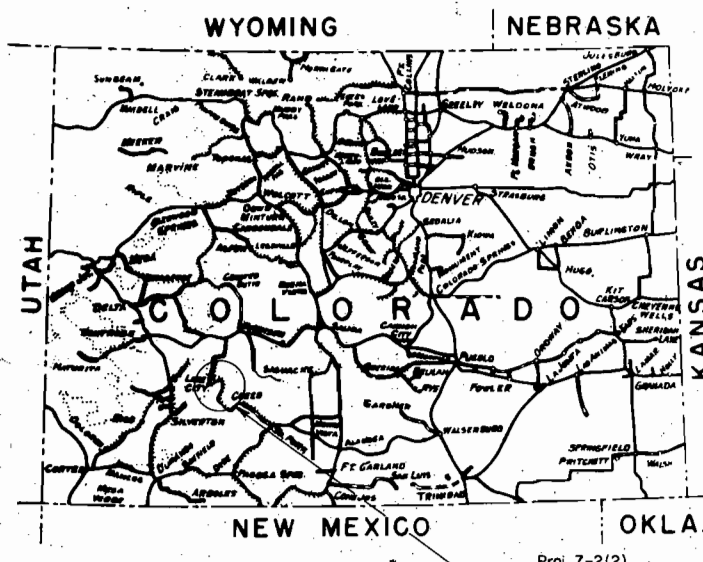




U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

AS CONSTRUCTED

COLORADO FOREST HIGHWAY PROJECT 7-2(2)

SOUTH FORK - LAKE CITY

CLASS 2

RIO GRANDE & GUNNISON NATIONAL FORESTS

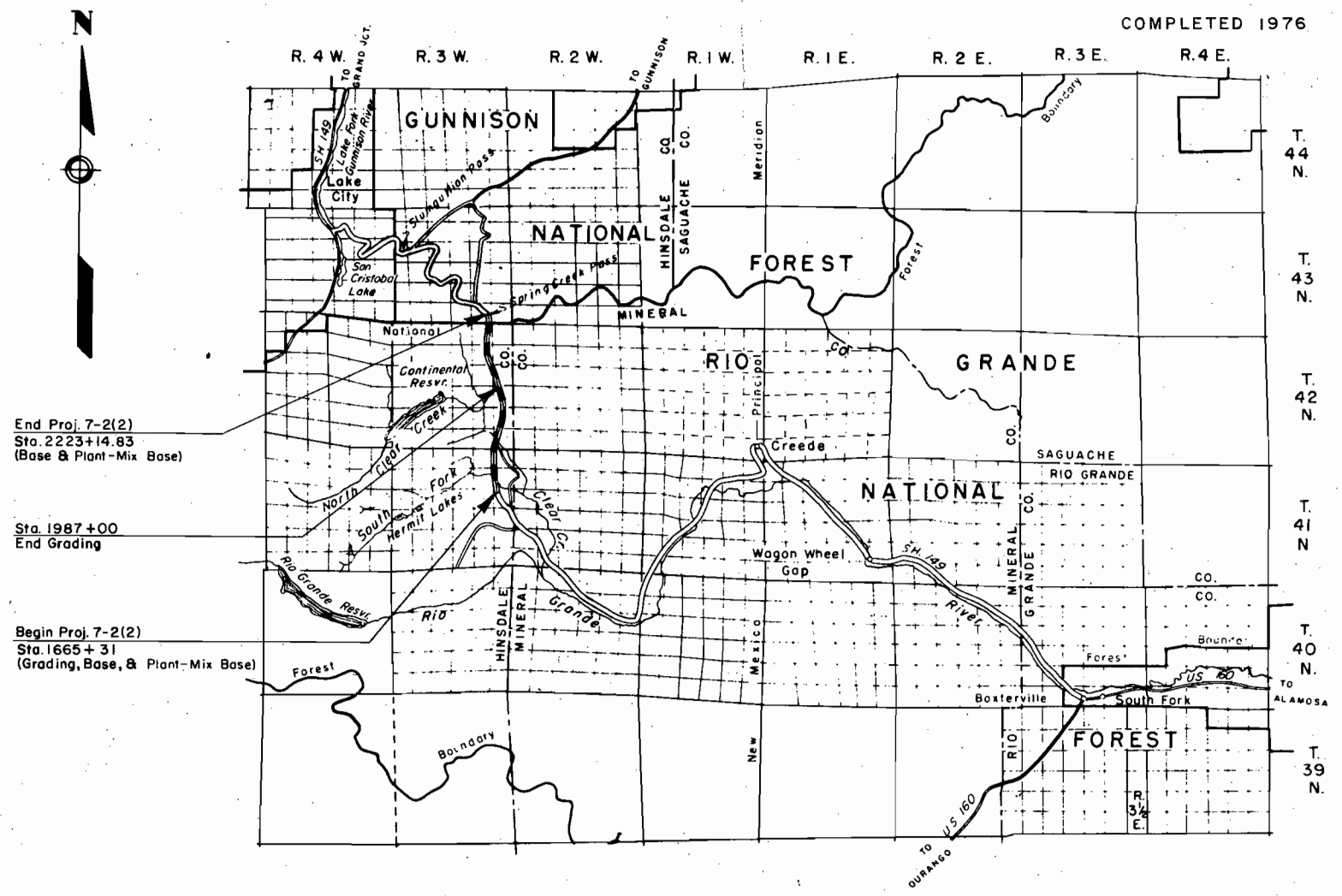
HINSDALE COUNTY

LENGTH 10.559 MILES

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
8	COLO.	7-2(2)	1	45

INDEX TO SHEETS		
SHEET NO.	DESCRIPTION	STATION TO STATION
1	Title Sheet	
2	Typical Sections	
3-5	Summary	
6-17	Plan & Profile	1665+31 1987+00
18-20	R&B-35-36,-37, Conc. Box Culvert Extension	1889+94
21	COLO-1 Lay Down Wire Fence	
22-24	COLO-2, Intersection & Parking Details	
25	COLO-3, So. Clear Creek Struct. Plate Pipe Arch	1720+75
26	COLO-4, Channel Revision	1932+00 1941+00
27	COLO-5, Materials Source & Reclamation Plan	
28	Std.107-2, Traffic Signing for Hwy. Const.	
29	Std.203-1, Approach Roads	
30	Std.603-1, Fill-Height Tables	
31	Std.603-2, Metal End Sections	
32	Std.603-3, R.C.P. Bedding and Fill-Class Tables	
33	Std.603-4, R.C. End Section and Cutoff Walls	
34	Std.604-1, Concrete Drop Inlets and Pipe-Elbow Inlets	
35	Std.605-1, Underdrain	
36	Std.606-1, Beam Type Guardrail	
37	Std.606-2, Beam-Type Guardrail End Anchorage	
38-39	Std.607-6, Prefabricated Type Cattle Guard	
40	Std.609-1, Bituminous Curb & Paved Waterways	
41	Std.617-1, 5'-10" x 7'-8" Struct.-Plate Cattle Pass	
42	Std.619-1, Loose Riprap Erosion Control	
43	Std.621-2, Slotted Inlet Downdrain Assembly	
44	Std.623-2(C) Standard Maintenance Post & Delineators	
45	Std.633-1, Sign Details & Striping Schedule	

- CONVENTIONAL SYMBOLS
- PROPOSED R/W LINE
 - PROJECTED CENTERLINE
 - STAKED CENTERLINE
 - PARCEL NUMBER
 - OWNERSHIP BOUNDARY
 - EXISTING FENCE
 - PROPOSED FENCE
 - R/W CALCULATION
 - SLOPE LIMIT-TOP OF CUT
 - SLOPE LIMIT-TOE OF FILL
 - COUNTY LINE
 - PARK BOUNDARY
 - TOWNSHIP OR RANGE LINE
 - STATE BOUNDARY
 - FOREST BOUNDARY
 - CONSTRUCTION PERMIT
 - SECTION LINE
 - MANHOLE
 - 1/4 SECTION LINE
 - 1/16 SECTION LINE
 - ROCK OUTCROP
 - MARSH OR SWAMP
 - EXISTING GUARD RAIL
 - TREES
 - FOUND SECTION CORNERS
 - NOT FOUND SECTION CORNERS
 - TRAIL OR TRACK
 - MINE
 - PRESENT ROAD
 - RAILROAD
 - UNDER GROUND POWER LINE
 - EXISTING POWER POLES
 - EXISTING TELEPHONE POLES
 - UNDER GROUND TELEPHONE LINE
 - EXISTING TOWER
 - EXISTING BOX CULVERT
 - NEW PIPE CULVERT
 - DROP INLET
 - EXISTING PIPE CULVERT
 - CHANNEL CHANGES
 - IRRIGATION DITCH OR FURROW DITCH
 - MATERIALS TEST HOLE & NUMBER
 - RIVER WITH BRIDGE
 - INTERMITTENT STREAM
 - VERTICAL CONTROL POINT
 - TRIANGULATION STATION
 - GATE
 - CATTLE GUARD
 - PIPE LINE (Water,Gas,etc)
 - SIGN



Plans prepared by: FHWA
Date: April, 1975

TYPE OF CONSTRUCTION
Grading, Drainage, & Bituminous Base

DESIGN DESIGNATION
A.D.T.(1973) 350
A.D.T.(1993) 670
D.H.V. 235
D. 65%
T. 10%
V. 1665+31 to 1860+00 .40 M.P.H.
V. 1860+00 to 2223+14 .50 M.P.H.

