

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING & BASE

County Highway No. 85

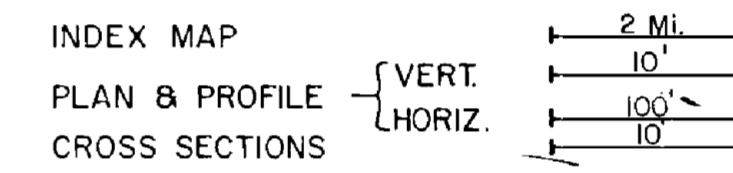
Between CSAH 26 And CR 76
A PT. 1,314.59' S. OF THE NE. CORNER OF SEC. 5, A PT. 816.74' E. OF THE W. 1/4 CORNER OF
From T.33 N., R.22 W. To SEC. 28, T.34 N., R.22 W.
Give proper reference to Sections, Township and Range

GROSS LENGTH 9,925.840 FEET 1,880 MILES
BRIDGES LENGTH FEET MILES
EXCEPTIONS-LENGTH FEET MILES
NET LENGTH 9,925.840 FEET 1,880 MILES

INDEX OF SHEETS

Sheet No. 1	Title Sheet & Layout Map
No. 2	Est. Quantities
No. 3	Typical Sections
No. 4-7	Plan & Profile
No. 8-9	Superelevation
No. 10-23	Cross Sections

SCALE



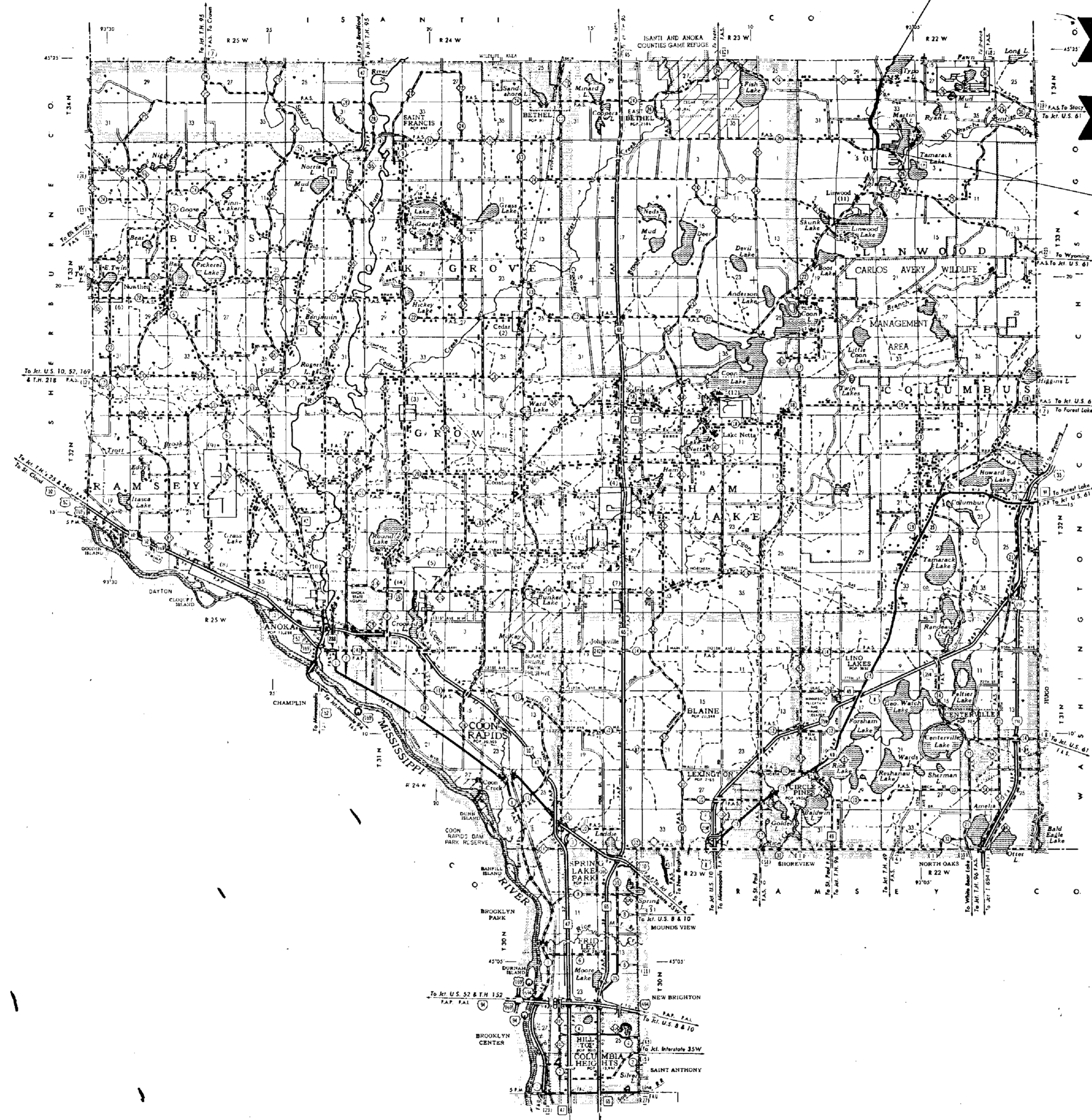
END PROJECT CP 79-26-85
STA. 226+97

POT 206+98.77
LOR P.O.T. 206+89.03 =

LOR 199+22.02
LOR 128+01.66 =

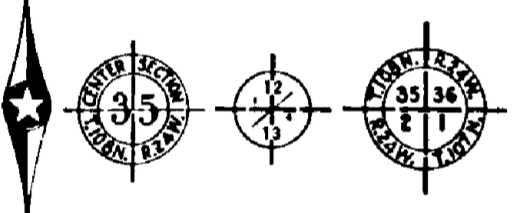
PT 104+67.19
LOR P.O.T. 104+73.13 =

BEGIN PROJECT CP 79-26-85
STA. 56+47



CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Under Inclosed Platted Property)
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- REARVIEW WALL
- RAILROAD
- RAILROAD RIGHT OF WAY LINE
- RIVER OR CREEK
- DRY RUN
- DRAINAGE DITCH
- ELECTRIC POWER LINE
- TELEPHONE OR TELEGRAPH LINE
- JOINT TELEPHONE AND POWER
- CONDUIT
- TELEPHONE CABLE-AERIAL
- TELEPHONE CABLE UNDERGROUND
- POWER CABLE UNDERGROUND
- GAS MAIN
- COULVERT
- PROF. INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOODEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- WATER PIPE
- SINKER PIPE
- DRAIN TILE
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERIES
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT
- STREET LIGHT
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- 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
- MEANDER CORNER



DESIGN DESIGNATION

ADT (CURRENT YEAR) 782
ADT (FUTURE YEAR) 1,250
T (HEAVY COMMERCIAL) LESS THAN 150
9 Ton Design, Soil Factor 50%
Design Speed 55 MPH
Design Speed not achieved at:
STA. 69+35 TO STA. 73+51 MPH 50
STA. 91+98 TO STA. 111+98 MPH 50
STA. 223+00 TO STA. 225+84 MPH 35

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 1963 EDITION, SHALL GOVERN

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

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.

Paul K. Lund DATE 4/20/85
COUNTY ENGINEER

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL _____ 19____
DISTRICT ENGINEER

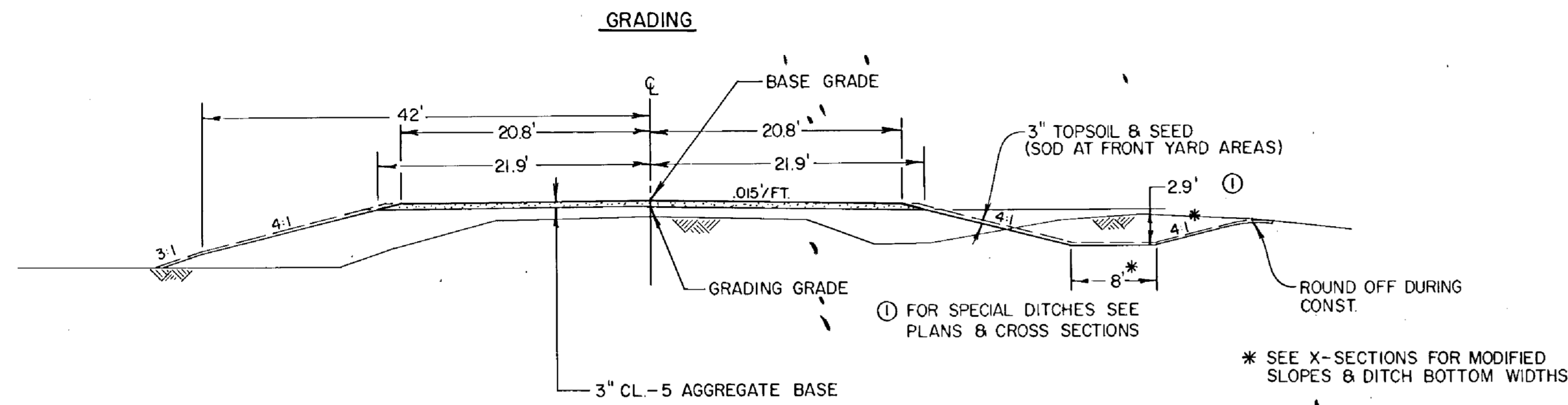
RECOMMENDED FOR APPROVAL _____ 19____

APPROVED _____ 19____
STATE AID ENGINEER

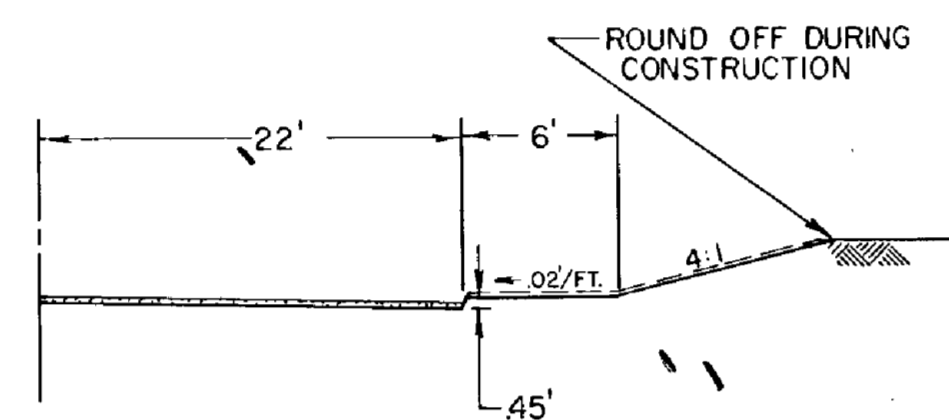
Minn. Proj. No. _____ County Proj. No. 79-26-85
State Proj. No. _____ S.A.P.

