

BRIDGE REPLACEMENT - NEW
NHSX-063-1(68)--3H-26

DAVIS CO.

LETTING DATE
11/20-2018

Jim Armstrong }
Mark Van Dyke } District 5
Jason Huddle }
Dale Harmon }
Dave Mulholland - Bridge
Paul Flattery }
Kevin Patel } Design
Amy Schleier }
Jeff Larson } R.O.W
Scott Groat }



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
DAVIS COUNTY
BRIDGE REPLACEMENT - NEW

US 63 over Soap Creek 0.9 miles South of Wapello Co. Line

SCALE: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.



Done 6-3-15

REVISIONS

TOTAL

59

PROJECT IDENTIFICATION NUMBER

08-26-063-010

PROJECT NUMBER

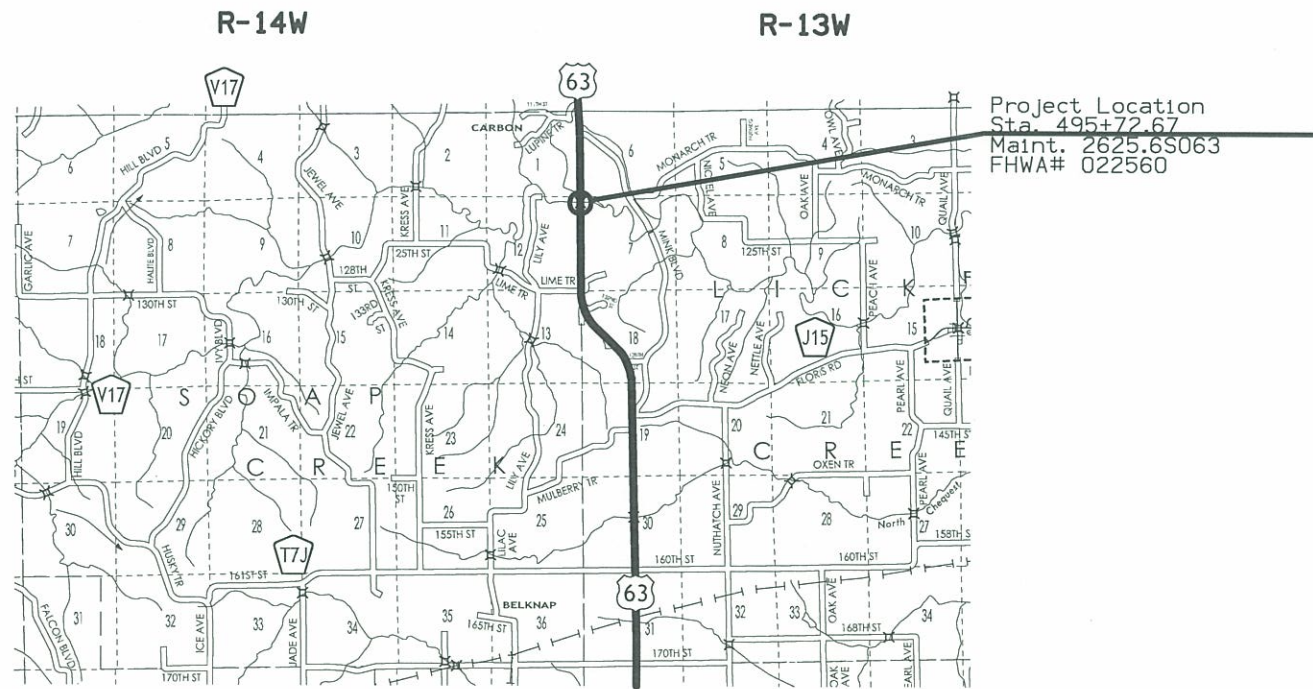
NHSX-063-1(68)--3H-26

R.O.W. PROJECT NUMBER

NHSN-063-1(87)--2R-26

INDEX OF SHEETS

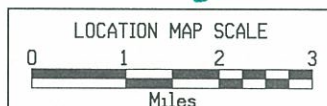
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2 - 4	Project Design Criteria
B Sheets	Typical Cross Sections and Details
B.1	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 7	US 63
G Sheets	Survey Sheets
G.1	Bench Marks
G.2 - 5	Reference Ties - Survey Control
G.6 - 9	Reference Ties- Survey Alignment
G.10	Horizontal Control Tab. for all Alignments
G.11	Curve Data & Super Tab. for all Alignments
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan
* J.1	Staging Notes Stage
* J.1	Tabulation of Special Events
T Sheets	Earthwork Quantity Sheets
T.1 - 2	Earthwork Quantity Sheets
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 32	Mainline Cross Sections
	* Color Plan Sheets



Project Location
Sta. 495+72.67
Maint. 2625.6S063
FHWA# 022560

Class 10 Cut = 10,427 CY
Embankment In Place = 64,861 CY

*New traffic forecast shows:
2019 - 5100 vpd
2039 - 5900 vpd
13% trucks*



DESIGN DATA RURAL			
2007 AADT	6300	V.P.D.	
2035 AADT	8300	V.P.D.	
2035 DHV	850	V.P.H.	
TRUCKS	13	%	
Total Design ESALs	--		

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Paul Flattery	Primary Signature Block
X	X	X

PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN - Date: 5-21-2015
Soap Creek 35' Lt. of ML063

Roadway			
PIN Number	08-26-063-010		
Project Number	NHSX-063-1(68)--3H-26	Submittal Date	
District	District 5	Assistant District Engineer	Mark Van Dyke P.E.
County	Davis (26)	or	
Route	US 63	Office Director	Jim Armstron P.E.
Location	US 63 over Little Soap Creek 0.9 Miles South of Wapallo Co. Line		
Work Type	Bridge Replacement		
Segment Manager	Paul Flattery P.E.		
Designer	John Buttolph		

Design Manual Section 1C-1
last update: 05-06-14

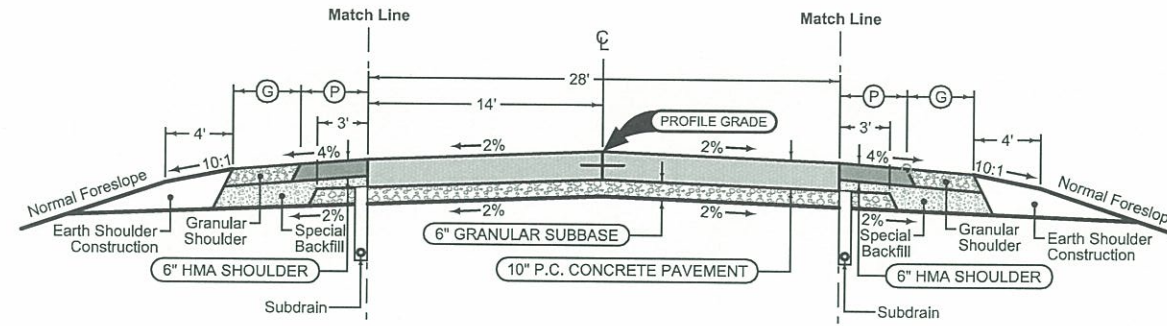
Rural Two-Lane Highways (Rural Arterials)

Design Element	Preferred	Acceptable	Project Values
Design speed (mph)	60	50	55 → 60 mph ?
Maximum superelevation rate (Refer to Section 2A-2)	6%	8%	6%
Design lane width (ft)	12	12	12
Full depth paved width (ft)	14	12	14
Right turn lane (ft)	12	10	N/A
Climbing Lane (ft)	12	12	N/A
Left turn lane (ft)	12	10	N/A
Pavement cross-slope (on tangent sections)	Through lanes	2%	2%
	Auxiliary and turn lanes	3%	N/A
	Crown break at centerline	4%	4%
Shoulder cross-slope (on tangent sections)	4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	4%
Curb type (Refer to Section 3C-2)	Design speed = 50 or 55 mph	6-inch sloped	
	Design speed ≥ 60 mph	4-inch sloped	
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	6-inch sloped	4" Sloped
	Beyond standard ditch depth and design clear zone	10:1 for 4' then 6:1	4:1/6:1
	Curbed roadways	3.5:1	3.5:1
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		2%	2%
		3:1	3:1
Transverse Slopes	w/ drainage structures	8:1	8:1
	w/o drainage structures	10:1	10:1
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	See Notes
Bridge width—new	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths
Bridge width—existing		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft. offset left and right
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	N/A
	Over non-primary	16.5 at interchange locations, 15 at all other locations	
	Over railroad	23.3	
	Sign trusses and pedestrian bridges	17.5	
Structural Capacity		17	
Level of Service	Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	
	B	B	B

Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		(P) Feet	(G) Feet
2480+23.73	2493+13.6	4	4
493+13.6	498+46.4	4	4
2498+46.4	2510+57.20	4	4



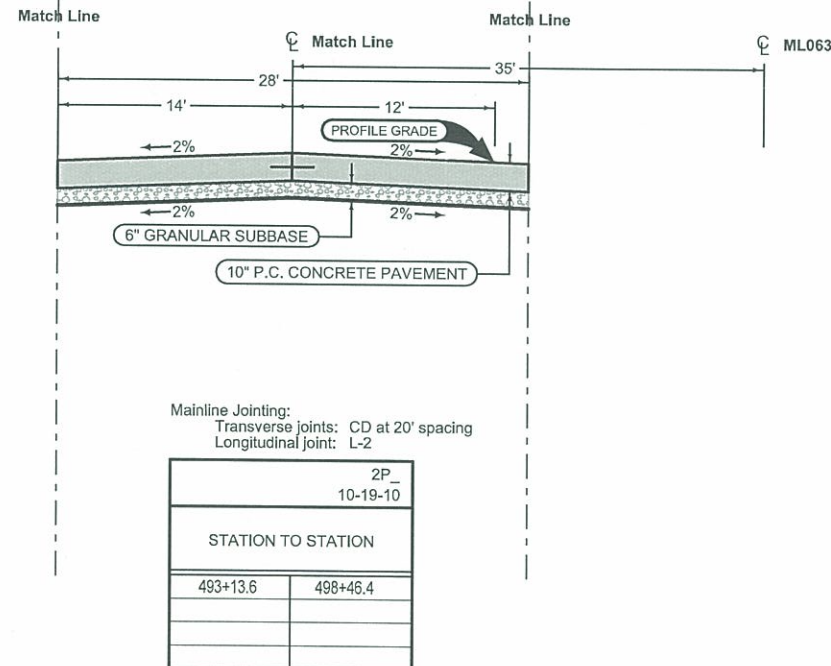
Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

STATION TO STATION	
2480+23.73	2493+13.6
Equation See	Tab. Below
2498+46.4	2510+57.20

Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		(P) Feet	(G) Feet
2480+23.73	2493+13.6	4	4
493+13.6	498+46.4	4	4
2498+46.4	2510+57.20	4	4



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

STATION TO STATION	
493+13.6	498+46.4

Milled & rumble slopes

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

US 63

SURVEY SYMBOLS

- SIGN SI Sign
- LUM Luminaire
- ⊙ MH Utility Access (Manhole)
- ROW Approx. Right of Way Rail
- ⚡ PPA Power Pole Co. 1
- ⊙ MM MM Mile Marker Post
- ⊙ TDC Tree Deciduous
- SIGN SL Speed Limit Sign
- EW Edge of Water
- ===== DIK Centerline of Dike or Dam
- D Centerline Draw or Stream (Down)
- BB Billboard
- #---# FCL Chain Link and Security Fence
- GDL Guard Rail (Rail and Cable)
- ===== RET Retaining Walls
- T2 --- TLB Underground Telephone Line Co. 2
- F0 --- FOA Underground Fiber Optic Co. 1
- F02 --- FOB Underground Fiber Optic Co. 2
- T1 --- TLA Underground Telephone Line Co. 1
- E1 --- ELA Underground Electric Line Co. 1
- G --- GLA Underground Gas Line Co. 1
- W --- WLA Underground Water Line Co. 1
- W2 --- WLB Underground Water Line Co. 2
- ⊙ IN Storm Sewer Intake
- x--- FW Wire Fence
- MIS Miscellaneous
- LC Approx. Lot Corner
- TP TPD Telephone Pedestal
- TA TA Tower Anchor
- EB EB Electrical Box
- ⊗ WEL Well
- * TEV Evergreen Tree
- FWD Wood Fence
- ⚡ FHD Fire Hydrants
- * GP GP Guard Post (Less Than 4 Posts)
- WHU WHU RV Water Hook Up
- ⊙ INB Storm Sewer Beehive Intake