TYPE CODE:2013

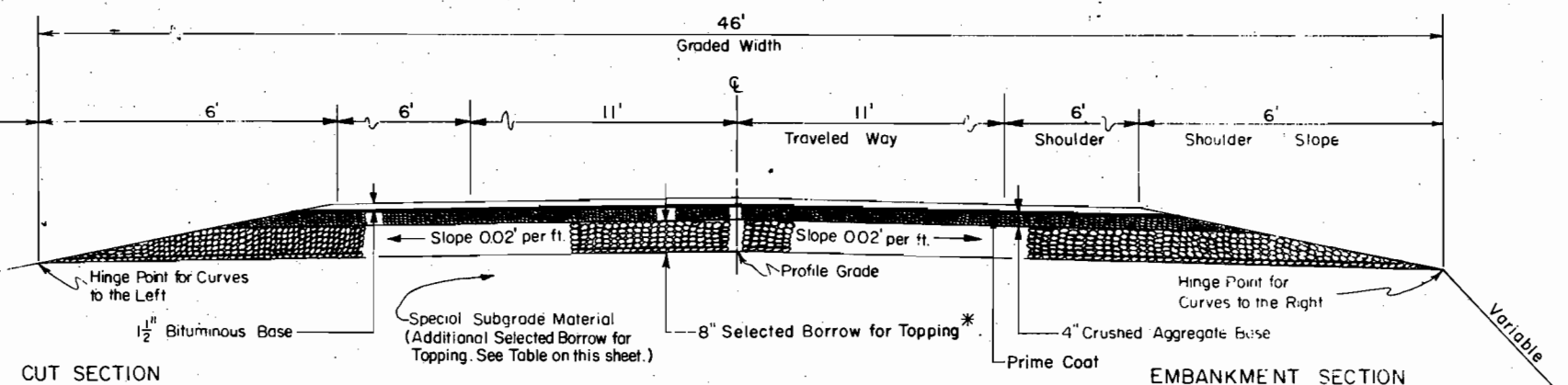
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NO.8 DENVER,COLORADO

APPROVED _____
Director,Office of Federal Highway Projects
DATE _____ 19__

LEGEND						
EXISTING ROAD	UNIMPROVED	GRADED	REINFORCED SUBGRADE	BASE COURSE	SURFACE TREATMENT	ROAD PLANT CONCRETE MIX BITUM.

GENERAL NOTES

1. The gradient and width of roadway ditches, and the excavation and embankment slope ratios may be adjusted by the Engineer to assure adequate drainage and stability, and to provide an economical balance of quantities.
2. All earth slopes and all rippled rock slopes shall be rounded. For cut slope distances less than 12 feet, B & F dimensions are reduced to the actual cut slope distance.
3. The thicknesses of Special Subgrade Material shown in the table may be varied by the Engineer. The roadway excavations and embankments shall be constructed to the grade that will allow for the required thickness.
4. Traveled way widening on curves is applied equally on right and left, and is continued throughout where short tangents exist in reversing alignment.

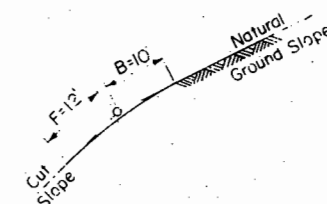


TYPICAL SECTION

Sta. 1665+31 to Sta. 2223+14.83

* Special Subbase from Sta. 1987+00 to Sta. 2223+14.83, to be constructed under Project 7-2(1). Selected Borrow from Sta. 1665+31 to Sta. 1987+00 and all other surfacing work shown in the above Typical Section to be constructed under Project 7-2(2).

CUT SLOPE ROUNDING

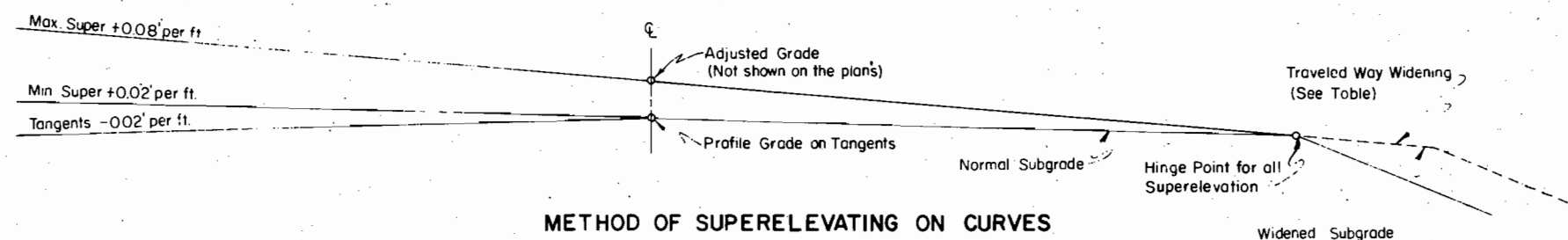


SLOPE RATIOS

HEIGHT	EMBANKMENT SLOPE	HEIGHT	EXCAVATION SLOPE
0' to 3'	6:1	0' to 3'	6:1
3' to 6'	4:1	3' to 6'	4:1
6' to 10'	3:1	6' to 10'	3:1
10' to 50'	2:1	10' to 50'	2:1
over 50'	1 1/2:1	over 50'	1 1/2:1
		Rock	1 1/2:1

SPECIAL SUBGRADE MATERIAL

STATION TO STATION	ITEM	DEPTH
1869+00 to 1875+00	203(9)	18"
1847+00 to 1953+00	203(9)	18"



METHOD OF SUPERELEVATING ON CURVES

DEGREE OF CURVES	WIDENING IN FEET
0°-4°59'	0.0
5° & Over	2.0

TRAVELED WAY WIDENING ON CURVES

TYPICAL CROSS SECTION

NATIONAL FOREST HIGHWAYS

ROUTE: <u>SOUTH FORK - LAKE CITY</u>	ROADBED WIDTHS
PROJECT: <u>COLO. F.H.P. 7-2(2)</u>	GRADED: <u>46'</u> SH. to SH.
NATIONAL FOREST: <u>RIO GRANDE</u>	BASE: <u>36'</u> SH. to SH.
COUNTY: <u>HINSDALE</u>	SURFACE: <u>34'</u> SH. to SH.
STATE: <u>COLORADO</u>	

(As Constructed)

