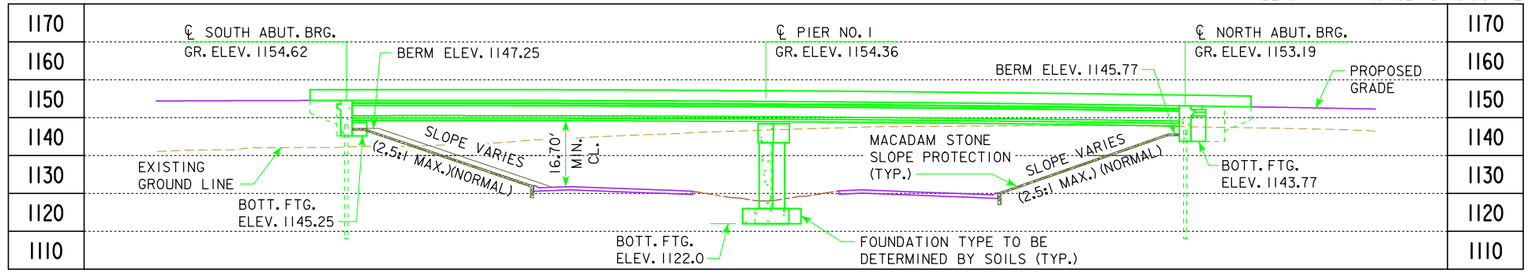
BENCH MARK NO. 632 FD R.R. SPIKE NORTH SIDE P. POL M.L. U.S. 20 (SURVEY) STA. 969+97.48, 98.45' RT. ELEV. 1151.92



LONGITUDINAL SECTION ALONG ℄ ROADWAY

SWISS VALLEY ROAD PROPOSED GRADE

+1.4090% -3.0000%

VPI STA. = 5958+00.00
VPI ELEV. = 1140.61
V.C. = 200'

VPI STA. = 5970+00.000
VPI ELEV. = 1157.52
V.C. = 600'

VPI STA. = 5976+24.00
VPI ELEV. = 1138.80

U.S. 20 PROPOSED GRADE

-1.5392% -1.2000%

VPI STA. = 958+00.00
VPI ELEV. = 1148.82
V.C. = 1000'

VPI STA. = 969+00.000
VPI ELEV. = 1131.89
V.C. = 300'

VPI STA. = 985+50.00
VPI ELEV. = 1112.09
V.C. = 500'