ALL DIMENSIONS NOMINAL

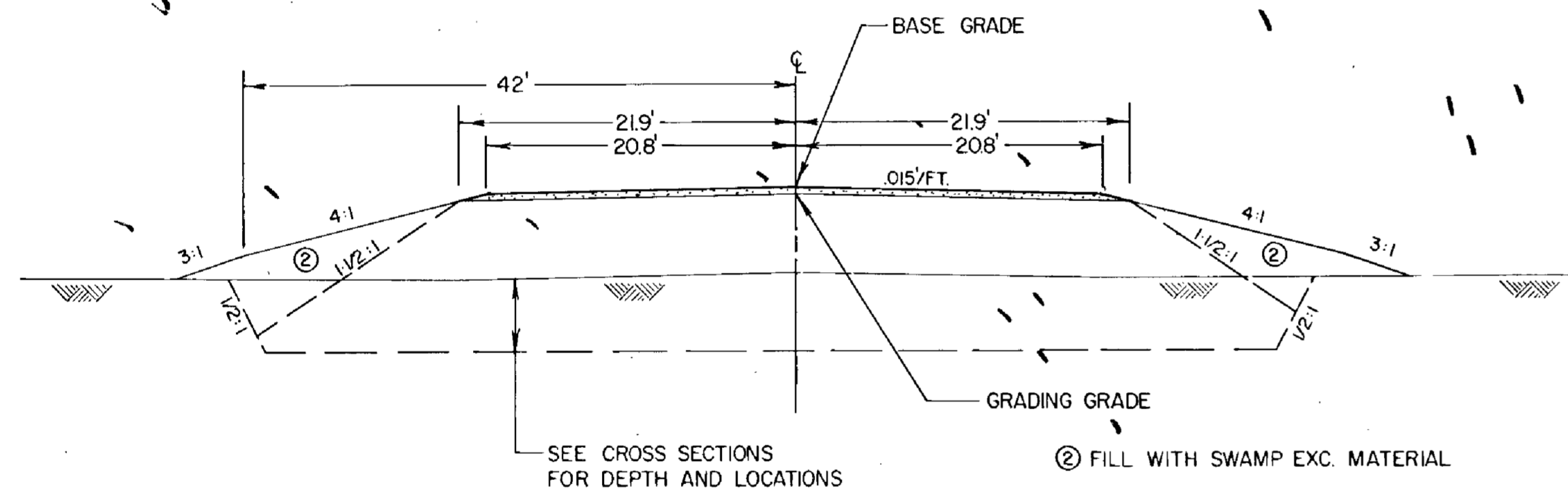
TYPICAL SECTIONS



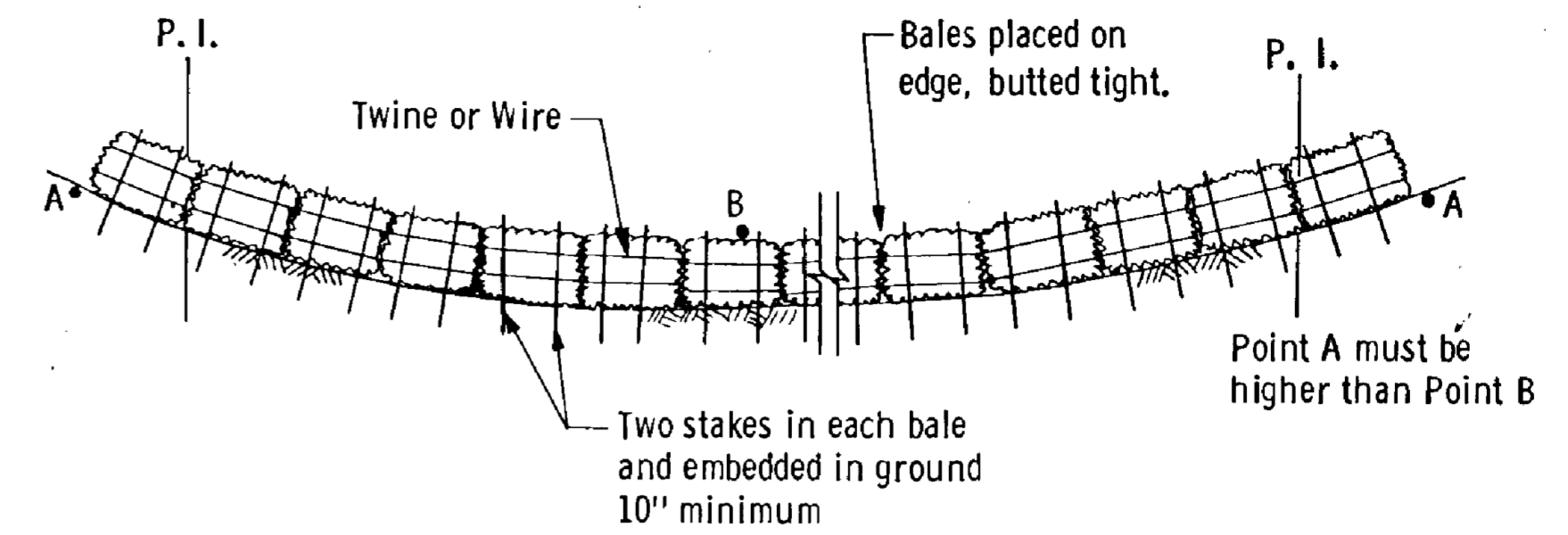
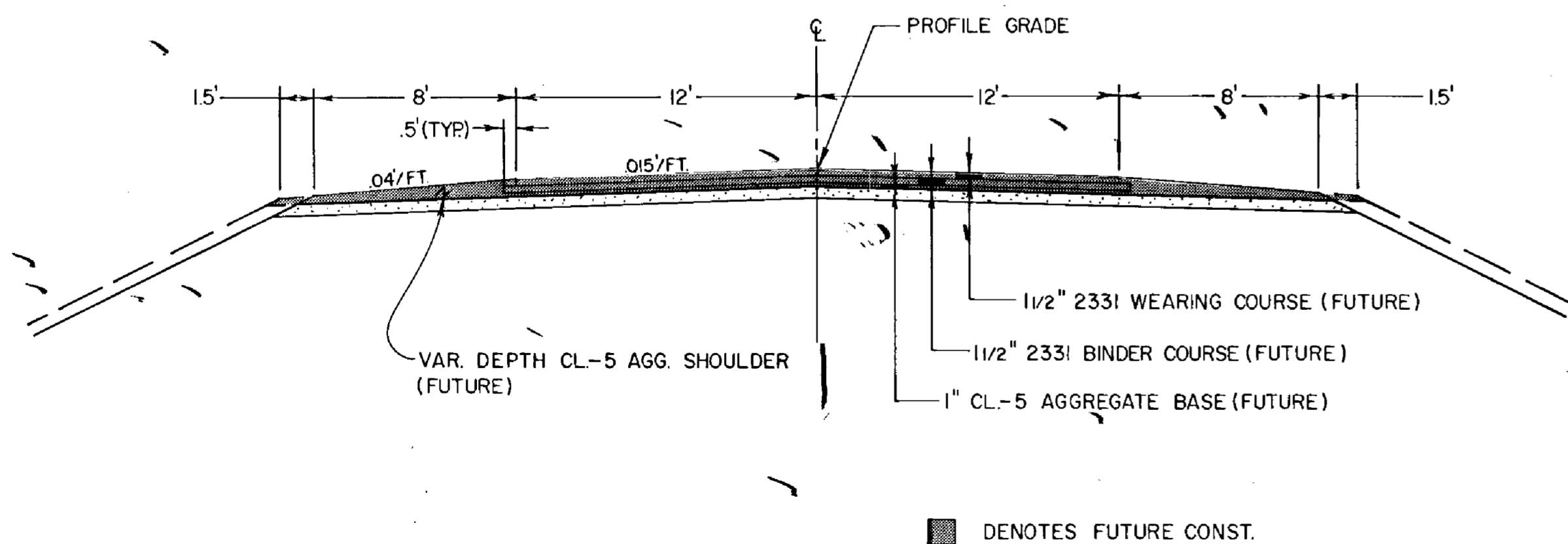
BERM SECTION



