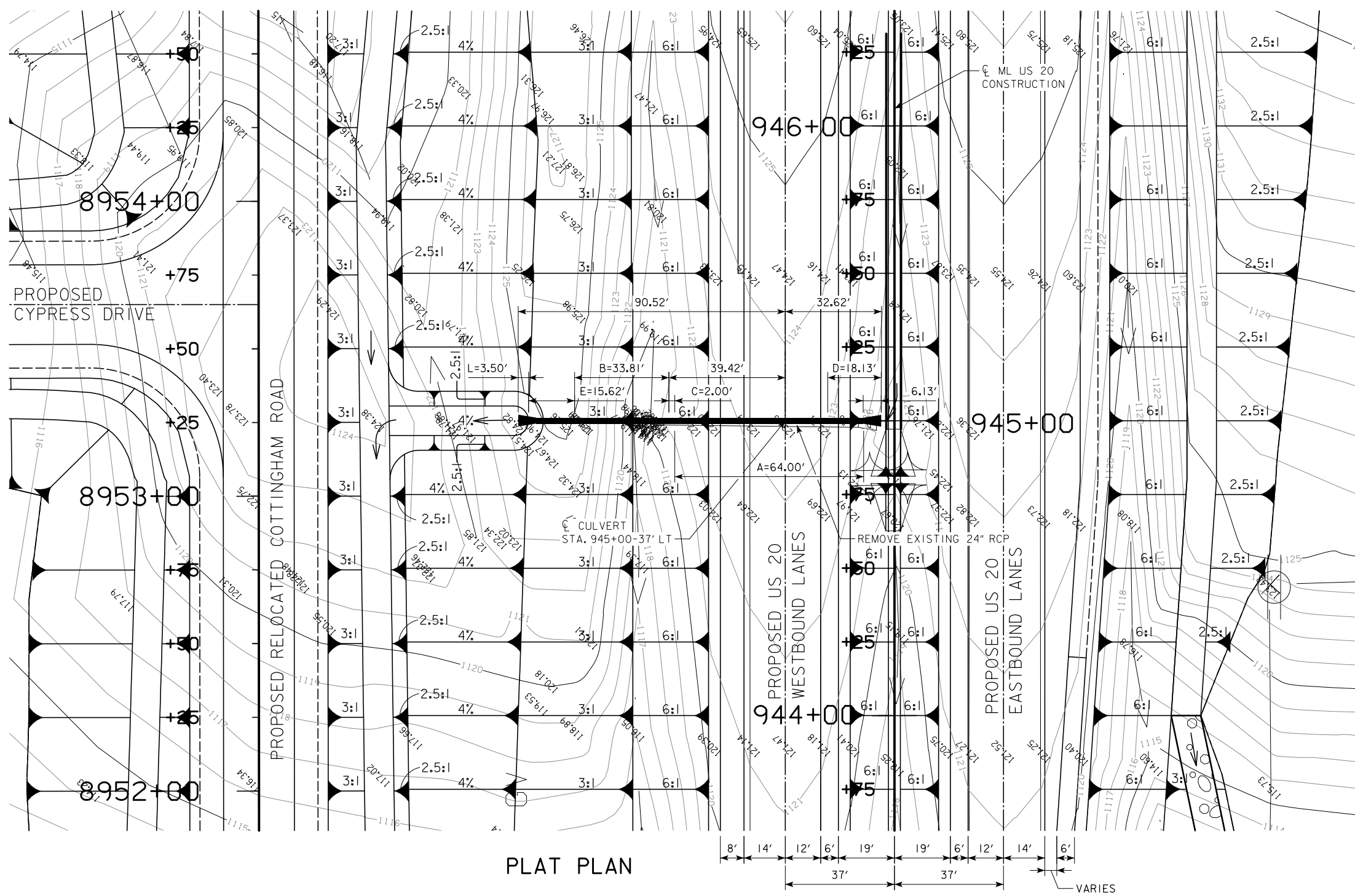


LONGITUDINAL SECTION ALONG CL CULVERT

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



PLAT PLAN



**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

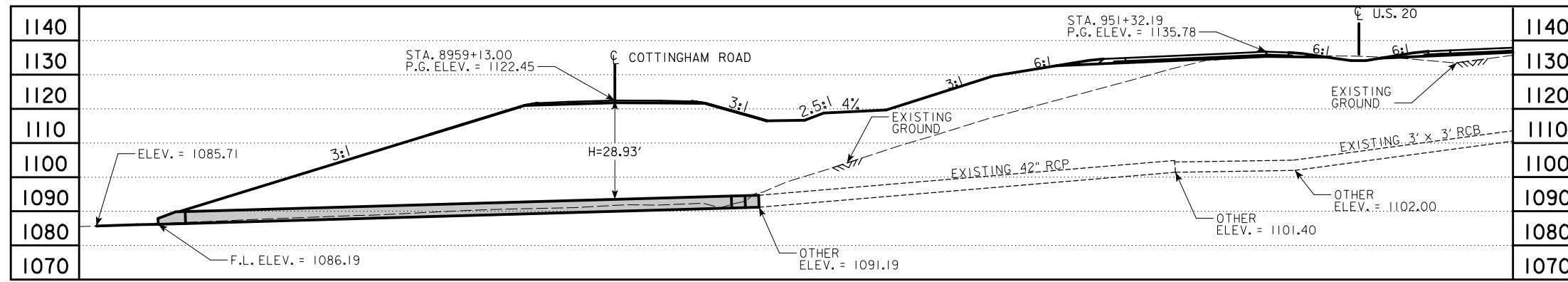
US 20  
T-88 N R-1 E  
SECTION 13  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'23.08"N  
LONGITUDE 90°47'46.52"W

**HYDRAULIC DATA**

DRAINAGE AREA = 3.4 ACRES - ROLLING  
Q<sub>50</sub> = 10.7 CFS

NOTE:  
ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

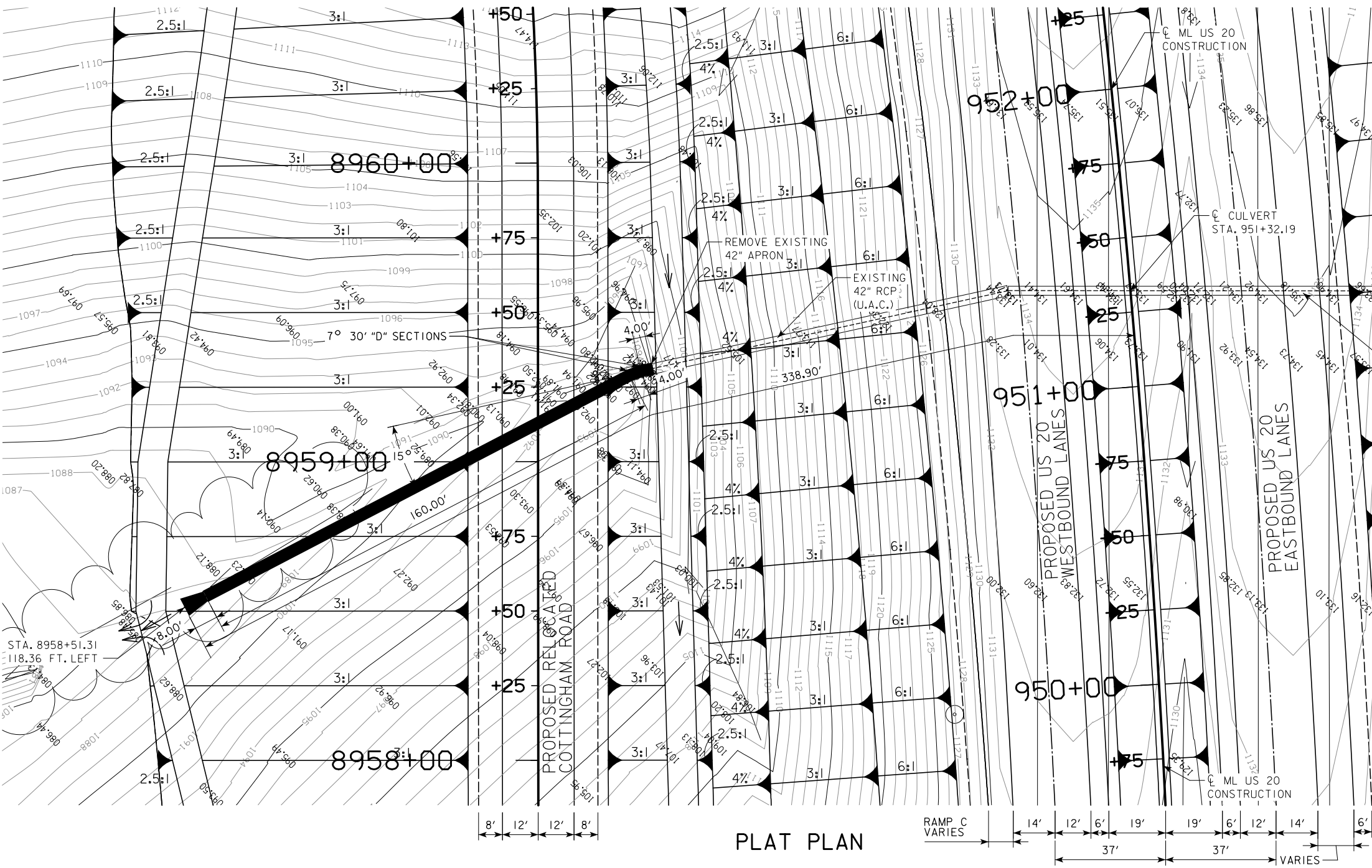
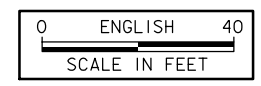
PRELIMINARY  
DESIGN FOR A 0° SKEW  
**24 in. 150I RCP  
AND CMP LETDOWN STRUCTURE  
PLAT PLAN**  
STA. 945+00 - 37' LT. (CL US20) NOVEMBER 2014  
DUBUQUE COUNTY  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION AT CULVERT INVERTS

PRELIMINARY PLANS  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014

DESIGN HW EL = 1122.00



PLAT PLAN

**TRAFFIC ESTIMATE**

2017AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'23.07"N  
 LONGITUDE 90°47'38.12"W

**HYDRAULIC DATA**

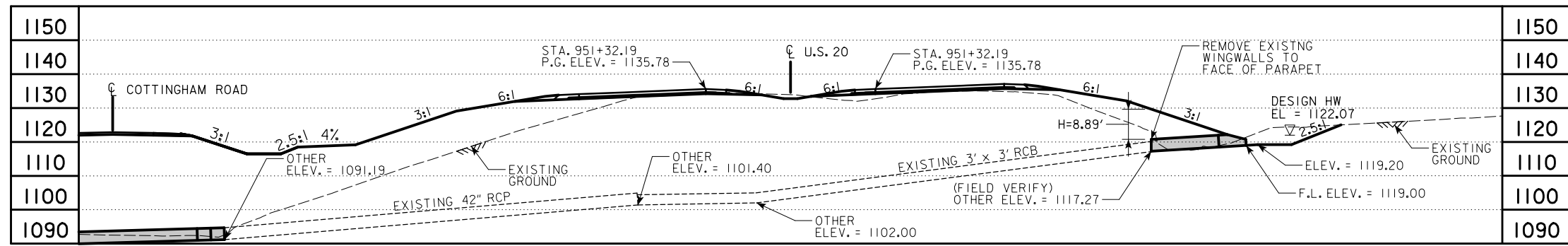
DRAINAGE AREA = 12.0 ACRES - ROLLING  
 $Q_{50} = 39.2$  CFS

NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

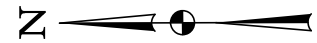
PRELIMINARY  
 DESIGN FOR A 15° LEFT EXTENSION SKEW  
**42 in. x 168 ft. 1302 RCP & RF-2**

**PLAT PLAN**  
 STA. 951+32.19 LEFT (CL US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



LONGITUDINAL SECTION AT CULVERT INVERTS



**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

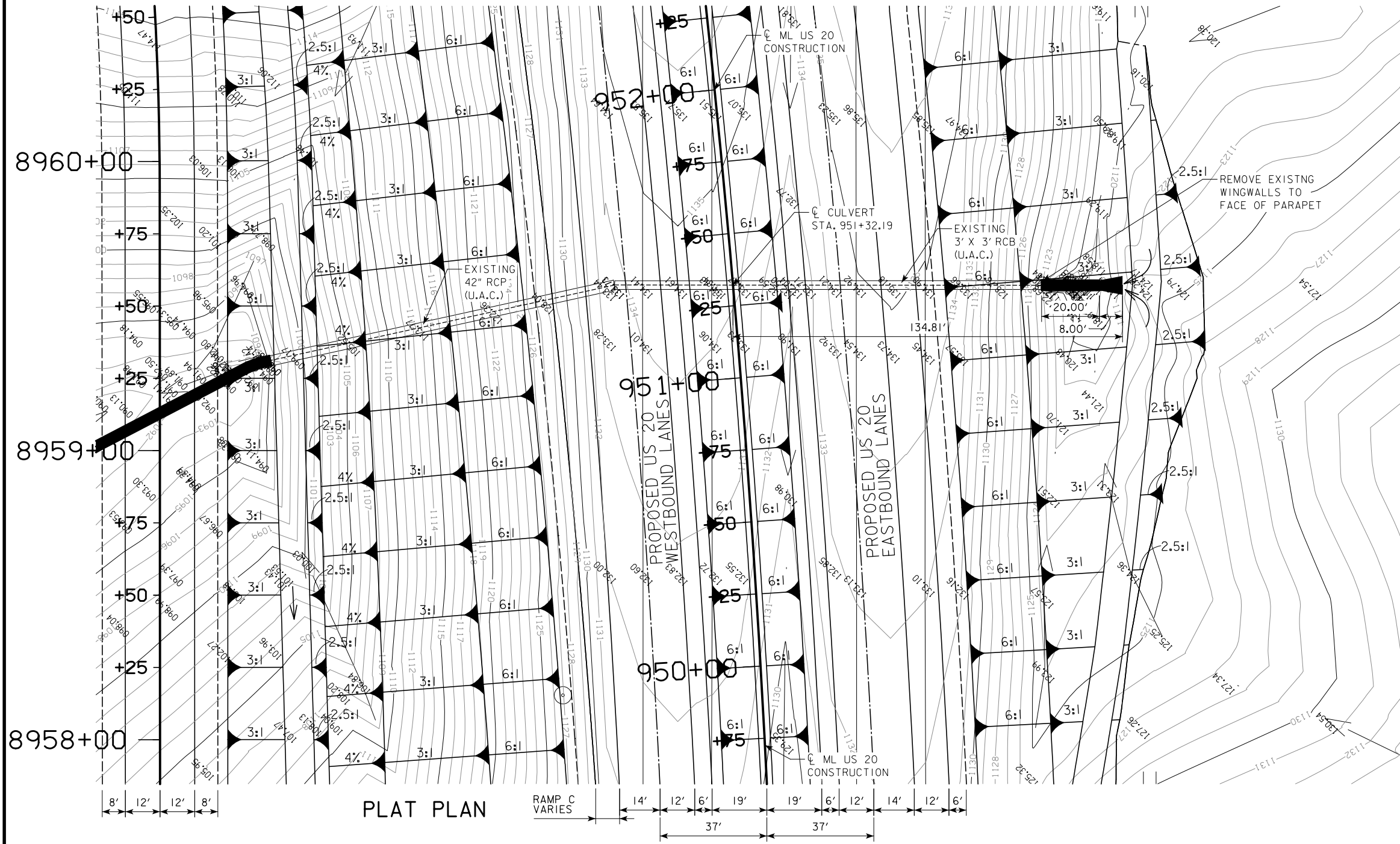
US 20  
 T-88 N R-1 E  
 SECTION 13  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'23.07"N  
 LONGITUDE 90°47'38.12"W

**HYDRAULIC DATA**

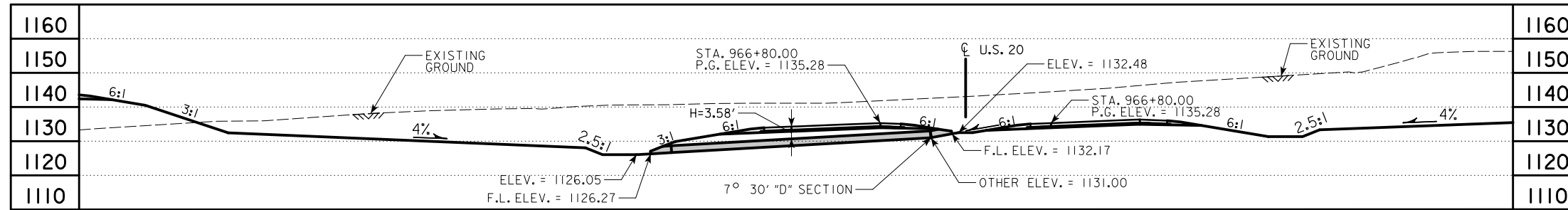
DRAINAGE AREA = 12.0 ACRES - ROLLING  
 $Q_{50} = 39.2$  CFS  
 HW ELEV. = 1122.07

NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

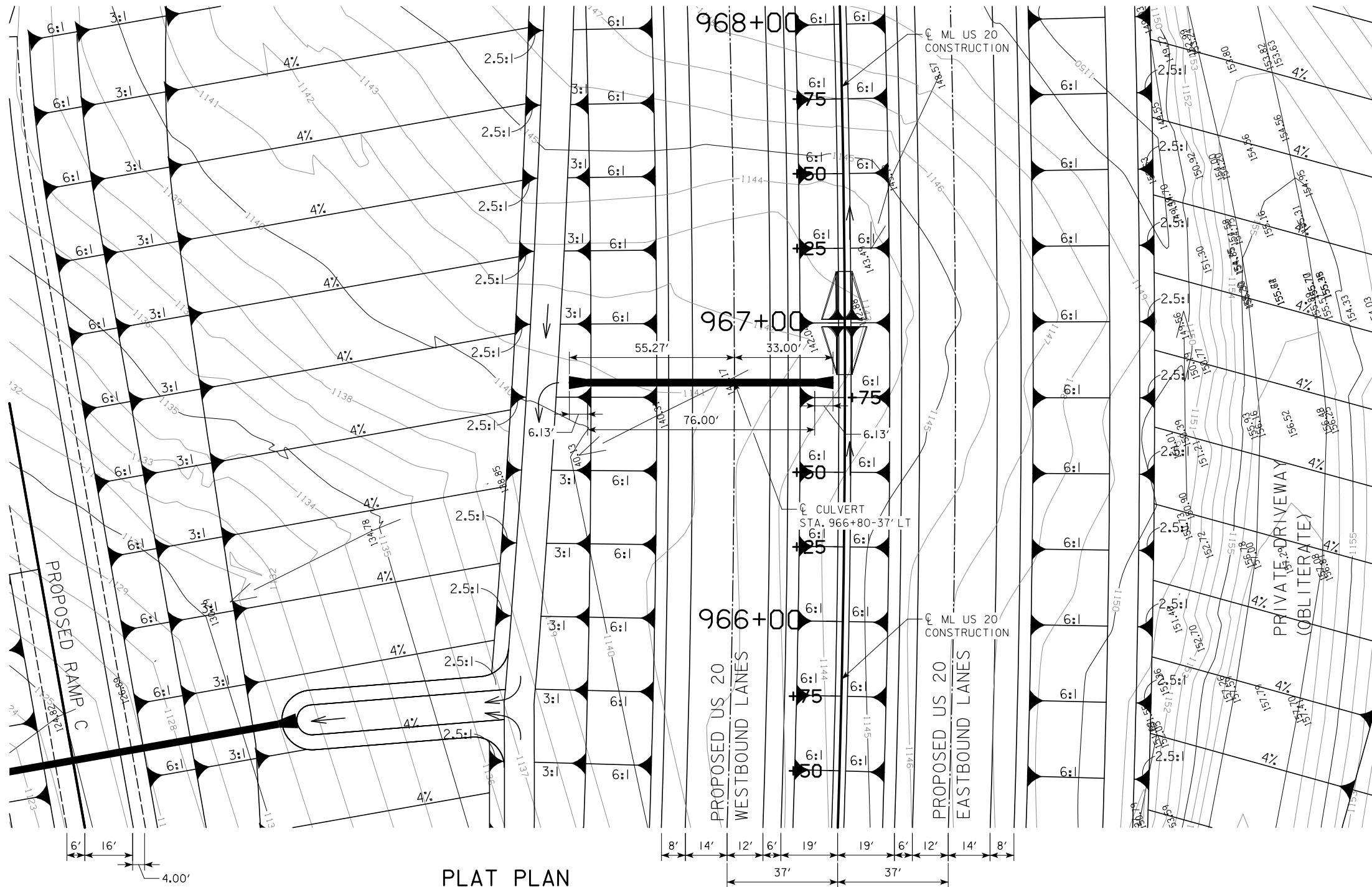
PRELIMINARY  
 DESIGN FOR A 0°  
**42 in. x 20 ft. 130I RCP & RF-2**  
 PLAT PLAN  
 STA. 951+32.19 RIGHT (C US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



PLAT PLAN



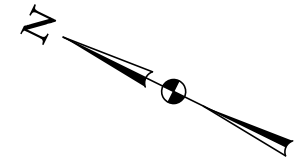
LONGITUDINAL SECTION ALONG  $\bar{C}$  CULVERT



PLAT PLAN

BENCH MARK NO.