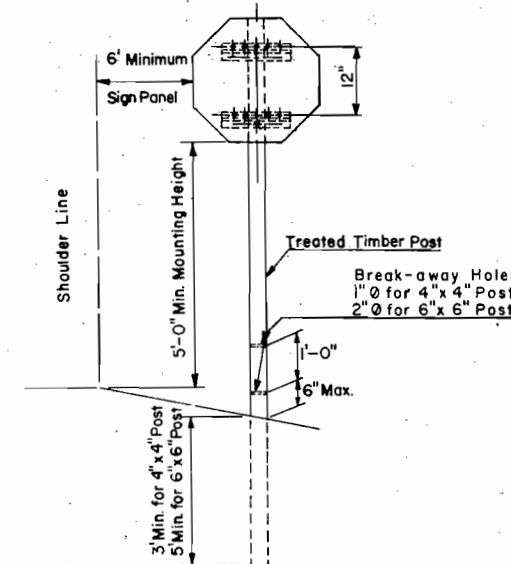
SCHEDULE OF SIGNS

STATION	TYPE REFERENCE M.U.T.C.D.	MESSAGE OF SPECIAL SIGNS	DIMENSIONS A X B (inches)
1669+00 Lt.	R2-5B	30 MPH	24 x 30
1671+00 Lt.	W8-3		30 x 30
1673+00 Lt.	W5-1		36 x 36
1698+00 Rt.	W1-2L		30 x 30
1709+50 Rt.	W1-2R		30 x 30
1712+00 Lt.	W1-2R		30 x 30
*1715+00 Rt.	D5-3 4" Letters Series "D"	CAMPGROUND 1000 Feet	48 x 24
*1717+00 Lt.	D1-1 4" Letters Series "D"	← S. CLEAR CR. RD.	60 x 12
Lt. 1724+50 Appr.Rd.	R1-1		30 x 30
Rt. 1724+50 Appr.Rd.	R1-1		30 x 30
1730+00 Rt.	W1-2L		30 x 30
*1732+00 Lt.	D1-1 4" Letters Series "D"	S. CLEAR CR. RD. →	60 x 12
1734+00 Lt.	W1-2L		30 x 30
*1741+00 Lt.	D5-3 4" Letters Series "D"	CAMPGROUND 1500 Feet	48 x 24
1761+00 Lt.	W1-2R		30 x 30
1778+00 Rt.	W1-2R		30 x 30
1797+00 Lt.	W1-2L		30 x 30
*1809+00 Rt.	D6-2 4" Letters Series "D"	SCENIC OVERLOOK 1000 Feet	48 x 30
1817+00 Rt.	W1-2R		30 x 30
*1819+00 Rt.	D6-3 4" Letters Series "D"	SCENIC OVERLOOK ↙	36 x 24
*1821+00	D1-1 4" Letters Series "D"	← BLACK MOUNTAIN ROAD	60 x 12
*1825+50 Lt.	D6-3 4" Letters Series "D"	SCENIC OVERLOOK ↙	36 x 24
Lt. 1827+00 Appr.Rd.	R1-1		30 x 30
1834+00 Lt.	D1-1 4" Letters Series "D"	BLACK MOUNTAIN ROAD →	60 x 12
1837+00 Lt.	W1-2L		30 x 30
*1840+50	D6-2 4" Letters Series "D"	SCENIC OVERLOOK 1500 Feet	48 x 30
1859+00 Lt.	W1-5L		30 x 30
*1874+50 Rt.	D1-2a 4" Letters Series "D"	NORTH CLEAR CREEK FALLS →	48 x 24
Rt. 1881+90 Appr.Rd.	R1-1		30 x 30
*1886+00 Rt.	D5-3 4" Letters Series "D"	PARKING AREA 1000 Feet	48 x 24
*1889+00 Lt.	D1-2a 4" Letters Series "D"	← NORTH CLEAR CREEK FALLS	48 x 24
*1889+00 Rt.	D1-2a 4" Letters Series "D"	← CONTINENTAL RESERVOIR	48 x 24
*1894+00 Rt.	D5-4	↘ PARKING AREA	36 x 24
Lt. 1896+00 Appr.Rd.	R1-1		30 x 30
*1898+00 Lt.	D5-4	PARKING AREA ↗	36 x 24
*1903+00 Rt.	D1-2 4" Letters Series "D"	CONTINENTAL RESERVOIR →	48 x 24
*1911+00 Rt.	D5-3 4" Letters Series "D"	PARKING AREA 1500 Feet	48 x 24

SCHEDULE OF STRIPING

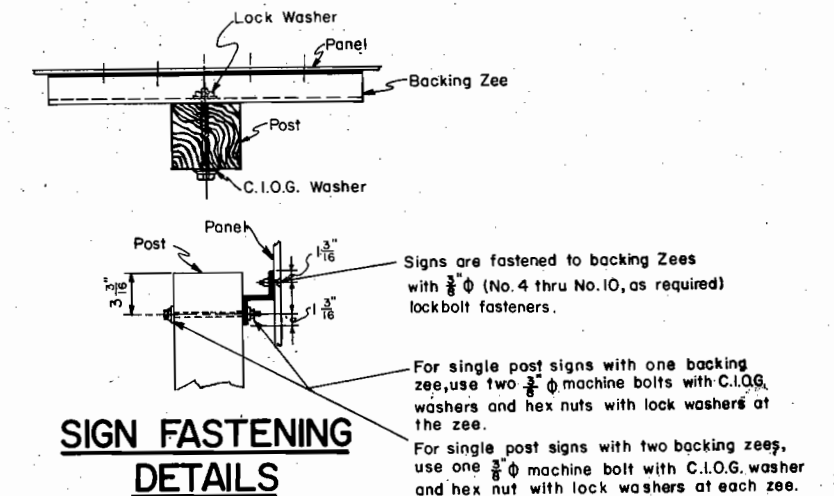
Station to Station	Broken Center-Line Stripe (ft)	Broken Left Lane Stripe (ft)	Solid Left Lane Stripe (ft)	Broken Right Lane Stripe (ft)	Solid Right Lane Stripe (ft)
1665+00 to 1675+00	1,000				
1675+00 to 1685+00		1,000			1,000
1685+00 to 1750+00			6,500		6,500
1750+00 to 1760+00			1,000	1,000	
1760+00 to 1761+00	100				
1761+00 to 1771+00		1,000			1,000
1771+00 to 1790+00			1,900		1,900
1790+00 to 1800+00			1,000	1,000	
1800+00 to 1815+00	1,500				
1815+00 to 1820+00		500			500
1820+00 to 1867+00			4,666		4,666
1867+00 to 1879+00			1,200	1,200	
1879+00 to 1944+00	6,500				
1944+00 to 1949+00		500			500
1949+00 to 1956+00	700				
1956+00 to 1961+00			500	500	
1961+00 to 1963+00	200				
1963+00 to 1968+00		500			500
1968+00 to 1975+00	700				
1975+00 to 1980+00			500	500	
1980+00 to 1983+00	300				
1983+00 to 1995+00		1,200			1,200
1995+00 to 1999+00			400		400
1999+00 to 2011+00			1,200	1,200	
2011+00 to 2017+00	600				
2017+00 to 2029+00		1,200			1,200
2029+00 to 2030+00			100		100
2030+00 to 2042+00			1,200	1,200	
2042+00 to 2046+00	400				
2046+00 to 2058+00		1,200			1,200
2058+00 to 2096+00			3,800		3,800
2096+00 to 2106+00			1,000	1,000	
2106+00 to 2112+00	600				
2112+00 to 2120+00		800			800
2120+00 to 2123+00	300				
2123+00 to 2131+00			800	800	
2131+00 to 2143+00		1,200			1,200
2143+00 to 2152+00			900		900
2152+00 to 2160+00			800	800	
2160+00 to 2206+00	4,600				
2206+00 to 2218+00		1,200			1,200
2218+00 to 2223+15			515		515
TOTALS	17,500	10,300	27,981	9,200	29,081

NOTE: Solid white edge of shoulder strips shall be used throughout Project. Special striping at intersections or parking areas shall be as determined by the Engineer.



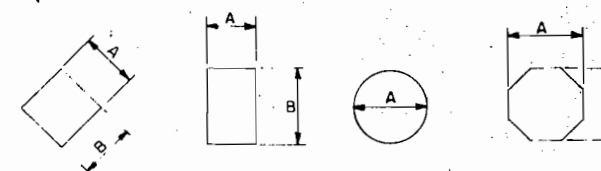
TYPICAL SIGN
ERECTION DETAIL

NOTE: Signs larger than 36-inches wide or with areas greater than 10 sq. ft. shall be mounted on two posts. All posts on this project shall be 4"x 4".



Note: For this project all signs shall require two backing Zees. Backing Zees shall be at least as long as Dimension A minus 10 inches.

Backing zees are 3" x 2 $\frac{3}{4}$ " x $\frac{1}{4}$ " at 6.7 lbs. per ft. for steel or 2.33 lbs. per ft. for 6061-T6 aluminum.



