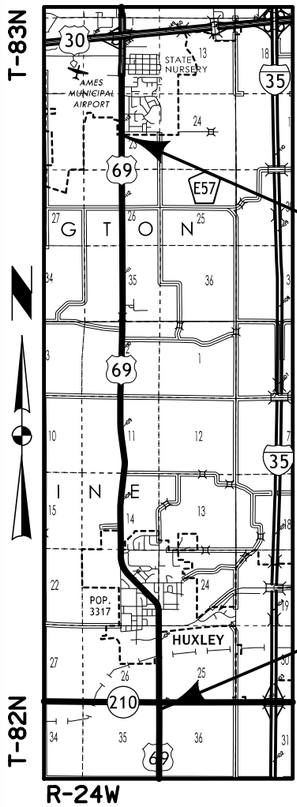
LETTING DATE
Jan. 21, 2015

HMA RESURFACING WITH MILLING
STPN-69-5(105)--2J-85
STORY Co.

MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
1	Rural - DOT Sta. Sta. 50+00 to Sta. 93+20	4320.00	0.818
2	Urban - City of Huxley Sta. 93+20 to Sta. 183+20 Omit 1 Gap (Newer PCC)	9000.00 -1171.00	1.704 -0.221
1	Rural - DOT Sta. Sta. 183+20 to 459+00	27,580.00	5.223
	Net Length of Div. 1-Rural	31,900.00	6.041
	Net Length of Div. 2-Urban	7829.00	1.483
	TOTAL LENGTH OF PROJECT	39,729.00	7.524



END PROJECT US69
Sta. 459+00 (±MP 112.888)
Div. 1

Sta. 183+20 (±MP 107.671)
End Div. 2, Resume Div. 1

Sta. 93+20 (±MP 105.960)
Stop Div. 1, Start Div. 2

BEGIN PROJECT US69
Sta. 50+00 (±MP 104.990)
Div. 1

LOCATION MAP SCALE
0 1 2 3
Miles

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

STORY COUNTY

HMA RESURFACING WITH MILLING

From just S. of IA 210 north to SCL Ames
(includes work in the city of Huxley)

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

REVISIONS

TOTAL XX

PROJECT IDENTIFICATION NUMBER
13-77-069-010
PROJECT NUMBER
STPN-69-5(105)--2J-85
R.O.W. PROJECT NUMBER

INDEX OF SHEETS

105-3
10-18-05

For Tabulation of Standard Road Plans
Refer to Sheet No. C.XX

For Additional Location
Details Refer to Sheet A.2

D5 PLAN – Date: July 21, 2014

DESIGN DATA RURAL

2015 AADT	7200	V.P.D.
2035 AADT	10,000	V.P.D.
2035 DHV	1040	V.P.H.
TRUCKS	5	%
Total Design ESALs	927,100	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Tony J. Gustafson	Primary Signature Block
V.1-2	xxxxxxxxx	Culvert Situation Sheets

LICENSED PROFESSIONAL ENGINEER
Tony J. Gustafson
12851
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature Date
Tony J. Gustafson
Printed or Typed Name

My license renewal date is December 31, 20 15

Pages or sheets covered by this seal: A.1-A.2

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER A.1

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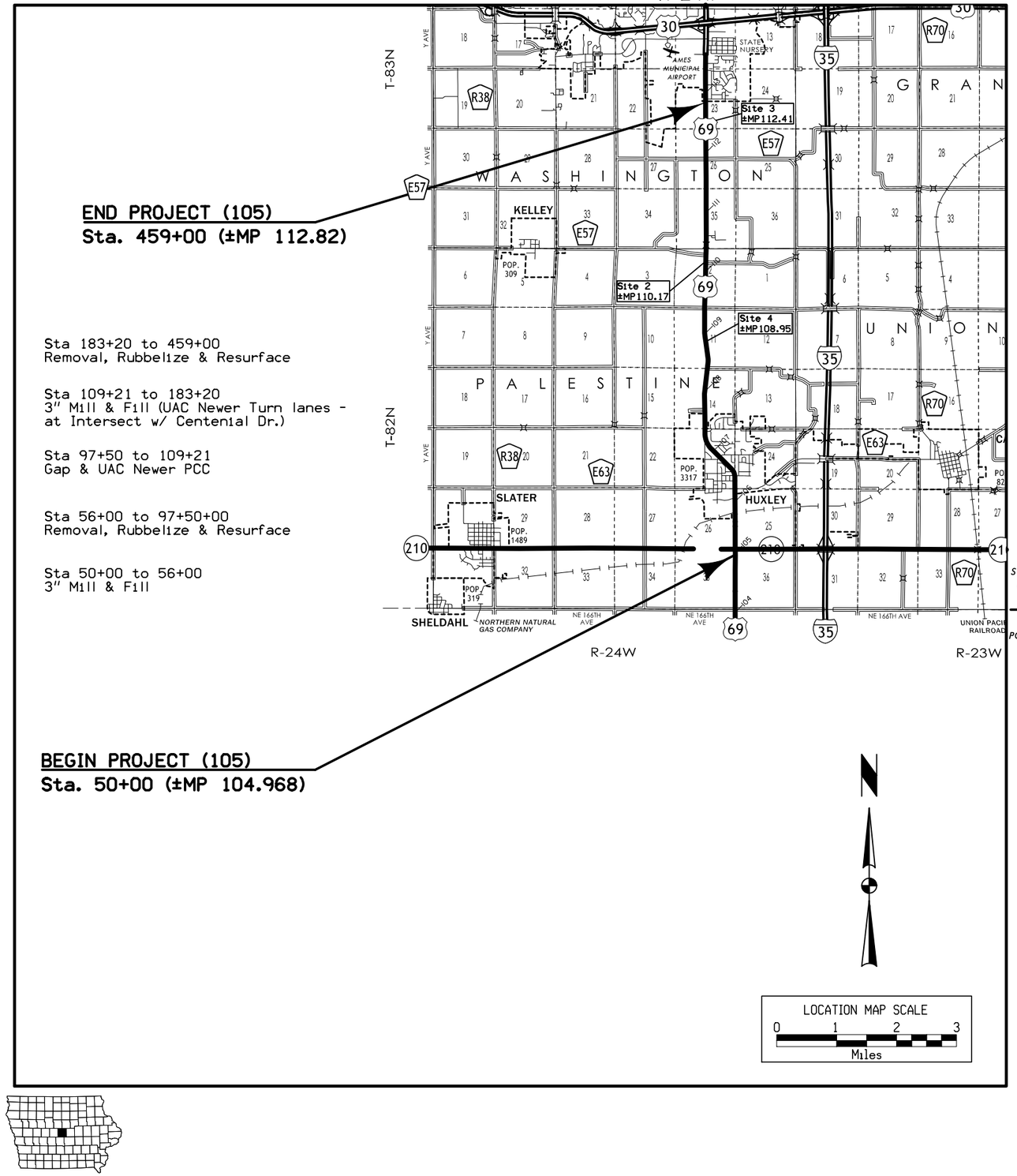

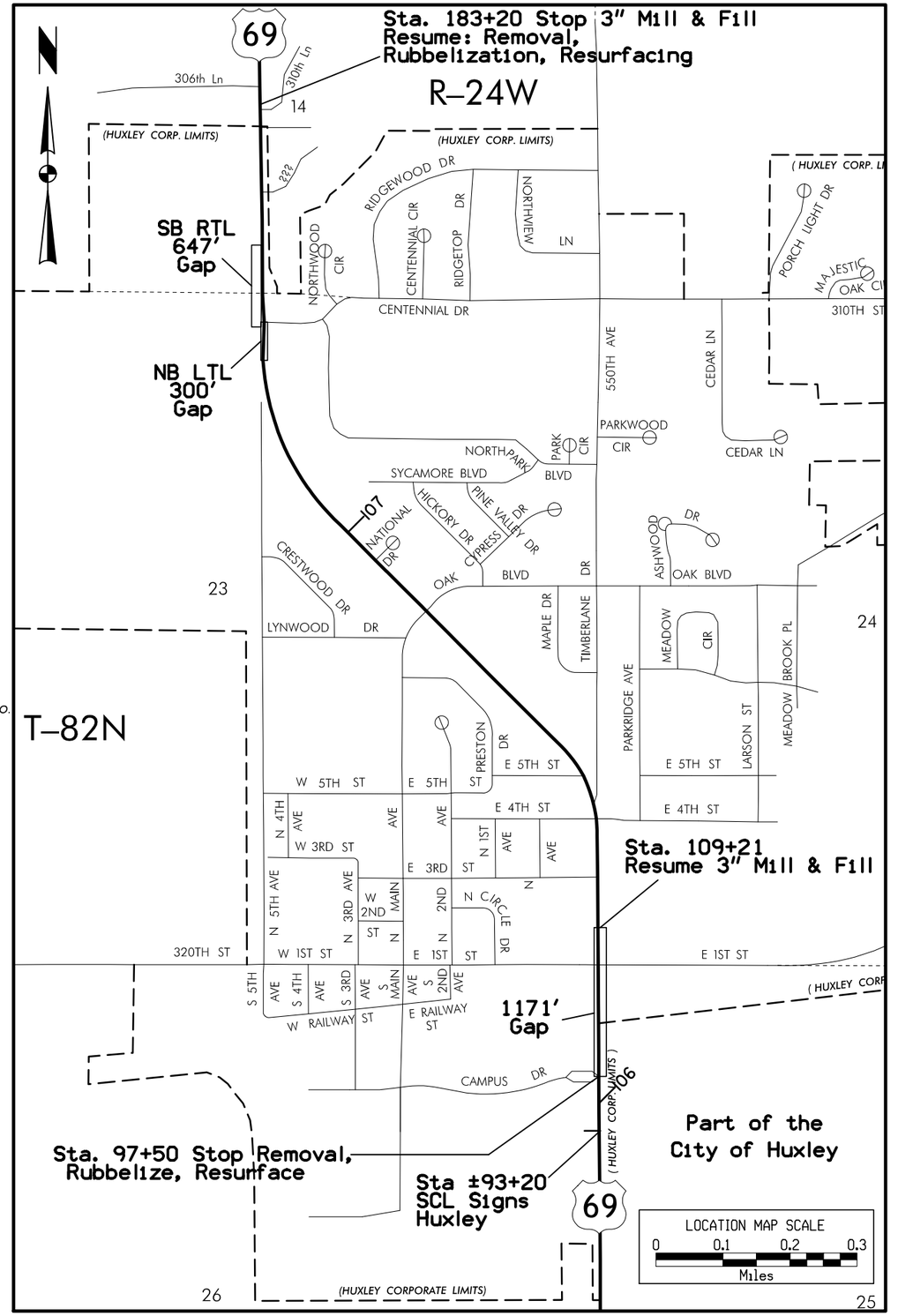

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER A.2

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STANDARD SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Earth Dam or Dike (Proposed)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Proposed Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Proposed Intake
- Existing Utility Access (Manhole)
- Proposed Utility Access (Manhole)
- Fire Hydrant
- WH Water Hydrant (Rural)

- ST Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Luminaire
- Traffic Signal
- Traffic Signal with Luminaire
- TP Telephone Pedestal
- TVP Television Pedestal
- Telephone Pole
- Telephone Pole (Second Company)
- Telephone Pole (Third Company)
- Telephone Pole (Fourth Company)
- Telephone Pole (Fifth Company)
- Power Pole
- Power Pole (Second Company)
- Power Pole (Third Company)
- Power Pole (Fourth Company)
- Power Pole (Fifth Company)
- Electrical Highline Tower (Metal or Concrete)
- Telephone Riser Pole
- Power Riser Pole
- Telegraph Pole
- Satellite TV Dish
- —W— Existing Water Line
- —W2— Existing Water Line (Second Company)
- —San.— Existing Sanitary Sewer Line
- —T— Existing Telephone Line
- —T2— Existing Telephone Line (Second Company)
- —FO-1— Existing Fiber Optics Telephone Line
- —St. S.— Existing Storm Sewer Line
- —G— Existing Gas Line
- —G-HP— Existing High Pressure Gas Line
- —G2— Existing Gas Line (Second Company)
- —G2-HP— Existing High Pressure Gas Line (Second Company)
- ------E------ Existing Power Line
- ------E2------ Existing Power Line (Second Company)
- ----TV---- Cable Television Line

- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- EB Electric Box
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box

- Shading - Proposed Paved Surface
- Shading - Proposed Granular Surface
- Shading - Other, with identification
- Shading - Clearing & Grubbing Area

IOWA 1-CALL# 1-800-292-8989

UTILITY LEGEND

Some or all of the companies listed are suspected of having utilities in or near the project limits; contractor shall verify all effected utility impacts.

RIGHT OF WAY LEGEND

- Proposed Right of Way
- Existing Right of Way
- Existing and Proposed Right of Way
- Easement and Existing Right of Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- Property Line
- A/C Access Control

CONVENTIONAL SIGNS

- Survey Line (Station, Reference Point)
- Section Corner
- Proposed Profile Grade
- Railroad
- Field Tile (Existing, Proposed)
- Culverts (Existing, Proposed)
- Stream

Legend And Symbol Information Sheet

(Symbols are Typical Only)

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER A.3

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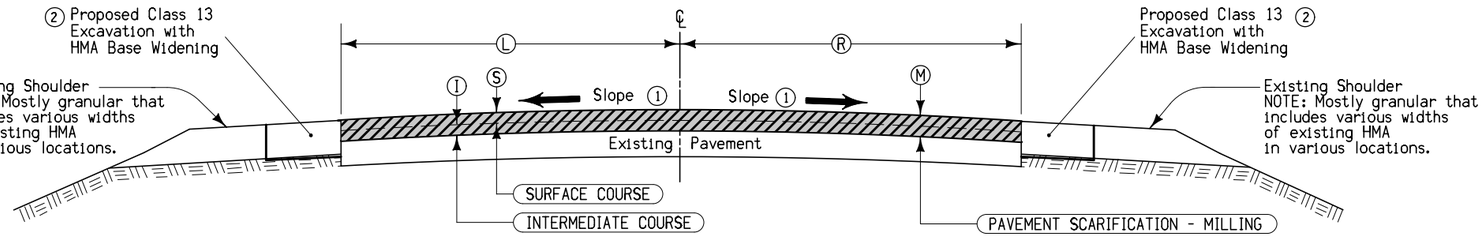


Proposed Pavement Scarification and HMA Resurfacing Area

* Segment includes vari. widths @ Centenial Dr. plus some UAC

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Binder Rate estimate	6% of S + I tons
Pav't. Scarification	135 lbs./cu. ft.

Design Quantities Per Location

Location			Ⓢ	Ⓘ	Ⓜ	Ⓛ	Ⓡ	Length	ASPHALT BINDER	HOT MIX ASPHALT (Tons)		Pav't. Scarification	Gran. Shoulder Repair	Remarks
Road Identification	Milepost To Milepost		Inches	Inches	Inches	Feet	Feet	Feet	Tons	Surface	Intermediate	Tons	Tons	
US 69	50+00 (MP104.968)	56+00 (MP105.081)	1.5	1.5	3.0	12-24	12-24	xxx	xx	xx	xx	xx	xx	Intersection w/ IA 210
	110+80	135+00	1.5	1.5	3.0	12-24	12-24	xxx	xx	xx	xx	xx	xx	In Huxley-seg.#1b
	143+65 *	183+00	1.5	1.5	3.0	12-24	12-24	xxx	xx	xx	xx	xx	xx	In Huxley-seg.#3

Notes:

Section shown in the direction of travel

(1) Match finished slope to existing pavement, except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.

Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.

(2) Shoulder material as specified elsewhere in these plans; refer to modified typical 7152 for "Retrofit Paved Shoulders".

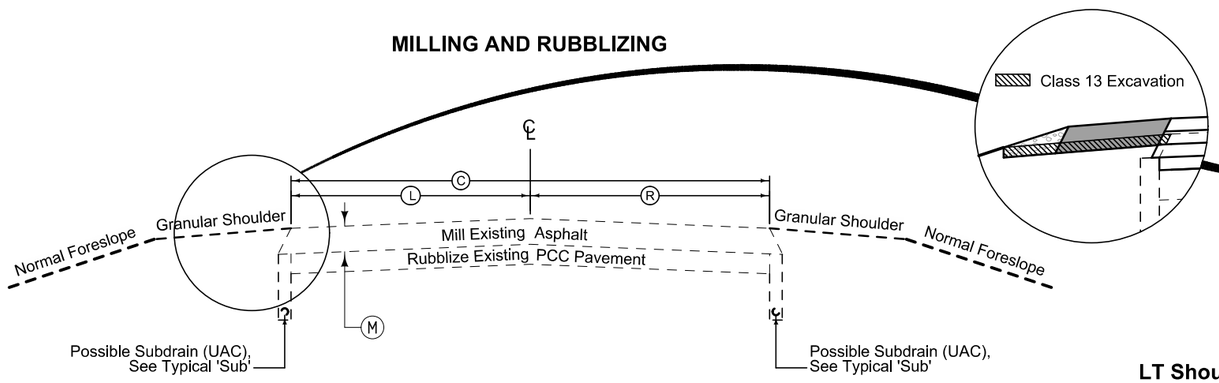
(3) Tack Coat required for 2 applications; tack coat is considered incidental per specifications.

2618 A
Modified

TYPICAL CROSS SECTION PAVEMENT SCARIFICATION with HMA RESURFACING and RETROFIT PAVED SHOULDERS

HMA RUB

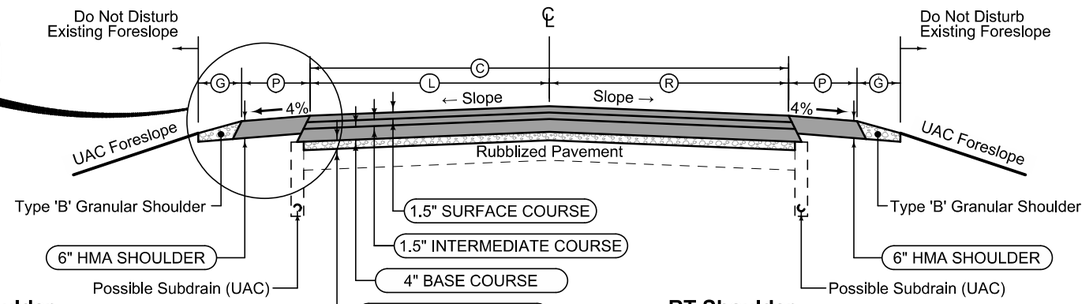
MILLING AND RUBBLIZING



(1) See Typical 'HMA TURN' for rubblizing at turn lanes.
(2) See Typical '7156' for paved shoulder at guardrail.
(3) See Typical '7135' for granular shoulder details.

STATION TO STATION		Ⓒ Feet	Ⓛ Feet	Ⓡ Feet	Ⓜ Inches
56+00(MP105.81)	93+20(HuxleySCL)	24	12	12	6.0??
93+20(HuxleySCL)	97+50(MP106.04)	24	12	12	6.0??
183+00	EOP	24	12	12	6.0??

HMA RESURFACING AND SHOULDERS



LT Shoulder

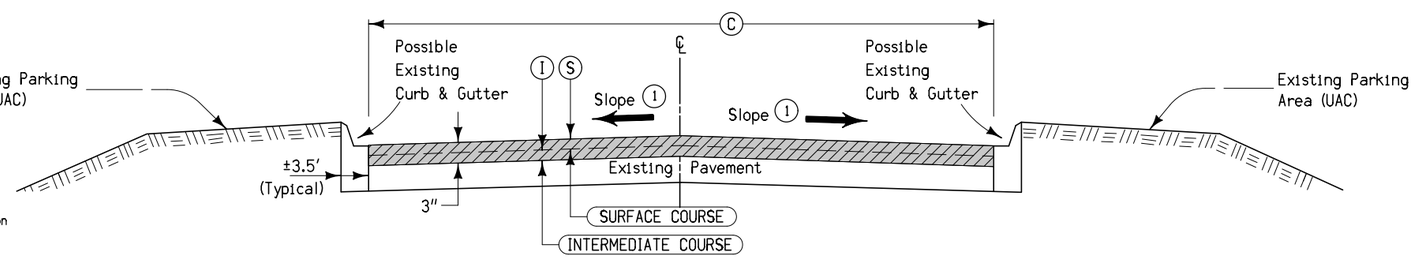
STATION TO STATION		Ⓟ Feet	Ⓖ Feet
xxx	xxx	8?	2?

RT Shoulder

Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		Ⓒ Feet	Ⓛ Feet	Ⓡ Feet
xxx	xxx	24	12	12

STATION TO STATION		Ⓟ Feet	Ⓖ Feet
xxx	xxx	8?	2?



Proposed Pavement Scarification and HMA Resurfacing Area

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Binder Rate estimate	6% of S + I tons
Pav't. Scarification	135 lbs./cu. ft.

TABLE OF DESIGN QUANTITIES Per Location

LOCATION			Ⓢ	Ⓘ	Ⓒ	Length	ASPHALT BINDER	HOT MIX ASPHALT (Tons)		Pav't. Scarification	Remarks
ROAD IDENTIFICATION	Milepost to Milepost		Inches	Inches	Feet	Feet	Tons	Surface	Intermediate	Tons	
US 69	109+21	110+80 curb stops	1.5	1.5	24	xxx	xxx	xxx	xxx	xxx	In Huxley-seg.#1a
US 69	135+00 Oak Blvd	143+65	1.5	1.5	36	xxx	xxx	xxx	xxx	xxx	In Huxley-seg.#2

Notes:

(1) Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.

(2) Tack Coat required for 2 applications; tack coat is considered incidental per specifications.