UTILITY LEGEND

- ⚡
- T1 ---
- T2 ---
- F0 ---
- F02 ---
- E1 ---
- G ---
- W ---
- W2 ---

UTILITY CONTACT INFORMATION

Citizens Mutual Telephone
 Gary Mishler
 114 W. Jefferson
 Bloomfield, IA 52537
 (641)-664-2074
 gmishler@cmstel.com

Southern Iowa Electric Cooperative
 Jeremy Wilcox
 P.O. Box 70 22458 Hwy. 2
 Bloomfield, IA 52537
 641-664-2277
 jwilcox@sie.coop

Windstream/PAETEC
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 Urbandale, IA 50322
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 timothy.flickinger@paetec.com

CenturyLink/QWEST
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 Des Moines, IA 50317
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 steven.parker4@centurylink.com

Wapello Rural Water
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 Ottumwa, IA 52501
 641-682-8351
 LAsher@wrh2o.com

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 Madison, WI 53718-2148
 608-458-4871
 jasonhogan@alliantenergy.com

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 546 Southgate Ave.
 Iowa City, IA 52240
 319-351-0408
 teagan@mediacomcc.com

MidAmerican Energy
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 302 S Vine
 Ottumwa, IA 52501
 641-683-4171
 pcdavis@midamerican.com

MidAmerican Energy
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 Oskaloosa, IA 52577
 641-660-3068
 jaferguson@midamerican.com

City of Ottumwa
 Larry Seals
 105 E Third Street
 Ottumwa, IA 52501
 641-683-0680
 lseals@ci.ottumwa.ia.us

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, T/c Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING		
Design Color No.	Description	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

Reference Point

Station Survey Line

- ▲ Section Corner
- Ground Line Intercept
- ===== Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile

	Pavement Removal		Clearing & Grubbing Area
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RIGHT-OF-WAY LEGEND

- ▲ Proposed Right-of-Way
- △ Existing Right of Way
- ▲△ Existing and Proposed Right-of-Way
- △△ Easement and Existing Right-of-Way
- Easement (Temporary)
- ⊙ Easement
- C/A Access Control
- ← Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)

33 ALLEN C. & BRENDA FUNK (CP)
JACKIE E. BLEW (DEED)

Soap Creek TWP.
T-70N R-14W
SEC. 12

33 ALLEN C. & BRENDA FUNK (CP)
JACKIE E. BLEW (DEED)

34 GARY &
TAMMY SPEARS

Sta. 2477+97.73 (SoapCreek1)
= POT Sta. 478+50 (SURCL)

BEGIN CONSTRUCTION
STA. 2480+23.73 (SoapCreek1)
= STA. 480+76.00 (SURCL)

PI Sta 2484+51.24 (SoapCreek1)
= POT Sta. 485+03.51 (SURCL)

EXISTING US 63 (SURCL) E

EXISTING US 63

Construction (ML063) E

Construction (ML063) E

FUTURE NORTHBOUND US 63

FUTURE NORTHBOUND US 63

PI Sta 2489+74.51

PC Sta 2482+66.66
(SoapCreek1)
= POT Sta. 483+38.698
(SURCL)

PT Sta 2486+15.67

PC Sta 2489+08.77

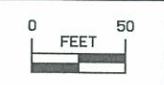
SoapCreek1
Curve Data
Δ = 5° 23' 03.57" (RT)
T = 164.58
L = 328.91
M = 3,500.00
e = 3.87
e = 0.036
L = 138
x = 77
m = 41.4

SoapCreek1
Curve Data
Δ = 5° 25' 20.35" (LT)
T = 165.74
L = 331.23
M = 3,500.00
e = 3.92
e = 0.036
L = 138
x = 77
m = 41.4

NEPA BOUNDARY

31 SHI, LLC

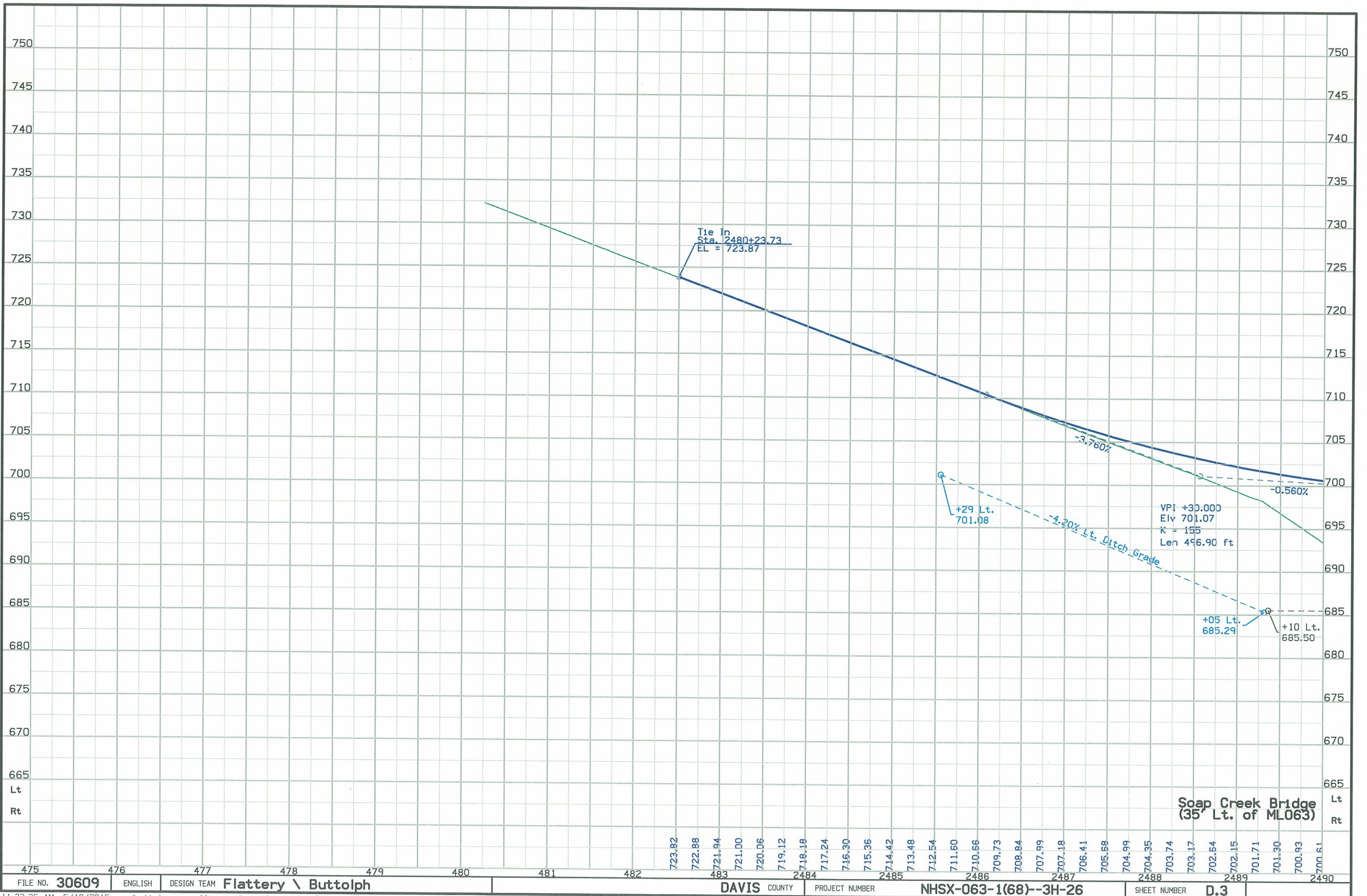
32 SHEILA R. EARLY &
DOYLE P. SCHMITTER



For Profile Details
Refer to Sheet No. D.2

Lick Creek TWP.
T-70N R-13W
SEC. 7

Soap Creek Bridge
(35' Lt of ML063)



475	476	477	478	479	480	481	482	483	2484	2485	2486	2487	2488	2489	2490															
723.82	722.88	721.94	721.00	720.06	719.12	718.18	717.24	716.30	715.36	714.42	713.48	712.54	711.60	710.66	709.73	708.84	707.99	707.18	706.41	705.58	704.99	704.35	703.74	703.17	702.64	702.15	701.71	701.30	700.93	700.61



Soap Creek TWP.
T-70N R-14W
SEC. 12

33 ALLEN C. & BRENDA FUNK (CP)
JACKIE E. BLEW (DEED)

Soap Creek TWP.
T-70N R-14W
SEC. 1

35 JERRY LEE &
DIANNE KAYE CHENEY

36 DOUGLAS E. RUMOHR

NEPA BOUNDARY

SOAP CREEK

Composite bridge approach ?

2490

2495

2500

2505

EXISTING US 63 C

SOUTHBOUND US 63 C

CONSTRUCTION (ML063) C

FUTURE NORTHBOUND US 63

PT Sta 2491+40.00
(SoapCreek1)
= POT Sta 491+40, 35' Lt.
(ML063)

- Buy R.O.W for 2-lane roadway only.
- Drainage easement required

PC Sta 2500+20.00
(SoapCreek1)
= POT Sta 500+20, 35' Lt.
(ML063)

PI Sta 2501+82.21

PT Sta 2508+44.18

SoapCreek1
Curve Data
 $\Delta = 5^\circ 18' 24.65''$ (LT)
 T = 162.20
 L = 324.18
 R = 3,500.00
 E = 3.76
 e = 0.036
 L = 138
 x = 77
 m = 41.4

SoapCreek1
Curve Data
 $\Delta = 5^\circ 20' 41.43''$ (RT)
 T = 163.37
 L = 326.50
 R = 3,500.00
 E = 3.81
 e = 0.036
 L = 138
 x = 77
 m = 41.4

NEPA BOUNDARY

Sta. 495+72.67, 85' Lt
280' x 30' CWG Bridge
Design No. 662
(REMOVE)

Sta. 495+72.67
Build 339' x 42' 44'
Concrete Beam Bridges
Skew = 0°
SB Design No. ?