TYPICAL SIGN DIMENSIONS

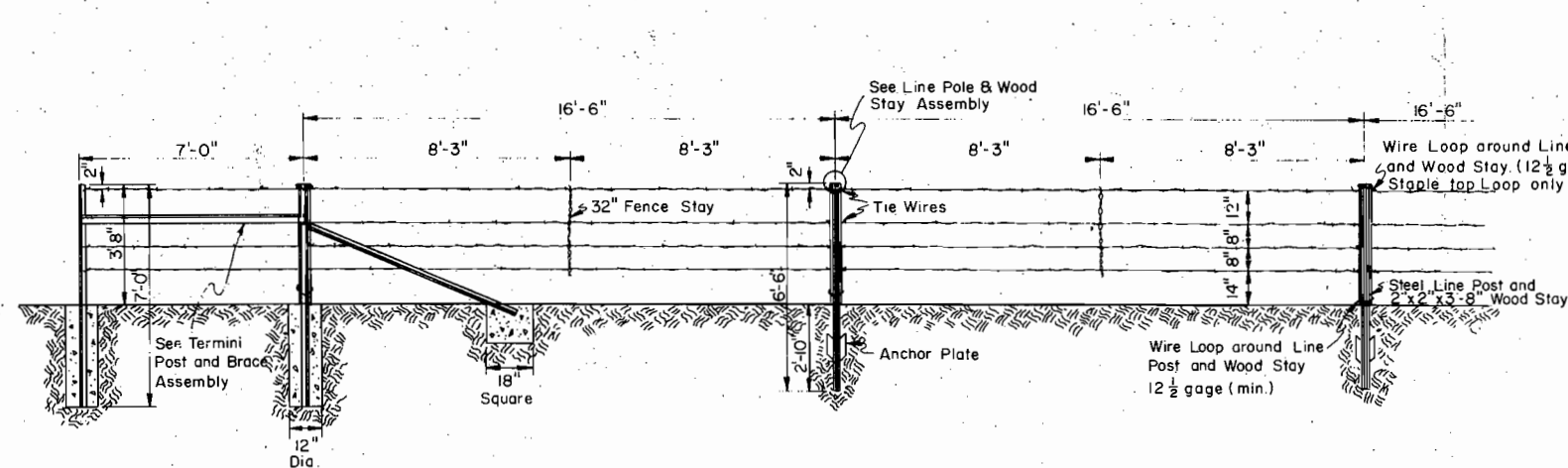
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION-8 DENVER, COLORADO

SIGN DETAILS AND STRIPING SCHEDULE

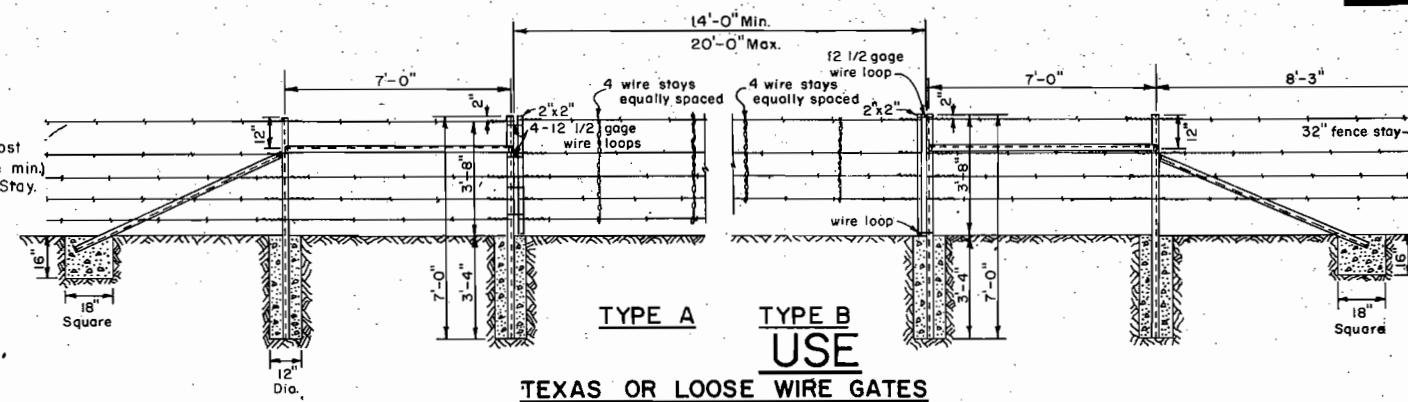
*Denotes Special Signs, Item 633(2). All other signs are Standard Signs, Item 633(1).

(As Constructed)

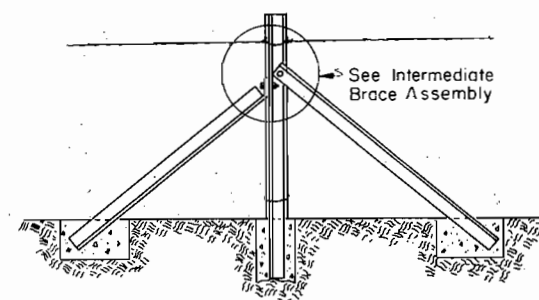
STANDARD	633-1
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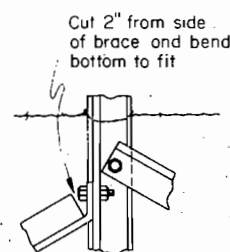
**LAY DOWN FENCE
TYPE B**



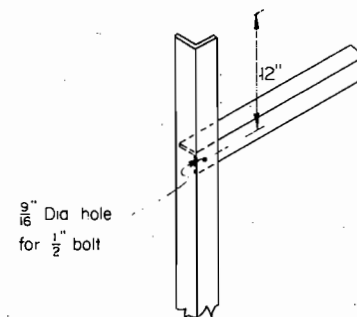
**TYPE A TYPE B
USE
TEXAS OR LOOSE WIRE GATES**