2602 A
Modified

TYPICAL CROSS SECTION PAVEMENT SCARIFICATION & HMA RESURFACING IN CURBED AREAS

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER B.1

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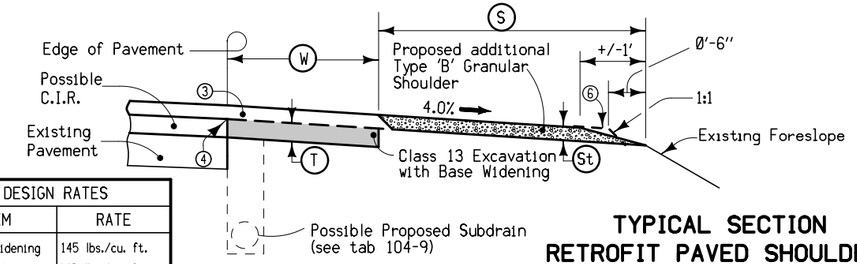


DESIGN RATES	
ITEM	RATE
HMA Base Widening	145 lbs./cu. ft.
Gran. Shoulder	140 lbs./cu. ft.

TYPICAL SECTION RETROFIT PAVED SHOULDER

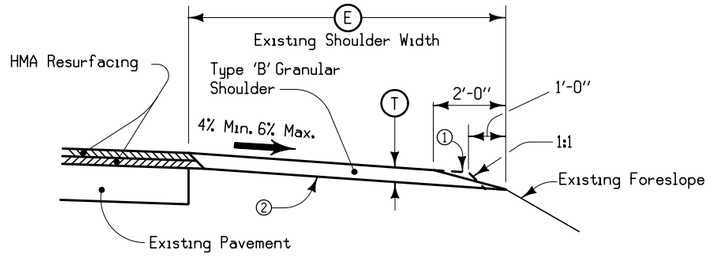
7151
Modified

Notes:
1. Per location.
2. Bid Items.
3. HMA and tack coat quantities above the HMA base are included with mainline quantities.
4. Provide a vertical edge. Incidental to Class 13 Excavation.
5. Includes 30% additional for cross slope correction of shoulders.
6. Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 1 to 2 ft. and roll with loaded truck tire.
7. For HMA base widening only.

Location				W	T	S	St	Quantities ①②			
Roadway	Station To Station		Net Length-ft	Side	Feet	Inches	Feet	Inches	Class 13 Excavation Cu. Yds.	HMA Base Widening Tons	Asphalt ⑦ Binder Tons	Granular ⑤ Shoulder Tons
US 69	xxx	xxx	xxxx	Rt	6	3.0	4	3	xxx	xxx	xx	xx
								Totals	xxxx	xxxx	xxx	xxxx

Additional Notes:
The contractor shall pave proposed shoulders thru all unpaved side road and entrance intersections.
At existing paved intersections, the proposed base widening shall be gapped at the existing pavement return radii.

Suitable Cl. 13 Excavation from this project may be used to supplement needed granular shoulder material.



7135
10-15-13

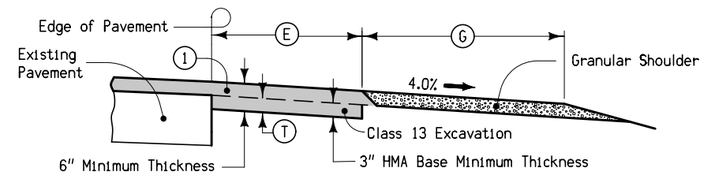
① Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.

② Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing.

LOCATION			T	E
ROAD IDENTIFICATION	STATION TO STATION	SIDE	Inches	Feet

TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER

ADJACENT TO HOT MIX ASPHALT RESURFACING

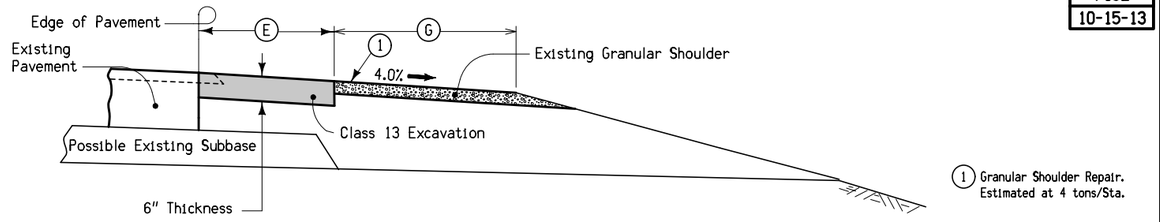


7151
10-15-13

① HMA and tack coat quantities above the HMA base are included with mainline quantities.

TYPICAL SECTION RETROFIT PAVED SHOULDER

Location			E	T	G
Road Identification	Station To Station	Side	Feet	Inches	Feet



① Granular Shoulder Repair. Estimated at 4 tons/Sta.

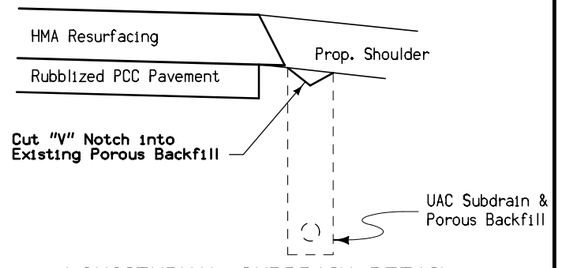
TYPICAL SECTION RETROFIT HOT MIX ASPHALT PAVED SHOULDER

7152
10-15-13

Location				E	G
Road Identification	Station to Station		Side	Feet	Feet

Note:
Contractor to use caution during construction to avoid contaminating the existing subdrain installation. This detail to be followed for all existing subdrains. Incidental to other items.

SUB
Special



LONGITUDNAL SUBDRAIN DETAIL

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER B.2

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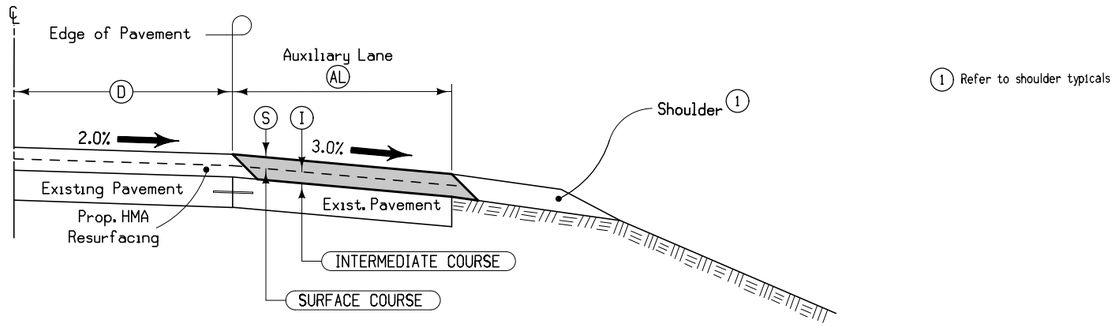
2619
10-15-13

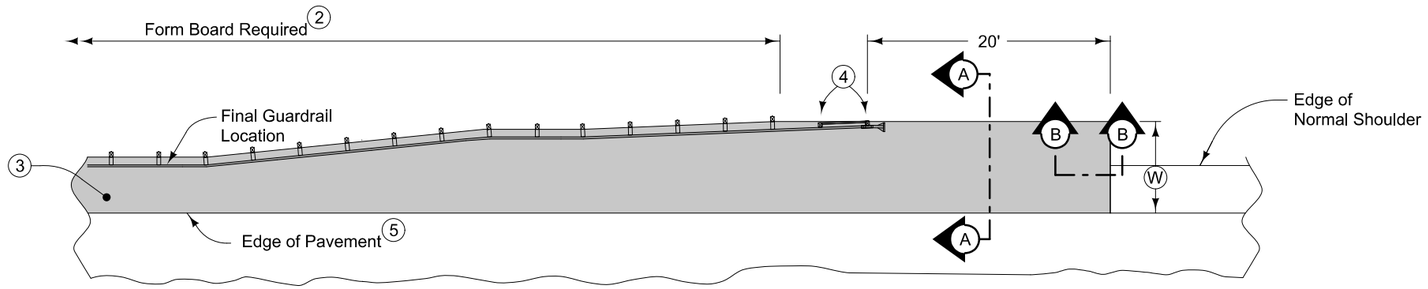


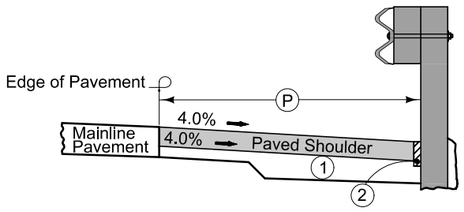
1 Refer to shoulder typicals

Location				Side	D Feet	AL Feet	S Inches	I Inches
Road Identification	Direction of Travel	Station To Station						

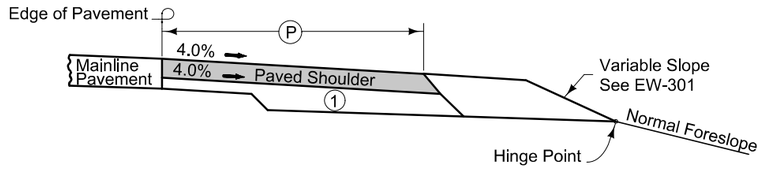
TYPICAL HALF SECTION HMA RESURFACING EXISTING AUXILIARY LANE

7156
04-16-13

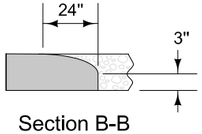




Typical Section with Form Board



Section A-A



Section B-B
Roll down at granular shoulder or earth.

6" HMA Paved Shoulder at guardrail. 7" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at W/2 from edge of mainline pavement when W is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

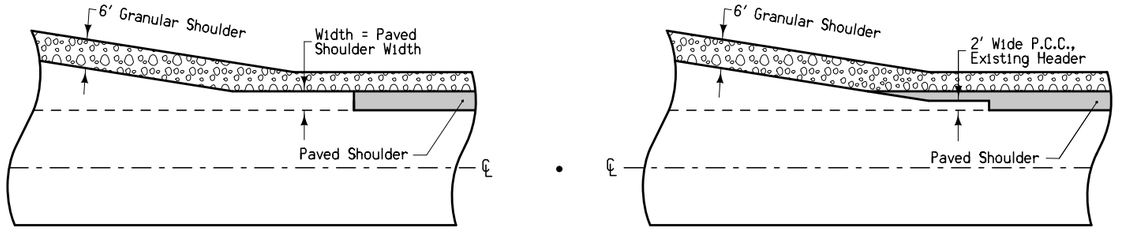
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal & reinstallation of guardrail will be allowed with no additional payment.

Refer to Shoulder tabulation (112-9) for quantities.

1. 6" subgrade treatment.
2. When guardrail posts are installed prior to construction of paved shoulder, nail 1" x 6" untreated form boards along the face of guardrail posts for the length shown. This board is to prevent shoulder material from contacting the sides of the posts and altering the function of the guardrail. Form board not required for final 2 posts.
3. Continue paved shoulder to existing paved shoulder or 20' beyond the end of guardrail.
4. Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement.
5. 'KT-1' joint for PCC shoulder.
   'B' joint for HMA shoulder.

PAVED SHOULDER AT GUARDRAIL

7154A
10-20-09

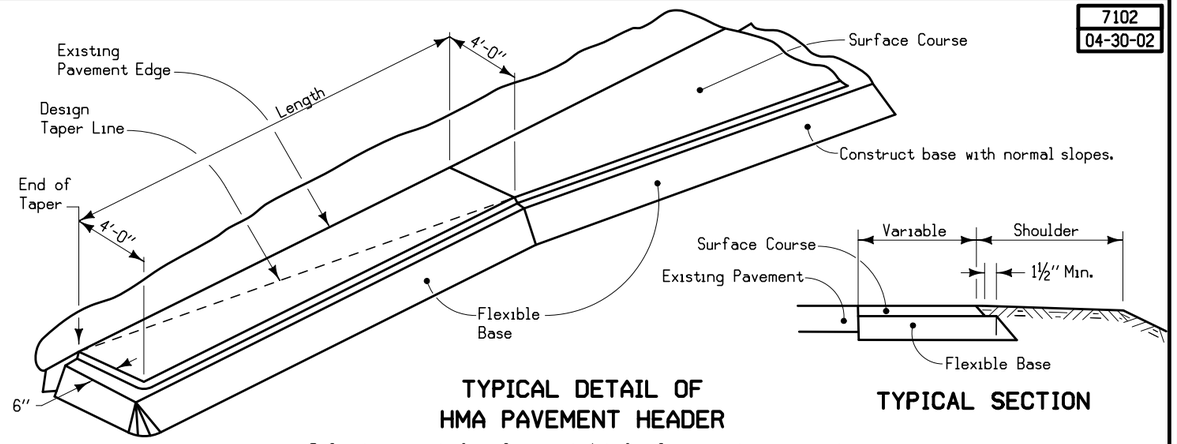


With Newly Constructed Turn Lanes

At UAC Turn Lanes

PAVED SHOULDER DETAIL AT TURN LANES

7102
04-30-02

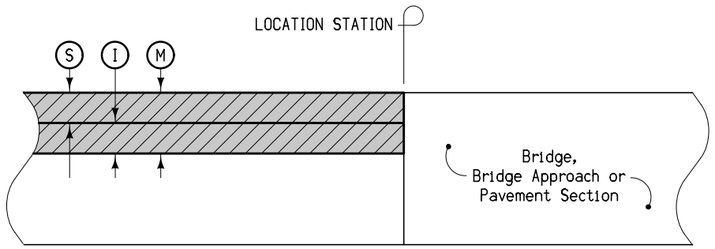


TYPICAL DETAIL OF HMA PAVEMENT HEADER

TYPICAL SECTION

Refer to project plans for exact details of pavement requirements.

7306
10-15-13



Ⓢ Surface Course
Ⓘ Intermediate Course
Ⓜ Milling (Avg. Depth)

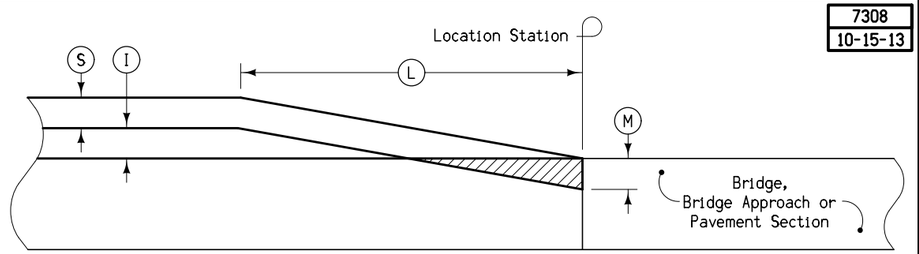
LOCATION STATION	Ⓢ Inches	Ⓘ Inches	Ⓜ Inches

NOTCH FOR DOUBLE COURSE RESURFACING OF MILLED AREAS

Posted Speed Limit (mph)	Runout Ratio (ft per inch)
45 or More	50
20 to 45	25
Under 20	10 *

* Based on turning maneuvers at side roads and intersections.

7308
10-15-13



Ⓢ Surface Course
Ⓘ Intermediate Course
Ⓜ Milling

Location Station	Ⓛ Feet	Ⓢ Inches	Ⓘ Inches	Ⓜ Inches	Remarks

SURFACE NOTCH - INTERMEDIATE RUNOUT FOR DOUBLE COURSE RESURFACING

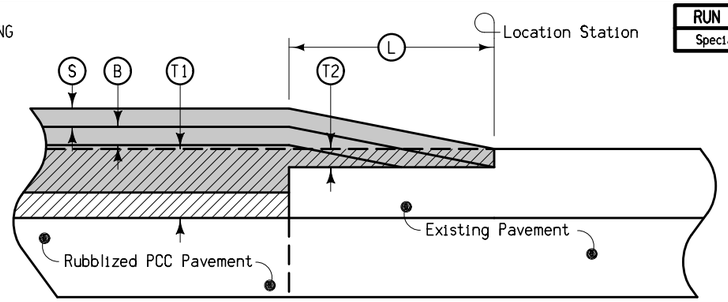
Posted Speed Limit (mph)	Runout Ratio (Ft. per Inch)
45 or More	50
20 to 45	25
Under 20	10 *

* Based on turning maneuvers at side roads and intersections.

HMA RESURFACING

MILLING

RUN 1
Special



Ⓢ Surface Course
Ⓑ Intermediate Course
Ⓣ Milling (Avg. Depth)

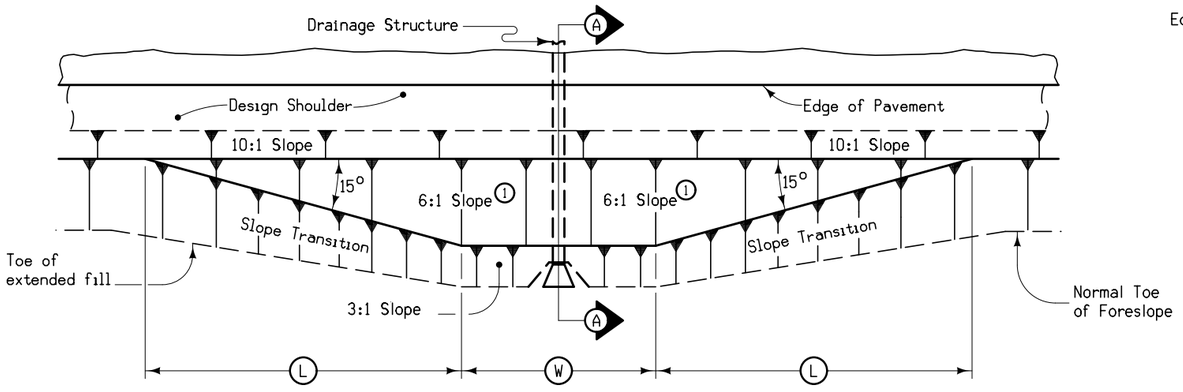
Location Station	Ⓛ Feet	Ⓢ Inches	Ⓑ Inches	Ⓣ1 Inches	Ⓣ2 Inches
xxx	xxx	x	x	x	x

INTERMEDIATE COURSE RUNOUT TRANSITION

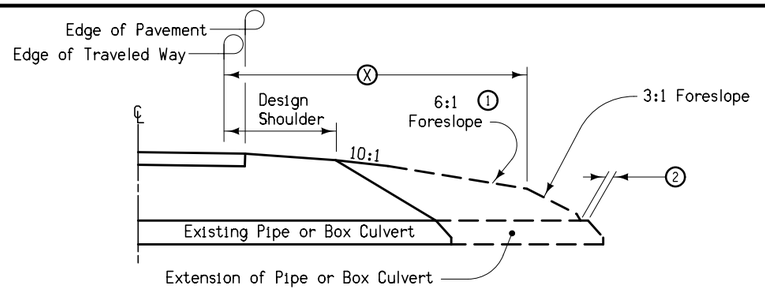
FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER B.4

11:44:27 AM 7/21/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105b01.sht

4311
Modified



PLAN VIEW



SECTION A-A

STRUCTURE LOCATION		W	L	X
STATION	SIDE	Feet	Feet	Feet

Notes:

At locations where an extended or newly constructed drainage structure extends beyond the normal foreslope cover, the foreslope shall be flattened as indicated so as to cover the structure. Minimum earth cover is 6".

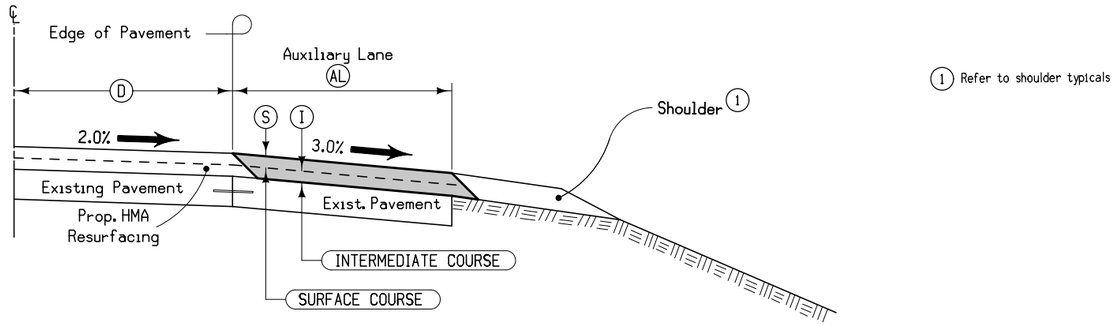
(1) 6:1 Maximum - Slope may be flatter.

(2) 6" Minimum for pipe installations or to top of headwall on R.C.B.

(W) = Pipe or R.C.B. width plus 20 feet each side.

DETAILS OF BARNROOF FORESLOPE AT DRAINAGE STRUCTURE

2619
10-15-13



(1) Refer to shoulder typicals

Location				Side	D	AL	S	I
Road Identification	Direction of Travel	Station To Station			Feet	Feet	Inches	Inches

TYPICAL HALF SECTION HMA RESURFACING EXISTING AUXILIARY LANE

This Sheet Reserved For Additional Typicals (if needed)

SITE 4

Palestine TWP.
T-82N R-24W
SEC. 11

JAMES G. & JOAN VALERIE DODLEY

Sta. 249-251+50 Lt.
shape ditch to proposed
RCP inlet;
also refer to RF-30C

245

250

255

Exist. ROW

Exist. ROW

Exist. ROW

Exist. ROW

PI Sta 253+77.00

PC Sta 251+88.60

PT Sta 255+64.85

Curve Data
Δ = 7° 31' 41.74" (RT)
T = 188.40
L = 376.25
R = 2,863.55
E = 6.19

GEORGE SANDQUIST

Sta. 250-252 Rt.
shape ditch to drain
proposed RCP outlet;
also refer to RF-30C

Sta. 250+57.5
Skew 0
3' X 2' X 61' RCB
D.A. = 300 Ac - Rolling
FL Lt. 987.08
FL Rt. 986.69
(REMOVE)

Sta. 250+58
Install 88"x 54"x120' RCP Arch.
plus aprons, Skew 40° Rt. Ahead
FL Lt. = 986.10
FL Rt. = 985.24
(Bury both FL's)
also refer to RF-30A

0 50
FEET

1005
1000
995
990
985
980
975

Existing Profile US69

+00 Rt. 987.81

+57.5 Rt. 986.91

+00 Rt. 986.49

+50 Rt. 986.74

-1.57% Rt. D.G.

