

PLAN SYMBOLS

STATE LINE	.....
COUNTY LINE	.....
TOWNSHIP OR RANGE LINE	.....
SECTION LINE	.....
QUARTER LINE	.....
SIXTEENTH LINE	.....
RIGHT OF WAY LINE	.....
SLOPE EASEMENT	.....
PRESENT RIGHT OF WAY LINE	.....
CONTROL OF ACCESS LINE	.....
PROPERTY LINES	.....
VACATED PLATTED PROPERTY	.....

CORPORATE HIGHWAY CENTER LINE	.....
TRUNK HIGHWAY CENTER LINE	.....
RETAINING WALL	.....
RAILROAD	.....
RAILROAD RIGHT OF WAY LINE	.....
RIVER OR CREEK	.....
DRY RUN	.....
DRAINAGE DITCH	.....
DRAIN TILE	.....
CULVERT	.....
DROP INLET	.....
GUARD RAIL	.....
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	.....
SPRINGS	.....
MARSH	.....

TIMBER ORCHARD	.....
BRUSH	.....
NURSERY	.....
CATCH BASIN	.....
FIRE HYDRANT	.....
CATTLE GUARD	.....

OVERPASS (HIGHWAY OVER)	.....
UNDERPASS (HIGHWAY UNDER)	.....
BRIDGE	.....

BUILDING (ONE STORY FRAME)	.....
F - FRAME	C - CONCRETE
S - STONE	T - TILE
B - BRICK	ST - STUCCO
IRON PIPE OR ROD	.....
MONUMENT (STONE, CONCRETE, OR METAL)	.....
WOODEN HUB	.....
GRAVEL PIT	.....
SAND PIT	.....
BORROW PIT	.....
ROCK QUARRY	.....

UTILITIES SYMBOLS

POWER POLE LINE	.....
TELEPHONE POLE LINE	.....
JOINT TELEPHONE AND POWER ON POWER POLES	.....
ON TELEPHONE POLES	.....
ANCHOR	.....
STEEL TOWER	.....
STREET LIGHT	.....
PEDESTAL	.....
GAS MAIN	.....
WATER MAIN	.....
CONDUIT	.....
TELEPHONE CABLE IN CONDUIT	.....
ELECTRIC CABLE IN CONDUIT	.....
TELEPHONE MANHOLE	.....
ELECTRIC MANHOLE	.....
BURIED TELEPHONE CABLE	T-BUR
BURIED ELECTRIC CABLE	P-BUR
AERIAL TELEPHONE CABLE	T-AE
SEWER (SANITARY OR STORM)	.....
SEWER MANHOLE	.....

SCALES

PLAN	0 100' 100'
PROFILE	0 20' VERT. 20' 0 100' HORZ.
CROSS-SECTION	0 30' 30'

INDEX MAP N.T.S.

MINNESOTA DEPARTMENT OF TRANSPORTATION

LYON COUNTY

CONSTRUCTION PLAN FOR:

GRADING, AGGREGATE BASE, BITUMINOUS SURFACING & AGGREGATE SHOULDERING

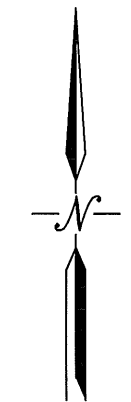
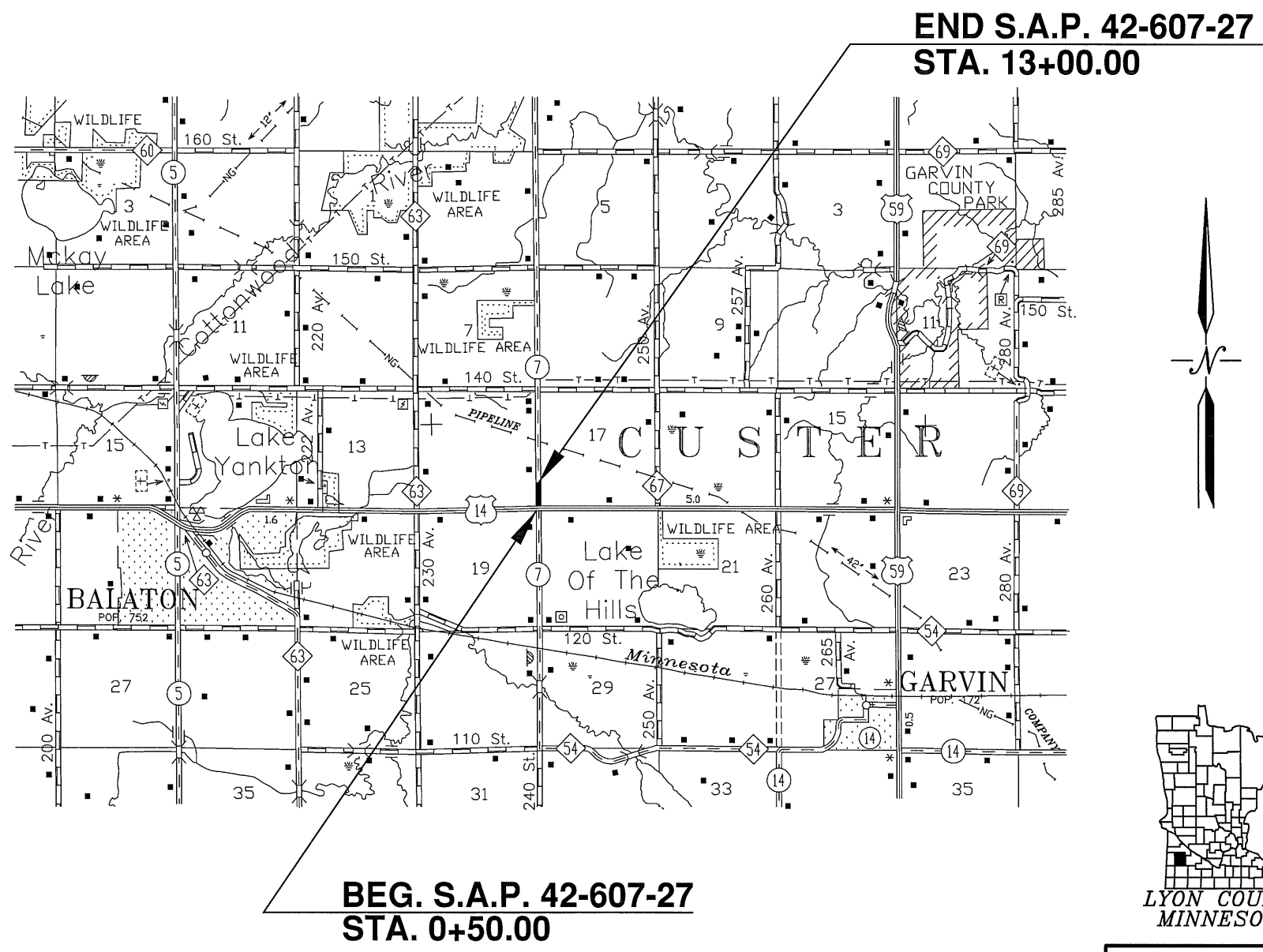
LOCATED ON: CSAH 7 BETWEEN: U.S. 14 AND: 140th ST. (2.0 MILES EAST OF BALATON)
(Geographical Description)