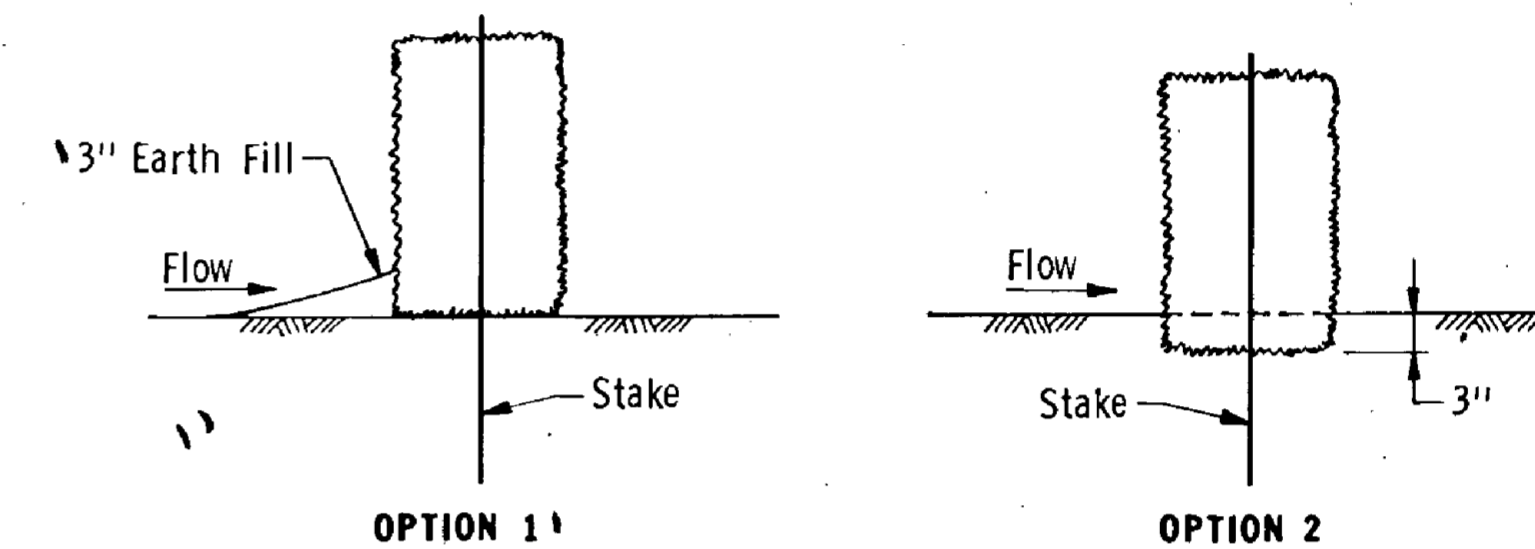
MUCK EXCAVATION



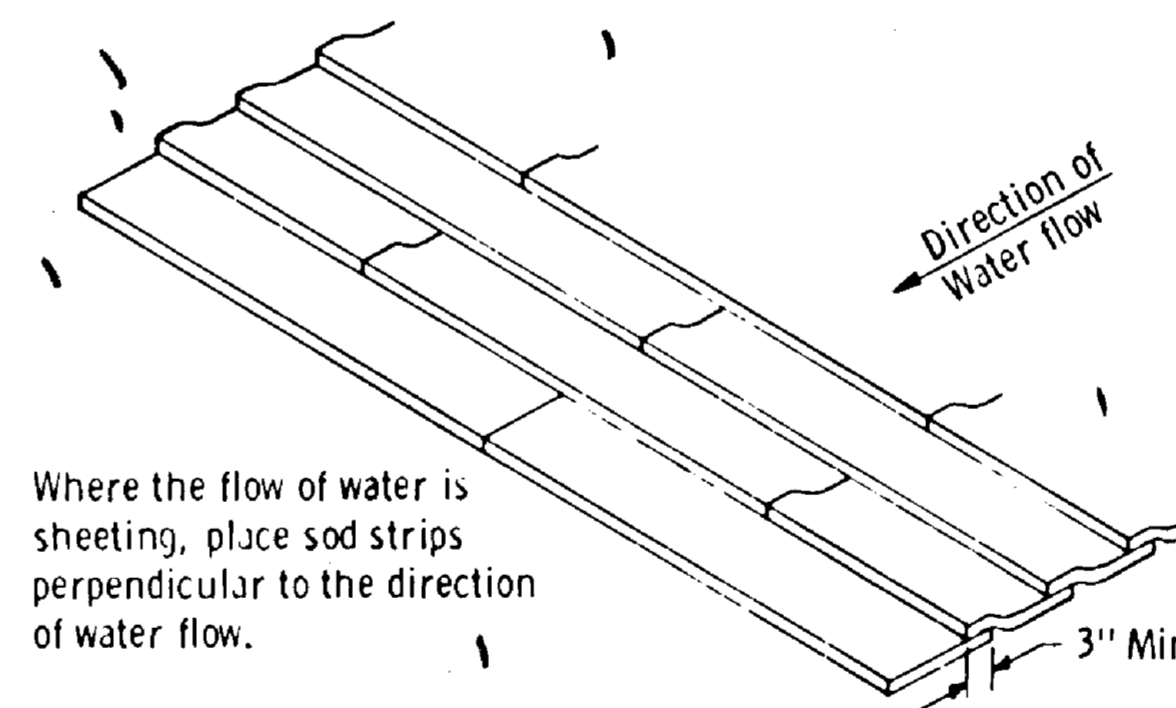
FUTURE BITUMINOUS SECTION



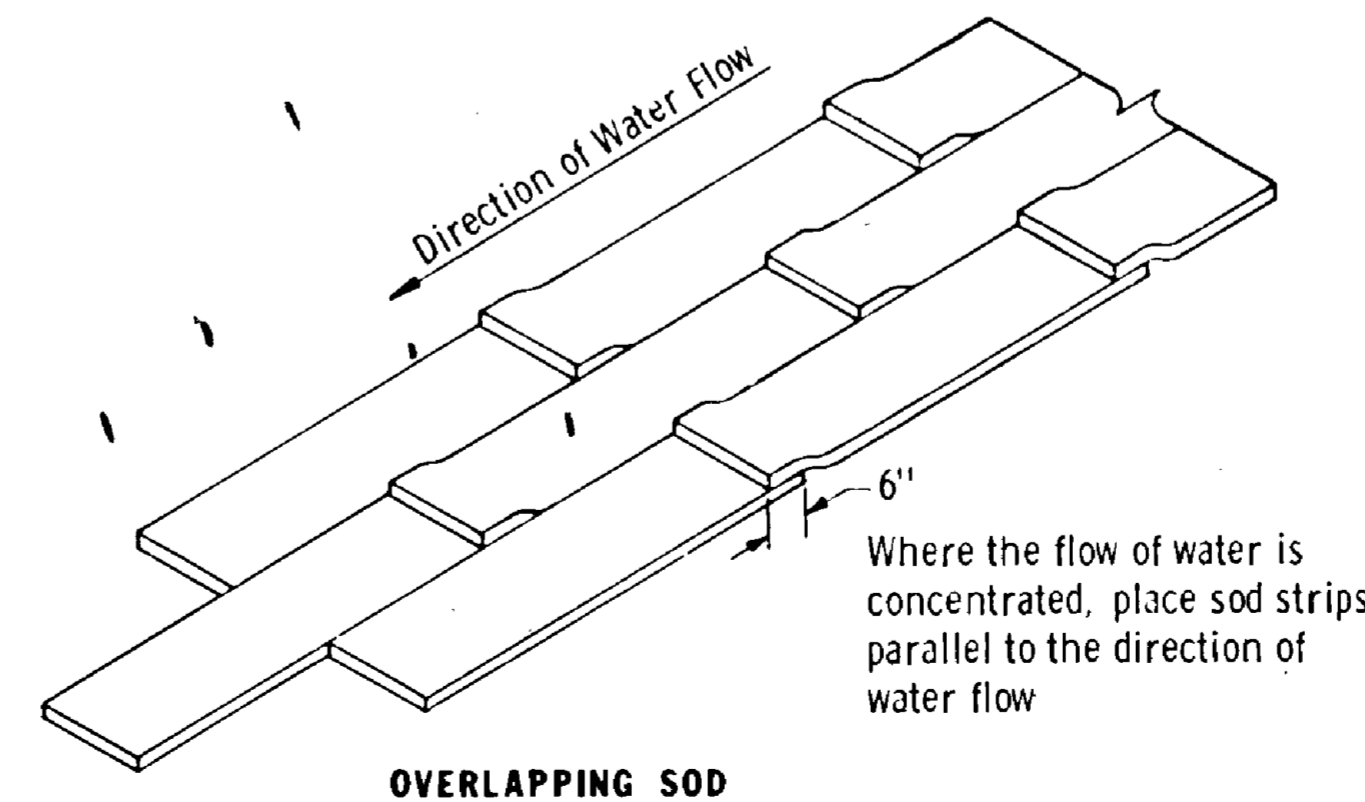
BALE HAY OR STRAW DITCH CHECK



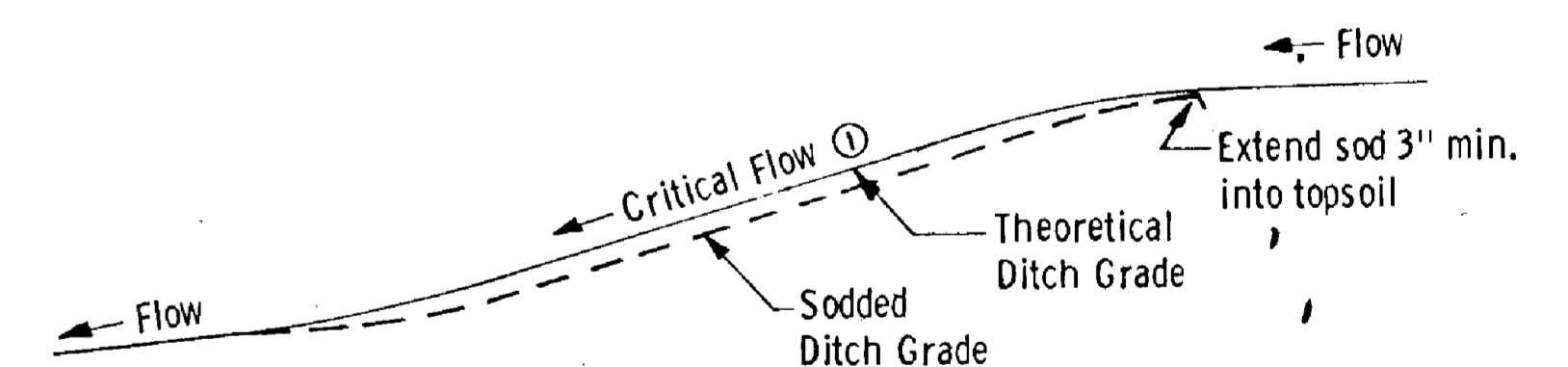
DITCH CHECK SECTIONS



SHINGLING SOD



OVERLAPPING SOD

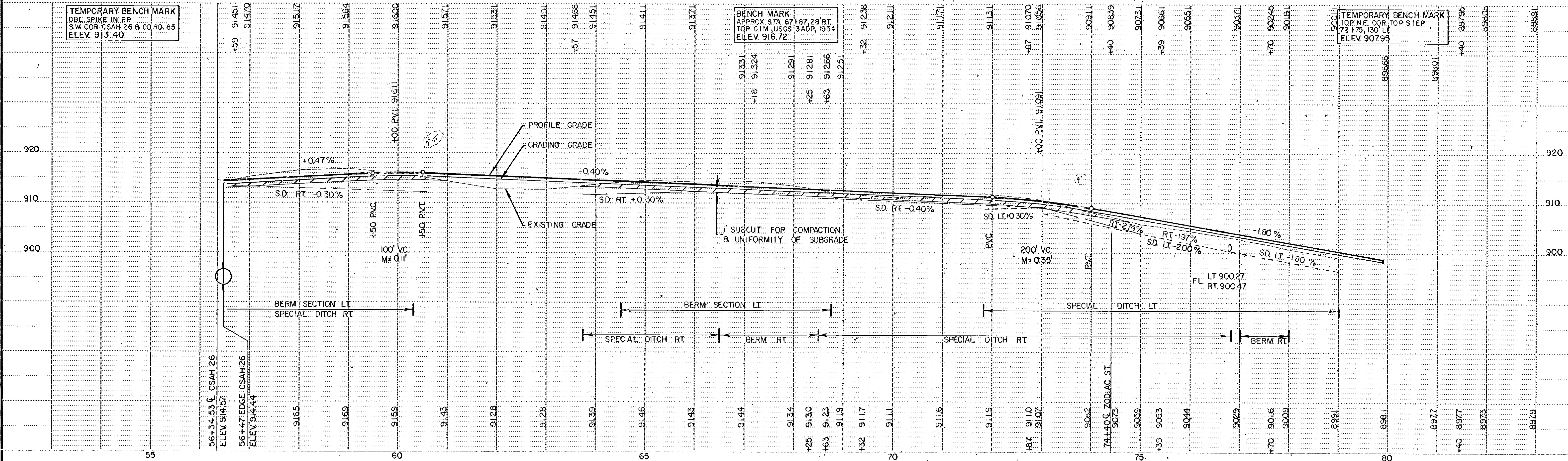
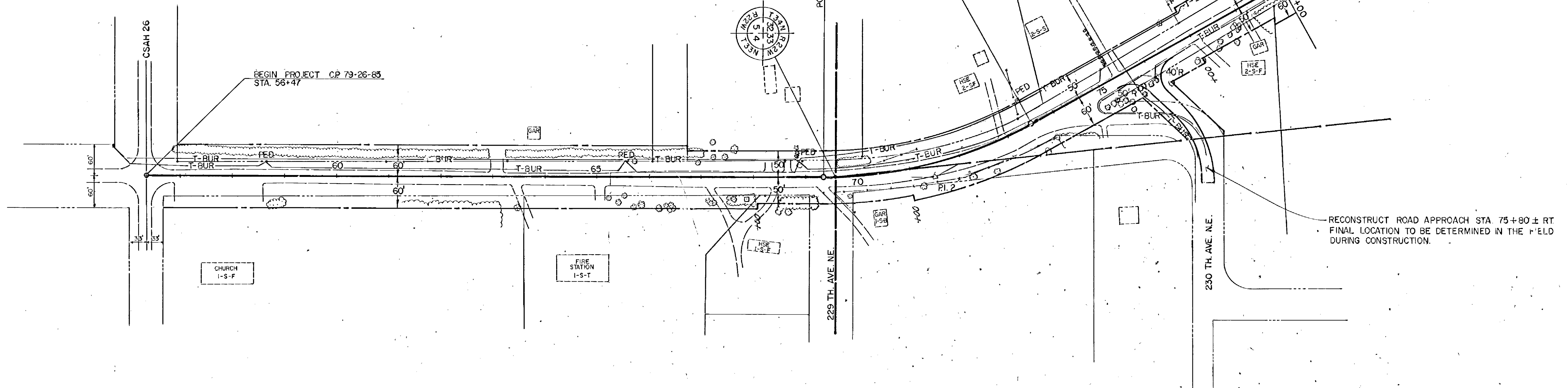
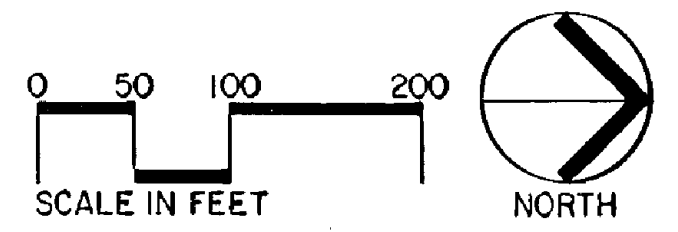


DITCH PROFILE

① 2.0% GRADE OR GREATER IN A-3 SOIL.
2.5% GRADE OR GREATER IN A-6 SOIL.

SODDED DITCH DETAILS

PI 71+47.90
 CURVE DATA NO. 2
 $\Delta = 23^{\circ}04' \text{ LT}$
 $D = 178'$
 $P = 818.51'$
 $F = 418.24'$
 $T = 212.19'$
 $e = 50^{\circ}0.060\%$



ORIGINAL SURVEY	DATE	BY	STARTING	DATE	BY	AS BUILT	DATE	BY
FIELD BOOK			FIELD BOOK			FIELD BOOK		

NO.	DATE	BY	DESCRIPTION
REVISIONS			

DESIGNED DRAWN
 CHECKED
 DATE _____ REG NO _____

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.

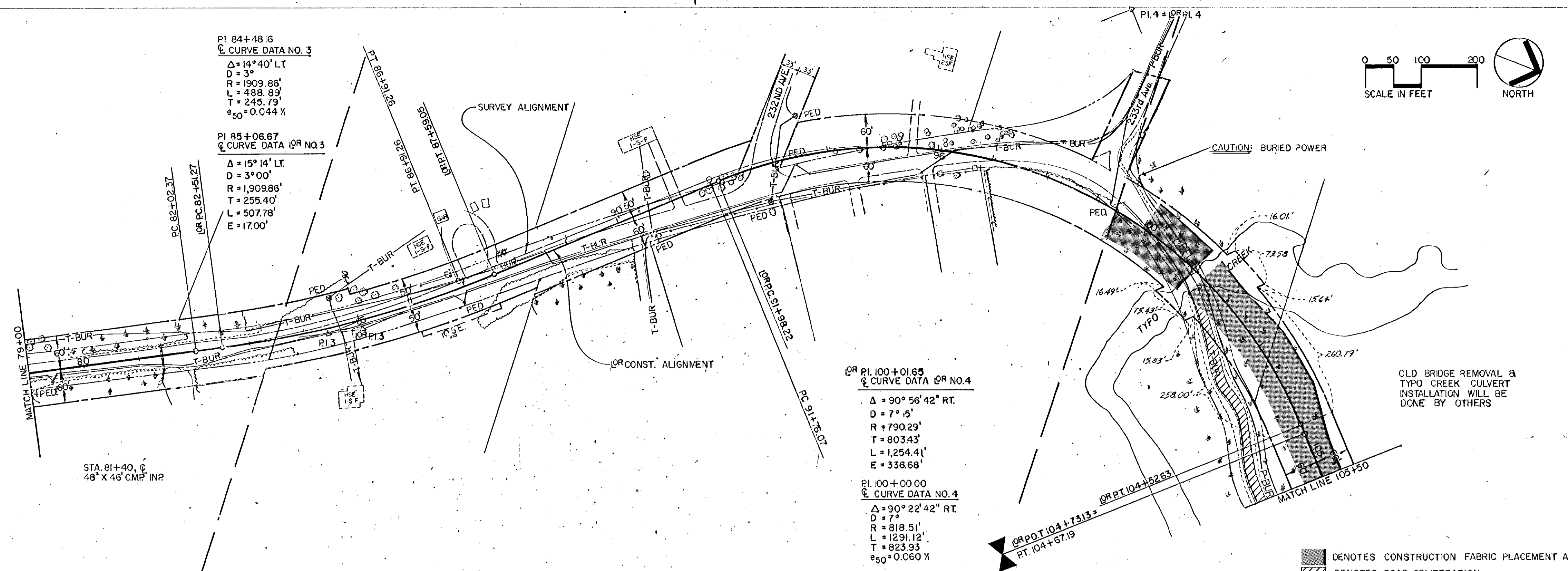
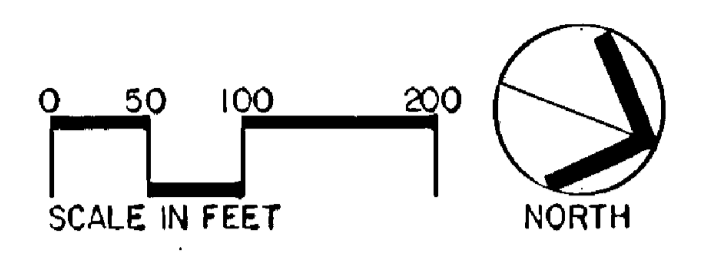
TKDA
 ENGINEERS ARCHITECTS PLANNERS