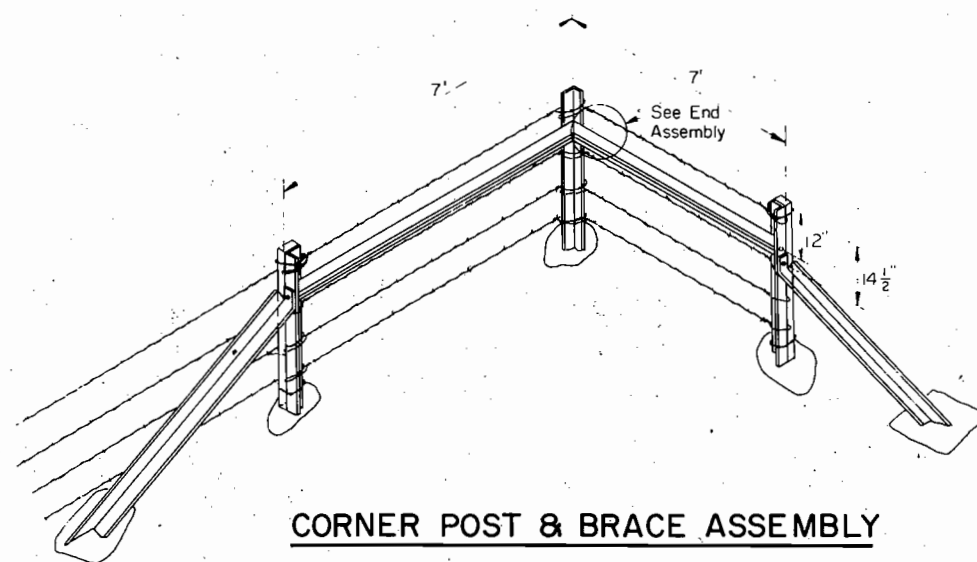
INTERMEDIATE BRACING



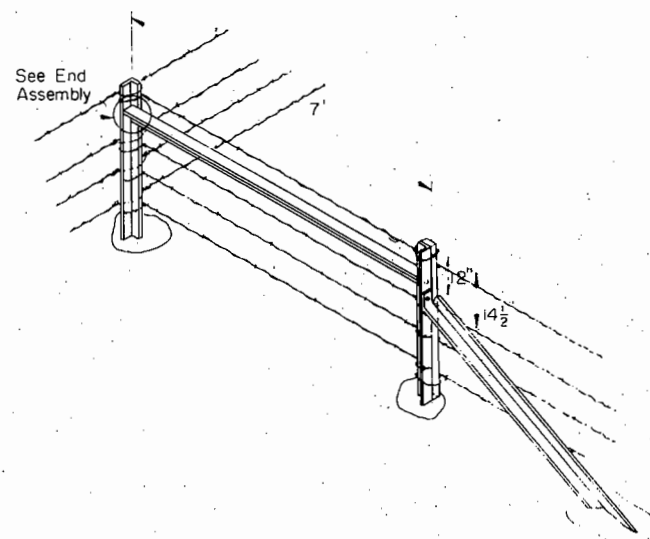
**INTERMEDIATE BRACE
ASSEMBLY**



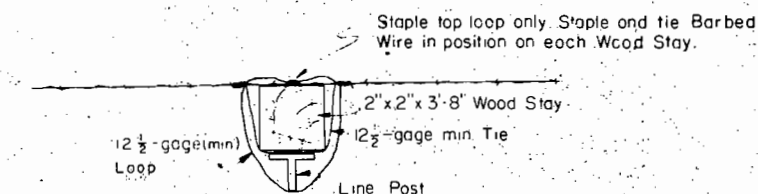
END ASSEMBLY



CORNER POST & BRACE ASSEMBLY



TERMINI POST & BRACE ASSEMBLY



**LINE POLE & WOOD STAY
ASSEMBLY**

Posts and Braces: All corner, end, gate and intermediate brace posts shall be 2-1/2"x 2-1/2"x 1/4" steel angle sections, 7'-0" long, weighing not less than 3.9 lbs. per 11n. ft. Braces shall be 2"x 2"x 1/4" steel angles, 7'-0" long, weighing not less than 3.0 lbs. per 11n. ft. Line posts shall be steel "Tees", 6'-6" long, weighing not less than 1.3 lbs. per 11n. ft., and shall have an anchor plate sufficient to resist movement. All posts and braces shall be drilled or punched as shown hereon, and shall have a weather resistant green baked enamel finish which shall also be resistant to the shock of driving operations. White paint on the top portion of the post is optional. Line posts with studded face will be acceptable in lieu of drilled or punched posts.

Wood Stays: Treated fence stays shall be made from well seasoned, straight, sound, West Coast Douglas Fir, Ponderosa Pine, or Lodgepole Pine. Treatment of posts and fence stays shall be in accordance with FP-74, Section 716, Material for Timber Structures. Treatment shall be either Pentachlorophenol or Creosote. If Pentachlorophenol is used, the minimum net retention shall be 0.30 lbs. per cubic ft., of wood. If Creosote is used, the minimum net retention shall be 5 lbs. of preservative per cubic ft., of wood.

Brace Panels: All corner, end or gate posts shall be braced as detailed hereon. Corner posts and bracing shall be placed at all changes in alignment in excess of 20 degrees. Intermediate bracing shall be placed at all changes in grade in excess of 20 degrees. Where the distance between corners or ends is in excess of 1/8 of mile, intermediate bracing shall be inserted at uniform intervals of not less than 1/8 mile.

Barbed Wire: Barbed wire shall conform to current A.S.T.M. Specification A-121, Class 1, and shall be 2 strands of 12-1/2-gage galvanized wire, twisted, having 2 point, double wrap, 14-gage round barbs, maximum of 4" apart. Minimum net weight shall be 78 lbs. per 80-rod reel.

Miscellaneous: Fence stays shall be double strand, twisted, 9-1/2-gage galvanized wire. Fence ties shall be a minimum of 12-1/2-gage galvanized wire. Every strand of barbed wire shall be tied to each lay-down post. Bolts for attaching braces shall be 1/2" x 1" galvanized machine bolts. Loops connecting lay-down posts to line posts shall be 12-1/2-gage (min.) galvanized. Staples shall be 9-gage, galvanized 1-1/2" long.

Concrete: Concrete shall be as specified in Section 602, Minor Concrete Structures and shall be allowed to set not less than seven days before wire may be stretched.

(As Constructed)

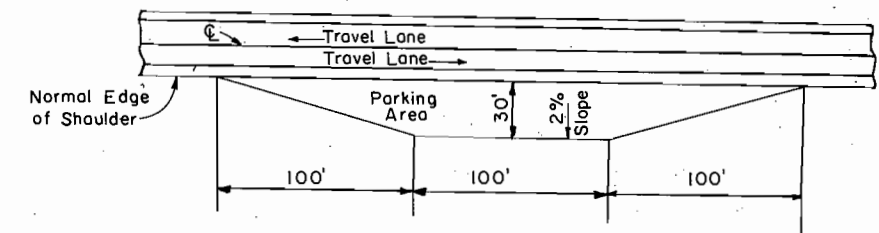
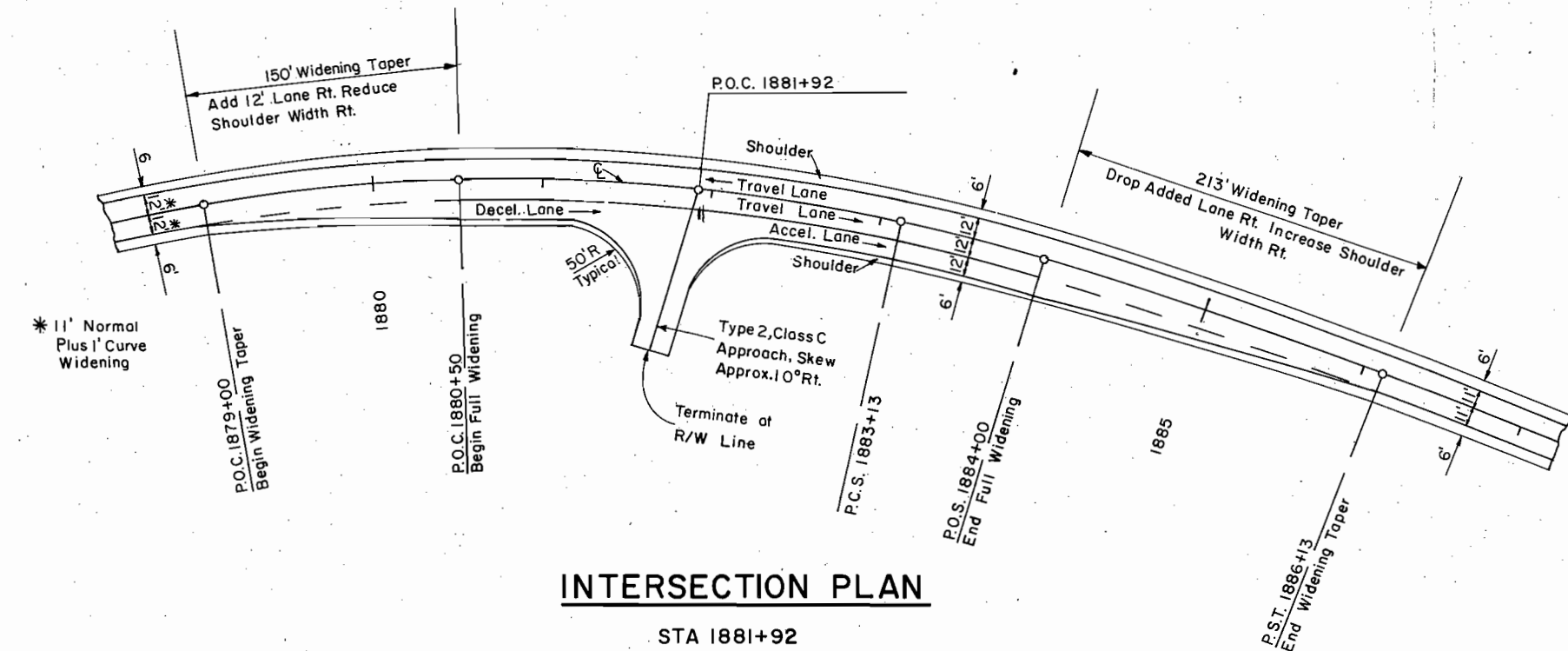
Revisions