FROM: THE NE COR. SEC 19 T109N-R41W

TO: A PT. 1300.00' NORTH OF THE NE COR. SEC. 19 T109N-R41W
(Legal Description)

STATE AID PROJECT NO.: 42-607-27

GROSS LENGTH:	1250.00	FEET	0.237	MILES
BRIDGES-LENGTH:		FEET		MILES
EXCEPTIONS-LENGTH:		FEET		MILES
NET LENGTH:	1250.00	FEET	0.237	MILES



MINN. PROJ. NO.
GOVERNING SPECIFICATIONS
THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATION FOR CONSTRUCTION" SHALL GOVERN.

INDEX

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	ESTIMATED QUANTITIES
SHEET NO. 3	CONSTRUCTION NOTES
SHEET NO. 4	TYPICAL SECTIONS
SHEET NO. 5	DETOUR SIGNING
SHEET NO. 6	SWPPP
SHEET NO. 7	PLAN AND PROFILE
SHEET NO. 8-9	CROSS SECTIONS

THIS PLAN CONTAINS 9 SHEETS

DESIGN DESIGNATION

PROJ. SOIL FACTOR =	100%
ADT (BASE YEAR) 2013 =	906
ADT (20-YEAR) 2033 =	1087
DESIGN LOADING =	9 TON
SHOULDER WIDTH:	6.0'

OR

FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR
NO. OF TRAFFIC LANES: 2 NO. OF PARKING LANES: 0

DESIGN SPEED: 55 MPH
BASED ON STOPPING SIGHT DISTANCE:
HEIGHT OF EYE: 3.5' HEIGHT OF OBJECT: 2.0'
DESIGN SPEED NOT ACHIEVED AT:

STA TO STA MPH

SIGNATURE: *Aaron VanMoer* TYPED OR PRINTED NAME: Aaron VanMoer

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.

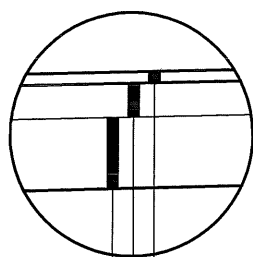
DATE: *1/16/13* LICENSE NUMBER: 50428

SIGNATURE: *Suhail Kanwar* TYPED OR PRINTED NAME: Suhail Kanwar
APPROVED: LYON COUNTY ENGINEER

STATE AID APPROVALS:
Malvin Olevs DATE: *1-17-13*
DISTRICT STATE-AID ENGINEER:
REVIEWED FOR COMPLIANCE WITH STATE-AID RULES/POLICY