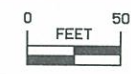
32 SHEILA R. EARLY &
DOYLE P. SCHMITTER

Lick Creek TWP.
T-70N R-13W
SEC. 7

Soap Creek Bridge
(35' Lt. of ML063)

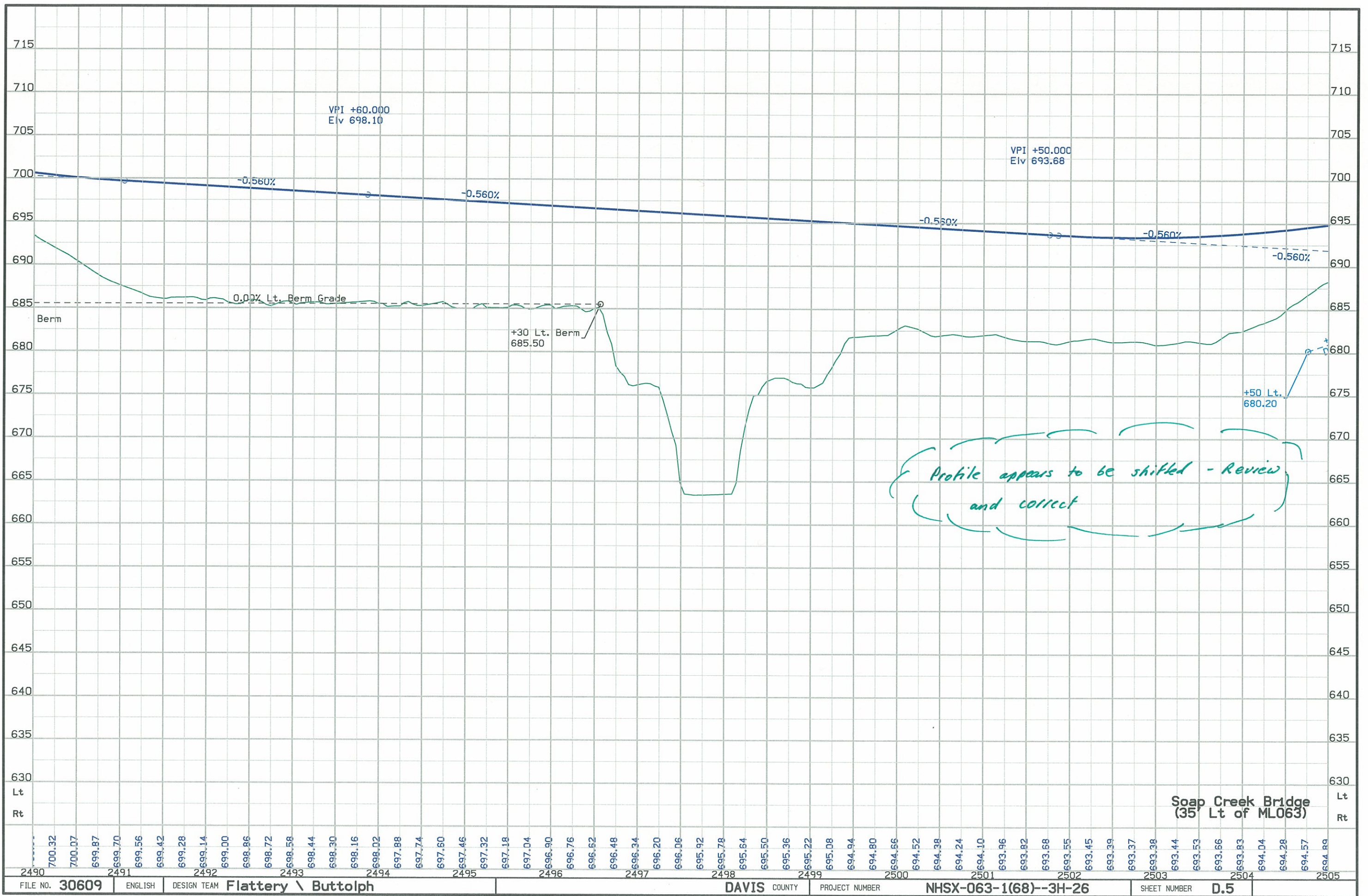
Lick Creek TWP.
T-70N R-13W
SEC. 6

48 JOHN J. &
DOROTHY R.
WAGLER



For Bridge Situation Plan
Refer to Sheet No. V.1 - V.3

For Profile Details
Refer to Sheet No. D.4



37 THOMAS M. & DANA ANN McCOY

Soap Creek TWP. T-70N R-14W SEC. 1

38 JAMES CRAIG & WENDY JIM BEE

• Review climbing lane
• Advanced signs and DMS signs.

END CONSTRUCTION
STA. 2510+57.20 (SoapCreek1)
= STA. 511+05.87 (SURCL)

POT Sta. 52514+81.34
= POT Sta. 515+30.0 (SURCL)

P.I. Sta. 2507+00.75 (SoapCreek1)
= POT Sta. 507+49.17 (SURCL)

EXISTING US 63 (SURCL)

CONSTRUCTION (ML063)

FUTURE NORTHBOUND US 63

FUTURE NORTHBOUND US 63

SoapCreek1
Curve Data
Δ = 5° 20' 41.43" (RT)
T = 163.37
L = 326.50
R = 3,500.00
E = 3.81
e = 0.036
L = 138
x = 77
m = 41.4

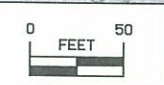
PT Sta 2508+63.88
(SoapCreek1)
= POT Sta 509+12.49
(SURCL)

PC Sta 2505+37.38

NEPA BOUNDARY

48 JOHN J. & DOROTHY R. WAGLER

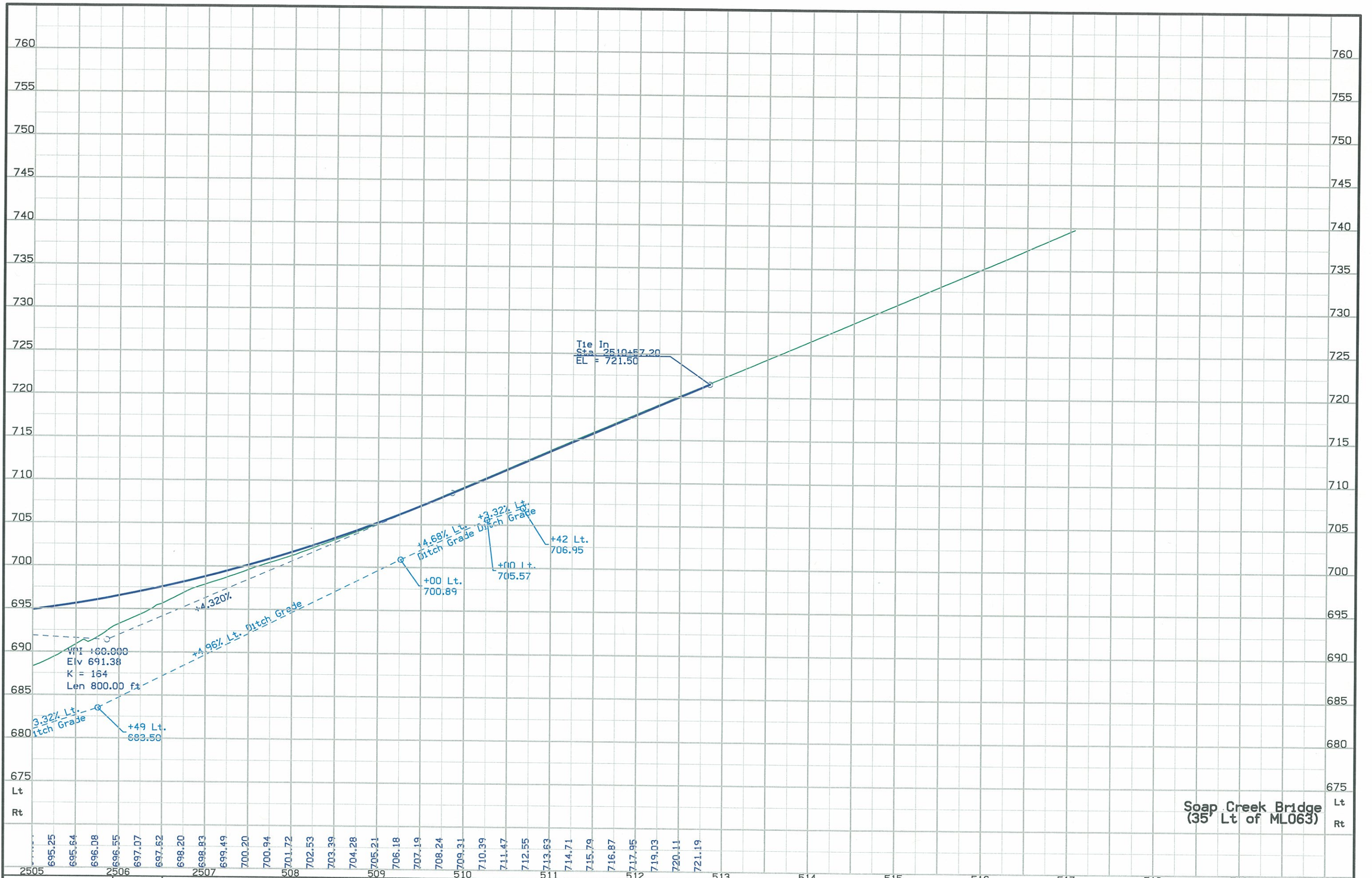
For Side Road Details
Refer to Sheet No. E.10



For Profile Details
Refer to Sheet No. D.6

Lick Creek TWP. T-70N R-13W SEC. 6

Soap Creek Bridge (35' Lt of ML063)



Soap Creek Bridge
(35' Lt of ML063)

FILE NO. 30609	ENGLISH	DESIGN TEAM Flattery \ Buttolph	DAVIS COUNTY	PROJECT NUMBER NHSX-063-1(68)--3H-26	SHEET NUMBER D.7
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HORIZONTAL DATUM INFORMATION:

THE COORDINATES FOR ALL THE GPS POINTS (REFERRED TO AS CONTROL MONUMENTS), WERE PROVIDED BY THE IOWA DEPARTMENT OF TRANSPORTATION SURVEY AND PHOTOGRAMMETRY DEPARTMENT. THE COORDINATES USED ARE ON A MODIFIED STATE PLANE COORDINATE SYSTEM (REFERRED TO AS THE LOCAL PROJECT PLANE COORDINATES). THE CONTROL MONUMENT ELEVATIONS LISTED IN THESE G-SHEETS WERE ESTABLISHED FROM THE BENCHMARK LEVEL LOOP FOR THE PROJECT.

THE SUPPLEMENTAL CONTROL POINTS (REFERRED TO AS CONTROL POINTS), WERE SET FROM THE GPS CONTROL MONUMENTS. ELEVATIONS FOR SUPPLEMENTAL CONTROL WERE ESTABLISHED FROM THE BENCHMARK LEVEL LOOP.

THE ALIGNMENT FOR THIS SURVEY WAS ESTABLISHED BY LOCATING OR SETTING THE AS-BUILT P.I.'s. THIS SURVEY ALIGNMENT RUNS ALONG THE EXISTING CENTERLINE OF US 63.

ALL STATIONS AND OFFSETS ARE BASED ON THE SURVEY ALIGNMENT.

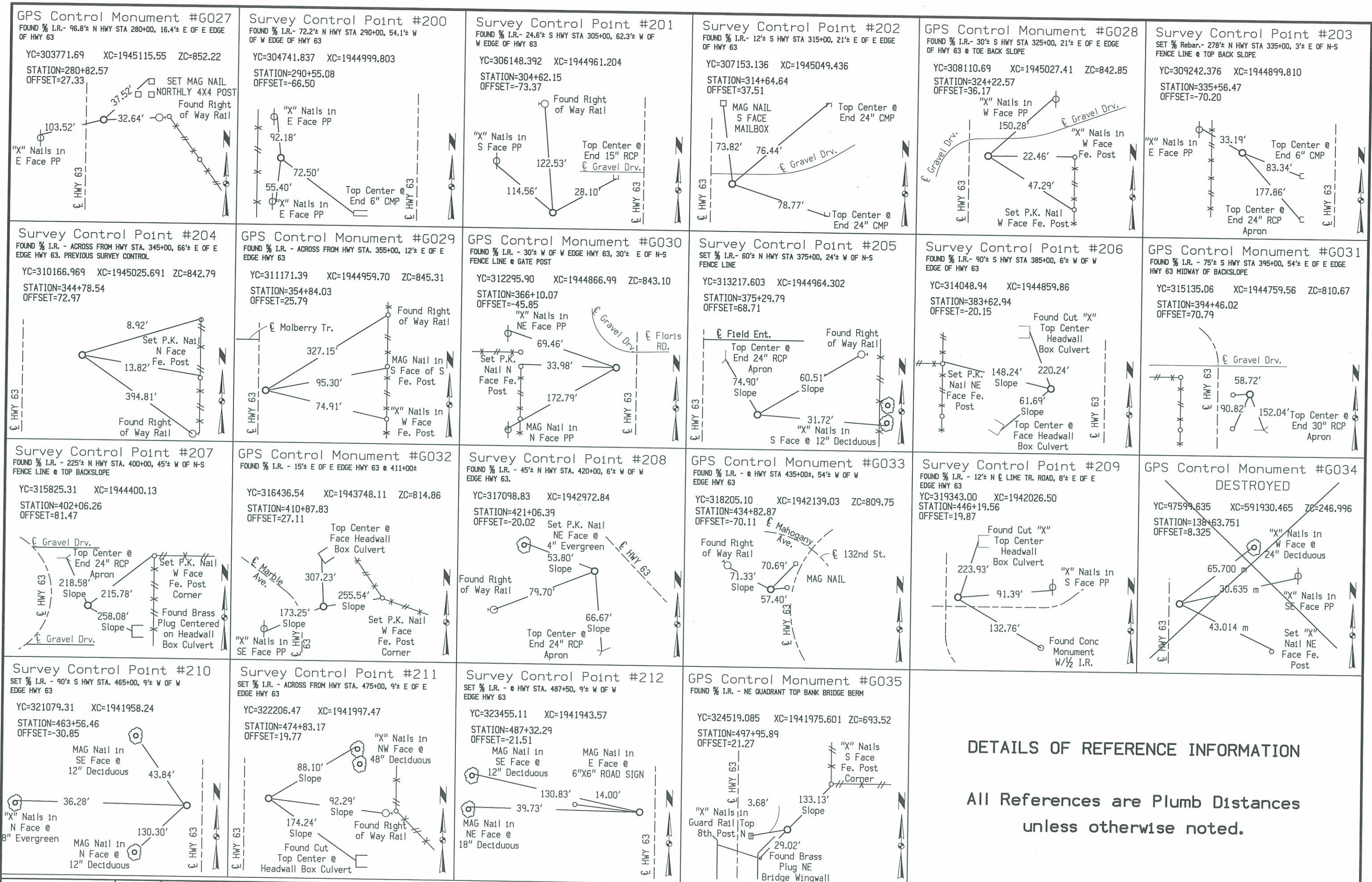
VERTICAL DATUM INFORMATION:

STANDARD ELEVATION BASED ON THE SEA-LEVEL DATUM NAVD 1988. U.S.C.G.S. SECOND ORDER LEVELING.

