GRADING
IMN-380-6(347)1--0E-52
JOHNSON Co.
LETTING DATE 07-18-2017

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

JOHNSON COUNTY

GRADING

N of US 6 north 0.5mi

SCALES: As Noted

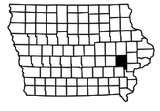
Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

REVISIONS

TOTAL 46
PROJECT IDENTIFICATION NUMBER
02-52-080-010
PROJECT NUMBER
IMN-380-6(347)1--0E-52
R.O.W. PROJECT NUMBER
IMN-080-6(236)239--0E-52

INDEX OF SHEETS



INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Jason M. Holst	Primary Signature Block
CE.1	Aaron D. Granquist	Erosion Control Signature Block
CS.1	Justin D. Humke	Soils Signature Block

ROADWAY DESIGN

LICENSED PROFESSIONAL ENGINEER
Jason M. Holst
16923
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: 03-31-2017

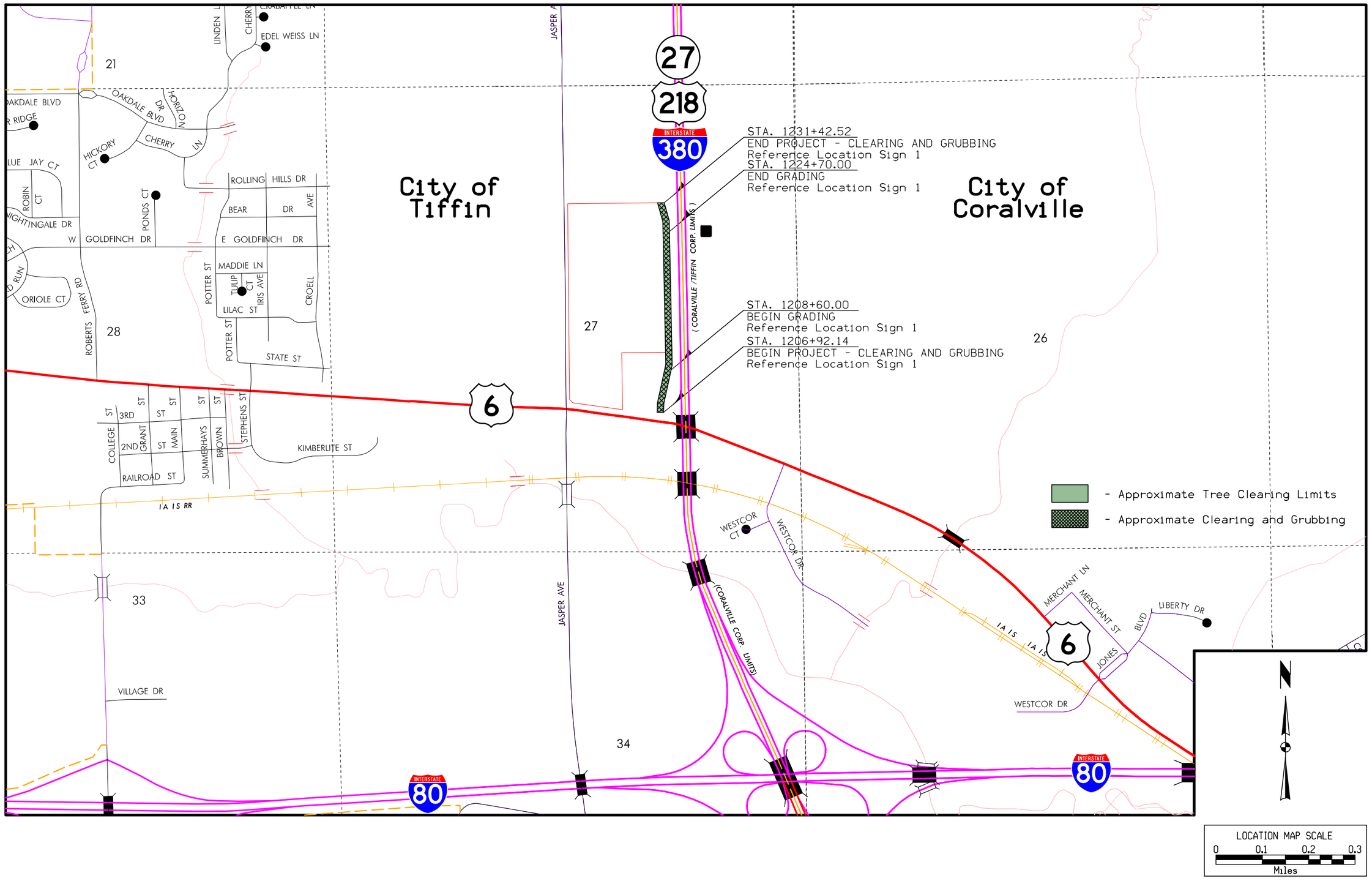
Jason M. Holst
Printed or Typed Name

My license renewal date is December 31, 2017

Pages or sheets covered by this seal: A.1, A.2, B.1, C.1, C.2, D.1, D.2, G.1-G.10, H.1, J.1, T.1A-T.1D, U.1, U.2, W.1 and W.2-W.7

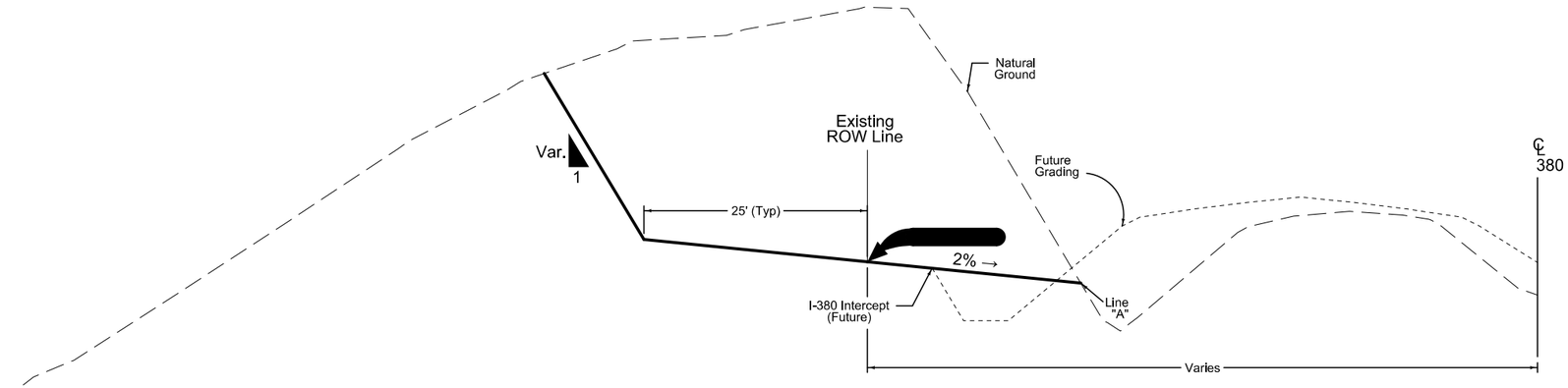
FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER A.1

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC



FILE NO.	ENGLISH	DESIGN TEAM	Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER	IMN-380-6(347)1--0E-52	SHEET NUMBER	A.2

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC



See plan & profile sheets and cross sections for additional details of ditches and backslopes.

GRADING TYPICAL

FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER B.1	

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

100-1D
10-18-05

PROJECT DESCRIPTION

This is an interim grading project along I-380 with the intent to establish the final groundline along the row line.

100-1A
07-15-97

ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2101-0850001	CLEARING AND GRUBBING	ACRE	7.4	
2	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	71,400.0	
3	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	12,600.0	
4	2519-1002072	FENCE, CHAIN LINK, 72 IN. HEIGHT	LF	2,230.0	
5	2519-2000010	FENCE, CHANNEL CROSSING, TYPE A	LF	50.0	
6	2519-2000020	FENCE, CHANNEL CROSSING, TYPE B	LF	270.0	
7	2519-3280000	FENCE, FIELD	LF	130.0	
8	2519-3300400	FIELD FENCE BRACE PANELS	EACH	4	
9	2528-8445110	TRAFFIC CONTROL	LS	1.00	
10	2528-8445113	FLAGGERS	EACH	See Proposal	
11	2533-4980005	MOBILIZATION	LS	1.00	
12	2601-2634100	MULCHING	ACRE	7.4	
13	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	7.4	
14	2602-0000020	SILT FENCE	LF	9,727.7	
15	2602-0000050	SILT BASINS	EACH	10	
16	2602-0000080	REMOVAL OF SILT BASINS	EACH	5	
17	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	972.7	
18	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE	LF	50.0	
19	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	
20	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2101-0850001	CLEARING AND GRUBBING
		Refer to Sheet D.2.
		Trees are not suitable bat habitat and can be cleared outside of the time frame specified in Spec 2101.01A.
		Item includes fence removal from Sta. 1207+22 to Sta. 1231+46 Lt.
-	-	-
2	2102-2710090	EXCAVATION, CLASS 10, WASTE
		- -
-	-	-
3	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD
		- -
-	-	-
4	2519-1002072	FENCE, CHAIN LINK, 72 IN. HEIGHT
		- -
-	-	-
5	2519-2000010	FENCE, CHANNEL CROSSING, TYPE A
		- -
-	-	-
6	2519-2000020	FENCE, CHANNEL CROSSING, TYPE B
		- -
-	-	-
7	2519-3280000	FENCE, FIELD
		- -
-	-	-
8	2519-3300400	FIELD FENCE BRACE PANELS
		- -
-	-	-

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
9	2528-8445110	TRAFFIC CONTROL
		Refer to Traffic Control Plan on Sheet J.1.
-	-	-
10	2528-8445113	FLAGGERS
		- -
-	-	-
11	2533-4980005	MOBILIZATION
		- -
-	-	-
12	2601-2634100	MULCHING
		Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes.
		Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Associations.
		Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre.
-	-	-
13	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING
		Item is included for disturbed areas.
		Seed and fertilize all disturbed areas according to Article 2601.03, C, 1, of the Standard Specifications.
-	-	-
14	2602-0000020	SILT FENCE
		Refer to Tab. 100-17.
		The tabulation includes estimated locations for placement of "Silt Fence" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
-	-	-
15	2602-0000050	SILT BASINS
		Refer to Tab. 100-14.
		The tabulation includes estimated locations for placement of "Silt Basins" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 100% additional quantity for field adjustment and maintenance.
-	-	-
16	2602-0000080	REMOVAL OF SILT BASINS
		- -
-	-	-
17	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK
		This item is included for clean-out and repair of the silt fence and silt fence for ditch checks during the grading project.
-	-	-
18	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE
		Refer to Design Detail on Sheet U.1.
-	-	-
19	2602-0010010	MOBILIZATIONS, EROSION CONTROL
		- -
-	-	-
20	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL
		- -
-	-	-

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
EC-201	10-18-16	Silt Fence
EW-403	04-18-17	Temporary Erosion Control Measures
MI-101	10-20-15	Fencing Layout
MI-102	10-20-15	Chain Link Fence Construction
MI-103	10-20-15	Deer Fence and Field Fence Construction
MI-104	10-20-15	Fence Construction at Channel Crossings, Flood Plains, and Minor Ground Depressions
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-213	04-17-12	Lane Closure with Flaggers

232-10
04-18-17

EMERALD ASH BORER

Any living, dead, cut or fallen material of the ash (Fraxinus spp.) including trees, nursery stock, logs, firewood, stumps, roots, branches, and composted or uncomposted ash chips can be freely moved within the yellow areas of the most recent Federal EAB Quarantine & Authorized Transit.

https://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/eab_quarantine_map.pdf.

Obtain appropriate Compliance Agreements from USDA APHIS PPQ prior to moving any of the above listed ash articles to areas outside the yellow zone on the map.

For questions, concerns, and general assistance, contact:

USDA APHIS PPQ, Iowa office, 515-414-3295

Or

Iowa Department of Agriculture & Land Stewardship
515-725-1470
Entomology@IowaAgriculture.gov

262-5
10-18-05

UTILITIES
(POINT 25 PROJECT)

This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.

100-7
10-16-12

FENCING

* Bid Item

Refer to MI-101, MI-102, MI-103, MI-104, 510-3, and 510-5

Location				Side	Chain Link				Deer				Field				Channel Crossing		Remarks
From		To			Fence		Gate				Gate				Gate				
Station	Offset	Station	Offset		Length*	Type	No.*	Type	Fence Length*	Brace Panels*	No.*	Type	Fence Length*	Brace Panels*	No.*	Type	Length*	Type	
					LF		EACH		LF	EACH	EACH		LF	EACH	EACH		LF		
1207+22.06	67.8	1207+50.78	153.1	LT									90.0	2					
1207+50.78	153.1	1207+66.74	200.5	LT													50.0	A	
1207+66.74	200.5	1207+78.18	234.4	LT									40.0	2					
1207+07.83	254.9	1208+99.86	199.0	LT	200.0	72 IN.													
1208+99.86	199.0	1211+00.22	199.0	LT	200.0	72 IN.													
1211+00.22	199.0	1214+00.19	229.0	LT	300.0	72 IN.													
1214+00.19	229.0	1215+00.03	224.0	LT	100.0	72 IN.													
1215+00.03	224.0	1217+39.85	167.3	LT	250.0	72 IN.													
1217+39.85	167.3	1218+09.68	162.4	LT	90.0	72 IN.													
1218+09.68	162.4	1218+69.53	158.2	LT													60.0	B	
1218+69.53	158.2	1220+00.18	149.0	LT	130.0	72 IN.													
1220+00.18	149.0	1223+00.14	179.0	LT	300.0	72 IN.													
1223+00.14	179.0	1225+00.11	149.0	LT	200.0	72 IN.													
1225+00.11	149.0	1226+10.03	153.4	LT	110.0	72 IN.													
1226+10.03	153.4	1226+69.98	155.8	LT													60.0	B	
1226+69.98	155.8	1227+09.95	157.4	LT	40.0	72 IN.													
1227+09.95	157.4	1228+59.83	163.4	LT													150.0	B	
1228+59.83	163.4	1230+00.29	169.0	LT	140.0	72 IN.													
1230+00.29	169.0	1231+46.30	256.1	LT	170.0	72 IN.													
																	50.0	A	
																	270.0	B	
		Total=			2230.0	72 IN.							130.0	4			320.0		

INTENTIONALLY LEFT BLANK
PLACE HOLDER FOR ERI AND QUANTITIES

LICENSED PROFESSIONAL ENGINEER
AARON D. GRANQUIST
17560
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.