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALs	--	

**LOCATION**

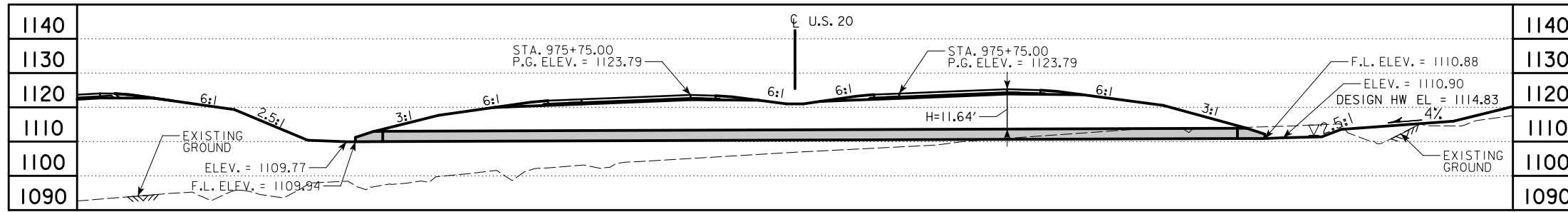
US 20  
T-88 N R-1 E  
SECTION 12  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'26.47"N  
LONGITUDE 90°47'18.10"W

**HYDRAULIC DATA**

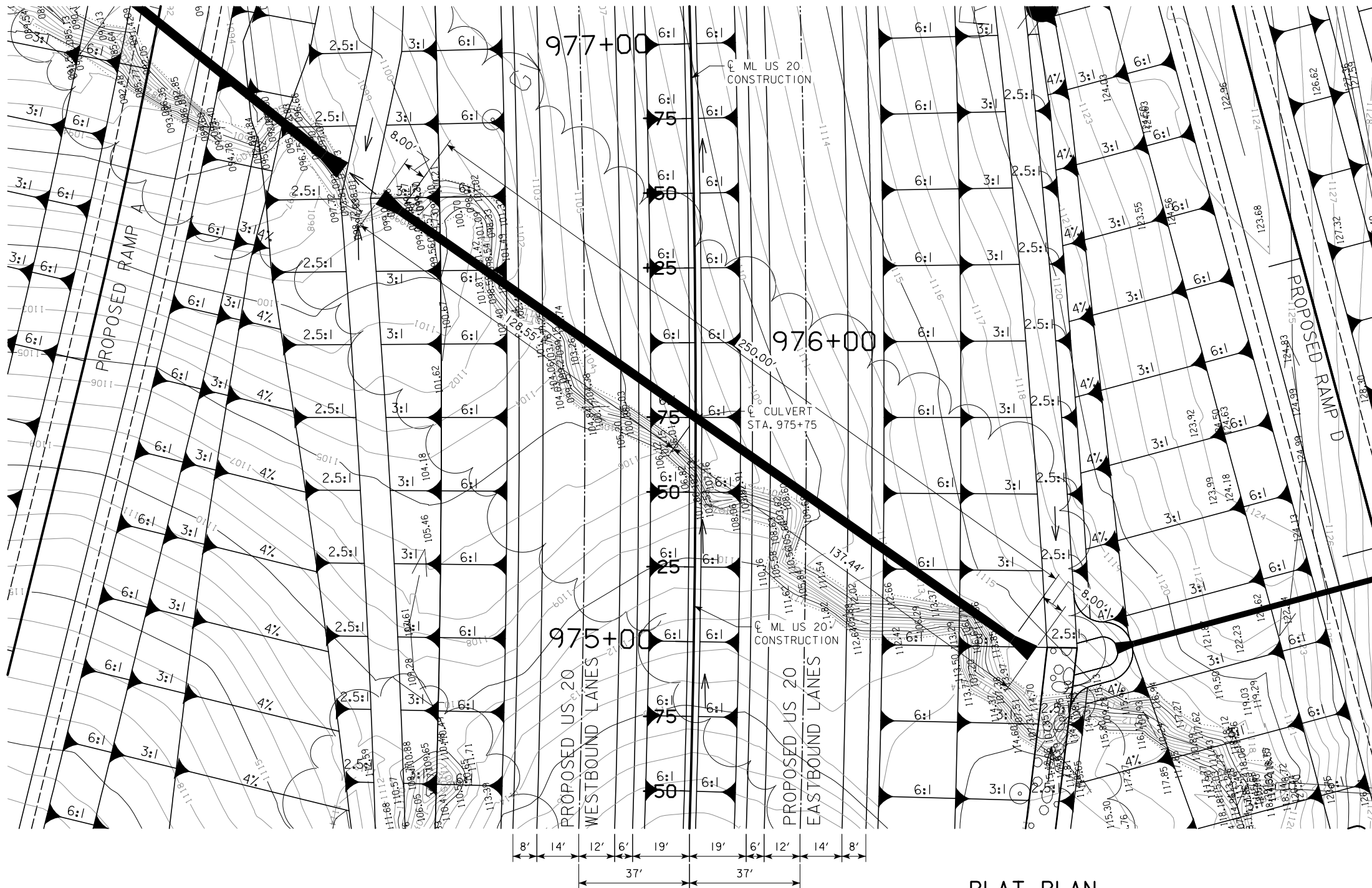
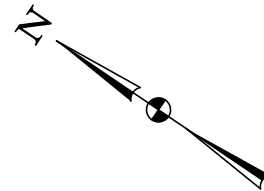
DRAINAGE AREA = 1.4 ACRES - ROLLING  
Q<sub>50</sub> = 4.9 CFS

NOTE:  
ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
DESIGN FOR A 0° SKEW  
**24 in. x 76 ft.**  
**1101 RCP & RF-13**  
**PLAT PLAN**  
STA. 966+80 - 37' LT. (C US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION AT CULVERT INVERTS



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'30.64"N  
 LONGITUDE 90°47'7.54"W

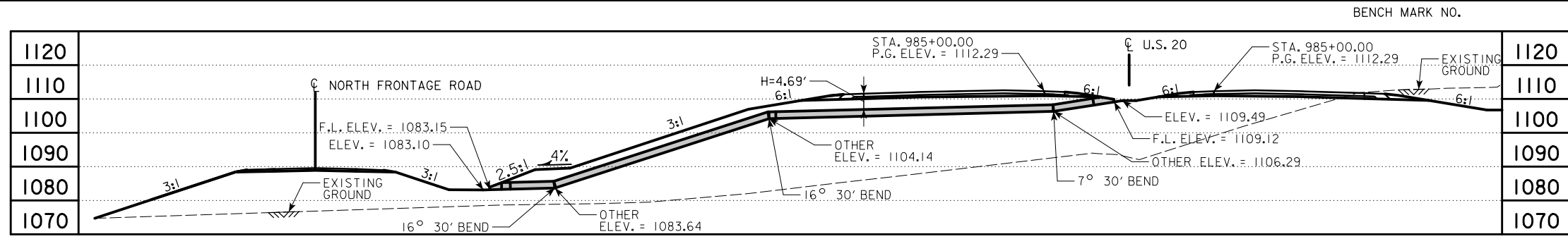
**HYDRAULIC DATA**

DRAINAGE AREA = 20.7 ACRES - HILLY  
 Q<sub>50</sub> = 59.7 CFS  
 HW ELEV. = 1114.83

NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

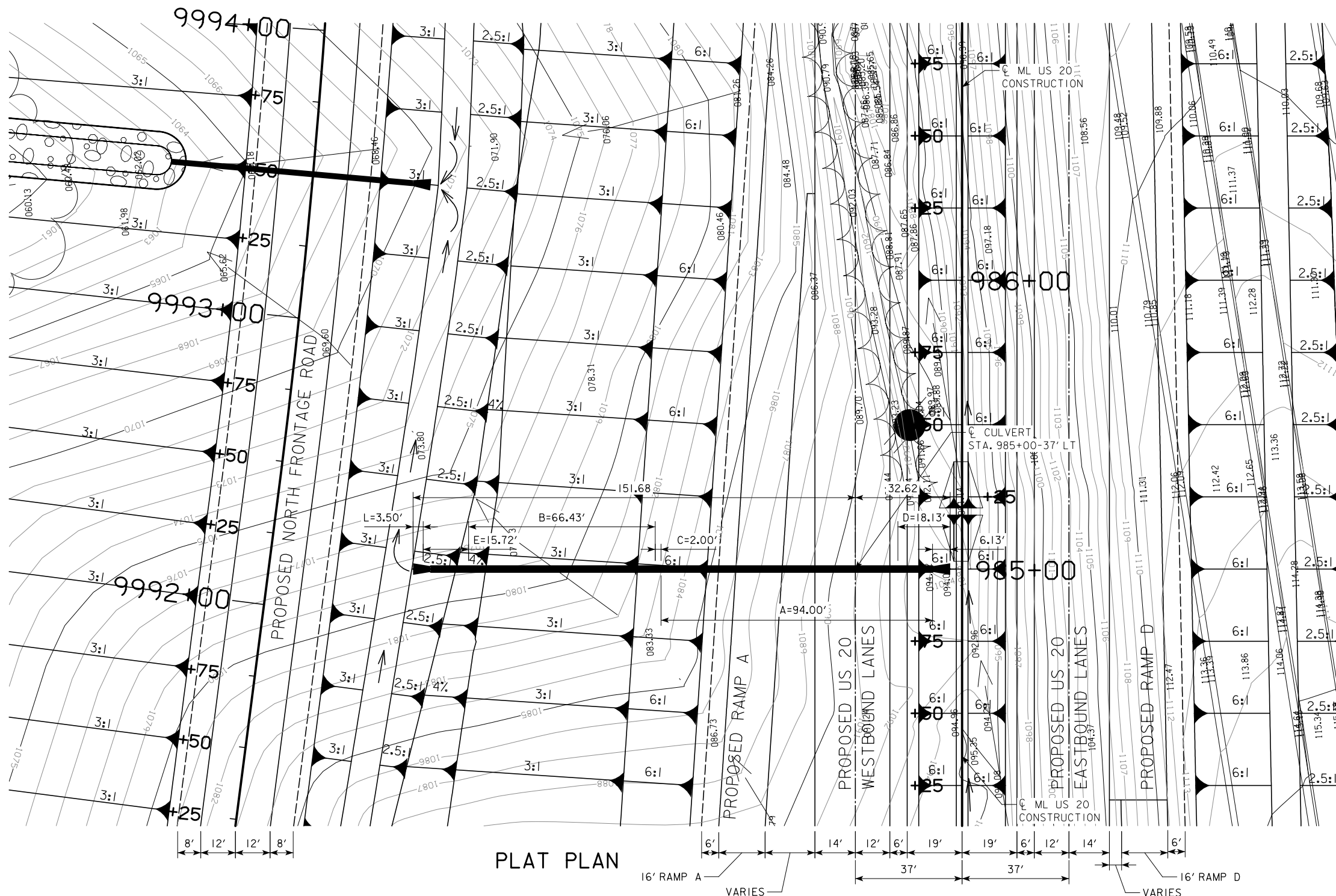
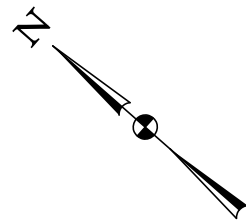
PRELIMINARY  
 DESIGN FOR A 35° SKEW LT. AHD.  
**36 in. x 250 ft. 110I RCP**  
 PLAT PLAN  
 STA. 975+75 (¢ US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####





LONGITUDINAL SECTION ALONG CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

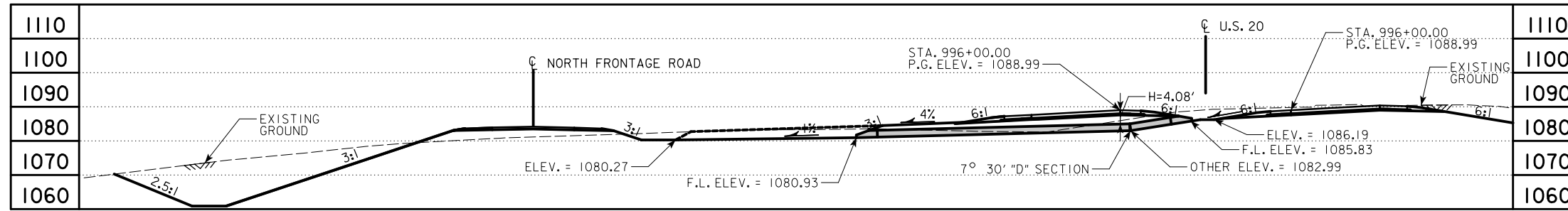
US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'36.24"N  
 LONGITUDE 90°46'57.88"W

**HYDRAULIC DATA**

DRAINAGE AREA = 2.6 ACRES - ROLLING  
 $Q_{50} = 11.4$  CFS

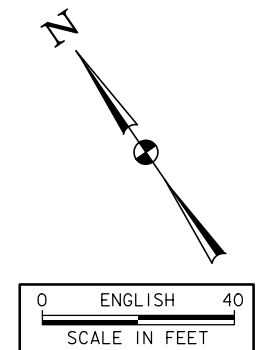
NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. 150I RCP**  
**AND CMP LETDOWN STRUCTURE**  
**PLAT PLAN**  
 STA. 985+00 - 37' LT. (C US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION ALONG CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

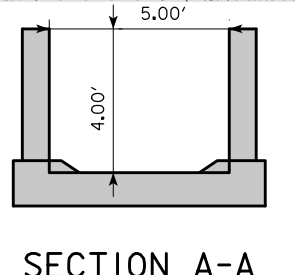
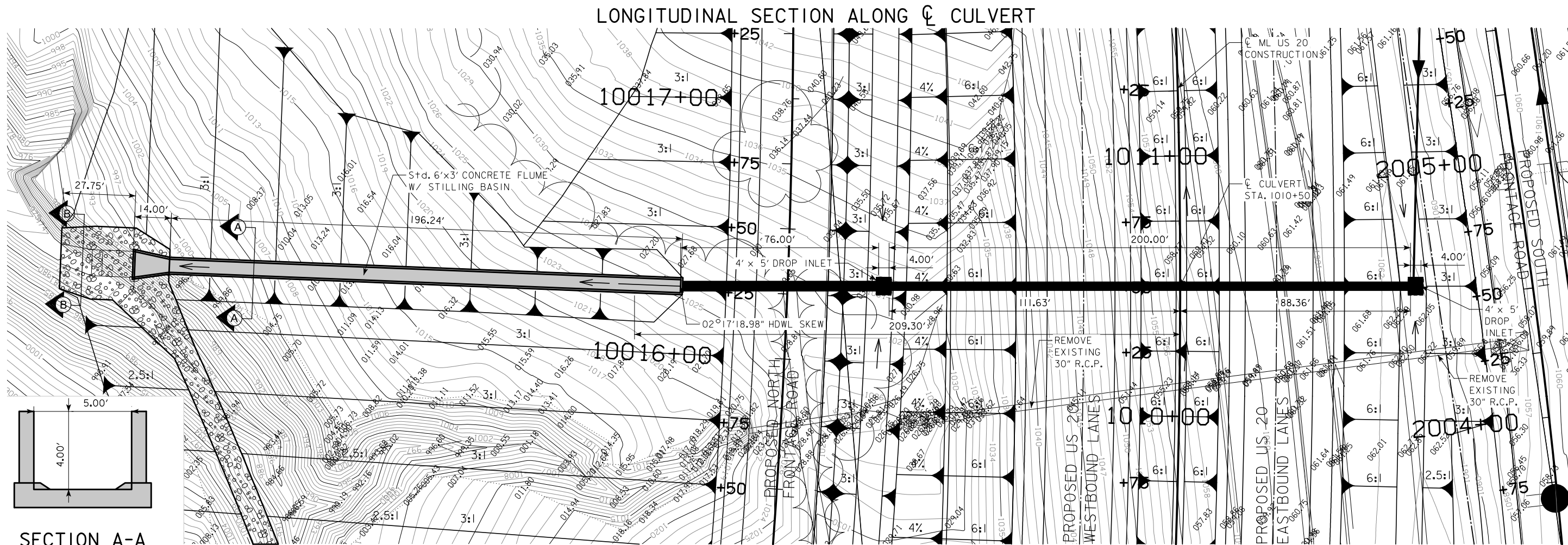
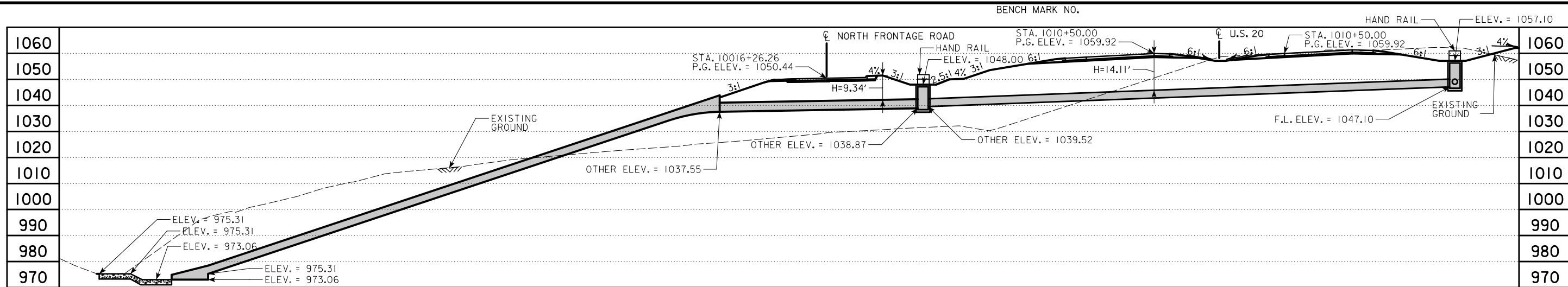
US 20  
 T-88 N R-2 E  
 SECTION 7  
 TABLE MOUND TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'43.82"N  
 LONGITUDE 90°46'47.41"W

**HYDRAULIC DATA**

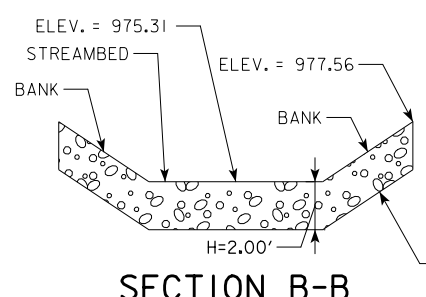
DRAINAGE AREA = 1.9 ACRES - ROLLING  
 $Q_{50} = 6.6$  CFS

NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. x 86 ft.**  
**1201 RCP & RF-13**  
**PLAT PLAN**  
 STA. 996+00 - 37' LT. (C US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



SECTION A-A



SECTION B-B

**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**HYDRAULIC DATA**

INLET WEIR AND PIPE DRAINAGE AREA = 25.3 ACRES - HILLY	$Q_{50} = 69.6$ CFS
MID PIPE WEIR DRAINAGE AREA = 12.6 ACRES - HILLY	$Q_{50} = 40.7$ CFS
OUTLET PIPE DRAINAGE AREA = 37.9 ACRES - HILLY	$Q_{50} = 110.3$ CFS

**LOCATION**

US 20  
T-88 N R-2 E  
SECTION 7  
TABLE MOUND TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'56.88"N  
LONGITUDE 90°46'42.24"W



PLAT PLAN

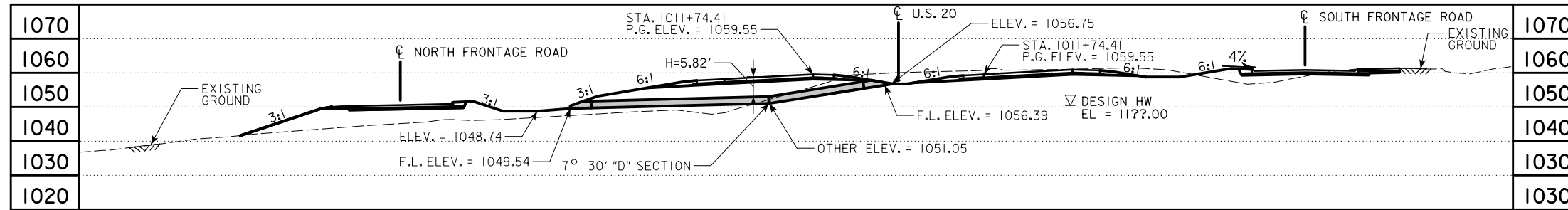
**NOTE:**  
ALL DIMENSIONS ARE IN FEET (±) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: AUGUST 11, 2015