Malvin Olevs DATE: *1-17-13*
STATE-AID ENGINEER:
APPROVED FOR STATE AID FUNDING

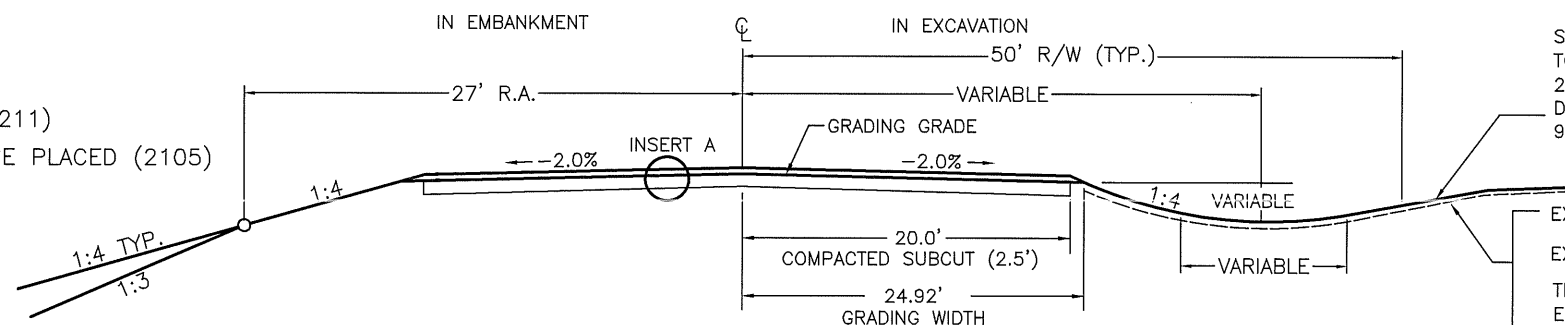
INSERT A
TYP. BOTH SIDES
TYP. ALL GRADING SECTIONS



3" AGGREGATE BASE CL.5M (2211)
12" SALVAGED AGGREGATE BASE PLACED (2105)
2.5' COMPACTED SUBCUT

TYPICAL GRADING SECTION

NOT TO SCALE
STA. 0+50.00 TO STA. 13+00.00



SALVAGE THE TOPSOIL FROM CONSTRUCTION LIMITS. PAYMENT FOR TOPSOIL SALVAGE IS TO BE INCLUDED IN BID PRICE FOR ITEM 2105.501 - "COMMON EXCAVATION." SPREAD TOPSOIL TO A MINIMUM DEPTH OF 3" OVER THE AREAS WITHIN THE RIGHT OF WAY LIMITS AND 9" (MIN.) OVER THE AREAS OUTSIDE THE RIGHT OF WAY LIMITS.

EXCAVATE TO BROKEN LINE
EXCAVATION COMPUTED TO SOLID LINE.
THE DITCH BOTTOMS, TOE OF FILLS, CUT RUNOFFS AND THE TOP EDGE OF THE BACKSLOPES SHALL BE ROUNDED AS SHOWN ON THE TYPICAL SECTION REGARDLESS OF THE SECTION USED ON THE CROSS SECTION SHEETS.

NOTES:

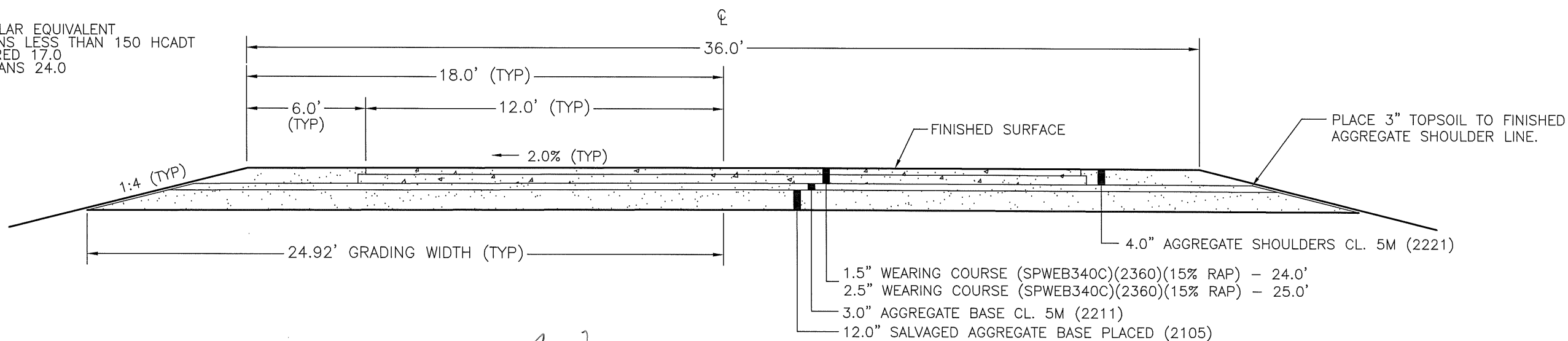
1. COMPACT 2.5'x40.0' SUBCUT AS SHOWN ON PLAN AND PROFILE SHEETS. BACKFILL SUBCUT WITH SUITABLE MATERIALS FROM ADJACENT CUTS.
2. TEST ROLLING SHALL BE REQUIRED 18.0' EITHER SIDE OF CENTERLINE.
3. ALL CONSTRUCTION WILL BE COVERED BY RIGHT OF WAY OR EASEMENTS.
4. SLOPE MAY VARY, PLEASE REFER TO CROSS-SECTIONS FOR DETAILS.