AARON D. GRANQUIST, P.E. DATE
License Number: 17560
My license renewal date is DECEMBER 31, 2008
Pages or sheets covered by this seal:

PRELIMINARY

FILE NO.	ENGLISH	DESIGN TEAM HR GREEN, INC.	JOHNSON COUNTY	PROJECT NUMBER IMN-080-6(347)239--0E-52	SHEET NUMBER CE.01

4:15:32 PM 3/29/2017 tdosche \\hrgdmnas\data\40160001.01\CAD\Design\Letting_347\SHT_52080347CE.dgn

ROLLED EROSION CONTROL

100-22
3-10-2017

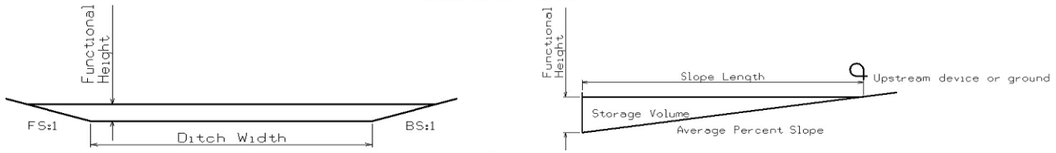
Refer to EC-101, EC-103 and EC-104

Basin No.	Location From Begin Station	Location From Offset	Location To End Station	Location To Offset	L FT	W FT	Number of Squares	Turf Reinforcement Mat (TRM) (EC-104) Type 1 Squares	Type 2 Squares	Type 3 Squares	Type 4 Squares	Slope Protection (EC-103) Squares	Special Ditch Control (EC-101) Squares	AREA (Sq. sf)
NW-2A	1206+94.00	-177.0	1213+06.00	-106.5									47	4687
NW-2A	1211+98.23	-235.9	1217+20.00	-223.0								229		22874
NW-2B	1219+10.00	-200.0	1224+62.40	-206.2								147		14714.7
NW-2C	1225+27.04	-103.0	1226+09.40	-134.0									4	397.9
NW-2C	1225+99.99	-109.9	1226+53.76	-199.9									7	674.4
NW-2C	1227+48.97	-141.2	1229+48.95	-110.2									10	955.9
													93	9297.68
						Totals:		0	0	0	0	376	160	

SILT FENCES FOR DITCH CHECKS

100-18
3-10-2017

Possible Standard: EC-201



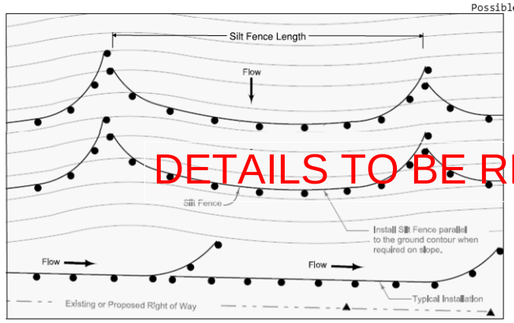
* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H²*FS+DW*H+0.5*H²*BS)]

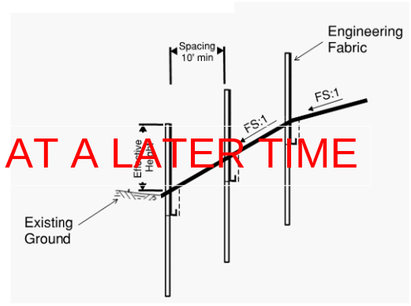
Basin No.	Location Station	Location Offset	Location To Station	Location Offset	Bid Items Installation LF	Bid Items Maintenance LF	Bid Items Removal LF	Stormwater Storage Volume Summary Foreslope FS:1	Backslope BS:1	Ditch Width FT	Avg. % Slope	Total Volume	Remarks
NW-2A	1206+93.72	-176.9	1206+94.59	-185.9	43.5	4.4	21.8	6.0	6.0	5.0	4.0%	350.7	
NW-2B	1218+33.35	-228.3	1218+42.16	-228.1	43.5	4.4	21.8	6.0	6.0	5.0	3.5%	394.6	
NW-2C	1225+27.37	-102.8	1225+30.22	-97.1	43.5	4.4	21.8	6.0	6.0	5.0	3.8%	350.7	
NW-2C	1226+46.85	-200.4	1226+53.81	-200.3	51.0	5.1	25.5	6.0	6.0	10.0	5.5%	363.8	
Totals:					181.5	18.2	90.8						

SILT FENCES FOR FORESLOPES

100-36
3-10-2017

Possible Standard: EC-201





* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Minimum transverse spacing = 10 feet
* Maximum length of silt fence is 200 feet, the last 20 feet will be flared up, therefor the maximum effective length of 160 feet was used for detention volume computations
* Silt fence shall be placed in the area between the permanent clear zone line and the line of intercept
* Volume equation: [0.5*(Spacing)*(Effective height of Silt Fence)*(Total Effective Length of Silt Fence)]

Basin No.	Location Station	Location Offset	Location To Station	Location Offset	Elevation Contour	Bid Items Installation LF	Bid Items Maintenance LF	Bid Items Removal LF	Length FT	Foreslope FS:1	Volume* CF	Remarks
NW-2A	1206+80.57	-123.5	1207+33.90	-174.6	685.00	172.5	17.3	86.3	75.0	6.0	477.3	
NW-2A	1207+23.00	-242.8	1207+33.59	-183.4	685.00	165.0	16.5	82.5	70.0	12.0	891.0	
NW-2A	1207+02.30	-115.3	1208+65.35	-166.0	692.00	315.0	31.5	157.5	170.0	4.0	721.3	
NW-2A	1208+64.35	-241.9	1208+68.70	-174.3	692.00	187.5	18.8	93.8	85.0	9.0	811.4	
NW-2A	1208+41.79	-114.8	1209+78.90	-155.5	701.00	270.0	27.0	135.0	140.0	6.0	891.0	
NW-2A	1209+69.00	-253.6	1209+77.70	-164.8	701.00	202.5	20.3	101.3	95.0	6.5	655.0	
NW-2A	1210+90.00	-273.5	1211+95.09	-137.5	710.00	487.5	48.8	243.8	245.0	6.5	1689.2	
NW-2A	1211+70.81	-108.6	1212+03.72	-128.8	710.00	112.5	11.3	56.3	35.0	20.0	742.5	
NW-2A	1211+47.20	-282.8	1213+98.21	-104.0	719.00	1290.0	129.0	645.0	700.0	14.0	10394.8	
NW-2A	1215+75.64	-232.1	1216+86.85	-99.7	726.00	315.0	31.5	157.5	170.0	25.0	4507.9	
NW-2A	1217+30.64	-250.7	1218+33.42	-194.3	726.00	240.0	24.0	120.0	120.0	15.0	1909.2	
NW-2B	1218+49.05	-135.2	1218+72.57	-221.8	729.00	187.5	18.8	93.8	85.0	10.0	901.6	
NW-2B	1219+31.00	-200.2	1219+85.39	-103.2	735.00	210.0	21.0	105.0	100.0	22.0	2333.5	
NW-2B	1222+14.39	-221.4	1225+22.18	-110.1	745.00	652.5	65.3	326.3	355.0	25.0	9413.7	
NW-2C	1225+53.72	-204.6	1226+08.78	-155.1	739.00	165.0	16.5	82.5	70.0	20.0	1485.0	
NW-2C	1226+07.55	-201.3	1226+40.09	-181.2	737.00	120.0	12.0	60.0	40.0	15.0	636.4	
NW-2C	1227+75.93	-152.6	1228+06.83	-201.7	737.00	210.0	21.0	105.0	100.0	20.0	2121.4	
NW-2C	1226+49.07	-174.8	1227+45.75	-201.4	739.00	142.5	14.3	71.3	55.0	25.0	1458.5	
NW-2C	1229+89.88	-205.9	1231+45.42	-114.1	753.00	420.0	42.0	210.0	200.0	4.0	848.6	
Totals:						5865.0	586.5	2932.5			42889.2	

STORMWATER DRAINAGE BASIN

100-34
3-10-2017

Basin No.	Station to Station		Chain	Side	Disturbed Area Acres	Discharge Point Station	Discharge Point Side	Required Storage Volume CF	Remarks
NW-2A	1206+84.00	1218+45.00	ML380	Lt	4.2	1206+95.07	-181.59	15264.0	
NW-2B	1218+45.00	1224+70.00	ML380	Lt	2.0	1218+38.63	-226.17	7272.0	
NW-2C	1224+70.00	1231+40.00	ML380	Lt	1.5	1226+50.95	-200.32	5472.0	
Totals:					7.8			28008.0	

SUMMARY OF STORMWATER STORAGE

100-35
3-10-2017

Refer to EC Standards and 570s Details.

Basin No.	Item	Total Storage Volume Provided CF	Total Storage Volume Required CF	Remarks
NW-2A	SILT FENCES FOR FORESLOPES	23690.6		
	SILT FENCES FOR DITCH CHECKS	350.7		
	Total =	24041.3	15264.0	
NW-2B	SILT FENCES FOR FORESLOPES	12648.8		
	SILT FENCES FOR DITCH CHECKS	394.6		
	Total =	13043.4	7272.0	
NW-2C	SILT FENCES FOR FORESLOPES	6549.8		
	SILT FENCES FOR DITCH CHECKS	714.5		
	Total =	7264.3	5472.0	
		88698.0	28008.0	

POLLUTION PREVENTION PLAN

110-12A
3-10-2017

This Data Entry Sheet fills Tab 110-12A effective 10-18-16

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed per plan revisions or by contract modification, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Signature authority on the Base PPP and NOI.

B. Contractor/Subcontractor:
1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. Affected contractors/subcontractors are anyone responsible for sediment or erosion controls or involved in land disturbing activities. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Submit an Erosion Control Implementation Plan (ECIP) according to Specifications Section 2602 and any additional plan notes.
3. Install and maintain appropriate controls.
4. Supervise and implement good housekeeping practices.
5. Conduct joint required inspections of the site with inspection staff.
6. Comply with training and certification requirements of Specifications Section 2602.
7. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.

C. RCE/Inspector:
1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
2. Maintain an up-to-date record that identifies contractors and subcontractors as co-permittees.
3. Make these plans available to the DNR upon their request.
4. Conduct joint required inspections of the site with the contractor/subcontractor.
5. Complete an inspection report after each inspection.
6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the reconstruction of I-80/I-380/US 218 corridor from just west of Ireland Ave. to Coralridge Ave. and from approximately 1.2 miles south of I-80 to 1.2 miles north of Forevergreen Road. This includes constructing the Forevergreen Interchange and improving Forevergreen Road.

B. This PPP covers approximately 529 acres with an estimated 529 acres being disturbed. The portion of the PPP covered by this contract has 7.8 acres disturbed.

C. The PPP is located in an area of 4 soil associations (Tama-Muscatine-Downs, Otley-Ladoga, Sparta-Chelsea, Fayette). The estimated weighted average runoff coefficient number for this PPP after completion will be 0.42.

D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
1. Drainage patterns – Plan and Profile sheets and Situation plans.
2. Proposed Slopes – Cross Sections.
3. Areas of Soil Disturbance – construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls – Tabulations on C sheets.
5. Locations of Non-structural Controls – Tabulations on C sheets.
6. Locations of Stabilization Practices – generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) – Project Location Map and Plan and Profile sheets.
8. Locations where storm water is discharged – Plan and Profile sheets.

E. The base site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries.

F. Runoff from this work will flow into Clear Creek and its tributaries.

III. CONTROLS

A. The contractor's ECIP specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.

B. Preserve vegetation in areas not needed for construction.

C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices

1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
2) Stabilization practices shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days.
4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation.
5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional information may be found in Tabulations in the C or T sheets of the plans or is referenced in Standard Specifications Section 2105.

b. Structural Practices

1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plans or are referenced in the Standard Road Plans Tabulation.

c. Storm Water Management

1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS

a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.
1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
7) Concrete Grooving/Grinding Slurry – Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
8) Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onside fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water.
9) Litter Management - Ensure employees properly dispose of litter.
10) Dewatering – Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. APPROVED STATE OR LOCAL PLANS
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identify corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection.

POLLUTION PREVENTION PLAN

110-12A
3-10-2017

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - May include Plan Revisions or Contract Modifications for new items, storm water monitoring inspection reports, and fieldbook entries made by the inspector.
C. IDR - Inspector's Daily Report – this contains the inspector's daily diary and bid item postings.
D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

CERTIFICATION STATEMENT

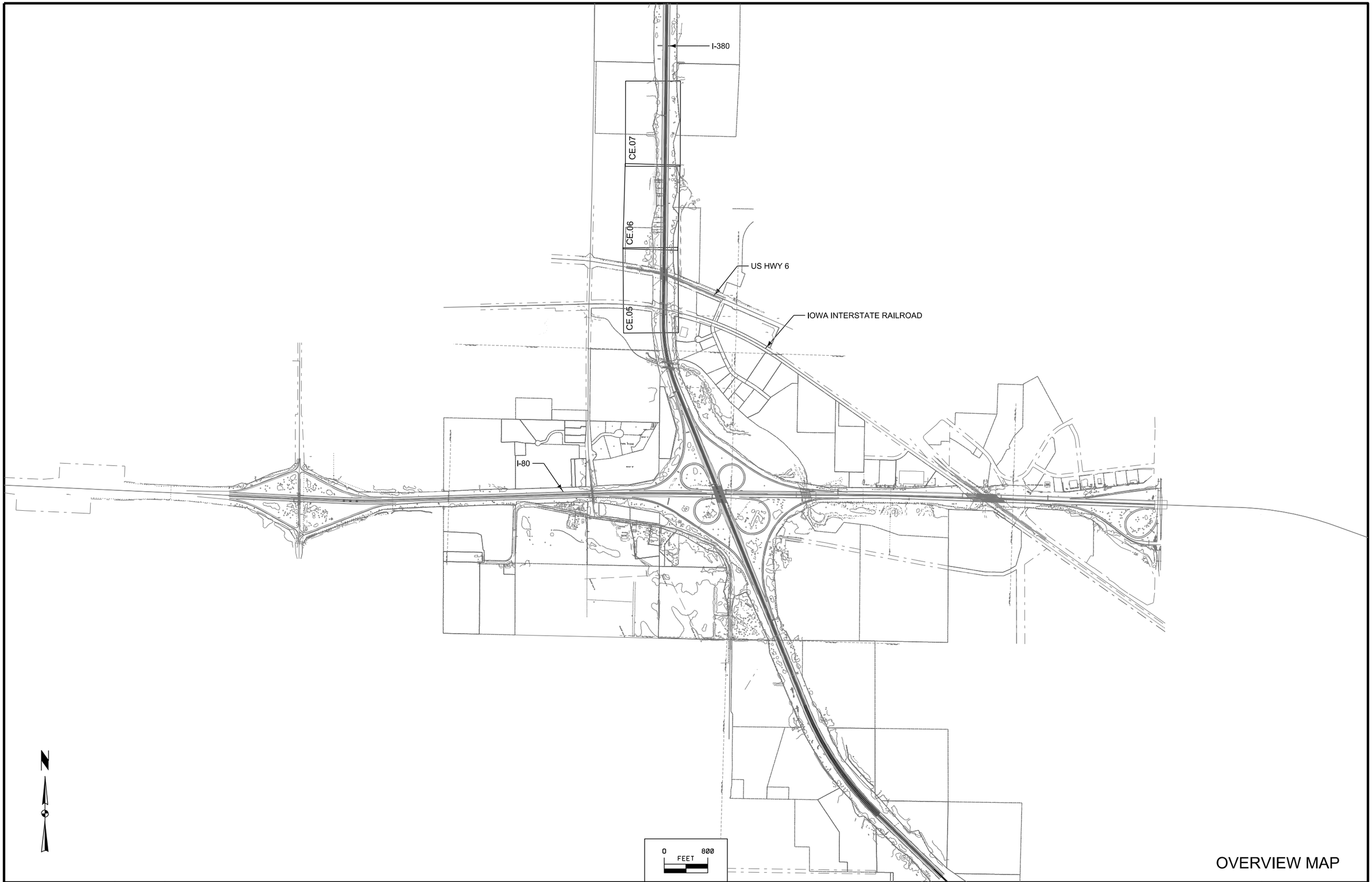
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____
Signature

_____
Printed or Typed Name

_____
Signature

_____
Printed or Typed Name



OVERVIEW MAP

FILE NO.	ENGLISH	DESIGN TEAM HR GREEN, INC.	JOHNSON COUNTY	PROJECT NUMBER IMN-080-6(347)239--0E-52	SHEET NUMBER CE.05	

4:15:43 PM 3/29/2017 tdosche \\hrgdmnas\data\40160001.01\CAD\Design\Letting_347\SHT_52080347CE.dgn

CLEARING AND GRUBBING AREA
SPECIAL DITCH CONTROL (EC-101)
SLOPE PROTECTION (EC-103)
SILT FENCE FOR FORESLOPE PROTECTION
SILT FENCE FOR DITCH CHECKS
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

IOWA INTERSTATE RAILROAD

US HIGHWAY 6

1200

1205

1210

I-380 SOUTH BOUND

I-380 NORTH BOUND

0 50 FEET

FILE NO.	ENGLISH	DESIGN TEAM HR GREEN, INC.	JOHNSON COUNTY	PROJECT NUMBER IMN-080-6(347)239--0E-52	SHEET NUMBER CE.06

4:15:47 PM 3/29/2017 tdosche \\hrgdmnas\data\40160001.01\CAD\Design\Letting_347\SHT_52080347CE.dgn

CLEARING AND GRUBBING AREA
SPECIAL DITCH CONTROL (EC-101)
SLOPE PROTECTION (EC-103)
SILT FENCE FOR FORESLOPE PROTECTION
SILT FENCE FOR DITCH CHECKS
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

N

NW-2A

NW-2B

I-380 SOUTH BOUND

I-380 NORTH BOUND

0 50
FEET

FILE NO.	ENGLISH	DESIGN TEAM HR GREEN, INC.	JOHNSON COUNTY	PROJECT NUMBER IMN-080-6(347)239--0E-52	SHEET NUMBER CE.07

4:15:49 PM 3/29/2017 tdosche \\hrgdmnas\data\40160001.01\CAD\Design\Letting_347\SHT_52080347CE.dgn

CLEARING AND GRUBBING AREA
SPECIAL DITCH CONTROL (EC-101)
SLOPE PROTECTION (EC-103)
SILT FENCE FOR FORESLOPE PROTECTION
SILT FENCE FOR DITCH CHECKS
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

NW-2C

1230

1235

1240

I-380 SOUTH BOUND

I-380 NORTH BOUND

SIGN

0 50 FEET

FILE NO.	ENGLISH	DESIGN TEAM HR GREEN, INC.	JOHNSON COUNTY	PROJECT NUMBER IMN-080-6(347)239--0E-52	SHEET NUMBER CE.08

4:15:51 PM 3/29/2017 tdosche \\hrgdmnas\data\40160001.01\CAD\Design\Letting_347\SHT_52080347CE.dgn

103-6
04-19-11

EMBANKMENT WITH MOISTURE CONTROL

Moisture content shall be within the limits of minus 2 and plus 2 percentage points of Optimum Moisture Content for maximum density within the area described and listed below.