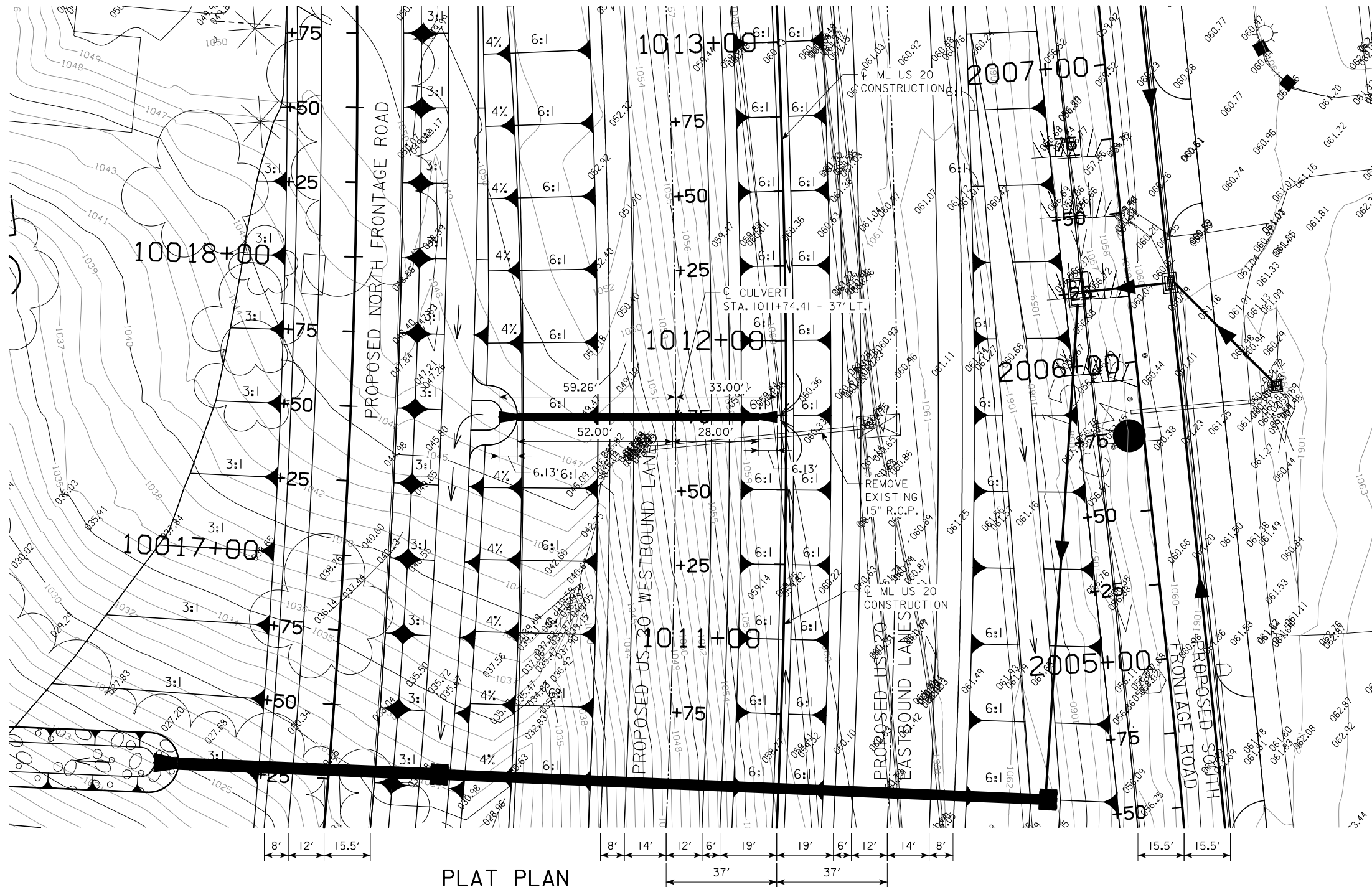
DESIGN FOR A 0° SKEW  
**36 in. x 200 ft. - 42 in. x 76 ft.**  
**1101 RCP & DROP INLETS**

**PLAT PLAN**  
STA. 1010+50 (CL US20) AUGUST 2015  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



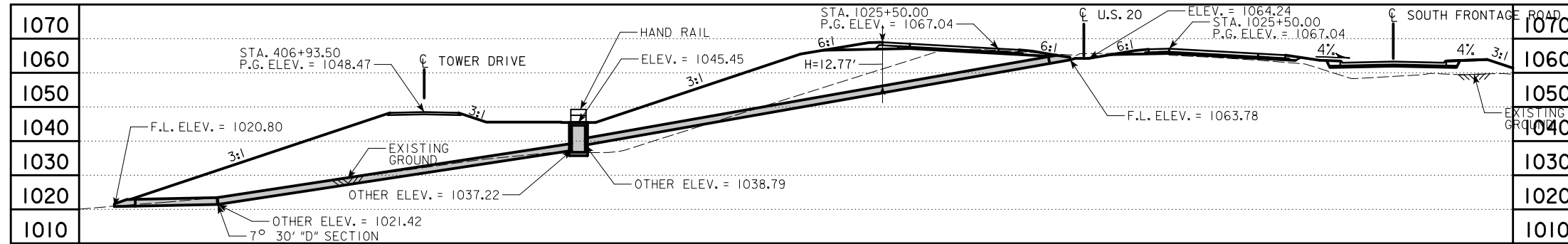


**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014

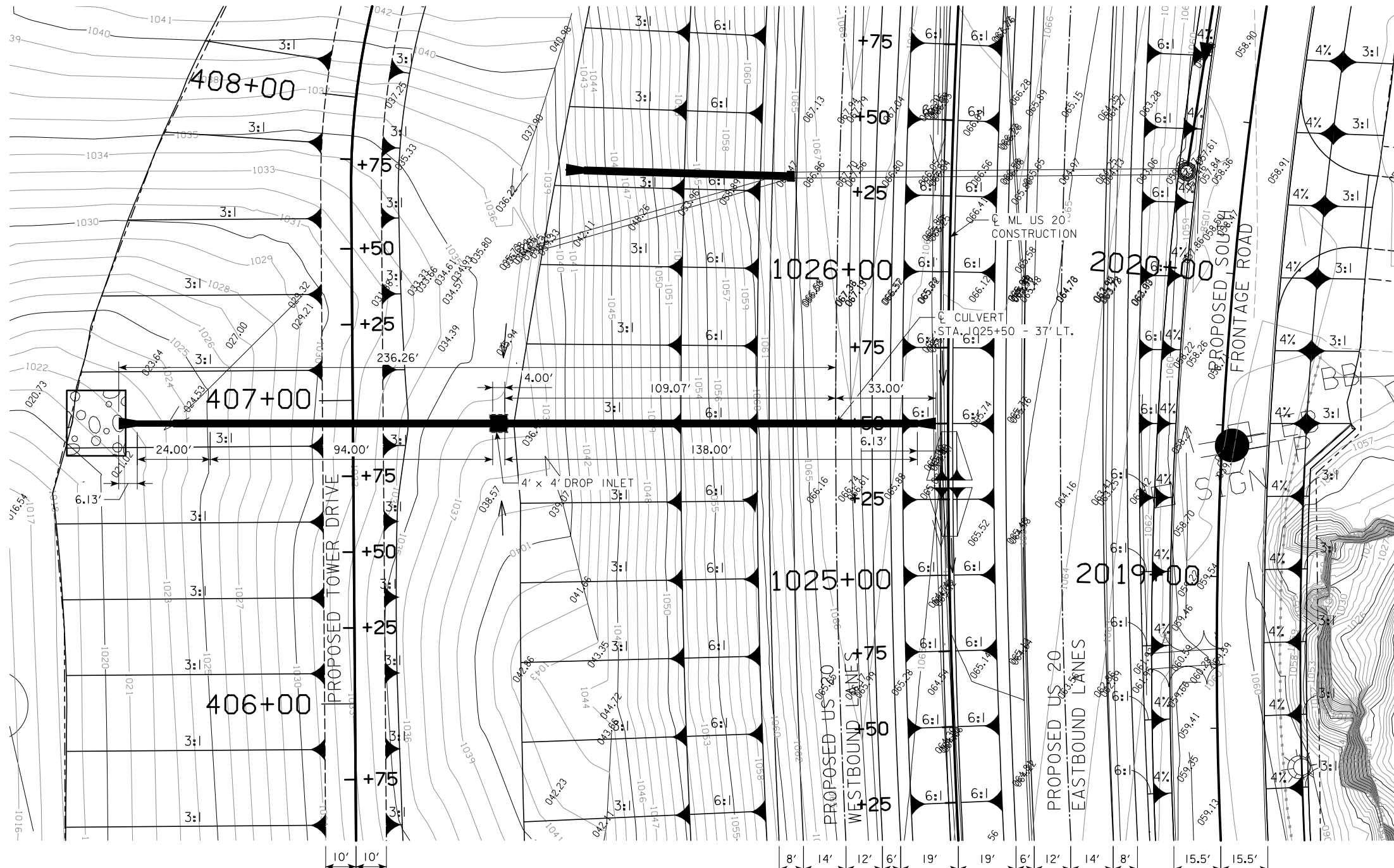


NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. x 80 ft.**  
**1101 RCP & RF-13**  
**PLAT PLAN**  
 STA. 1011+74.41 - 37' LT. (C US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION ALONG  $\hat{C}$  CULVERT



PLAT PLAN

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: JUNE 1, 2015



**TRAFFIC ESTIMATE**

2017 AADT	15200	V.P.D.
2040 AADT	33900	V.P.D.
2040 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

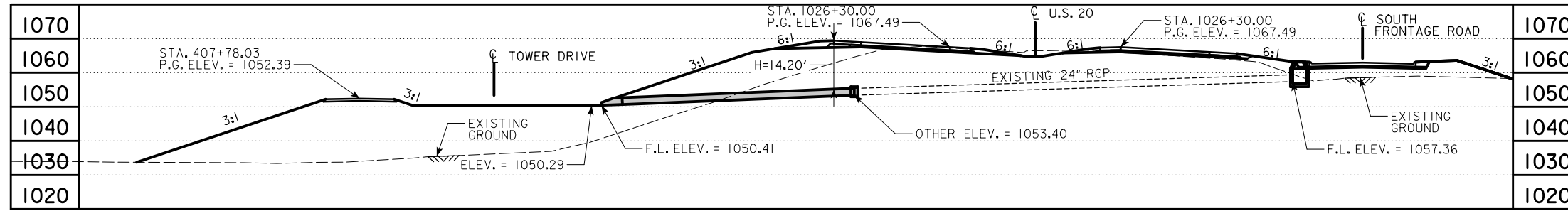
US 20  
T-88 N R-2 E  
SECTION 7  
TABLE MOUND TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°27'11.73"N  
LONGITUDE 90°46'39.02"W

**HYDRAULIC DATA**

DRAINAGE AREA = 1.3 ACRES - ROLLING  
 $Q_{50} = 4.6$  CFS  
  
OUTLET PIPE  
DRAINAGE AREA = 1.1 ACRES - ROLLING  
 $Q_{50} = 3.3$  CFS

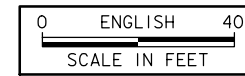
NOTE:  
ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
DESIGN FOR A 0° SKEW  
**24 in. x 256 ft.**  
**110I RCP & DROP INLET**  
**PLAT PLAN**  
STA. 1025+50 - 37' LT. (C US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION ALONG  $\bar{C}$  CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: JUNE 1, 2015



PLAT PLAN

**TRAFFIC ESTIMATE**

2005 AADT	15200	V.P.D.
2030 AADT	33900	V.P.D.
2030 DHV	3675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-2 E  
 SECTION 7  
 TABLE MOUND TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°27'12.61"N  
 LONGITUDE 90°46'39.39"W

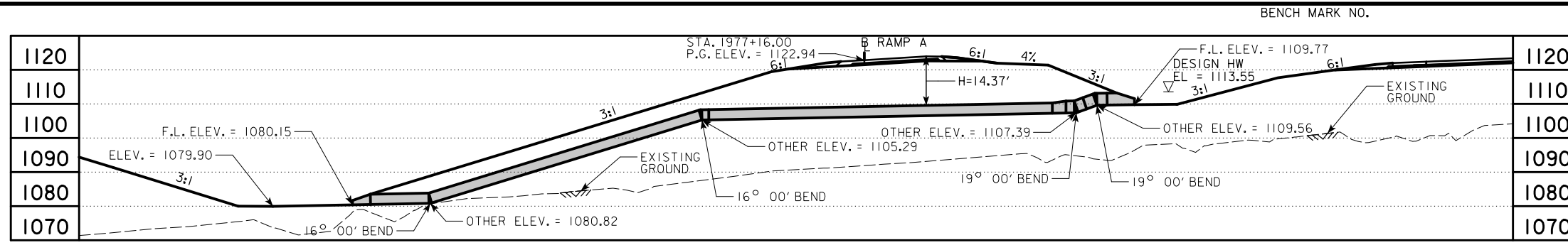
**HYDRAULIC DATA**

DRAINAGE AREA = 1.3 ACRES - ROLLING  
 $Q_{50} = 4.6$  CFS

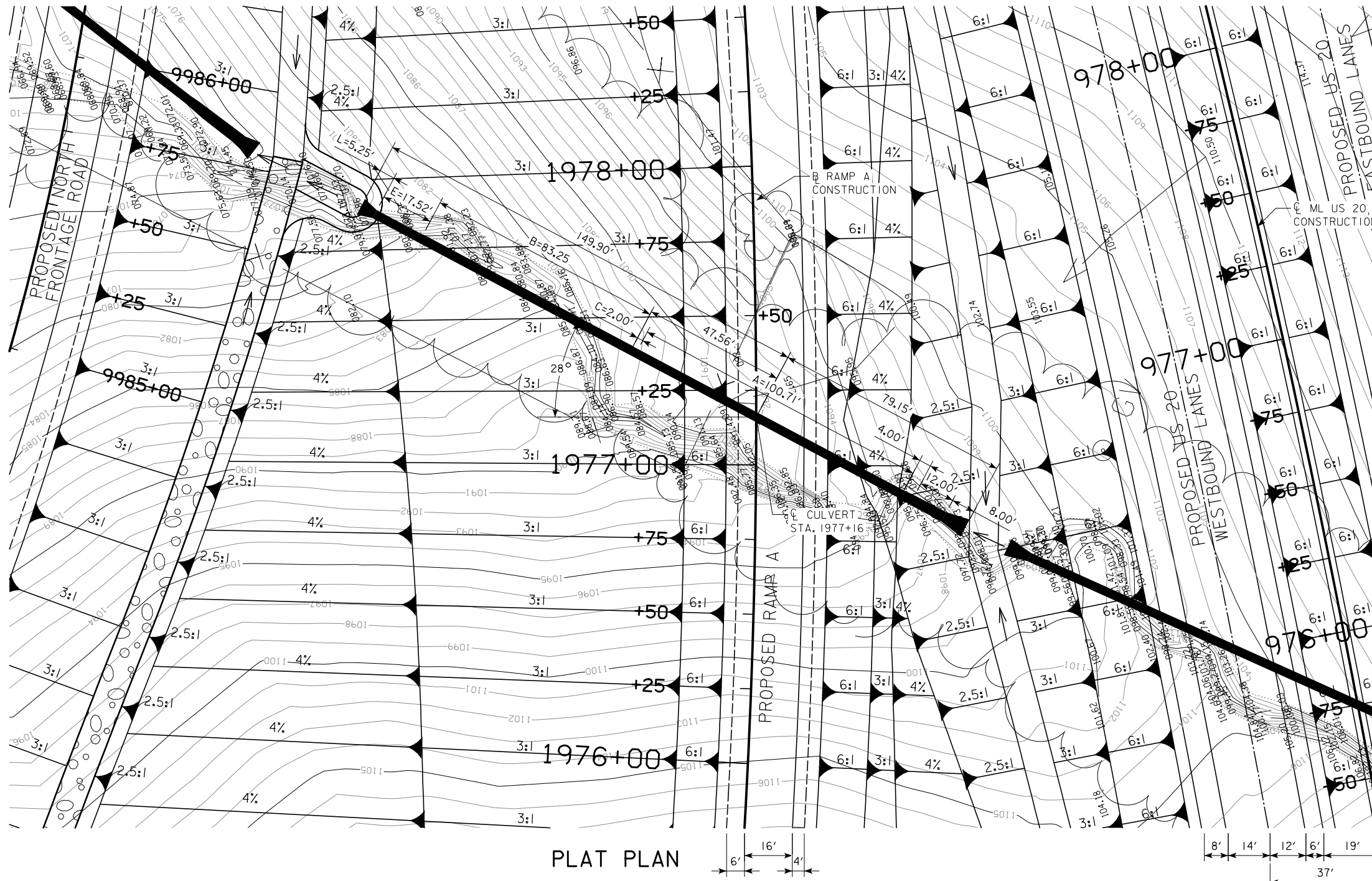
NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW LEFT EXTENSION  
**24 in. x 68 ft. 1302 RCP & RF-2**

**PLAT PLAN**  
 STA. 1026+30 LEFT ( $\bar{C}$  US20) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####

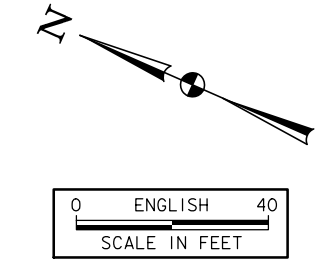


LONGITUDINAL SECTION AT CULVERT INVERTS



PLAT PLAN

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

2017 AADT	N/A	V.P.D.
2030 AADT	2111	V.P.D.
2030 DHV	239	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
T-88 N R-1 E  
SECTION 12  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'32.81"N  
LONGITUDE 90°47'7.39"W

