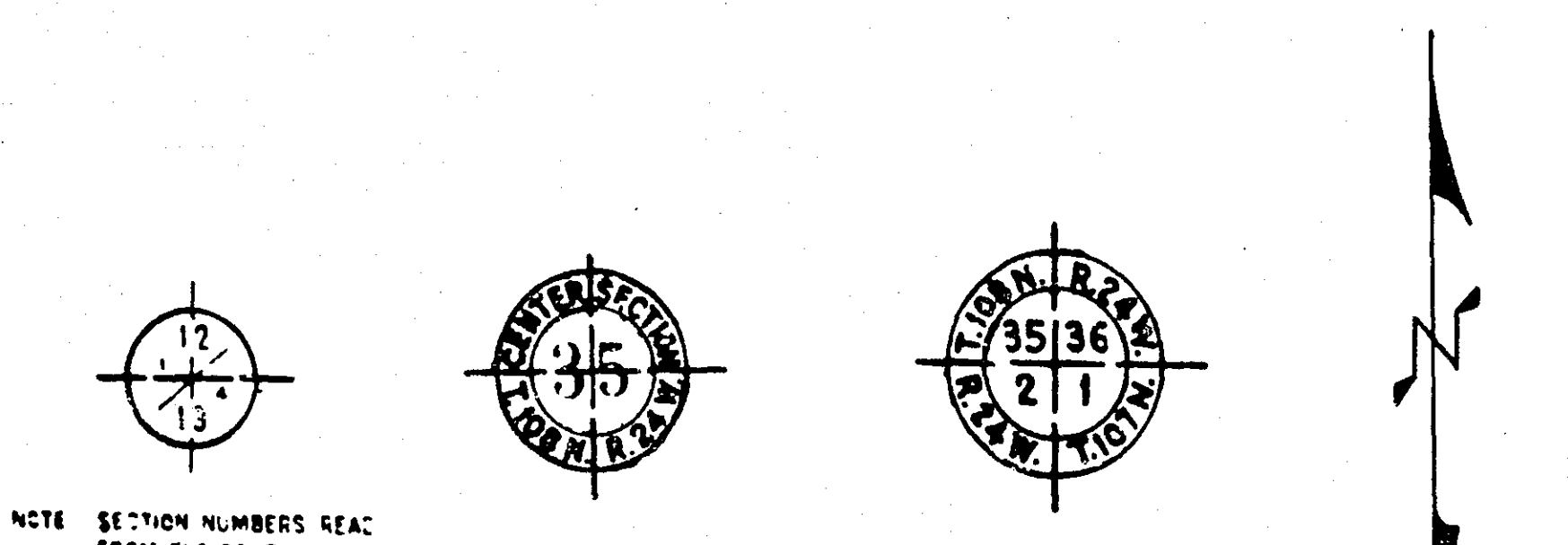


**PLANS SYMBOLS**

STATE LINE	SPRINGS
COUNTY LINE	MARSH
TOWNSHIP OR RANGE LINE	TIMBER
SECTION LINE	ORCHARD
QUARTER LINE	BRUSH
SIXTEENTH LINE	NURSERY
RIGHT-OF-WAY LINE	CATCH BASIN
PRESENT RIGHT-OF-WAY LINE	FIRE HYDRANT
CONTROL OF ACCESS LINE	CATTLE GUARD
PROPERTY LINE (Except Land Lines)	OVERPASS (Highway Over)
VACATED PLATTED PROPERTY	UNDERPASS (Highway Under)
CORPORATE OR CITY LIMITS	BRIDGE
TRUNK HIGHWAY CENTER LINE	BUILDING (One Story Frame)
RETAINING WALL	F-FRAME C-CONCRETE
RAILROAD	S-STONE T-TILE
RAILROAD RIGHT-OF-WAY LINE	B-BRICK ST-STUCCO
RIVER OR CREEK	IRON PIPE OR ROD
DRY RUN	MONUMENT (STONE, CONCRETE, OR METAL)
DRAINAGE DITCH	WOODEN HUB
DRAIN TILE	GRAVEL PIT
CULVERT	SAND PIT
DROP INLET	BORROW PIT
GUARD RAIL	ROCK QUARRY
BARBED WIRE FENCE	
WOVEN WIRE FENCE	
CHAIN LINK FENCE	
RAILROAD SNOW FENCE	
STONE WALL OR FENCE	
HEDGE	
RAILROAD CROSSING SIGN	
RAILROAD CROSSING BELL	
ELECTRIC WARNING SIGN	
CROSSING GATE	
MEANDER CORNER	