Moisture Control is required for all Class 10 fill placed in all locations and depths. Stability berms placed outside the normal foreslope template and topsoil will not require moisture control.

Compaction with Moisture Control for Select Soil Treatment is incidental and will not be paid separately.

103-7
08-01-08

SHRINKAGE DATA

Material	%	Remarks
Class 10	30%	Shrinkage
Topsoil	40%	Shrinkage
Boulders		50 cubic yards

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

Justin D. Humke

Printed or Typed Name

My license renewal date is December 31, 20 17

Pages or sheets covered by this seal: CS.1, Q.1 - Q3.

SURVEY SYMBOLS

- TDC Tree Deciduous
- D Centerline Draw or Stream (Down)
- EG Edge of Gravel Road
- PPA Power Pole Co. 1
- BNK Stream Bank
- EW Edge of Water
- ENU Edge Unpaved Entrance & Parking
- TEV Evergeen Tree
- HDG Hedge Row
- SNP Unpaved Shoulder
- WM Wind Mill
- SI Sign
- TV Satelite TV Dish
- IN Storm Sewer Intake
- MH Utility Access (Manhole)
- LUM Luminaire
- LP Tank
- GP Guard Post (Less Than 4 Posts)
- SCR Section Corner
- DU Centerline Draw or Stream (Up)
- OUT Tile Outlet
- FW Wire Fence
- ROW Right of Way Rail
- DIK Centerline of Dike or Dam
- RIP Rip-Rap
- GDL Guard Rail Steel
- PR Electic Riser Pole
- INB Storm Sewer Beehive Intake
- LC Lot Corner
- PPB Power Pole Co. 2
- ENT Centerline BL of Entrance
- FHD Fire Hydrants
- RET Retaining Walls
- STP Stump
- WV Water Valve
- FCL Chain Link and Security Fence
- WEL Well
- TPA Telephone Pole Co. 1
- FWD Wood Fence
- RR Centerline of Railroad Tracks
- PPC Power Pole Co. 3
- BM Bench Mark
- C Centerline BL of Road (ML or SR)
- SLN Section Line
- BIN Grain Bin
- SI Sign
- TFR Tree Fruit
- SHR Shrub
- MM Mile Marker Post
- GP Guard Post (Less Than 4 Posts)
- FLG Flag Poles
- EB Electrical Box
- TPD Telephone Pedestal
- WHD Water Hydrant
- SL Speed Limit Sign
- SNK Sink Hole
- CIS Cistern
- SEP Septic Tank

UTILITY LEGEND

- LINN COUNTY REC
- ITC
- E1 – LINN COUNTY REC
- G – MIDAMERICAN
- G-HP – MIDAMERICAN
- FO – ICN
- F02 – SOUTH SLOPE COOP
- F04 – WINDSTREAM/PAETEC
- F05 – WINDSTREAM
- T1 – WINDSTREAM
- T2 – SOUTH SLOPE COOP

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

- Approximate Tree Clearing Limits
- Approximate Clearing and Grubbing

- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM	JOHNSON COUNTY	PROJECT NUMBER	SHEET NUMBER
		Holst \ Thede \ Prindle		IMN-380-6(347)1--0E-52	D.1

CLEAR CREEK TWP.
T-80N R-7W
SEC. 27

Sta. 11204+07.7
18" X 17.1' C.M.P.
24" X 156.3' C.M.P.
D.A. = Median Only
UAC

Sta. 51200+72.34 (US6A)
Sta. 11206+73.8, 502.3' Lt. (I380)
4' X 2' X 51.4' R.C.B.
D.A. = 42 Ac. - R
UAC

Sta. 51200+72.34 (US6A)
Sta. 11206+73.8, 502.3' Lt. (I380)
4' X 2' X 51.4' R.C.B.
D.A. = 42 Ac. - R

36" x 38.4'
C.M.P.
36" x 38.4'
C.M.P.
UAC

24" x 34.5'
C.M.P.
24" x 34.5'
C.M.P.
UAC

STA. 1208+60
BEGIN GRADING

Sta. 11204+07.7
18" X 17.1' C.M.P.
24" X 156.3' C.M.P.
D.A. = Median Only

I-380 Intercept
(Future)

STA. 1224+70
END GRADING

Line "A"

Line "A"

24" x 204.0'
Conc. Pipe
24" x 204.0'
Conc. Pipe
UAC

30" x 203.0'
Conc. Pipe
30" x 203.0'
Conc. Pipe
UAC

Sta. 11219+24.0
Skew 15° Rt. Ah.
24" X 64.8' Conc. Pipe
DA = 5 Ac. - R
UAC

Sta. 11218+75.1
24" X 170.7' Conc. Pipe
DA = Median Only
UAC

Sta. 1225+24.7
Skew 15° Lt. Ah.
30" X 194.7' Conc. Pipe
DA = 4 Ac. - R
UAC

0 100
FEET

VPI +00.0
Elv 720.7
VPI +20.0
Elv 720.0
VPI +50.0
Elv 725.0
VPI +60.0
Elv 731.0
VPI +42.0
Elv 742.1
VPI +90.6
Elv 746.0
VPI +69.0
Elv 746.5
VPI +70.000
Elv 746.50
692.5
745.5
+8.3%
-0.6%
+2.2%
+1.9%
+3.9%
+2.6%
+0.6%
+0.0%
-3.2%
Profile Grade Line
See Grading Typical

750
740
730
720
710
700
690

Lt
Rt

693.74 695.82 697.89 699.96 702.04 704.11 706.19 708.26 710.33 712.41 714.48 716.55 718.63 720.70 720.55 720.41 720.26 720.12 720.11 720.65 721.20 721.74 722.28 722.83 723.37 723.91 724.46 725.00 725.48 725.97 726.45 726.94 727.42 727.90 728.39 728.87 729.35 729.84 730.32 730.81 731.59 732.57 733.56 734.54 735.53 736.51 737.49 738.48 739.46 740.45 741.43 742.31 742.97 743.62 744.28 744.93 745.59 746.06 746.22 746.37 746.50 746.50 746.50 746.50 746.31 745.50

1205 1210 1215 1220 1225 1230

FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER D.2

2:14:45 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Grade\SHT_52080243_D02.dgn

General Information

The GPS Network along this project was collected by IDOT Preliminary Survey Crews. Information about that network can be found in the 0411gpspoints.doc file included with this survey in NAD83(1996) Project Coordinates.

This survey completes the Design DTM event of the "Can Do Process." Twelve section corners were found and included in this survey. None of the section corners coded as SCR in this survey have been certified by District 6 office. This survey was measured in English Units.

The mainline alignment of this survey is a retrace of the as-built plans # F -518-4(12) -20-52 1986 AB plans (centerline of median).

This survey intersects a 2000 Preliminary Survey along I-80. The 2000 survey data used Sap 0321. A revised GPS network was observed in 2002 for this project that includes all 2000 network control with approximately fourteen additional points added along the I-380 corridor north and south of I-80. The project control for this project is identical to the 2000 network control survey. Station equations to all as-built PI points are in the Horizontal datum information included below.

Vertical Datum

This survey is relative to NAVD88 vertical datum. Three wire bench level loops were run throughout this project. All bench loops originated and closed on one project benchmark #566 a 3rd order USGS mark called 26FDR 1964 682. Note the vertical datum difference between NGVD 88 and NAVD 29 is 0.10 feet in this area. The 29 datum is 0.10 higher than 88.

Vertical equations to the project datum Bench Marks and other benches along this survey are as follows:

BM	# 566	This survey	EL=682.046
= BM	# 566	Johnson County 2000 survey	EL=682.046
= USGS BM	# 26	26FDR 1964 682	EL=682.046
BM	# 625	This survey	El=685.519
= BM	# 14	1986 AB plan F-518-4(26)--20-52	EL=685.56
= BM	# 1	Paving plan I-IG-380-6(19)243--04-52	EL=685.56
BM	# 517	This survey	El=737.314
= BM	# 3	Paving plan I-IG-380-6(19)243--04-52	EL=737.37
BM	# 520	This survey	El=699.144
= BM	# 19	Paving plan I-IG-380-6(19)243--04-52	EL=699.26
BM	# 536	This survey	El=691.494
= BM	# 22	Paving plan I-IG-380-6(19)243--04-52	EL=691.61
BM	# 636	This survey	EL=691.493
= BM	# 521	2000 Carlson survey IMN-80-6(21)240--00-52 (88 Datum)	EL=691.493
= BM	# 22	Paving plan I-IG-380-6(19)243--04-52 (29 Datum)	EL=691.61
= BM	# 22	1986 AB Plan F-518-4(12)--20-52 (29 Datum)	EL=691.61
BM	# 608	This survey	EL=804.915
= BM	# 37	1986 AB Plan F-518-4(12)--20-52 (29 Datum)	EL=804.85
BM	# 582	This survey	EL=758.068
= BM	# 39	1986 AB Plan F-518-4(12)--20-52 (29 Datum)	EL=758.03
BM	# 502	This survey	EL=738.113
= BM	# 502	2000 Carlson survey IMN-80-6(21)240--00-52 (88 Datum)	EL=738.113
= BM	# 51A	I-80-6(12)238 Grading Plan (29 Datum)	EL=738.36
BM	# 512	This survey	EL=789.582
= BM	# 512	2000 Carlson survey\ IMN-80-6(21)240--00-52 (88 Datum)	EL=789.582
= BM	# 60A	I-80-6(12)238 Grading Plan (29 Datum)	EL=789.74
= BM	# 500	IM-80-6(171)240--13-52 Plan (29 Datum)	EL=789.96
BM	# 633	This survey	EL=684.211
= BM	# 21A	F-289(6) 1970 AB PLAN (Datum unknown)	EL=703.62
BM	# 634	This survey	EL=682.904
= BM	# 21B	F-289(6) 1970 AB PLAN (Datum unknown)	EL=702.26

Horizontal Datum

The mainline horizontal alignment for this survey is a retrace of the I-380 plans. Stationing for I-380 was backed up and carried forward from TS Sta 11183+81.20 on the as built plans. Two sets of I-380 plans were used on this project are as follows:

I-380 F-518-4(12)--20-52 As-Built I-380 Plans from south of I-80 to just North of I-80 and I.IG-380-6(19)243-04-52 AS-Built I-380 Plans from just south of I-80 to 1.5 miles North of Co. Rd. F-28

Equations are as follows:

BOP POT Sta.11082+95.29 this survey =
POT Sta. 1684+00.22 F-518-4(12)--20-52 As-Built Plans

CP Point 11097+51.08, 0.14 feet right this survey =
= PC Sta. 1698+56.76 F-518-4(12)--20-52 As-Built Plans Back
= PC Sta. 1698+60.00 F-518-4(12)--20-52 As-Built Plans Ahead

PI Sta. 11109+54.89 this survey =
PI Sta. 1710+60.76 F-518-4(12)--20-52 As-Built Plans

PI Sta.11127+45.33 this survey =
= POT Sta. 1127+45.33 IMN-80-6(211)240-0E-52 2000 Preliminary Survey
= POT Sta. 1728+54.9 F-518-4(12)--20-52 As-Built Plans Back
= POT Sta. 1127+44.85 F-518-4(12)--20-52 As-Built Plans Ahead

POT Sta.11163+54.20 This Survey I-380 Stationing (Not Set in Field)
= POT Sta. 644+59.06 This Survey I-80 Stationing

= POT Sta. 644+50.24 IM-80-6(167)240-13-52 Feb 1996 Grading Plan I-80 Stationing
= POT Sta. 638+56.24 F-518-4(12)--20-52 As-Built Plans I-80 Stationing
= POT Sta. 638+56.24 I-IG-380-6(19)243-04-52 As-Built Plans I-80 Stationing
= POT Sta. 1163+53.95 F-518-4(12)--20-52 As-Built Plans I-380 Stationing
= POT Sta. 1163+53.95 I-IG-380-6(19)243-04-52 As-Built Plans I-380 Stationing
= POT Sta. 644+59.06 IMN-80-6(211)240-0E-52 2000 Preliminary Survey I-80 Stationing

POT Sta. 11183+81.20 This survey
= TS Sta. 1183+81.20 F-518-4(12)--20-52 As-Built Plans
= TS Sta. 1183+81.20 I-IG-380-6(19)243-04-52 As-Built Plans
= TS Sta. 1183+81.20 IMN-80-6(211)240-0E-52 2000 Preliminary Survey

PI Sta. 11191+13.01 this survey =
PI Sta. 1191+12.08 I-IG-380-6(19)243-04-52 As-Built Plans

PI Sta. 11271+13.95 this survey =
PI Sta. 1271+13.52 I-IG-380-6(19)243-04-52 As-Built Plans

PI Sta. 11324+10.95 this survey =
PI Sta. 1324+11.21 I-IG-380-6(19)243-04-52 As-Built Plans

POT Sta. 11404+97.20 this survey =
PC Sta. 1404+96.91 I-IG-380-6(19)243-04-52 As-Built Plans