TOLZ, KING, CUVALL, ANDERSON AND ASSOCIATES, INCORPORATED
 SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
ANOKA COUNTY MINNESOTA

PLAN AND PROFILE
 SHEET NO. 4 OF 23 SHEETS

COMMISSION NO
7737
79-26-85



STA. 81+40, C
48" X 46" CMP INP

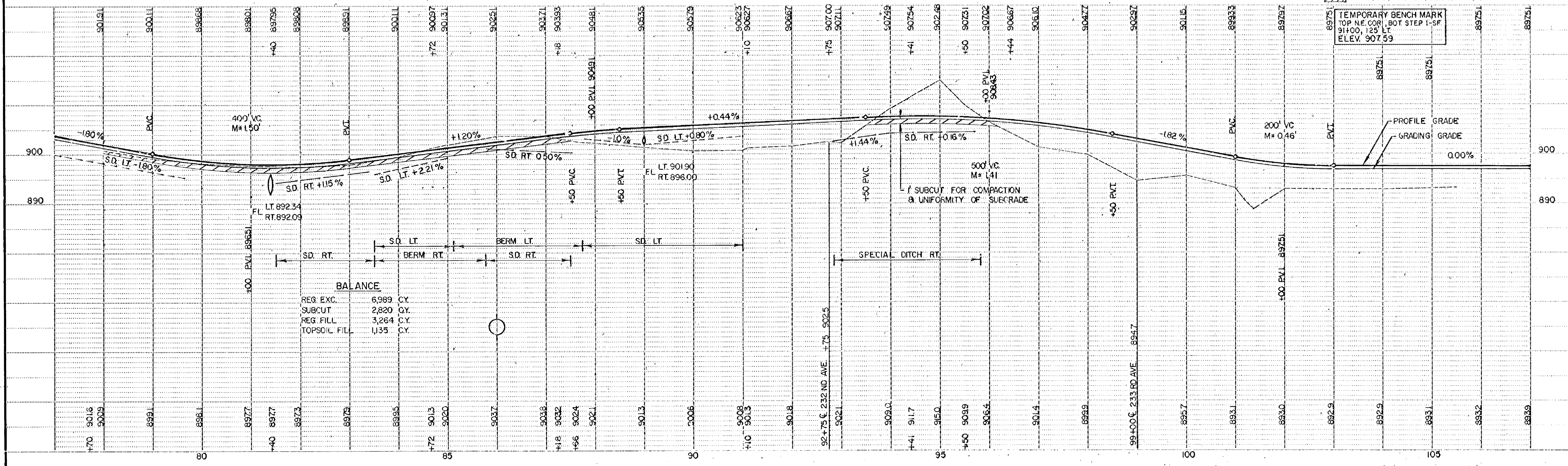
OR PI 100+01.65
CURVE DATA OR NO.4
Δ = 90° 56' 42" RT.
D = 7° 15'
R = 790.29'
T = 803.43'
L = 1,254.41'
E = 338.68'

PI 100+00.00
CURVE DATA NO.4
Δ = 90° 22' 42" RT.
D = 7°
R = 818.51'
T = 1,291.12'
L = 823.93'
E = 0.060%

■ DENOTES CONSTRUCTION FABRIC PLACEMENT AREA
▨ DENOTES ROAD OBLITERATION

TEMPORARY BENCH MARK
TOP NE COR. BOT STEP 1-SF
91+00, 125' LT
ELEV. 907.59

ORIGINAL SURVEY BY DATE FIELD BOOK BY DATE
 STATIONING BY DATE FIELD BOOK BY DATE
 ACTUAL FIELD BOOK BY DATE



BALANCE

REG. EXC.	6,989	CY.
SUBCUT	2,820	CY.
REG. FILL	3,264	CY.
TOPSOIL FILL	1,135	CY.

NO.	DATE	BY	REVISIONS

DESIGNED DRAWN
CHECKED
DATE

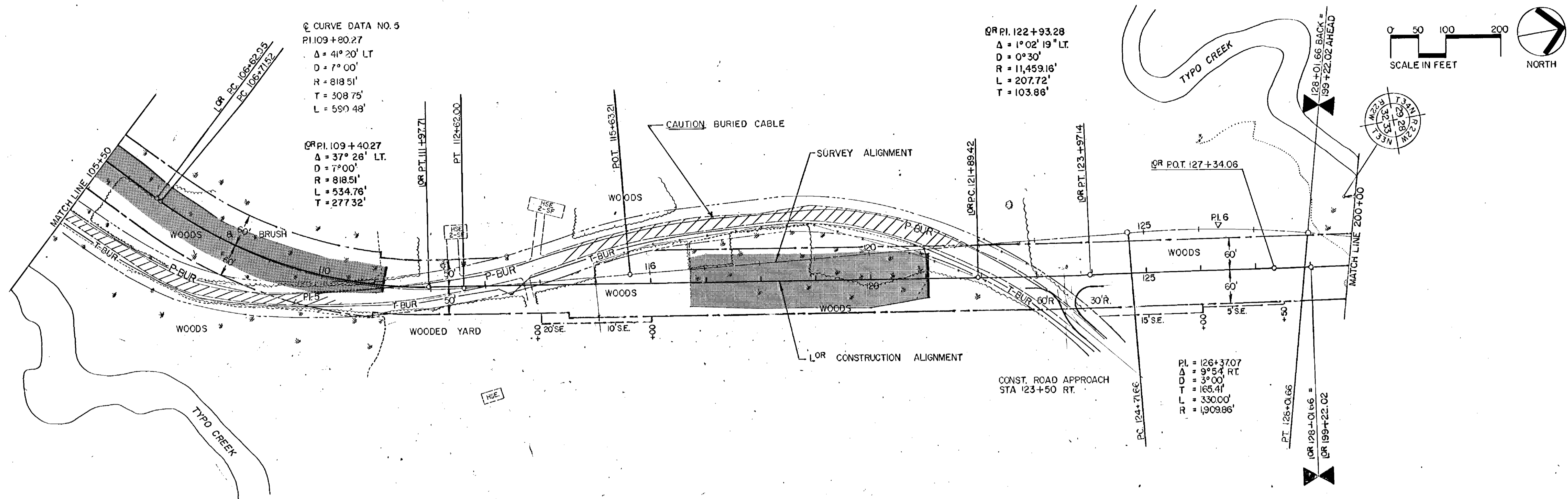
REG. NO.

ENGINEERS ARCHITECTS PLANNERS
 10172 KING, DUWALL, ANDERSON
 AND ASSOCIATES, INCORPORATED
 SAINT PAUL, MINNESOTA

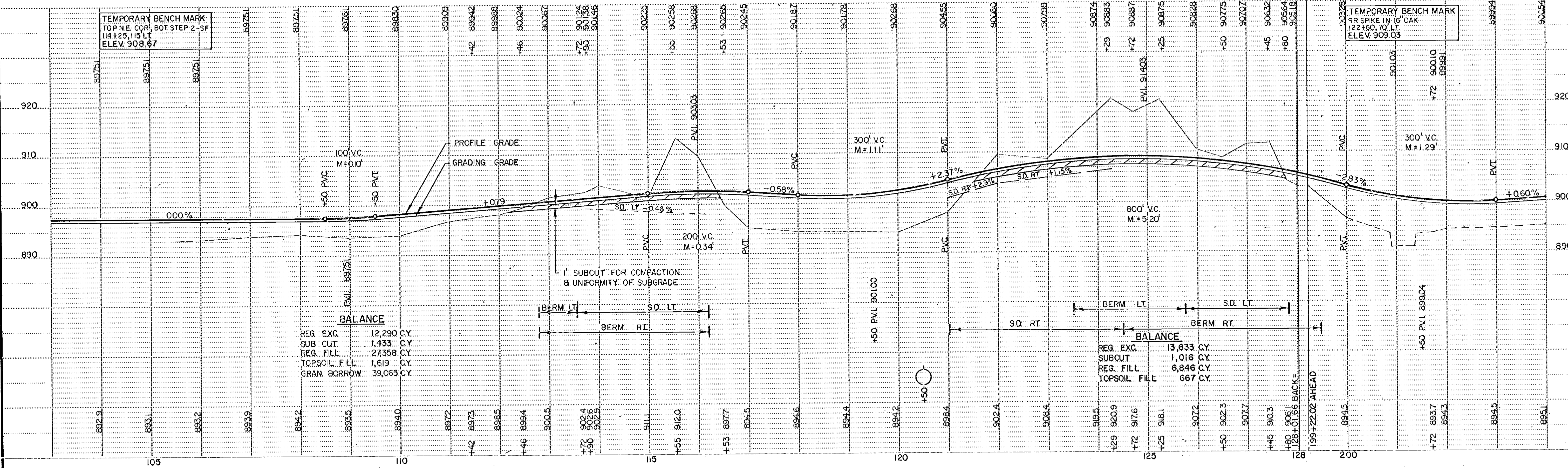
TYPO CREEK DRIVE
ANOKA COUNTY MINNESOTA

PLAN AND PROFILE
 SHEET NO. 5 OF 23 SHEETS

COMMISSION NO.
7737
79-26-85



■ DENOTES CONSTRUCTION FABRIC PLACEMENT AREA
 ▨ DENOTES ROAD OBLITERATION



NO.	DATE	BY	DESCRIPTION
1	11/15/84	ALBEM	

DESIGNED DRAWN
 CHECKED
 DATE REG. NO.

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.

TKDA
 ENGINEERS ARCHITECTS PLANNERS
 TOLTZ, KING, DUVALL, ANDERSON AND ASSOCIATES, INCORPORATED
 SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
ANOKA COUNTY MINNESOTA

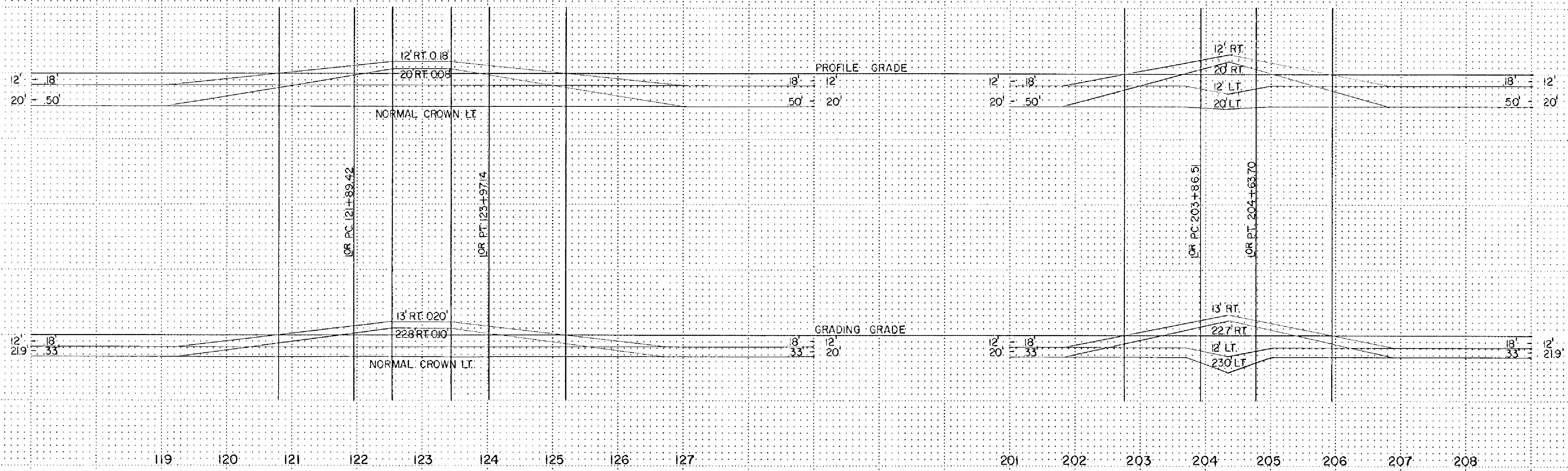
PLAN AND PROFILE
 SHEET NO. 6 OF 23 SHEETS

COMMISSION NO. 7737
 79-26-85

DESIGN SPEED 60 MPH. MAXIMUM
0.015'/FT. MAX. SUPER

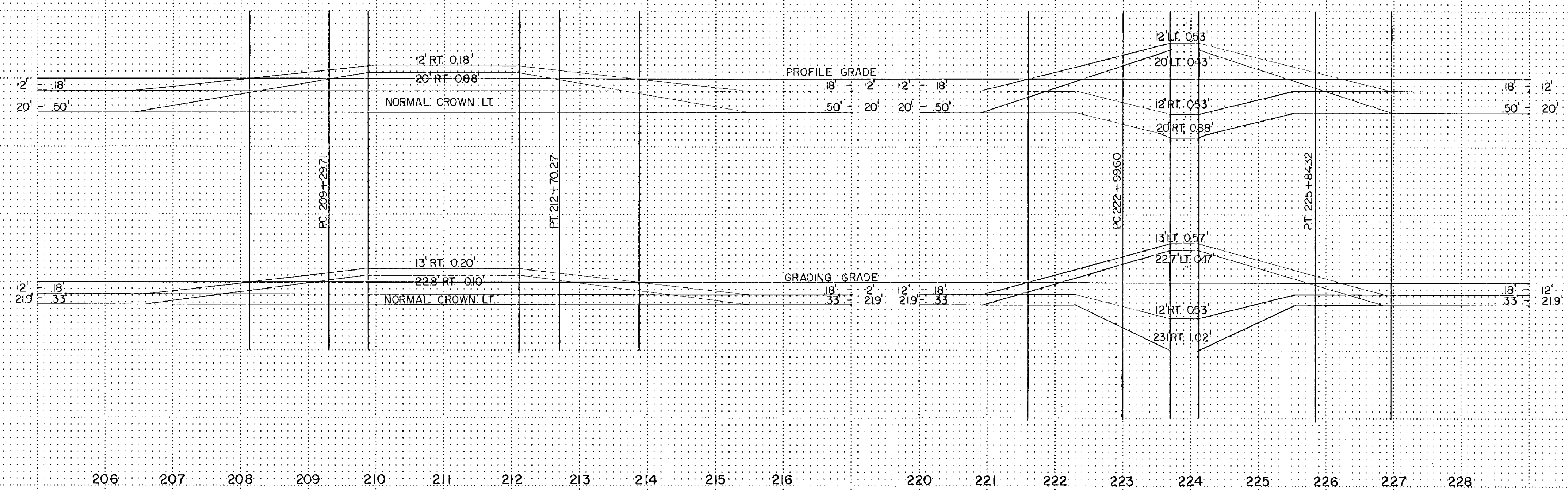
DESIGN SPEED 60 MPH. MAXIMUM
0.027'/FT. MAX. SUPER

Fed. Proj. No.