NOTES:

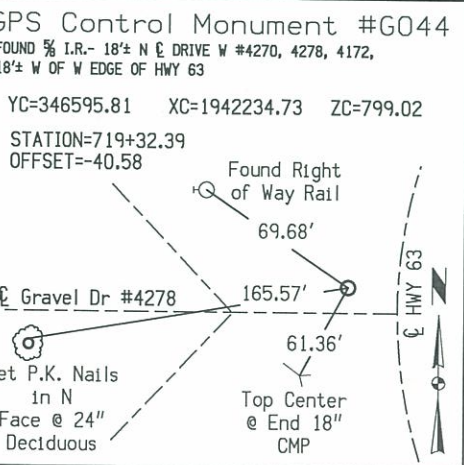
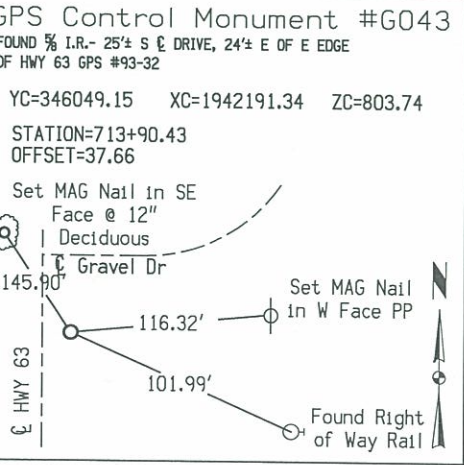
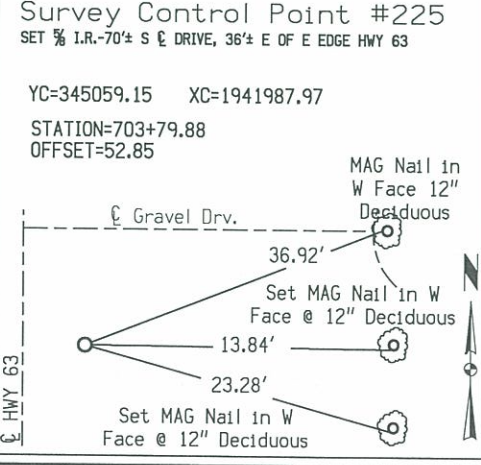
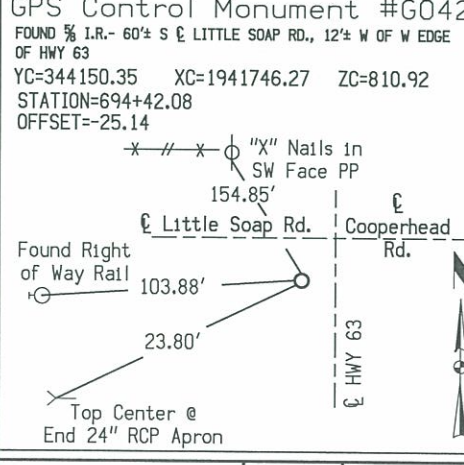
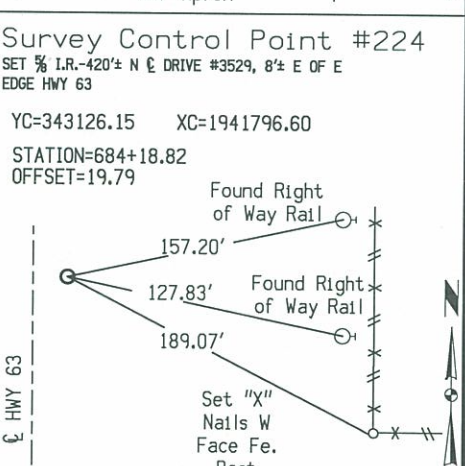
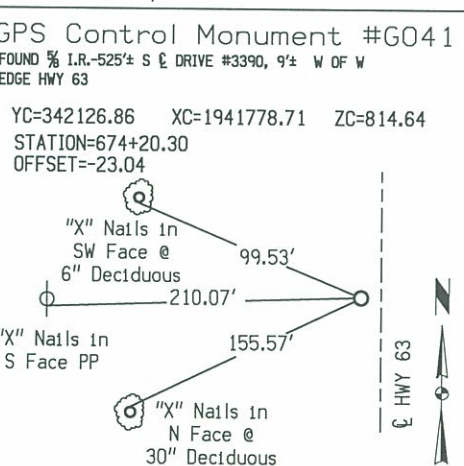
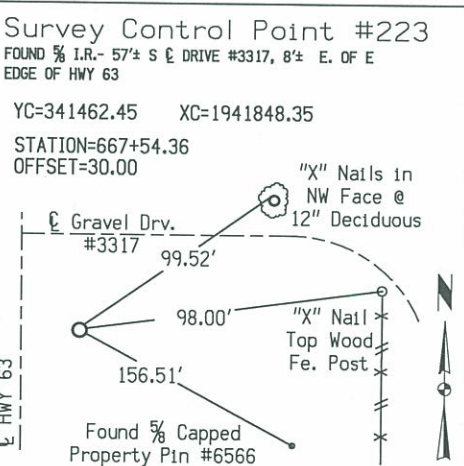
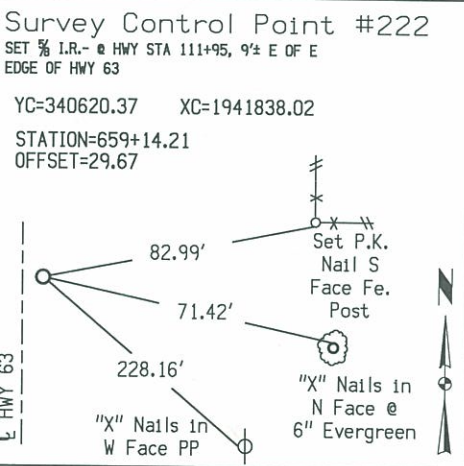
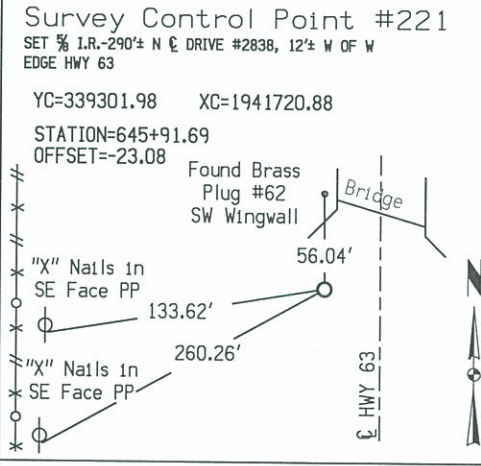
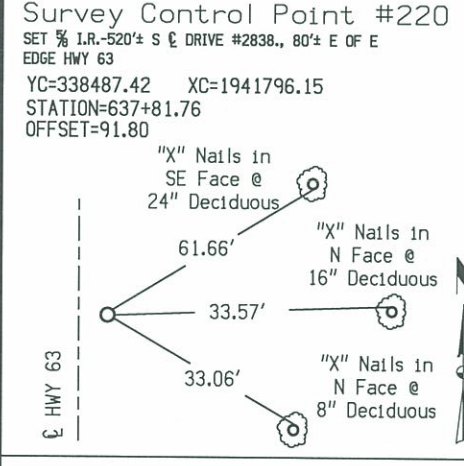
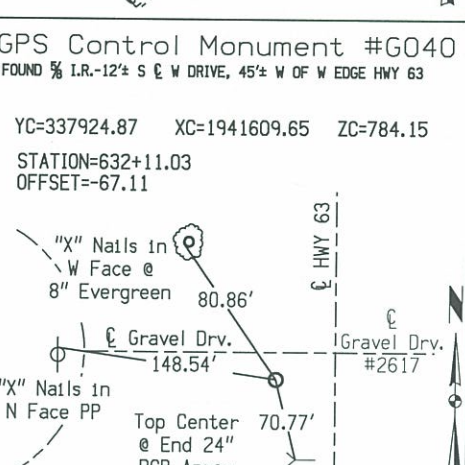
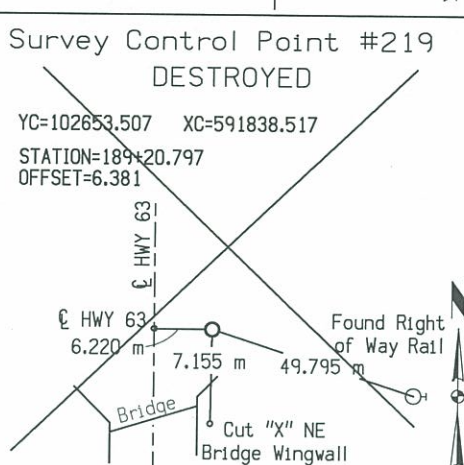
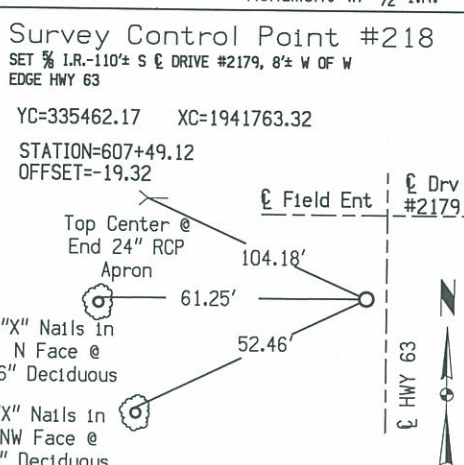
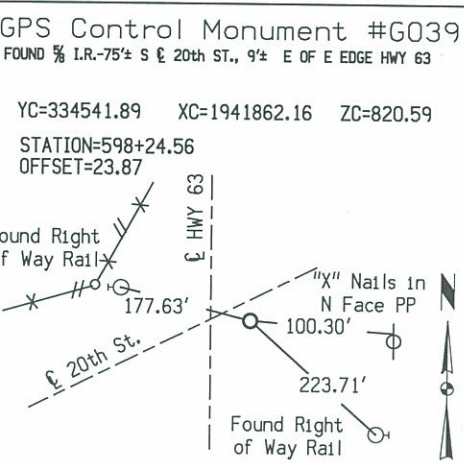
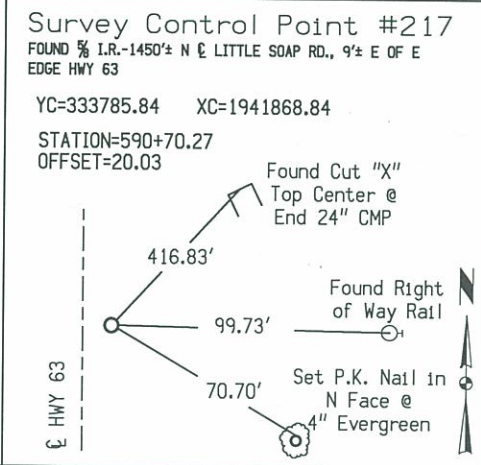
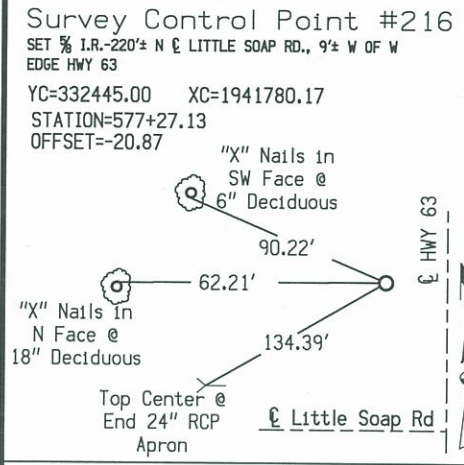
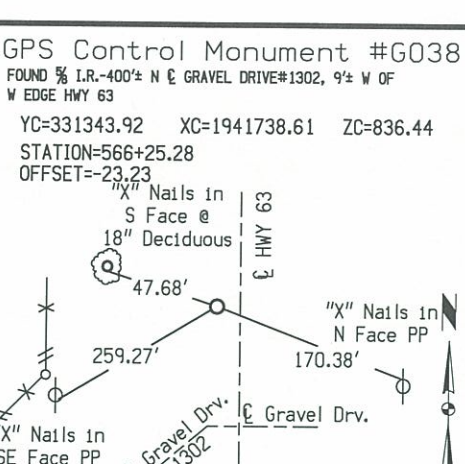
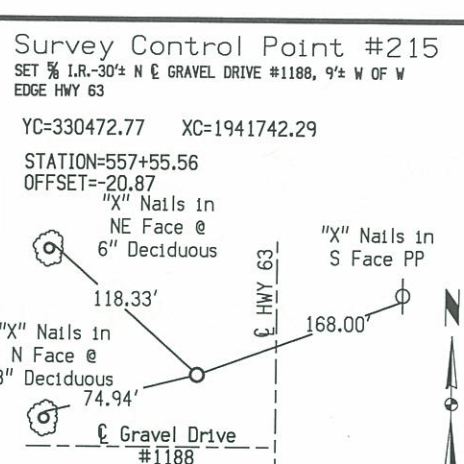
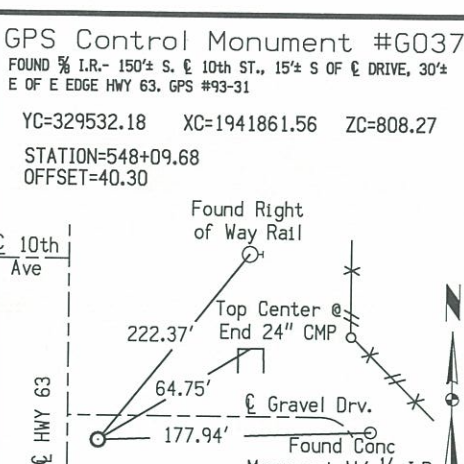
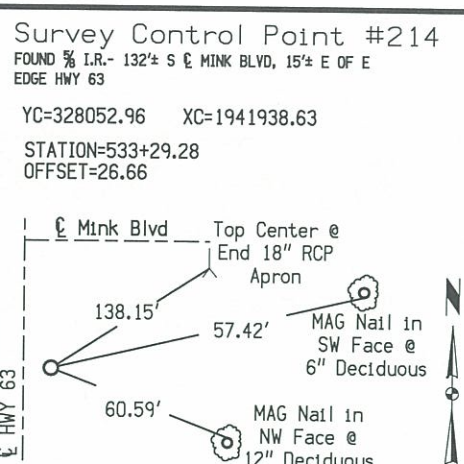
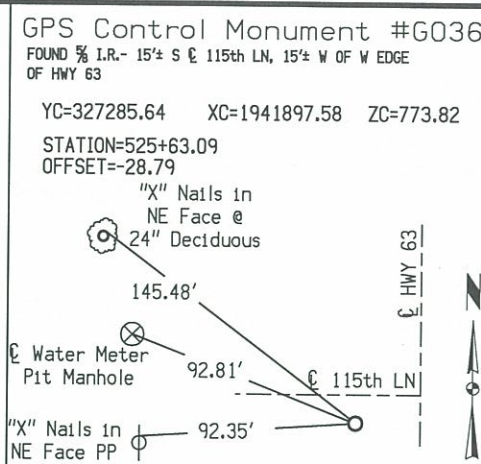
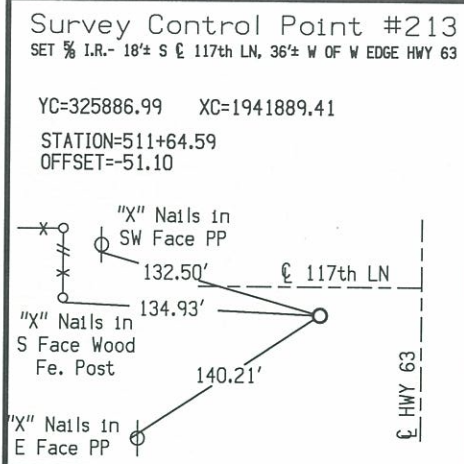
⊗ DENOTES G.P.S. CONTROL MONUMENTS (GPS???) AND SUPPLEMENTAL CONTROL POINTS (CP ???). FOR CONVERSION OF GPS CONTROL MONUMENT AND CONTROL POINT PROJECT COORDINATES TO STATE PLANE COORDINATES, CONTACT THE SURVEY/PHOTOGRAMMETRIC SECTION OF THE OFFICE OF DESIGN I-DOT. ALL COORDINATES AND DISTANCES ARE IN U.S. SURVEY FEET.