BENCHMARKS

					ELEVATION
No.	624	Sta.11111+94.255	79.87 Lt.	2-10OD NAILS IN WD.SI.POS------	714.060
No.	625	Sta.11118+31.923	151.22 Lt.	IHC BM INLET HDWL.TRIPLE 10 X 12 RCB BM#625 ELEV.= 685.519(E) THIS SURVEY =BM# 1 ELEV.= 685.56(E) F-518-4(12)--20-52 1986 AB PLAN----------	685.519
No.	626	Sta.11128+02.043	110.86 Rt.	CUT"X"NW.SIDE W.CONC.SIGN BASE----------	730.221
No.	516	Sta.11138+40.798	85.63 Rt.	CUT-X-CL-S-EDGE-EAST-CONC BASE OVERHEAD SIGN----------	741.143
No.	517	Sta.11149+45.044	108.49 Rt.	FD\X-NW-BOLT-LIGHT-POLE = BM 3 ELEV. = 737.37 PAVING PLANS PROJECT NO. I-IG-380-6(19)243--04-52-------	737.314
No.	518	Sta.11161+33.669	75.84 Rt.	FD\IHC-BM-SE-WING-N-BOUND I-380 BRIDGE OVER I-80---------	746.360
No.	515	Sta.11163+24.440	152.20 Lt.	CUT-X-S-SIDE-OF-THE-SOUTH CONC BASE OVERHEAD SIGN--------	717.715
No.	519	Sta.11165+48.102	77.23 Lt.	FD\IHC-BM-NW-WING-S-BOUND I-380 BRIDGE OVER I-80---------	737.910
No.	520	Sta.11176+43.987	109.01 Lt.	FD\X-E-BOLT-LIGHT-POLE BASE = BM 19 ELEV = 699.26 PAVING PLANS PROJECT NO. I-IG-380-6(19)243--04-52 NO.----------	699.144
No.	567	Sta.11187+84.421	65.27 Rt.	FD\IHC BM SE WING N.BOUND I-380 BRIDGE OVER CLEAR CREEK----------	690.972
No.	636	Sta.11188+16.120	22.87 Rt.	FD\IHC-BM-SW-WING-N-BOUND I-380 BRIDGE OVER CLEAR CREEK = BM 22 ELEV. = 691.61 PAVING PLANS PROJECT NO. I-IG-380-6(19)243--04-52-------	691.494
No.	521	Sta.11188+16.200	22.77 Rt.	FD.IHC SW.WING NB.BRIDGE I-380 OVER CLEAR CREEK BM#521 ELEV.= 691.493(E) THIS SURVEY =BM#521 ELEV.= 691.493(E) IMN-80-6(21)240--00-52 2000 W.CARLSON SURVEY =BM#22 ELEV.= 691.61(E) F-518-4(12)--20-52 1986 AB PLAN----------	691.493
No.	568	Sta.11188+39.041	64.91 Lt.	FD\IHC BM SW WING S.BOUND I-380 BRIDGE OVER CLEAR CREEK----------	695.024
No.	569	Sta.11189+63.986	64.82 Rt.	FD.DOT BUTTON NE.WING BR.------	694.617
No.	570	Sta.11198+34.501	65.02 Rt.	FD.DOT BUTTON SE.WING BR.------	714.922
No.	632	Sta.11199+30.780	142.78 Lt.	CUT"X"N.SIDE 48"CONC.P.PO -LE BASE S.RR.TRACKS JUST W. 380 OVERPASS----------	680.741
No.	572	Sta.11200+25.396	23.34 Lt.	CUT"X"NE.WING SB.BRIDGE--------	716.012
No.	571	Sta.11200+34.418	65.35 Lt.	CUT"X"NW.WING SB.BRIDGE--------	715.783
No.	573	Sta.11204+64.485	22.95 Lt.	CUT"X" SE.WING SB.BR.HWY6------	713.595
No.	574	Sta.11204+75.377	65.13 Lt.	FD.DOT BUTTON SW.WING BR.------	713.436
No.	575	Sta.11206+88.793	64.63 Rt.	FD.DOT BUTTON NE.WING BR.------	712.079
No.	627	Sta.11206+90.470	216.20 Lt.	SET RR.SPK.S.SIDE P.POLE N.SIDE HWY 6,JUST W.OF 380 OVERPASS----------	685.435
No.	576	Sta.11218+97.892	85.21 Rt.	CUT"X"INLET 24" RCP E.SID------	732.351
No.	577	Sta.11235+00.075	16.06 Lt.	CUT"X"E.SIDE OVERHEAD SGN------	752.765
No.	578	Sta.11248+47.438	194.26 Rt.	SET 60D NAIL WD.FENCE POS------	745.111
No.	579	Sta.11261+23.666	152.27 Rt.	SET 60D NAIL WD.FENCE POS------	783.326

DETAILS OF REFERENCE INFORMATION

All References Plumb Distances
(unless otherwise noted)

No.	608	Sta.11270+93.677	134.86 Rt.	FD.IHC SE.COR.WHLGD.BRIDG BM#608 ELEV.= 804.915(E) THIS SURVEY =BM#37 ELEV.= 804.85(E) F-518-4(12)--20-52 1986 AB PLAN---------- 804.915
No.	607	Sta.11271+31.826	130.49 Lt.	CUT"X"NW.COR.WHLGD.BRIDGE------ 804.763
No.	580	Sta.11272+23.924	148.34 Rt.	SET RR.SPK.W.SIDE FE.POST------ 779.049
No.	581	Sta.11287+68.335	98.68 Rt.	CUT"X"INLET 42"RCP S.10F2------ 764.010
No.	582	Sta.11303+75.126	105.25 Rt.	FD.IHC INLET HDWL.TWIN8X8 BM#582 ELEV.= 758.068(E) THIS SURVEY =BM#39 ELEV.= 758.03(E) F-518-4(12)--20-52 1986 AB PLAN---------- 758.068
No.	583	Sta.11319+99.239	100.54 Rt.	CUT"X"NW.W.CONC.SIGN BASE------ 767.172
No.	606	Sta.11324+44.101	150.98 Lt.	SET RR.SPK.SE.SIDE P.POLE------ 780.252
No.	584	Sta.11332+00.705	107.52 Rt.	CUT"X"E.SIDEW.CONC.SGN.BA------ 775.672
No.	585	Sta.11343+50.252	109.94 Rt.	CUT"X"NE.SIDEW.CONC.SGN.B------ 788.481
No.	586	Sta.11356+00.495	116.53 Rt.	CUT"X"W.SIDEW.CONC.SGN.BA------ 795.758
No.	587	Sta.11375+75.327	149.09 Rt.	SET RR.SPK.W.SIDE P.POLE------ 798.873
No.	592	Sta.11377+19.336	135.71 Lt.	CUT"X"SW.WING CO.RD.F28 B------ 816.985
No.	593	Sta.11377+53.473	133.56 Rt.	FD.DOT BUTTON NE.WING BR.------ 817.034
No.	588	Sta.11389+34.201	160.47 Rt.	SET RR.SPK.W.SIDE FE.POST------ 789.830
No.	589	Sta.11403+67.224	180.83 Rt.	SET RR.SPK.NW.SIDE P.POLE------ 762.153
No.	500	Sta. 524+24.824	275.01 Rt.	CUT-X-NW-CORNER-CONC-SLAB OF THE EAST MOST HISTORICAL MONUMENT---------- 725.532
No.	501	Sta. 541+26.761	95.72 Rt.	FD\IHC-BM-ON-INLET-HDWL 6.0 X 6.0 RCB---------- 716.211
No.	502	Sta. 557+55.028	100.54 Lt.	FD\IHC-BM-ON-INLET-HDWL 4.0 X 4.0 RCB = BM 51A ELEV = 738.36 GRADING PLANS PROJECT NO. I-80-6(12)238---------- 738.113
No.	503	Sta. 567+54.008	112.27 Rt.	FD\IHC-BM-SE-WING-BRIDGE = BM 51C ELEV = 768.83 GRADING PLANS PROJECT NO. I-80-6(12)238---------- 768.519
No.	505	Sta. 572+43.123	232.39 Lt.	FD\IHC-BM-ON-INLET-HDWL 5.0 X 5.0 RCB = BM 56B ELEV = 736.39 GRADING PLANS PROJECT NO. I-80-6(12)238---------- 736.150
No.	506	Sta. 576+04.565	174.78 Lt.	FD\IHC-BM-ON-OUTLET-HDWL 42" CIR RCB W\ FLUME = BM 56A ELEV = 736.54 GRADING PLANS PROJECT NO. I-80-6(12)238---------- 736.266
No.	507	Sta. 582+71.852	157.29 Rt.	SET\RR-SPK-N-SIDE-FE-POST------ 741.725
No.	508	Sta. 593+92.172	141.09 Lt.	SET\RR-SPK-S-SIDE-P-POLE------- 741.525
No.	509	Sta. 607+05.870	79.46 Rt.	FD\IHC-BM-ON-INLET-HDWL 5.0 X 5.0 RCB = BM 58A ELEV = 738.31 GRADING PLANS PROJECT NO. I-80-6(12)238---------- 738.221
No.	511	Sta. 620+62.574	65.33 Rt.	FD\X-SOUTH-CONC-BASE-OF OVERHEAD SIGN= BM # 501 PROJECT NUMBER IM-80-6(171)240--13-52 ELEVATION=768.539---------- 768.176
No.	512	Sta. 621+03.405	106.71 Lt.	FD\IHC-BM-NW-WING-BRIDGE = BM 60A ELEV = 789.74 GRADING PLANS PROJECT NO.I-80-6(12)238=BM # 500 PROJECT NUMBER IM-80-6(171)240--13-52 ELEVATION=789.96---------- 789.582
No.	514	Sta. 628+04.839	138.29 Rt.	FD-X-NORTH-SIDE-CONC-BASE LIGHT POLE = BM # 502 PROJECT NUMBER IM-80-6(171)240--13-52 ELEVATION=759.83---------- 759.429
No.	519	Sta. 643+13.570	149.65 Lt.	FD\IHC-BM-NW-WING-S-BOUND I-380 BRIDGE OVER I-80--------- 737.910
No.	515	Sta. 643+29.799	85.69 Rt.	CUT-X-S-SIDE-OF-THE-SOUTH CONC BASE OVERHEAD SIGN-------- 717.715
No.	518	Sta. 646+13.448	174.79 Rt.	FD\IHC-BM-SE-WING-N-BOUND I-380 BRIDGE OVER I-80--------- 746.360
No.	522	Sta. 659+46.078	96.58 Lt.	FD\IHC-BM-SW-WING-RAMP BRG FROM I-80 W.BOUND TO I-380 N.BOUND------------------ 683.510
No.	523	Sta. 661+62.644	113.94 Rt.	FD\X-CONC-WHEELGUARD-SE END OF RAMP BRIDGE FROM I-380 N.BOUND TO I-80 EAST BOUND---------- 678.334
No.	524	Sta. 678+73.492	137.92 Rt.	SET\RR-SPK-N-SIDE-WOOD FENCE POST---------- 668.615
No.	622	Sta.20572+00.606	33.65 Rt.	SET RR.SPK.SW.SIDE P.POLE------ 764.688
No.	621	Sta.20578+73.257	31.20 Rt.	SET RR.SPK..W.SIDE P.POLE------ 763.973
No.	620	Sta.20591+97.150	53.93 Rt.	SET RR.SPK.SW.SIDE FE.PST------ 740.677
No.	619	Sta.20602+54.671	63.25 Lt.	SET RR.SPK.N.SIDE P.POLE------- 786.486
No.	513	Sta.20608+06.706	35.16 Lt.	SET\RR-SPK-N-SIDE-P-POLE------- 799.211
No.	510	Sta.20622+90.521	33.39 Lt.	FD\RR-SPK-E-SIDE-P-POLE-------- 759.074
No.	511	Sta.30620+64.760	67.37 Lt.	FD\X-SOUTH-CONC-BASE-OF OVERHEAD SIGN= BM # 501 PROJECT NUMBER IM-80-6(171)240--13-52 ELEVATION=768.539---------- 768.176
No.	512	Sta.30622+33.605	14.88 Lt.	FD\IHC-BM-NW-WING-BRIDGE = BM 60A ELEV = 789.74 GRADING PLANS PROJECT NO.I-80-6(12)238=BM # 500 PROJECT NUMBER IM-80-6(171)240--13-52 ELEVATION=789.96---------- 789.582
No.	617	Sta.30634+79.709	15.80 Rt.	SET RR.SPK.W.SIDE TEL.POL ON JASPER AVE.----------------- 778.994
No.	616	Sta.30639+48.147	43.04 Rt.	SET RR.SPK.W.SIDE P.POLE ON JASPER AVE.----------------- 758.301
No.	615	Sta.30653+45.242	17.13 Rt.	FD.SQ.SE.COR.HNDRL.BRIDGE OVER CLEAR CREEK,JASPER A------ 686.896
No.	614	Sta.30655+23.641	16.15 Lt.	CUT"X"NW.COR.HNDRL.BRG.OV ER CLEAR CREEK ON JASPER AVE. JUST S.RR.TRACKS---------- 687.721
No.	633	Sta.30664+43.666	29.41 Rt.	FD.IHC INLET HDWL 4X2 RCB BM# 633 ELEV.= 684.221(E) THIS SURVEY =BM#21A ELEV.=703.62 F-289(6) 1970 AB PLAN---------- 684.221
No.	596	Sta.30677+73.777	27.86 Lt.	SET RR.SPK.E.SIDE P.POLE------- 717.410
No.	597	Sta.30686+97.621	16.19 Rt.	FD.BOLT INLET HDWL.8X6RCB------ 709.220
No.	598	Sta.30698+38.006	33.23 Lt.	SET RR.SPK.W.SIDE P.POLE------- 733.159
No.	599	Sta.30711+77.883	32.92 Lt.	SET RR.SPK.W.SIDE P.POLE------- 780.071
No.	600	Sta.30719+26.238	33.12 Lt.	SET RR.SPK.W.SIDE P.POLE------- 808.144
No.	601	Sta.30728+10.453	42.91 Rt.	SET RR.SPK.SW.SIDE P.POLE------ 797.156
No.	602	Sta.30740+44.218	32.72 Rt.	SET RR.SPK.W.SIDE GATEPOS------ 760.080
No.	603	Sta.30753+47.152	26.22 Rt.	SET RR.SPK.W.SIDE P.POLE------- 757.608
No.	604	Sta.30766+58.868	30.99 Rt.	SET RR.SPK.W.SIDE P.POLE------- 768.523
No.	632	Sta.41197+93.824	27.47 Rt.	CUT"X"N.SIDE 48"CONC.P.PO -LE BASE S.RR.TRACKS JUST W. 380 OVERPASS---------- 680.741
No.	571	Sta.41198+53.244	87.28 Lt.	CUT"X"NW.WING SB.BRIDGE-------- 715.783
No.	572	Sta.41198+95.539	85.52 Lt.	CUT"X"NE.WING SB.BRIDGE-------- 716.012
No.	570	Sta.41200+17.490	85.89 Rt.	FD.DOT BUTTON SE.WING BR.------ 714.922
No.	631	Sta.41210+26.902	27.22 Rt.	CUT"X"N.SIDE 48"CONC.P.PO -LE BASE,OVERHEAD POWER LINE,S.RR.TRACKS,JUST W. FS FEEDS BUILDING---------- 684.629
No.	630	Sta.41219+67.035	28.89 Rt.	CUT"X"N.SIDE 48"CONC.P.PO -LE BASE S.RR.TRACKS E. END FS FEEDS FENCE---------- 688.824
No.	633	Sta.51192+29.509	33.19 Lt.	FD.IHC INLET HDWL 4X2 RCB BM# 633 ELEV.= 684.221(E) THIS SURVEY =BM#21A ELEV.=703.62 F-289(6) 1970 AB PLAN---------- 684.221
No.	634	Sta.51200+72.371	24.25 Lt.	FD.IHC INLET HDWL 4X2 RCB BM# 634 ELEV.= 682.904(E) THIS SURVEY =BM#21B ELEV.=702.26 F-289(6) 1970 AB PLAN---------- 682.904
No.	627	Sta.51203+52.358	60.83 Lt.	SET RR.SPK.S.SIDE P.POLE N.SIDE HWY 6,JUST W.OF 380 OVERPASS------------------ 685.435
No.	574	Sta.51205+48.360	121.48 Rt.	FD.DOT BUTTON SW.WING BR.------ 713.436
No.	573	Sta.51205+96.470	120.17 Rt.	CUT"X" SE.WING SB.BR.HWY6------ 713.595
No.	575	Sta.51206+11.957	120.14 Lt.	FD.DOT BUTTON NE.WING BR.------ 712.079
No.	628	Sta.51220+41.072	38.97 Rt.	FD.DOT BUTTON OUTLET HDWL 12.0 X 6.0 RCB,S.SIDE RD.------ 692.107
No.	601	Sta.61258+19.677	73.21 Lt.	SET RR.SPK.SW.SIDE P.POLE------ 797.156
No.	607	Sta.61269+81.203	16.29 Lt.	CUT"X"NW.COR.WHLGD.BRIDGE------ 804.763
No.	608	Sta.61272+47.430	15.13 Rt.	FD.IHC SE.COR.WHLGD.BRIDG BM#608 ELEV.= 804.915(E) THIS SURVEY =BM#37 ELEV.= 804.85(E) F-518-4(12)--20-52 1986 AB PLAN---------- 804.915
No.	580	Sta.61272+57.419	115.97 Lt.	SET RR.SPK.W.SIDE FE.POST------ 779.049
No.	609	Sta.71285+24.573	36.52 Lt.	SET RR.SPK.W.SIDE P.POLE------- 782.709
No.	610	Sta.71300+33.158	43.78 Rt.	SET RR.SPK.E.SIDE P.POLE------- 777.704
No.	611	Sta.71313+91.962	33.55 Lt.	SET RR.SPK.W.SIDE P.POLE------- 794.997
No.	612	Sta.71324+43.867	33.77 Lt.	SET RR.SPK.E.SIDE P.POLE------- 777.635
No.	605	Sta.81312+32.522	26.41 Lt.	SET RR.SPK.S.SIDE P.POLE------- 778.045
No.	606	Sta.81322+59.298	30.49 Lt.	SET RR.SPK.SE.SIDE P.POLE------ 780.252
No.	613	Sta.81339+01.184	31.48 Lt.	SET RR.SPK.S.SIDE P.POLE------- 764.142
No.	590	Sta.91359+26.297	34.25 Rt.	ARROWHEAD ON SW.SIDE FHD------- 788.696
No.	591	Sta.91365+45.283	23.04 Rt.	ARROWHEAD ON NE.SIDE FHD------- 792.288
No.	592	Sta.91376+00.766	16.91 Rt.	CUT"X"SW.WING CO.RD.F28 B------ 816.985
No.	593	Sta.91378+70.104	16.70 Lt.	FD.DOT BUTTON NE.WING BR.------ 817.034
No.	587	Sta.91378+85.282	161.48 Rt.	SET RR.SPK.W.SIDE P.POLE------- 798.873
No.	594	Sta.91393+35.495	28.53 Rt.	ARROWHEAD ON W.SIDE FHD-------- 788.677
No.	595	Sta.91400+06.045	28.37 Rt.	ARROWHEAD ON W.SIDE FHD.------- 785.191