**UTILITIES SYMBOLS**

POWER POLE LINE	CONDUIT
TELEPHONE OR TELEGRAPH POLE LINE	TELEPHONE CABLE IN CONDUIT
JOINT TELEPHONE AND POWER ON POWER POLES	ELECTRIC CABLE IN CONDUIT
ANCHOR	TELEPHONE-MANHOLE
STEEL TOWER	ELECTRIC MANHOLE
STREET LIGHT	BURNED TELEPHONE CABLE
PENETRAL TELEPHONE CABLE TERMINAL	BURNED ELECTRIC CABLE
GAS MAIN	AERIAL TELEPHONE CABLE
WATER MAIN	SEWER (SANITARY OR STORM)
	SEWER MANHOLE



**PIT DATA**

PIT NO. _____	Located in _____
_____	Dead Haul _____
PIT NO. _____	Located in _____
_____	Dead Haul _____

"THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1968 SHALL GOVERN.

**OFFICE OF COUNTY ENGINEER  
RAMSEY COUNTY**

CONSTRUCTION PLAN FOR GRADING AND BITUMINOUS SURFACING

**RED FOX ROAD**

BETWEEN T.H. 51 SERVICE LANE AND LEXINGTON AVE.

FROM: A POINT 163 FEET EAST AND 150 FEET SOUTH OF THE CENTER OF SECTION 27, T.30N., R.23W. TO: A POINT 10 FEET WEST OF THE EAST 1/4 OF SECTION 27, T. 30N., R. 23W.

GROSS LENGTH	2587 FEET	0.490 MILES
BRIDGES-LENGTH	0 FEET	0 MILES
EXCEPTIONS-LENGTH	0 FEET	0 MILES
NET LENGTH	2587 FEET	0.490 MILES

**SCALES**

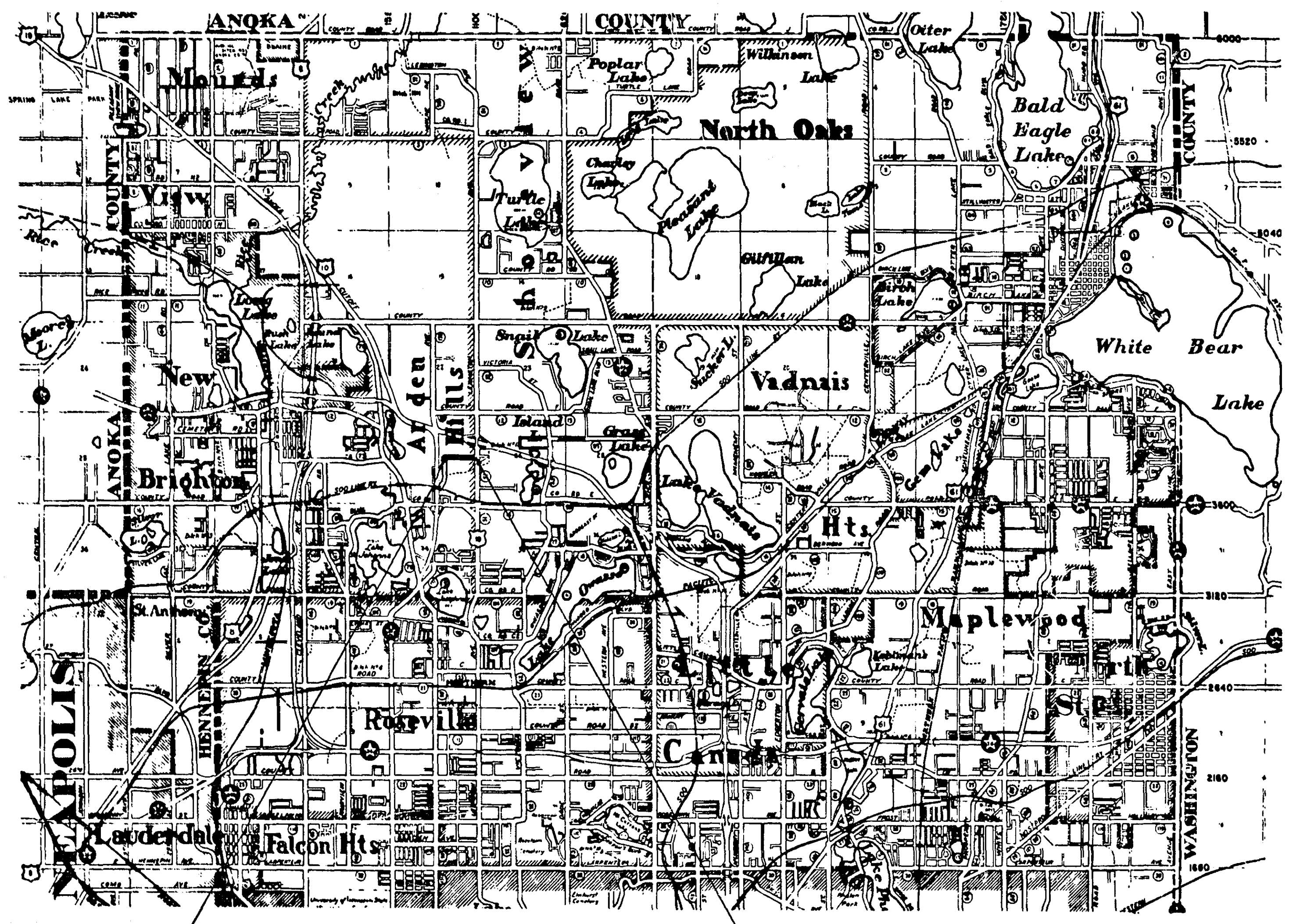
PLAN, 1 inch = 50 Feet	Vert. 1 inch = 5 Feet
PROFILE, Horiz. 1 inch = 50 Feet	
CROSS-SECTIONS, 1 inch = 10 Feet	
LAYOUT, 1 inch = 5280 Feet	