DESIGN SPEED 60 MPH. MAXIMUM
0.015'/FT. MAX. SUPER

DESIGN SPEED 35 MPH. MAXIMUM
0.044'/FT. MAX. SUPER



State Proj. No.

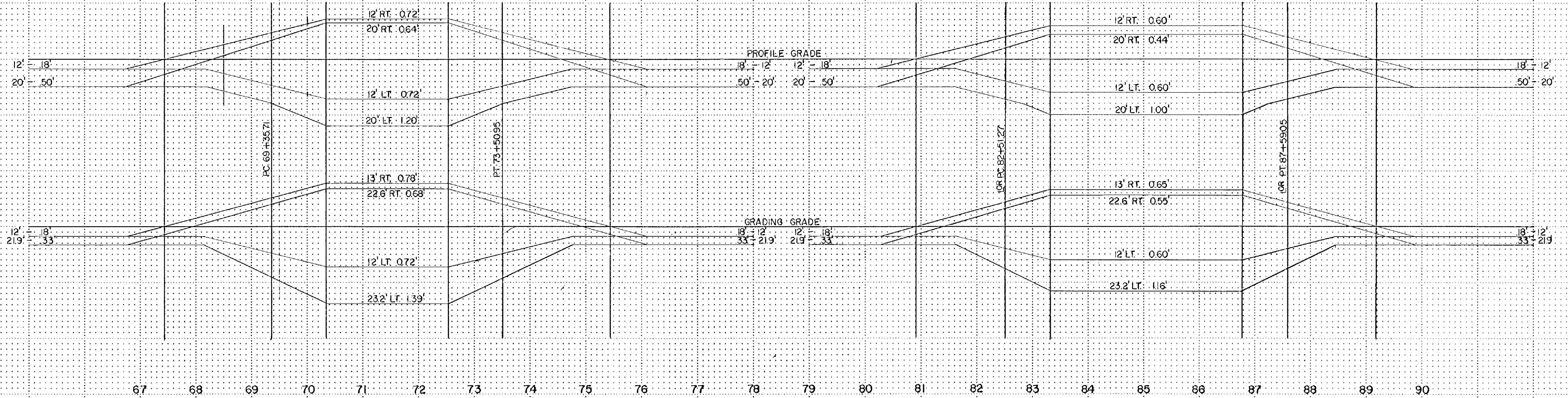
CP 79-26-85 Sheet No. 9 of 23 Sheets

REVISIONS TO CROSS SECTION 1911

DESIGN SPEED 50 MPH. MAXIMUM
0.06%/FT. MAX. SUPER

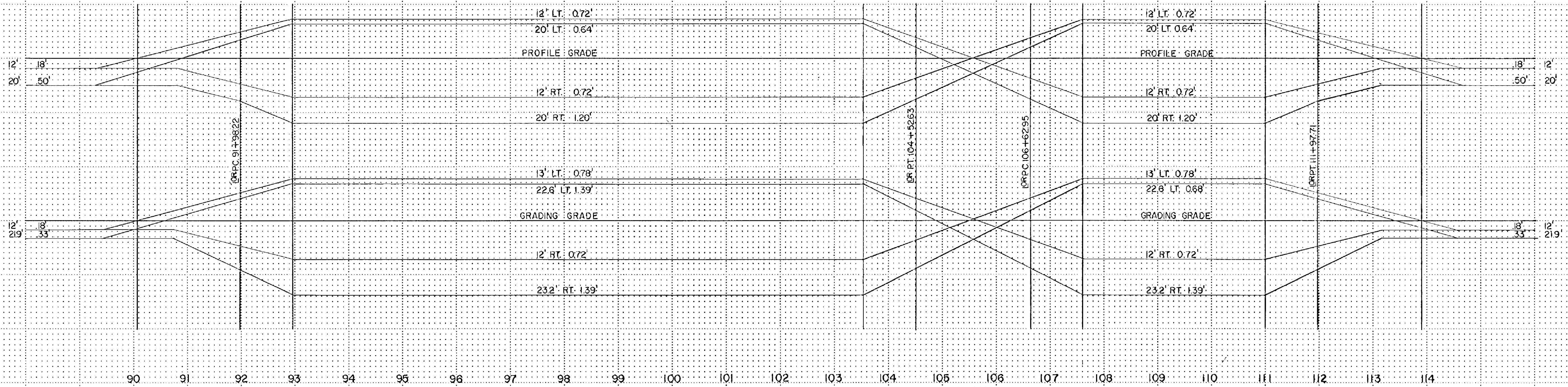
DESIGN SPEED 55 MPH. MAXIMUM
0.06%/FT. MAX. SUPER

Fed. Proj. No.



DESIGN SPEED 50 MPH. MAXIMUM
0.06%/FT. MAX. SUPER

DESIGN SPEED 50 MPH. MAXIMUM
0.06%/FT. MAX. SUPER



State Proj. No.

CP 79-26-85

Sheet No. 8 of 23 Sheets

ORIGINAL SURVEY		STAKING		AS BUILT	
FIELD BOOK	DATE	FIELD BOOK	DATE	FIELD BOOK	DATE
79-26-85	NOV 1980				

NO.	DATE	BY	DESCRIPTION

DESIGNED BY: []
 CHECKED BY: []
 DATE: []

HERBERT CERTIFIES THAT THIS PLAN WAS PREPARED BY HIM OR UNDER HIS DIRECT SUPERVISION AND THAT HE IS A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

REG. NO. []

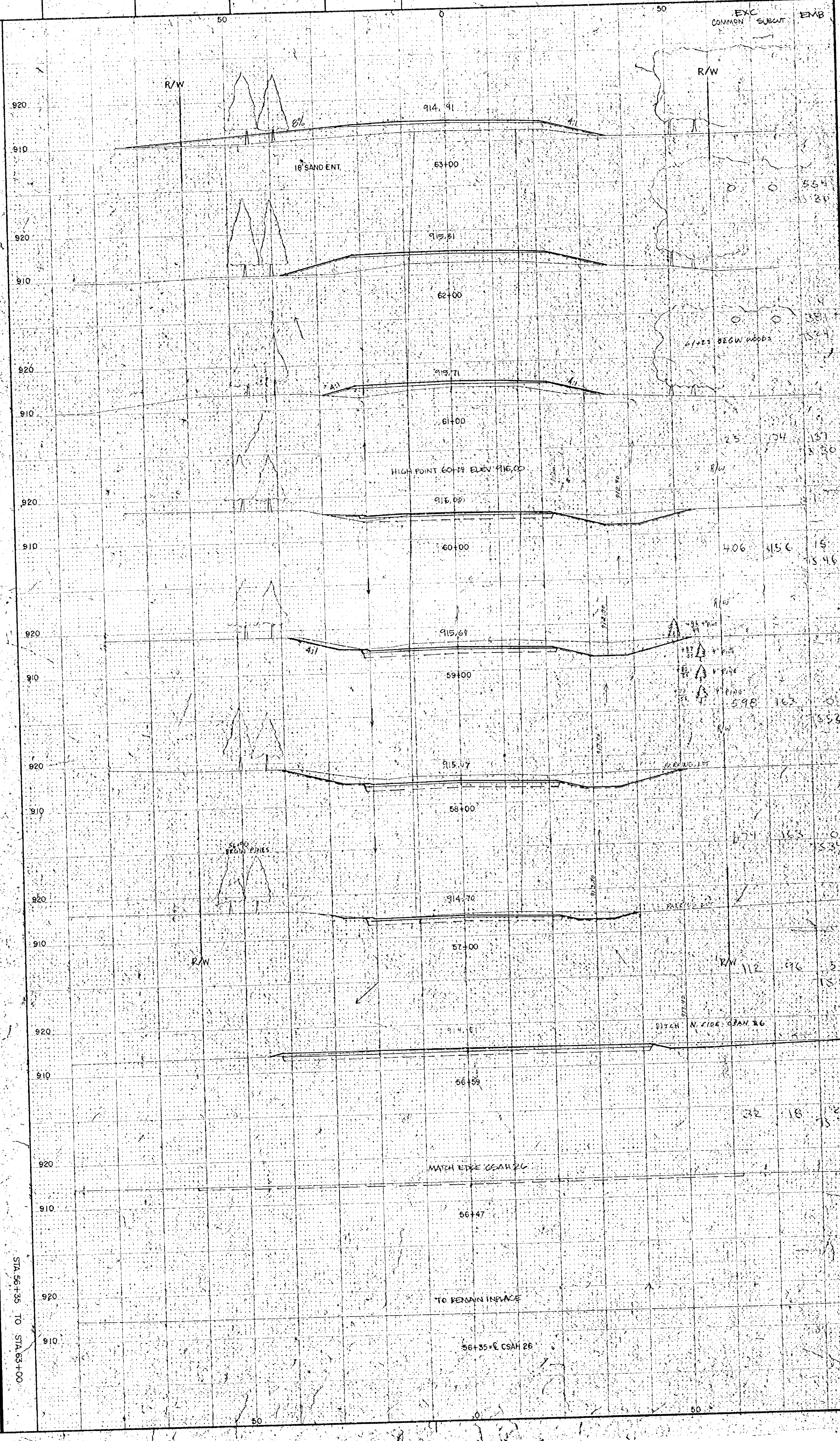
TKDA
 ENGINEERS, ARCHITECTS, PLANNERS

TOLTING, DUVAL, ANDERSON
 AND ASSOCIATES INCORPORATED
 SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
ANOKA COUNTY
MINNESOTA

CROSS SECTIONS
 SHEET NO. 10 OF 23 SHEETS
79-26-85

COMMISSION NO. **7737**



ORIGINAL SURVEY			STAKING			AS BUILT		
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV 1980						