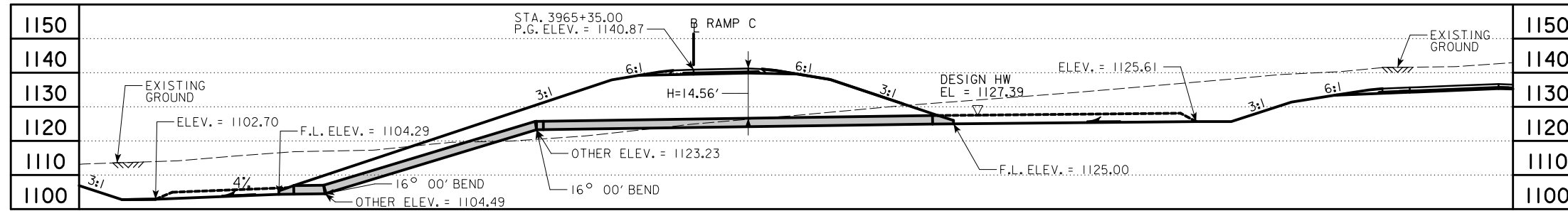
**HYDRAULIC DATA**

DRAINAGE AREA = 22.8 ACRES - HILLY  
Q<sub>50</sub> = 64.3 CFS  
HW ELEV. = 1113.55

NOTE:  
ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

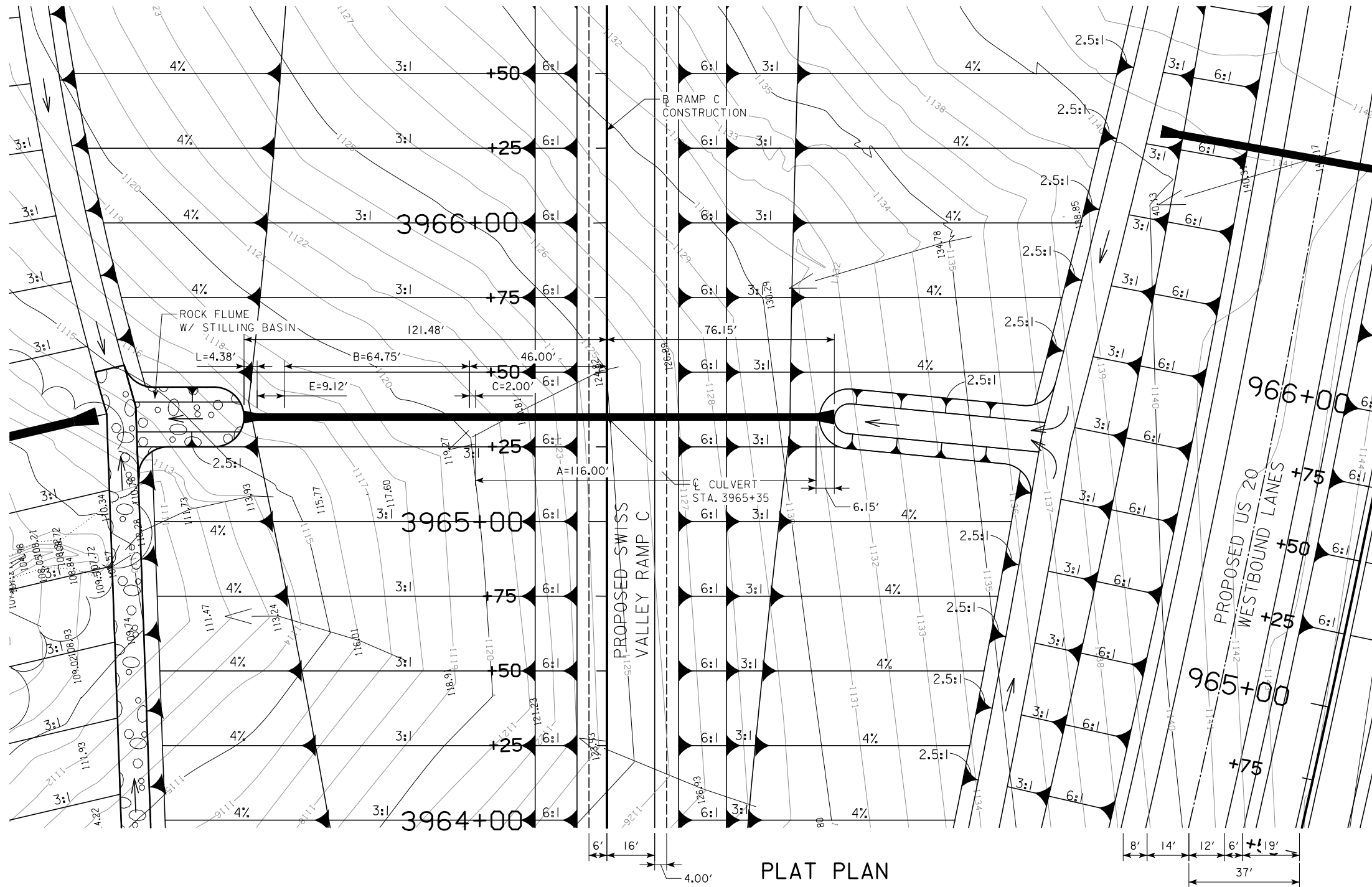
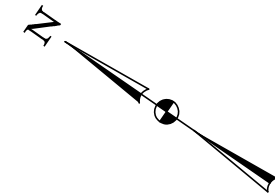
PRELIMINARY  
DESIGN FOR A 28° SKEW LT. AHD.  
**42 in. to 36 in. SLOPE  
TAPERED PIPE - MODIFIED 150I  
AND CMP LETDOWN STRUCTURE  
PLAT PLAN**  
STA. 1977+16 (C RAMP A) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####





LONGITUDINAL SECTION ALONG  $\phi$  CULVERT

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

2017 AADT	N/A	V.P.D.
2040 AADT	1344	V.P.D.
2040 DHV	156	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
T-88 N R-1 E  
SECTION 12  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'28.37"N  
LONGITUDE 90°47'21.02"W

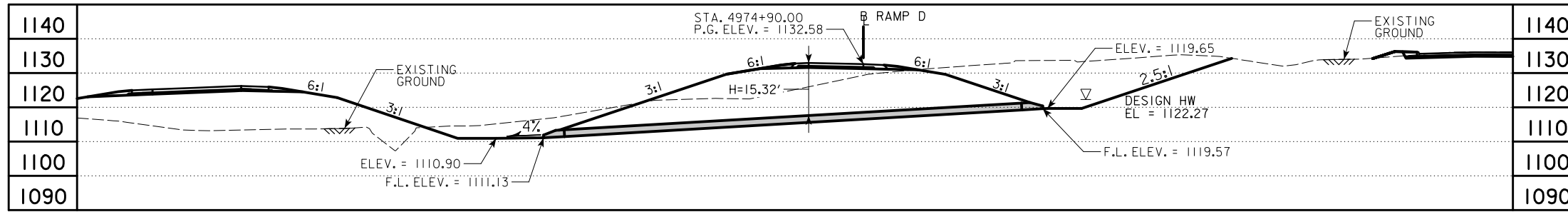
**HYDRAULIC DATA**

DRAINAGE AREA = 6.1 ACRES - HILLY  
Q<sub>50</sub> = 23.0 CFS  
HW ELEV. = 1127.39

NOTE:  
ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

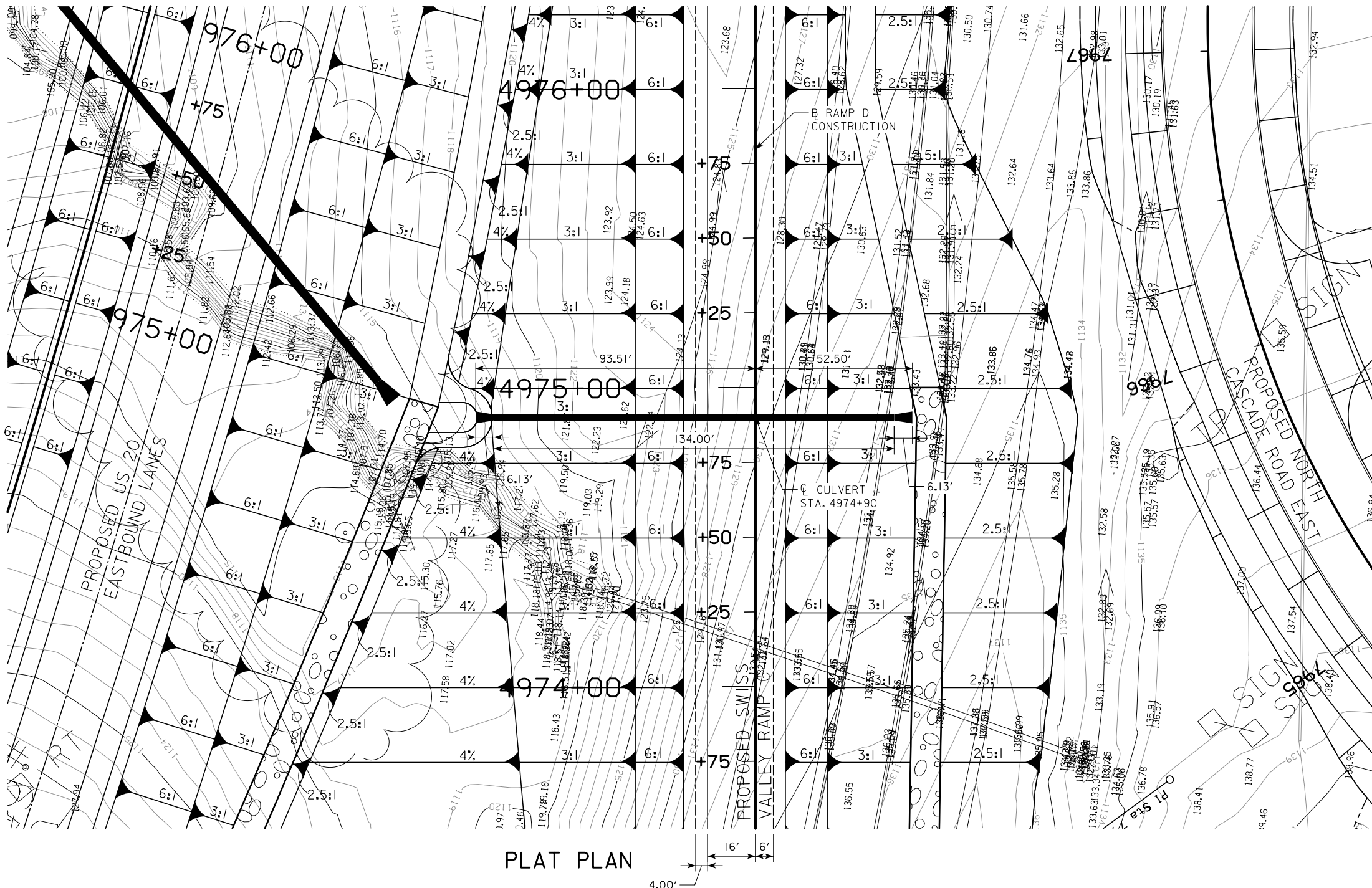
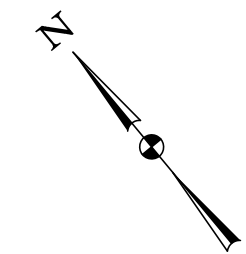
PRELIMINARY  
DESIGN FOR A 0° SKEW  
**30 in. 1501 RCP  
AND CMP LETDOWN STRUCTURE**  
**PLAT PLAN**  
STA. 3965+35 ( $\phi$  RAMP C) JANUARY 2015  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####





LONGITUDINAL SECTION ALONG  $\hat{C}$  CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	N/A	V.P.D.
2040 AADT	2360	V.P.D.
2040 DHV	266	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

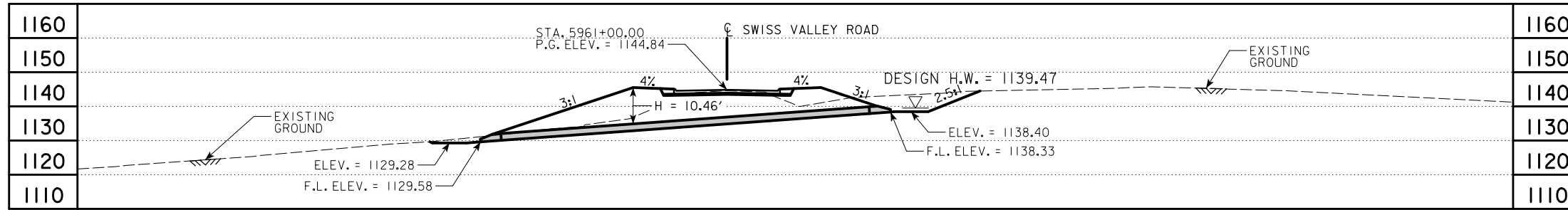
US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'28.43"N  
 LONGITUDE 90°47'6.45"W

**HYDRAULIC DATA**

DRAINAGE AREA = 7.4 ACRES - ROLLING  
 $Q_{50} = 20.2$  CFS  
 HW ELEV. = 1122.27

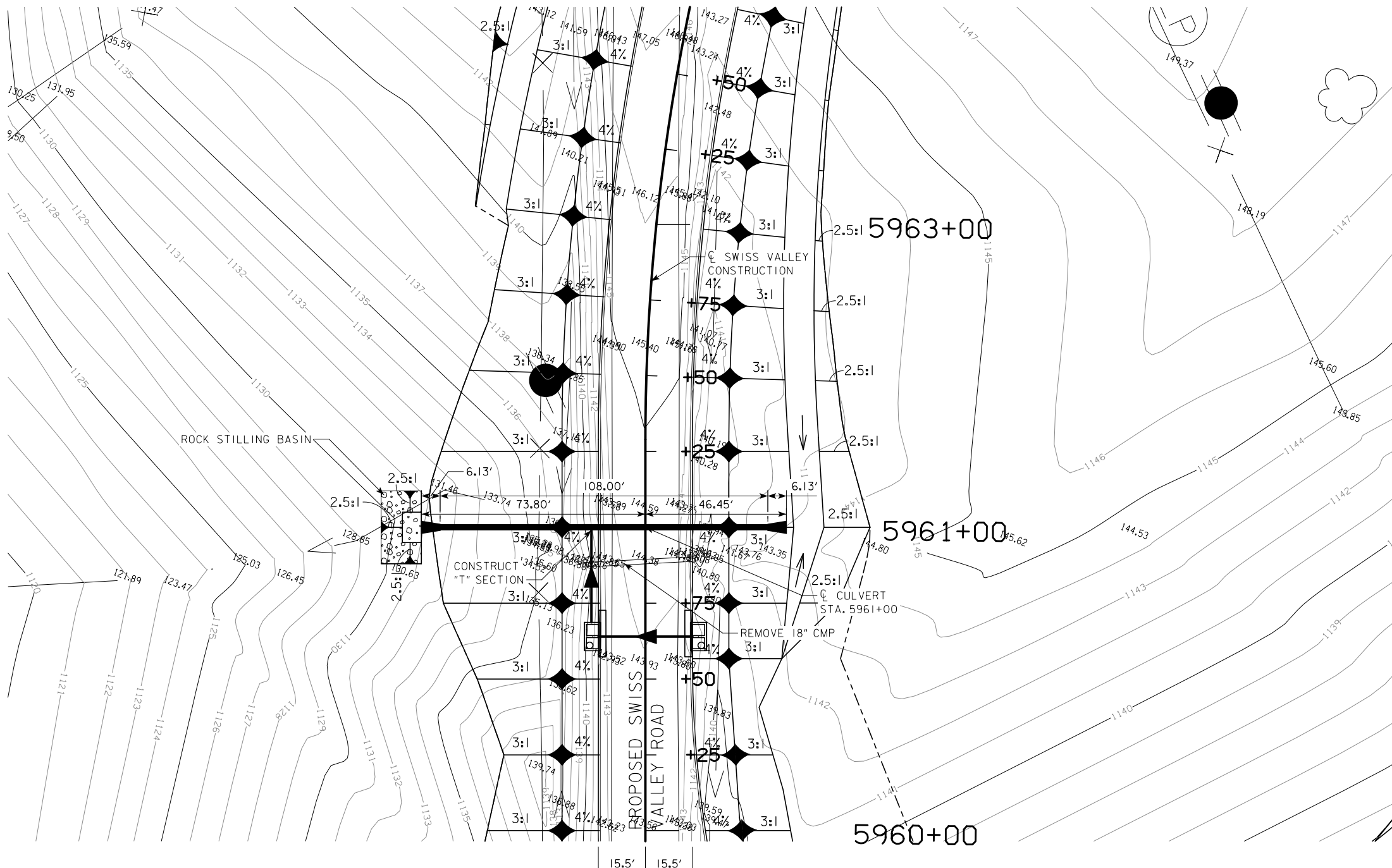
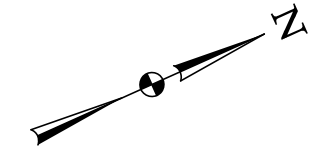
NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. x 134 ft. 1101 RCP**  
**PLAT PLAN**  
 STA. 4974+90 ( $\hat{C}$  RAMP D) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION ALONG  $\bar{C}$  CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	952	V.P.D.
2040 AADT	3088	V.P.D.
2040 DHV	381	V.P.H.
TRUCKS	4	%
TOTAL DESIGN ESALs	--	

**LOCATION**

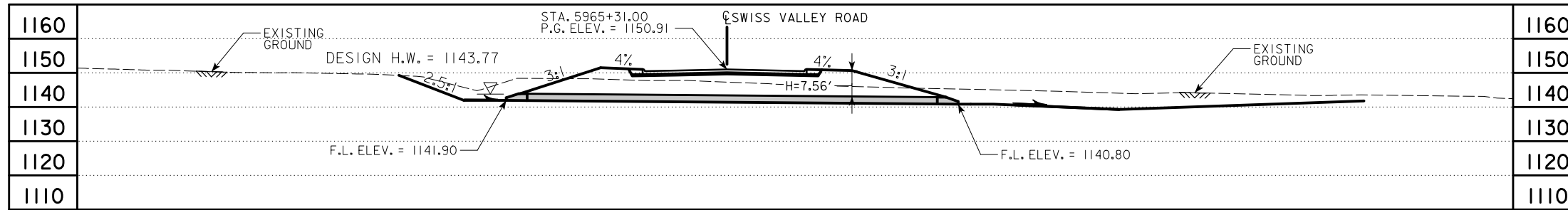
US 20  
 T-88 N R-1 E  
 SECTION 13  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'21.34"N  
 LONGITUDE 90°47'6.59"W

**HYDRAULIC DATA**

DRAINAGE AREA = 1.4 ACRES - ROLLING  
 $Q_{50} = 4.9$  CFS  
 HW ELEV. = 1139.47

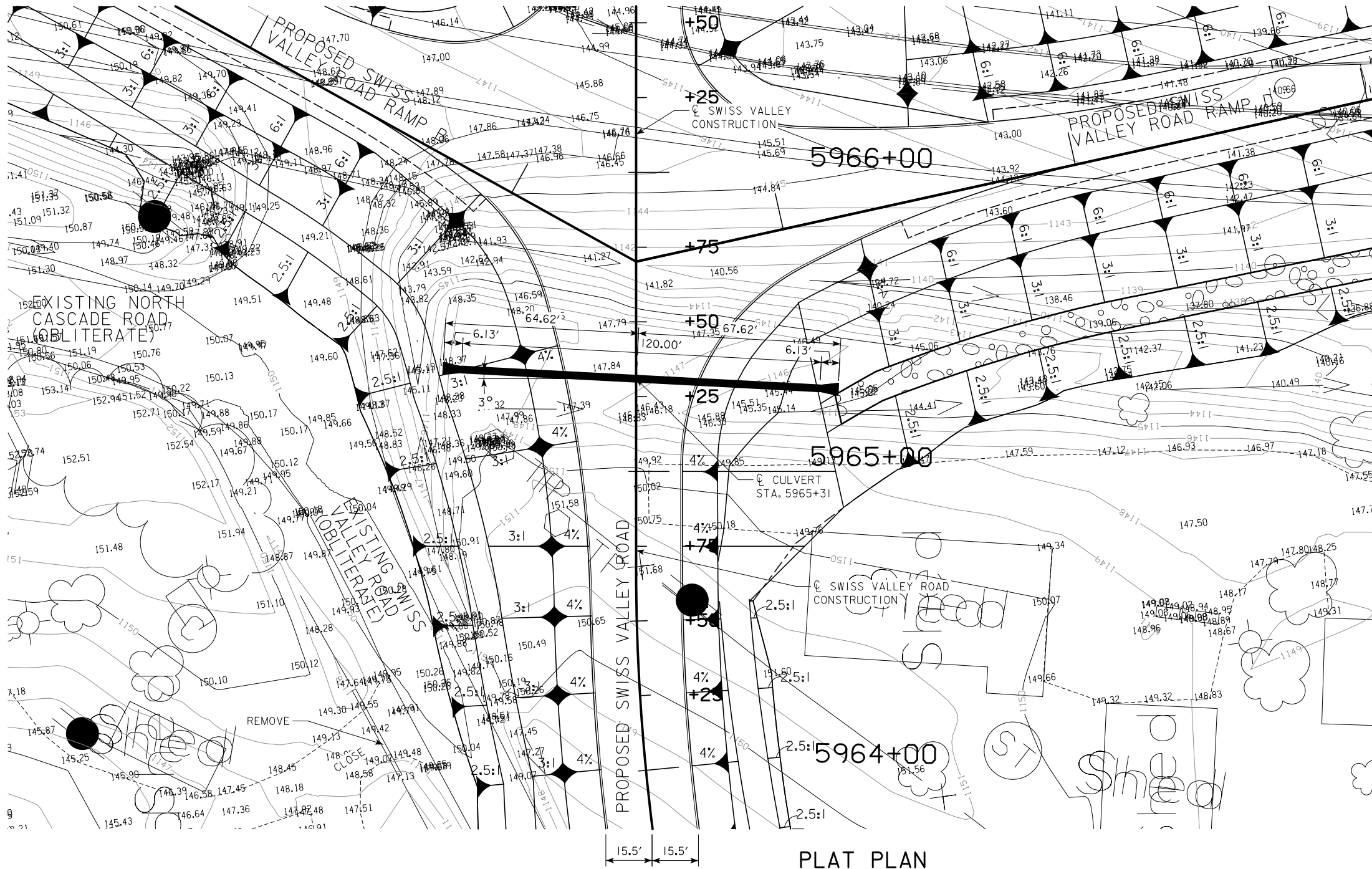
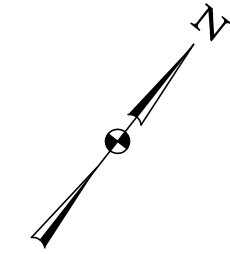
NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. x 108 ft. 1101 RCP**  
 PLAT PLAN  
 STA. 5961+00 ( $\bar{C}$  SWISS VALLEY ROAD) NOVEMBER 2014  
 DUBUQUE COUNTY  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION AT CULVERT INVERTS

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	952	V.P.D.
2040 AADT	3088	V.P.D.
2040 DHV	381	V.P.H.
TRUCKS	4	%
TOTAL DESIGN ESALS	--	