**DESIGN DESIGNATION**

A.D.T. 196	=
A.D.T. 196	=
DHV	=
D (DIRECTIONAL DISTRIBUTION)	=
T (HEAVY COMMERCIAL) 1985	=
DESIGN SPEED	=
DESIGN LOAD	= 9 TON
SOIL FACTOR	=

**INDEX**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION & ESTIMATED QUANTITIES
3-4	PLAN AND PROFILE
5-8	CROSS-SECTIONS
9	NON-PARTICIPATING PORTION



BEG. PROJECT STA. - (1+47)      END PROJ. STA. 24+40

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
*Spencer Anker* REG. NO. 2042 DATE 7-11-69  
ENGINEER

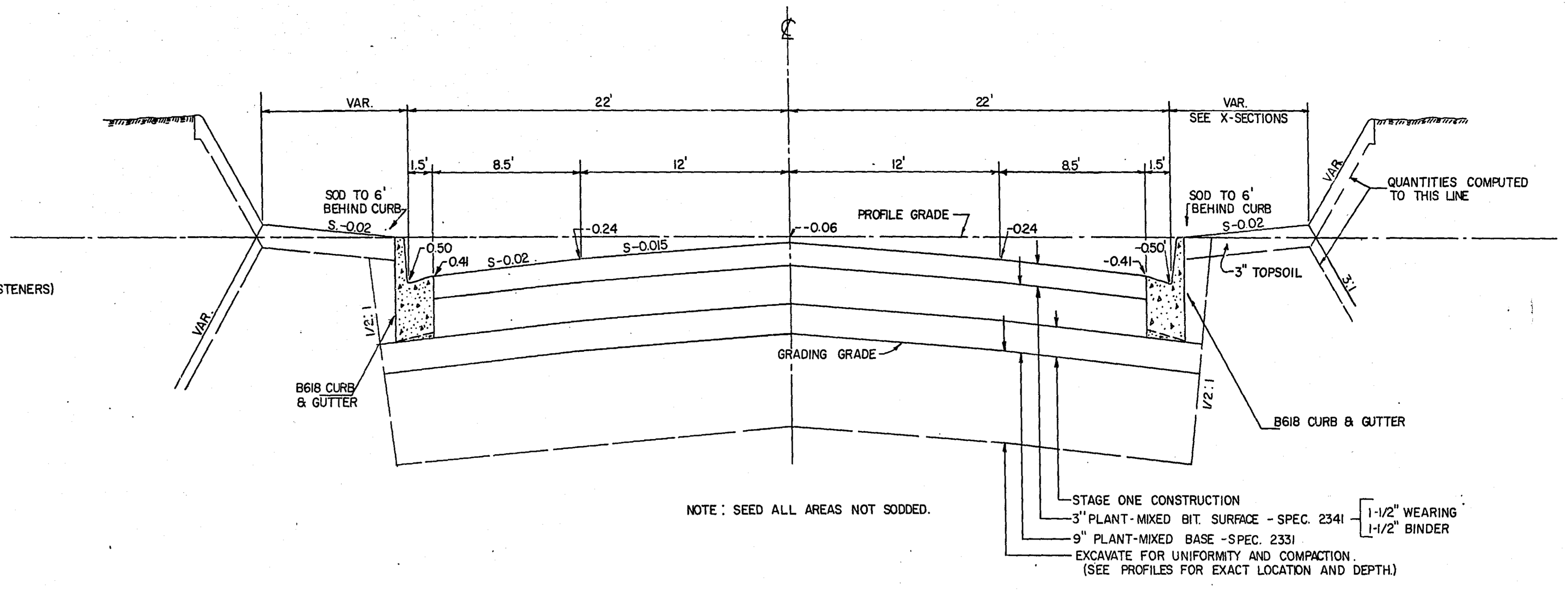
RECOMMENDED FOR APPROVAL *M. K. ...* DATE 7/21/69  
RECOMMENDED FOR APPROVAL *Diane R. ...* DATE 6-26-69  
APPROVED *W. ...* DATE 6-30-69  
APPROVED *W. ...* DATE 7-14-69  
MAYOR, VILLAGE OF ARDEN HILLS

MINNESOTA STATE HIGHWAY DEPARTMENT  
RECOMMENDED FOR APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_  
RECOMMENDED FOR APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_  
STATE AID ENGINEER

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
2101.511	CLEAR AND GRUB ROADWAYS	LUMP SUM	
2105.501	COMMON EXCAVATION	C.Y.	18,557
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	212
2331.514	BASE COURSE MIXTURE	TON	6,065
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	98
2341.508	WEARING COURSE MIXTURE	TON	1,008
2341.510	BINDER COURSE MIXTURE	TON	960
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	1,755
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	3,911
2501.536	24" CONCRETE APRONS	APRON	1
2503.502	18" REINFORCED CONCRETE SEWER, CLASS II	L.F.	48
2503.502	24" REINFORCED CONCRETE SEWER, CLASS II	L.F.	654
2451.503	GRANULAR BACKFILL	C.Y.	312
2506.508	CONSTRUCT MANHOLES, DESIGN A OR F	STRUCTURE	1