NO.	DATE	BY	DESCRIPTION

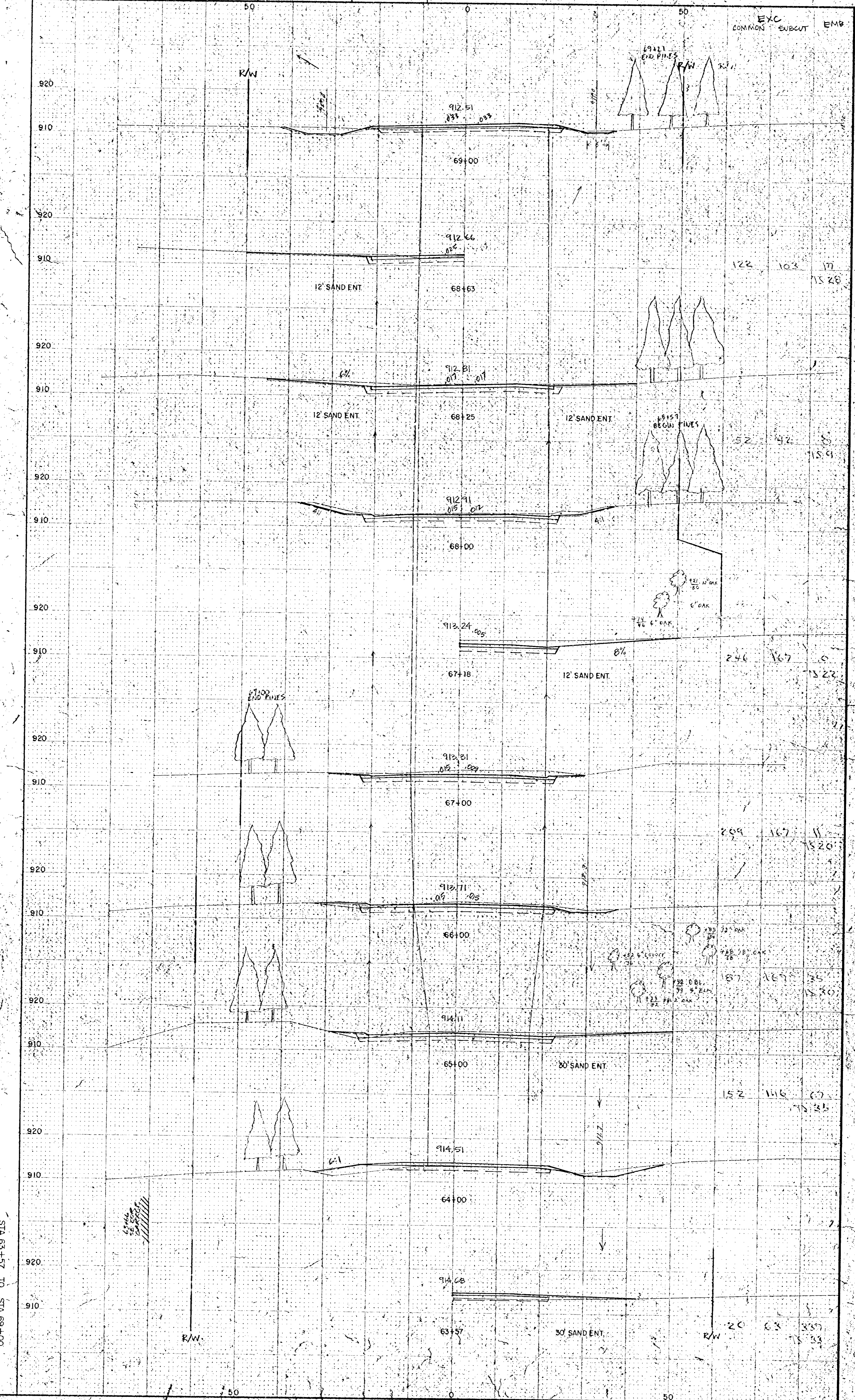
DESIGNED BY: **PRAMN**
 CHECKED BY:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 DATE: REF. NO.:

PKDA
 ENGINEERS ARCHITECTS PLANNERS
 TOLTZ KING DUVAL ANDERSON
 AND ASSOCIATES INCORPORATED
 SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
ANOKA COUNTY MINNESOTA

CROSS SECTIONS
 SHEET NO. 11 OF 23 SHEETS
 COMMISSION NO. **7737**
79-26-85



STA. 63+57 TO STA. 69+00

ORIGINAL SURVEY			STAKING			AS BUILT		
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV 1980						

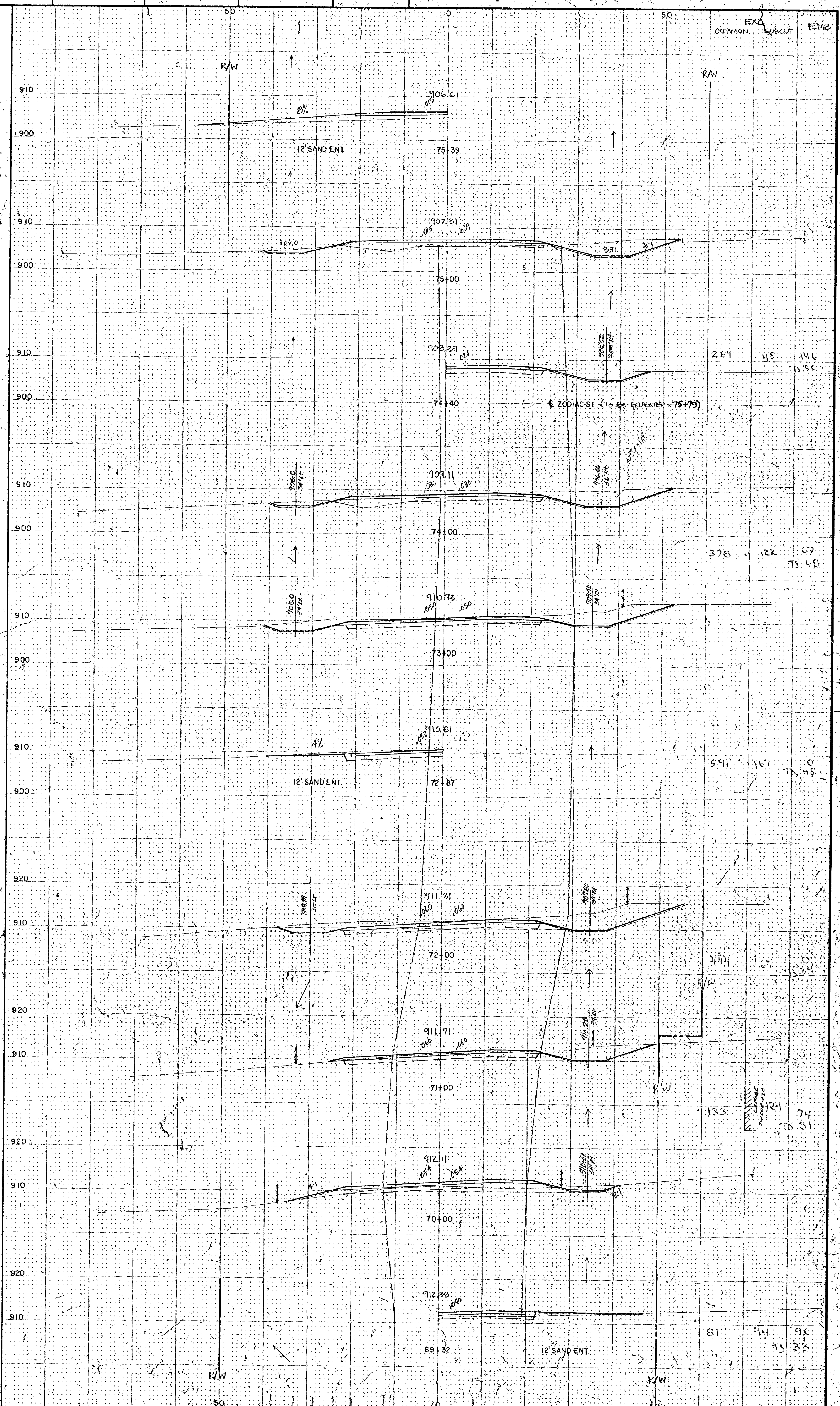
NO.	DATE	BY	DESCRIPTION

DESIGNED DRAWN
 CHECKED
 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

TKDA
 ENGINEERS ARCHITECTS PLANNERS
 TOLTZ KING-DUVAL ANDERSON
 AND ASSOCIATES INCORPORATED
 SAINT PAUL, MINNESOTA

TYPHO CREEK DRIVE
 ANOKA COUNTY MINNESOTA

CROSS SECTIONS
 SHEET NO. 12 OF 23 SHEETS
 COMMISSION NO. 7737
 79-26-85



STA. 69+32 TO STA. 75+39

ORIGINAL SURVEY			STAKING			AS BUILT		
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV. 1980						

NO.	DATE	BY	DESCRIPTION

DESIGNED	DRAWN
CHECKED	

DATE _____ REG. NO. _____

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.

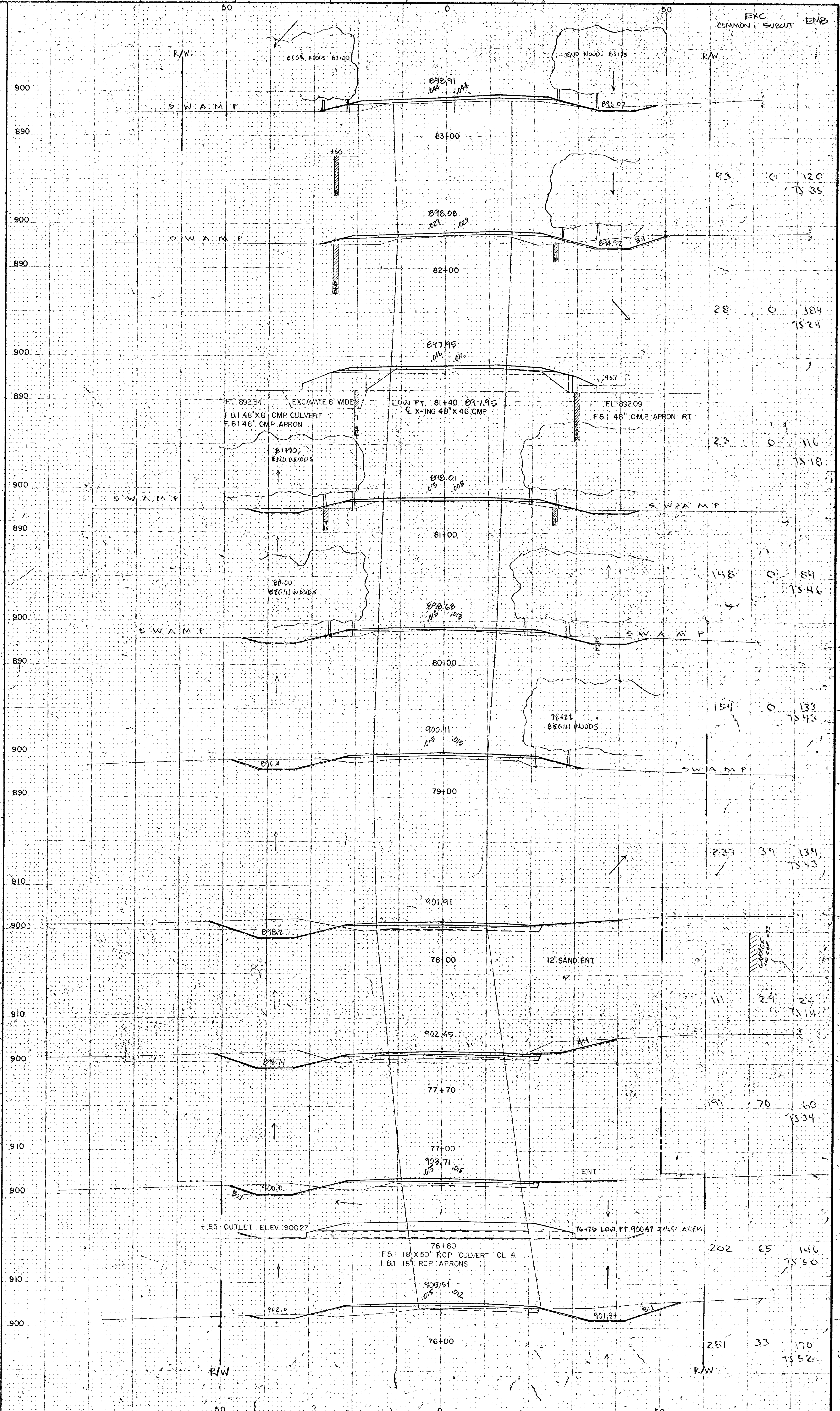
PKDA
ENGINEERS ARCHITECTS PLANNERS

TOL T. KING, DUVAL, ANDERSON AND ASSOCIATES INCORPORATED
SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
ANOKA COUNTY MINNESOTA

CROSS SECTIONS
SHEET NO. 13 OF 23 SHEETS
79-26-85

COMMISSION NO. 7737



STA. 76+00 TO STA. 83+00

ORIGINAL SURVEY			STAKING			AS BUILT		
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV. 1980						