**LOCATION**

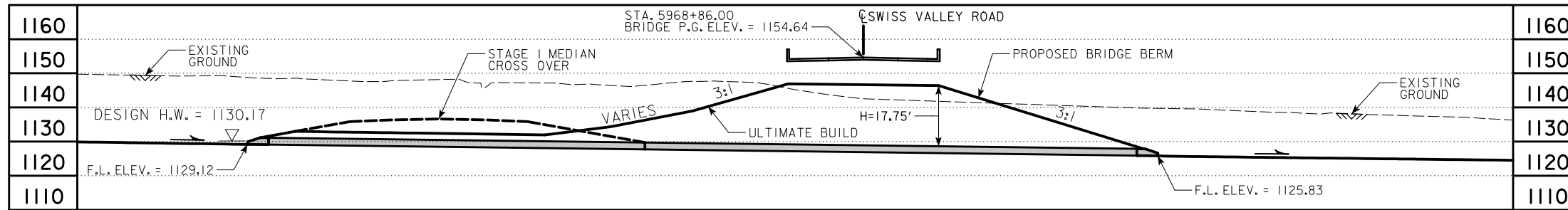
US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'24.14"N  
 LONGITUDE 90°47'10.89"W

**HYDRAULIC DATA**

DRAINAGE AREA = 4.2 ACRES - ROLLING  
 Q<sub>50</sub> = 12.7 CFS  
 HW ELEV. = 1143.77

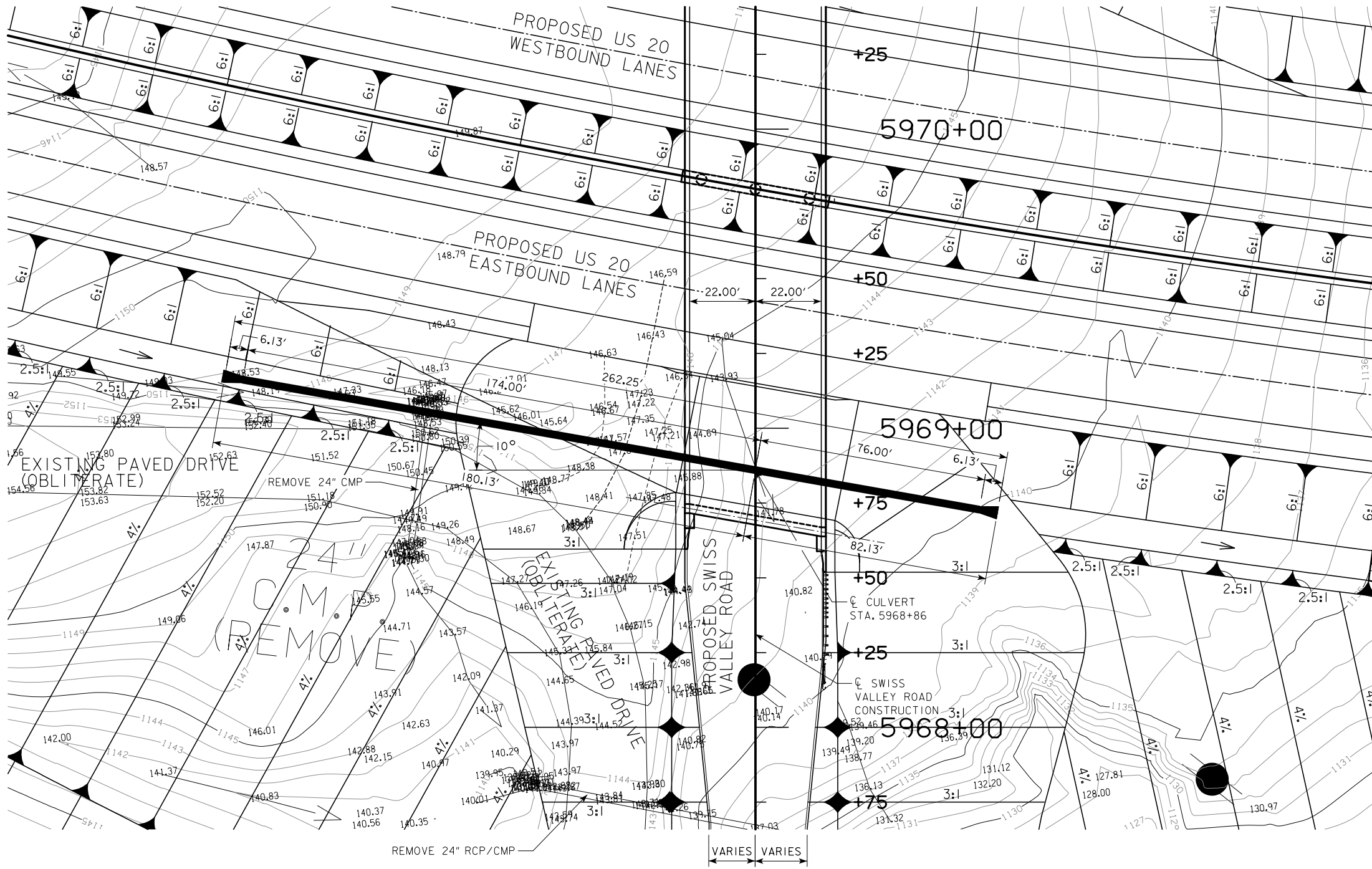
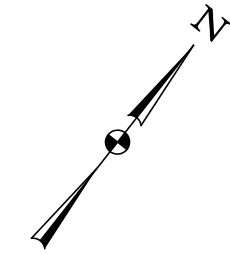
**NOTE:**  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 3° SKEW LT. AHD.  
**24 in. x 120 ft. 1101 RCP**  
**PLAT PLAN**  
 STA. 5965+31 (C SWISS VALLEY ROAD) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION AT CULVERT INVERTS

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	952	V.P.D.
2040 AADT	3088	V.P.D.
2040 DHV	381	V.P.H.
TRUCKS	4	%
TOTAL DESIGN ESALs	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'26.91"N  
 LONGITUDE 90°47'13.66"W

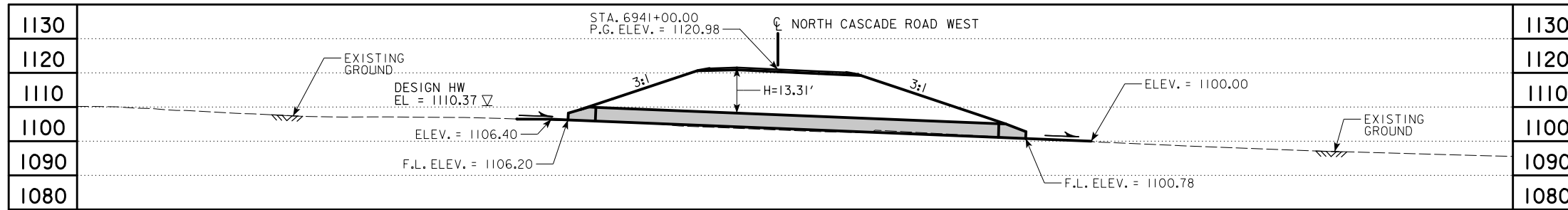
**HYDRAULIC DATA**

DRAINAGE AREA = 4.6 ACRES - ROLLING  
 $Q_{50} = 18.2$  CFS  
 HW ELEV. = 1130.17

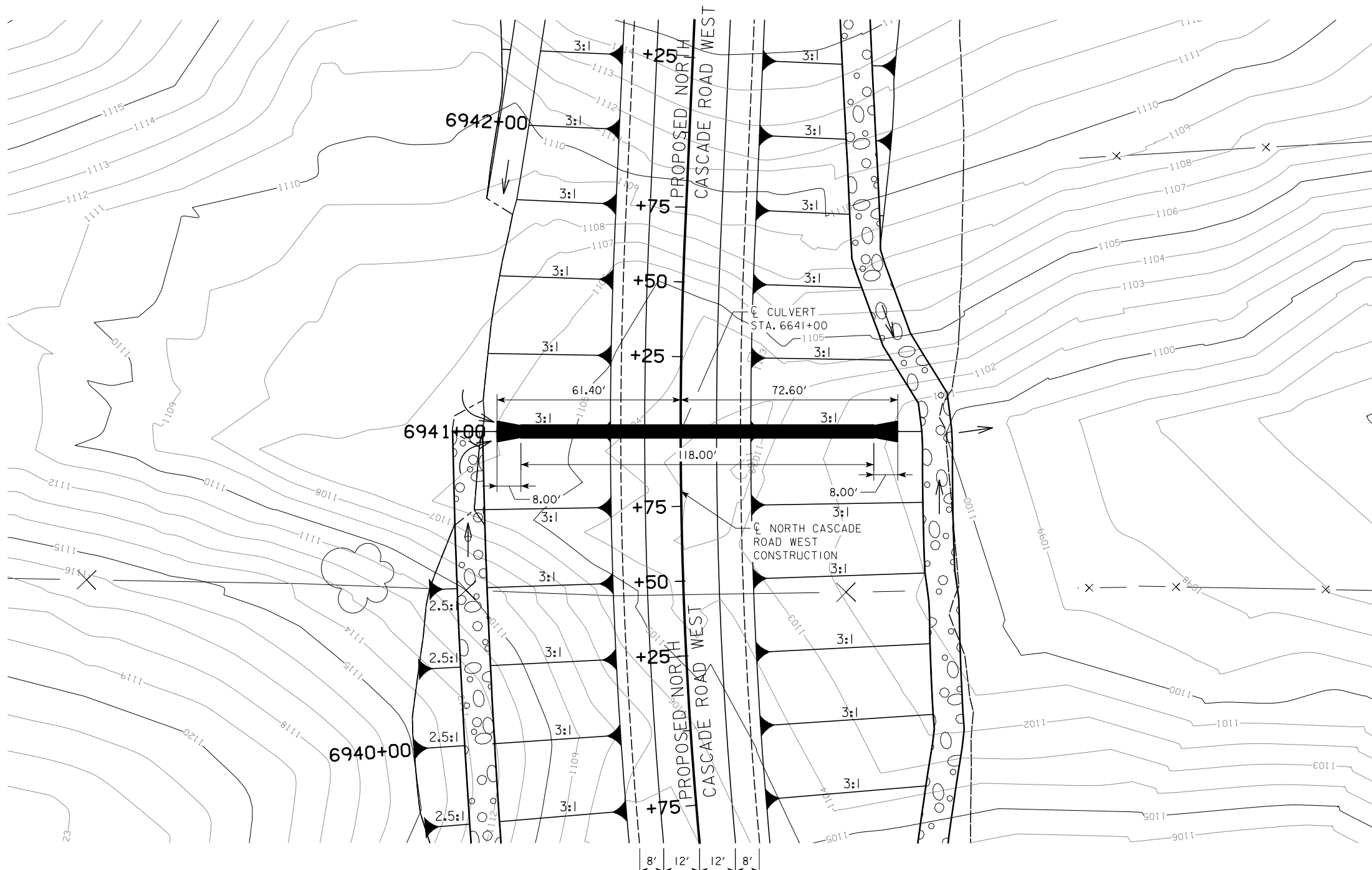
NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 10° SKEW LT. AHD.  
**24 in. x 250 ft. 1101 RCP**  
 PLAT PLAN  
 STA. 5968+86 (C SWISS VALLEY ROAD) NOVEMBER 2014  
 DUBUQUE COUNTY  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####

BENCH MARK NO.

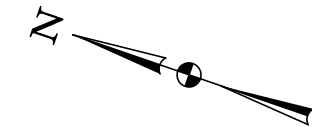


LONGITUDINAL SECTION ALONG  $\phi$  CULVERT



PLAT PLAN

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

2017 AADT	471	V.P.D.
2040 AADT	771	V.P.D.
2040 DHV	99	V.P.H.
TRUCKS	7	%
TOTAL DESIGN ESALs	--	

**LOCATION**

US 20  
T-88 N R-1 E  
SECTION 13  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'12.35"N  
LONGITUDE 90°47'23.97"W

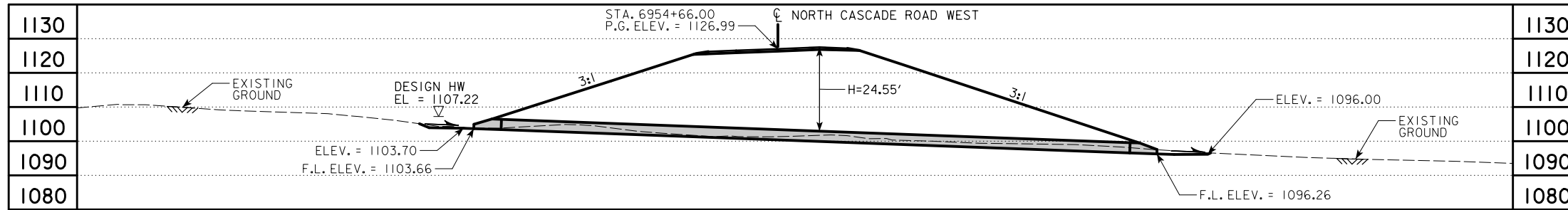
**HYDRAULIC DATA**

DRAINAGE AREA = 31.0 ACRES - ROLLING  
Q<sub>50</sub> = 81.4 CFS  
HW ELEV. = 1110.37

NOTE:  
ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

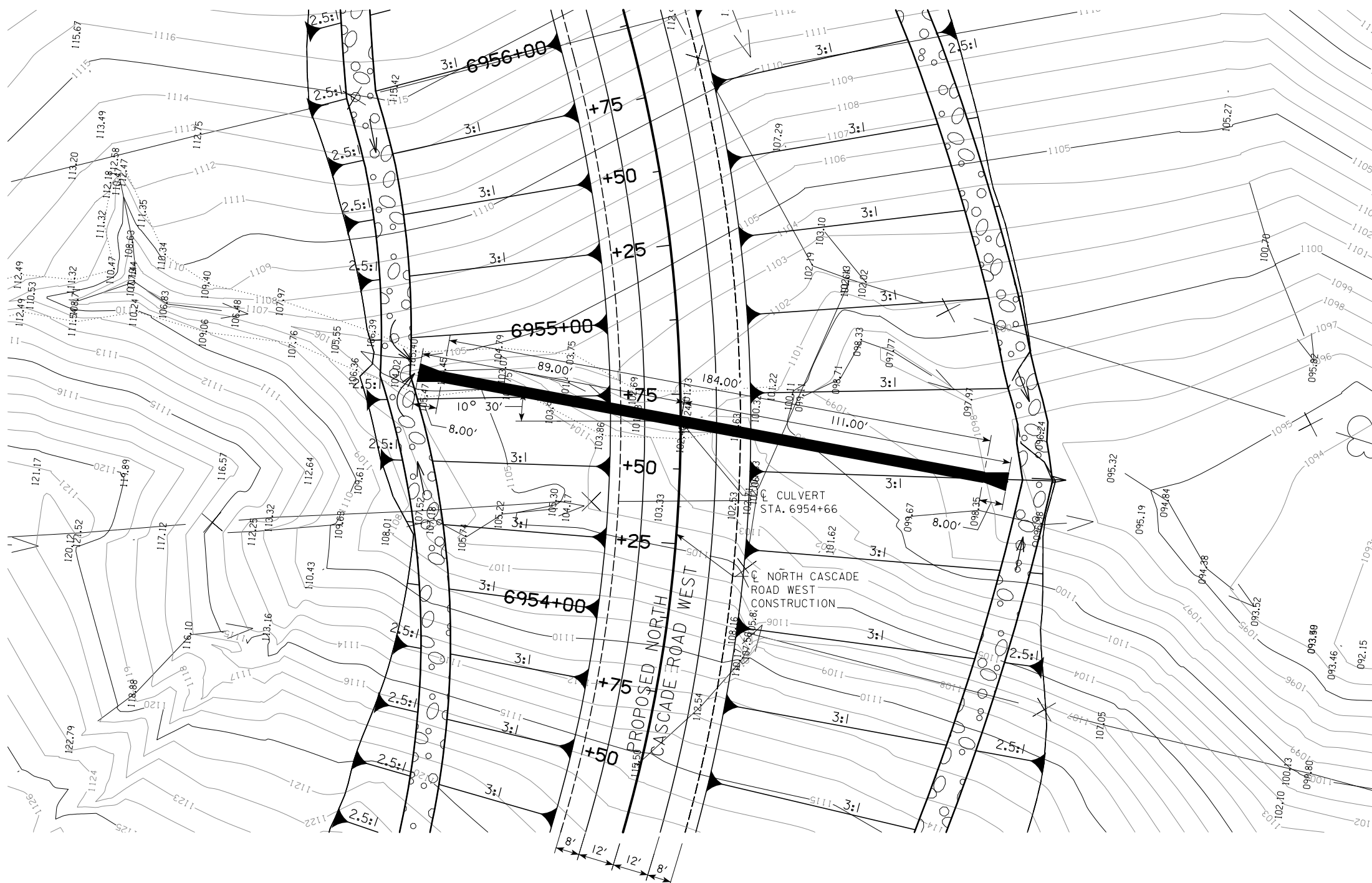
PRELIMINARY  
DESIGN FOR A 0° SKEW  
**48 in. x 118 ft. 1101 RCP**  
**PLAT PLAN**  
STA. 6941+00 ( $\phi$  NORTH CASCADE ROAD) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



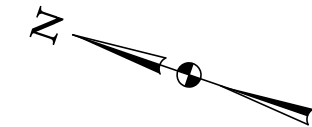


LONGITUDINAL SECTION AT CULVERT INVERTS

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



PLAT PLAN



**TRAFFIC ESTIMATE**

2017 AADT	1320	V.P.D.
2040 AADT	1877	V.P.D.
2040 DHV	234	V.P.H.
TRUCKS	3	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
T-88 N R-1 E  
SECTION 13  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'16.73"N  
LONGITUDE 90°47'6.94"W

**HYDRAULIC DATA**

DRAINAGE AREA = 15.9 ACRES - ROLLING  
Q<sub>50</sub> = 48.7 CFS  
HW ELEV. = 1107.22

NOTE:  
ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

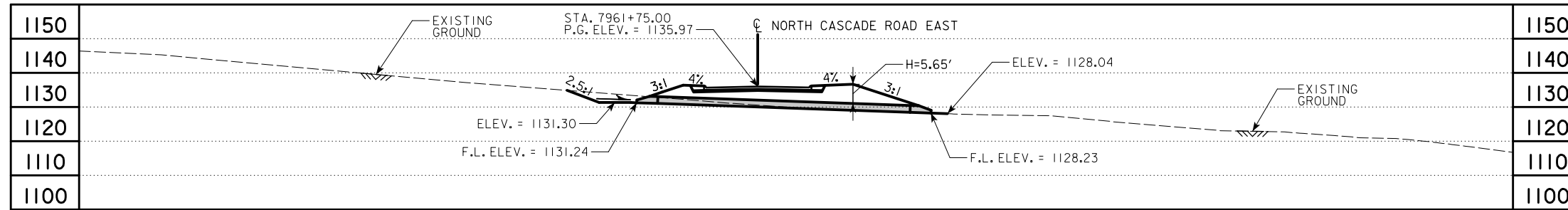
PRELIMINARY

DESIGN FOR A 10°30' SKEW LT. AHD.