2506.509	CONSTRUCT CATCHBASIN, DESIGN LP4-H	STRUCTURES	4
2506.522	ADJUST FRAME AND RING CASTINGS	ASSEMBLY	1
2511.502	HAND-PLACED RIPRAP, CLASS A	C.Y.	5
2531.501	CONCRETE CURB AND GUTTER, DESIGN B618	L.F.	4867
2557.501	WIRE FENCE, WOOD POST, FOUR STRAND, BARBED WIRE	L.F.	1278
2571.501	ROADSIDE SEEDING	ACRE	2
2575.502	SEED MIXTURE-6-	POUND	150
2575.505	SODDING	S.Y.	3655
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.7
<b>NON-PARTICIPATING PORTION</b>			
2451.503	GRANULAR BACKFILL	TON	175
0504.612	12" D.I.P. WATER SERVICE CONNECTION	L.F.	60
0504.612	8" C.I.P. WATER SERVICE CONNECTION	L.F.	60
0504.612	3" C.I.P. WATER SERVICE CONNECTION	L.F.	60
0504.612	1" COPPER WATER SERVICE CONNECTION	L.F.	80
0504.622	12" WATER GATE VALVE AND BOX	VALVE	1
0504.622	8" WATER GATE VALVE AND BOX	VALVE	1
0504.622	3" WATER GATE VALVE AND BOX	VALVE	1
0504.622	1" WATER CURB STOP AND BOX	VALVE	2
0504.623	12" X 8" TEE INTO EXISTING 12" D.I.P.	TEE	1
0504.623	12" X 3" TEE INTO EXISTING 12" D.I.P.	TEE	1
0504.624	12" X 12" C.I.P. MECHANICAL CROSS JOINT	CROSS	1
0504.626	12" X 6" CAST IRON REDUCER	REDUCER	1
0504.630	1" CORPORATION COCK	CONNECTOR	2
0504.614	HYDRANT	HYDRANT	1
2503.503	10" CLAY SEWER, EXTRA STRENGTH, 6' TO 8' DEEP	L.F.	290
2503.503	10" CLAY SEWER, EXTRA STRENGTH, 8' TO 10' DEEP	L.F.	250
2503.503	10" CLAY SEWER, EXTRA STRENGTH, 10' TO 12' DEEP	L.F.	260
2503.503	10" CLAY SEWER, EXTRA STRENGTH, 12' TO 14' DEEP	L.F.	250
2503.503	10" CLAY SEWER, EXTRA STRENGTH, 14' TO 16' DEEP	L.F.	80
0503.688	6" SANITARY SEWER SERVICE CONNECTION	L.F.	150
0503.688	8" SANITARY SEWER SERVICE CONNECTION	L.F.	80
0503.690	SANITARY SEWER SERVICE CONNECTION, 6" X 10" WYE	WYE	5
2506.508	CONSTRUCT MANHOLES	STRUCTURE	3