+1.0% Rt. D.G.

-2.5% Lt. D.G.

+1.0% Lt. D.G.

+15 Lt. 989.25

+00 Lt. 987.10

F.L. Lt. 987.08 Rt. 986.69

+15 Lt. 987.10

+25 Lt. 988.17

Lt
Rt

(Use Existing Ditch) (Use Existing Ditch) | Ditch Grade | Trans. | Ditch Grade | Trans. | Ditch Grade | (Use Existing Ditch) (Use Existing Ditch)

242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER D.1

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SITE 2

Palestine TWP.
T-82N R-24W
SEC. 2

PATRICIA A. MULVIHILL. REVOCABLE TRUST
PATRICIA A. MULVIHIL. TRUSTEE

Sta. 315+44, Lt.
Prop. Safety Ramp
per SRP EW-502

310
315
320

Exist. ROW
Exist. ROW

EW-502

TP

POT Sta 1315+44.13

PI Sta 322+90.39

282nd St.

0 FEET 50

Prop. Safety Ramp

315+44, Lt.

Existing Profile US69

990
985
980
975
970
965
960

Lt
Rt

No Ditch
No Ditch
Side Road

308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323
315

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER D.2

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SITE 3

Washington TWP.
T-83N R-24W
SEC. 26

RICHARD G. ELLER

SEC. LINE

Washington TWP.
T-83N R-24W
SEC. 23

BLAKE Z. & KIMBERLY J. JENSEN

430 435 440

PI Sta 434+40.34

Exist. ROW

Exist. ROW

Exist. ROW

Exist. ROW

BRENT A. & DIANE L. BULDHAUPT

Sta. 433+48.3
Skew 0
6' X 6' X 55' RCB
D.A. = 160 Ac. R. to H.
FL Lt. 899.22
FL Rt. 896.91
(REMOVE)

Sta. 433+45
Install 12' x 8' x 90' RCB
Skew 0°, DA=2.1 sq.mi.
FL Inlet = 898.20
FL Outlet = 896.00
also refer to RF-30D

0 50
FEET

925 920 915 910 905 900 895

Lt
Rt

Existing Profile US69

F.L. Lt. 899.22
Rt. 896.91

Vari. Ditch

(Use Existing Ditch) (Use Existing Ditch)

(Use Existing Ditch) (Use Existing Ditch)

426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER D.3

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Survey Information

General Information

Measurement units for this survey are US survey feet.

All surveys are in Story County along US 69
Site 1 is a survey for a culvert extention at Sta. 278+97.4
Site 2 is a survey for a safety dike at Sta. 315+43.45 (282nd Street)
Site 3 is a survey for a culvert extention at Sta. 433+48.3
Site 4 is a survey for a culvert replacement

Vertical Control

Vertical datum for this survey is relative to NAVD88- computed using GPS RTK techniques via the Iowa Real Time Network, utilizing the Iowa State Plane North projection and Geoid 09. For redundancy, each Control Point was shot 5 times with a standard deviation less than 0.10'.

Horizontal Control Information

Horizontal data collected for this survey was computed using GPS RTK techniques via the Iowa Real Time Network, using the Iowa Regional Coordinate System, Ames-Des Moines, Low Distortion Projection Zone 8.

The field work for these surveys was collected from March 11, 2014 through May 20, 2014 by the District 1 Land Survey Crew.

Alvin Treloar - Land Surveyor
Lucas Weigel - Survey Party Chief
Chad Rumbaugh - Highway Technician
Tony Hildreth - Design Technician

Alignment Information for all sites

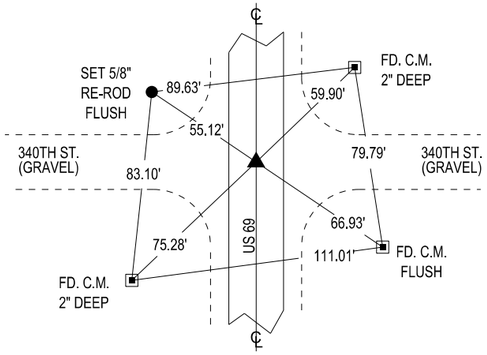
The horizontal alignment for this survey is a retrace of the as-built centerline shown in the 1929 Project FA-311 paving plans. An I.D.O.T. aluminum corner marker was found at the Polk-Story County line, as-built P.I. Sta. 0+00.0 (SE Cor. Sec. 35-82-24) and a mag nail was found at as-built P.I. Sta. 53+28.3 (NE Cor. Sec. 35-82-24). Stationing was established at the found I.D.O.T. aluminum section corner marker at P.I. Sta. 0+00.00 and carried forward through the project.

See reference boxes for this survey station equations to as-built project FA-311 stationing.

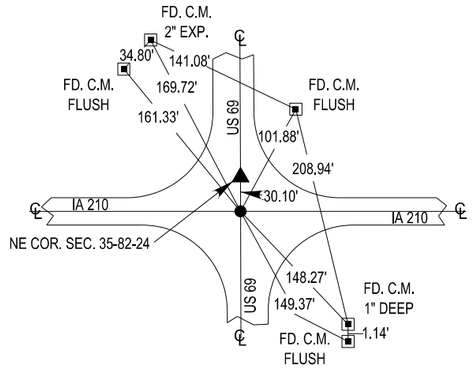
VERTICAL CONTROL

Point	North	East	Elevation	Station	Offset	Feature	Description
BM503	7,611,858.364	18,528,932.340	990.58	250+56.44	-30.13'	BM	FOUND IHC BRASS CAP IN INLET HDWL R.C.B.
BM500	7,614,700.161	18,528,985.977	977.05	278+96.00	-24.40'	BM	FOUND IHC BRASS CAP IN INLET HDWL R.C.B.
BM501	7,618,584.065	18,528,962.848	961.64	317+80.80	-55.35'	BM	FOUND IHC BRASS CAP IN INLET HDWL R.C.B.
BM502	7,630,147.371	18,528,944.765	908.07	433+46.17	-25.33'	BM	FOUND IHC BRASS CAP IN HDWL R.C.B.

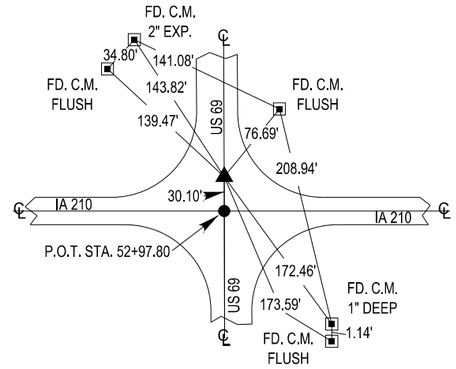
SE COR. SEC. 35-82-24
IS P.I. STA. 0+00.0 AB
POINT NO. 8013 FOUND I.D.O.T. ALUM. MARKER
N = 7,587,818.169 E = 18,531,674.748



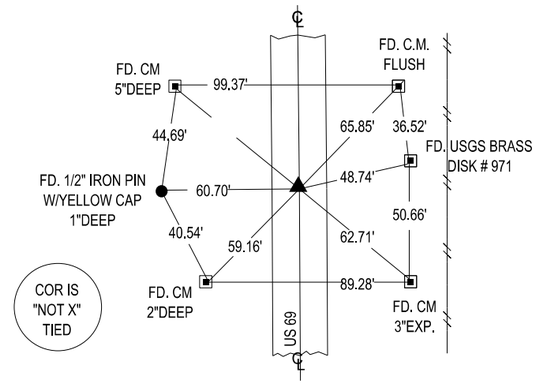
P.O.T. STA, 52+97.80 US 69
= P.O.T. STA, 52+98.50 AB US 69
= P.I. STA. 312+61.7 AB IA 210
POINT NO. 3001 FOUND MAG NAIL
N = 7,593,115.959 E = 18,531,665.283



NE COR. SEC. 35-82-24
IS P.I. STA. 53+27.89
= P.I. STA. 53+28.3 AB
POINT NO. 8005 FOUND MAG NAIL
N = 7,593,146.054 E = 18,531,665.413



W 1/4 COR. SEC. 25-82-24
P.I. STA. 79+82.5 0.2RT
POINT NO. 8006 FOUND I.D.O.T. ALUM. MARKER
N = 7,595,799.794 E = 18,531,651.267



NE COR. SE 1/4 NE 1/4 SEC. 26-82-24
0.27' RT. OF STA. 93+04.56
POINT NO. 8006 FOUND MAG NAIL
N = 7,597,122.622 E = 18,531,638.053

NE COR. SEC. 26-82-24
IS P.I. STA. 106+26.44
= P.I. STA. 106+28.0 AB
POINT NO. 8008 FOUND MAG NAIL
N = 7,598,444.425 E = 18,531,624.308

P.I. STA. 120+66.64
= P.I. STA. 120+68.4 AB
POINT NO. 3003 SET HINGE NAIL
N = 7,599,884.597 E = 18,531,615.331

P.I. STA. 157+47.08
= P.I. STA. 157+48.9 AB
POINT NO. 3004 FOUND 1/2" IRON PIN
N = 7,602,508.825 E = 18,528,977.364

N 1/4 COR. SEC. 23-82-24
22.52' LT. OF STA. 168+73.39
POINT NO. 8020 SET MAG NAIL
N = 7,603,714.727 E = 18,528,943.122

P.I. STA. 174+51.05
= P.I. STA. 174+56.75 AB
POINT NO. 3012 FOUND HINGE NAIL
N = 7,604,292.586 E = 18,528,960.025

P.I. STA. 193+44.28
= P.I. STA. 193+49.9 AB
POINT NO. 3010 FOUND HINGE NAIL
N = 7,606,185.510 E = 18,528,926.137

CENTER SEC. 14-82-24
12.35' RT. OF STA 195+45.05
POINT NO. 8014 FOUND PK NAIL
N = 7,606,386.347 E = 18,528,937.450

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER G.2

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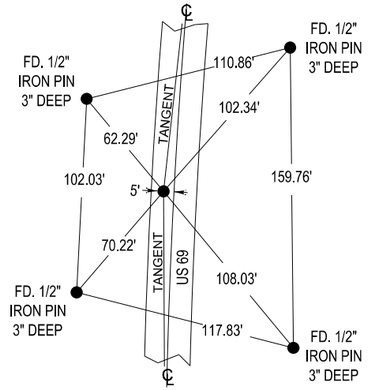
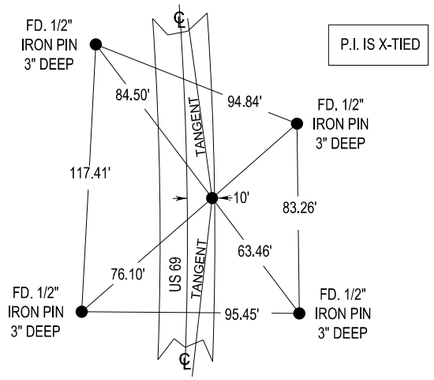
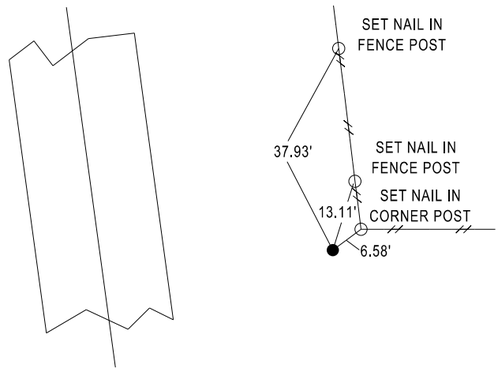
P.I. STA. 199+91.66
= P.I. STA. 199+97.4 AB
POINT NO. 3006 FOUND HINGE NAIL
N = 7,606,832.887 E = 18,528,922.811



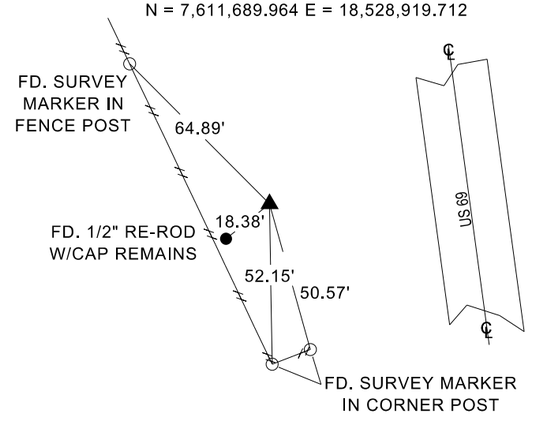
P.I. STA. 229+38.17
= P.I. STA. 229+45.0 AB
POINT NO. 3007 FOUND HINGE NAIL
N = 7,609,761.783 E = 18,529,248.392



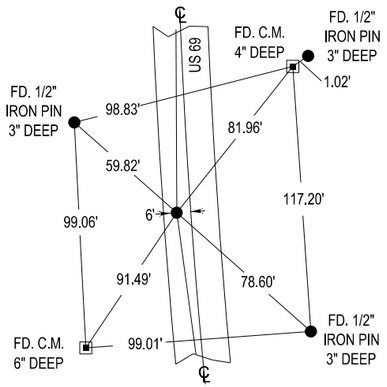
CONTROL POINT 43.48' RT. OF STA. 248+73.53
POINT NO. CP106 SET 5/8" RE-ROD
N = 7,611,687.069 E = 18,529,029.965



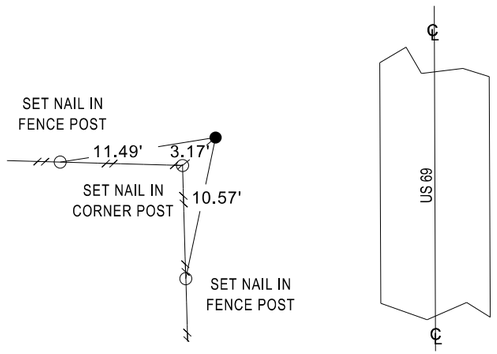
CENTER SEC. 11-82-24
65.37' LT. OF STA. 248+91.28
POINT NO. 8017 FOUND 3/4" RE-ROD
N = 7,611,689.964 E = 18,528,919.712



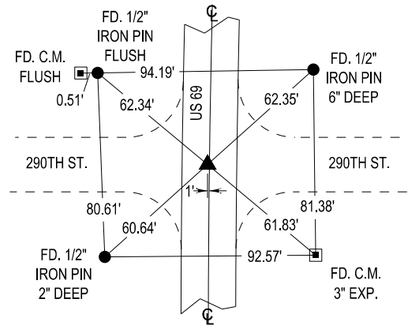
P.I. STA. 253+77.00
= P.I. STA. 253+84.5 AB
POINT NO. 3005 FOUND HINGE NAIL
N = 7,612,180.057 E = 18,528,918.915



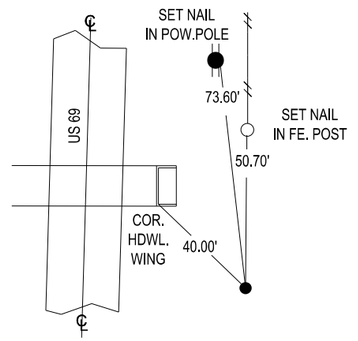
CONTROL POINT 50.27' LT. OF STA. 257+42.57
POINT NO. CP107 FD 5/8" RE-ROD W/YEL. CAP 17161
N = 7,612,545.963 E = 18,528,867.171



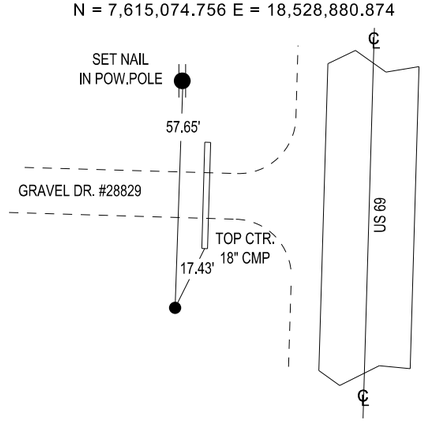
N 1/4 COR. SEC. 11-82-24
IS P.I. STA. 275+44.96
= P.I. STA. 275+53.1 AB
POINT NO. 8001 FOUND I.D.O.T. BRASS MARKER
N = 7,614,348.546 E = 18,528,910.202



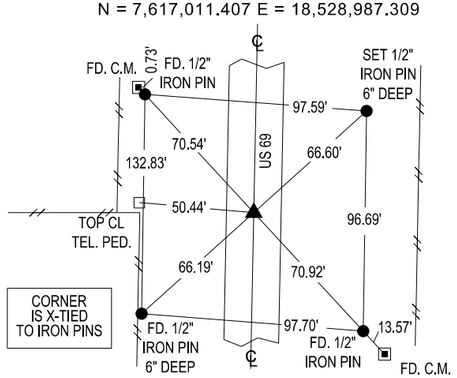
CONTROL POINT 53.47' RT. OF STA. 278+65.16
POINT NO. CP100 SET 5/8" RE-ROD
N = 7,614,667.080 E = 18,528,972.919



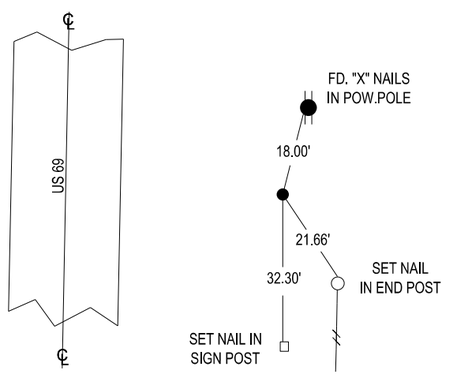
CONTROL POINT 50.34' LT. OF STA. 282+70.00
POINT NO. CP101 SET 5/8" RE-ROD
N = 7,615,074.756 E = 18,528,880.874



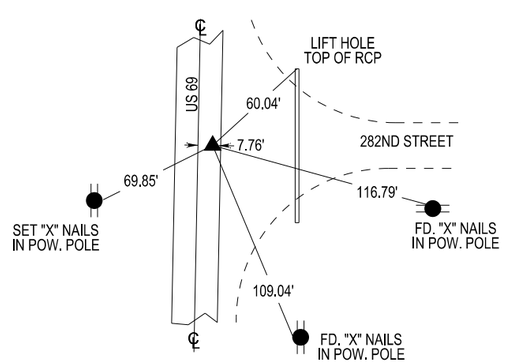
CENTER SEC. 2-82-24
IS P.I. STA. 302+08.92
= P.I. STA. 302+19.6 AB
POINT NO. 8002 FOUND HINGE NAIL
N = 7,617,011.407 E = 18,528,987.309



CONTROL POINT 47.64' RT. OF STA. 314+26.27
POINT NO. CP102 SET 5/8" RE-ROD FLUSH
N = 7,618,227.583 E = 18,528,068.856

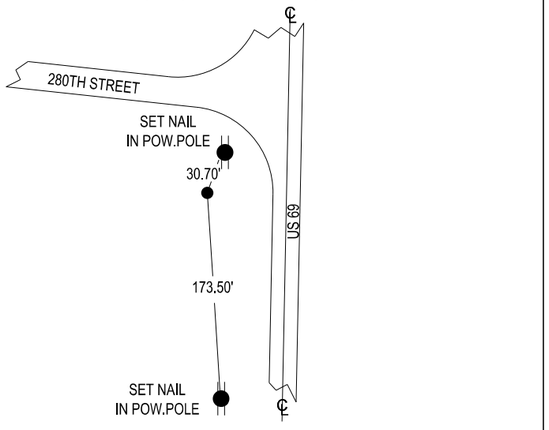


NE COR. SE 1/4 NW 1/4 SEC. 2-82-24
7.76' RT. OF STA. 315+43.45
POINT NO. 8003 FOUND PK NAIL
N = 7,618,345.525 E = 18,528,021.281

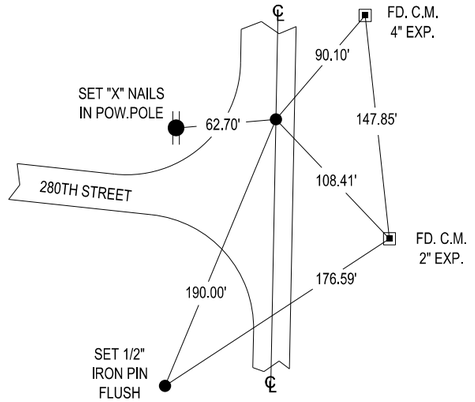


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER G.3

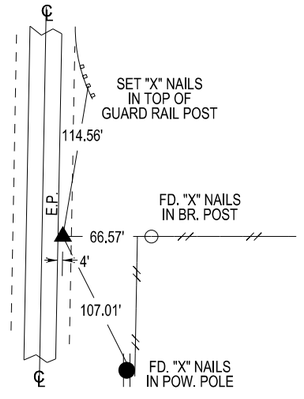
CONTROL POINT 69.52' LT. OF STA. 321+13.58
POINT NO. CP103 SET 5/8" RE-ROD
N = 7,618,917.063 E = 18,528,955.211



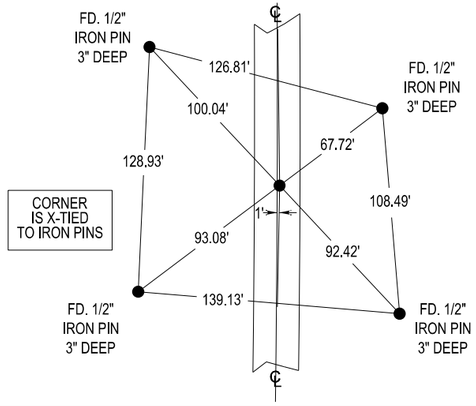
P.I. STA. 322+90.29
= P.I. STA. 323+00.0 AB
POINT NO. 3000 FOUND HINGE NAIL
N = 7,619,092.477 E = 18,529,028.196