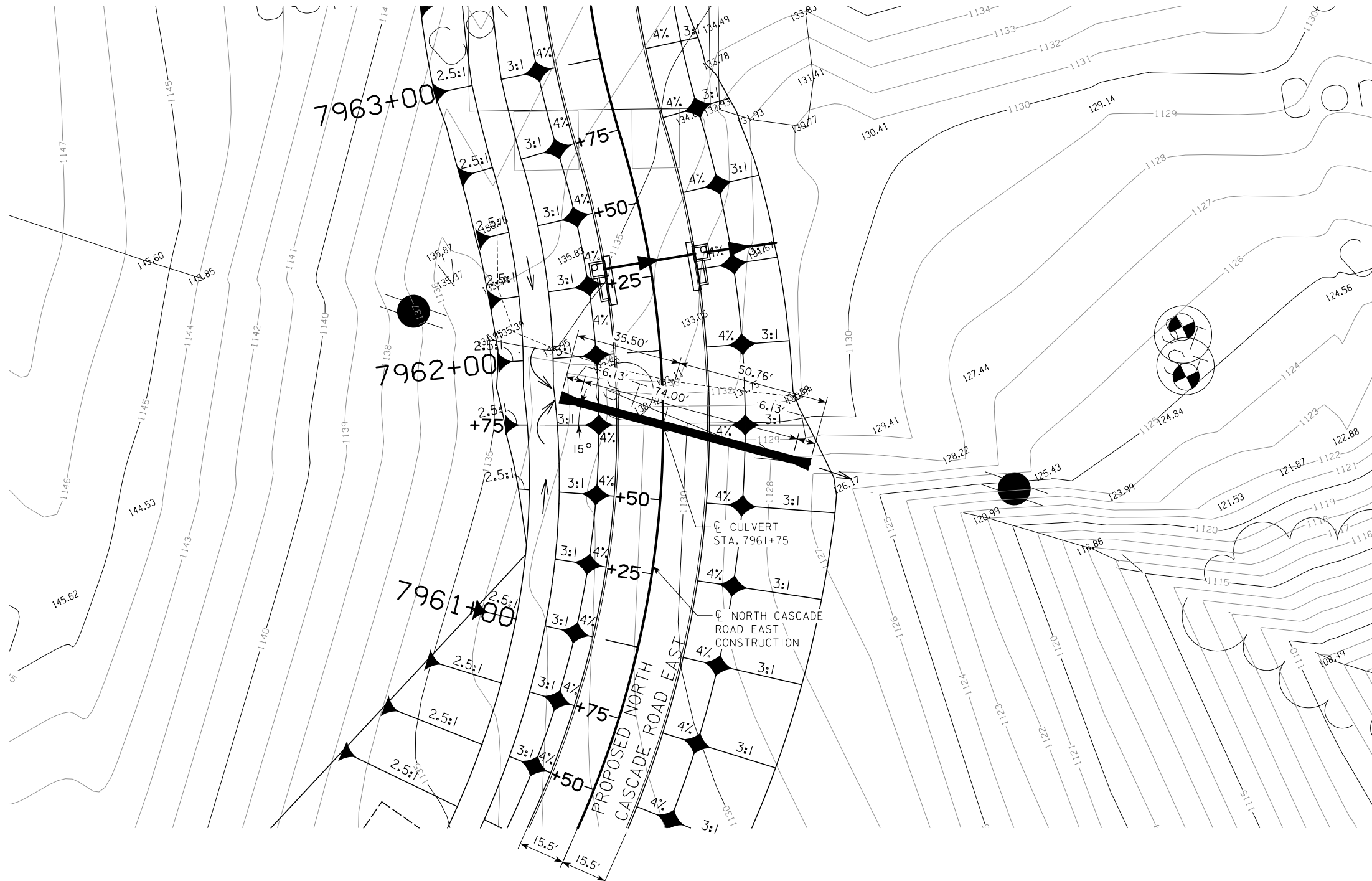
**36 in. x 180 ft. 1101 RCP**

**PLAT PLAN**

STA. 6954+66 (CL NORTH CASCADE ROAD) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION AT CULVERT INVERTS



PLAT PLAN

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

2017 AADT	471	V.P.D.
2040 AADT	771	V.P.D.
2040 DHV	99	V.P.H.
TRUCKS	7	%
TOTAL DESIGN ESALs	--	

**LOCATION**

US 20  
T-88 N R-1 E  
SECTION 13  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'23.57"N  
LONGITUDE 90°47'3.51"W

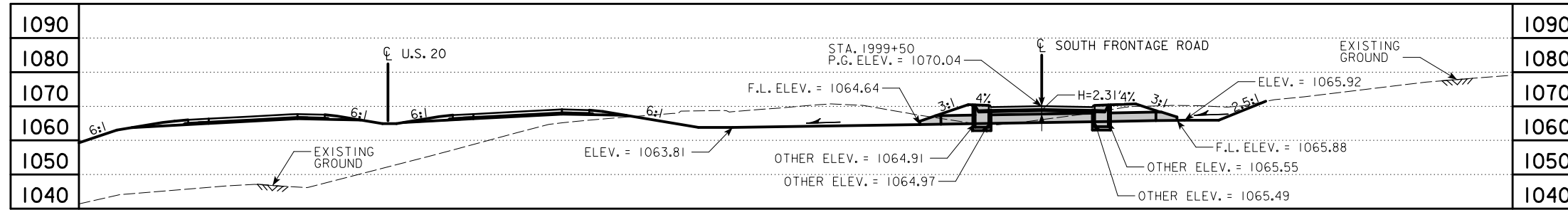
**HYDRAULIC DATA**

DRAINAGE AREA = 3.0 ACRES - ROLLING  
Q<sub>50</sub> = 9.60 CFS

NOTE:  
ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

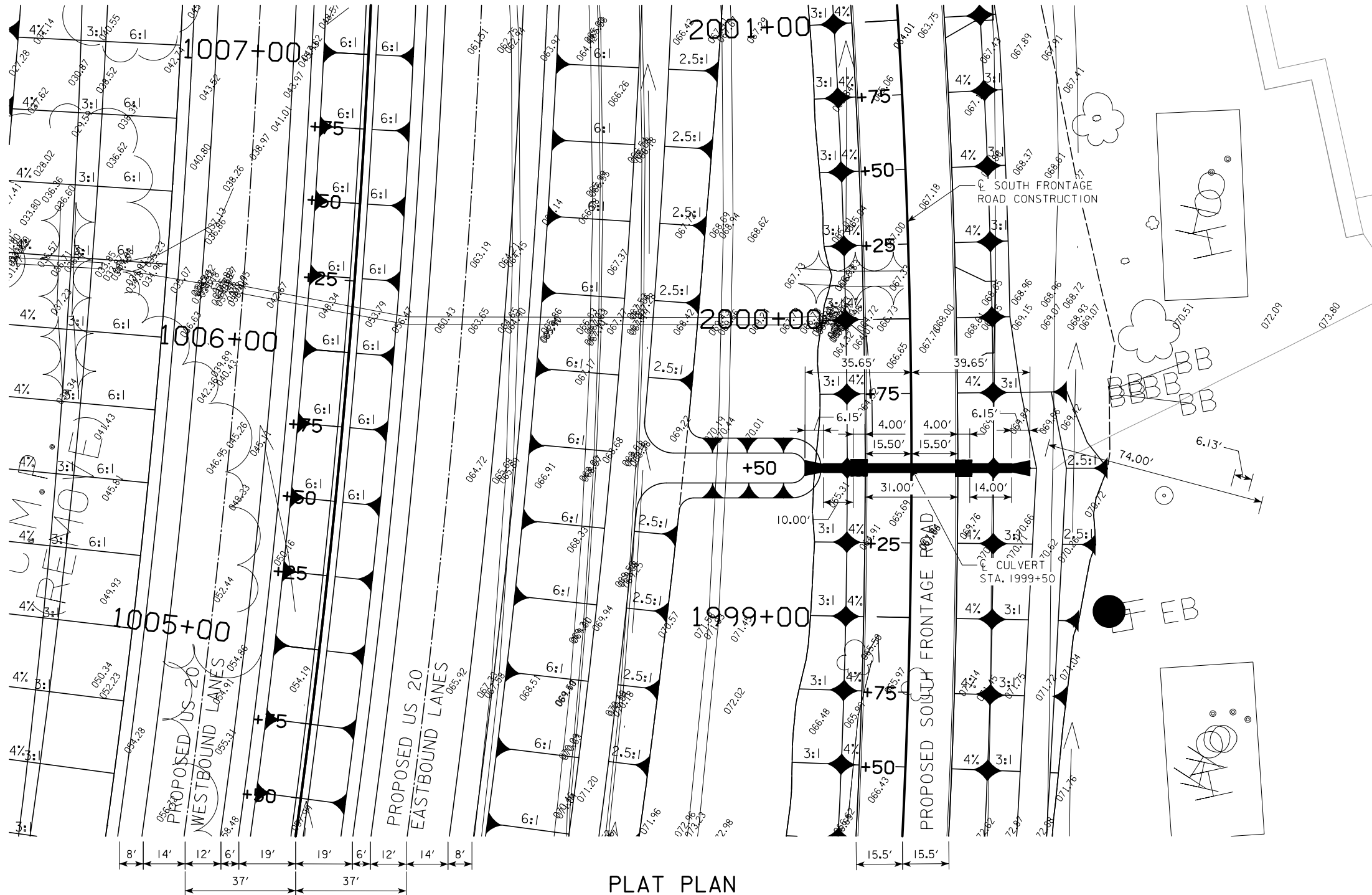
PRELIMINARY  
DESIGN FOR A 15° SKEW LT. AHD.  
**24 in. x 74 ft. 1101 RCP**  
**PLAT PLAN**  
STA. 7961+75 (C NORTH CASCADE ROAD) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####

BENCH MARK NO.



LONGITUDINAL SECTION ALONG  $\bar{C}$  CULVERT

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	--	V.P.D.
2040 AADT	221	V.P.D.
2040 DHV	32	V.P.H.
TRUCKS	2	%
TOTAL DESIGN ESALS	--	

**LOCATION**

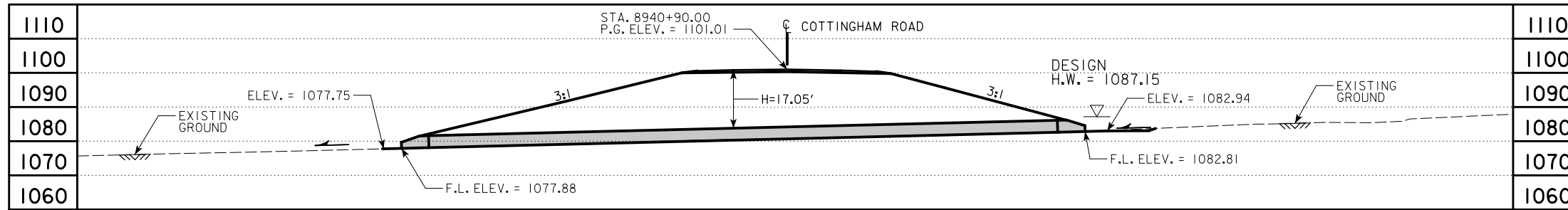
US 20  
T-88 N R-2 E  
SECTION 7  
TABLE MOUND TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'43.82"N  
LONGITUDE 90°46'47.41"W

**HYDRAULIC DATA**

DRAINAGE AREA = 7.3 ACRES - ROLLING  
Q<sub>50</sub> = 23.1 CFS  
HW ELEV. = 1066.31

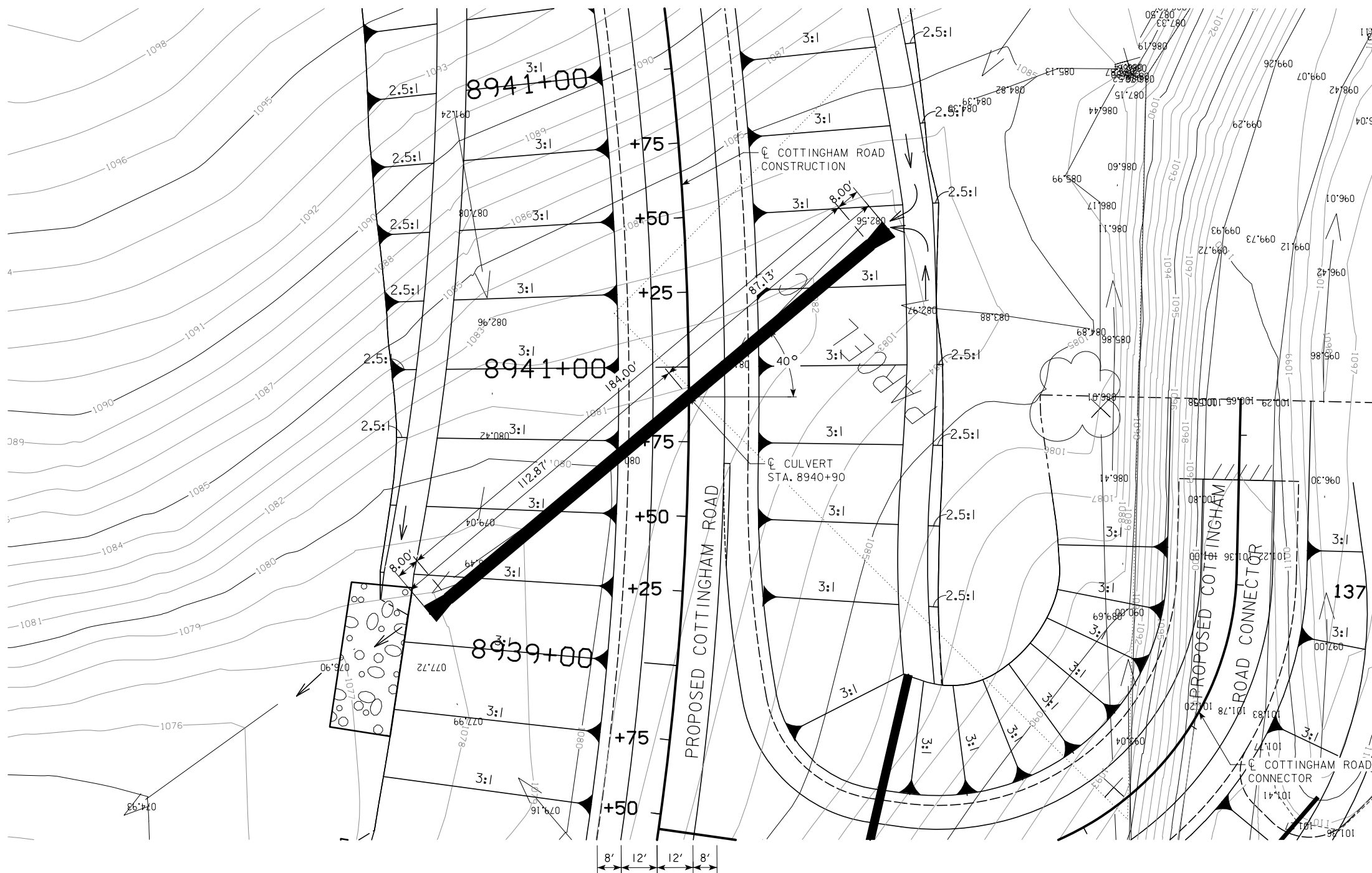
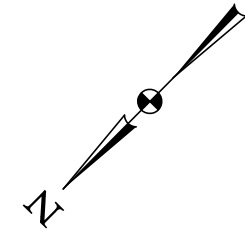
NOTE:  
ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
DESIGN FOR A 0° SKEW  
**30 in. x 64 ft. 1101 RCP  
and Intake Structures**  
**PLAT PLAN**  
STA. 1999+50 - ( $\bar{C}$  SOUTH FRONTAGE ROAD) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO.    OF    FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION AT CULVERT INVERTS

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	215	V.P.D.
2040 AADT	589	V.P.D.
2040 DHV	77	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALs	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'28.56"N  
 LONGITUDE 90°48'1.63"W

**HYDRAULIC DATA**

DRAINAGE AREA = 27.4 ACRES - HILLY  
 $Q_{50} = 74.0$  CFS  
 HW ELEV. = 1087.15

NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY

DESIGN FOR A 40° SKEW RT. AHD.

**42 in. x 184 ft. 1101 RCP**

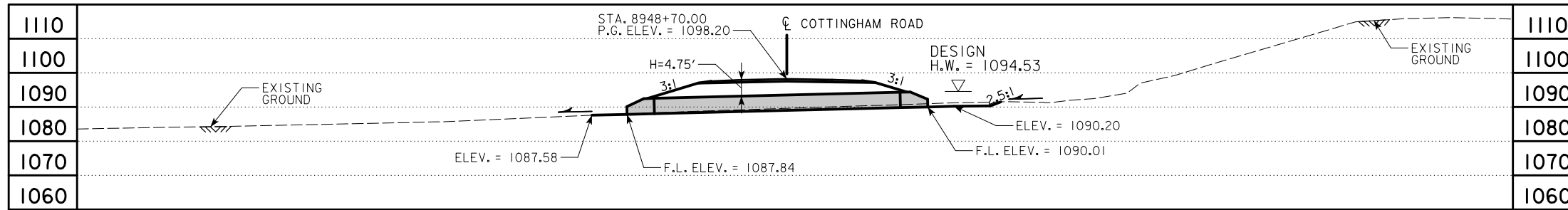
PLAT PLAN

STA. 8940+90 (C COTTINGHAM) NOVEMBER 2014

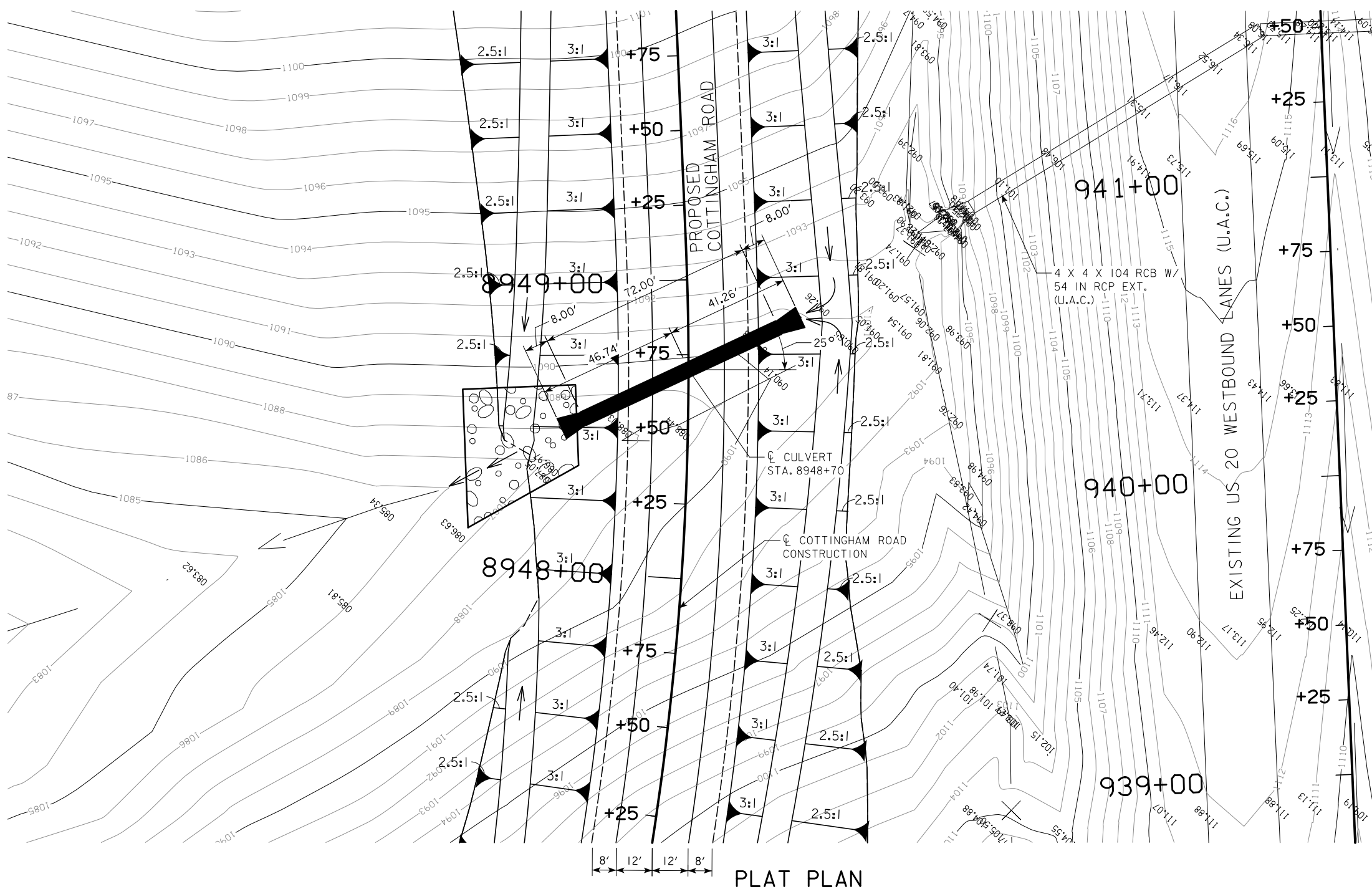
**DUBUQUE COUNTY**

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

2017 AADT	215	V.P.D.
2040 AADT	589	V.P.D.
2040 DHV	77	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'25.36"N  
 LONGITUDE 90°47'52.53"W

**HYDRAULIC DATA**

DRAINAGE AREA = 45.9 ACRES - HILLY  
 $Q_{50} = 110.2$  CFS  
 HW ELEV. = 1094.53

**NOTE:**  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

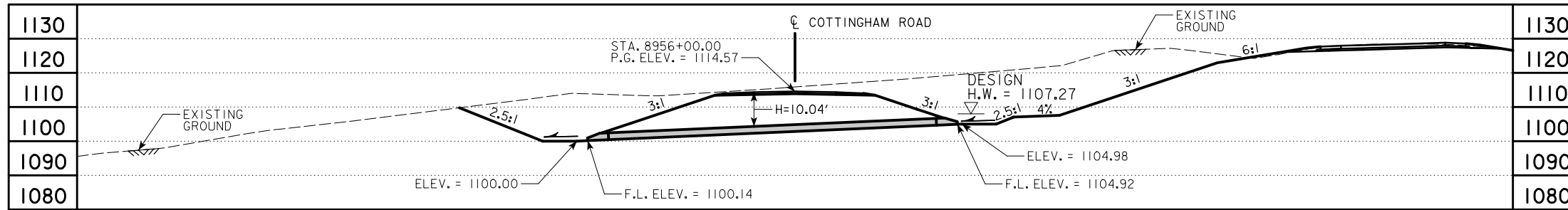
PRELIMINARY

DESIGN FOR A 25° SKEW RT. AHD.  
**54 in. x 72 ft. 1101 RCP**

**PLAT PLAN**

STA. 8948+70 (COTTINGHAM) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####