INPLACE SURFACE:
AVG. 4.0" BITUMINOUS WEAR COURSE
AVG. 13.0" AGGREGATE BASE CL. 5

FINISHED BITUMINOUS SURFACE SECTION

STA. 0+50.00 TO STA. 13+00.00

GRANULAR EQUIVALENT
10 TONS LESS THAN 150 HCADT
REQUIRED 17.0
ON PLANS 24.0

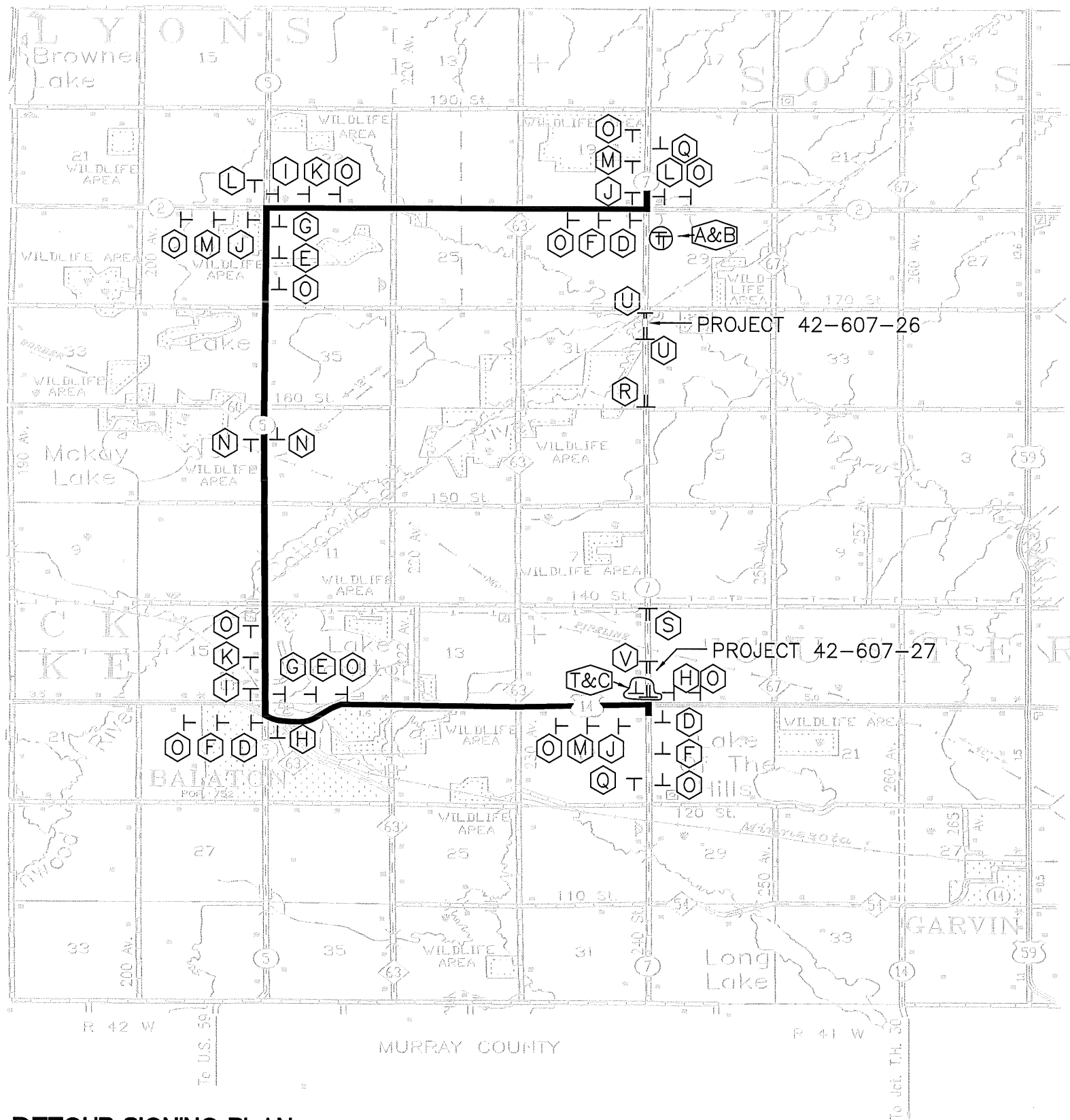


CERTIFIED BY *[Signature]*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 50428 DATE 1/16/13