POINT NUMBER	STATION	OFFSET	DESCRIPTION	ELEVATION	POINT NUMBER	STATION	OFFSET	DESCRIPTION	ELEVATION
29	337+97.442	34.15ft Lt.	BRASS PLUG IN CENTERLINE OF 3°2' RCB, WEST SIDE OF HWY 63	821.409	59	620+47.786	18.82ft Lt.	BRASS PLUG IN NORTHWEST CORNER OF HWY 63	784.826
30	352+71.038	61.16ft Lt.	RAILROAD SPIKE IN TRANSFORMER POLE, WEST SIDE OF HWY 63	848.223	60	631+20.258	38.30ft Rt.	X IN CENTERLINE OF 24" RCP EAST SIDE OF HWY 63	776.424
31	358+64.029	79.58ft Lt.	RAILROAD SPIKE IN POWER POLE AT N.W. COR OF HWY 63 & MULBERRY TR	843.548	61	640+24.977	100.97ft Lt.	RAILROAD SPIKE IN POWER POLE, WEST SIDE OF HWY 63	760.423
32	367+15.117	310.90ft Rt.	X ON WEST BOLT OF WEST LEG OF WATER TOWER @ NE COR HWY 63 AND COUNTY ROAD J-15	845.059	62	646+47.571	18.71ft Lt.	BRASS PLUG IN SOUTHWEST CORNER OF HWY 63 BRIDGE	725.564
34	385+83.115	48.41ft Lt.	X IN CENTERLINE OF 36" RCP, WEST SIDE OF HWY 63	788.274	63	656+92.182	81.31ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	745.979
35	392+64.285	63.38ft Lt.	X IN CENTERLINE OF 30" RCP, WEST SIDE OF HWY 63	791.504	64	670+74.187	70.14ft Lt.	BRASS PLUG IN CENTERLINE OF 3'X2' RCB, WEST SIDE OF HWY 63	790.609
36	399+57.384	83.31ft Rt.	BRASS PLUG IN CENTERLINE, 3 FT°2' RCB, EAST SIDE OF HWY 63	787.314					
37	407+19.079	138.28ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	833.762					
39	417+76.908	67.15ft Lt.	BRASS PLUG IN CENTERLINE OF 3'X2' RCB, WEST SIDE OF HWY 63	796.526	69	705+80.341	80.72ft Lt.	CUT SQUARE IN EAST BASE OF AMOCO SIGN, WEST OF HWY 63	808.155
40	428+29.140	46.56ft Rt.	X IN CENTERLINE 30" RCP, EAST SIDE OF HWY 63	793.466	70	712+58.988	31.80ft Rt.	X IN CENTERLINE OF 2' SQ RCB, EAST SIDE OF HWY 63	802.089
41	439+74.486	61.51ft Rt.	X IN CENTERLINE OF 24" RCP, EAST SIDE OF HWY 63	793.190	71	717+13.925	68.02ft Lt.	RAILROAD SPIKE IN POWER POLE, WEST SIDE OF HWY 63	806.829
43	455+52.753	100.76ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	815.112	72	724+15.685	79.58ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	790.938
45	472+15.181	101.50ft Lt.	BRASS PLUG IN CENTERLINE 4 FT°2' RCB, WEST SIDE OF HWY 63	725.517	73	728+37.525	84.40ft Rt.	BRASS PLUG IN CENTERLINE OF 3'X2' RCB, EAST SIDE OF HWY 63	744.197
47	494+79.901	18.80ft Lt.	BRASS PLUG IN SOUTHWEST CORNER OF BRIDGE	695.149	74	734+57.389	60.88ft Lt.	X IN CENTERLINE OF 24" RCP, WEST SIDE OF HWY 63	733.335
49	520+59.496	101.38ft Lt.	RAILROAD SPIKE IN POWER POLE, WEST SIDE OF HWY 63	768.844	75	745+95.763	97.42ft Lt.	RAILROAD SPIKE IN TRANSFORMER POLE, WEST SIDE OF HWY 63	694.792
50	528+83.828	64.42ft Rt.	X IN CENTERLINE OF 30" RCP, EAST SIDE OF HWY 63	763.294	76	755+38.146	18.76ft Lt.	BRASS PLUG IN NORTHWEST CORNER OF HWY 63 BRIDGE OVER VILLAGE CREEK	666.625
52	549+35.028	147.94ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	810.937	77	765+08.715	81.78ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	678.466
53	558+86.808	41.87ft Rt.	BRASS PLUG IN CENTERLINE OF 3'X2' RCB, EAST SIDE OF HWY 63	820.960	79	783+53.301	78.47ft Lt.	RAILROAD SPIKE IN POWER POLE, WEST SIDE HWY 63	760.558
54	564+85.789	75.30ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	836.931	80	790+95.879	116.76ft Lt.	RAILROAD SPIKE IN POWER POLE @ SOUTHWEST CORNER HWY 63 AND PAVED ROAD TO THE WEST	780.812
55	572+96.034	60.18ft Rt.	RAILROAD SPIKE IN POWER POLE, EAST SIDE OF HWY 63	824.022	81	796+86.612	63.96ft Lt.	BRASS PLUG IN CENTERLINE OF 3'X2' RCB, WEST SIDE OF HWY 63	765.301
56	583+52.282	89.89ft Lt.	BRASS PLUG IN CENTERLINE OF 4'X3' RCB, WEST SIDE OF HWY 63	773.333	82	806+55.554	130.01ft Lt.	RAILROAD SPIKE IN POWER POLE, WEST SIDE OF HWY 63	763.410
57	594+85.268	37.10ft Rt.	X IN CENTERLINE OF 24" RCP, EAST SIDE OF HWY 63	813.312	85	838+80.807	147.42ft Rt.	RAILROAD SPIKE IN POWER POLE @ SOUTHEAST CORNER OF HWY 63 AND EAST-WEST PAVED ROAD	643.969
58	602+25.191	65.54ft Lt.	BRASS PLUG IN CENTERLINE OF 3'X2' RCB, WEST SIDE OF HWY 63	803.802	87	871+90.898	4.63ft Lt.	CUT SQUARE IN SOUTHEAST CORNER OF HWY 63 BRIDGE	647.436
					88	883+51.211	39.97ft Lt.	BRASS PLUG @ NORTHWEST CORNER OF HWY 63 BRIDGE OVER RAILROAD TRACKS	669.179
					89	898+88.685	89.16ft Lt.	RAILROAD SPIKE IN POWER POLE @ NORTHWEST CORNER OF HWY 63 AND MARY STREET	640.092



