

STATEMENT OF ESTIMATED QUANTITIES				
SPEC. REF	ITEM	UNIT	QUANTITIES	
			S.A.P.	OTHER
2101.502 & SPEC	CLEARING	TREE	1	
2101.507 & SPEC	GRUBBING	TREE	1	
2104.505	REMOVE BITUMINOUS PAVEMENT	S.Y.	10000	
2105.501	COMMON EXCAVATION	C.Y.	5201	
2105.523	COMMON BORROW (CV)	C.Y.	1618	
2112.501	SUBGRADE PREPARATION	RD. STA.	49.0	
2221.501	AGGREGATE BASE CLASS 5	TON	6370	
2331.514	AGGREGATE SHOULDERING CLASS 2	TON	450	
2331.514	BASE COURSE MIXTURE TYPE 31	TON	2815	
2331.508	WEAR COURSE MIXTURE TYPE 41	TON	1950	
2357.502	BIT. TACK COAT	GAL.	1026	
2535.501	BITUMINOUS BERM	L.F.	200	
SPEC	2" BIT. DRIVEWAY RESTORATION	S.Y.	500	
2531.507 & SPEC	6" CONC. DRIVEWAY PAVEMENT	S.Y.	34	
2501.511	12" CM PIPE	L.F.	282	
2501.515	12" CM PIPE APRON	E.A.	22	
2501.511	15" RC PIPE CLASS III	L.F.	276	
2501.515	15" RC PIPE FLARED END	E.A.	8	
2501.511	24" RC PIPE CLASS III	L.F.	82	
2501.515	24" RC PIPE FLARED END	E.A.	2	
2104.501	REMOVE 15" CULVERT	L.F.	66	
2104.501	REMOVE 18" CULVERT	L.F.	44	
SPEC	REMOVE & REINSTALL DRIVEWAY CULVERTS	L.F.	80	
SPEC	SEEDING	ACRE	2.2	
2575.505	SODDING TYPE EROSION CONTROL	S.Y.	80	
SPEC	SIGNING	S.F.	86.5	
SPEC	STRIPING	L.F.	12920	
SPEC	RELOCATE MAILBOX	E.A.	11	
SPEC	BITUMINOUS SWALE	S.F.	150	
SPEC	DITCH REGRAVING	L.F.	340	
SPEC	PAVEMENT MARKING (TURN LANE)	L.S.	1	
SPEC	RELOCATE EXISTING FENCE	L.F.	110	

PAVEMENT MARKING SCHEDULE				
KEY	DESCRIPTION	WIDTH	COLOR	REMARKS
①	STOP LINE	24"	WHITE	SOLID
②	CENTERLINE	4"	YELLOW	SKIP - 10' LINE 40' GAP
③	PAVEMENT EDGE LINE	4"	WHITE	SOLID
④	NO PASSING ZONE LINE	4"	YELLOW	SOLID

SIGNING				
KEY	DESCRIPTION/MESSAGE	SIZE	PLATE CODE	QUANTITY
①	"STOP"	30"x30"	R1-1	1 2.5
②	MANDATORY LANE USE	30"x30"	R3-5R	1 2.5
③	LARGE ARROW - DOUBLE HEAD	48"x24"	W1-7	3 2.4
④	"NO PASSING ZONE"	36"x48"x48"	W14-3	4
⑤	"DO NOT PASS"	24"x30"	R4-1	4 2.0

BASIS OF PLANNED QUANTITIES

AGGREGATE BASE, CLASS 5:
COMPACTED DRY DENSITY 1.86 TON/C.Y.