**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



**TRAFFIC ESTIMATE**

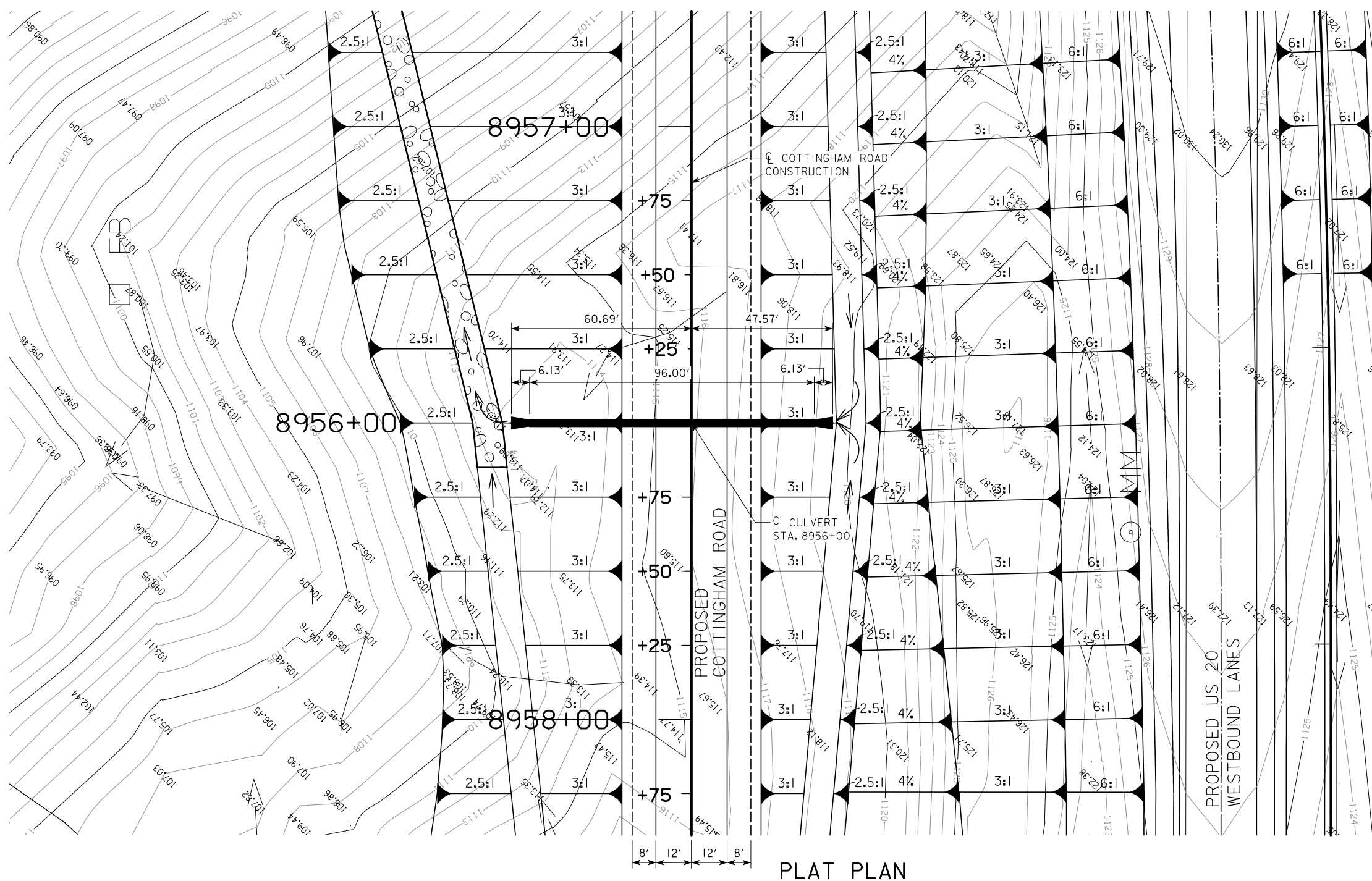
2017 AADT	215	V.P.D.
2040 AADT	589	V.P.D.
2040 DHV	77	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'25.14"N  
 LONGITUDE 90°47'42.78"W

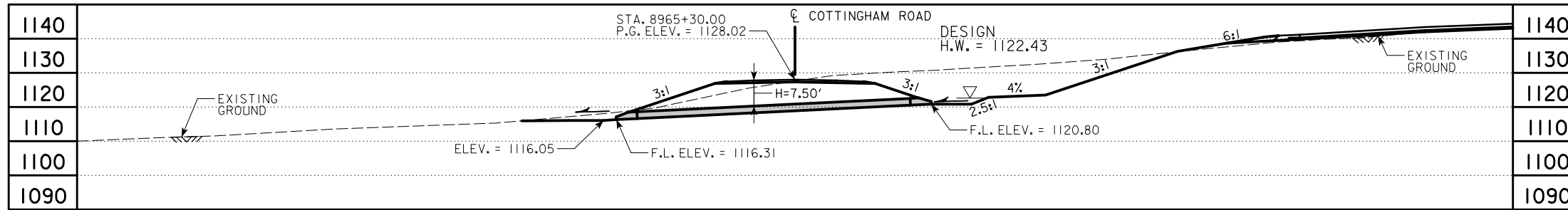
**HYDRAULIC DATA**

DRAINAGE AREA = 4.3 ACRES - HILLY  
 $Q_{50} = 17.2$  CFS  
 HW ELEV. = 1107.27



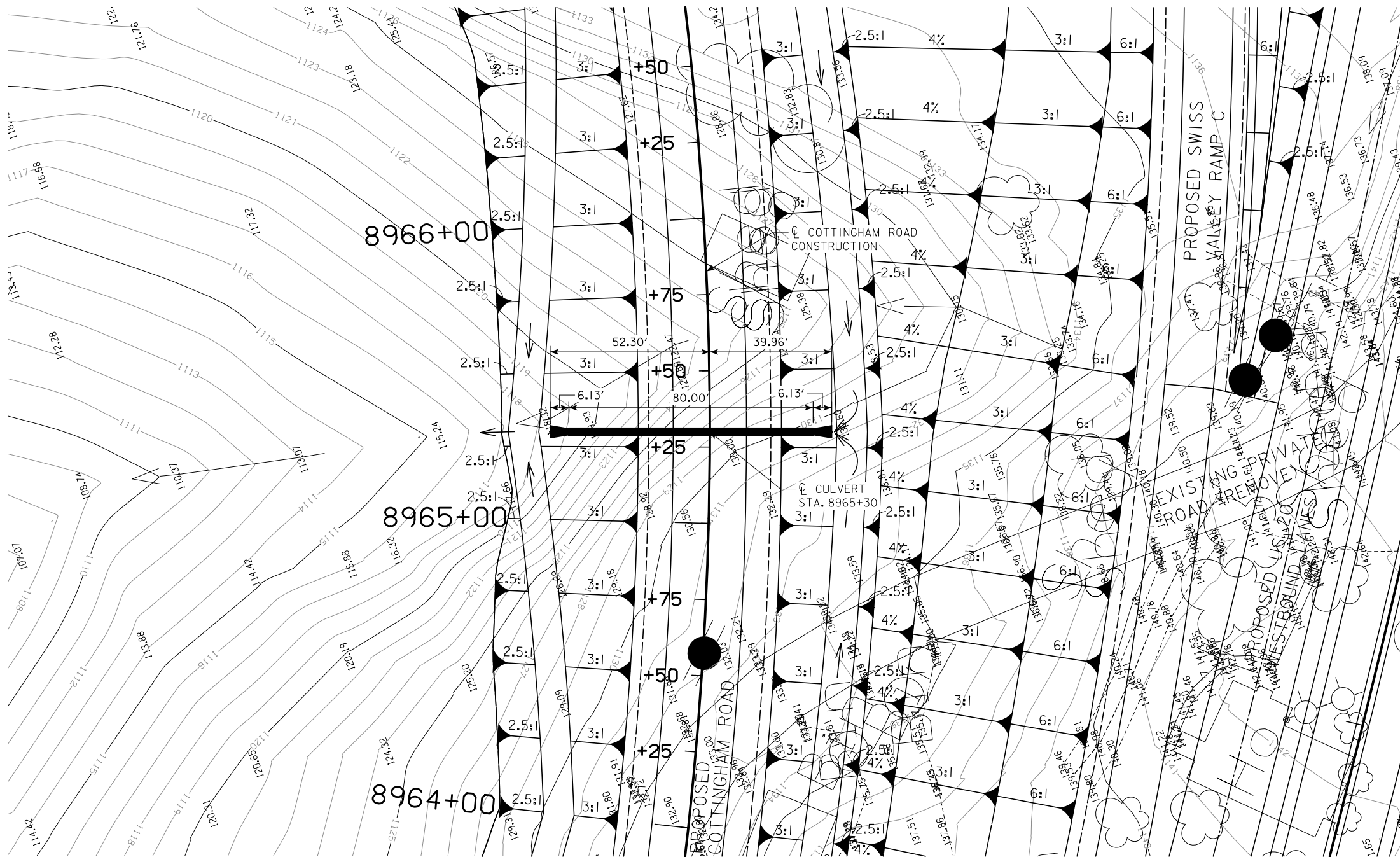
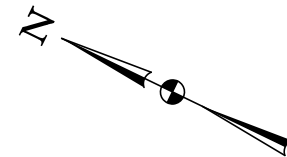
NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. x 96 ft. 1101 RCP**  
**PLAT PLAN**  
 STA. 8956+00 ( $\bar{C}$  COTTINGHAM) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. #####



LONGITUDINAL SECTION ALONG CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	215	V.P.D.
2040 AADT	589	V.P.D.
2040 DHV	77	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

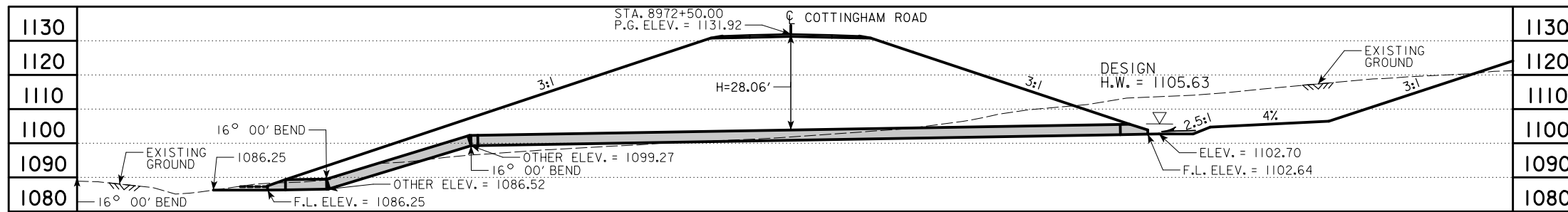
US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'25.04"N  
 LONGITUDE 90°47'38.60"W

**HYDRAULIC DATA**

DRAINAGE AREA = 2.8 ACRES - HILLY  
 $Q_{50} = 12.0$  CFS  
 HW ELEV. = 1122.59

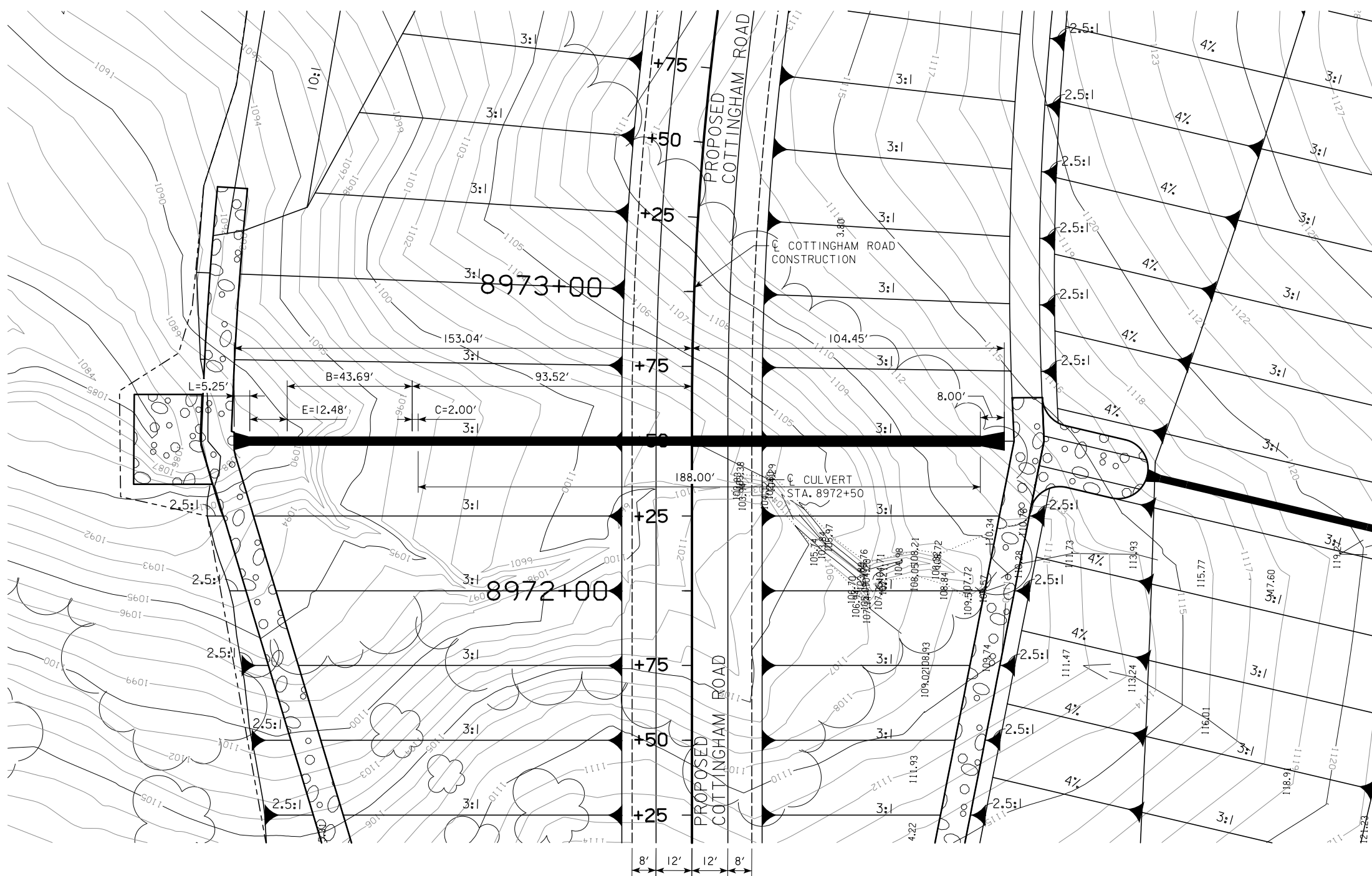
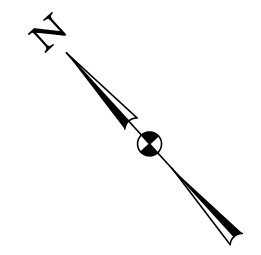
NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. x 80 ft. 1101 RCP**  
**PLAT PLAN**  
 STA. 8965+30 (C COTTINGHAM) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION ALONG C CULVERT

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	215	V.P.D.
2040 AADT	589	V.P.D.
2040 DHV	77	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALs	--	

**LOCATION**

US 20  
T-88 N R-1 E  
SECTION 12  
VERNON TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'30.51"N  
LONGITUDE 90°47'23.16"W

**HYDRAULIC DATA**

DRAINAGE AREA = 11.2 ACRES - HILLY  
Q<sub>50</sub> = 37.2 CFS  
HW ELEV. = 1105.63

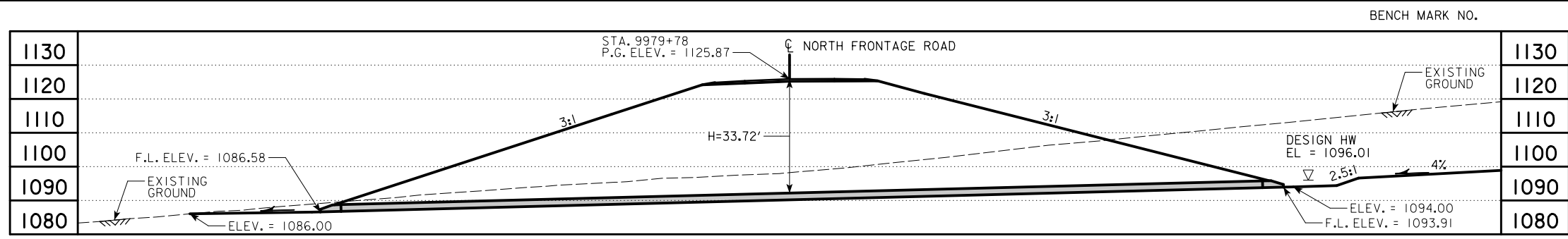
NOTE:  
ALL DIMENSIONS ARE IN FEET (F+) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY

DESIGN FOR A 0° SKEW

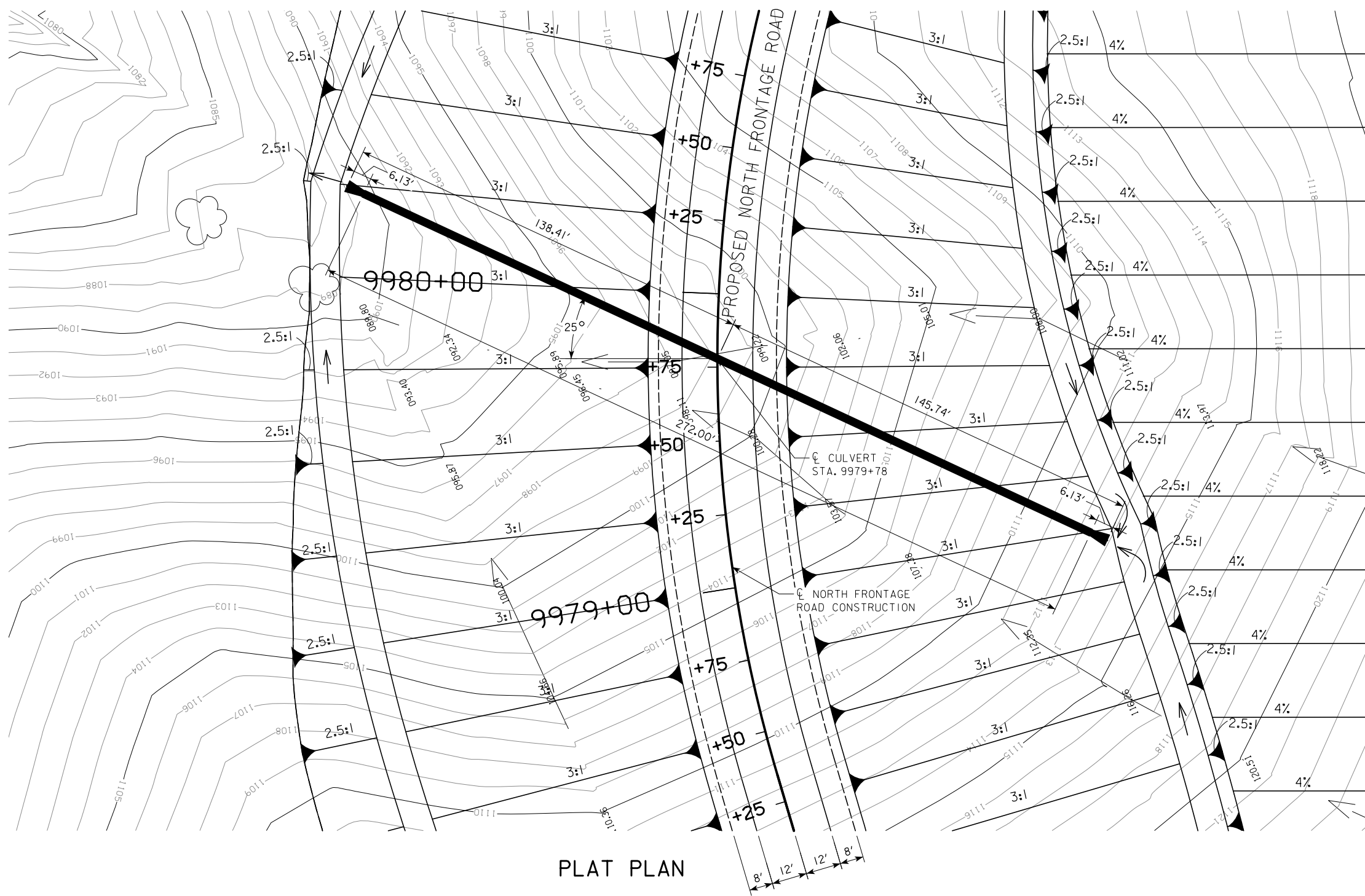
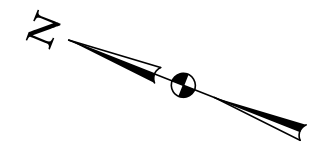
**36 in. 150I RCP  
AND CMP LETDOWN STRUCTURE  
PLAT PLAN**