MISCELLANEOUS LOCATIONS

No.	43	**********	GPS# 043-GPS ZC= 751.45 ADJUSTED LOCAL PROJECT PLANE COORDINATES ELEVATION IS ESTIMATED GPS DERIVED ORTHO HEIGHT------- 751.478
No.	44	**********	GPS# 044 -GPS ZC= 783.95 ADJUSTED LOCAL PROJECT PLANE COORDINATES ELEVATION IS ESTIMATED GPS DERIVED ORTHO HEIGHT------- 783.937
No.	45	**********	GPS# 045 -GPS ZC= 767.37 ADJUSTED LOCAL PROJECT PLANE COORDINATES ELEVATION IS ESTIMATED GPS DERIVED ORTHO HEIGHT------- 767.378
No.	46	**********	GPS# 046 -GPS ZC= 777.31 ADJUSTED LOCAL PROJECT PLANE COORDINATES ELEVATION IS ESTIMATED GPS DERIVED ORTHO HEIGHT------- 777.325
No.	47	**********	GPS# 047 -GPS ZC= 798.04 ADJUSTED LOCAL PROJECT PLANE COORDINATES ELEVATION IS ESTIMATED GPS DERIVED ORTHO HEIGHT------- 798.026
No.	51	**********	GPS# 051 -GPS ZC= 764.45 ADJUSTED LOCAL PROJECT PLANE COORDINATES ELEVATION IS ESTIMATED GPS DERIVED ORTHO HEIGHT------- 764.528
No.	566	**********	FD USGS DISK OUTLET HDWL 4.0 X 2.0 RCB NAVD 88 EL=682.046---------- 682.046

DETAILS OF REFERENCE INFORMATION

All References Plumb Distances
(unless otherwise noted)

No. 48 ********** GPS# 048-GPS ZC= 786.78
ADJUSTED LOCAL PROJECT
PLANE COORDINATES
ELEVATION IS ESTIMATED
GPS DERIVED ORTHO HEIGHT------- 786.758
No. 49 ********** GPS# 049 -GPS ZC= 813.21
ADJUSTED LOCAL PROJECT
PLANE COORDINATES
ELEVATION IS ESTIMATED
GPS DERIVED ORTHO HEIGHT------- 813.212
No. 50 ********** GPS# 050-GPS ZC= 784.71
ADJUSTED LOCAL PROJECT
PLANE COORDINATES
ELEVATION IS ESTIMATED
GPS DERIVED ORTHO HEIGHT------- 784.725
No. 629 ********** SET RR.SPK.SW.SIDE L.POLE
IN ENT.TO FS FEEDS------------ 702.775
No. 623 ********** FD.BOLT SW.COR.HDWL.TWIN
12 X 12 RCB------------------- 688.940
No. 38 ********** GPS# 038 -GPS ZC= 717.88
ADJUSTED LOCAL PROJECT
PLANE COORDINATES
ELEVATION IS ESTIMATED
GPS DERIVED ORTHO HEIGHT
GPS POINT G038---------------- 717.875
No. 39 ********** GPS POINT G039
GPS# 39 -GPS ZC= 733.36
ADJUSTED LOCAL PROJECT
PLANE COORDINATES
ELEVATION IS ESTIMATED
GPS DERIVED ORTHO HEIGHT------- 733.310
No. 635 ********** SET RR SPK N. SIDE P.POLE
AT ENT TO 911 # 3050
ON N. SIDE 355 ST. S.W.-------- 775.965
No. 504 ********** FD\IHC-BM-ON-INLET-HDWL
6.0 X 4.0 RCB
= BM 51B ELEV = 760.19
GRADING PLANS PROJECT
NO. I-80-6(12)238------------- 759.878
No. 11 ********** GPS-POINT-G011
FENO MONUMENT
ORTHO ELVATION =722.71--------- 722.698
No. 13 ********** GPS-POINT-G013
ORTHO ELEVATION=709.82
FD\ REBAR---------------------- 709.794
No. 525 ********** FD\IHC-BM-SW-WING-I-80
E.BOUND BR. OVER HWY 6--------- 713.964
No. 1095 ********** TARGET-#-1095------------------ 679.243
No. 526 ********** FD\IHC-BM-ON-INLET-HDWL
8.0 X 8.0 RCB
= BM 115B ELEV. = 678.77
PCC PAVING PROJECT PLANS
NO. I-IG-80-6(5)245----------- 678.693

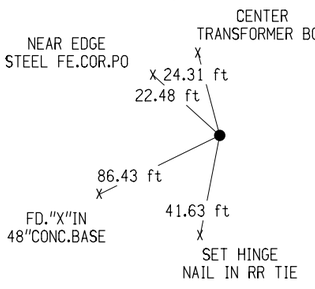
DETAILS OF REFERENCE INFORMATION

All References Plumb Distances
(unless otherwise noted)

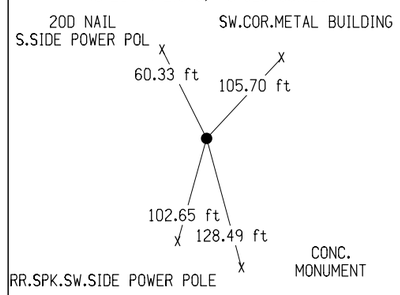
FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER G.3

2:15:48 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_G01.dgn

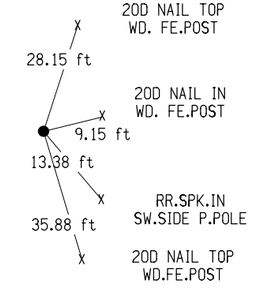
CP STA
CP,SET IRON PIN 0.4' DEEP
CP NO. 368
XC=2149688.768, YC=625463.294



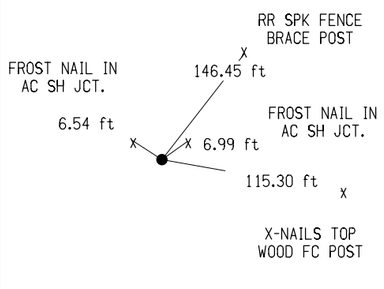
CP STA
CP,SET IRON PIN 0.5' DEEP
CP NO. 367
XC=2149842.545, YC=625965.820



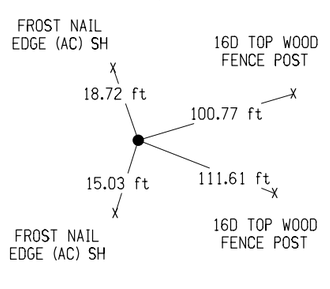
CP STA
CP,SET IRON PIN 0.6' DEEP
CP NO. 359
XC=2149158.353, YC=619695.551



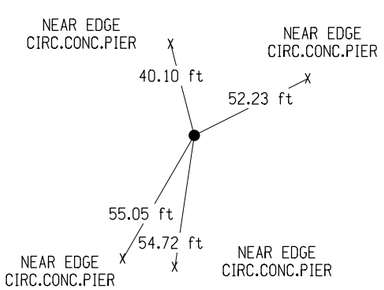
CP STA1138819.46 69.52 RT
CP POINT 328
SET IRON PIN
XC=2147370.319, YC=645001.916



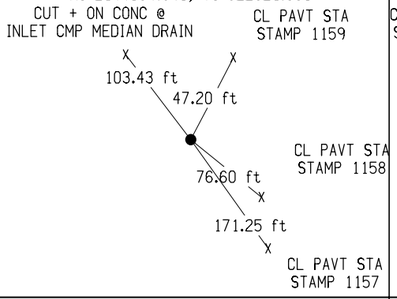
GPS STA
GPS POINT G051
FD RE-BAR
XC=2147352.230, YC=646825.440



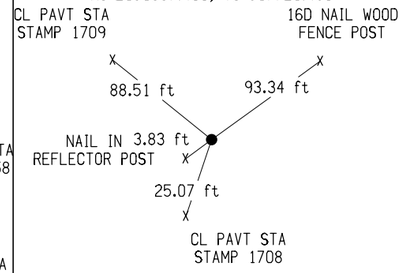
PI STA
PI,FD.HINGE NAIL
PI NO. 203
XC=2147685.529, YC=626785.566



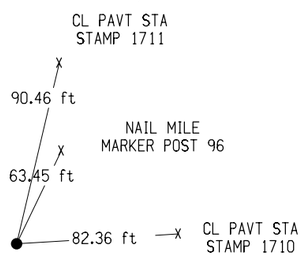
GPS STA1158+67.81 18.37RT
GPS POINT G040
FD REBAR 6" DEEP
XC=2149059.690, YC=622321.550



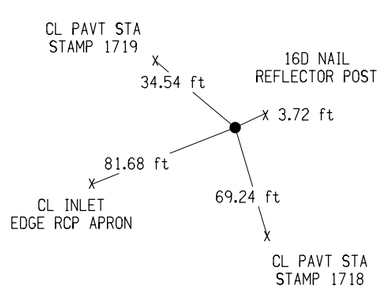
GPS STA11107+07.24 75.97R
GPS POINT G038
FOUND REBAR 6" DEEP
XC=2151337.400, YC=617721.960



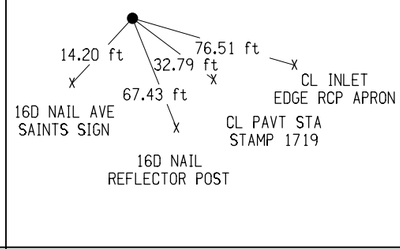
PI STA11109+54.89 125.04L
PI POINT 117
FOUND REBAR (OLD P.I.)
XC=2151037.868, YC=617786.796



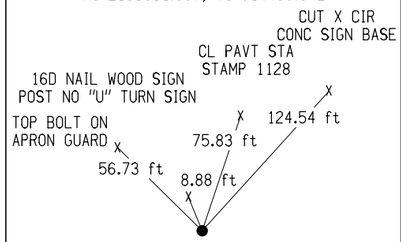
CP STA11117+61.69 67.32RT
CP POINT 362
SET IRON PIN
XC=2150768.562, YC=618592.409



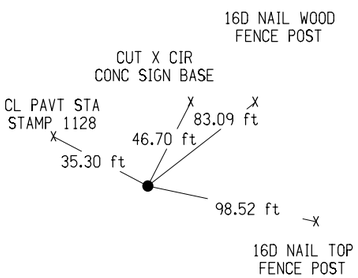
CP STA11118+23.46 68.31LT
CP POINT 361
SET IRON PIN
XC=2150619.686, YC=618585.593



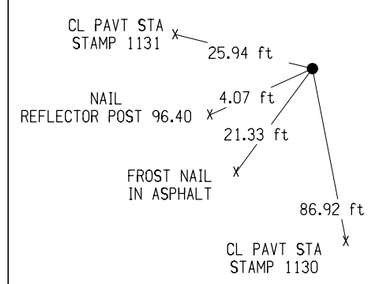
PI STA 11127+45.33
PI POINT 61
FOUND REBAR
XC=2150301.567, YC=619456.592



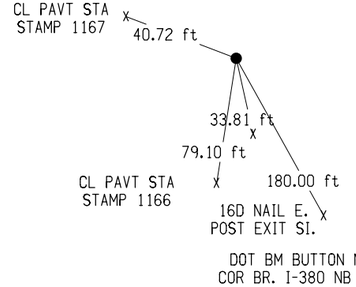
CP STA11127+71.82 75.24RT
CP POINT 363
SET IRON PIN
XC=2150359.742, YC=619511.171



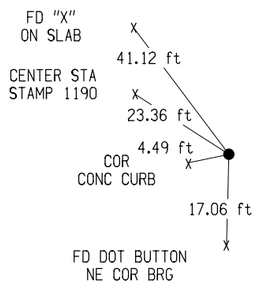
GPS STA11130+83.96 73.69R
GPS POINT G039
FOUND REBAR
XC=2150232.500, YC=619796.200



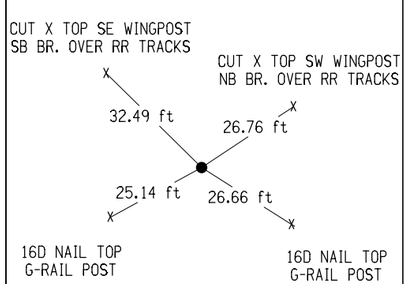
GPS STA11166+73.04 83.17R
GPS POINT G041
FOUND REBAR 4" DEEP
XC=2148794.400, YC=623084.580



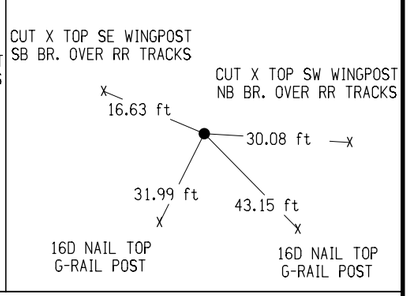
GPS 11189+80.71,69.65 RT
FD REBAR 0.4 DEEP
GPS #G042
XC=2147894.800, YC=625195.400



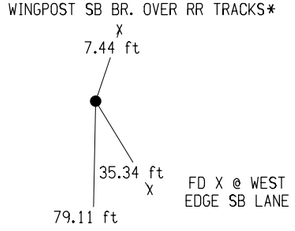
POST STA 11198+25.80
POST POINT 119
42" DEEP (OLD ST)
XC=2147720.353, YC=626013.868



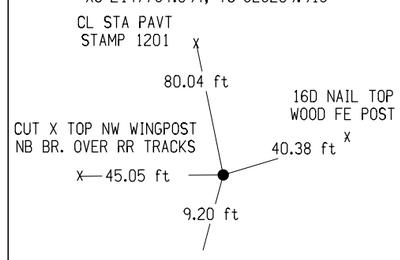
CP STA11198+42.48 7.38LT.
CP POINT 310
SET IRON PIN
XC=2147712.647, YC=626030.407



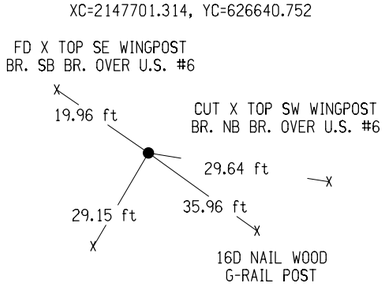
CP STA11198+50.88 67.60LT
CP POINT 311
SET IRON PIN
XC=2147652.273, YC=626037.618