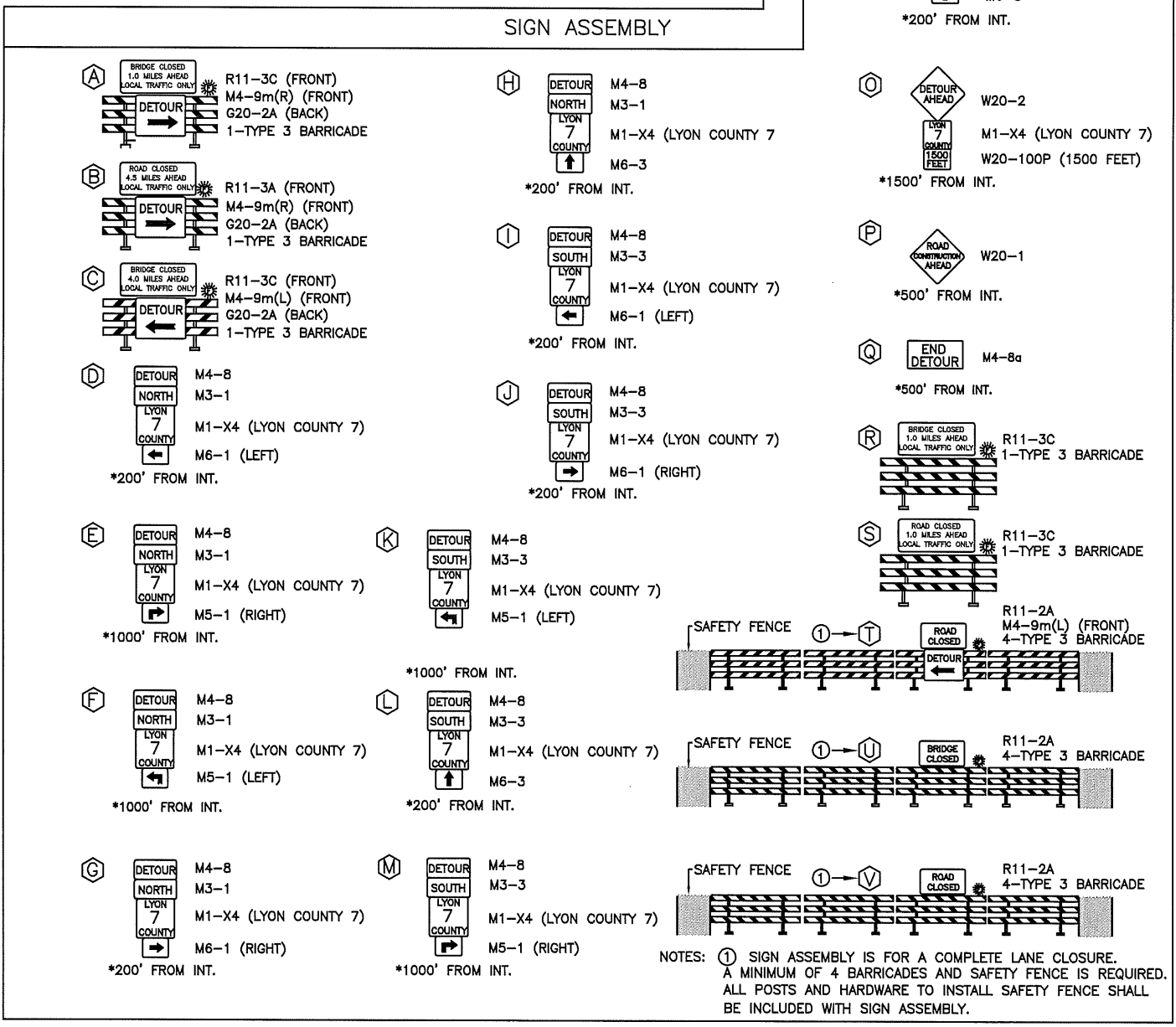
TYPICAL GRADING SECTIONS
STATE AID PROJECT NO. 42-607-27

SHEET 4 OF 9 SHEETS



SIGN TABLE					
SIGN	SIGN NO.	QUANTITY	SIZE	COLOR	FLASHERS
	TYPE III BARRICADE	21	60"x48"	ORANGE ON WHITE	9
	W20-2	12	36"x36"	BLACK ON ORANGE	
	W20-100P	12	30"x24"	BLACK ON ORANGE	
	W20-1	0	36"x36"	BLACK ON ORANGE	
	R11-2	2	48"x30"	BLACK ON WHITE	
	R11-2A	2	48"x30"	BLACK ON WHITE	
	R11-3A	1	60"x30"	BLACK ON WHITE	
	R11-3A	1	60"x30"	BLACK ON WHITE	
	R11-3C	2	60"x30"	BLACK ON WHITE	
	R11-3C	1	60"x30"	BLACK ON WHITE	
	M4-8	26	24"x12"	BLACK ON ORANGE	

	M4-8A	2	24"x18"	BLACK ON ORANGE	
	M3-1	12	24"x12"	BLACK ON WHITE	
	M3-3	12	24"x12"	BLACK ON WHITE	
	M1-X4	38	24"x24"	BLACK ON WHITE	
	M4-9m(L)	2	30"x24"	BLACK ON ORANGE	
	M4-9m(R)	2	30"x24"	BLACK ON ORANGE	
	M6-3	6	21"x15"	BLACK ON WHITE	
	M6-1 RT.	5	21"x15"	BLACK ON WHITE	
	M6-1 LT.	5	21"x15"	BLACK ON WHITE	
	M5-1 RT.	5	21"x15"	BLACK ON WHITE	
	M5-1 LT.	5	21"x15"	BLACK ON WHITE	
	G20-2A	3	60"x24"	BLACK ON ORANGE	



DETOUR SIGNING PLAN

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MnMUTCD, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