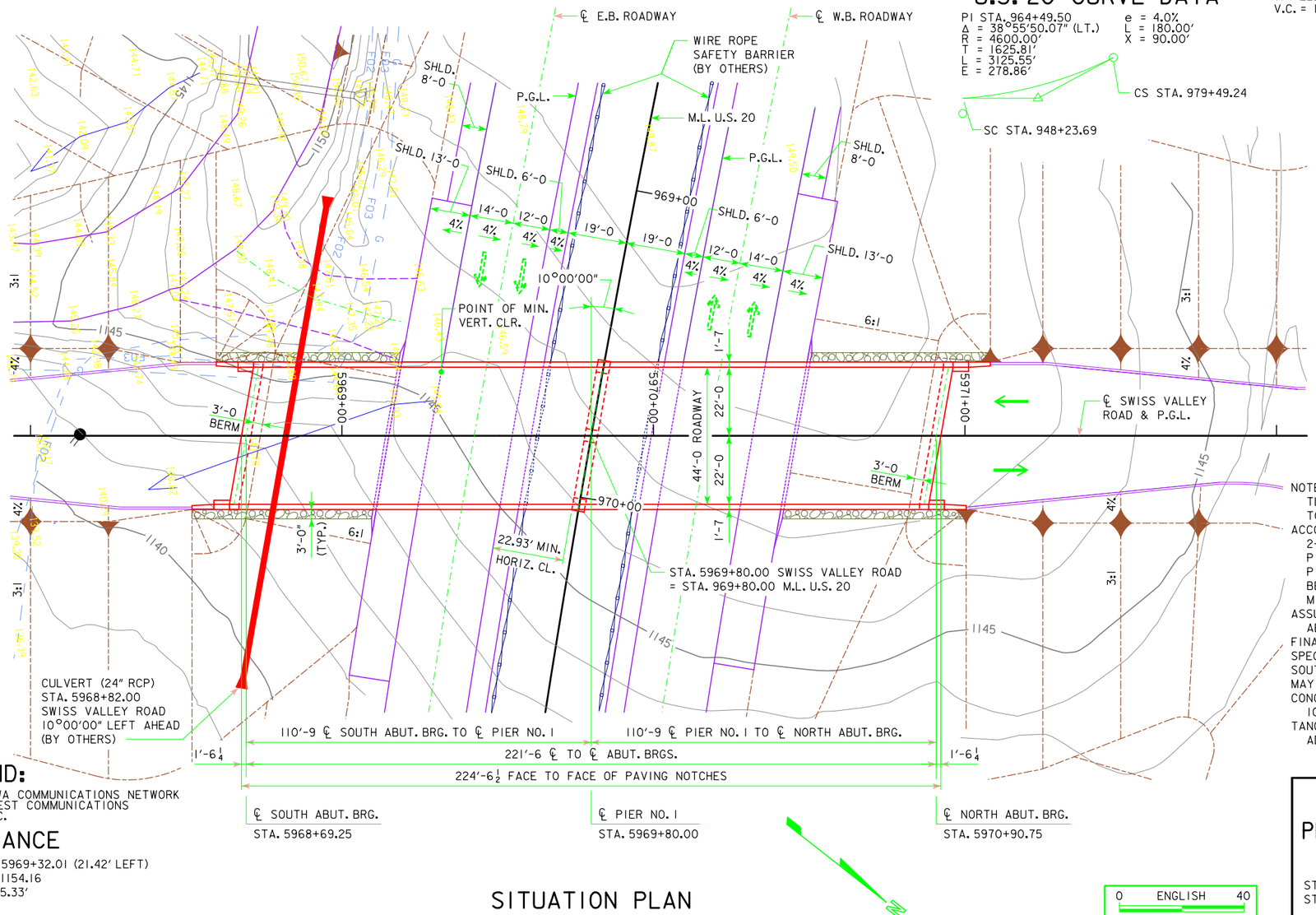
U.S. 20 CURVE DATA

PI STA. 964+49.50
Δ = 38°55'50.07" (LT.)
R = 4600.00'
T = 1625.81'
L = 3125.55'
E = 278.86'
e = 4.0%
L = 180.00'
X = 90.00'

SC STA. 948+23.69
CS STA. 979+49.24

TYPICAL APPROACH SECTION

℄ SWISS VALLEY ROAD & P.G.L.
VARIES 10'-0 MAX. 12'-0 MAX. 10'-0 VARIES
4.0% 2.0% 2.0% 2.0% 2.0% 4.0%
3:1 3:1



SITUATION PLAN

0 ENGLISH 40
SCALE IN FEET

UTILITIES LEGEND:

— FO2 — FIBER OPTIC - IOWA COMMUNICATIONS NETWORK
— FO3 — FIBER OPTIC - QWEST COMMUNICATIONS
— G — GAS - AQUILLA, INC.

MIN. VERT. CLEARANCE

OVERHEAD STATION = 5969+32.01 (21.42' LEFT)
OVERHEAD ELEVATION = 1154.16
DEPTH OF SUPERSTRUCTURE (SLAB, HAUNCH & BEAM) = 5.33'
UNDERPASS STATION = 969+67.38 (26.00' RIGHT)
UNDERPASS ELEVATION = 1132.13
MINMUM VERTICAL CLEARANCE = 16.70'

LOCATION

SWISS VALLEY ROAD OVER U.S. 20
T-88N R-1E
SECTION 13
VERNON TOWNSHIP
DUBUQUE COUNTY
FHWA NO. 700465
BRIDGE MAINT. NO.
LATITUDE 42.4410246°
LONGITUDE -90.7873406°

TRAFFIC ESTIMATE

2017 AADT	15,200	V.P.D.
2040 AADT	33,900	V.P.D.
2040 DHV	3,675	V.P.H.
TRUCKS	9	%
TOTAL DESIGN ESALs	N.A.	

NOTES:
TL-4 BRIDGE RAILING PROPOSED.
TOP OF BRIDGE DECK CROWN IS 0.03' BELOW PROFILE GRADE TO ACCOUNT FOR PARABOLIC CROWN.
2-SPAN GRADING SHOWN.
PIER TYPE - FRAME PIER WITH CRASH WALL.
PIER DESIGNED FOR VEHICULAR COLLISION FORCE.
BEAM TYPE - D BEAM
MINIMUM HORIZONTAL CLEARANCE TO PIER IS BASED ON AN ASSUMED PIER WIDTH OF 4 FEET.
AESTHETIC CONSIDERATIONS WILL BE INCORPORATED DURING FINAL DESIGN. COORDINATE FEATURES WITH BRIDGE AESTHETIC SPECIALIST TO REFLECT AESTHETIC THEME DEVELOPED FOR DUBUQUE SOUTHWEST ARTERIAL PROJECT. PIER, ABUTMENTS AND BARRIERS MAY BE AFFECTED BY AESTHETIC TREATMENTS INCLUDING SPECIAL CONCRETE SHAPES AND TEXTURES.
10° SKEW ANGLE AT PIER NO. 1 IS REFERENCED TO A LOCAL TANGENT ALONG M.L. U.S. 20.
ADD 1000 FEET TO ALL SPOT ELEVATIONS.

PRELIMINARY

DESIGN FOR 10°00'00" SKEW (L.A.)