TYPICAL SECTIONS



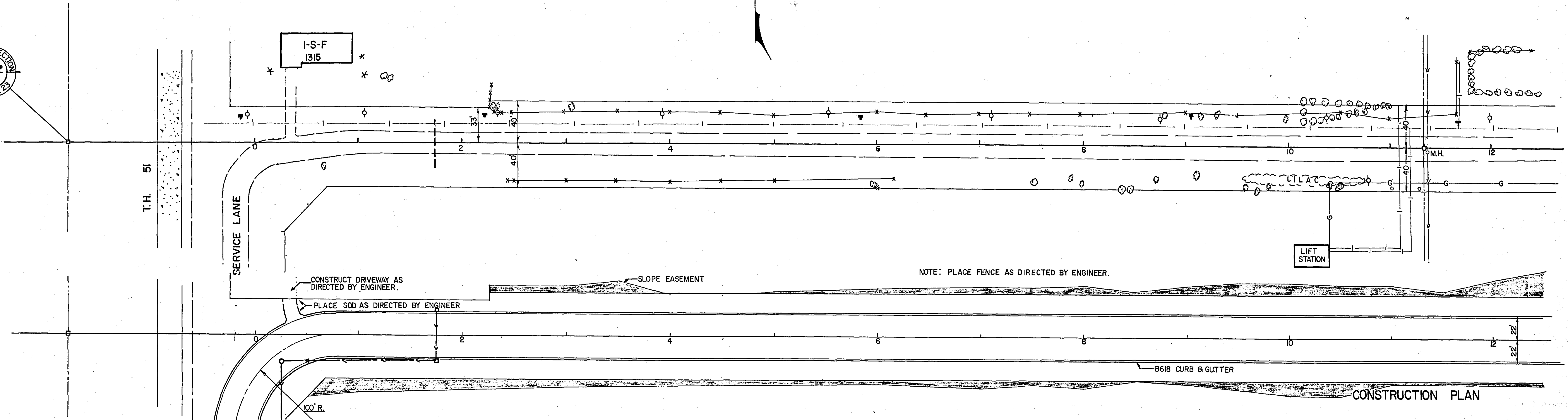
BITUMINOUS REQUIREMENTS		
2341 WEARING COURSE	A.C. 1, 85-100 PENETRATION	
2341 BINDER COURSE	A.C. 1, 120-150 PENETRATION	3151
2331 BASE COURSE	A.C. 1, 120-150 PENETRATION	3151
2357 TACK COAT	MC-250,800 RC-70,250,800	3151
	SS-1, MS-2 ASPHALT EMULSION CRS-1, CRS-2	
2358 PRIME COAT	MC-30,70	3151