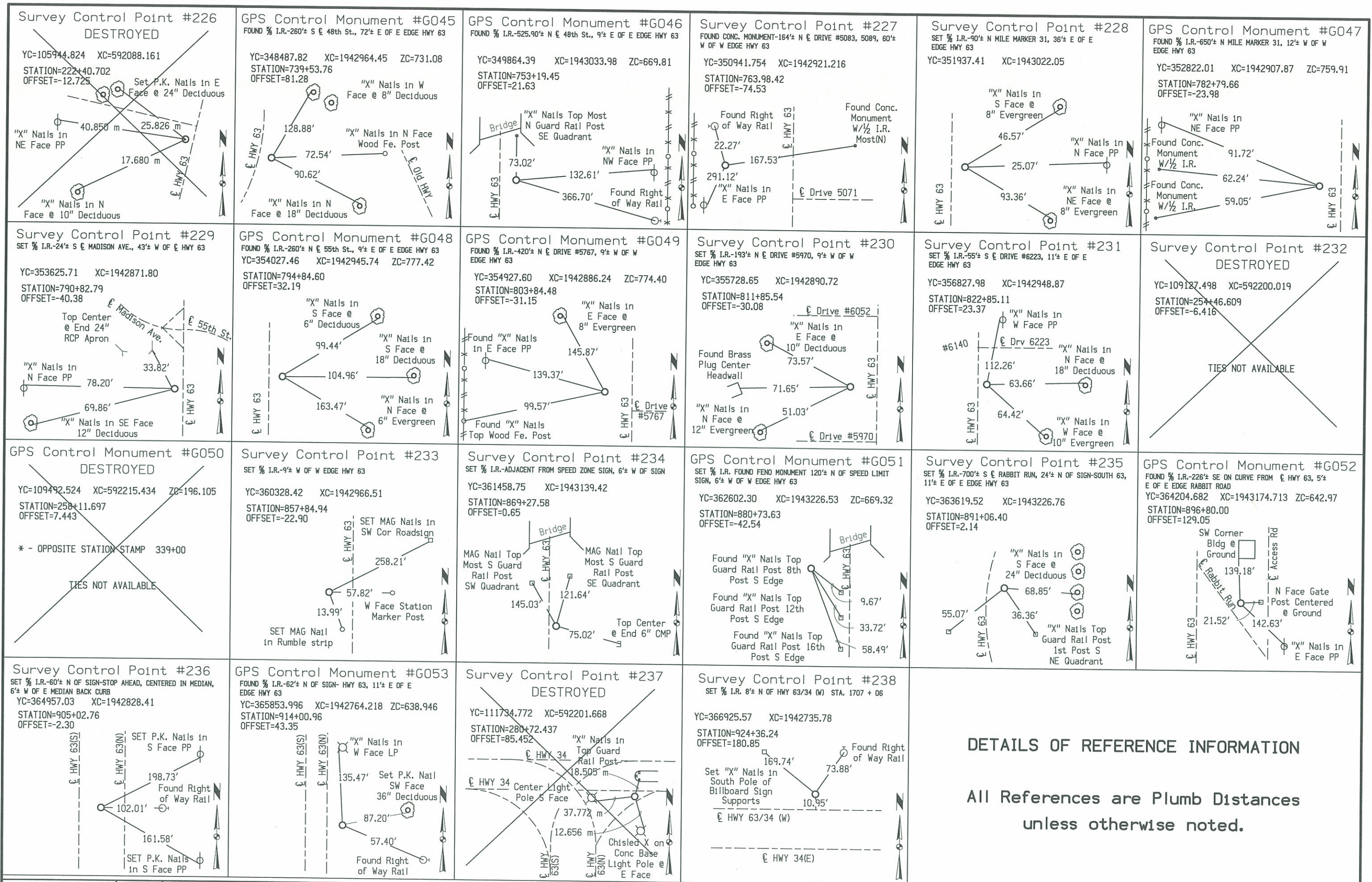
DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.



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DETAILS OF REFERENCE INFORMATION

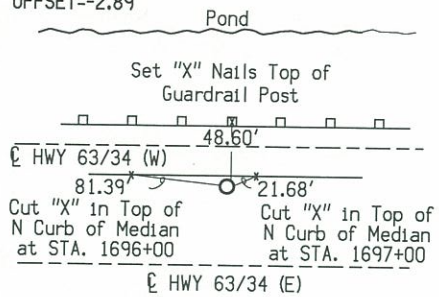
All References are Plumb Distances unless otherwise noted.