Project 7-2(2) South Fork - Lake City

COLO. - I

**LAY DOWN
WIRE FENCE**

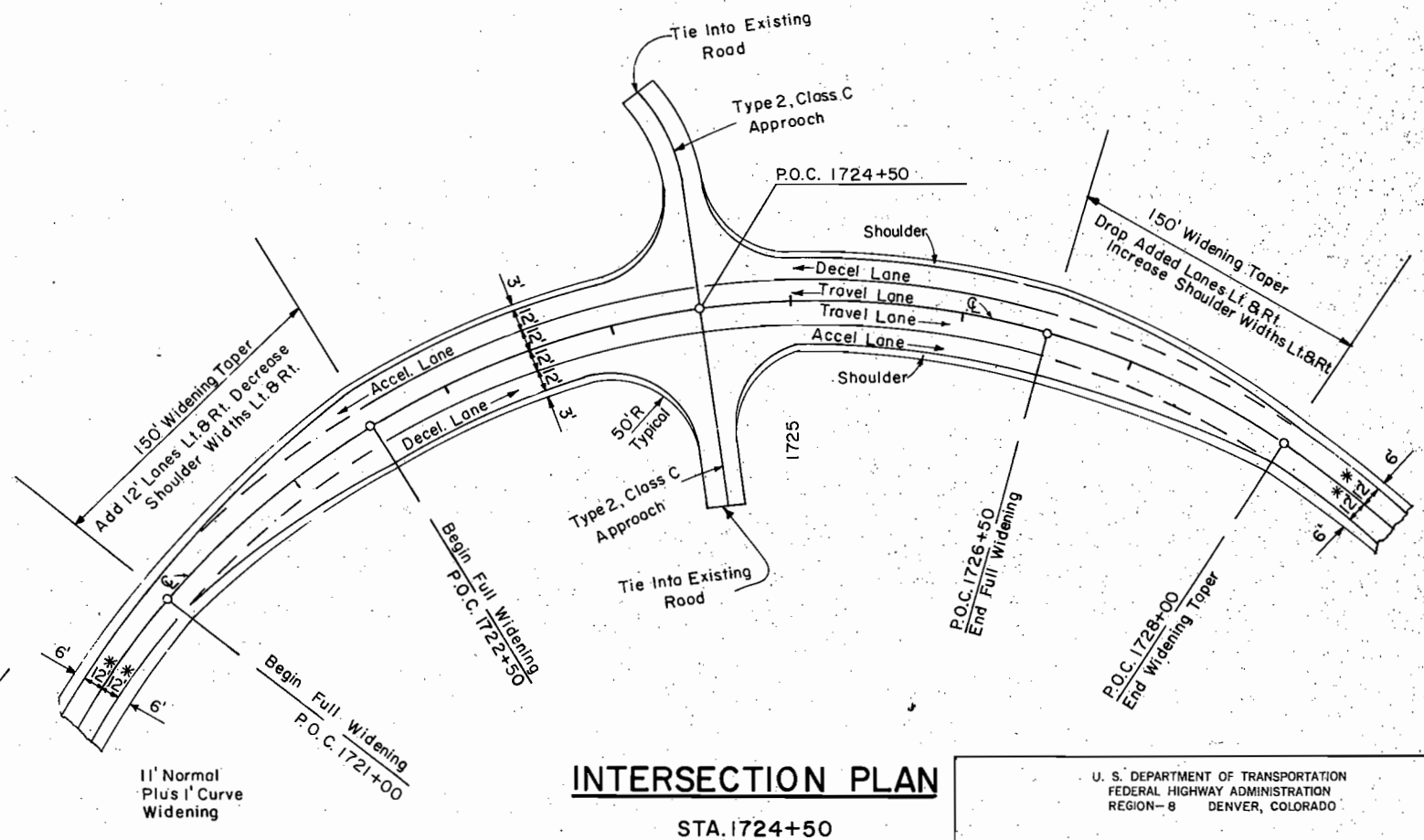
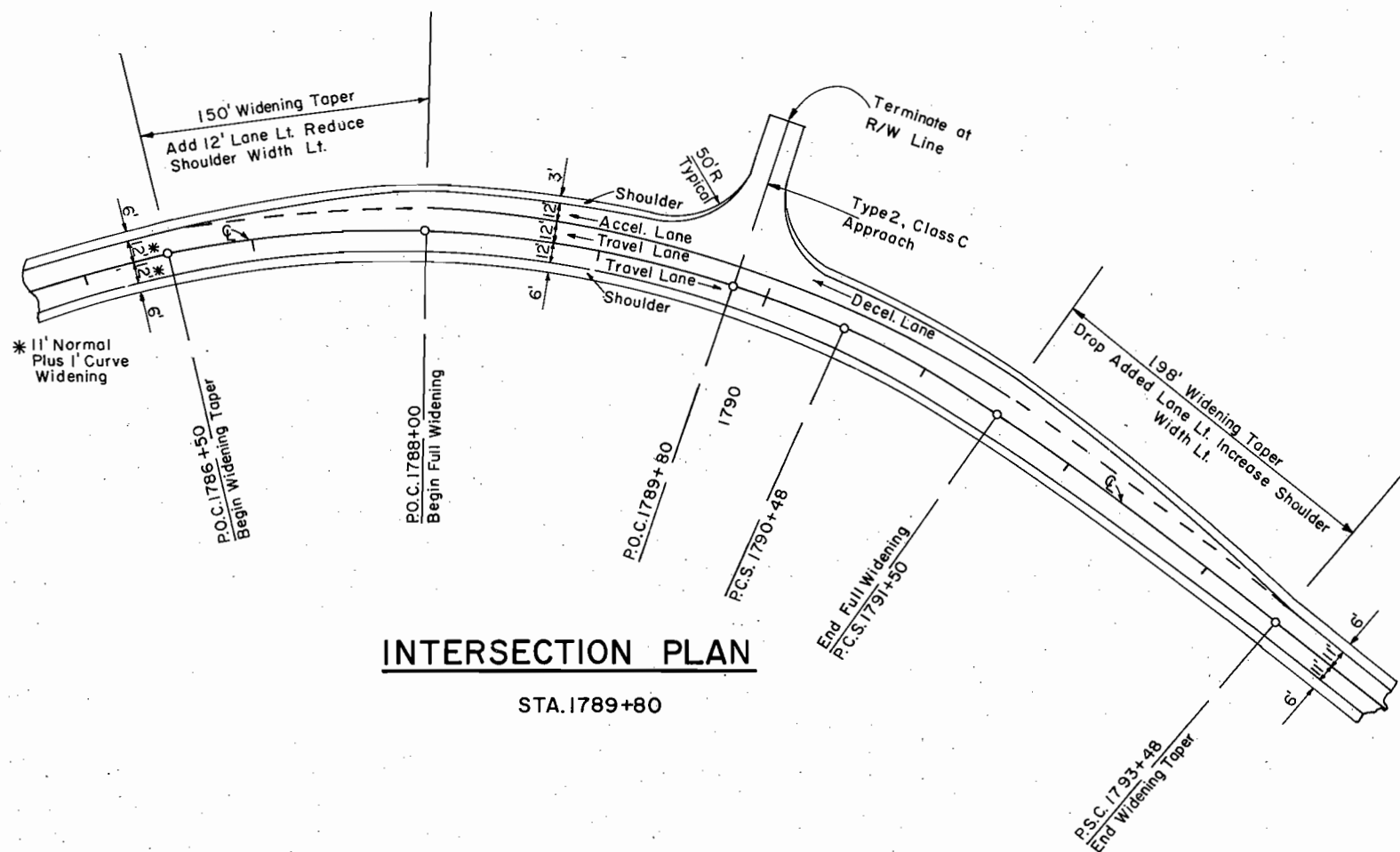
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 8 DENVER, COLORADO



PLAN-TYPICAL FISHERMAN'S PARKING AREA

STA. 1694+00 to STA. 1697+00
STA. 1957+00 to STA. 1960+00
STA. 2053+00 to STA. 2056+00
STA. 2096+50 to STA. 2099+50
STA. 2131+00 to STA. 2134+00

GRADING UNDER
PREVIOUS PROJ. 7-2(1)