STANDARD DETAIL PLATES

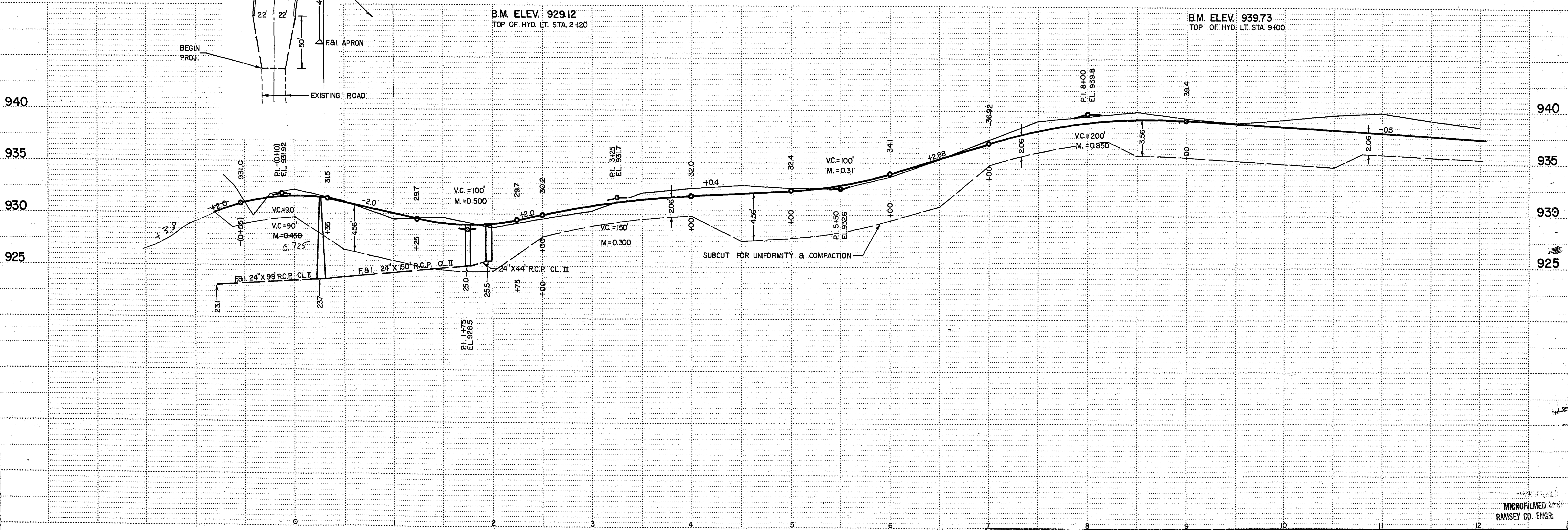
0001A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000F	REINFORCED CONCRETE PIPE
3100E	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
4000G	MANHOLE OR CATCH BASIN
4005H	MANHOLE OR CATCH BASIN
4016C	CURB OPENING CATCH BASINS
4101B	RING CASTING FOR MANHOLE OR CATCH BASIN (700-7)
4110D	COVER CASTING FOR MANHOLE (712)
4180F	MANHOLE STEP CASTING
7100D	CONCRETE CURB AND GUTTER
8000C	STANDARD BARRICADES
8008C	CONTRACTOR'S SIGN
9323A	BARBED WIRE FENCE (CORNER BRACES TO BE MODIFIED TO MEET ENGINEERS APPROVAL)

STA. 0+25 RT. 25'  
CONSTRUCT MANHOLE DESIGN A. OR. F.

STA. 1+75 RT. 24' & LT. 24'  
CONSTRUCT C.B. DESIGN L.P. 4-H.