NO.	DATE	BY	DESCRIPTION

DESIGNED / DRAWN: _____
 CHECKED: _____
 REG. NO. _____

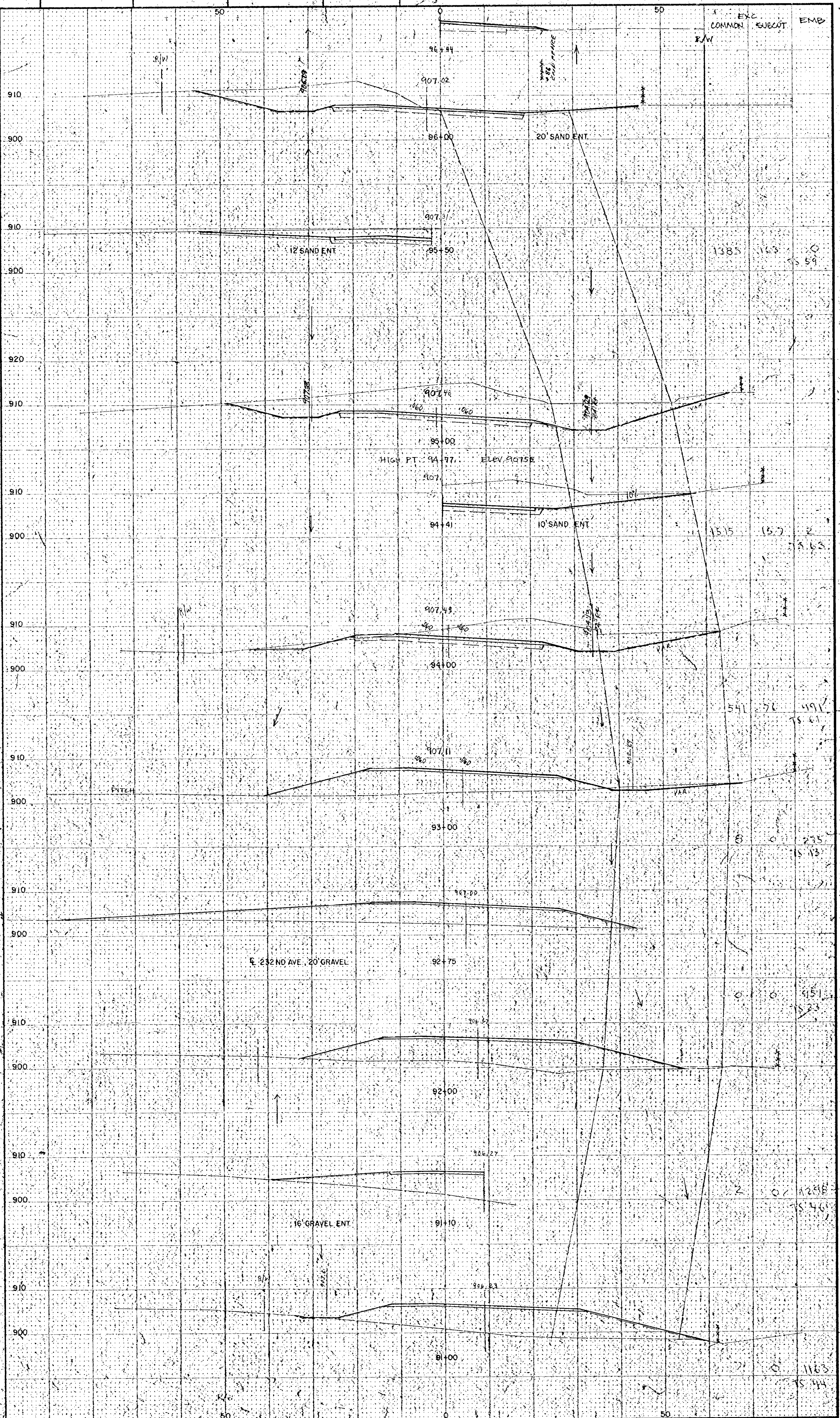
HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

TKDA
 ENGINEERS ARCHITECTS PLANNERS
 TOLTZ KING, DUVALL ANDERSON AND ASSOCIATES, INCORPORATED
 SAINT PAUL, MINNESOTA

TYPHO CREEK DRIVE
ANOKA COUNTY, MINNESOTA

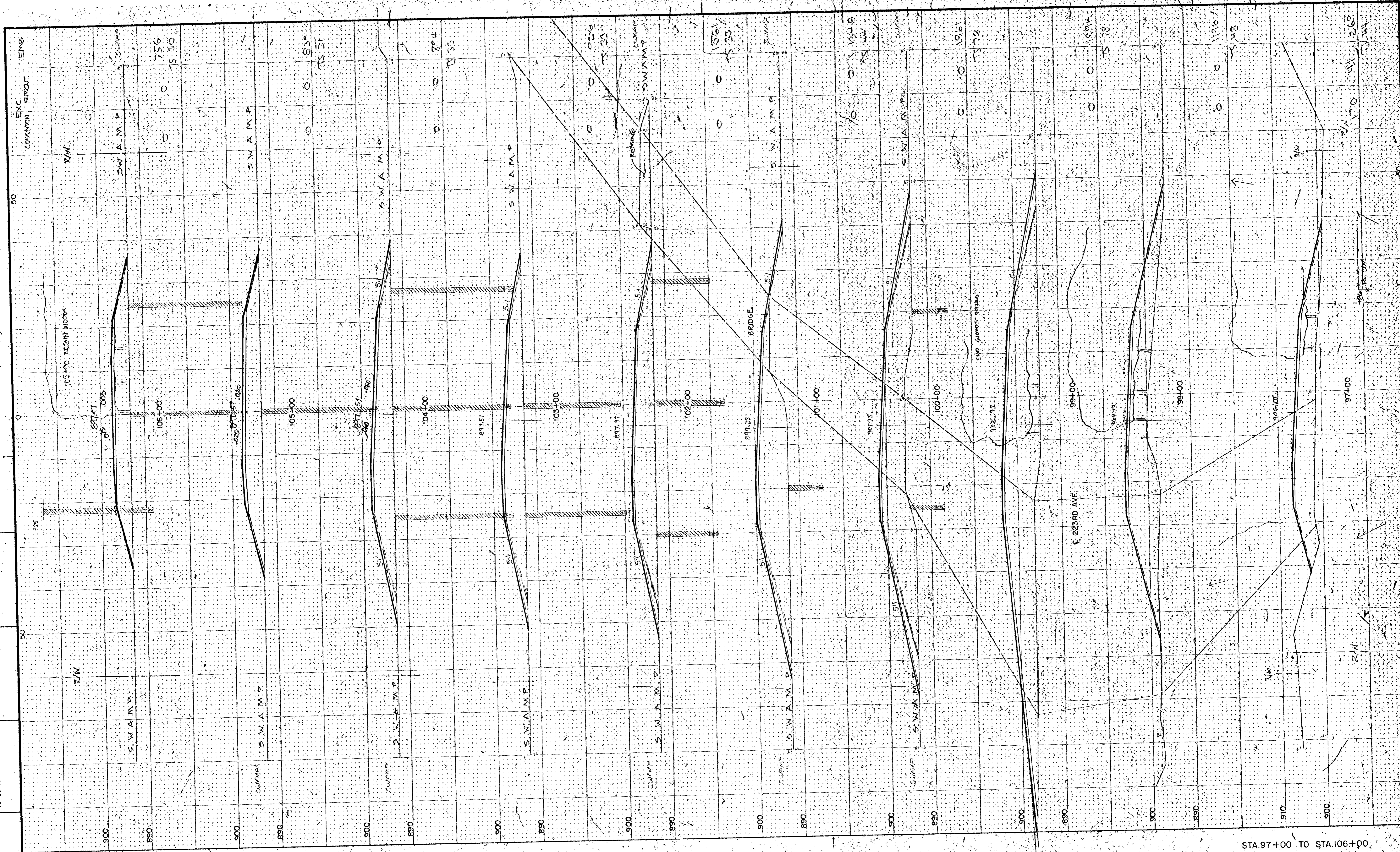
CROSS SECTIONS
 SHEET NO. 15 OF 23 SHEETS
 79-26-85

COMMISSION NO. 7737



STA. 91+00 TO STA. 96+44

ORIGINAL SURVEY BY DATE NOV 1980
 FIELD BOOK 79-26-85
 STAKING BY DATE
 FIELD BOOK BY DATE
 AS BUILT BY DATE



STA. 97+00 TO STA. 106+00

NO	DATE	BY	DESCRIPTION

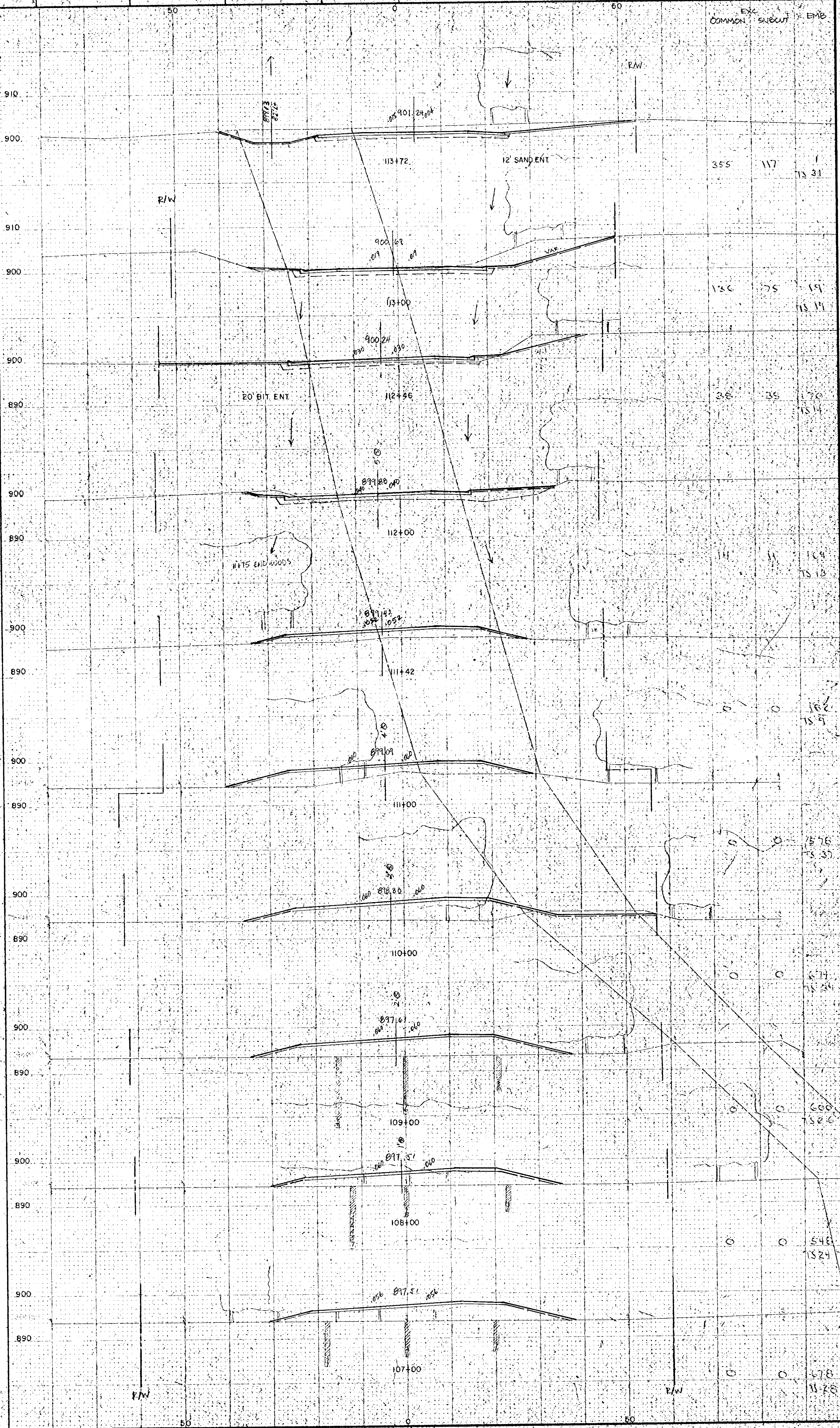
DESIGNED: DRAWN: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 CHECKED: DATE: REG NO:

TKDA
 ENGINEERS ARCHITECTS PLANNERS
 TOLTZ, KING, DUVALL, ANDERSON AND ASSOCIATES INCORPORATED
 SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
 ANOKA COUNTY MINNESOTA

CROSS SECTIONS
 SHEET NO. 16 OF 23 SHEETS
 COMMISSION NO. 7737
 79-26-85

ORIGINAL SURVEY		STAKING		AS BUILT	
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV 1980			



NO.	DATE	BY	REVISIONS

DESIGNED: [] DRAWN: []
 CHECKED: []
 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.

