

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
FAI 74	*	TAZEWELL	1366	627	20 SHEETS
FED. ROAD DIST. NO. 7	ILL. MILES	FED. AID PROJECT-			

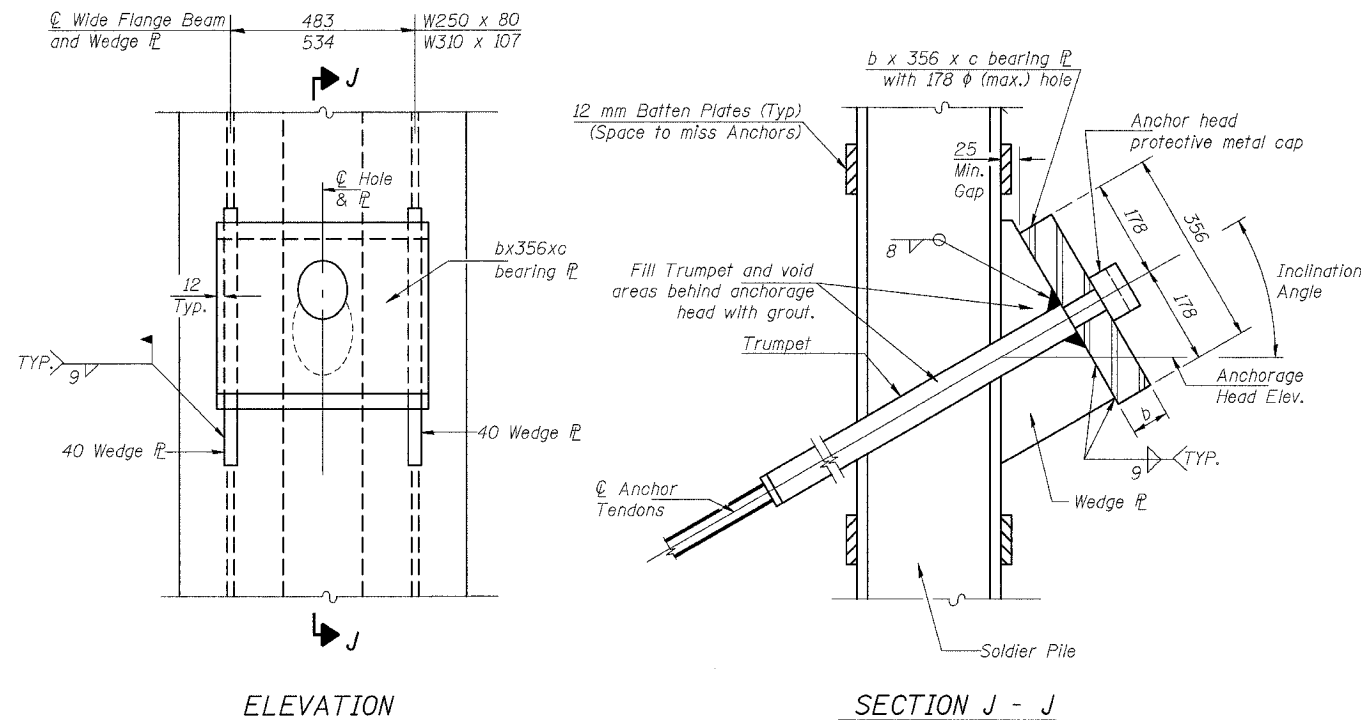
PERMANENT GROUND ANCHOR DATA

Soldier Pile Designation	Anchor Number	Anchor Head Elevation	Design Load (kN)	Inclination* Angle	**# of Prestressing Strands	Minimum Anchor Unbonded Length (m)	Estimated Bond *** Length (m)
B1	B1-1	151.362	274.7	15	3	4.3	5.2
B2	B2-1	151.567	460.0	15	3	4.3	5.2
B3	B3-1	151.993	546.3	15	4	4.3	5.2
B4	B4-1	152.500	570.0	15	4	4.3	5.2
C1	C1-1	152.500	570.0	15	4	5.5	8.3
C2	C2-1	152.902	804.3	15	6	5.5	8.3
C3	C3-1	153.237	901.7	15	6	5.5	8.3
C4	C4-1	153.660	904.5	15	6	5.5	8.3
D1	D1-1	153.660	904.5	15	6	6.0	9.1
D2	D2-1	154.276	639.1	15	5	6.0	9.1
D2	D2-2	150.496	674.0	15	5	4.0	5.3
D3	D3-1	154.584	670.3	15	5	6.0	9.1
D3	D3-2	150.714	706.5	15	5	4.0	5.3
D4	D4-1	155.000	602.0	15	5	6.0	9.1
D4	D4-2	151.010	634.3	15	5	4.0	5.3
E1	E1-1	155.020	600.4	15	5	5.9	10.0
E1	E1-2	151.020	625.6	15	5	5.3	7.5
E2	E2-1	155.509	757.3	15	6	5.9	10.0
E2	E2-2	151.389	800.0	15	6	5.3	7.5
E3	E3-1	155.871	791.2	15	6	5.9	10.0
E3	E3-2	151.671	833.0	15	6	5.3	7.5
E4	E4-1	156.410	703.7	15	5	5.9	10.0
E4	E4-2	152.070	747.0	15	5	5.3	7.5
F1	F1-1	156.410	703.7	15	5	9.0	12.0
F1	F1-2	152.070	796.0	25	5	9.0	6.5
F2	F2-1	157.650	600.3	15	5	9.0	12.0
F2	F2-2	154.450	682.4	25	5	9.0	6.5
F2	F2-3	151.250	668.2	25	5	6.0	4.5
F3	F3-1	158.080	626.2	15	5	9.0	12.0
F3	F3-2	154.780	718.9	25	5	9.0	6.5
F3	F3-3	151.480	704.0	25	5	6.0	4.5
F4	F4-1	158.640	557.0	15	4	9.0	12.0
F4	F4-2	155.240	603.0	25	4	9.0	6.5
F4	F4-3	151.840	590.5	25	4	6.0	4.5
G1	G1-1	158.640	557.0	15	4	12.0	12.0
G1	G1-2	155.240	603.0	15	4	5.5	10.5
G1	G1-3	151.840	590.5	15	4	10.0	12.0
G2	G2-1	159.141	701.5	15	5	12.0	12.0
G2	G2-2	155.661	752.0	15	5	5.5	10.5
G2	G2-3	152.181	736.0	15	5	10.0	12.0
G3	G3-1	159.770	584.8	15	4	12.0	12.0
G3	G3-2	157.050	580.6	15	4	5.5	10.5
G3	G3-3	154.330	580.6	15	4	10.0	12.0
G4	G4-1	151.610	568.5	15	4	10.0	8.0
G4	G4-2	160.360	516.2	15	4	12.0	12.0
G4	G4-3	157.560	517.4	15	4	5.5	10.5
G4	G4-4	154.760	517.4	15	4	10.0	12.0
G4	G4-4	151.960	506.6	15	4	10.0	8.0
H1	H1-1	160.960	593.2	15	5	10.0	6.0
H1	H1-2	159.210	720.7	25	6	5.0	7.0
H1	H1-3	156.700	849.3	25	6	4.5	8.0
H1	H1-4	154.190	849.3	25	6	9.0	8.5
H1	H1-5	151.680	833.2	25	6	6.0	6.5
H2	H2-1	161.420	836.7	15	6	12.0	8.5
H2	H2-2	159.020	912.8	15	6	9.0	8.0
H2	H2-3	156.620	912.8	15	6	6.0	8.75