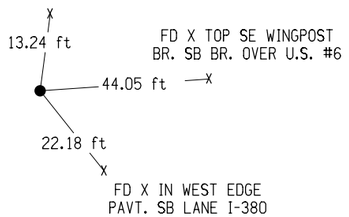
CP STA11200+20.55 67.59RT
CP POINT 312
SET IRON PIN
XC=2147784.094, YC=626209.915



CP STA11204+52.93 6.70LT.
CP POINT 313
SET IRON PIN
XC=2147701.314, YC=626640.752



CP STA11204+62.26 66.96LT
CP POINT 314
SET IRON PIN
XC=2147640.880, YC=626648.888
DOT BM BUTTON SW
WINGPOST SB BR. OVER U.S. #6

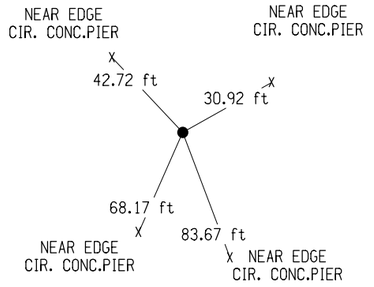


DETAILS OF REFERENCE INFORMATION

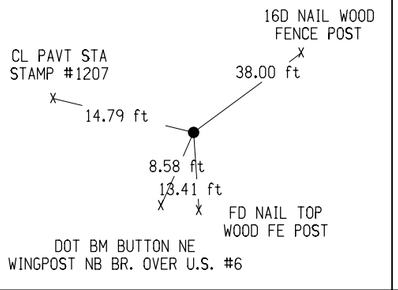
All References Plumb Distances
(unless otherwise noted)

FILE NO.	ENGLISH	DESIGN TEAM	Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER	IMN-380-6(347)1--0E-52	SHEET NUMBER G.4

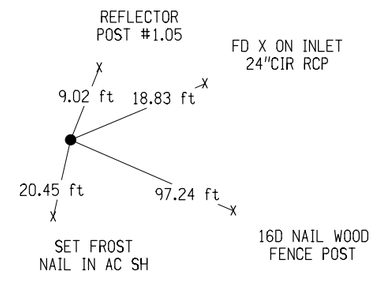
CP STA 11206+05.7,0.355RT
CP,SET IRON PIN 0.4'DEEP
CP NO. 365
XC=2147705.357, YC=626793.642



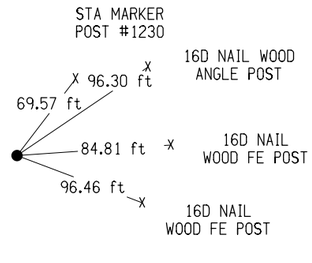
CP STA11206+96.97 67.11RT
CP POINT 315
SET IRON PIN
XC=2147770.306, YC=626886.194



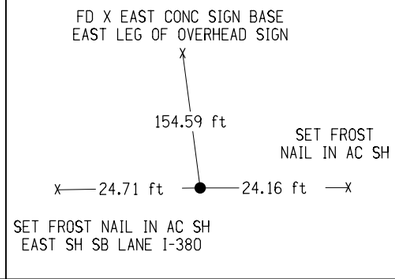
CP STA11218+91.13 67.56RT
CP POINT 316
SET IRON PIN
XC=2147747.250, YC=628080.126



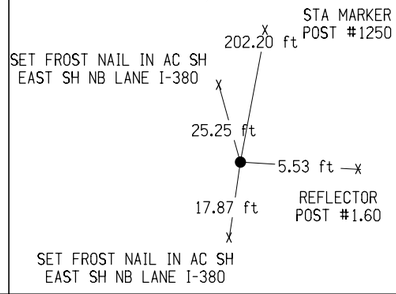
GPS STA11229+46.68 69.07R
GPS POINT G043
FD REBAR
XC=2147727.980, YC=629135.510



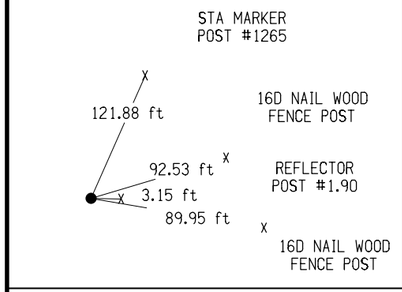
CP STA11233+46.29
CP POINT 120
FOUND REBAR
XC=2147650.826, YC=629533.678



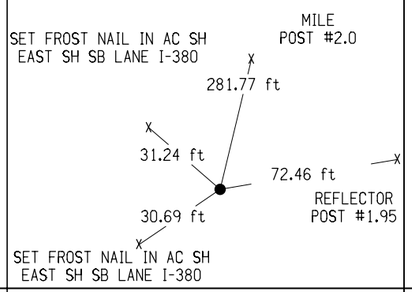
CP STA11248+00.08 66.09RT
CP POINT 319
SET IRON PIN
XC=2147688.519, YC=630988.491



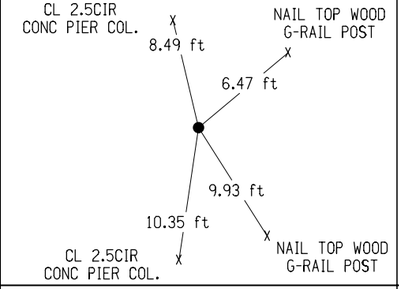
GPS STA11263+84.92 68.10R
GPS POINT G044
FD REBAR
XC=2147659.340, YC=632573.060



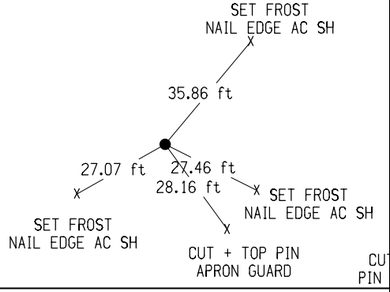
POT STA 11266+42.81
POT POINT 126
FD REBAR
XC=2147586.174, YC=632829.561



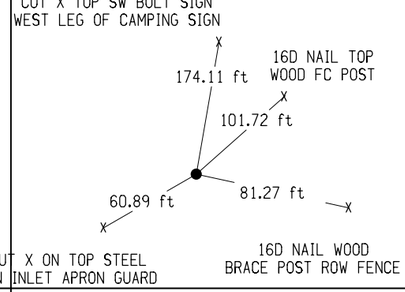
CP STA11271+13.17 3.91RT.
CP POINT 320
SET IRON PIN
XC=2147578.713, YC=633299.901



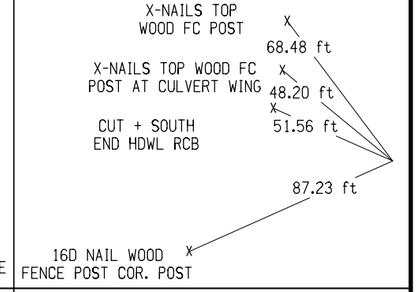
POT STA 11274+97.73
POT POINT 131
FD REBAR
XC=2147560.834, YC=633684.089



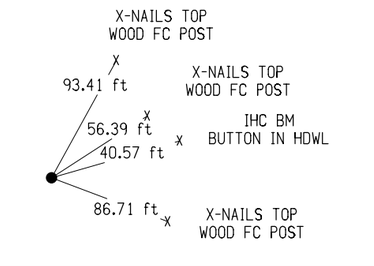
GPS STA11290+26.94 70.08R
GPS POINT G045
FD REBAR
XC=2147566.840, YC=635214.890



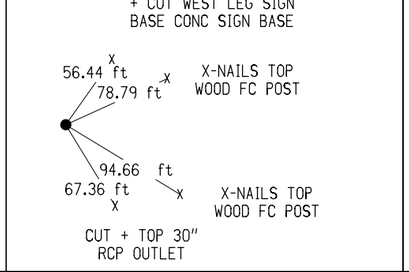
CP STA11302+79.45 66.70LT
CP POINT 321
SET IRON PIN
XC=2147377.746, YC=636460.574



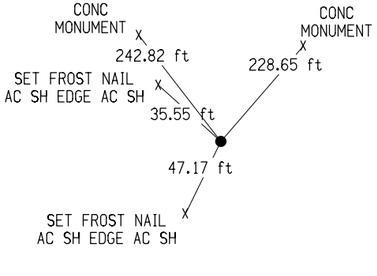
CP STA11303+63.40 66.41RT
CP POINT 322
SET IRON PIN
XC=2147507.233, YC=636550.025



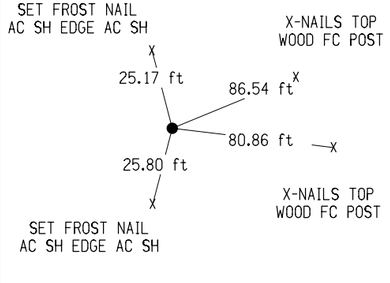
CP STA11319+54.64 65.97RT
CP POINT 323
SET IRON PIN
XC=2147440.180, YC=638139.847



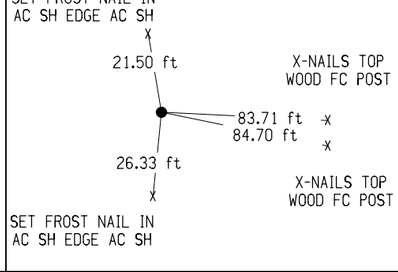
PI STA 11324+10.95
PI POINT 133
FD REBAR
XC=2147355.166, YC=638593.002



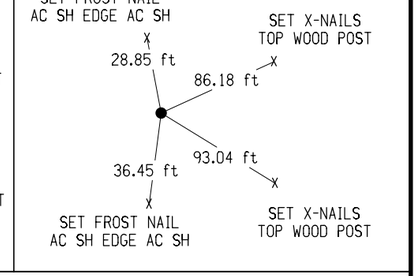
GPS STA11327+21.80 69.80R
GPS POINT G046
FD REBAR
XC=2147422.440, YC=638904.720



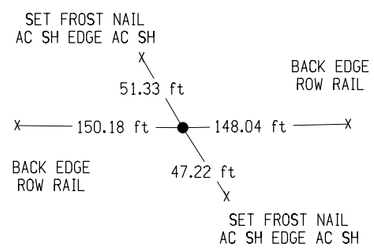
CP STA11335+13.07 66.44RT
CP POINT 324
SET IRON PIN
XC=2147412.252, YC=639695.711



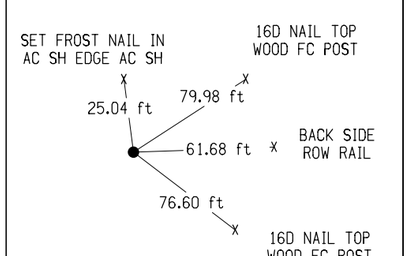
CP STA11348+34.75 67.93RT
CP POINT 325
SET IRON PIN
XC=2147402.529, YC=641017.354



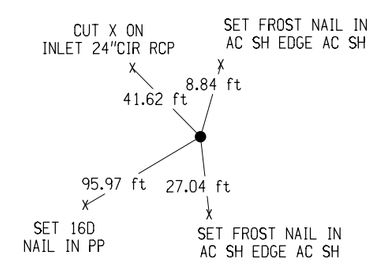
CP STA11350+68.00
CP POINT 134
FD REBAR/HIGH PIN OF 2 FD
XC=2147332.596, YC=641250.020



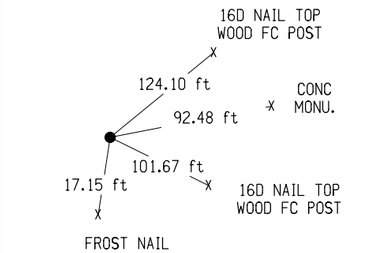
GPS STA11359+98.31 79.57R
GPS POINT G047
FD REBAR
XC=2147404.300, YC=642180.970



CP STA11376+37.76 66.54LT
CP POINT 326
SET IRON PIN
XC=2147244.286, YC=643819.129



CP STA11401+12.35 66.02RT
CP POINT 329
SET IRON PIN
XC=2147355.848, YC=646294.755



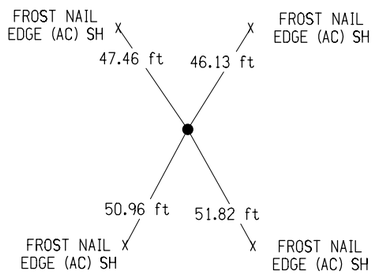
DETAILS OF REFERENCE INFORMATION

All References Plumb Distances
(unless otherwise noted)

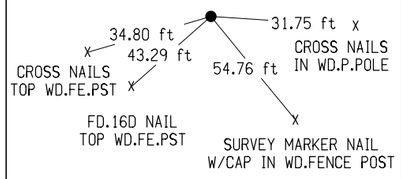
FILE NO.	ENGLISH	DESIGN TEAM	Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER	IMN-380-6(347)1--0E-52	SHEET NUMBER G.5

2:15:50 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_G01.dgn

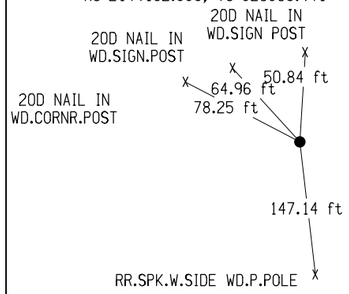
CP STA 11404+97.20
CP POINT 136
H0411001.ALI
XC=2147286.571, YC=646679.028



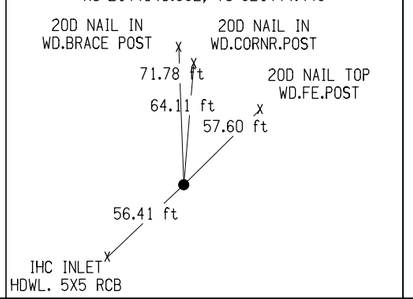
PI STA.20576+03.82
PI,FD.IRON PIN 1.1' DEEP
PI NO. 161,SCR NO. 161
XC=2149125.621, YC=620087.690



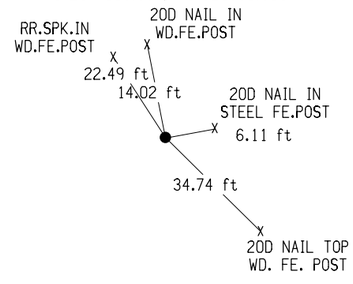
CP STA.20580+19.75,17.9RT
CP,SET IRON PIN 0.6' DEEP
CP NO. 358
XC=2149132.853, YC=620503.941



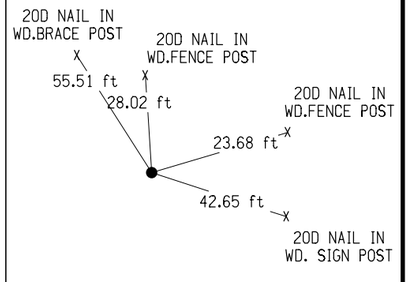
PI STA. 20589+66.53
PI,SET IRON PIN 0.5' DEEP
PI NO. 164
XC=2149090.582, YC=621449.945



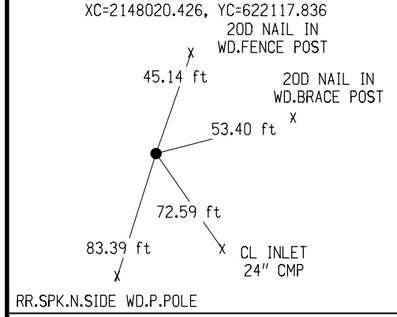
CP STA.20591+76.66,49.5RT
CP,SET IRON PIN 0.7' DEEP
CP NO. 357
XC=2149003.559, YC=621660.301