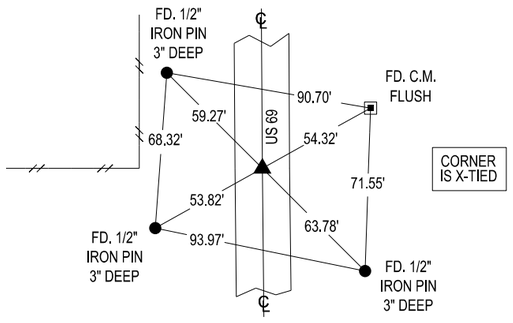
N 1/4 COR. SEC. 2-82-24
15.68' RT. OF STA. 327+72.50
POINT NO. 8000 FD. 1/2" RE-ROD W/YELLOW CAP #6586
N = 7,619,574.213 E = 18,529,052.750



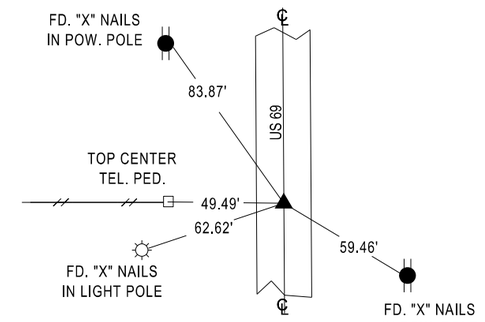
P.I. STA. 337+97.19
= P.I. STA. 338+06.1 AB
POINT NO. 3008 FOUND HINGE NAIL
N = 7,620,599.021 E = 18,529,055.954



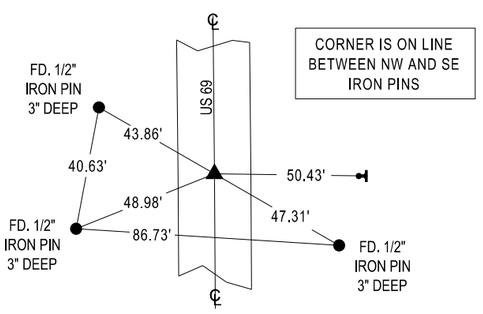
CENTER SEC. 35-83-24
IS P.I. STA. 354+09.6
= P.I. STA. 354+20.7 AB
POINT NO. 8015 FOUND I.D.O.T. ALUM MARKER
N = 7,622,211.415 E = 18,529,037.802



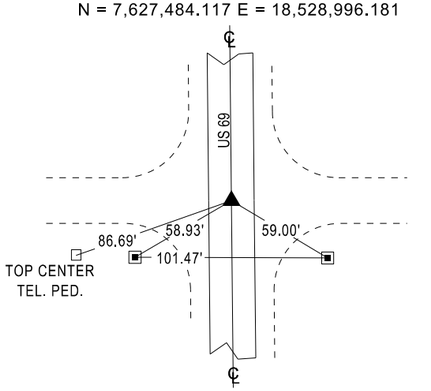
NE COR. SE 1/4 NW 1/4 SEC. 35-83-24
IS P.O.T. STA. 367+30.05
POINT NO. 8500 SET MAG NAIL
N = 7,623,531.774 E = 18,529,029.735



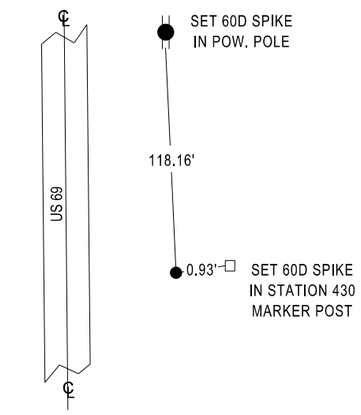
N 1/4 COR. SEC. 35-83-24
IS P.I. STA. 380+47.81
= P.I. STA. 380+59.8 AB
POINT NO. 8016 FOUND I.D.O.T. ALUM MARKER
N = 7,624,849.509 E = 18,529,021.684



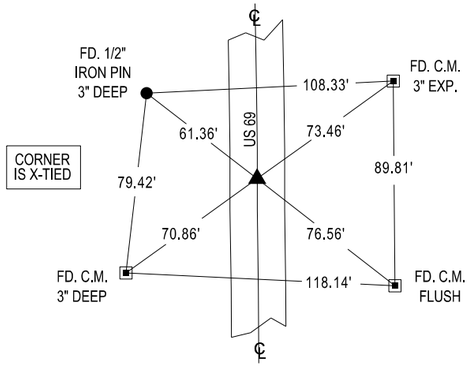
CENTER SEC. 26-83-24
P.I. STA. 406+82.54
= P.I. STA. 406+95.5 AB
POINT NO. 8009 FOUND I.D.O.T. ALUM MARKER
N = 7,627,484.117 E = 18,528,996.181



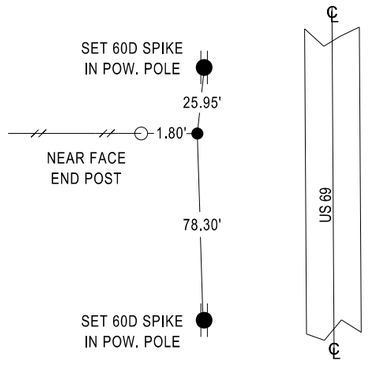
CONTROL POINT 57.64' RT. OF STA. 429+62.58
POINT NO. CP104 SET 5/8" RE-ROD
N = 7,629,764.613 E = 18,529,031.492



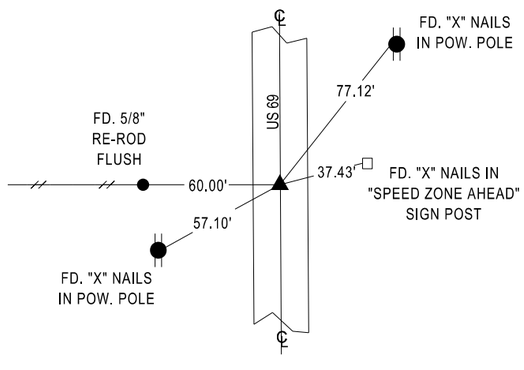
N 1/4 COR. SEC. 26-83-24
IS P.I. STA. 434+40.34
= P.I. STA. 434+54.4 AB
POINT NO. 8012 FOUND I.D.O.T. ALUM MARKER
N = 7,630,241.785 E = 18,528,969.175



CONTROL POINT 59.37' LT. OF STA. 439+74.38
POINT NO. CP105 SET 5/8" RE-ROD
N = 7,630,775.464 E = 18,528,906.605



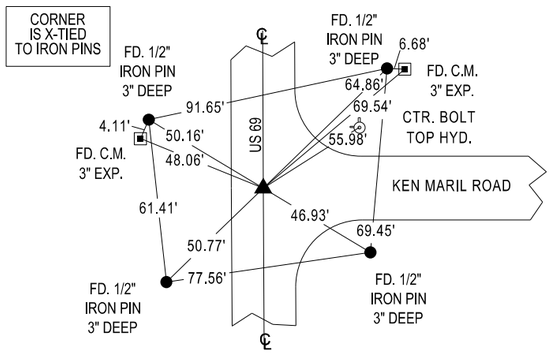
NE COR. SE 1/4 SW 1/4 COR. SEC. 26-83-24
0.23' LT. OF STA. 446+49.95
POINT NO. 8010 FOUND NAIL IN WASHER
N = 7,631,451.370 E = 18,528,961.705



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER G.4

1:15:15 PM 7/17/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105g01.sht

CENTER SEC. 23-83-24
IS P.I. STA. 459+68.12
= P.I. STA. 459+82.5 AB
POINT NO. 8011 FOUND I.D.O.T. ALUM MARKER
N = 7,632,769.516 E = 18,528,954.044



N 1/4 COR. SEC. 23-83-24
P.I. STA. 486+30.9 AB

NE COR. SE 1/4 SW 1/4
SEC. 14-83-24

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER G.5

1:15:16 PM 7/17/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105g01.sht

Story ROW: STPN-069-5(106)--2J-85 PIN 13-77-069-010
1 mile S of Co Rd F22 to SCL of Ames

		STATE		COUNTY		CITY			BORROW							
PARCEL NO.	OWNER NAME	FEE	EASE	FEE	EASE	FEE	EASE	EXCESS	FEE	T.E.	MITIGATION	OTHER	HOUSE	BUILDING(S)	A/C ONLY	TOTAL ACQ.
1	James G Dooley - Fee		0.1 AC													
2	George Robert Sandquist - Fee		0.08 AC													
3	Patricia A. Mulvihill Revocable Trust - Fee		0.07 AC													
4	Richard G Eller - Fee		0.03 AC													
5	Brent A Buldhaupt - Fee		0.05 AC													
6	John E Sebastian - Fee															
7	William T Colman - Fee															
7 Parcels	"TOTALS	0 AC	0.33 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC					
		0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF								

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA /GETTINGS
ROW #: STPN-69-5(106)- -2J-85
Plan Date: 8/13/2014
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER H.1

8:25:40 AM 8/13/2014 ncuva pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\ROW\85069105Hsheets.sht

TEMPORARY EASEMENT TO SHAPE

Palestine TWP
T-82N R-24W
SEC. 2

PATRICIA A. MULVIHILL REVOCABLE TRUST

Sta. 315+44, Lt.
Prop. Safety Ramp
per SRP EW-502

315+65
℄105'

315+25
℄105'

315+10
℄115'

315+75
℄115'

315+85
℄70'±Ex.R/W

314+75
℄60'±Ex.R/W

Exist. ROW

Exist. ROW

310

SITE 2

PI Sta 322+90.39

POT Sta 1315+44.13

282nd St.

JONATHAN H. CHESTER REVOCABLE TRUST

POT Sta 1319+29.93

0 50
FEET

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

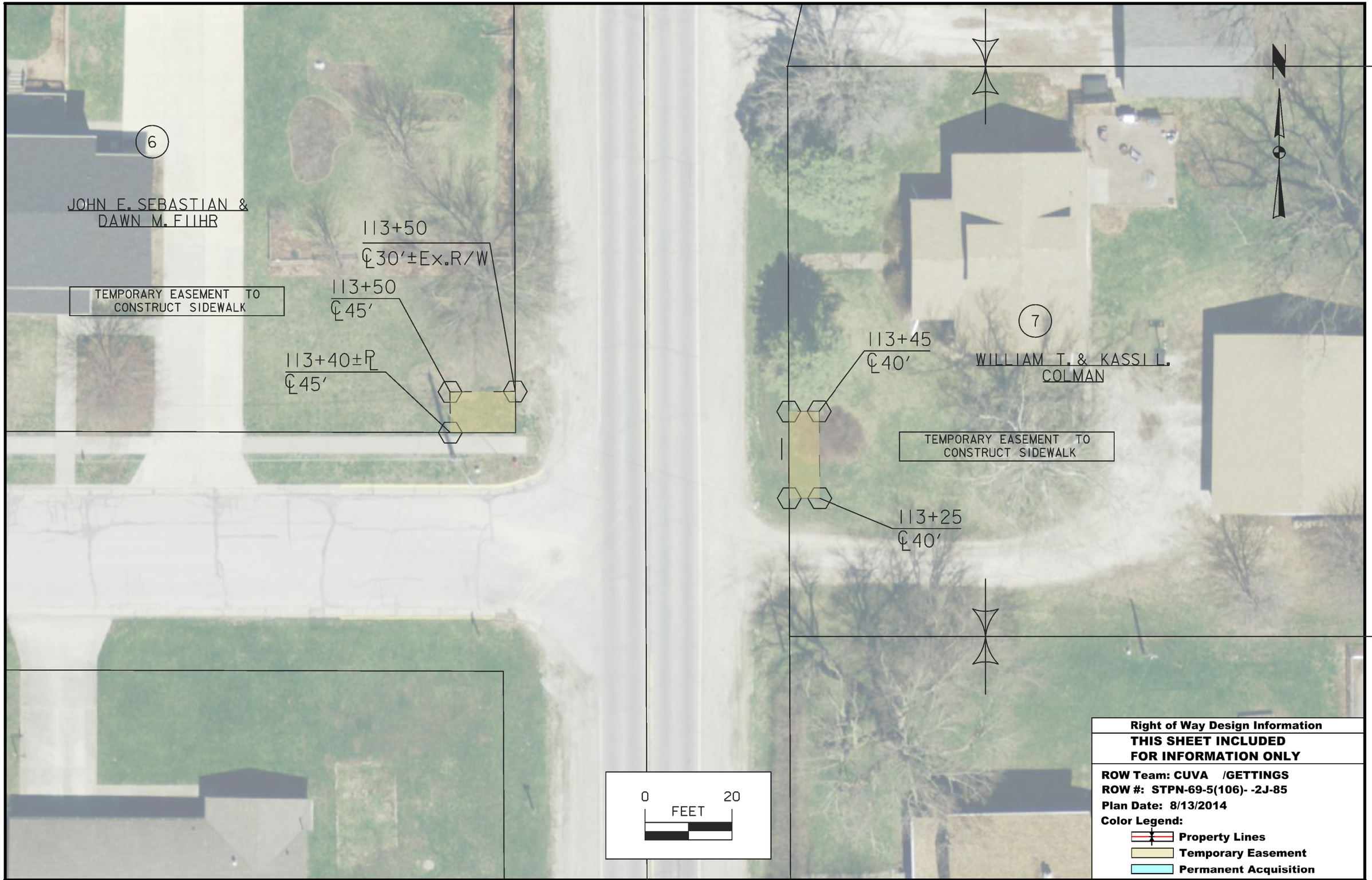
ROW Team: CUVA /GETTINGS
ROW #: STPN-69-5(106)- -2J-85
Plan Date: 8/13/2014
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER H.2	

8:25:51 AM 8/13/2014 ncuva pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\ROW\85069105Hsheets.sht

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER H.3	

8:26:01 AM 8/13/2014 ncuva pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\ROW\85069105Hsheets.sht



Right of Way Design Information

THIS SHEET INCLUDED
FOR INFORMATION ONLY

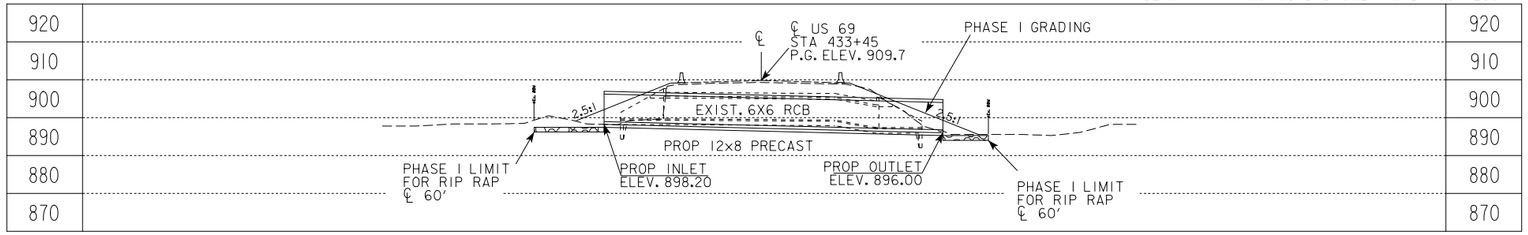
ROW Team: CUVA /GETTINGS
ROW #: STPN-69-5(106)- -2J-85
Plan Date: 8/13/2014
Color Legend:

- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

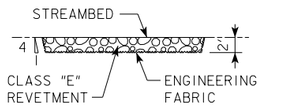
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER H.4

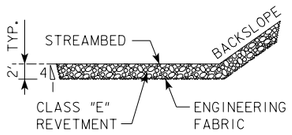
8:26:07 AM 8/13/2014 ncuva pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\ROW\85069105Hsheets.sht

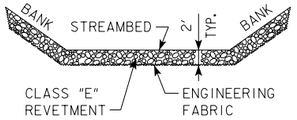
BENCH MARK NO. FOUND BM502 IHC BRASS PLUG IN HDWL. ELEVATION = 908.07

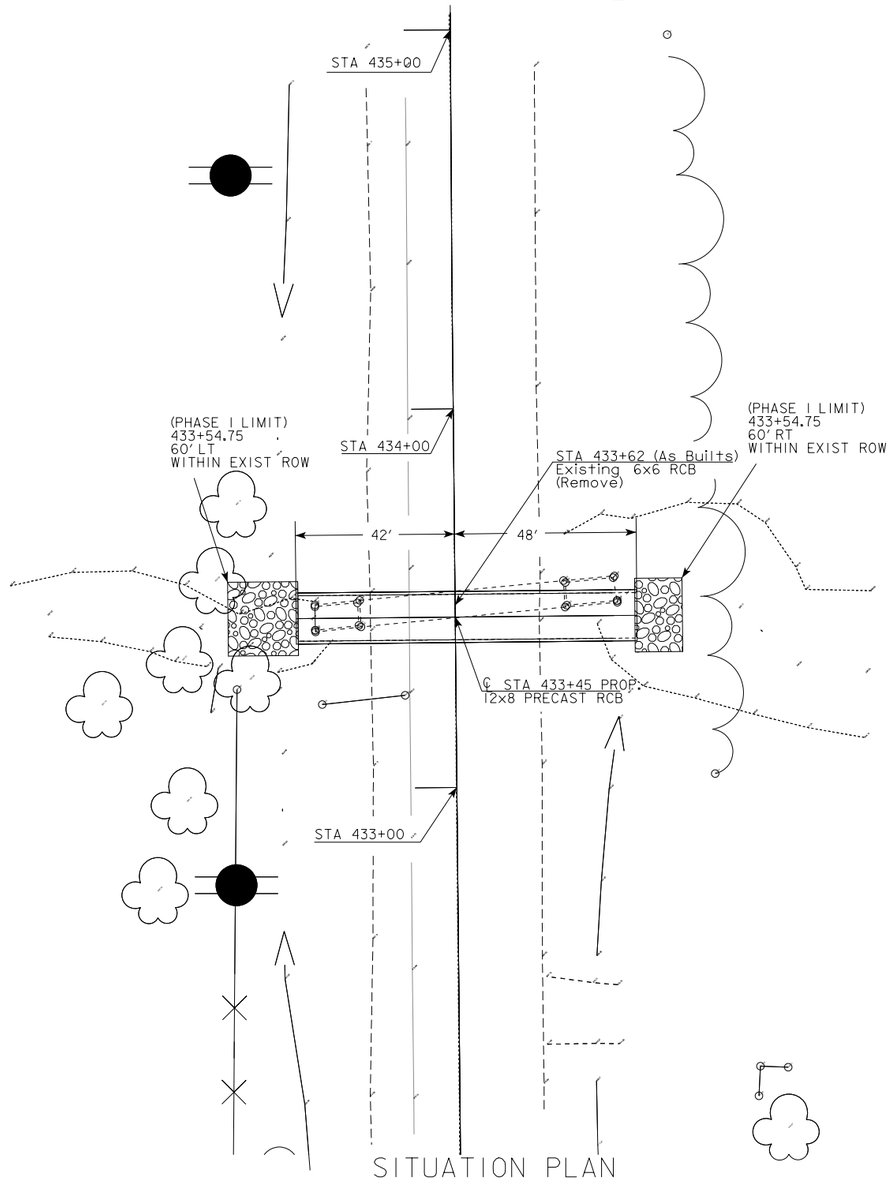


LONGITUDINAL SECTION ALONG ℄ CULVERT





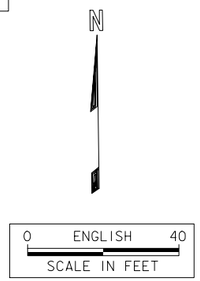




SITUATION PLAN

NOTE:
PHASE I: REMOVE EXIST. 6X6 RCB
OLD DES #2848.
INSTALL PRECAST 12X8 RCB
AT STA 433+45 WITHIN EXIST. R.O.W.

ALL RIP RAP PLACED IN PHASE I TO REMAIN WITHIN THE EXISTING R.O.W. QUANTITIES ARE FOR PHASE I ONLY.



UTILITIES LEGEND:

SYMBOL - TYPE - COMPANY NAME
-OR-
NO KNOWN UTILITIES
-OR-
UTILITY SURVEY NOT CONDUCTED

LOCATION

T-83N R-24W
SECTION 26
WASHINGTON TOWNSHIP
STORY COUNTY
LATITUDE 41.9793704°
LONGITUDE -093.6101261°

TYPICAL CHANNEL PROTECTION

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS			
LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	43	150	30
OUTLET	27	9	19
TOTALS	70	159	49

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

PRELIMINARY

DESIGN FOR ?° SKEW

12'x8'X90 REINFORCED CONCRETE BOX PRECAST CULVERT

SITUATION PLAN

STATION 433+45 ?