H2	H2-4	154.220	938.2	20	6	14.0	8.5
H2	H2-5	151.820	918.7	20	6	10.0	6.0
H3	H3-1	161.308	706.0	15	6	12.0	7.0
H3	H3-2	159.500	829.7	15	6	9.0	8.0
H3	H3-3	156.850	939.7	15	6	6.0	8.75
H3	H3-4	154.460	916.1	20	6	14.0	8.5
H3	H3-5	152.070	911.7	20	6	10.0	6.0
H4	H4-1	161.170	570.9	15	5	10.0	6.0
H4	H4-2	159.370	677.2	25	5	5.0	7.0
H4	H4-3	157.000	769.7	25	5	4.5	8.0
H4	H4-4	154.630	771.4	25	5	9.0	8.5
H4	H4-5	152.250	756.9	25	5	6.0	6.5
I1	I1-1	161.170	638.7	15	5	9.0	6.25
I1	I1-2	158.910	686.3	15	5	6.8	6.75
I1	I1-3	156.650	686.3	15	5	5.0	6.75
I1	I1-4	154.390	705.5	20	5	4.5	11.0
I1	I1-5	152.130	590.8	20	5	9.0	6.0

* Measured from horizontal plane.

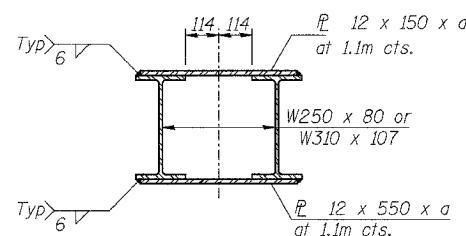
** The prestressing steel tendon shall consist of the specified number of seven-wire strands (AASHTO M203M Grade 1860 No. 15) An alternate system using an equivalent High Strength Steel bar is allowed.

***Estimated length only. The contractor shall determine the bonded length necessary to satisfy the test load requirements. The Anchor unbonded length may need to be increased to put the Anchor bonded region in a suitable soil.



ANCHOR HEAD DETAILS

Notes: Anchorage Head, consisting of 2 wedge plates and a bearing plate shall be shop fabricated.
 Any modifications to the details for the anchor bearing plate and wedge plates required to accommodate the anchor shall be submitted by the Contractor for the Engineer's approval. Cost included with "Permanent Ground Anchors".
 Cost of furnishing, fabricating, attaching all structural steel & drilling holes in the piles is included with "Permanent Ground Anchors".
 Soldier pile numbering increases from north to south.
 Anchor number increases from top to bottom.
 Wall reinforcement may be moved to avoid conflict with the anchor head. Maintain 1" clearance between reinforcement and anchor head.



SOLDIER PILE DETAIL

Cut plate in field if it interferes with rock anchor.

Pile Size	a	b	c
W250 x 80	730	2 x 75	548
W310 x 107	830	2 x 75	598

REVISIONS	
NAME	

LIN ENGINEERING, LTD.
 20 W. Chestnut
 6211-483-4848
 Chicago, Illinois 60629
 FAX (312) 624-4706
 Designed By: MTH
 Checked By: KRK
 Drawn By: JMD
 Date: 09/02
 File: rpg405-50908513.dgn

ILLINOIS DEPARTMENT OF TRANSPORTATION
GROUND ANCHOR DETAILS
 RETAINING WALL 82
 F.A.I. RTE. 74 (I-74)
 SECTION 90-11HB-5
 TAZEWELL COUNTY
 RAMP K-2 STATION 10+378 TO 10+507
 STRUCTURE NUMBER 090-8513