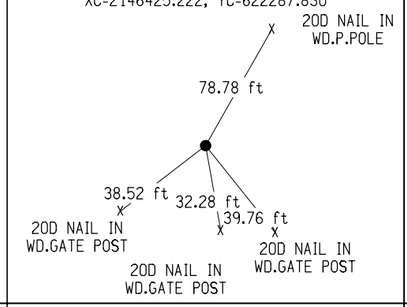
PI STA.20593+49.34
PI,SET IRON PIN 0.5' DEEP
PI NO. 165
XC=2148865.863, YC=621772.416



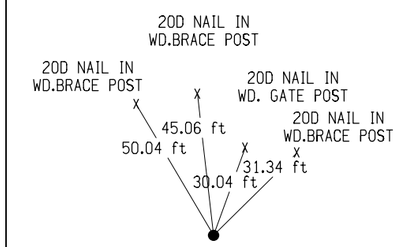
PI STA.20602+51.57
PI,SET IRON PIN 0.4' DEEP
PI NO. 169
XC=2148020.426, YC=622117.836



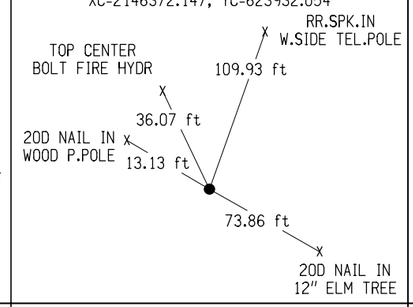
PI STA.20618+52.05
PI,SET IRON PIN 0.4' DEEP
PI NO. 175
XC=2146425.222, YC=622287.830



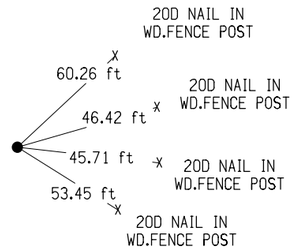
CP STA.20627+75.09
CP,SET IRON PIN 0.4' DEEP
CP NO. 178
XC=2145514.771, YC=622440.773



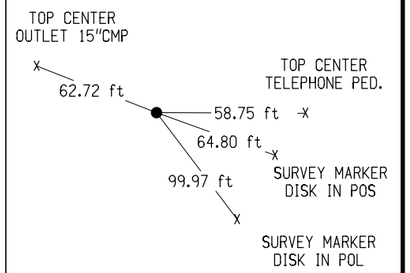
CP STA.30633+76.9,23.11LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 356
XC=2146372.147, YC=623932.054



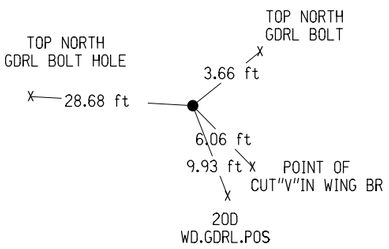
CP STA 30640+58.79,14.8RT
CP,SET IRON PIN 0.5' DEEP
CP NO. 355
XC=2146392.195, YC=624614.693



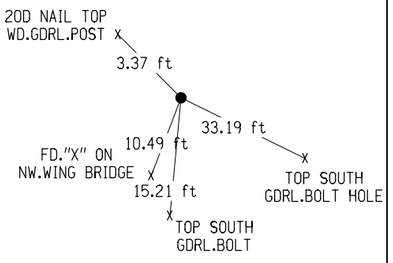
PI STA 30648+00.546
SCR,FD.5/8"REBAR .6'DEEP
PI NO. 185
XC=2146357.977, YC=625355.806



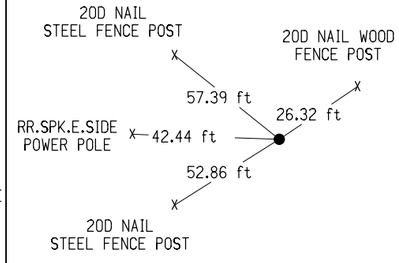
CP STA 30653+49.6,12.87RT
CP,SET IRON PIN 0.6' DEEP
CP NO 354
XC=2146361.885, YC=625905.030



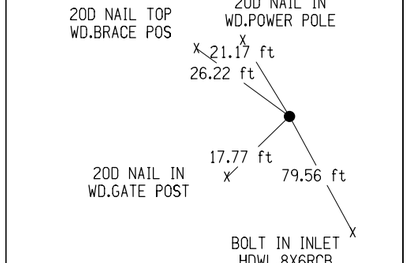
CP STA 30655+33.8,13.84RT
CP,SET IRON PIN 0.6' DEEP
CP NO. 353
XC=2146332.170, YC=626088.784



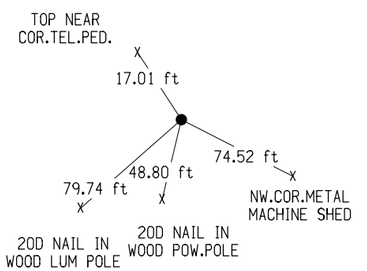
CP STA 30677+72.2,14.55RT
CP,SET IRON PIN 0.5' DEEP
CP NO. 336
XC=2146350.445, YC=628327.347



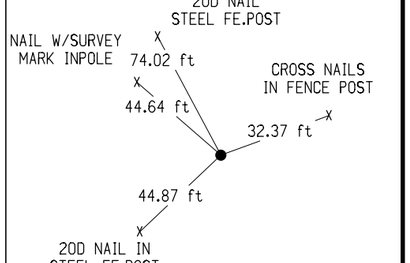
CP STA 30687+67.9,20.99LT
CP,FD.BOLT IN YELLOW CAP
CP NO. 337
XC=2146300.884, YC=629322.660



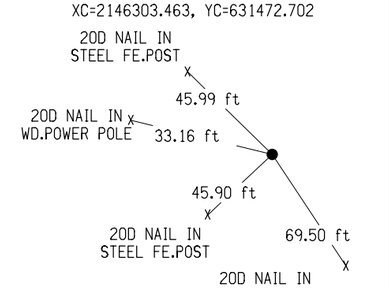
CP STA 30693+47.0,19.18LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 338
XC=2146294.516, YC=629901.680



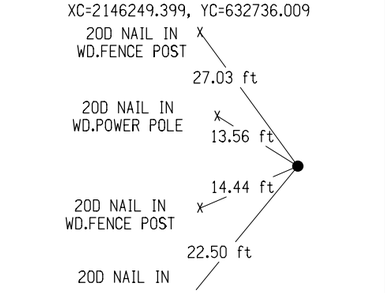
SCR,PI,STA 30700+86.417
SCR,PI,FD.CONC.MONU.1DEEP
SCR NO.211, PI NO. 222
XC=2146303.247, YC=630641.318



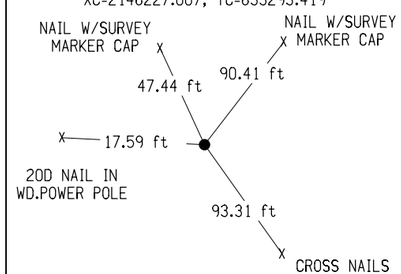
CP STA 30709+17.69,13.9RT
CP,SET IRON PIN 0.5' DEEP
CP NO. 339
XC=2146303.463, YC=631472.702



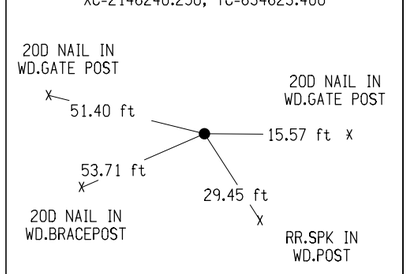
CP STA 30721+82.12,13.5LT
CP,SET IRON PIN 1.0' DEEP
CP NO. 340
XC=2146249.399, YC=632736.009



CP STA 30727+39.61,13.0LT
CP,SET IRON PIN 0.8' DEEP
CP NO. 341
XC=2146227.007, YC=633293.419



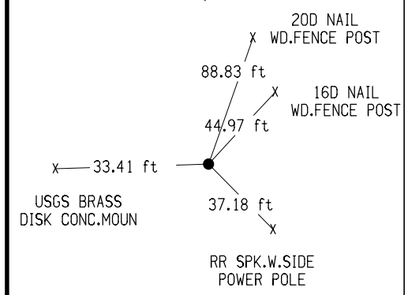
CP STA 30740+69.31,17.3RT
CP,SET IRON PIN 0.5' DEEP
CP NO. 342
XC=2146240.250, YC=634623.400



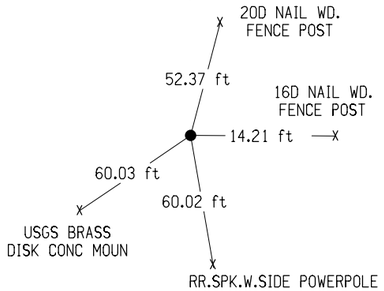
DETAILS OF REFERENCE INFORMATION

All References Plumb Distances
(unless otherwise noted)

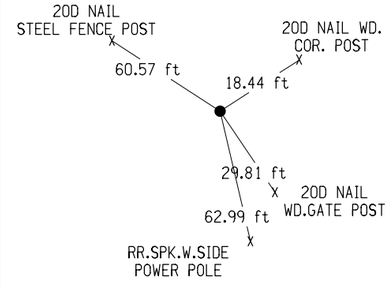
SCR STA 30753+73.552
PI,FD.5/8" REBAR
SCR,PI, NO.218
XC=2146206.162, YC=635927.312



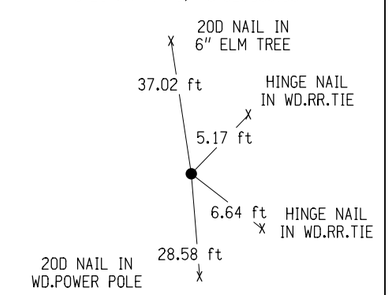
CP STA 30754+06.49,16.6RT
CP SET IRON PIN 0.6' DEEP
CP NO. 343
XC=2146222.458, YC=635960.400



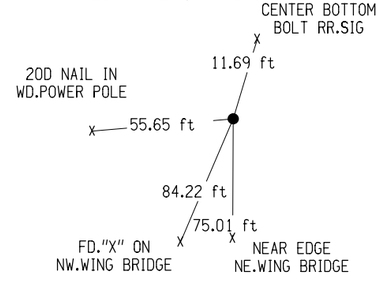
CP STA 30767+20.33,17.2RT
CP,SET IRON PIN 0.6' DEEP
CP NO. 344
XC=2146211.155, YC=637274.192



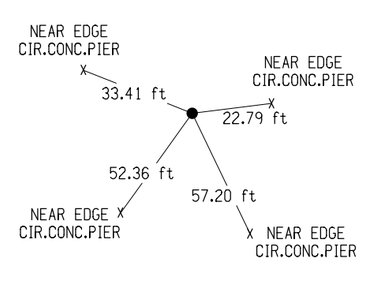
CP STA 41158+82.185
CP,SET HINGE NAIL CL RR.
CP NO. 187
XC=2143674.441, YC=626035.039



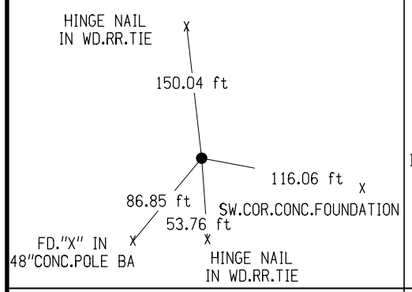
CP STA 41185+73.6,27.66RT
CP,SET IRON PIN 0.5' DEEP
CP NO. 371
XC=2146363.214, YC=626155.905



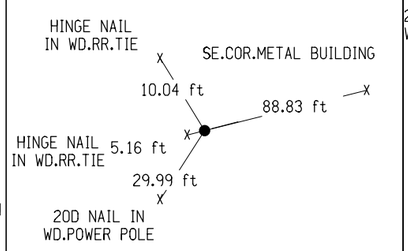
CP STA 41199+34.8,19.15LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 370
XC=2147721.817, YC=626141.182



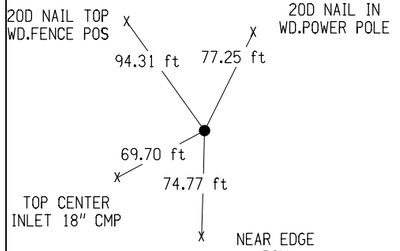
CP STA 41210+54.0,55.25LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 369
XC=2148818.137, YC=625887.760



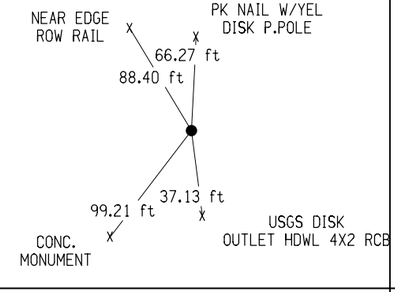
CP STA 41238+20.068
CP,SET HINGE NAIL CL RR.
CP NO. 195
XC=2151181.050, YC=624444.083



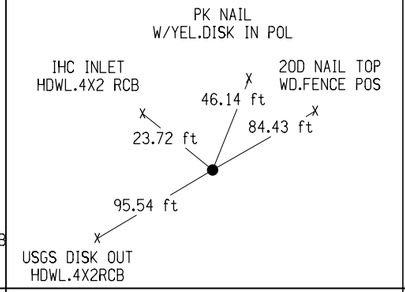
POT STA 51184+89.902
POT,SET HINGE NAIL
POT NO. 200
XC=2145627.561, YC=626994.742



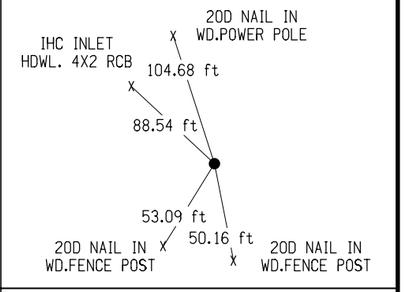
PI STA 51191+66.729
PI,FD.HINGE NAIL
PI NO. 201
XC=2146304.091, YC=626974.693



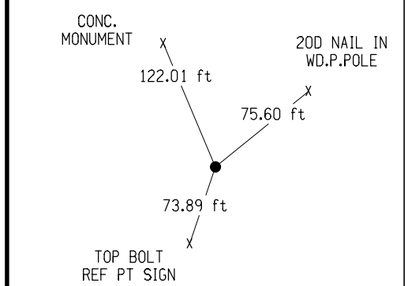
CP STA 51192+50.8,23.57LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 335
XC=2146390.750, YC=626986.615



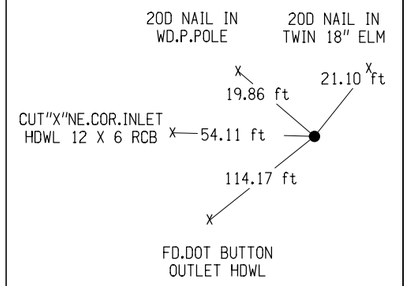
CP STA 51201+44.79,26.7RT
CP,SET IRON PIN 0.5' DEEP
CP NO. 364
XC=2147269.652, YC=626815.535



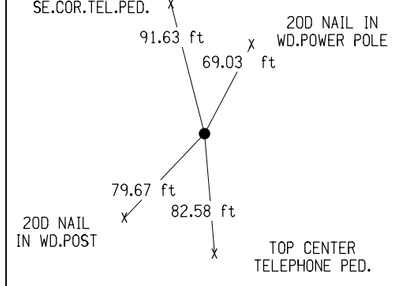
PI STA 51218+08.004
PI,FD. HINGE NAIL
PI NO. 206
XC=2148848.994, YC=626332.676



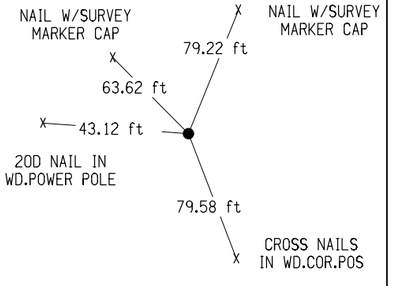
CP STA 51220+97.47,60.3LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 366
XC=2149140.092, YC=626280.871