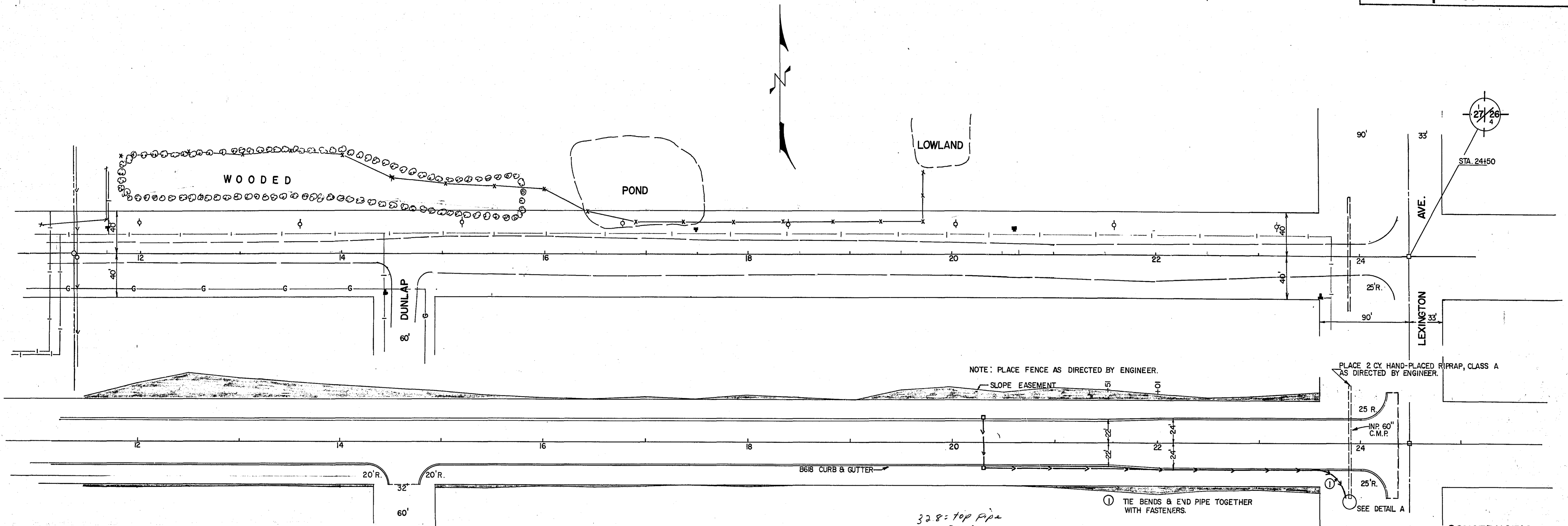


CONSTRUCTION PLAN

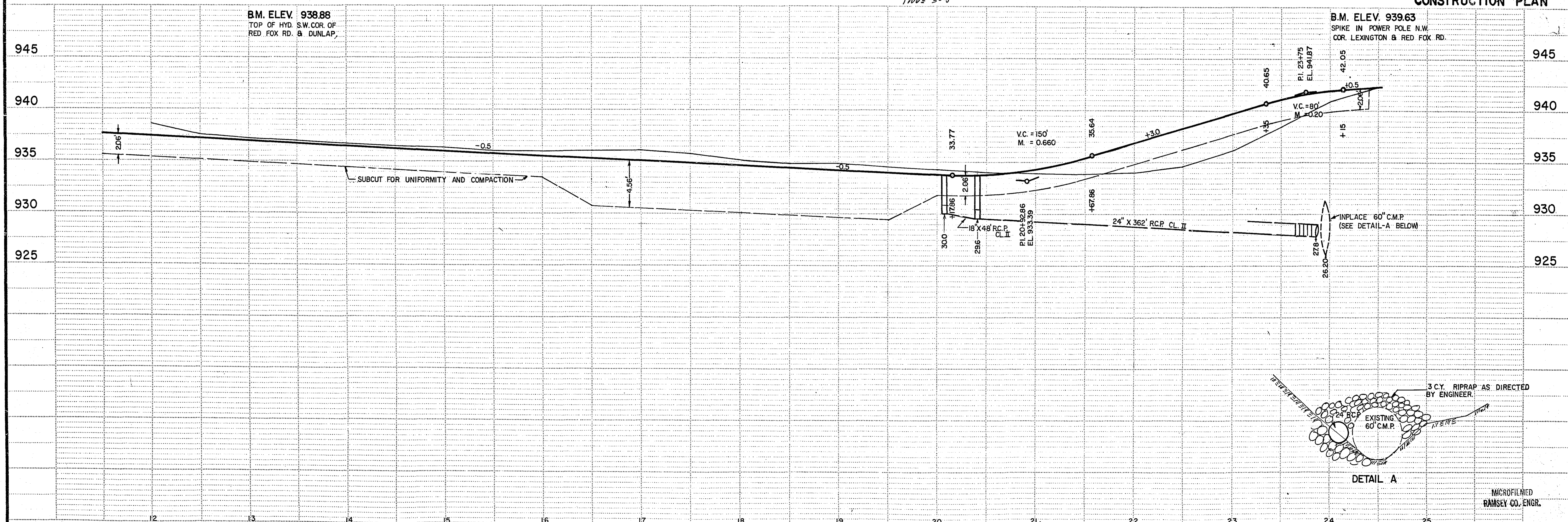


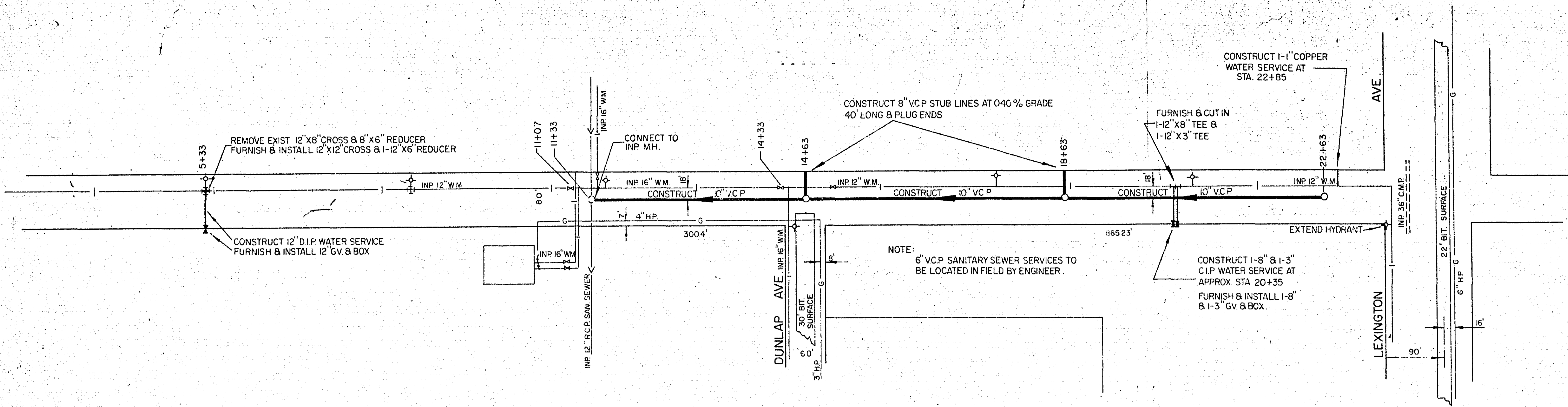
NORSTAR © N. 12 ST. PAUL, MINNEAPOLIS, MINNESOTA ©