221'-6 x 44' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

110'-9, 110'-9 SPANS

SITUATION PLAN

STA. 5969+80.00 (SWISS VALLEY ROAD)
STA. 969+80.00 (M.L. U.S. 20)

NOVEMBER, 2014

DUBUQUE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. 30069 DESIGN NO. 118

DESIGN TEAM HDR | DUBUQUE COUNTY | PROJECT NUMBER NHS-20-9(121)--19-31 | SHEET NUMBER V.1

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EXISTING TI
EXISTING TI
EXISTING FIBER OPTIC
EXISTING NORTH CASCADE ROAD
℄ EXISTING U.S. 20
EXISTING HIGLEY DRIVE
EXISTING 24"x44.3' CMP
EXISTING 24"x85.0' CMP
EXISTING SWISS VALLEY ROAD
RAMP B
℄ SOUTH ABUT. BRG. STA. 5968+69.25
M.L. U.S. 20
RAMP C
℄ SWISS VALLEY ROAD & P.G.L.
STA. 5969+80.00 SWISS VALLEY ROAD = STA.969+80.00 M.L. U.S. 20
℄ NORTH ABUT. BRG. STA. 5970+90.75
EXISTING TI
RAMP D
RAMP A
EXISTING GAS
EXISTING FIBER OPTIC
EXISTING FIBER OPTIC
EXISTING G-HP
EXISTING G-HP
PRELIMINARY

BERM SLOPE LOCATION TABLE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEVATION	STATION	OFFSET	ELEVATION
A1	5969+19.73	26.58' LT.	1131.68	5970+49.84	26.58' LT.	1129.90
A2	5969+10.48	26.58' RT.	1131.00	5970+40.33	26.58' RT.	1129.19
B1	5968+78.51	26.58' LT.	1147.25	5970+90.87	26.58' LT.	1145.77
B2	5968+69.13	26.58' RT.	1147.25	5970+81.49	26.58' RT.	1145.77
W1	5968+59.63	26.58' LT.	1154.02	5971+08.13	26.58' LT.	1152.33
W2	5968+51.87	26.58' RT.	1154.00	5971+00.37	26.58' RT.	1152.45

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE.

RECOVERABLE BERM LOCATION TABLE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEVATION	STATION	OFFSET	ELEVATION
B	5968+78.51	26.58' LT.	1147.25	5970+81.49	26.58' RT.	1145.77
C1	5969+39.41	129.39' LT.	1133.08	5970+24.14	126.98' RT.	1127.94
C2	5969+42.59	159.66' LT.	1133.38	5970+22.84	156.54' RT.	1127.46
C3	5969+56.73	187.59' LT.	1134.14	5970+10.84	184.60' RT.	1127.42

SITE PLAN

0 ENGLISH 60
SCALE IN FEET

DESIGN FOR 10°00'00" SKEW (L.A.)

221'-6 x 44' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

110'-9, 110'-9 SPANS

SITE PLAN

STA. 5969+80.00 (SWISS VALLEY ROAD)
STA. 969+80.00 (M.L. U.S. 20)

NOVEMBER, 2014

DUBUQUE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. 30069 DESIGN NO. 118

DESIGN TEAM HDR | DUBUQUE COUNTY | PROJECT NUMBER NHS-20-9(121)--19-31 | SHEET NUMBER V.2

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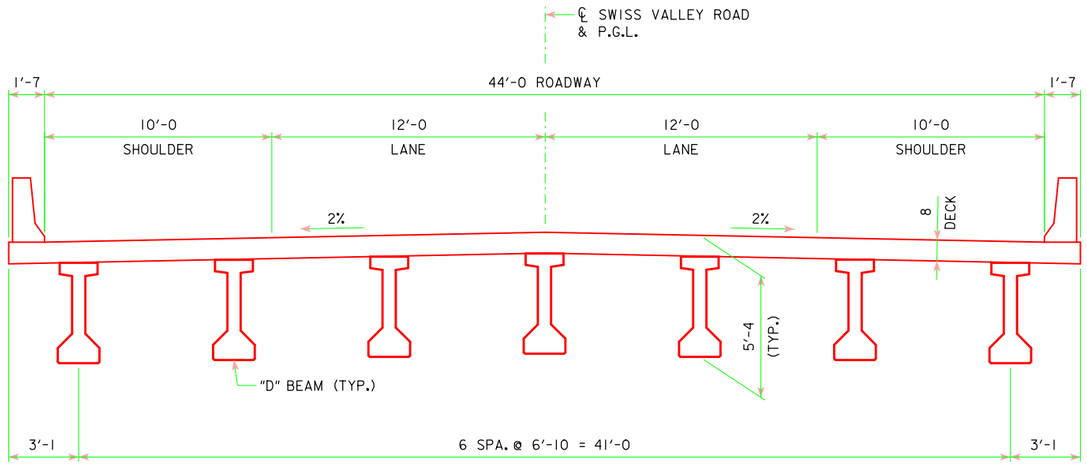

TYPICAL SECTION

PRELIMINARY

DESIGN FOR 10°00'00" SKEW (L.A.)

221'-6 x 44' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

110'-9, 110'-9 SPANS

SITUATION PLAN

STA. 5969+80.00 (SWISS VALLEY ROAD)
STA. 969+80.00 (M.L. U.S. 20)

NOVEMBER, 2014

DUBUQUE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. 30069 DESIGN NO. 118

DESIGN TEAM HDR	DUBUQUE COUNTY	PROJECT NUMBER NHS-20-9(121)--19-31	SHEET NUMBER V.3

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