2331 TYPE 31 BITUMINOUS BASE COURSE:
BITUMINOUS MATERIAL - 5.0% MIXTURE BY WEIGHT
BITUMINOUS MIXTURE - 2.00 TON/C.Y.

2331 TYPE 41 BITUMINOUS WEAR COURSE:
BITUMINOUS MATERIAL - 6.0% MIXTURE BY WEIGHT
BITUMINOUS MIXTURE - 2.00 TON/C.Y.

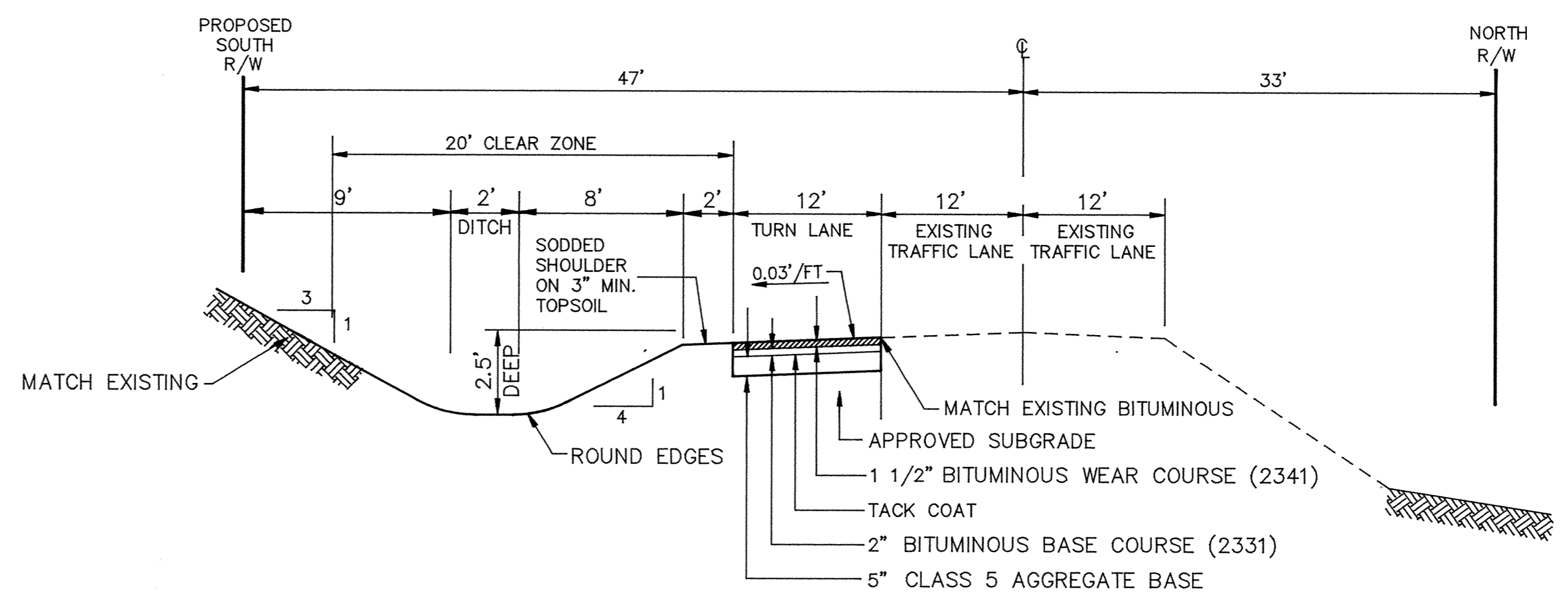
BITUMINOUS TACK COAT:
0.05 GAL./S.Y.