MICROFILMED BY  
RAMSEY CO. ENGR.

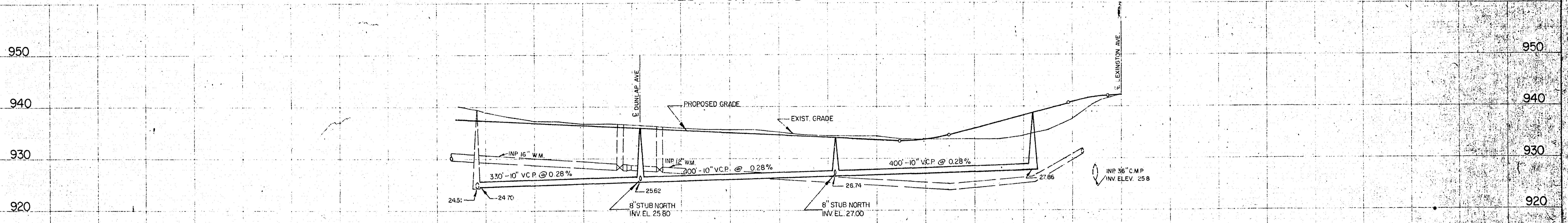


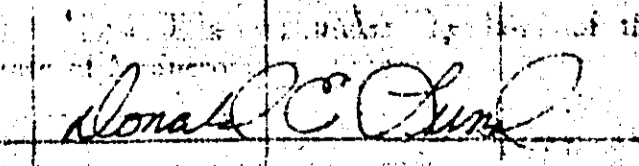
CONSTRUCTION PLAN





RED FOX ROAD



  
 JULY 15 1969 74-28