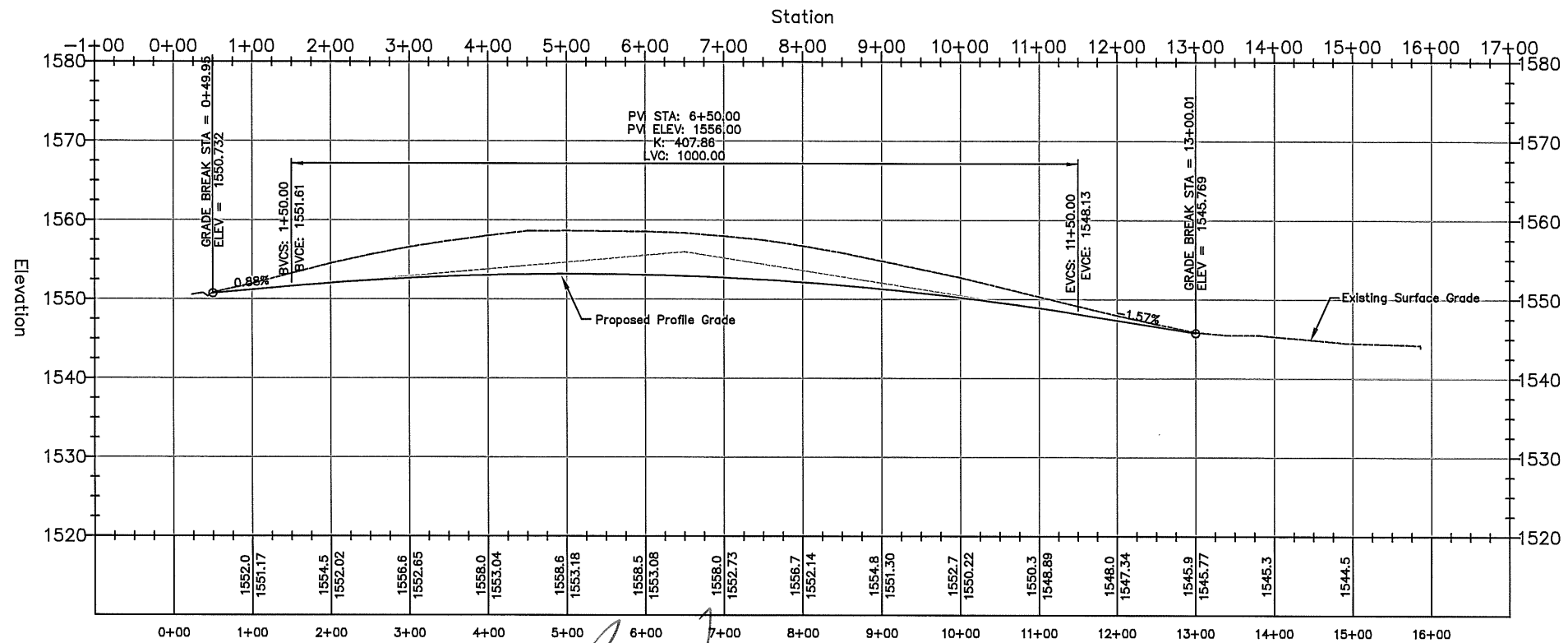
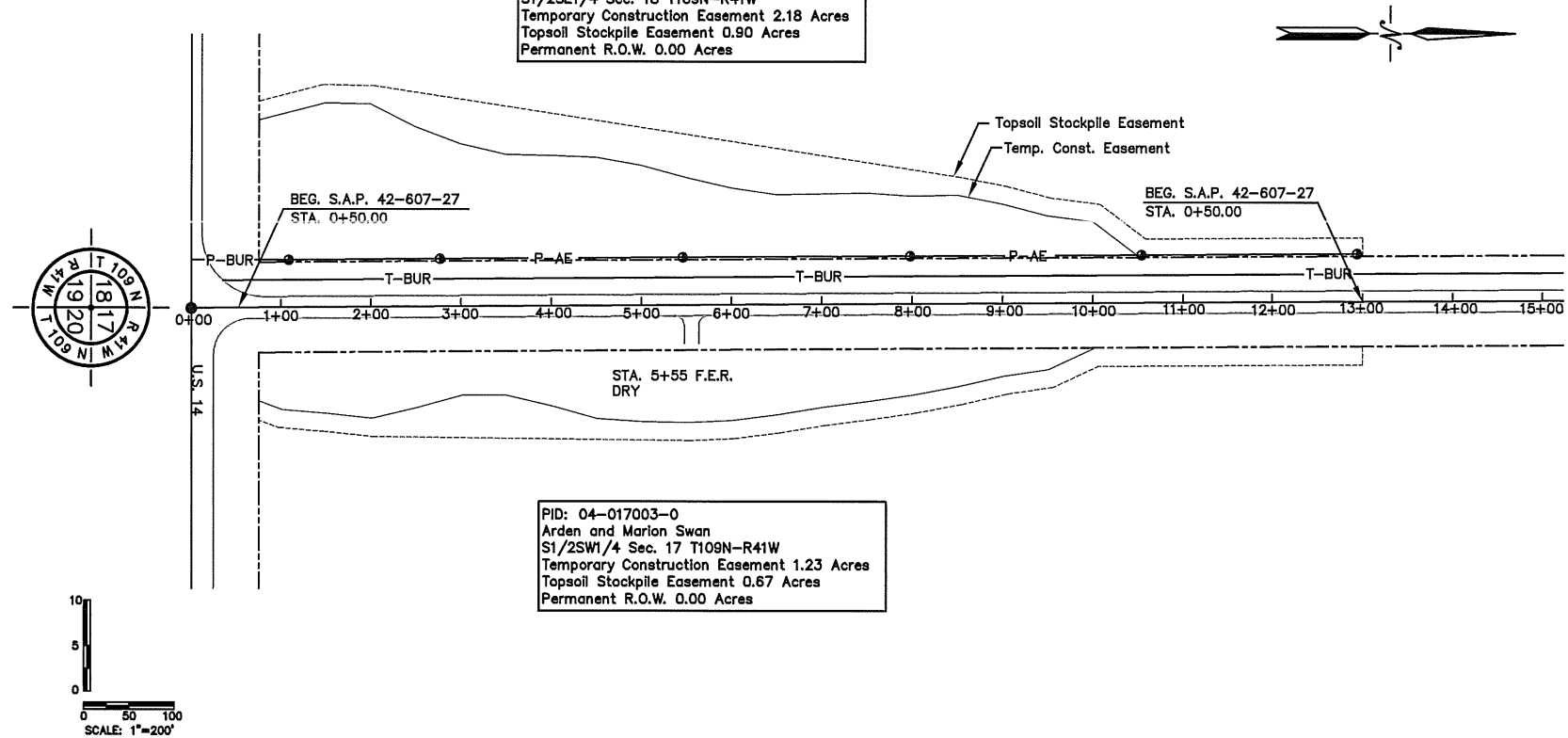
ALL NECESSARY TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CERTIFIED BY *[Signature]* LIC. NO. 50428 DATE 5/10/13