THE FOLLOWING STANDARD PLATES AS APPROVED
BY THE FHWA SHALL APPLY

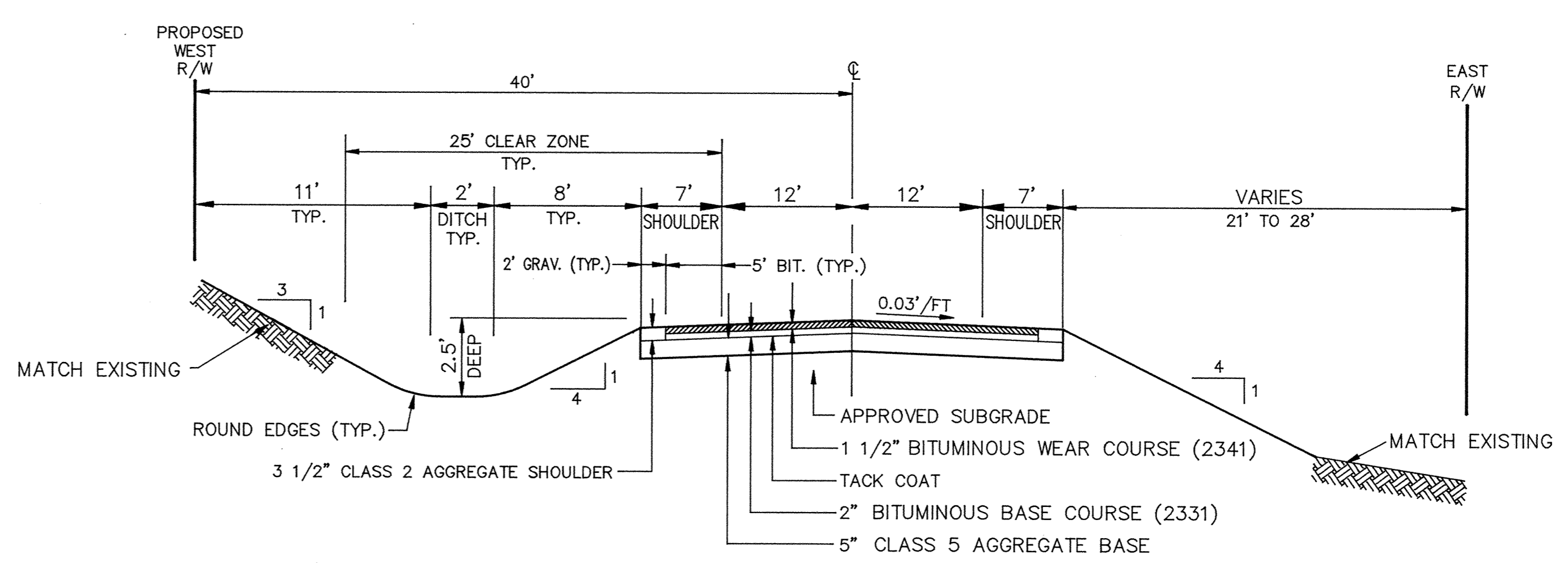
PLATE NO.	DESCRIPTION
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000K	REINFORCED CONCRETE PIPE
3006F	GASKET JOINT FOR RC PIPE
3040F	CORRUGATED METAL PIPE CULVERT
3041C	CORRUGATED METAL PIPE
3100G	CONCRETE APRON FOR RC PIPE
3123I	METAL APRON FOR CS PIPE
3124B	METAL APRON CONNECTION
3221C	CORRUGATED STEEL PIPE COUPLING BAND
8000I	STANDARD BARRICADES
8003B	BREAKAWAY SIGN SUPPORT (PLASTIC)
9102C	SODDING AT PIPE CULVERT ENDS

NOTES:

- EXISTING DRIVEWAY CULVERTS SHALL BE RESET AS DIRECTED BY THE ENGINEER TO MATCH PROPOSED DITCH.
- ALL OBSTRUCTIONS LOCATED WITHIN THE CLEAR ZONE, AS SPECIFIED BY THE ENGINEER, SHALL BE REMOVED AND/OR RELOCATED. COST SHALL BE CONSIDERED INCIDENTAL TO THE TOTAL PROJECT COST. POWER POLE, TELEPHONE & CABLE BOX RELOCATION SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND THE PROPER UTILITY COMPANIES PRIOR TO CONSTRUCTION.



TYPICAL RURAL STREET SECTION
181ST AVENUE - RIGHT TURN LANE



TYPICAL RURAL STREET SECTION
FILLMORE STREET

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

Mack V. Graham
DATE 3/29/91 REG. NO. 19130

MSA CONSULTING ENGINEERS
Maier Stewart & Associates Inc.
1959 SLOAN PLACE (612) 774-6021 ST. PAUL, MINNESOTA 55117

DATE	DESCRIPTION	DESIGNED <u>MJG</u>
		CHECKED <u>JJ</u>
		DRAWN <u>GG</u>
		GRAPHIC SCALE
		0 HORIZ. 50
		0 VERT. 5

CITY OF ELK RIVER
STREET CONSTRUCTION
FILLMORE STREET
S.A.P. 204-111-03

DATE MAR. 1991 SHEET 2 OF 18 SHEETS PROJECT NO. 230-056