U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION-8 DENVER, COLORADO

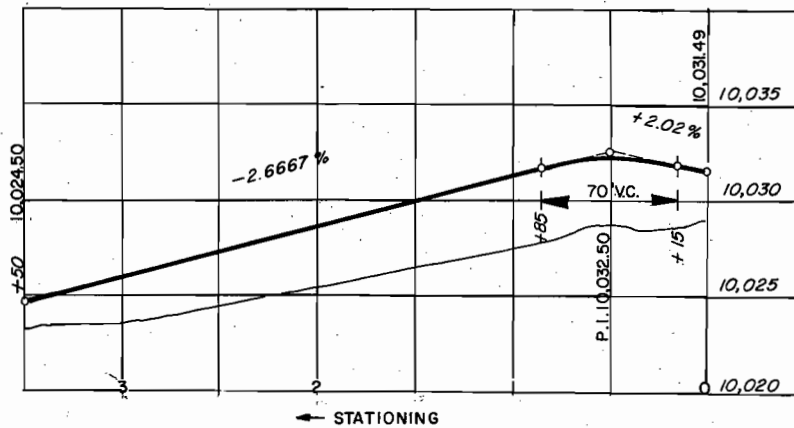
INTERSECTION & PARKING AREA DETAILS

SHEET 1 of 3

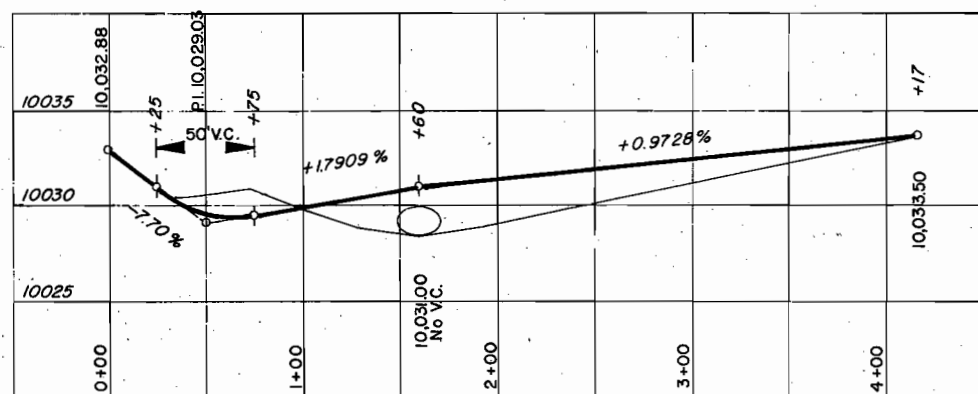
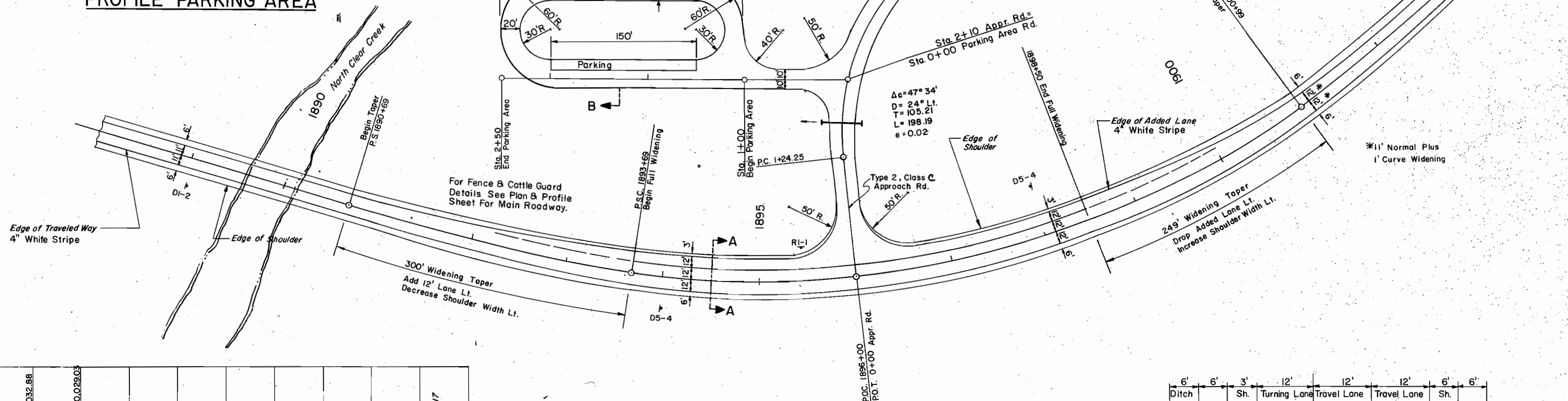
Proj: Colo FH.7-2(2) South Fork-Lake City

COLO-2

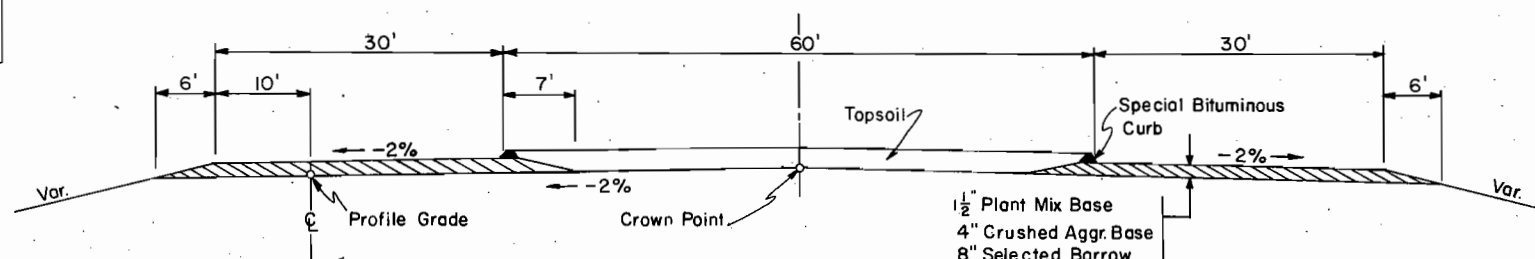
(As Constructed)



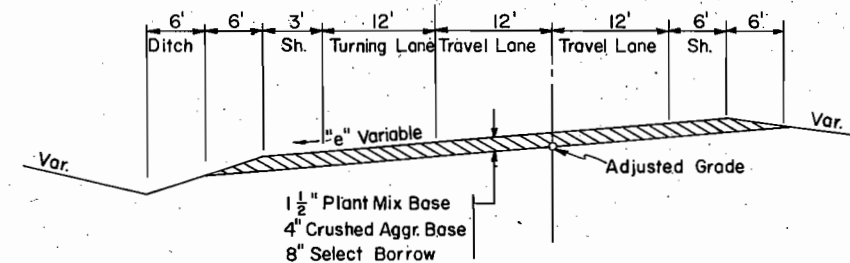
PROFILE PARKING AREA



PROFILE-APPR. RD.



SECTION B-B



SECTION A-A

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION-8 DENVER, COLORADO

NORTH CLEAR CREEK
PARKING AREA
AND
INTERSECTION DETAIL
STA. 1896+00
SHEET 3 OF 3

(As Constructed)

Proj. Colo. F.H. 7-2(2), South Fork Lake City

COLO.- 2

GENERAL NOTES

Structural Plate: Material shall not be ordered until length, location, and grade have been checked in the field by the Engineer. Bevel cuts at ends shall be made at right angles to the longitudinal axis of the structure. Maximum height of cover shall be 10 feet, and minimum height of cover shall be 1 foot. All structural-plate shall be 0.109 inch thickness galvanized sheet manufactured, fabricated, and installed according to Section 617 of F.P.-74.

Concrete: Concrete shall conform to the requirements of Section 602. Concrete shall be poured monolithically. All exposed edges shall be chamfered 3/4 inch and all exposed surfaces shall have a "Rubbed Finish."

Reinforcing Steel: Bars shall conform to A.A.S.H.T.O. M-31, Grade 40. Payment for steel is subsidiary to Item 602.