STA. 8972+50 (C COTTINGHAM) JANUARY 2015  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION ALONG CULVERT INVERTS

**PRELIMINARY PLANS**  
NOT FINAL - SUBJECT TO CHANGE  
DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

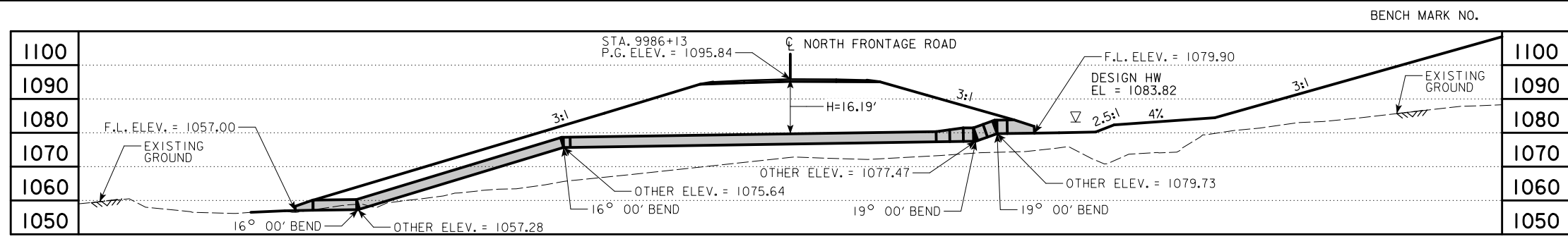
2017 AADT	142	V.P.D.
2040 AADT	197	V.P.D.
2040 DHV	29	V.P.H.
TRUCKS	4	%
TOTAL DESIGN ESALS	--	

**LOCATION**  
US 20  
T-88 N R-2 E  
SECTION 7  
TABLE MOUND TOWNSHIP  
DUBUQUE COUNTY  
LATITUDE 42°26'32.81"N  
LONGITUDE 90°47'7.39"W

**HYDRAULIC DATA**  
DRAINAGE AREA = 4.3 ACRES - HILLY  
Q<sub>50</sub> = 17.2 CFS  
HW ELEV. = 1096.01

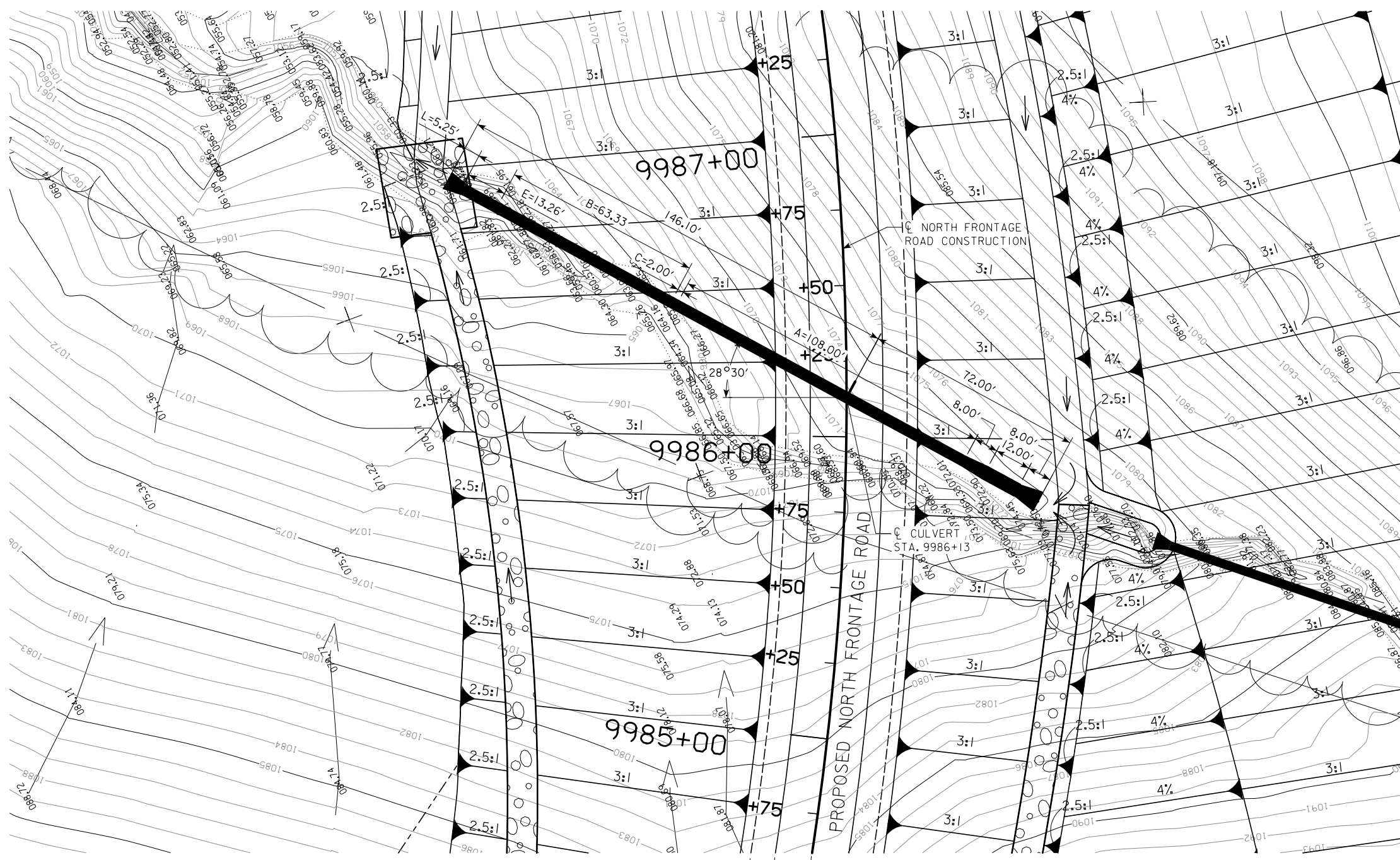
NOTE:  
ALL DIMENSIONS ARE IN FEET (F+) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
DESIGN FOR A 25° SKEW LT. AHD.  
**24 in. x 272 ft. 1101 RCP**  
**PLAT PLAN**  
STA. 9979+78- (C) NORTH FRONTAGE ROAD) NOVEMBER 2014  
**DUBUQUE COUNTY**  
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####

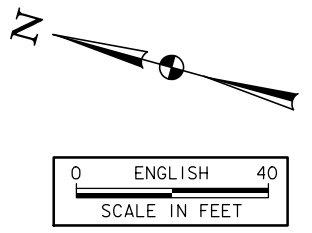


LONGITUDINAL SECTION ALONG CULVERT INVERTS

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN



**TRAFFIC ESTIMATE**

2017 AADT	142	V.P.D.
2040 AADT	197	V.P.D.
2040 DHV	29	V.P.H.
TRUCKS	4	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-2 E  
 SECTION 7  
 TABLE MOUND TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'32.81"N  
 LONGITUDE 90°47'7.39"W

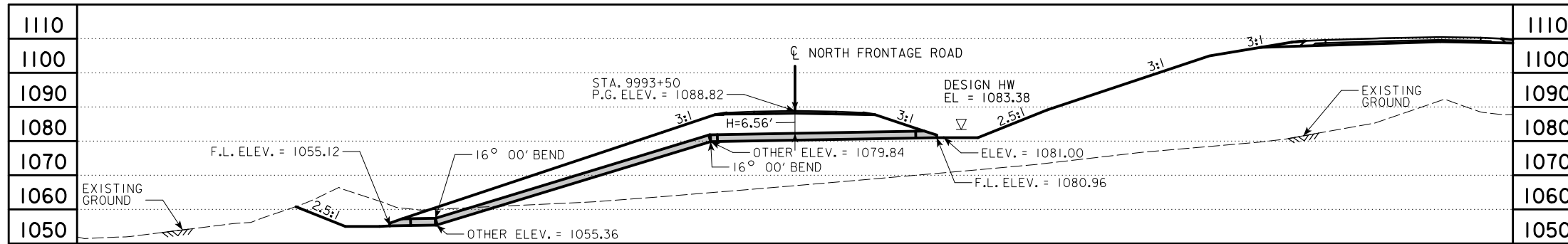
**HYDRAULIC DATA**

DRAINAGE AREA = 28.2 ACRES - HILLY  
 $Q_{50} = 75.7$  CFS  
 HW ELEV. = 1083.82

NOTE:  
 ALL DIMENSIONS ARE IN FEET (FT) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

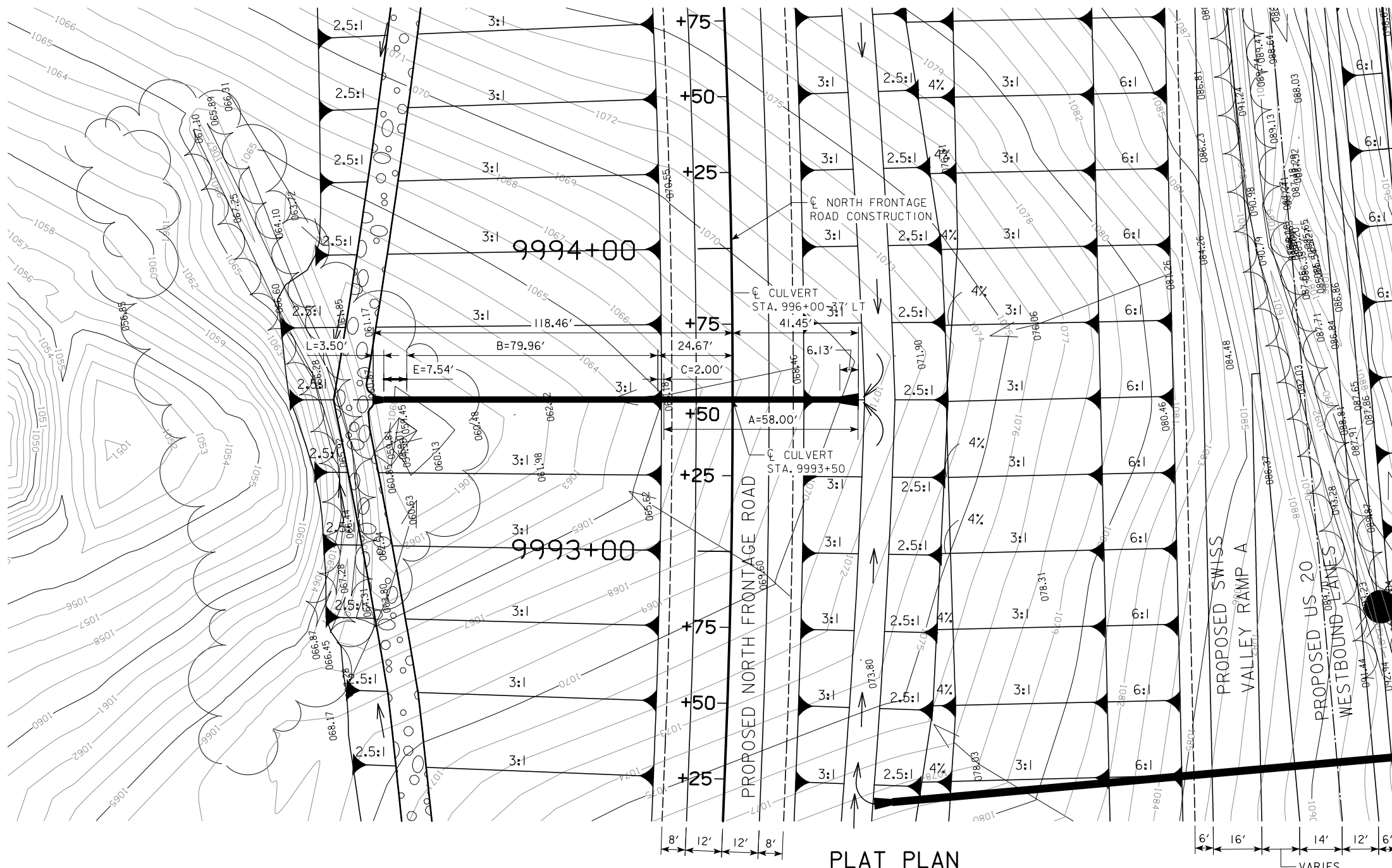
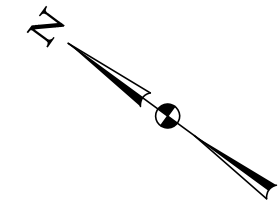
PRELIMINARY  
 DESIGN FOR A 25° SKEW LT. AHD.  
**48 in. to 36 in. SLOPE  
 TAPERED PIPE - MODIFIED 1501  
 AND CMP LETDOWN STRUCTURE**  
**PLAT PLAN**  
 STA. 9986+13 (C NORTH FRONTAGE ROAD) NOVEMBER 2014  
 DUBUQUE COUNTY  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####





LONGITUDINAL SECTION ALONG CULVERT

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	142	V.P.D.
2040 AADT	197	V.P.D.
2040 DHV	29	V.P.H.
TRUCKS	4	%
TOTAL DESIGN ESALS	--	

**LOCATION**

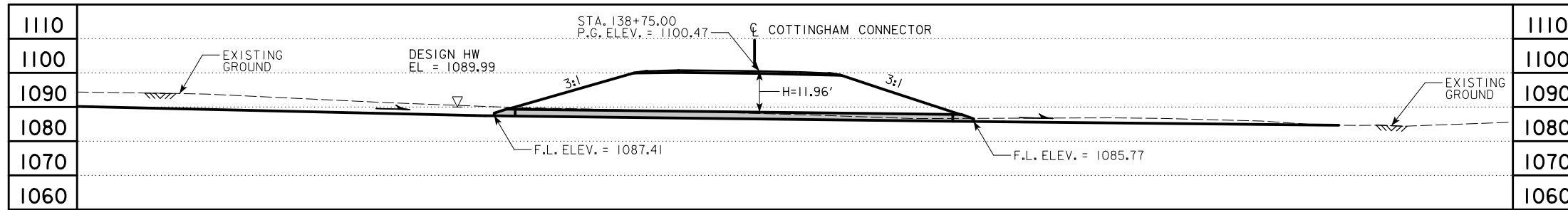
US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'36.24"N  
 LONGITUDE 90°46'57.88"W

**HYDRAULIC DATA**

DRAINAGE AREA = 4.8 ACRES - ROLLING  
 Q<sub>50</sub> = 18.9 CFS  
 HW ELEV. = 1083.38

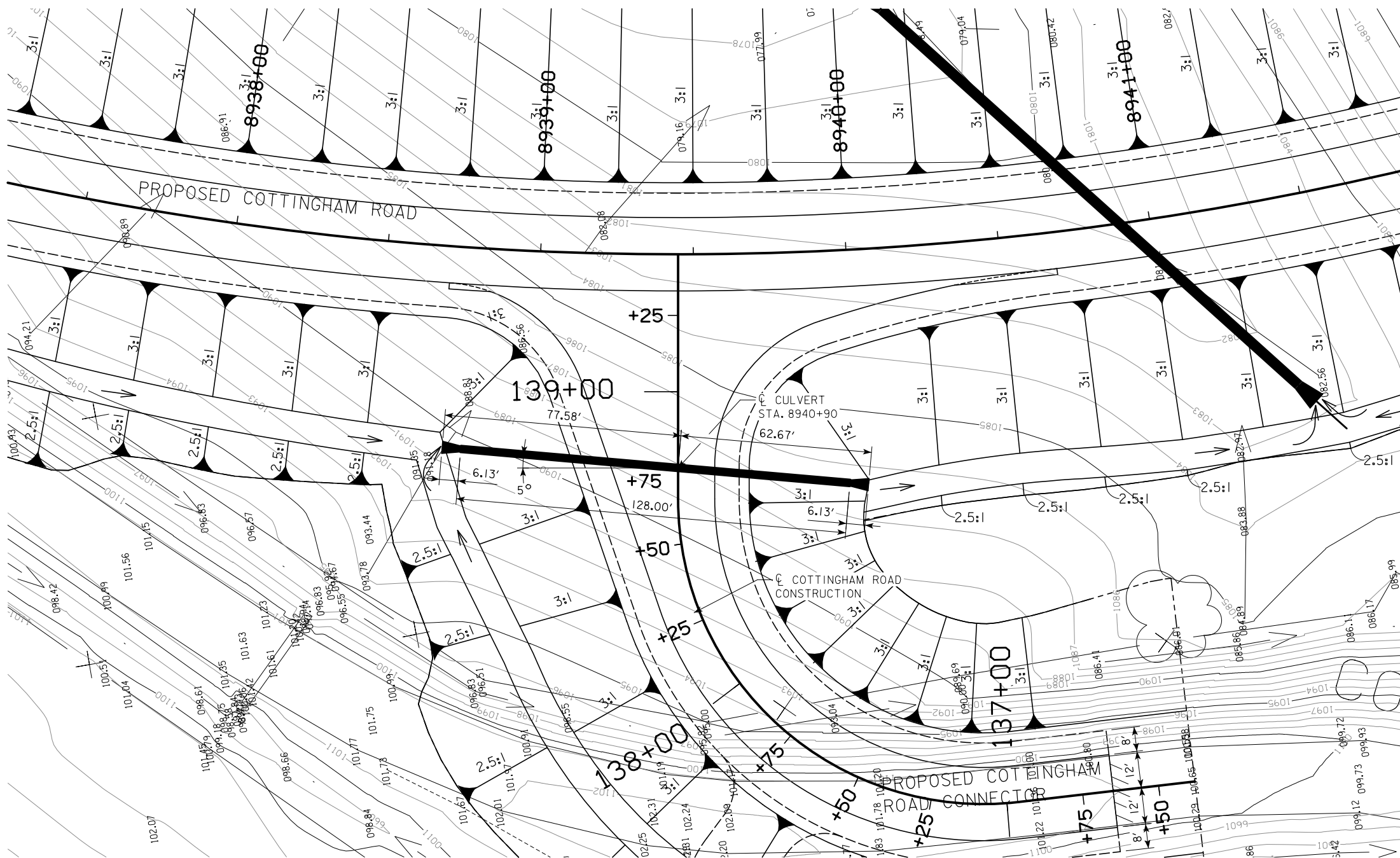
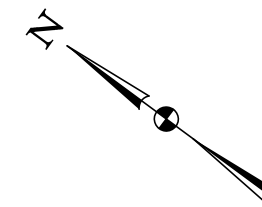
NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 0° SKEW  
**24 in. 150I RCP  
 AND CMP LETDOWN STRUCTURE**  
 PLAT PLAN  
 STA. 9993+50 (C NORTH FRONTAGE ROAD) JANUARY 2015  
 DUBUQUE COUNTY  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####



LONGITUDINAL SECTION AT CULVERT INVERTS

**PRELIMINARY PLANS**  
 NOT FINAL - SUBJECT TO CHANGE  
 DATE: NOVEMBER 10, 2014



PLAT PLAN

**TRAFFIC ESTIMATE**

2017 AADT	215	V.P.D.
2040 AADT	589	V.P.D.
2040 DHV	77	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALS	--	

**LOCATION**

US 20  
 T-88 N R-1 E  
 SECTION 12  
 VERNON TOWNSHIP  
 DUBUQUE COUNTY  
 LATITUDE 42°26'29.22"N  
 LONGITUDE 90°48'3.84"W

**HYDRAULIC DATA**

DRAINAGE AREA = 1.7 ACRES - HILLY  
 Q<sub>50</sub> = 7.7 CFS  
 HW ELEV. = 1089.99

NOTE:  
 ALL DIMENSIONS ARE IN FEET (ft) UNLESS OTHERWISE NOTED OR SHOWN. ALL ELEVATION AND STATIONS ARE IN FEET (FT). FOR SPOT ELEVATIONS ADD 1000 FT.

PRELIMINARY  
 DESIGN FOR A 5° SKEW LT. AHD.  
**24 in. x 128 ft. 1101 RCP**  
 PLAT PLAN  
 STA. 138+75 (COTTINGHAM CONNECTOR) NOVEMBER 2014  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 1 OF 1 FILE NO. 30069 DESIGN NO. ####