Survey Control Point #239

SET 3/8 I.R. 5 1/2' N OF N CURB (HWY 63/34 EASTBOUND)
STA. 696480

YC=367697.18 XC=1942060.97

STATION=934+11.15
OFFSET=-2.89

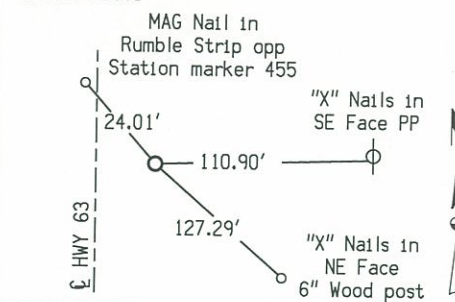


Survey Control Point #250

SET 3/8 I.R. 12 1/2' WEST OF HWY 63

YC=320192.87 XC=1942025.96

STATION=454+69.38
OFFSET=27.91

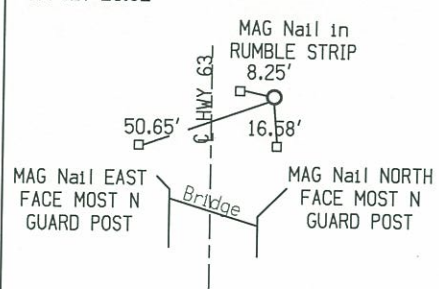


Survey Control Point #251

SET 3/8 I.R. 12 1/2' WEST OF HWY 63

YC=336888.61 XC=1941718.11

STATION=621+75.70
OFFSET=21.52

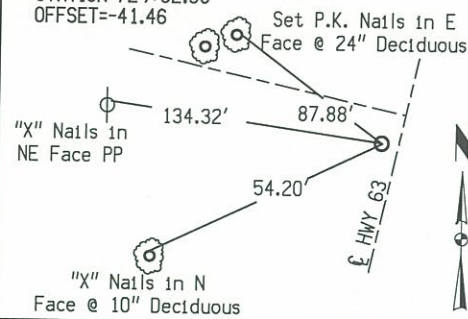


Survey Control Point #252

SET 3/8 I.R.-25 1/2' S E 48th St., 18 1/2' W OF W EDGE HWY 63

YC=347582.01 XC=1942541.15

STATION=729+62.56
OFFSET=-41.46

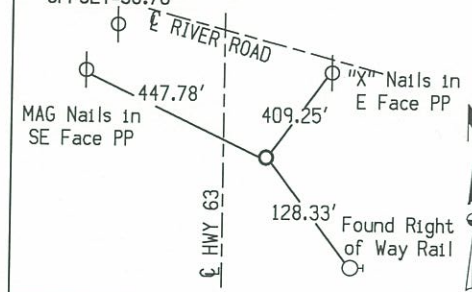


Survey Control Point #253

SET 3/8 I.R.-25 1/2' E E HWY 63

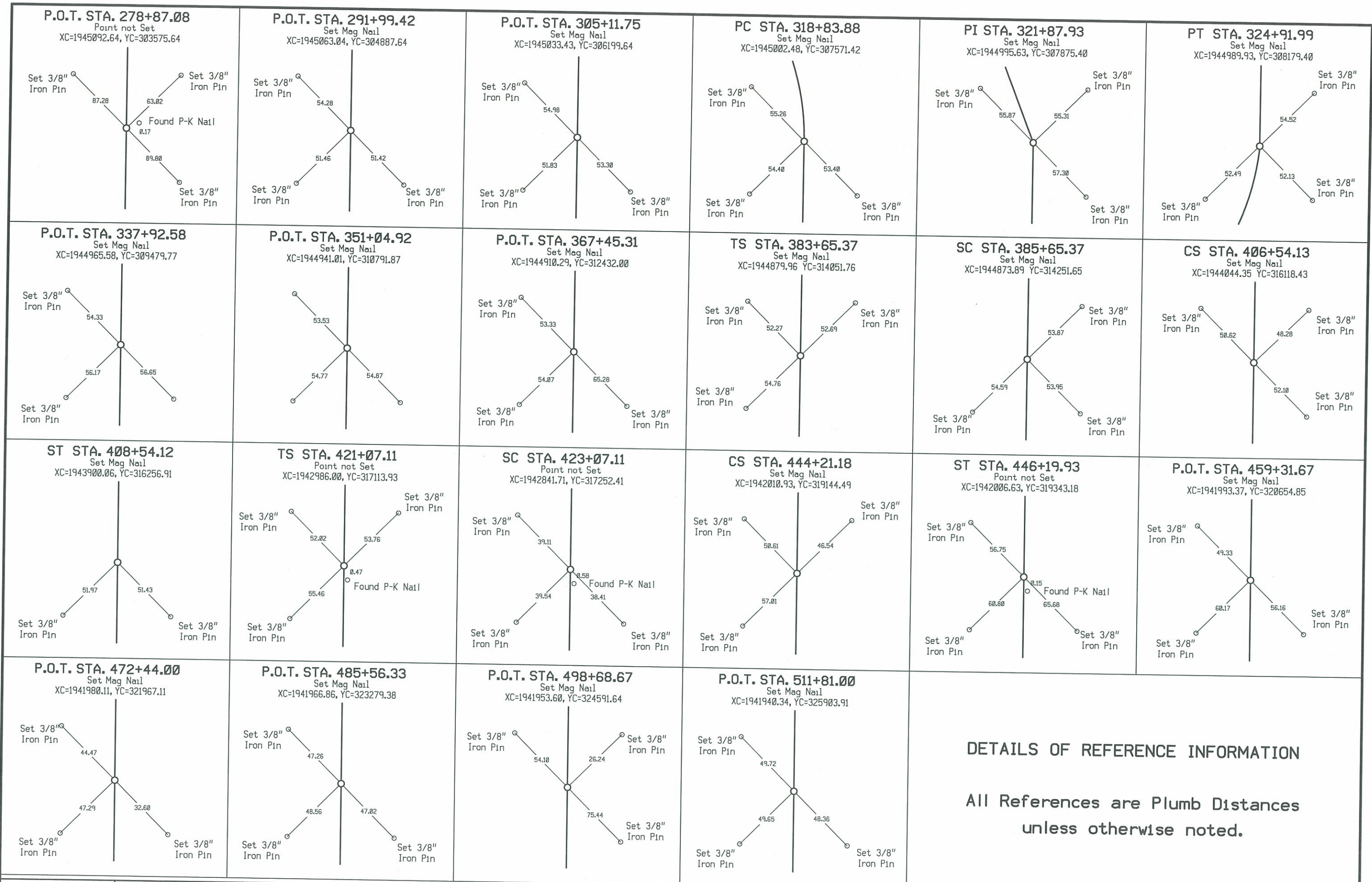
YC=358027.46 XC=1942969.38

STATION=834+84.67
OFFSET=38.78



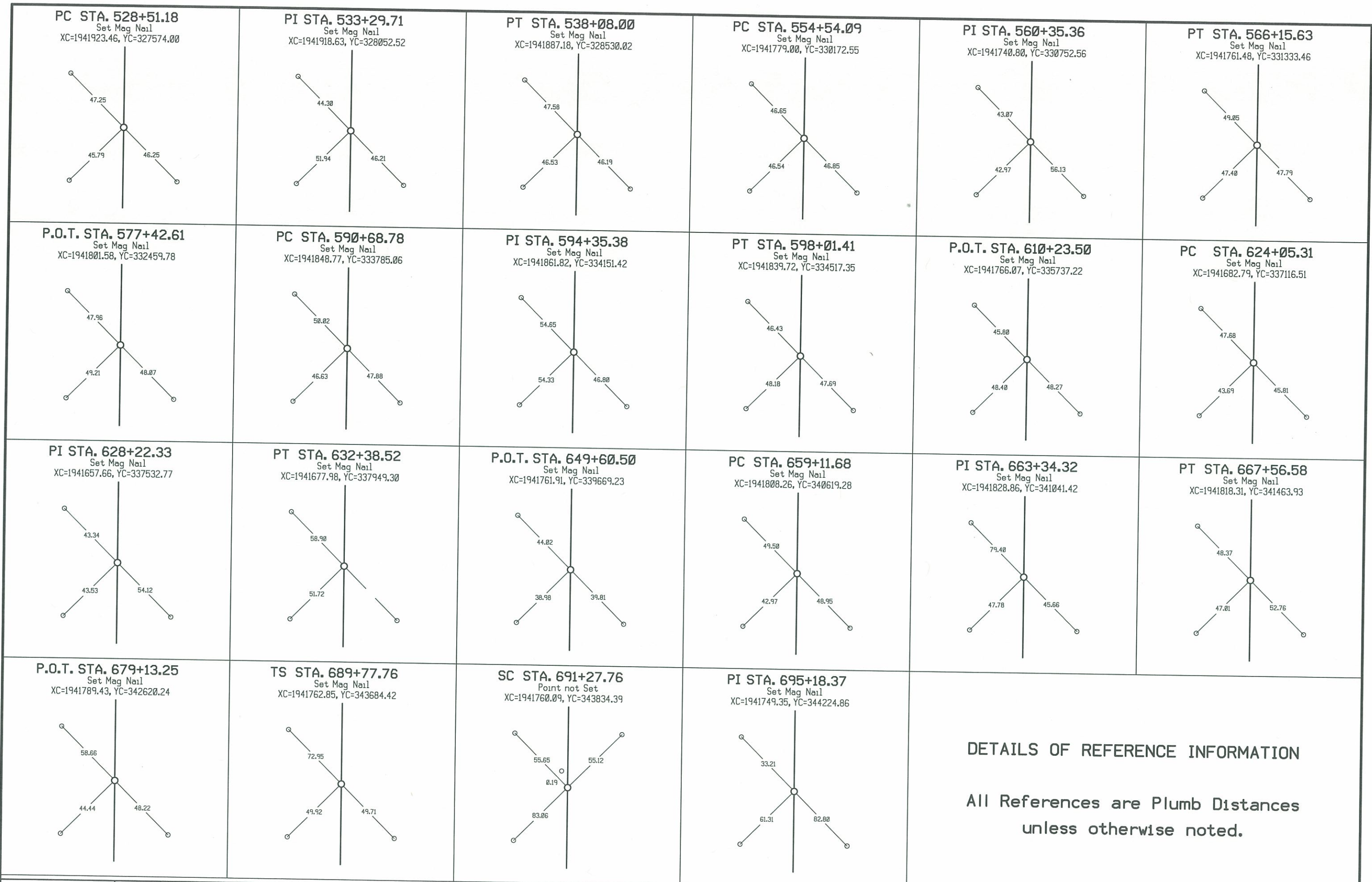
DETAILS OF REFERENCE INFORMATION

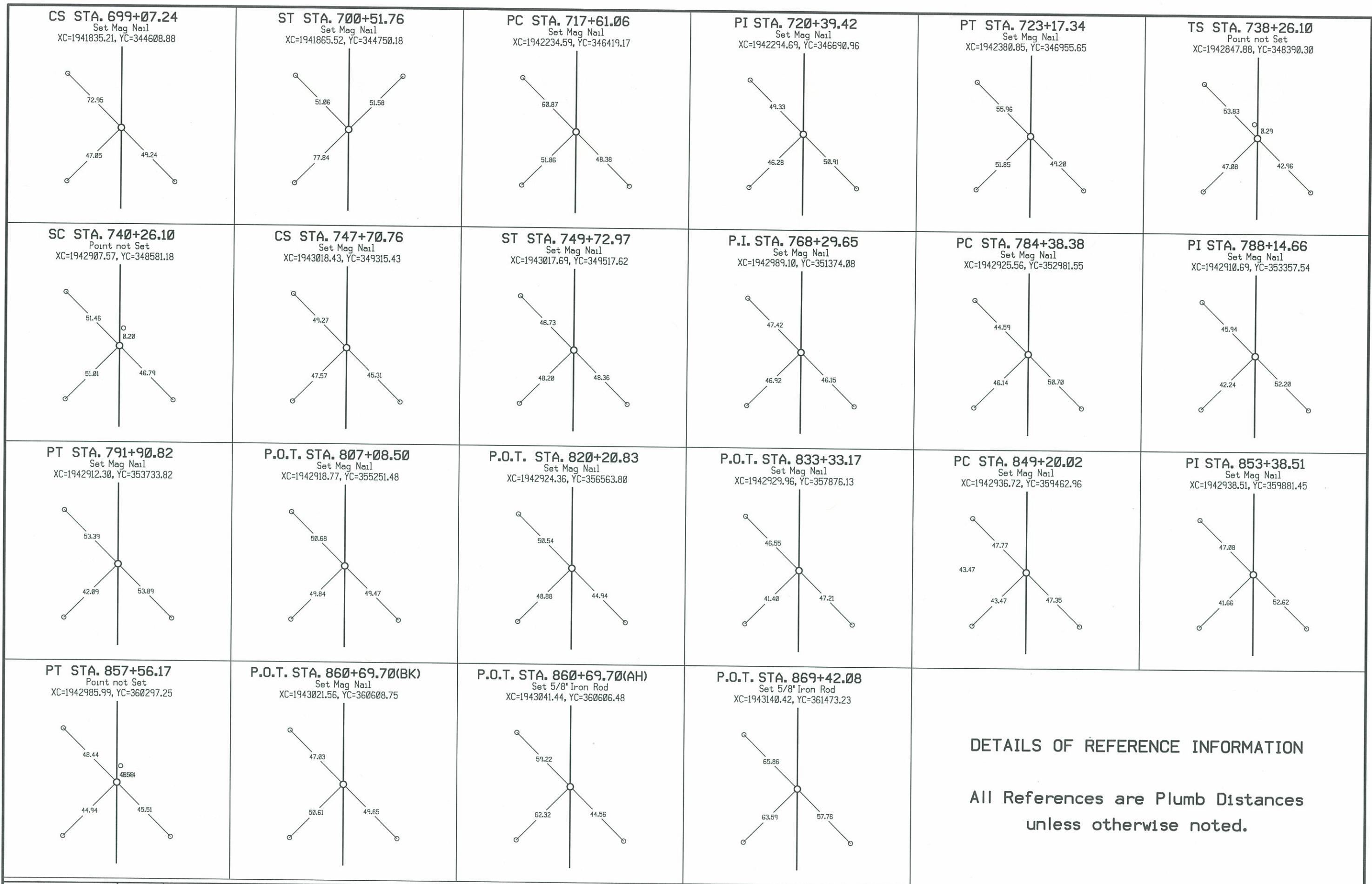
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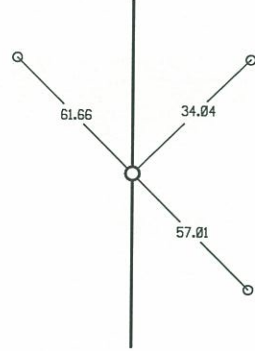
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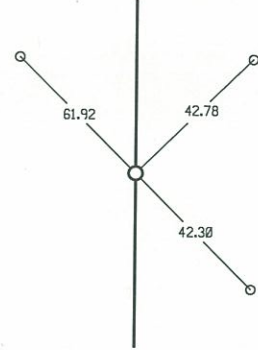




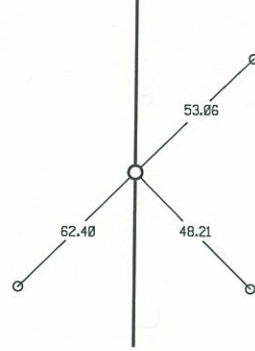
PC STA. 883+50.05
 Set 5/8" Iron Rod
 XC=1943300.17, YC=362872.10



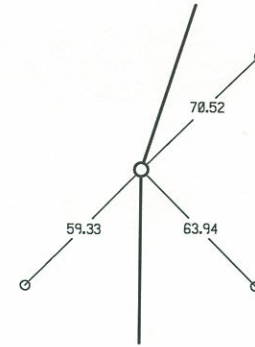
PT STA. 890+90.80
 Set 5/8" Iron Rod
 XC=1943229.42, YC=363604.00



PC STA. 901+01.05
 Set Survey Marker Nail
 XC=1942924.66, YC=364567.19



PI STA. 903+70.90
 Set 5/8" Iron Rod
 XC=1942843.25, YC=364824.48



DETAILS OF REFERENCE INFORMATION

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 unless otherwise noted.