STORY COUNTY

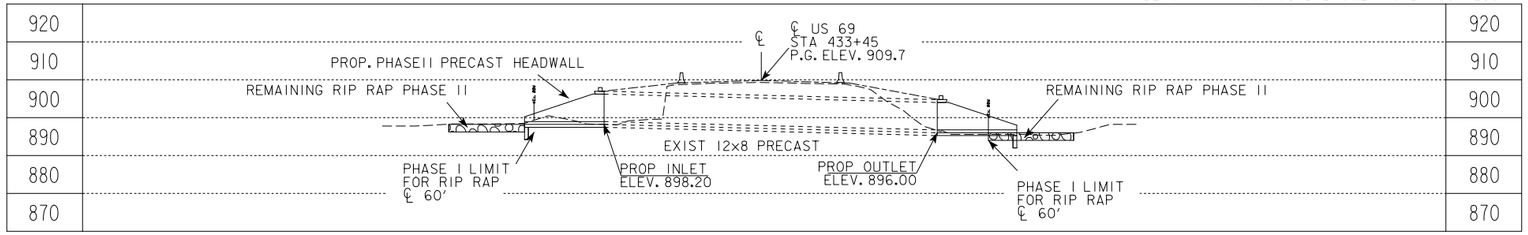
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ___ FILE NO. 31093 DESIGN NO. 0115

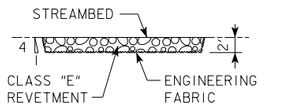
DESIGN TEAM	STORY COUNTY	PROJECT NUMBER STPN-069-5(105)--2J-85	SHEET NUMBER

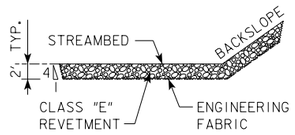
7/18/2014 6:34:38 AM rcornel pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\BRPrelim\85069105.str TSL_85_0115 Phase I 11x17_pdf.pltcfg

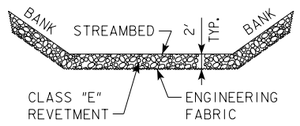
BENCH MARK NO. FOUND BM502 IHC BRASS PLUG IN HDWL. ELEVATION = 908.07

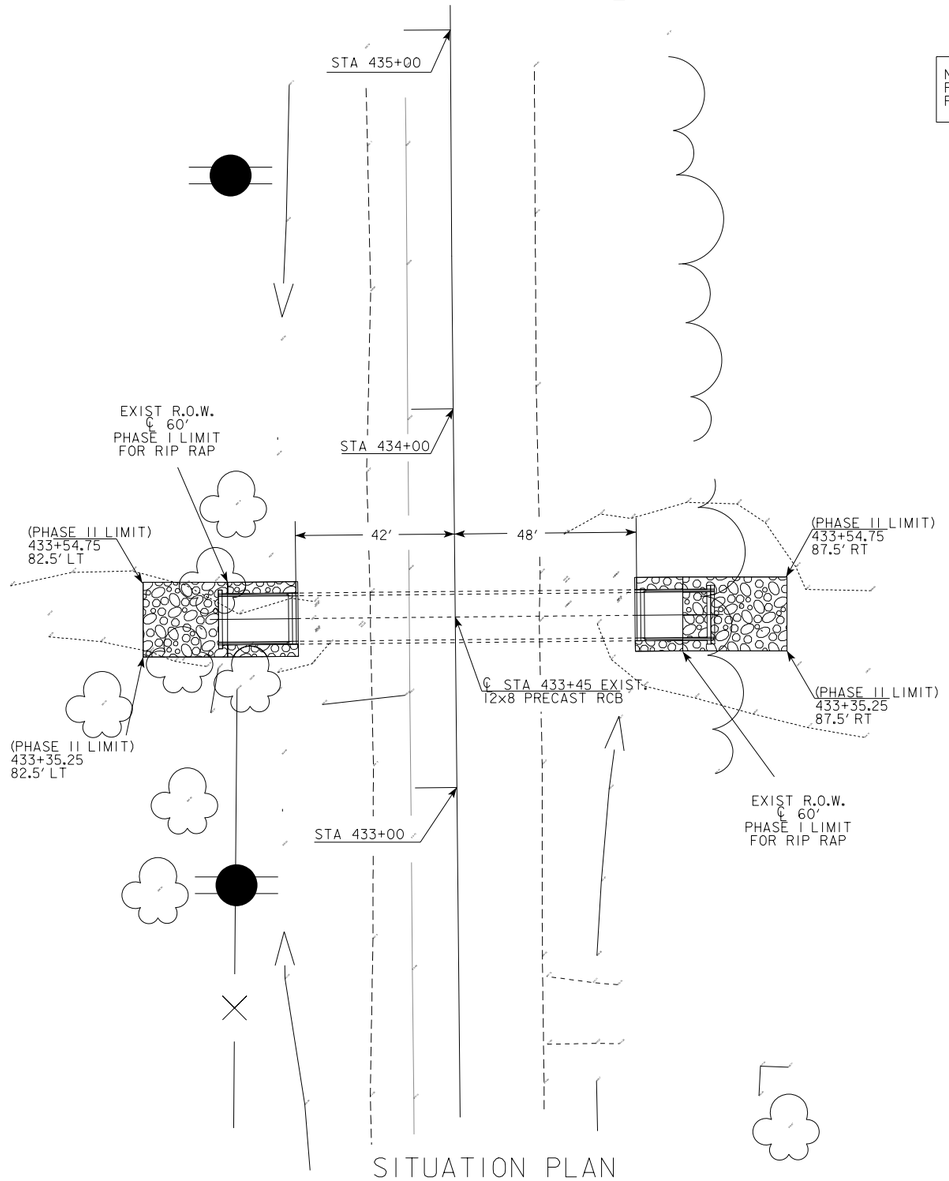


LONGITUDINAL SECTION ALONG ℄ CULVERT









SITUATION PLAN

NOTE:
PHASE II:
PLACE HEADWALLS AND REMAINING RIP RAP AND ENGINEERING FABRIC

UTILITIES LEGEND:

SYMBOL - TYPE - COMPANY NAME
-OR-
NO KNOWN UTILITIES
-OR-
UTILITY SURVEY NOT CONDUCTED

LOCATION

T-83N R-24W
SECTION 26
WASHINGTON TOWNSHIP
STORY COUNTY
LATITUDE 41.9793704°
LONGITUDE -093.6101261°

TYPICAL CHANNEL PROTECTION

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	53	70	33
OUTLET	65	83	40
TOTALS	118	153	73

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

PRELIMINARY

DESIGN FOR ?° SKEW

12'x8' REINFORCED CONCRETE BOX CULVERT

SITUATION PLAN

STATION 433+45 ?

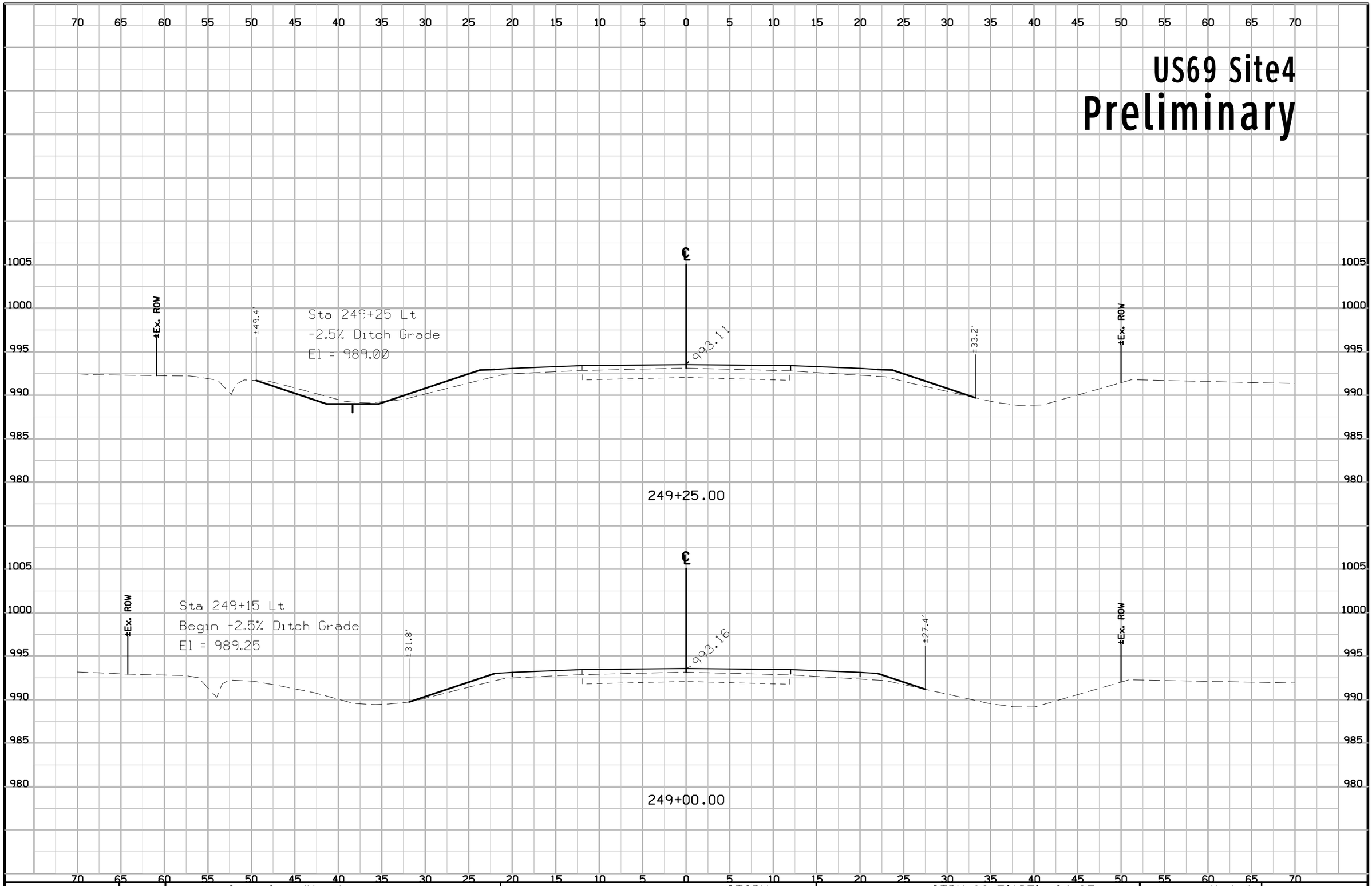
STORY COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. 31093 DESIGN NO. 0616

DESIGN TEAM	STORY COUNTY	PROJECT NUMBER STPN-069-5(100)--2J-85	SHEET NUMBER

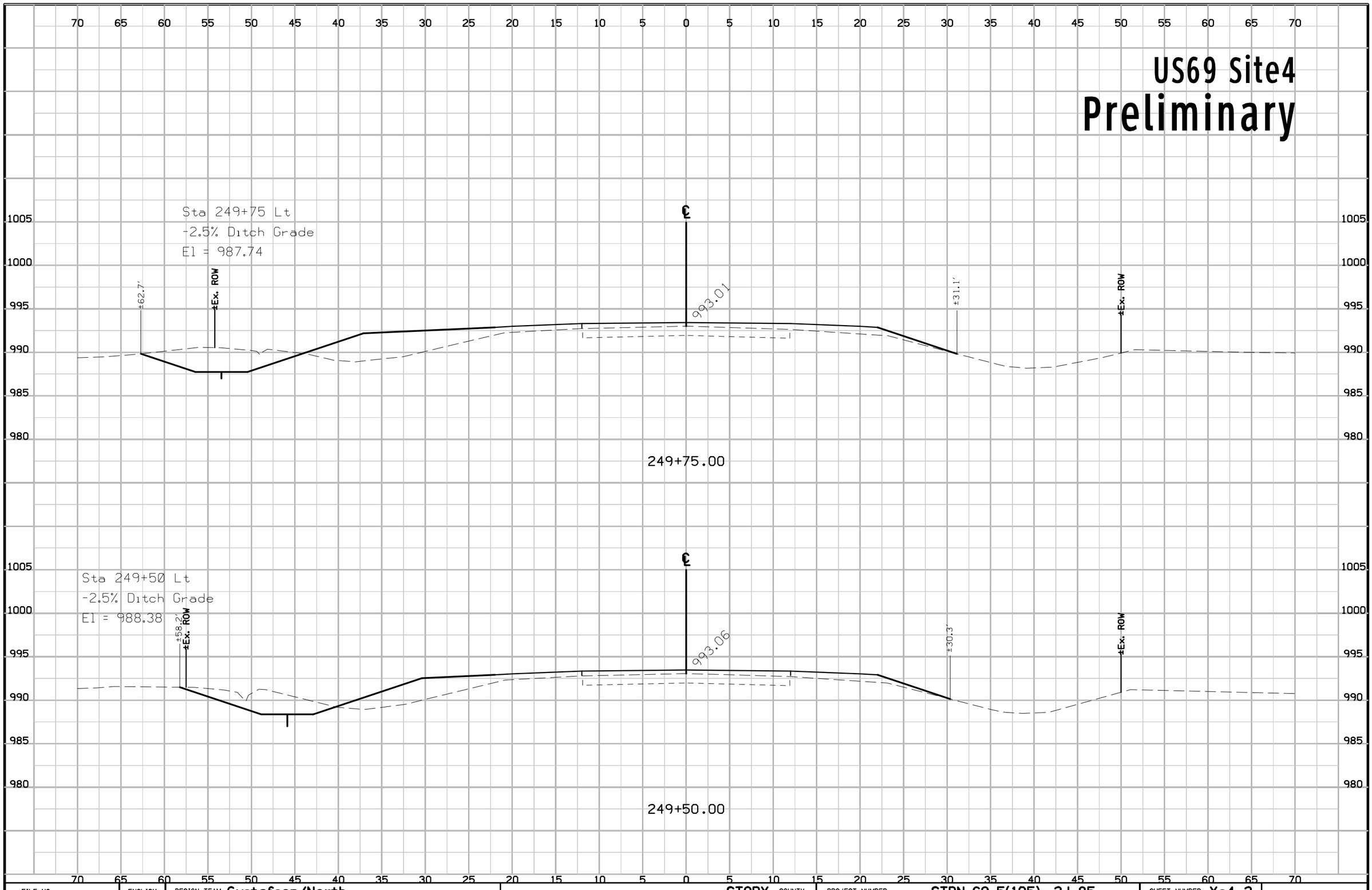
US69 Site4
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.1

7:31:07 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

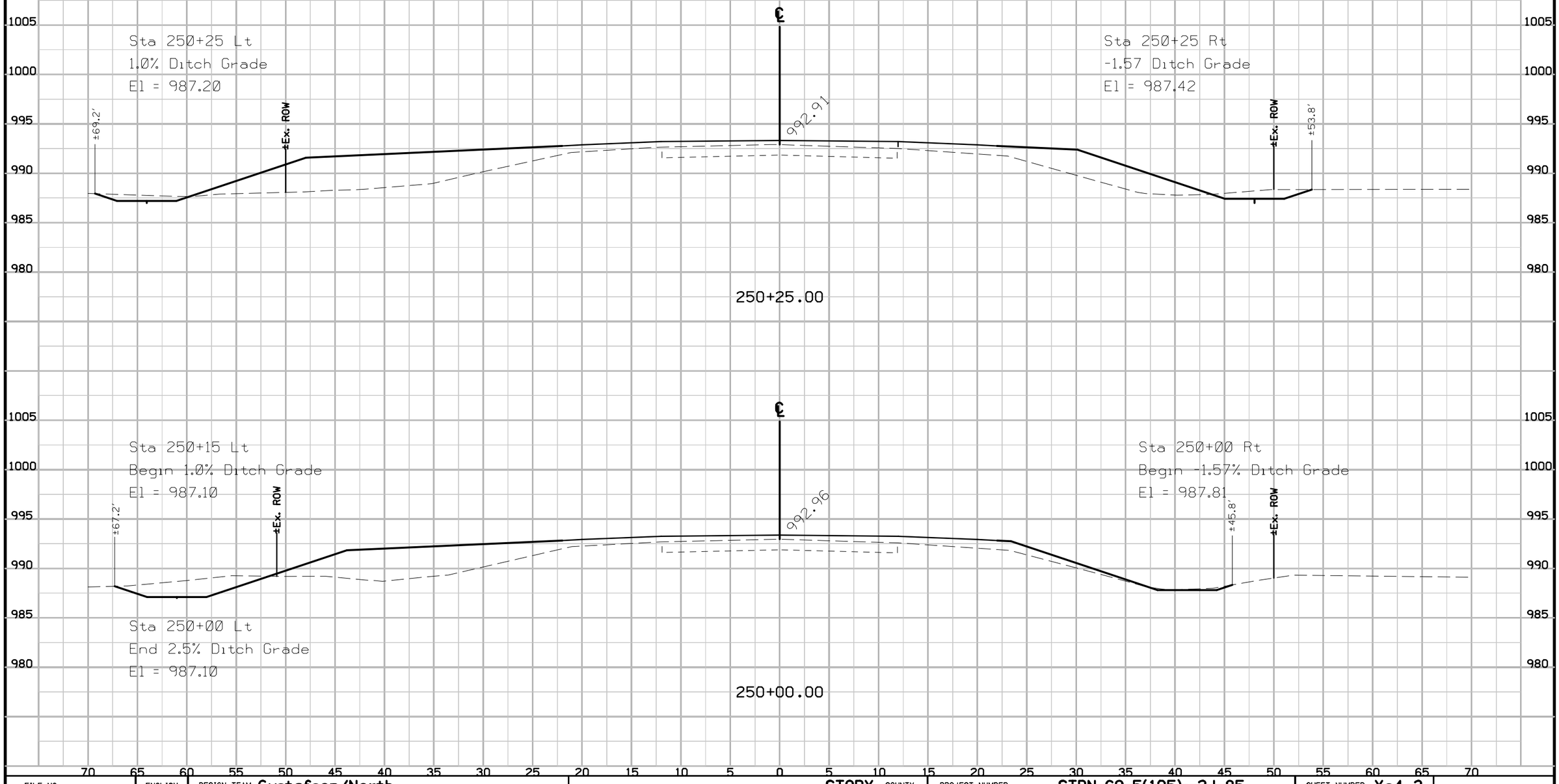
US69 Site4
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.2

7:31:09 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

US69 Site4
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.3

7:31:10 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

US69 Site4
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

1010 1005 1000 995 990 985 980

℄

Sta 250+57.5 Lt
1.0% Ditch Grade
El = 987.53

±61.0'

±Ex. ROW

SKEWED CROSS SECTION
(existing is slightly skewed)

992.82

Sta 250+57.5 Rt
End -1.57% Ditch Grade
Begin No Ditch
El = 986.91

±Ex. ROW

±54.1'

250+57.50

℄

Sta 250+50 Lt
1.0% Ditch Grade
El = 987.45

±62.7'

±Ex. ROW

992.84

Sta 250+50 Rt
-1.57% Ditch Grade
El = 987.03

±Ex. ROW

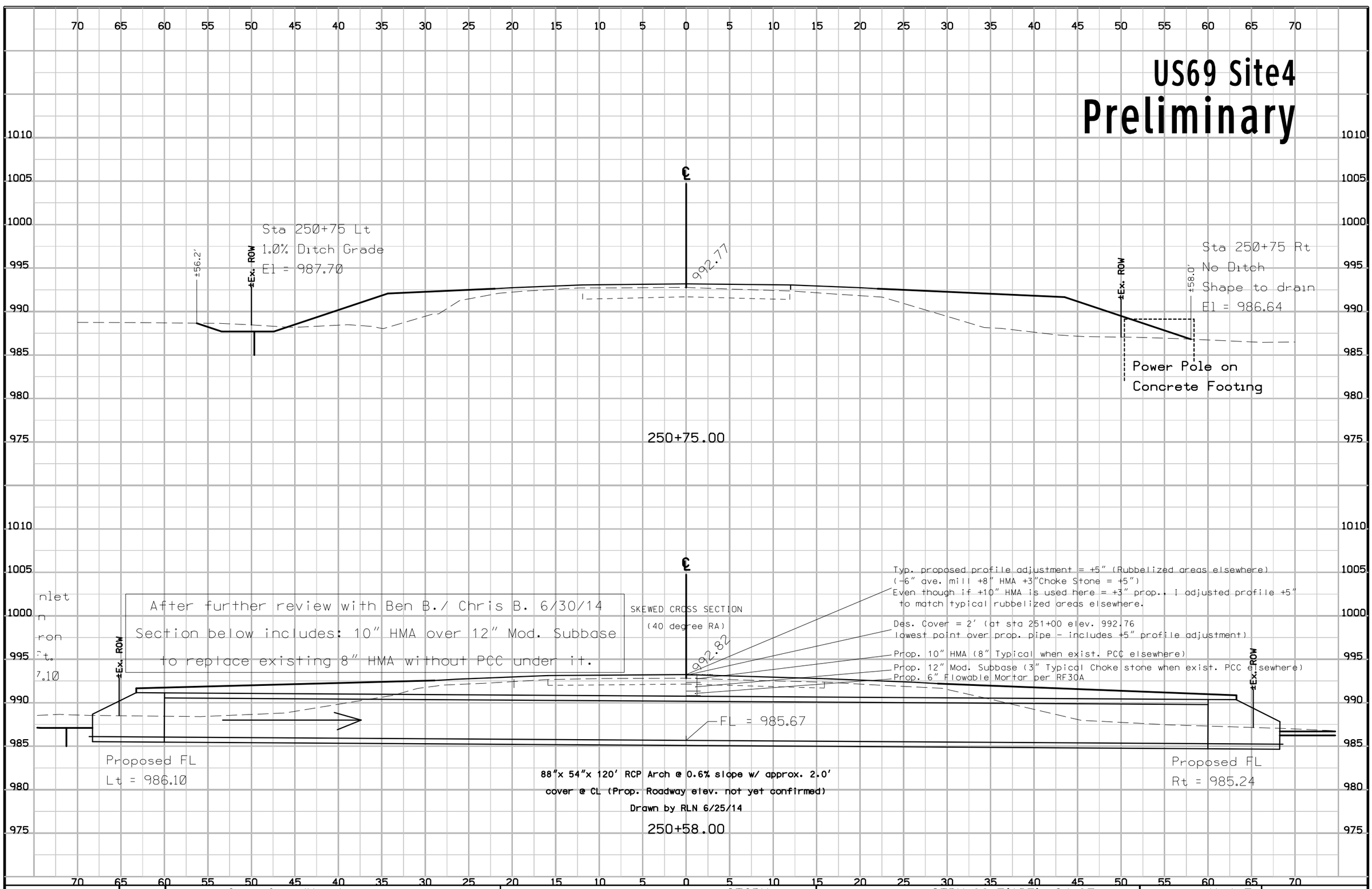
±59.2'