DETOUR SIGNING
STATE AID PROJECT NO. 42-607-26 (C.S.A.H. 7)
STATE AID PROJECT NO. 42-607-27 (C.S.A.H. 7)

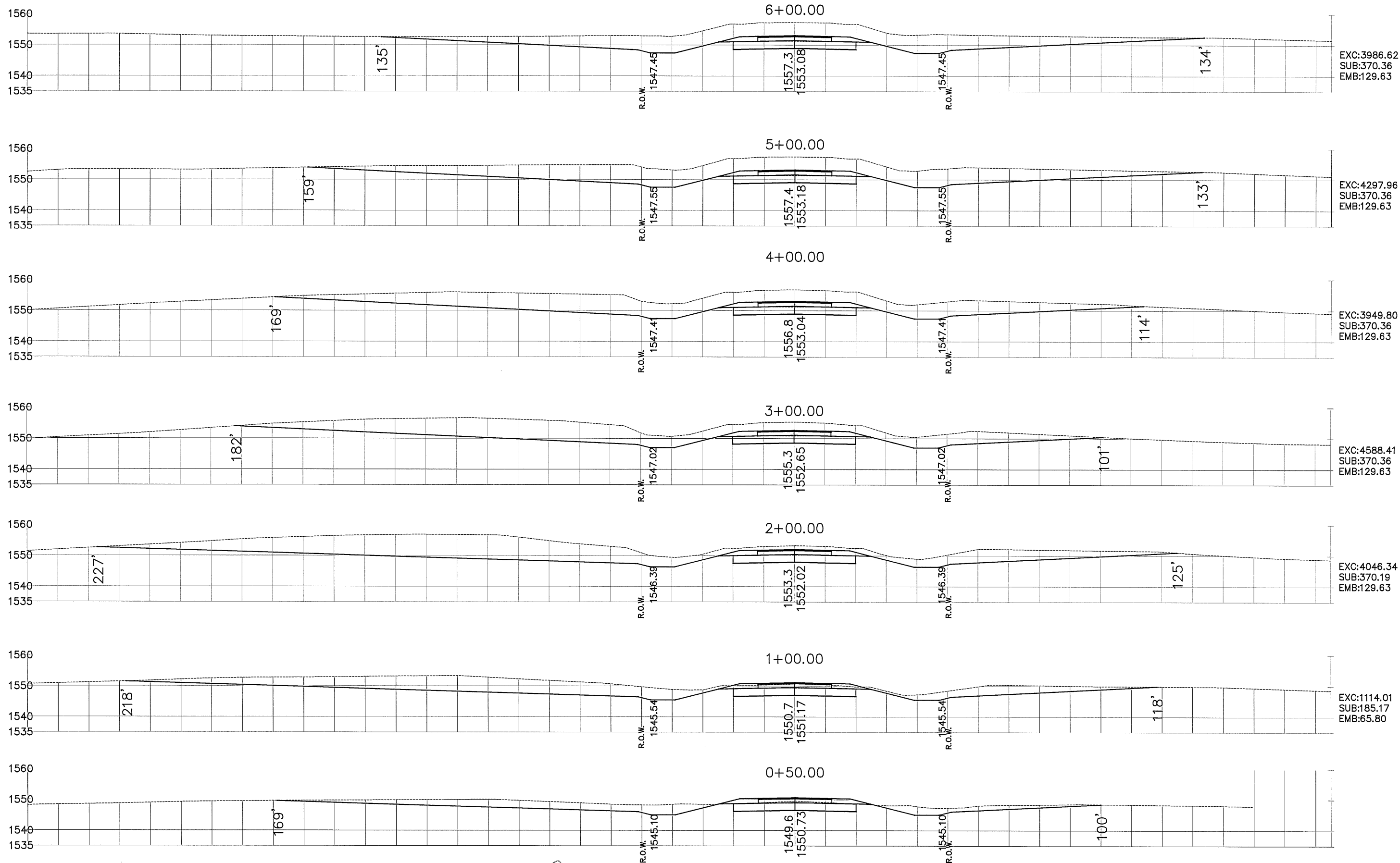
PID: 04-018001-0
 Gary and Carol Mitzner
 S1/2SE1/4 Sec. 18 T109N-R41W
 Temporary Construction Easement 2.18 Acres
 Topsoil Stockpile Easement 0.90 Acres
 Permanent R.O.W. 0.00 Acres