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
100	SURCL Ex. US 63 C	278+87.08	303,575.64	1,945,092.64															
SURCL-1																			
SURCL-2					383+65.37	314,051.75	1,944,879.96	318+83.88	307,571.42	1,945,002.48	321+87.93	307,875.40	1,944,995.63	324+91.99	308,179.40	1,944,989.93			
SURCL-3					421+07.11	317,113.93	1,942,986.00	385+65.37	314,251.65	1,944,873.89	396+75.00	315,361.15	1,944,855.43	406+54.13	316,118.44	1,944,044.35	408+54.12	316,256.91	
SURCL-4								423+07.11	317,252.41	1,942,841.71	434+31.31	318,019.66	1,942,020.00	444+21.18	319,144.49	1,942,010.93	446+19.93	319,343.18	
SURCL-5								528+51.18	327,574.00	1,941,923.46	533+29.71	328,052.52	1,941,918.63	538+08.00	328,530.02	1,941,887.18			
SURCL-6								554+54.09	330,172.55	1,941,779.00	560+35.36	330,752.56	1,941,740.80	566+15.63	331,333.46	1,941,761.48			
SURCL-7								590+68.78	333,785.06	1,941,848.77	594+35.38	334,151.42	1,941,861.82	598+01.41	334,517.35	1,941,839.72			
SURCL-8								624+05.31	337,116.51	1,941,682.79	628+22.33	337,532.77	1,941,657.66	632+38.52	337,949.30	1,941,677.98			
SURCL-9								659+11.68	340,619.28	1,941,808.26	663+34.32	341,041.42	1,941,828.86	667+56.58	341,463.93	1,941,818.31			
SURCL-10					689+77.76	343,684.42	1,941,762.85	691+27.76	343,834.39	1,941,760.09	695+18.37	344,224.86	1,941,749.35	699+07.24	344,608.88	1,941,835.21	700+51.76	344,750.18	
SURCL-11					738+26.10	348,390.30	1,942,847.88	717+61.06	346,419.17	1,942,234.59	720+39.42	346,690.96	1,942,294.69	723+17.34	346,955.65	1,942,380.85			
112		768+29.65	351,374.08	1,942,989.10				740+26.10	348,581.18	1,942,907.57	744+03.46	348,939.30	1,943,026.60	747+70.76	349,315.42	1,943,018.43	749+72.97	349,517.62	
SURCL-12								784+38.38	352,981.55	1,942,925.56	788+14.66	353,357.54	1,942,910.69	791+90.82	353,733.82	1,942,912.30			
SURCL-13								849+20.02	359,462.96	1,942,936.72	853+38.51	359,881.45	1,942,938.51	857+56.17	360,297.25	1,942,985.99			
115		860+69.70	360,608.75	1,943,021.56															
ML063	Prop. US 63 4 Lane C	328+76.75	308,546.62	1,944,884.90															
20000																			
20001								385+61.29	314,230.13	1,944,776.48	397+26.30	315,394.93	1,944,754.26	407+65.24	316,189.29	1,943,902.07			
20002								420+37.09	317,056.50	1,942,971.72	432+15.59	317,860.06	1,942,109.65	442+63.88	319,038.50	1,942,096.96			
20003								527+44.07	327,518.20	1,942,005.65	532+87.32	328,061.42	1,941,999.80	538+30.30	328,603.51	1,941,964.47			
20004								554+67.11	330,236.86	1,941,858.03	559+97.17	330,765.80	1,941,823.56	565+26.33	331,295.52	1,941,842.53			
20005								584+88.47	333,256.40	1,941,912.76	590+45.45	333,813.02	1,941,932.69	596+01.56	334,368.96	1,941,898.74			
20006								621+01.07	336,863.83	1,941,746.39	626+49.95	337,411.69	1,941,712.94	631+97.11	337,958.98	1,941,754.62			
20007								652+54.38	340,010.31	1,941,910.85	658+00.94	340,555.29	1,941,952.36	663+46.68	341,101.75	1,941,941.99			
20008								691+58.47	343,913.04	1,941,888.66	696+92.53	344,447.01	1,941,878.53	702+21.63	344,968.51	1,941,993.66			
20009								718+06.56	346,516.18	1,942,335.35	723+45.59	347,042.53	1,942,451.55	728+83.76	347,555.00	1,942,618.66			
20010								733+63.03	348,010.66	1,942,767.25	738+99.93	348,521.11	1,942,933.70	744+28.04	349,058.01	1,942,934.76			
20011								839+75.16	358,605.11	1,942,953.62	851+53.75	359,783.70	1,942,955.95	863+29.62	360,953.86	1,943,096.69			
20012								882+75.68	362,885.99	1,943,329.07	886+03.62	363,211.59	1,943,368.24	889+21.40	363,523.82	1,943,267.95			
20013								901+64.56	364,707.43	1,942,887.79	903+23.59	364,858.84	1,942,839.16	904+81.64	365,016.75	1,942,820.34			
20014								914+19.14	365,947.66	1,942,709.40	915+64.13	366,091.64	1,942,692.24	917+07.12	366,234.56	1,942,716.68			
20015		918+44.91	366,370.38	1,942,739.91															
SoapCreek1	Prop. US 63 32' Lt. of ML063	2477+97.73	322,573.08	1,941,973.99															
SOAP12																			
SOAPC11								2482+86.66	323,061.99	1,941,969.05	2484+51.24	323,226.55	1,941,967.39	2486+15.57	323,390.55	1,941,981.18			
SOAPC12								2488+08.77	323,583.07	1,941,997.36	2489+74.51	323,748.23	1,942,011.24	2491+40.00	323,913.96	1,942,009.46			
SOAPC13								2500+20.00	324,793.91	1,941,999.98	2501+82.21	324,956.10	1,941,998.24	2503+44.18	325,117.44	1,941,981.50			
SOAPC14								2505+37.38	325,309.61	1,941,961.56	2507+00.75	325,472.10	1,941,944.70	2508+63.88	325,635.46	1,941,943.05			
SOAP16		2514+81.34	326,252.89	1,941,936.81															

SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ_{scs}	Spiral Data								Horizontal Alignment Data					Remarks	
			θ_s	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E		
SURCL-1	Ex. US 63 C																
SURCL-2		45° 46' 17.85" LT	1° 59' 59.12"	-200.00'	TS	66.67'	199.98'	2.33'	133.34'	66.67'	0° 13' 10.45" RT	304.05'	608.10'	158,681.48'	0.29'		
SURCL-3		46° 15' 56.16" RT	1° 59' 14.49"	200.00'	TS	66.67'	199.98'	2.33'	132.51'	66.26'	41° 46' 19.24" LT	1,093.23'	2,088.75'	2,864.99'	201.49'		
SURCL-4											42° 16' 42.19" RT	1,107.76'	2,114.07'	2,864.99'	206.70'		
SURCL-5											3° 11' 21.08" LT	478.54'	956.82'	17,189.97'	6.66'		
SURCL-6											5° 48' 26.18" RT	581.27'	1,161.54'	11,459.98'	14.73'		
SURCL-7											5° 29' 39.56" LT	366.60'	732.63'	7,639.98'	8.79'		
SURCL-8											6° 14' 55.20" RT	417.02'	833.22'	7,639.98'	11.37'		
SURCL-9		13° 54' 00.05" RT	1° 05' 01.76"	150.00'	TS	50.00'	149.99'	0.98'	96.35'	48.17'	4° 13' 27.10" LT	422.64'	844.90'	11,459.98'	7.79'		
SURCL-10											11° 41' 28.58" RT	391.09'	779.47'	3,819.99'	19.97'		
SURCL-11		18° 54' 50.44" LT	2° 01' 19.04"	-200.00'	TS	66.67'	199.98'	2.33'	134.82'	67.41'	5° 33' 44.48" RT	278.36'	556.28'	5,729.99'	6.76'		
SURCL-12											14° 53' 31.92" LT	374.44'	744.66'	2,864.99'	24.37'		
SURCL-13											2° 30' 28.70" RT	376.28'	752.45'	17,189.97'	4.12'		
ML063	Prop. US 63 4 Lane C										6° 16' 13.76" RT	418.50'	836.16'	7,640.27'	11.45'		
20001											45° 55' 07.90" LT	1,165.01'	2,203.95'	2,750.00'	236.59'		
20002											46° 23' 41.38" RT	1,178.50'	2,226.79'	2,750.00'	241.88'		
20003											3° 06' 42.55" LT	543.25'	1,086.23'	20,000.00'	7.38'		
20004											5° 46' 47.70" RT	530.06'	1,059.22'	10,500.00'	13.37'		
20005											5° 32' 44.44" LT	556.98'	1,113.09'	11,500.00'	13.48'		
20006											7° 50' 59.16" RT	548.88'	1,096.03'	8,000.00'	18.81'		
20007											5° 26' 31.41" LT	546.56'	1,092.29'	11,500.00'	12.98'		
20008											13° 32' 11.45" RT	534.06'	1,063.16'	4,500.00'	31.58'		
20009											5° 36' 38.85" RT	539.03'	1,077.19'	11,000.00'	13.20'		
20010											17° 56' 50.38" LT	536.91'	1,065.02'	3,400.00'	42.13'		
20011											6° 44' 42.11" RT	1,178.59'	2,354.46'	20,000.00'	34.70'		
20012											24° 39' 52.65" LT	327.94'	645.72'	1,500.00'	35.43'		
20013											11° 00' 37.00" RT	159.03'	317.07'	1,650.00'	7.65'		
20014											16° 30' 00.03" RT	144.99'	287.98'	1,000.00'	10.46'		
SoapCreek1	Prop. US 63 32' Lt. of ML063																
SOAPC11											5° 23' 03.57" RT	164.58'	328.91'	3,500.00'	3.87'		
SOAPC12											5° 25' 20.35" LT	165.74'	331.23'	3,500.00'	3.92'		
SOAPC13											5° 18' 24.65" LT	162.20'	324.18'	3,500.00'	3.76'		
SOAPC14											5° 20' 41.43" RT	163.37'	326.50'	3,500.00'	3.81'		

TRAFFIC CONTROL PLAN

108-23A
08-01-08

Detour to be determined by District

STAGING NOTES

108-26A
08-01-08

Stage 1
One lane alternating Traffic to be managed by TC-213, during construction operations.
1. Build Detour on Existing SBL Shoulder.

Stage 2
Two way two lane Traffic to be moved Lt 6 ft. by modified TC-213
1. Build new Bridge and Bridge approaches.

Stage 3
Traffic on offsite detour.
1. Build tie-ins from new bridge and bridge approaches to existing pavement.

Stage 4
Open traffic to proposed Two Lane Two Way Operations.

COORDINATED OPERATIONS

111-01
04-17-12

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
To be Determined by District	

511 TRAVEL RESTRICTIONS

108-25
10-21-14

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			To be Determined by District									

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Refer to Standard Road Plans EW-101 and EW-102.

STATION	TOTAL CUT	CLASS 10 SUITABLE CUT	CLASS 10 ADJUSTED - 30% Factor	TOTAL FILL	EMBANKMENT IN PLACE	APPROX. FILL VOLUME BELOW 3 FT	APPROX. FILL VOLUME BELOW 5 FT																									
US 63 Soap Creek1																																
2480+23.75						0	0																									
2480+25	4	4	3	1	-2	1	1																									
2480+50	74	74	57	21	-36	21	21																									
2480+75	102	102	78	32	-46	32	32																									
2481+00	148	148	114	48	-66	48	48																									
2481+25	194	194	149	30	-119	30	30																									
2481+50	170	170	131	16	-115	16	16																									
2481+75	73	73	56	44	-12	44	44																									
2482+00	37	37	28	80	52	80	80																									
2482+25	31	31	24	116	92	116	116																									
2482+50	31	31	24	143	119	143	143																									
2482+75	32	32	25	180	155	180	180																									
2483+00	32	32	25	232	207	232	232																									
2483+25	43	43	33	299	266	299	299																									
2483+50	42	42	32	347	315	347	347																									
2483+75	30	30	23	376	353	376	376																									
2484+00	30	30	23	415	392	415	415																									
2484+25	29	29	22	457	435	457	457																									
2484+50	27	27	21	506	485	506	506																									
2484+75	25	25	19	563	544	563	563																									
2485+00	22	22	17	630	613	630	630																									
2485+25	18	18	14	690	676	690	690																									
2485+50	14	14	11	756	745	756	756																									
2485+75	9	9	7	823	816	823	823																									
2486+00	6	6	5	878	873	878	878																									
2486+25	4	4	3	940	937	940	940																									
2486+50	5	5	4	986	982	986	986																									
2486+75	6	6	5	1,022	1,017	1,022	1,022																									
2487+00	7	7	5	1,064	1,059	1,064	1,064																									
2487+25	10	10	8	1,101	1,093	1,101	1,101																									
2487+50	14	14	11	1,131	1,120	1,131	1,131																									
2487+75	17	17	13	1,167	1,154	1,167	1,167																									
2488+00	23	23	18	1,215	1,197	1,215	1,215																									
2488+25	33	33	25	1,271	1,246	1,271	1,271																									
2488+50	43	43	33	1,328	1,295	1,328	1,328																									
2488+75	52	52	40	1,364	1,324	1,364	1,364																									
2489+00	58	58	45	1,394	1,349	1,394	1,394																									
2489+25	67	67	52	1,420	1,368	1,420	1,420																									
2489+50	79	79	61	1,429	1,368	1,429	1,429																									
2489+75	86	86	66	1,438	1,372	1,438	1,438																									
2490+00	91	91	70	1,452	1,382	1,452	1,452																									
2490+25	93	93	72	1,455	1,383	1,455	1,455																									
2490+50	98	98	75	1,461	1,386	1,461	1,461																									
2490+75	104	104	80	1,461	1,381	1,461	1,461																									
2491+00	107	107	82	1,445	1,363	1,445	1,445																									
2491+25	107	107	82	1,433	1,351	1,433	1,433																									
2491+50	107	107	82	1,419	1,337	1,419	1,419																									
2491+75	110	110	85	1,403	1,318	1,403	1,403																									
2492+00	116	116	89	1,394	1,305	1,394	1,394																									
2492+25	125	125	96	1,387	1,291	1,387	1,387																									
2492+50	138	138	106	1,359	1,253	1,359	1,359																									
2492+75	148	148	114	1,328	1,214	1,328	1,328																									
2493+00	151	151	116	1,317	1,201	1,317	1,317																									
2493+25	156	156	120	1,301	1,181	1,301	1,301																									
2493+50	166	166	128	1,282	1,154	1,282	1,282																									
2493+75	179	179	138	1,256	1,118	1,256	1,256																									
2494+00	192	192	148	1,222	1,074	1,222	1,222																									
2494+01.6	13	13	10	77	67	77	77																									
Skip Bridge						0	0																									
Subtotals:	3,928	3,928	3,023	49,405	46,382	49,405	49,405																									