250+50.00

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.4

7:31:11 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

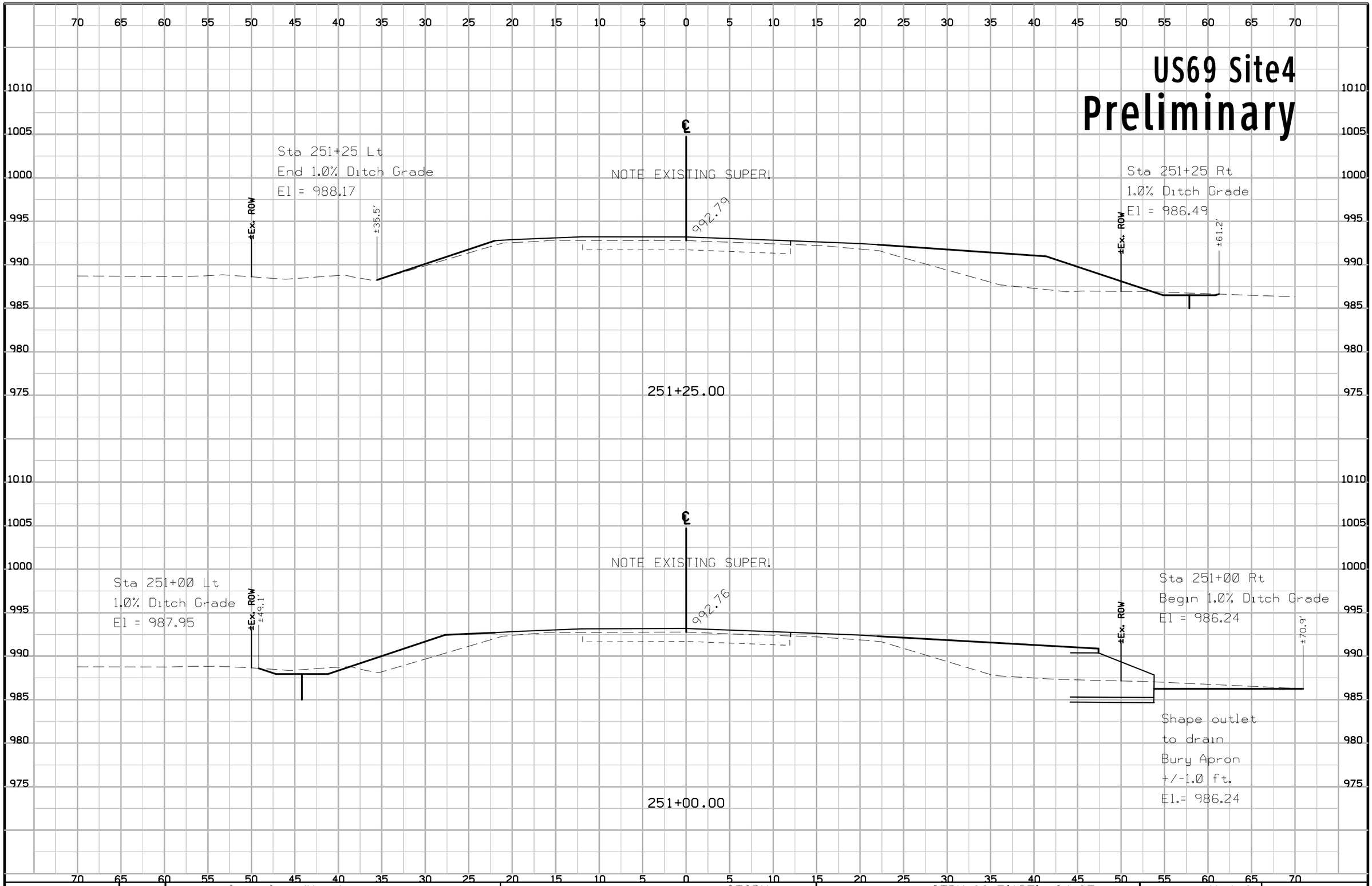
US69 Site4
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.5

7:31:12 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

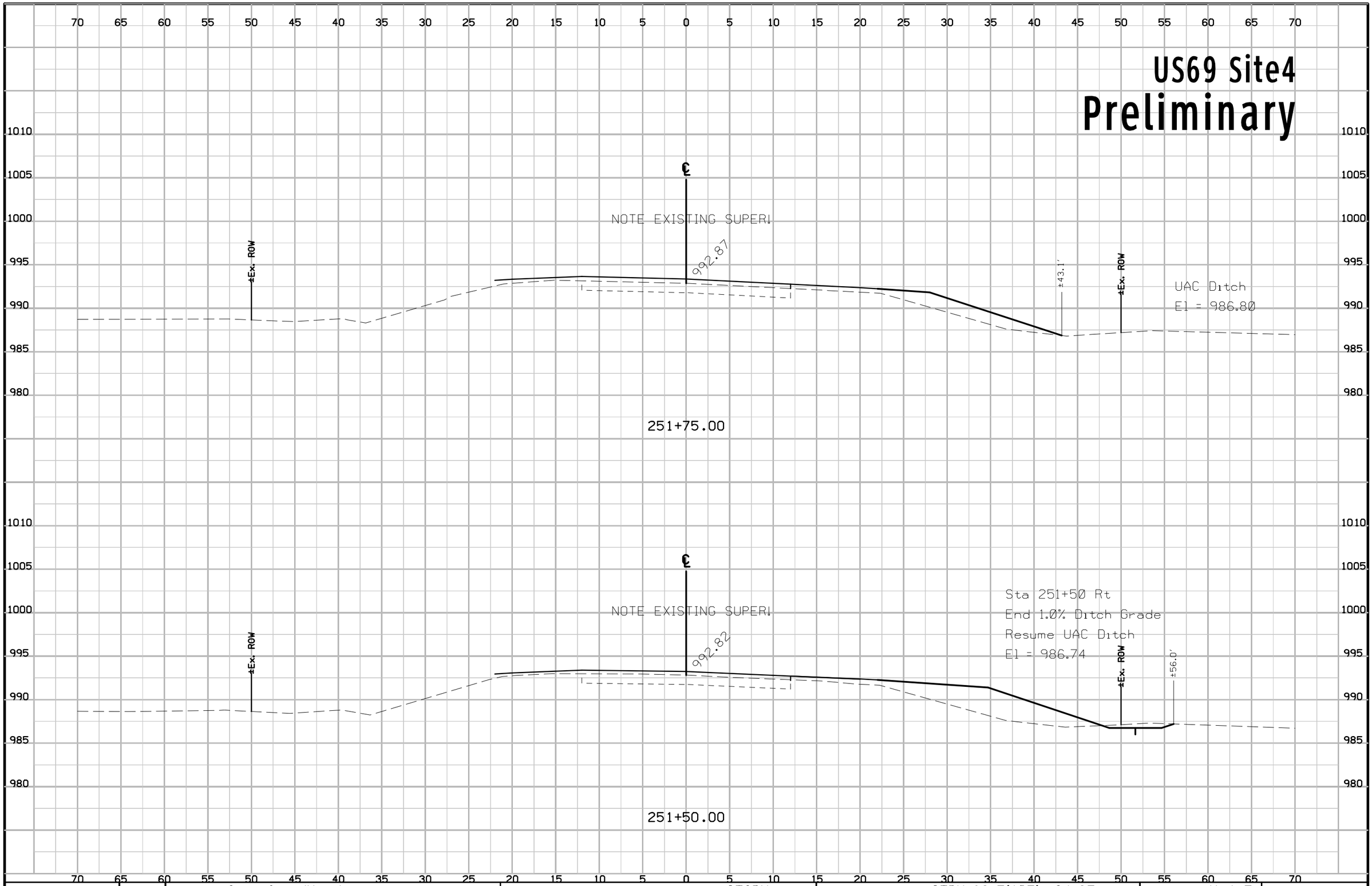
US69 Site4
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.6

7:31:13 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

US69 Site4
Preliminary

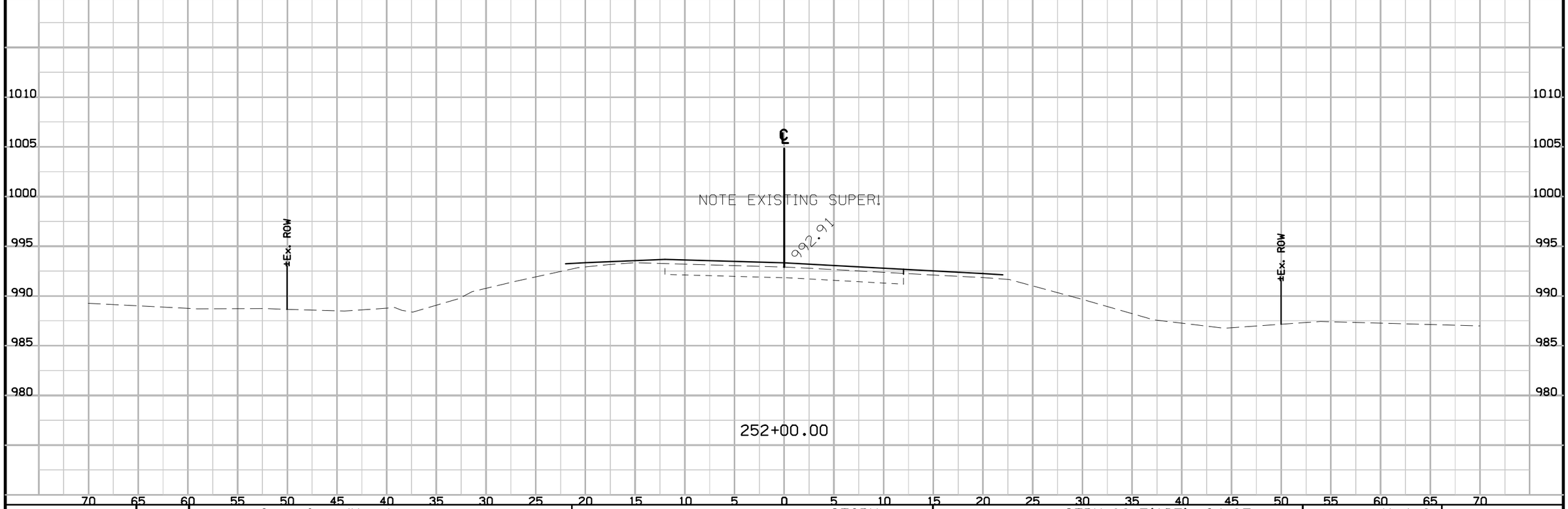


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.7

7:31:14 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

US69 Site4

Preliminary

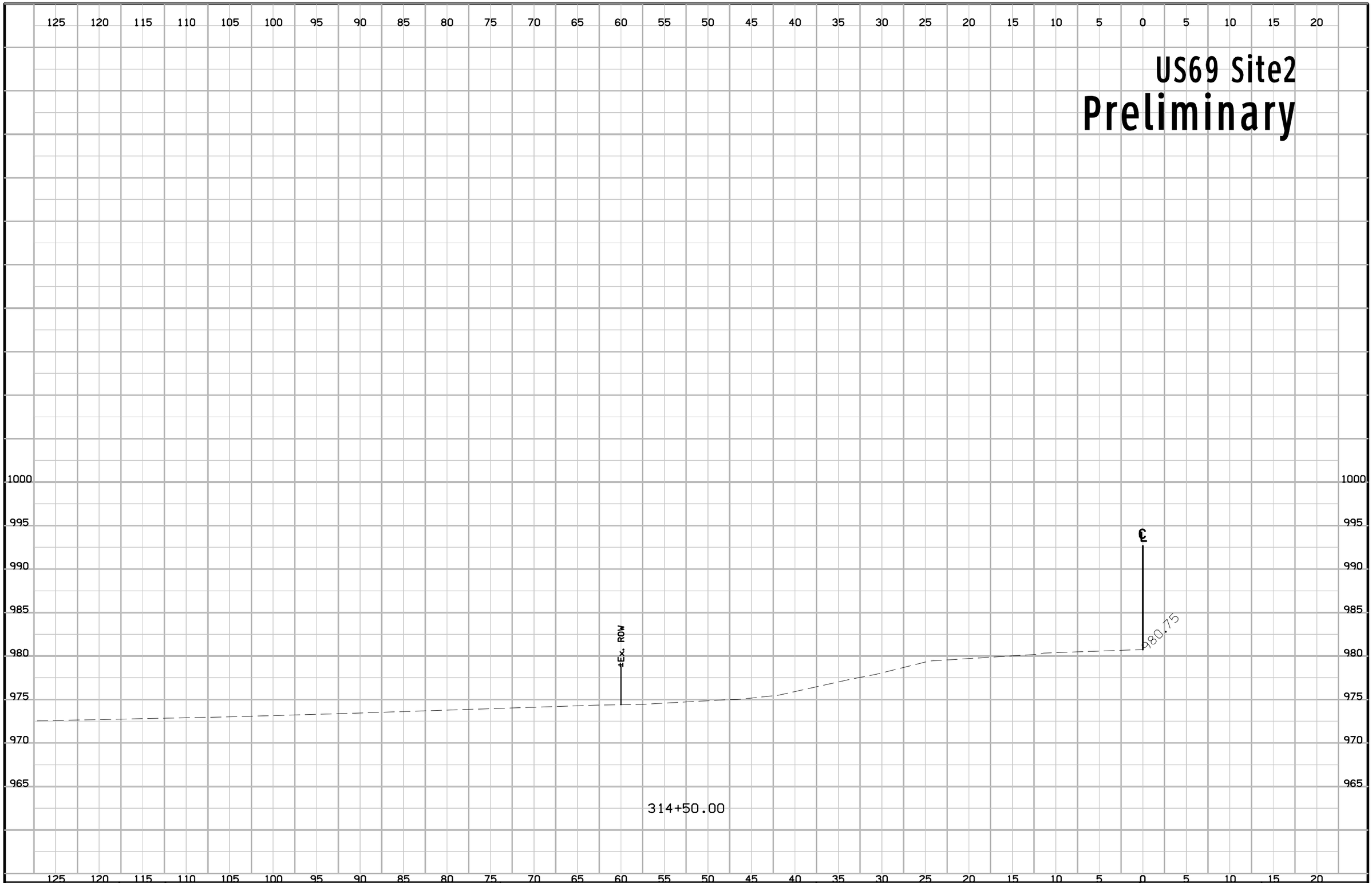


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs4.8

7:31:14 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site4.sht

US69 Site2

Preliminary

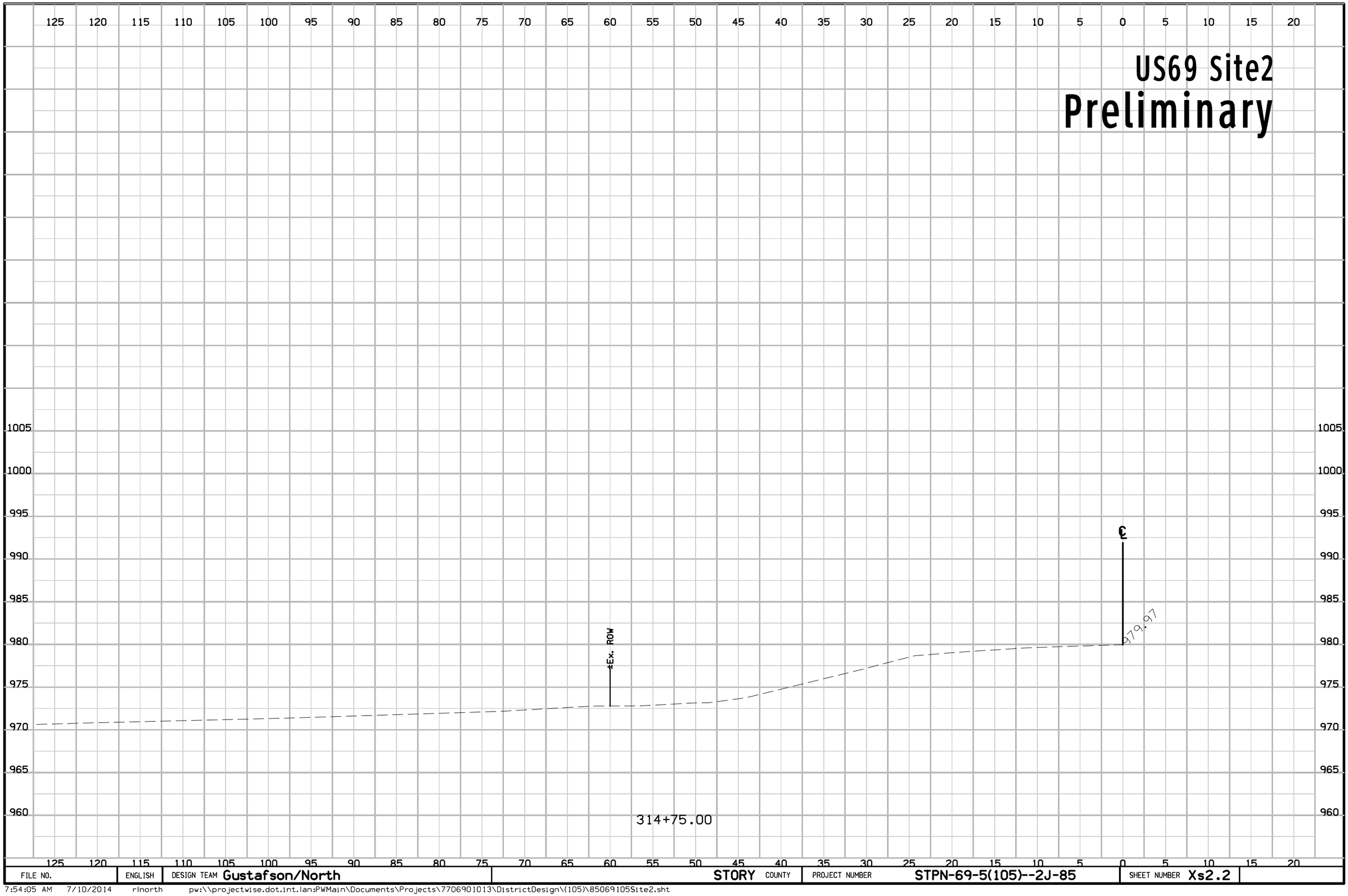


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.1

7:54:04 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site2.sht

US69 Site2

Preliminary



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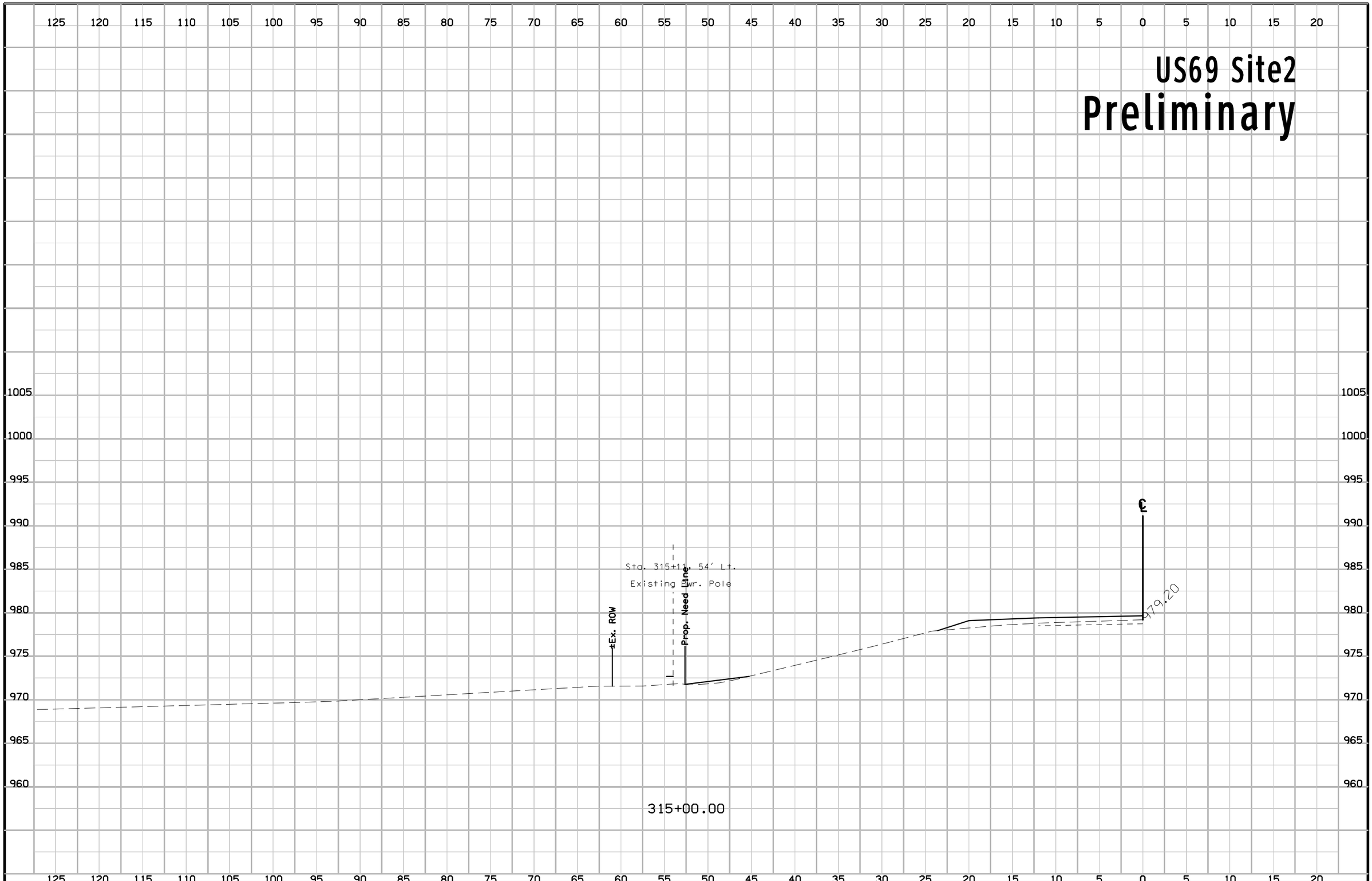
US69 Site2