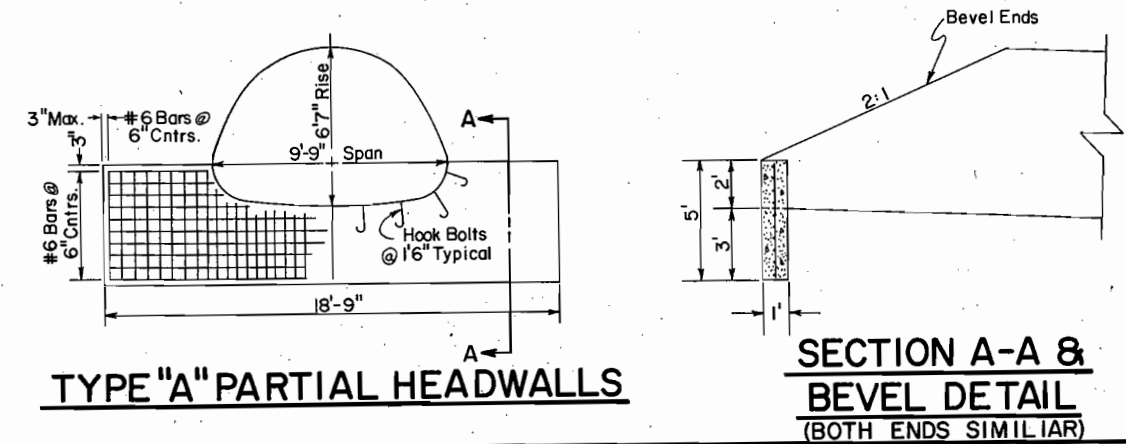
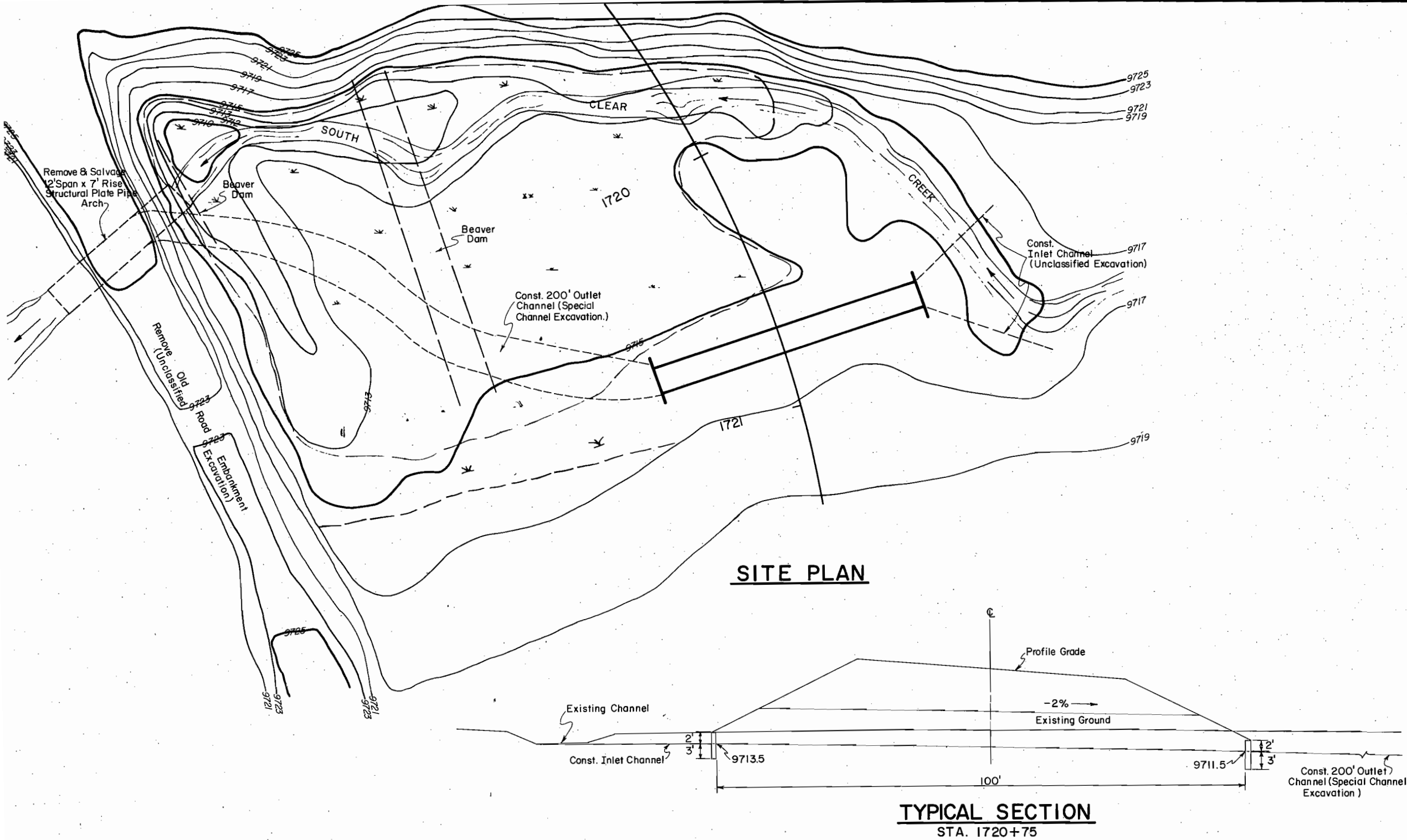
Headwalls: The dimensions shown on the plans are minimum depth. Excavation and backfill shall be in accordance with Section 206. Concrete is not to be poured until pipe installation is complete.

Revisions: All revisions found necessary in the field must be approved by the Bridge Engineer.

Special Channel Excavation: See COLO.-4, General Notes, 1 through 3.

ESTIMATED QUANTITIES

CONCRETE	5.68 CU. YDS.
REINFORCING STEEL	438 LBS.
STRUCTURE EXCAVATION	146 CU. YDS.
UNCLASSIFIED EXCAV.	3,400 CU. YDS.
SPECIAL CHANNEL EXCAV.	200 LIN. FT.



NOTE: All pipe and hook bolts shall be galvanized after fabrication.

(As Constructed)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 8 DENVER, COLORADO

**SOUTH CLEAR CREEK
CROSSING
9'-9" SPAN X 6'-7" RISE
STRUCTURAL PLATE
PIPE ARCH
STA. 1720 + 75**

Proj. Colo. F.H. 7-2(2), South Fork Lake City

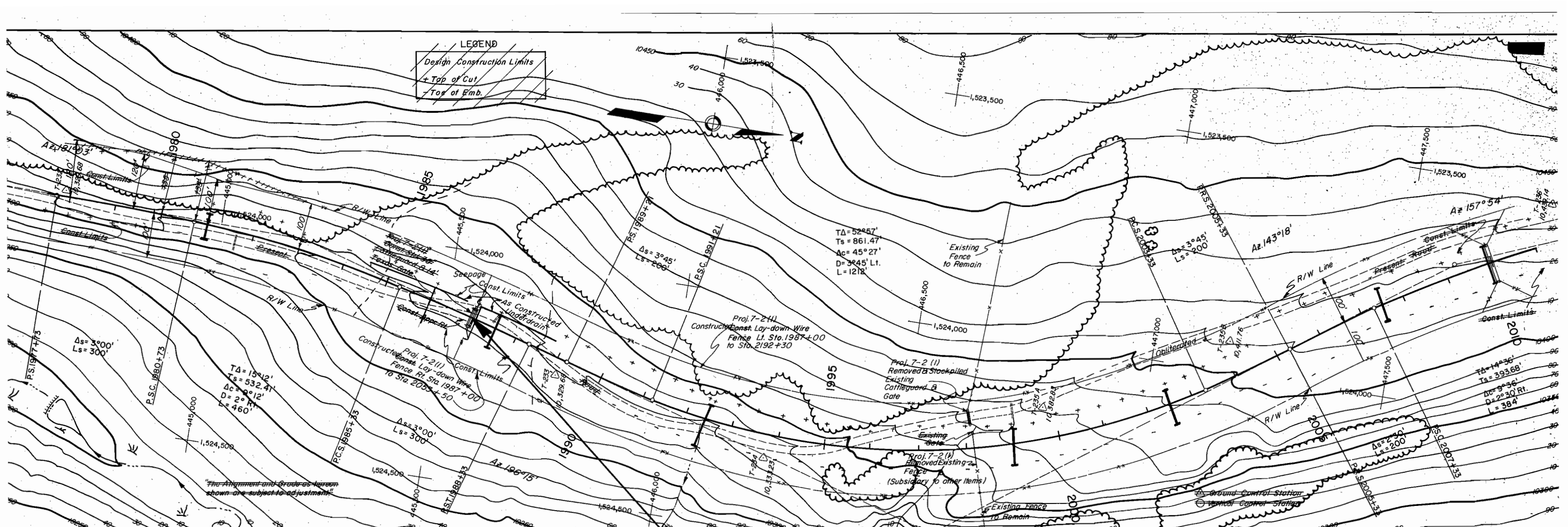
COLO.- 3

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U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION-8 DENVER, COLORADO

STA. 1932+00 TO 1941+00



NORTH END PROJ. 7-2(2)
1976 GRADING

STA 1987+00 SOUTH END PROJ. 7-2(1)
UNDER CONSTRUCTION