TKDA
 ENGINEERS-ARCHITECTS-PLANNERS
 TOLTZ KING, DUYAL, ANDERSON
 AND ASSOCIATES INCORPORATED
 SAINT PAUL, MINNESOTA

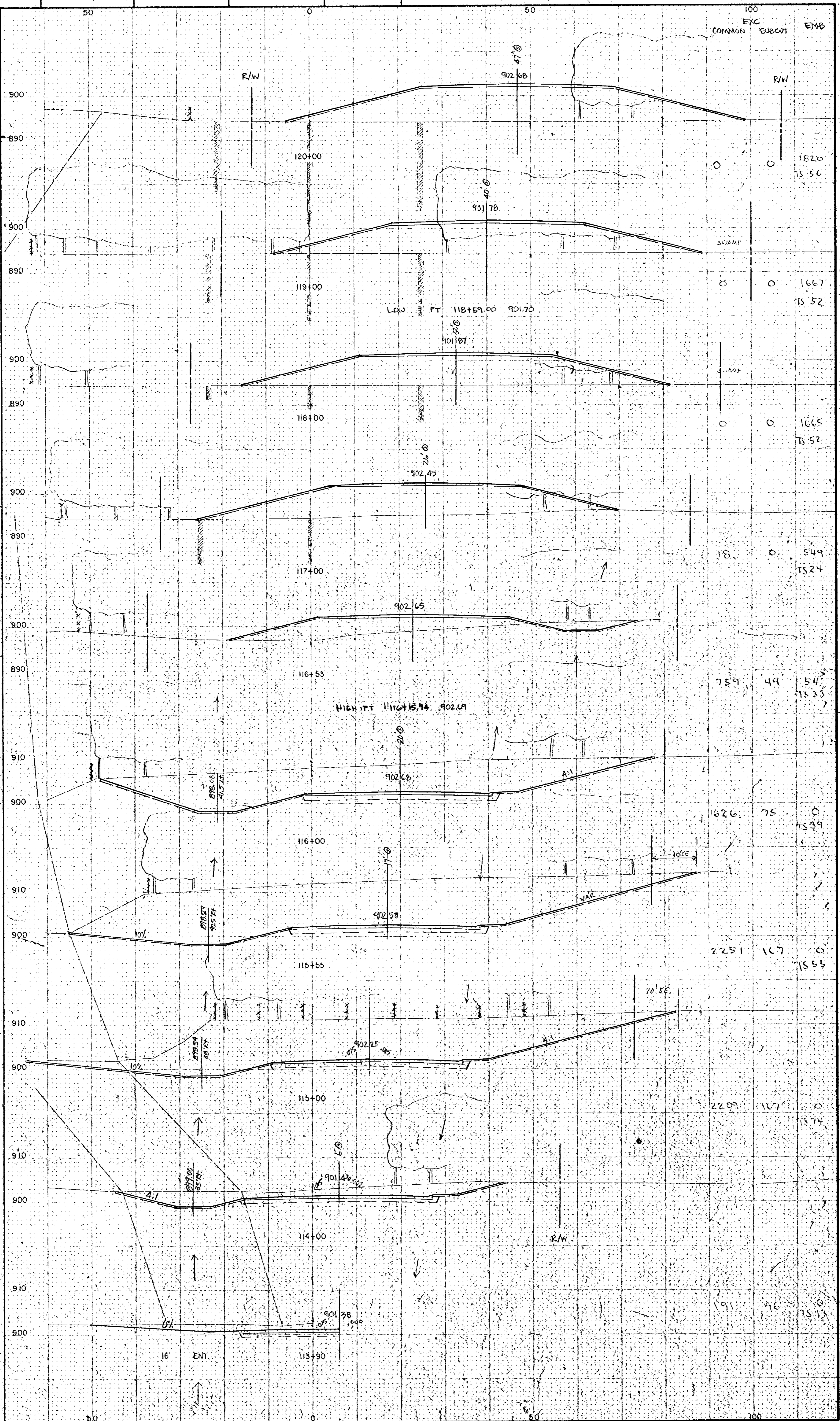
TYPO CREEK DRIVE
ANOKA COUNTY, MINNESOTA

CROSS SECTIONS
 SHEET NO. 17 OF 23 SHEETS
 COMMISSION NO. 7737
 79-26-85

STA. 107+00 TO STA. 113+72

ORIGINAL SURVEY		STAKING		AS BUILT	
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV 1990			

NO.	DATE	BY	DESCRIPTION
REVISIONS			
DESIGNED DRAWN			
CHECKED			
DATE			
REC. NO.			
<p>I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA</p>			
<p>TKDA TOLTZ, KING, DUVALL, ANDERSON AND ASSOCIATES INCORPORATED SAINT PAUL, MINNESOTA</p>			
<p>TYPHO CREEK DRIVE ANOKA COUNTY MINNESOTA</p>			
<p>CROSS SECTIONS SHEET NO. 18 OF 23 SHEETS</p>			
<p>COMMISSION NO. 7737</p>			
<p>79-26-85</p>			



ORIGINAL SURVEY			STAKING			AS BUILT		
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV. 1980						

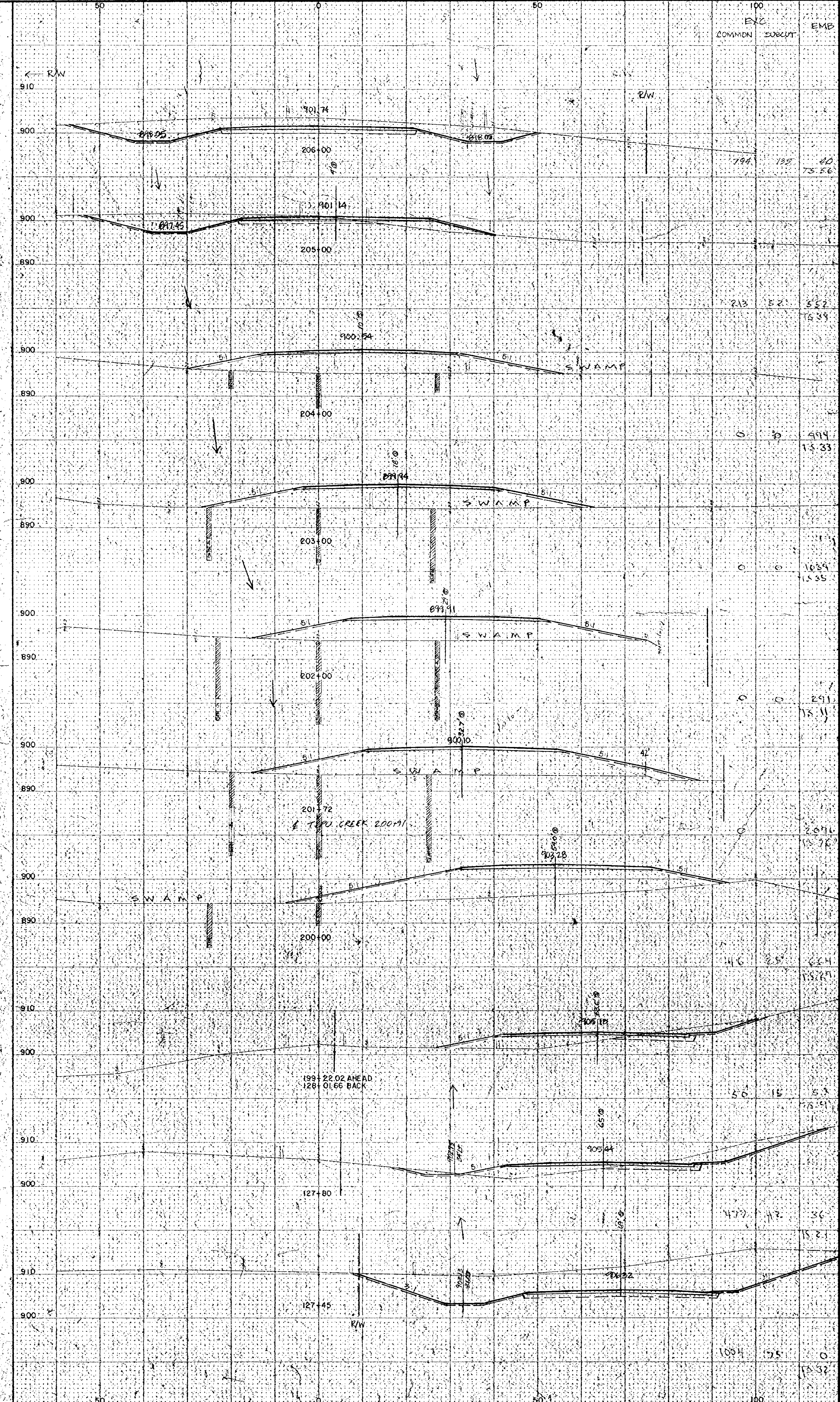
NO.	DATE	BY	DESCRIPTION

DESIGNED	DRAWN
CHECKED	
DATE	
REG. NO.	

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.

TKDA
ENGINEERS ARCHITECTS PLANNERS
TOLTZ, KING, D'WALL, ANDERSON
AND ASSOCIATES INCORPORATED
SAINT PAUL, MINNESOTA

TYPHO CREEK DRIVE
ANOKA COUNTY MINNESOTA
CROSS SECTIONS
SHEET NO. 20 OF 23 SHEETS
79-26-85
COMMISSION NO. 7787



STA. 127+45 TO STA. 206+00

ORIGINAL SURVEY		STAKING		AS BUILT	
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV 1980			

NO.	DATE	BY	DESCRIPTION

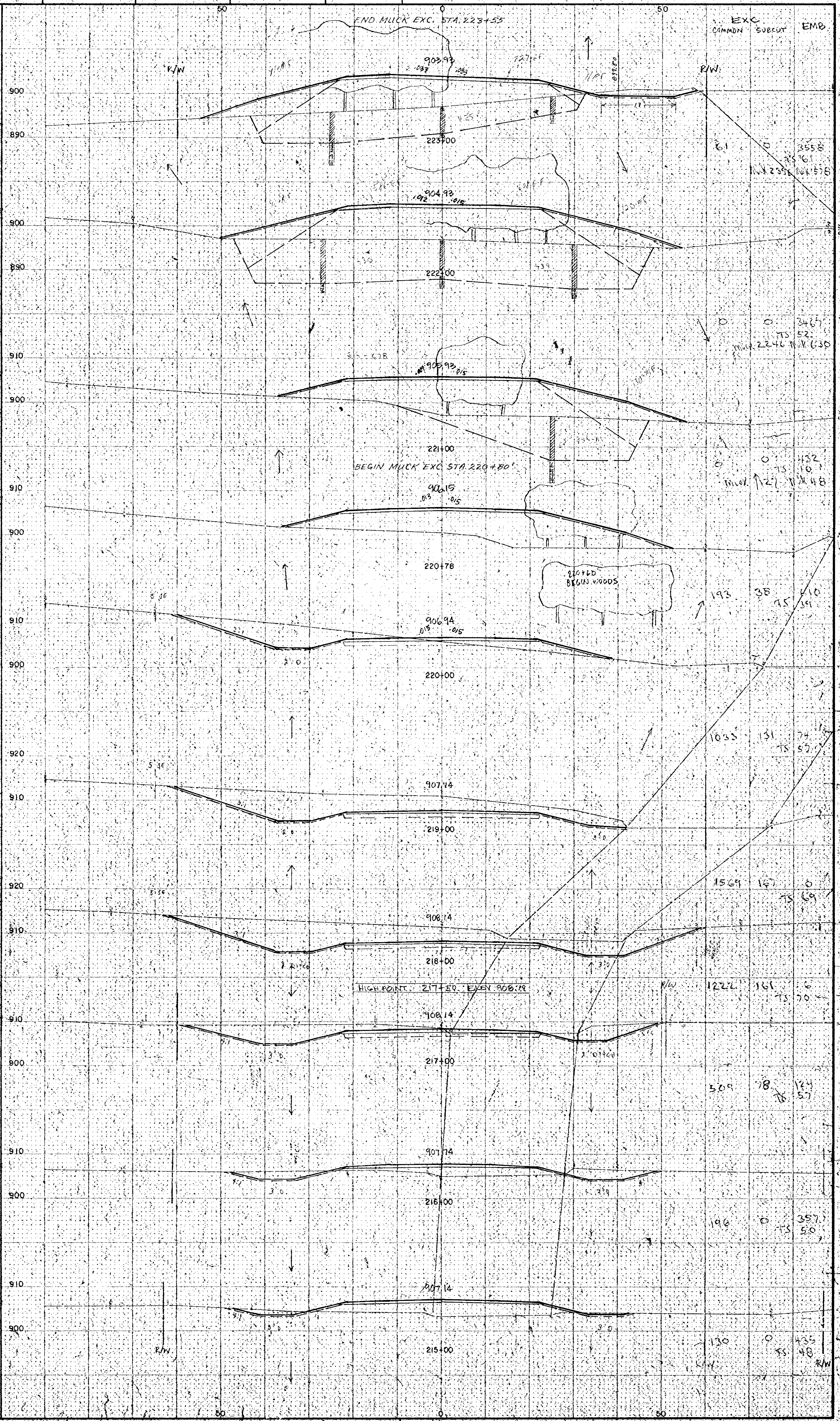
DESIGNED: **PKDA**
 CHECKED: **PKDA**
 DATE: _____ REG. NO. _____

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

PKDA
 ENGINEERS, ARCHITECTS, PLANNERS
 TOTI KING, DWYLL ANDERSON AND ASSOCIATES INCORPORATED
 SAINT PAUL, MINNESOTA

TYPO CREEK DRIVE
ANOKA COUNTY, MINNESOTA

CROSS SECTIONS
 SHEET NO. 22 OF 23 SHEETS
79-26-85
 COMMISSION NO. **7737**



ORIGINAL SURVEY		STAKING		AS BUILT	
FIELD BOOK	BY	DATE	FIELD BOOK	BY	DATE
79-26-85		NOV 1990			

NO.	DATE	BY	REVISIONS

DESIGNED, DRAWN, CHECKED, DATE, REG. NO.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

TKDA
ENGINEERS ARCHITECTS PLANNERS

TOLTZ KING DUVALL ANDERSON AND ASSOCIATES INCORPORATED
SAINT PAUL, MINNESOTA

TYPHO CREEK DRIVE
ANOKA COUNTY MINNESOTA

CROSS SECTIONS
SHEET NO. 23 OF 23 SHEETS
79-26-85

STA. 224+00 TO STA. 227+10