Preliminary



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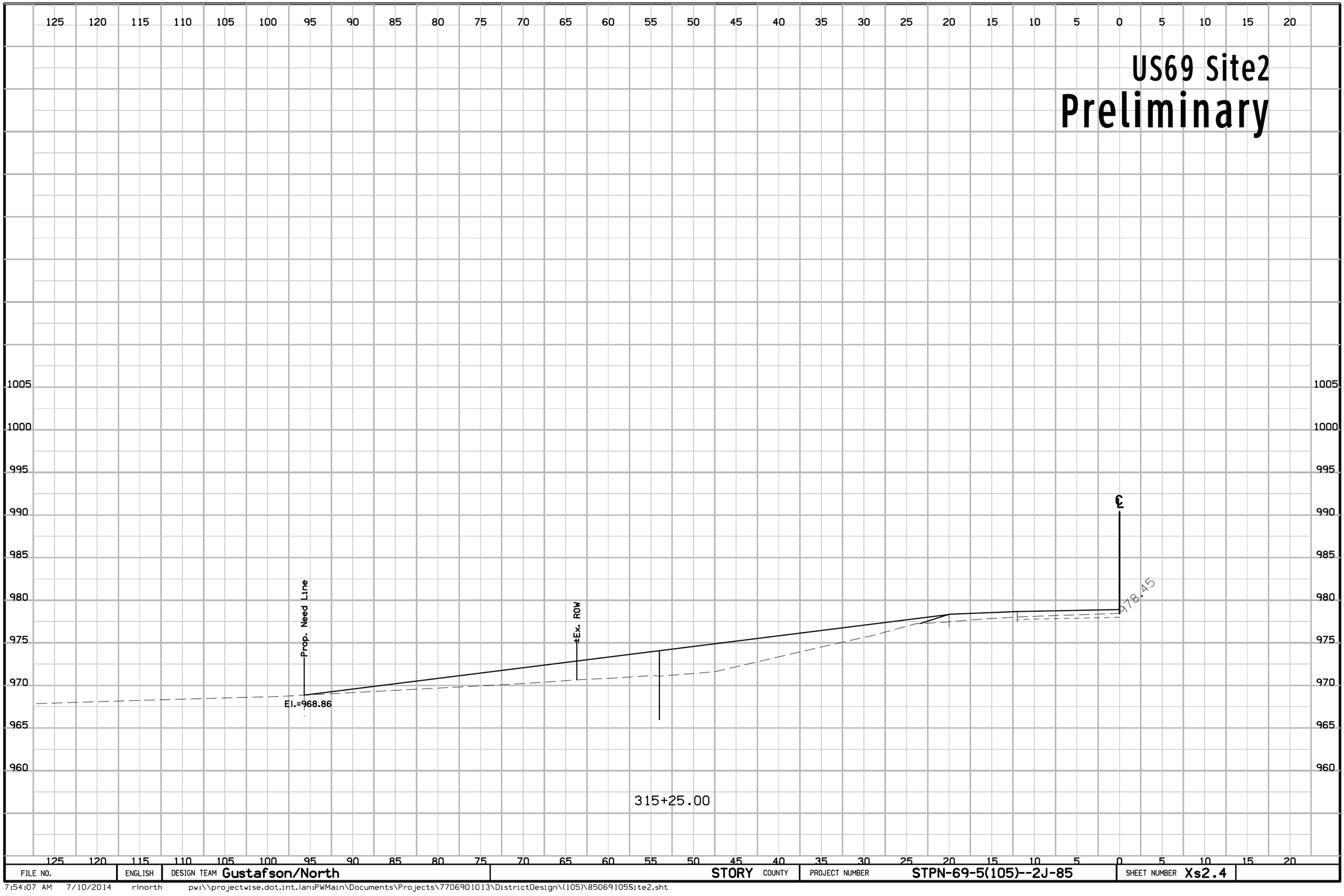
US69 Site2

Preliminary

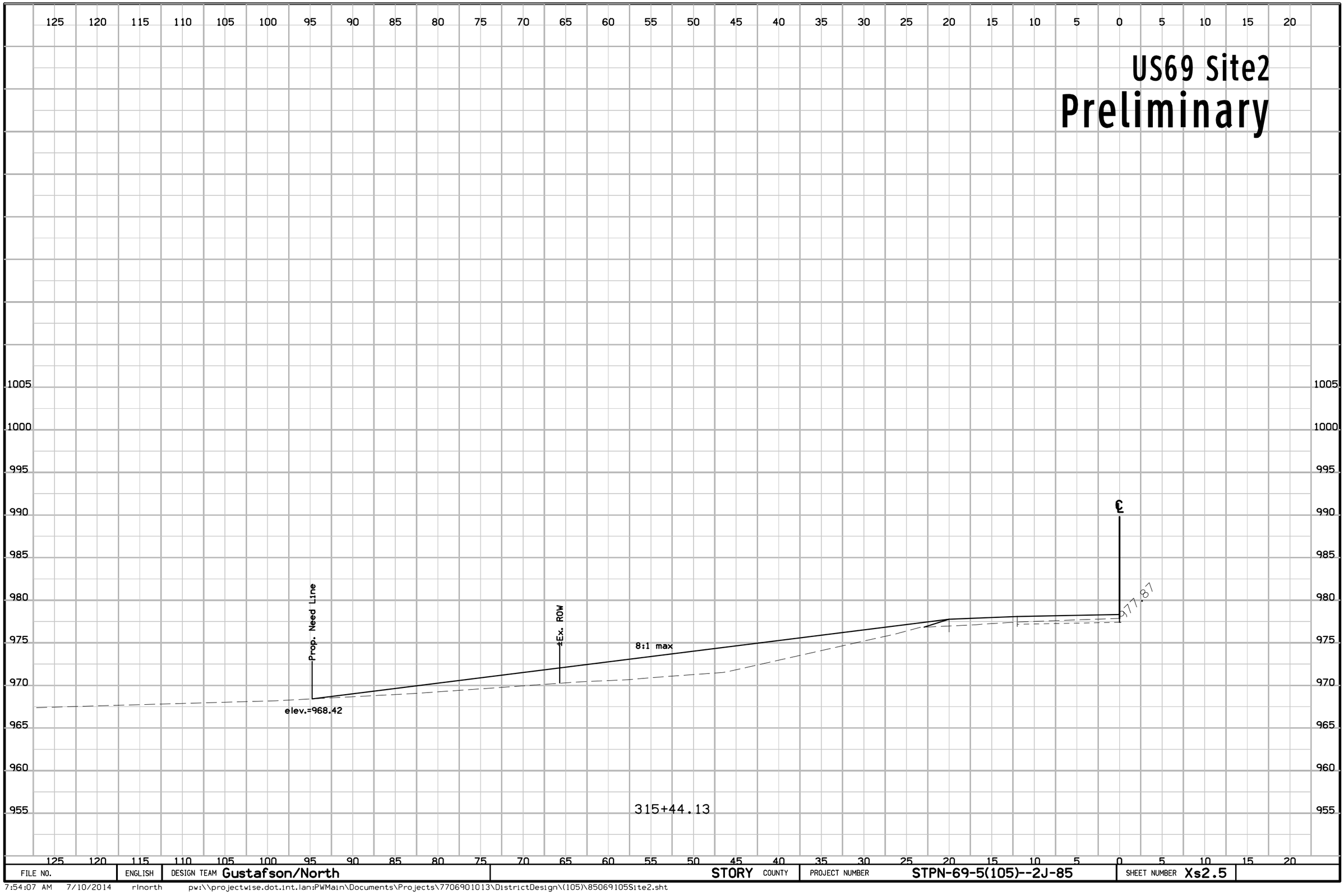


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.4

7:54:07 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site2.sht

US69 Site2

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.5

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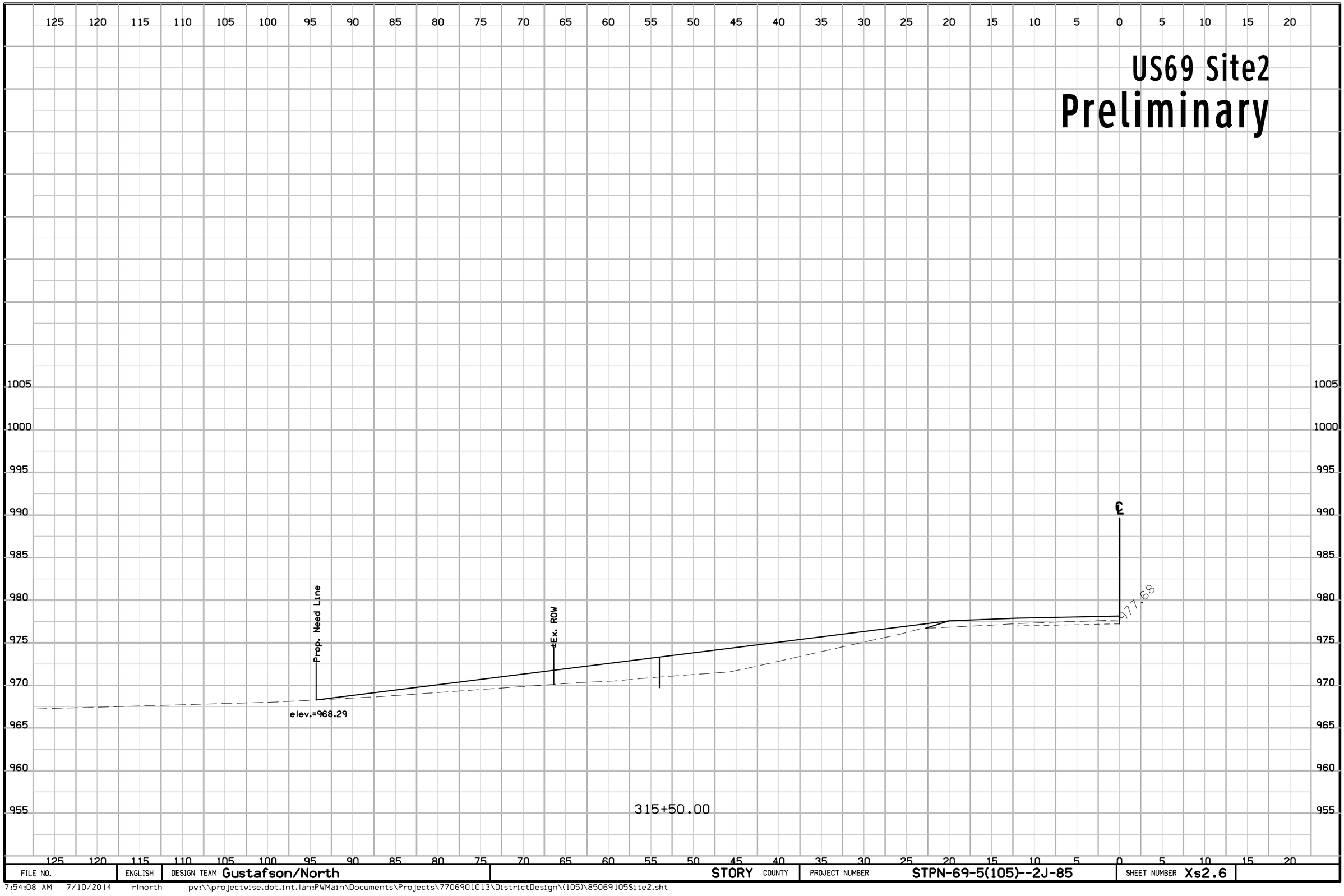
US69 Site2

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.6

7:54:08 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site2.sht

US69 Site2

Preliminary

Prop. Need Line
±Ex. ROW

℄

976.90

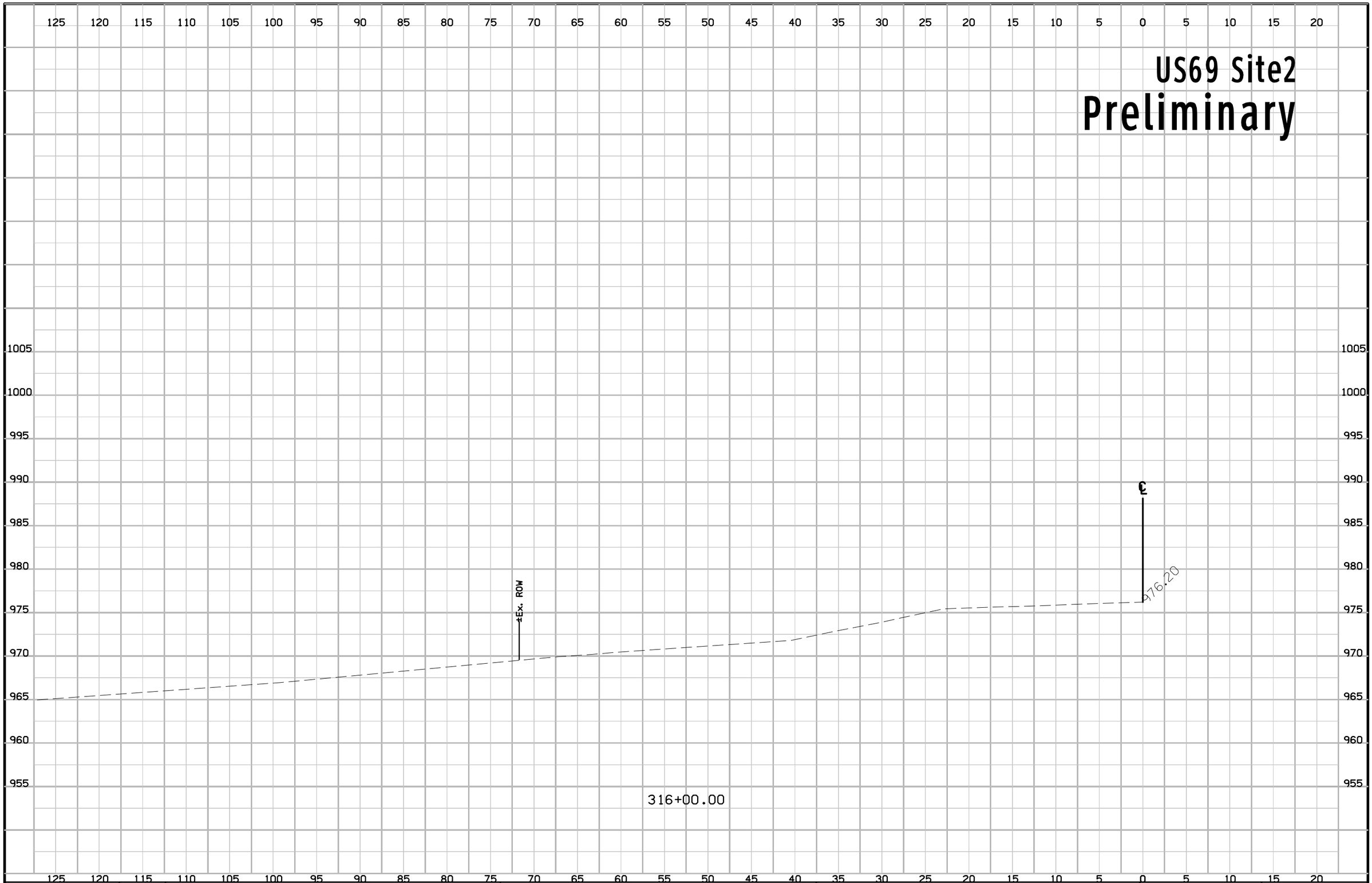
315+75.00

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.7

7:54:09 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site2.sht

US69 Site2

Preliminary

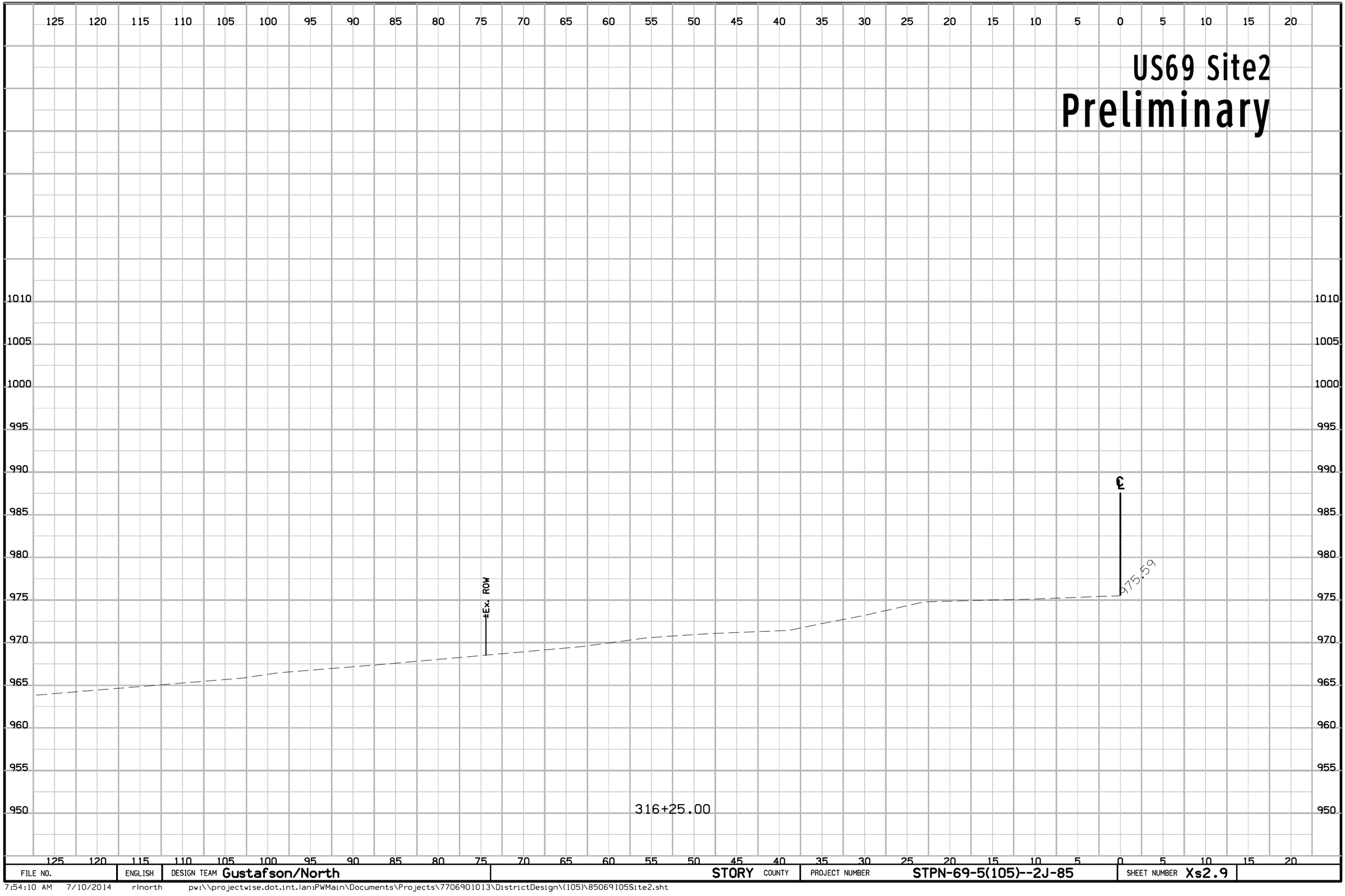


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.8

7:54:10 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site2.sht

US69 Site2

Preliminary



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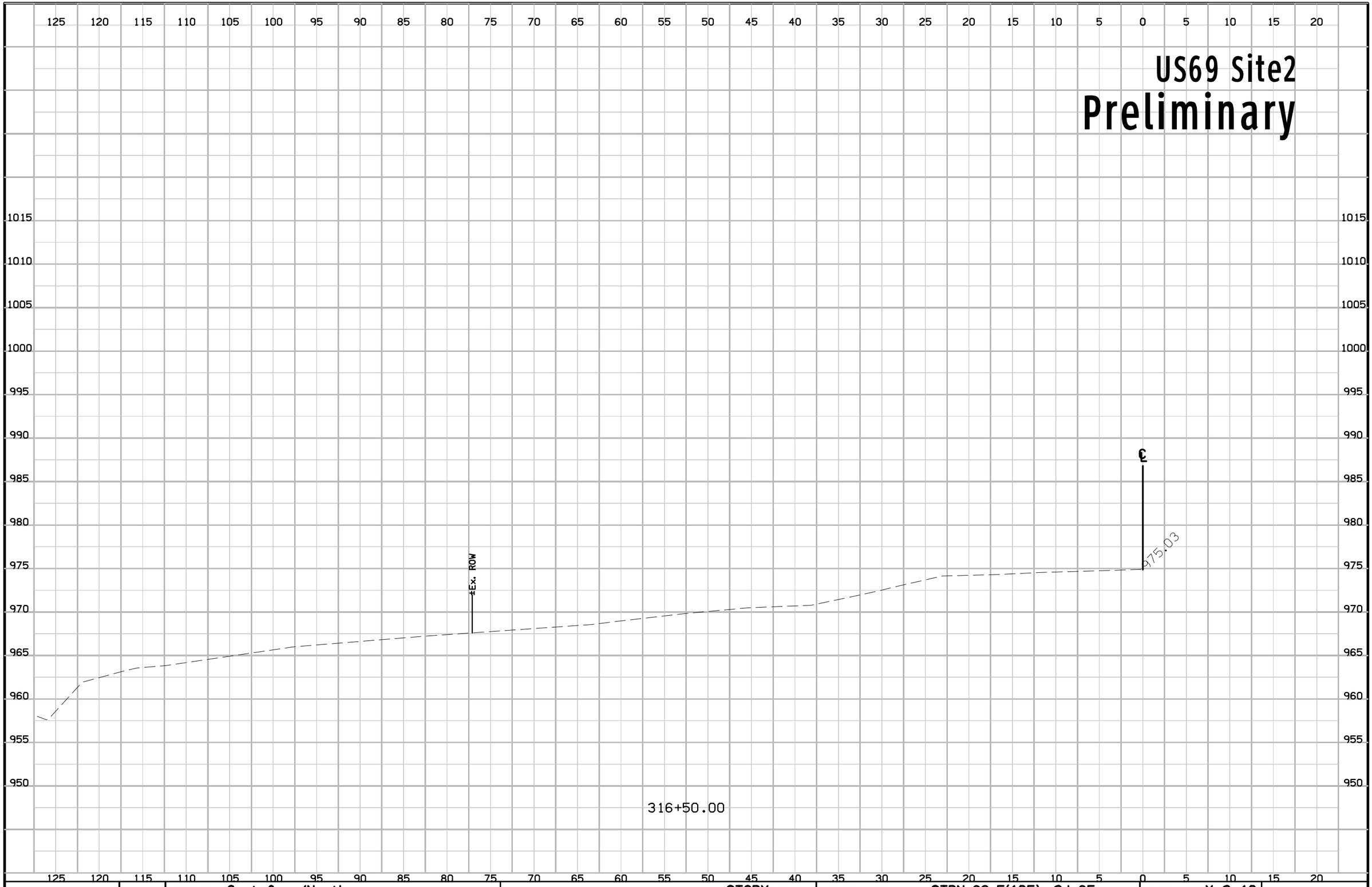
US69 Site2