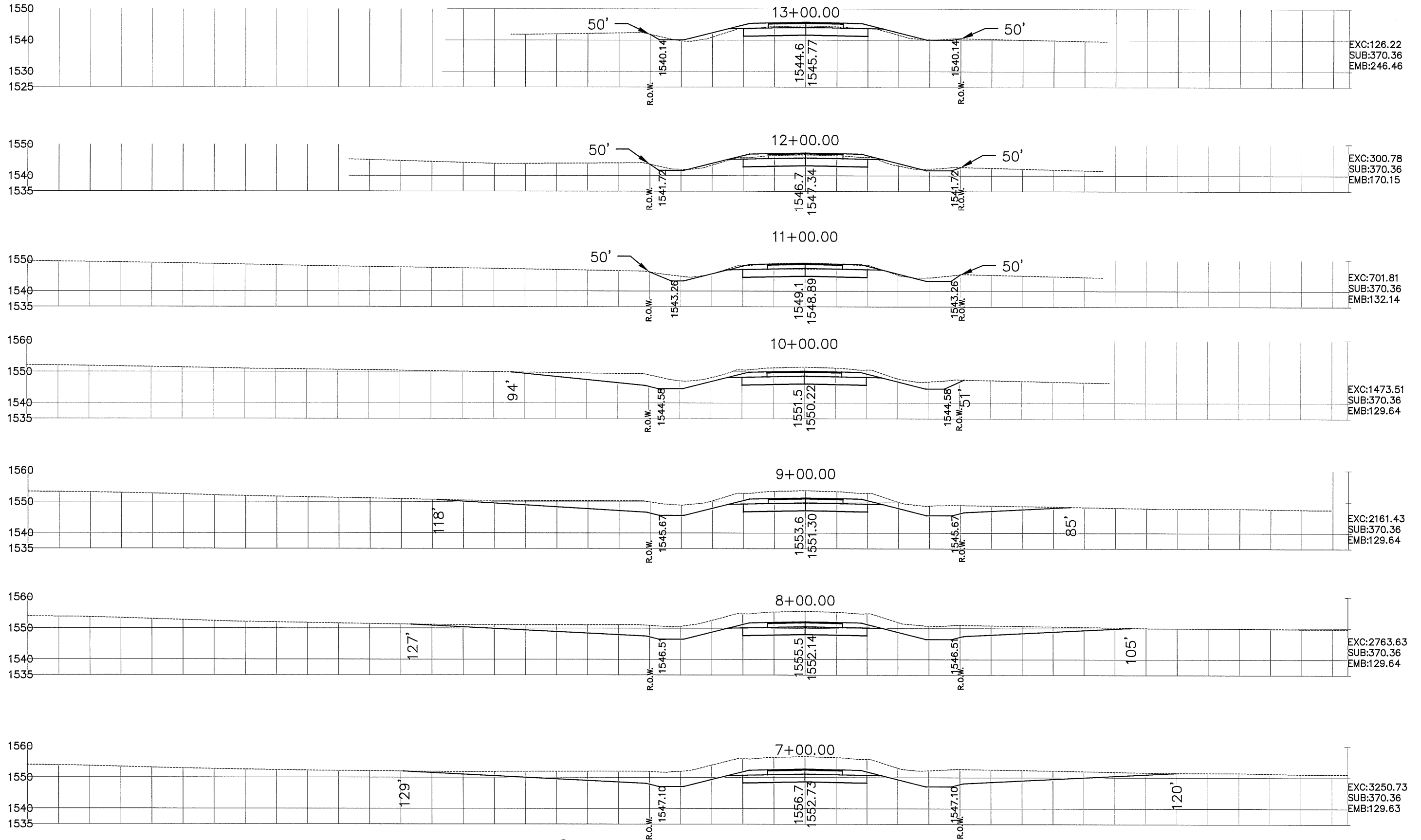
PID: 04-017003-0
 Arden and Marion Swan
 S1/2SW1/4 Sec. 17 T109N-R41W
 Temporary Construction Easement 1.23 Acres
 Topsoil Stockpile Easement 0.67 Acres
 Permanent R.O.W. 0.00 Acres



CERTIFIED BY [Signature] LIC. NO.: 50428 DATE: 1/16/13
 LICENSED PROFESSIONAL ENGINEER

PLAN AND PROFILE
 STATE AID PROJECT 42-607-27 SHEET 7 OF 9 SHEETS





ALL CONSTRUCTION COVERED BY RIGHT OF WAY OR EASEMENTS.

CERTIFIED BY:

Alan Van Meter
 LICENSED PROFESSIONAL ENGINEER

LIC. NO.: 50428

DATE: 1/10/13

CROSS SECTIONS

STATE AID PROJECT 42-607-27

SHEET 9 OF 9 SHEETS