Preliminary

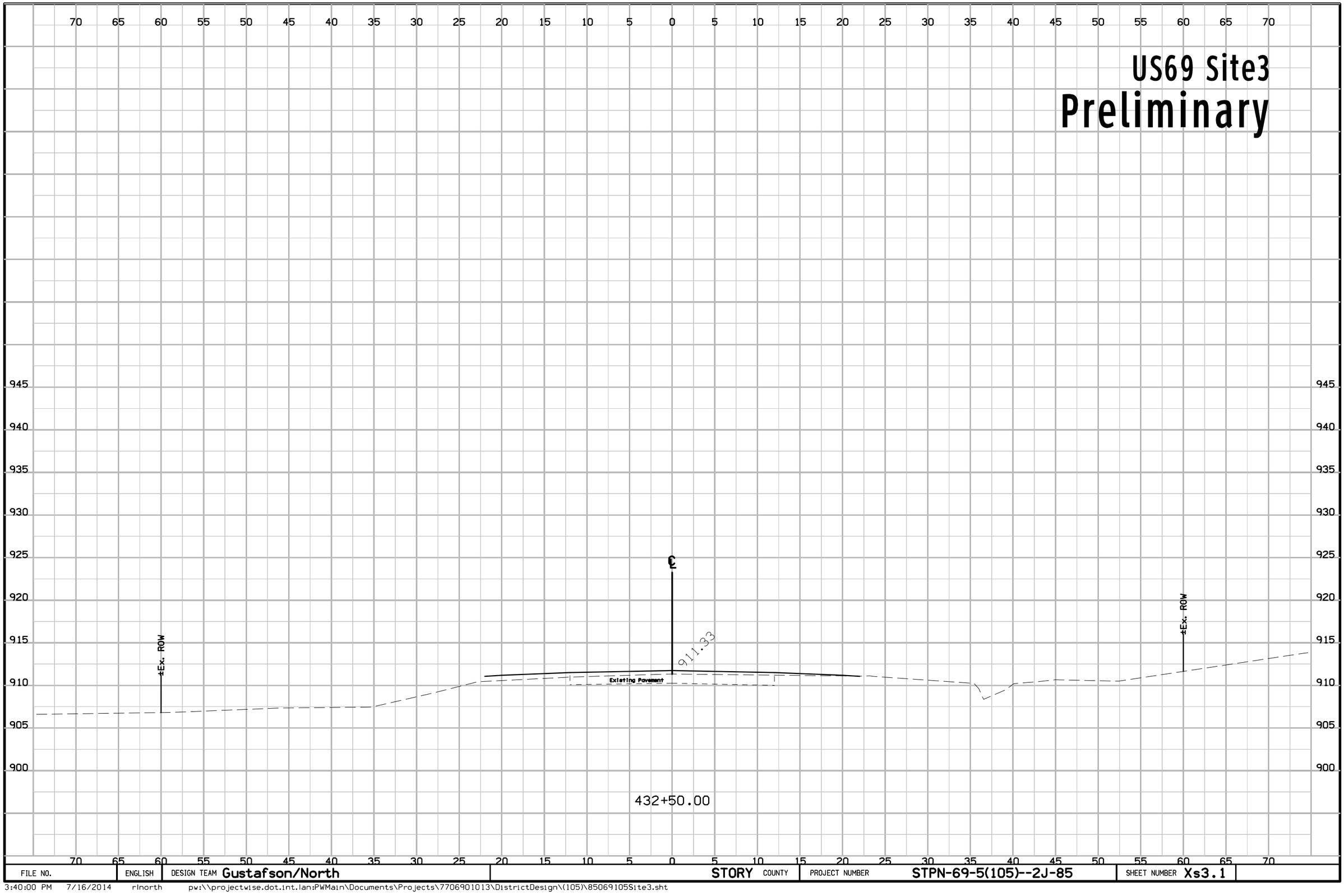


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs2.10

7:54:11 AM 7/10/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site2.sht

US69 Site3

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.1

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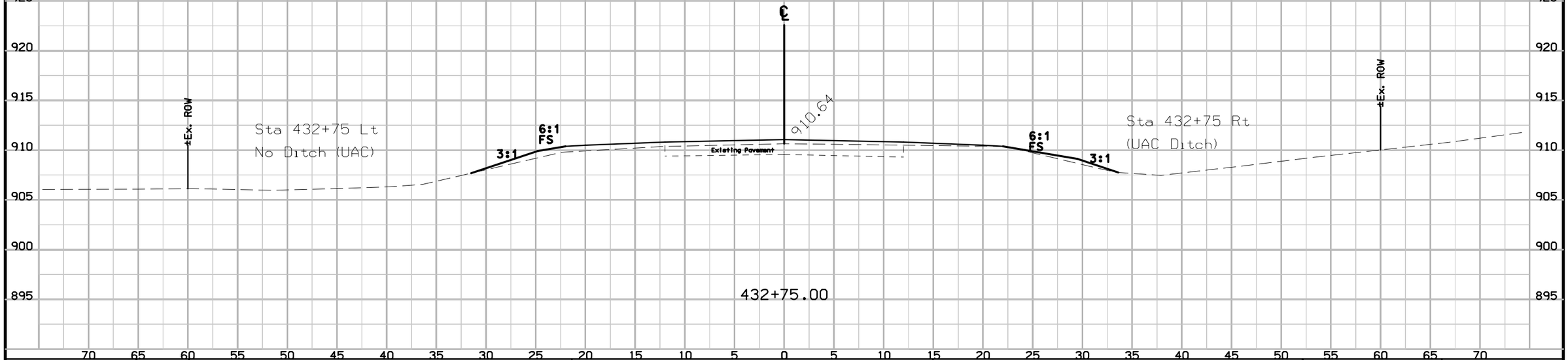
US69 Site3

Preliminary



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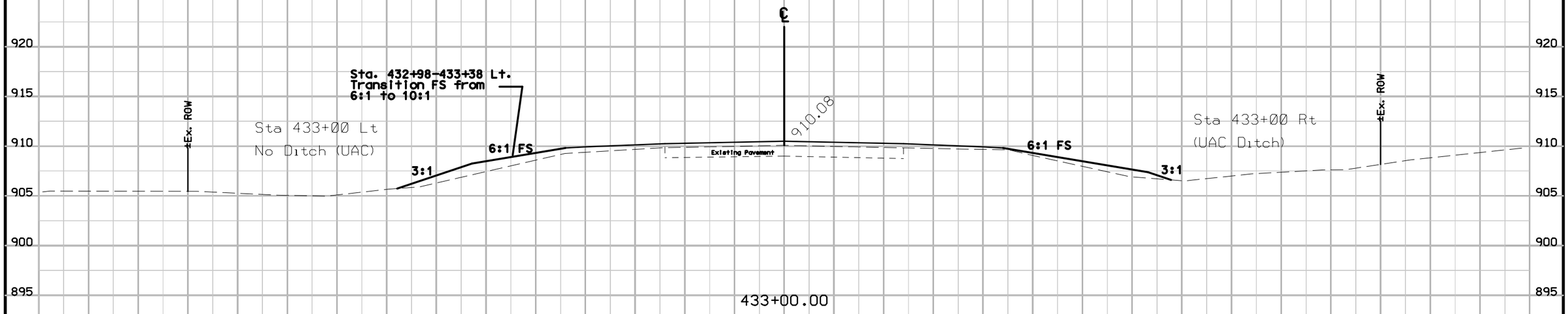
US69 Site3

Preliminary



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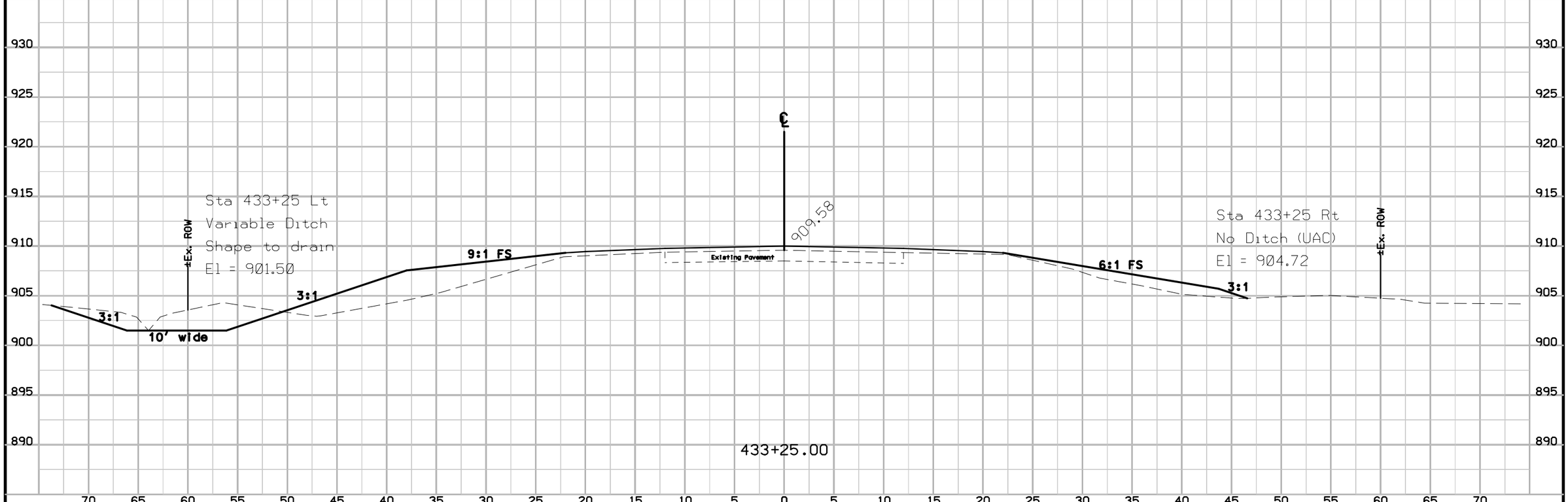
US69 Site3

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.4

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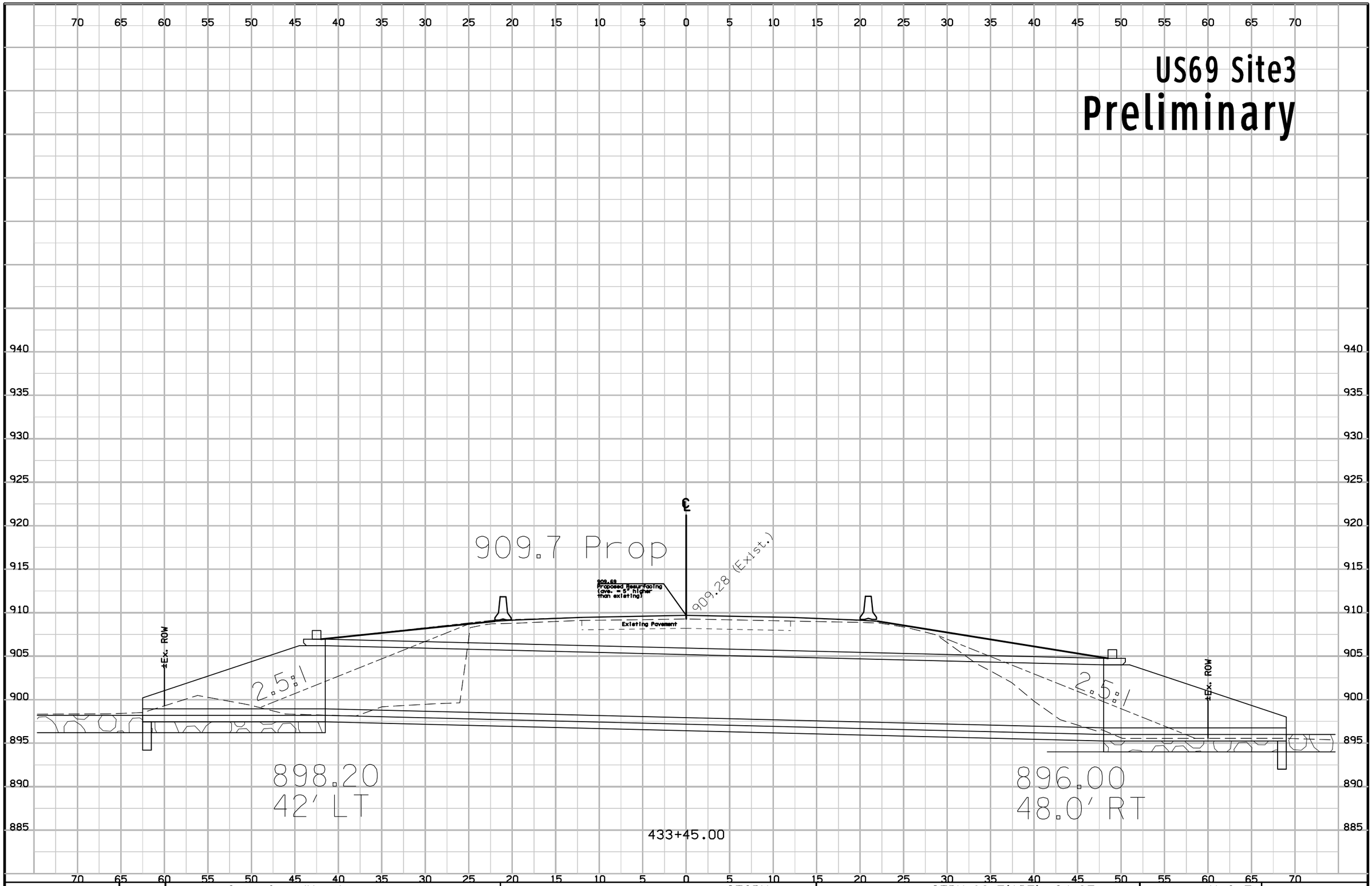
US69 Site3
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.5

3:40:05 PM 7/16/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site3.sht

US69 Site3

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

945 940 935 930 925 920 915 910 905 900 895 890 885

℄

909.28 (Exist.)

SKEWED CROSS SECTION

±Ex. ROW

±Ex. ROW

EXISTING 6'X6' RCB

433+48.32

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.6

3:40:06 PM 7/16/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site3.sht

US69 Site3

Preliminary

Sta. 433+52-433+98 Lt.
Transition FS from
10:1 to 6:1

℄

909.24

Existing Pavement

6:1 FS

±Ex. ROW

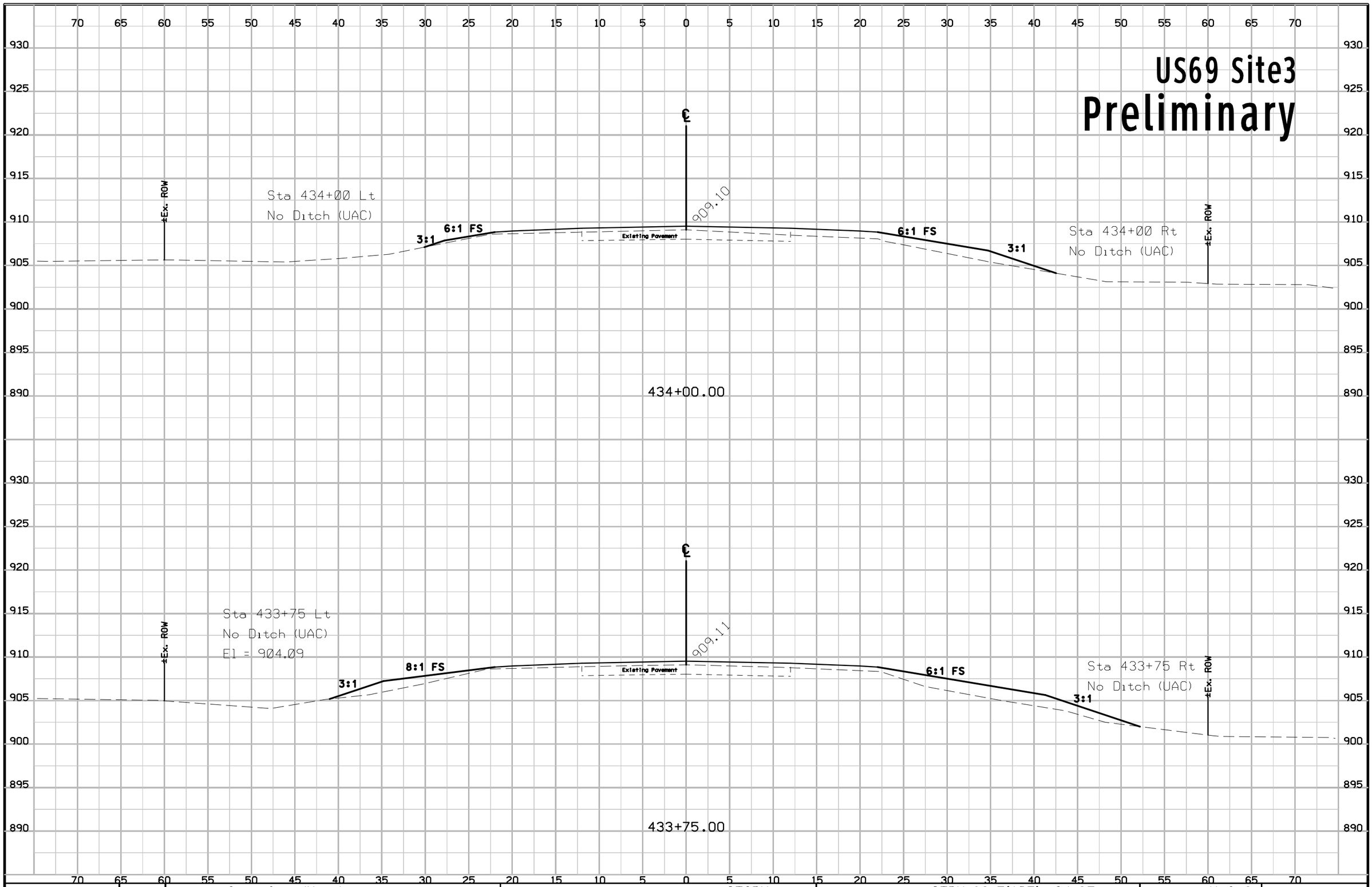
±Ex. ROW

433+50.00

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.7

3:40:07 PM 7/16/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site3.sht

US69 Site3
Preliminary

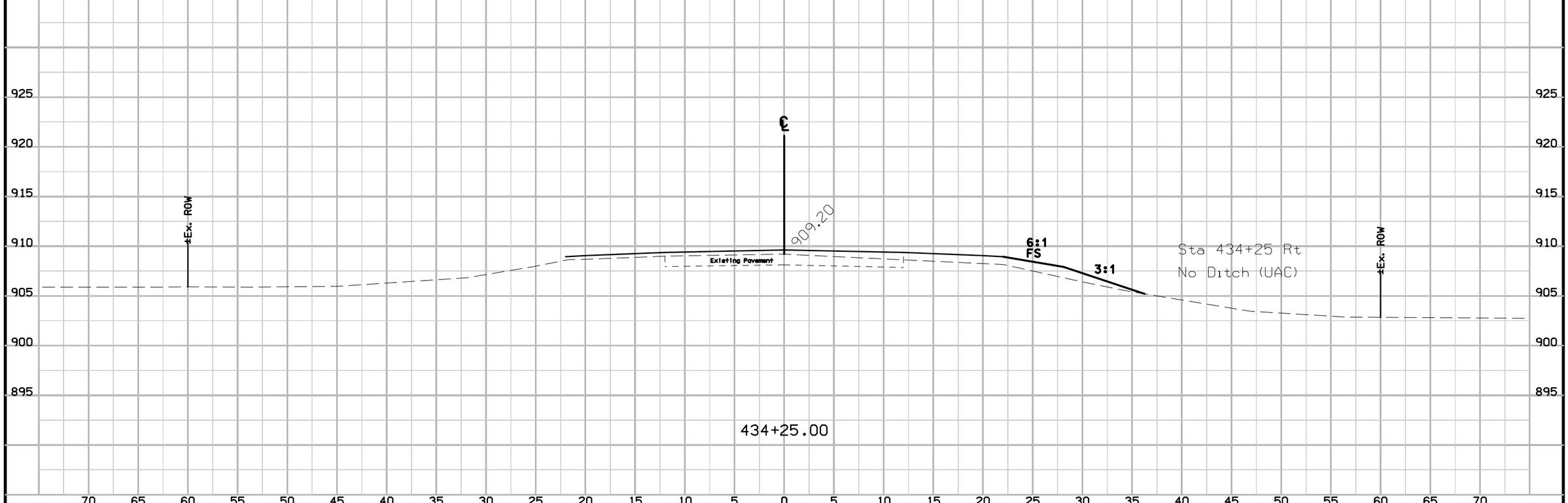


FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.8

3:40:09 PM 7/16/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site3.sht

US69 Site3

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.9

3:40:10 PM 7/16/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site3.sht

US69 Site3

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

940 935 930 925 920 915 910 905 900 895 890

℄

909.46

±Ex. ROW

±Ex. ROW

434+50.00

FILE NO.	ENGLISH	DESIGN TEAM Gustafson/North	STORY COUNTY	PROJECT NUMBER STPN-69-5(105)--2J-85	SHEET NUMBER Xs3.10

3:40:11 PM 7/16/2014 rlnorth pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7706901013\DistrictDesign\(105)\85069105Site3.sht