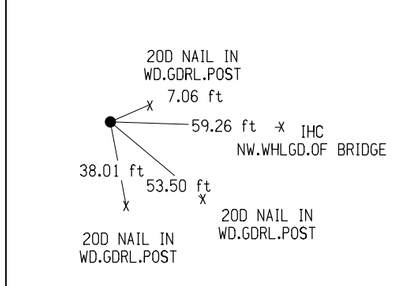
POT STA
POT,SET HINGE NAIL
POT NO. 207
XC=2149549.558, YC=626051.708



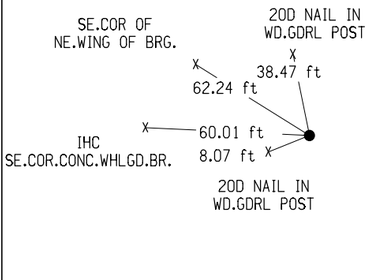
SCR STA 61257+89.762
SCR,FD.1/2"REBAR .7' DEEP
SCR NO. 215
XC=2146252.471, YC=633291.604



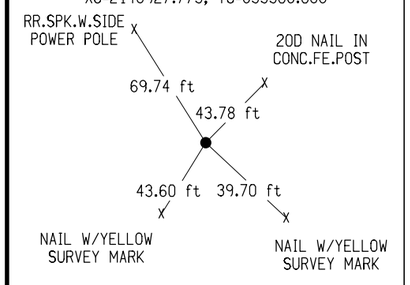
CP STA 61269+21.57,17.6LT
CP,SET IRON PIN 0.6' DEEP
CP NO. 346
XC=2147384.169, YC=633315.360



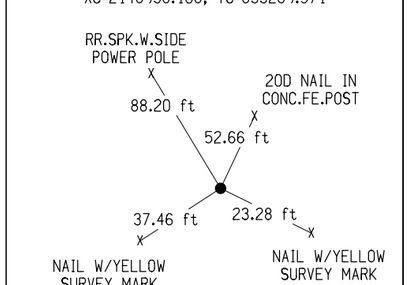
CP STA 61273+07.39,17.6RT
CP,SET IRON 0.7' DEEP
CP NO. 347
XC=2147770.169, YC=633282.244



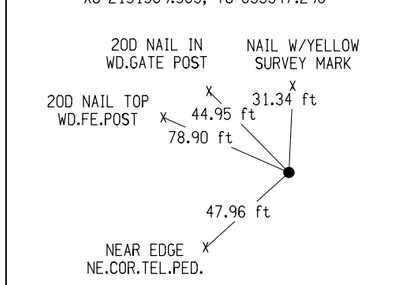
PI,SCR,STA 61284+65.103
SCR,FD.CONC.MONU.0.1'DEEP
SCR,PI, NO. 233
XC=2148927.773, YC=633306.086



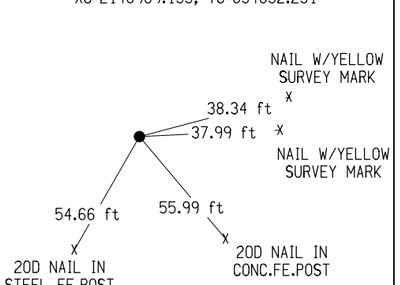
CP STA 61284+73.18,16.6RT
CP,SET IRON PIN 0.7' DEEP
CP NO. 348
XC=2148936.108, YC=633289.571



SCR,PI,STA 61311+27.232
SCR,FD.5/8"REBAR 0.6'DEEP
SCR,PI, NO. 234
XC=2151589.583, YC=633347.296



CP STA 71297+91.37,3.97LT
SCR FD.I.P.W/CAP STAMPED
#8165
XC=2148909.133, YC=634632.231

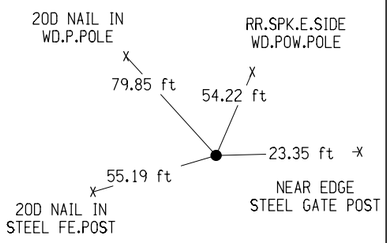


DETAILS OF REFERENCE INFORMATION

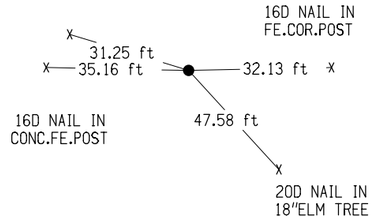
All References Plumb Distances
(unless otherwise noted)

FILE NO.	ENGLISH	DESIGN TEAM	Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER	IMN-380-6(347)1--0E-52	SHEET NUMBER G.7

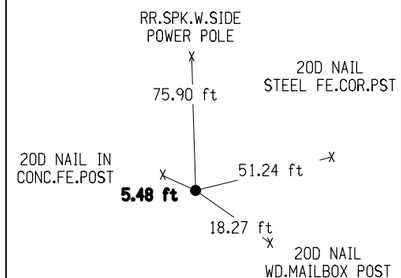
CP STA 71299+83.64,21.7RT
CP,SET IRON PIN 0.8' DEEP
CP NO. 349
XC=2148932.657, YC=634824.774



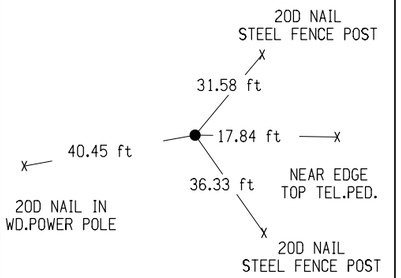
PI,SCR STA 71311+17.641
PI,SCR,FD.BRASS CAP CON.
MONU.
XC=2148890.691, YC=635958.341



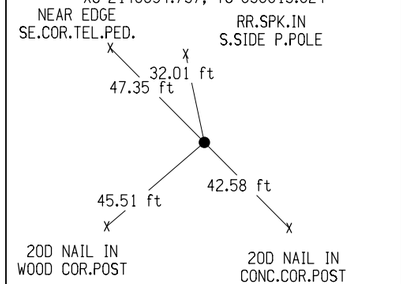
CP STA 71313+16.08,32.3LT
CP,SET IRON PIN 1.0'DEEP
CP NO. 350
XC=2148855.659, YC=636156.322



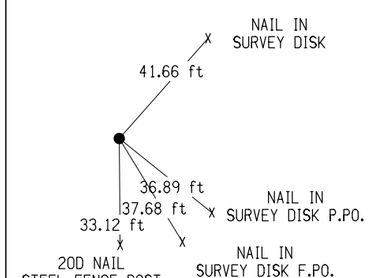
CP STA 71322+40.24,6.60RT
CP,SET IRON PIN 0.8'DEEP
CP NO. 351
XC=2148882.089, YC=637080.925



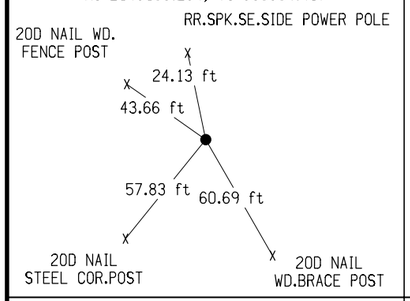
SCR,PI STA 71337+73.367
SCR,PI FD.1/2"REBAR.3DEEP
SCR,PI NO. 238
XC=2148854.737, YC=638613.824



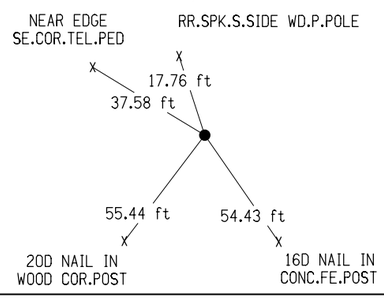
SCR,PI STA 81285+54.765
SCR,PI FD.BRASS DISK.9'DE
SCR,PI NO. 221
XC=2143502.302, YC=638571.775



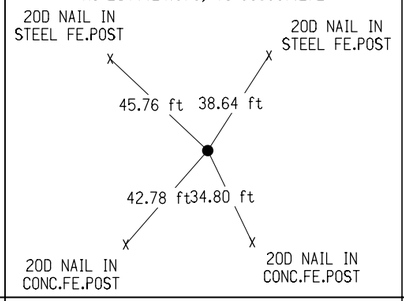
CP STA 81312+37.78,2.85LT
CP,SET IRON PIN 0.5' DEEP
CP NO. 345
XC=2146185.264, YC=638589.407



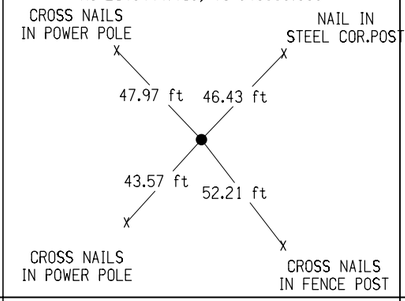
CP STA 81339+06.59,14.5LT
CP,SET IRON PIN 0.8' DEEP
CP NO. 352
XC=2148853.726, YC=638628.315



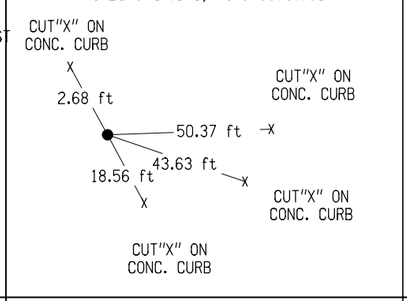
CP STA 81349+77.496
CP,SET IRON PIN 0.5' DEEP
CP NO. 239
XC=2149924.573, YC=638637.272



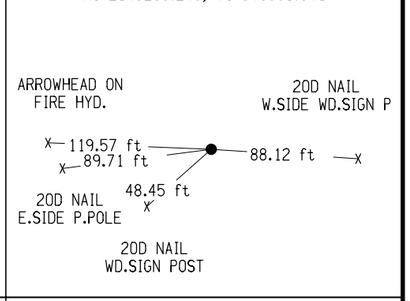
SCR STA. 91338+70.774
SCR,FOUND PIPE 0.8' DEEP
SCR NO.222
XC=2143444.415, YC=643885.336



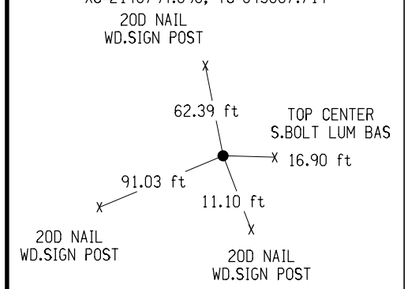
GPS STA 91358+40.4,30.0RT
GPS,FD.REBAR 0.4' DEEP
GPS POINT G048
XC=2145414.040, YC=643875.780



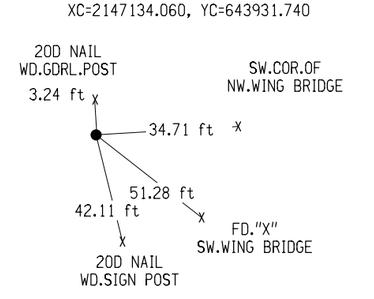
CP STA 91366+64.64,27.4RT
CP SET IRON PIN 0.5'DEEP
CP NO.330
XC=2146238.248, YC=643880.691



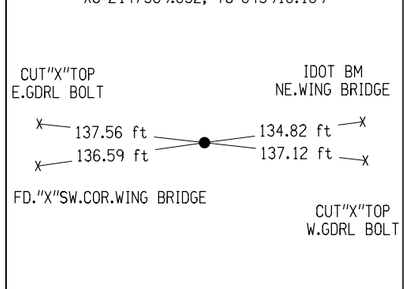
CP STA 91372+20.93,25.3RT
CP,SET IRON PIN 0.5 DEEP
CP NO.331
XC=2146794.698, YC=643887.714



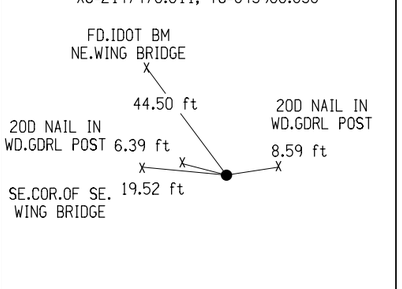
GPS STA 91375+60.7,15.1LT
GPS FD.REBAR 0.4' DEEP
GPS NO. G049
XC=2147134.060, YC=643931.740



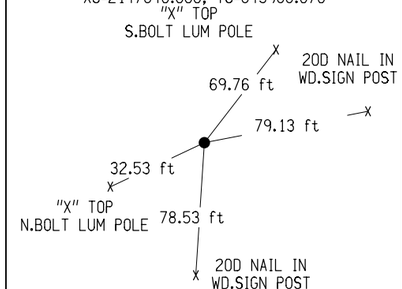
CP STA 91377+36.352,.25RT
CP,FD."X"
CP NO. 135
XC=2147309.832, YC=643918.189



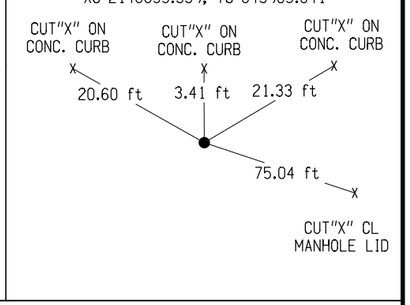
CP STA 91378+96.34,19.3RT
CP,SET IRON PIN 0.7' DEEP
CP NO. 332
XC=2147470.011, YC=643900.838



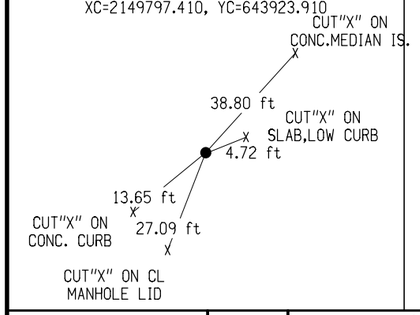
CP STA 91382+66.99,42.1LT
CP,SET IRON PIN 0.6'DEEP
CP NO. 333
XC=2147840.000, YC=643966.070
"X" TOP S.BOLT LUM POLE



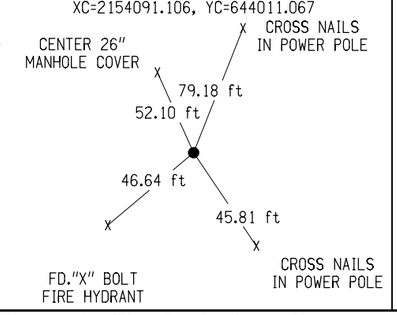
CP STA 91390+81.48,29.9RT
CP,SET IRON PIN 0.4' DEEP
CP NO. 334
XC=2148655.339, YC=643905.841



GPS STA 91402+23.8,28.0RT
GPS,FD.REBAR 0.3' DEEP
GPS POINT G050
XC=2149797.410, YC=643923.910



SCR STA 91445+18.268
SCR,FD.PK NAIL IN CONC.
SCR NO. 245
XC=2154091.106, YC=644011.067



DETAILS OF REFERENCE INFORMATION

All References Plumb Distances
(unless otherwise noted)

FILE NO.	ENGLISH	DESIGN TEAM	Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER	IMN-380-6(347)1--0E-52	SHEET NUMBER G.8

2:15:53 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_G01.dgn

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
I380 (ML380)																			
50000		1076+00.00	615,521.14	2,153,512.16															
50001								1097+52.00	616,974.45	2,151,925.03	1109+56.70	617,788.01	2,151,036.54	1121+26.80	618,890.49	2,150,550.92			
50002								1184+57.52	624,684.08	2,147,998.98	1191+13.06	625,284.00	2,147,734.72	1197+51.50	625,939.42	2,147,721.82			
50003								1267+32.71	632,919.28	2,147,584.41	1271+14.12	633,300.61	2,147,576.90	1274+95.49	633,681.68	2,147,560.94			
50004								1320+28.47	638,210.69	2,147,371.18	1324+11.12	638,593.00	2,147,355.17	1327+93.70	638,975.64	2,147,351.92			
50030		1404+97.37	646,679.03	2,147,286.57															

FILE NO.	ENGLISH	DESIGN TEAM	Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER	IMN-380-6(347)1--0E-52	SHEET NUMBER	G.9

2:16:21 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_G09.dgn

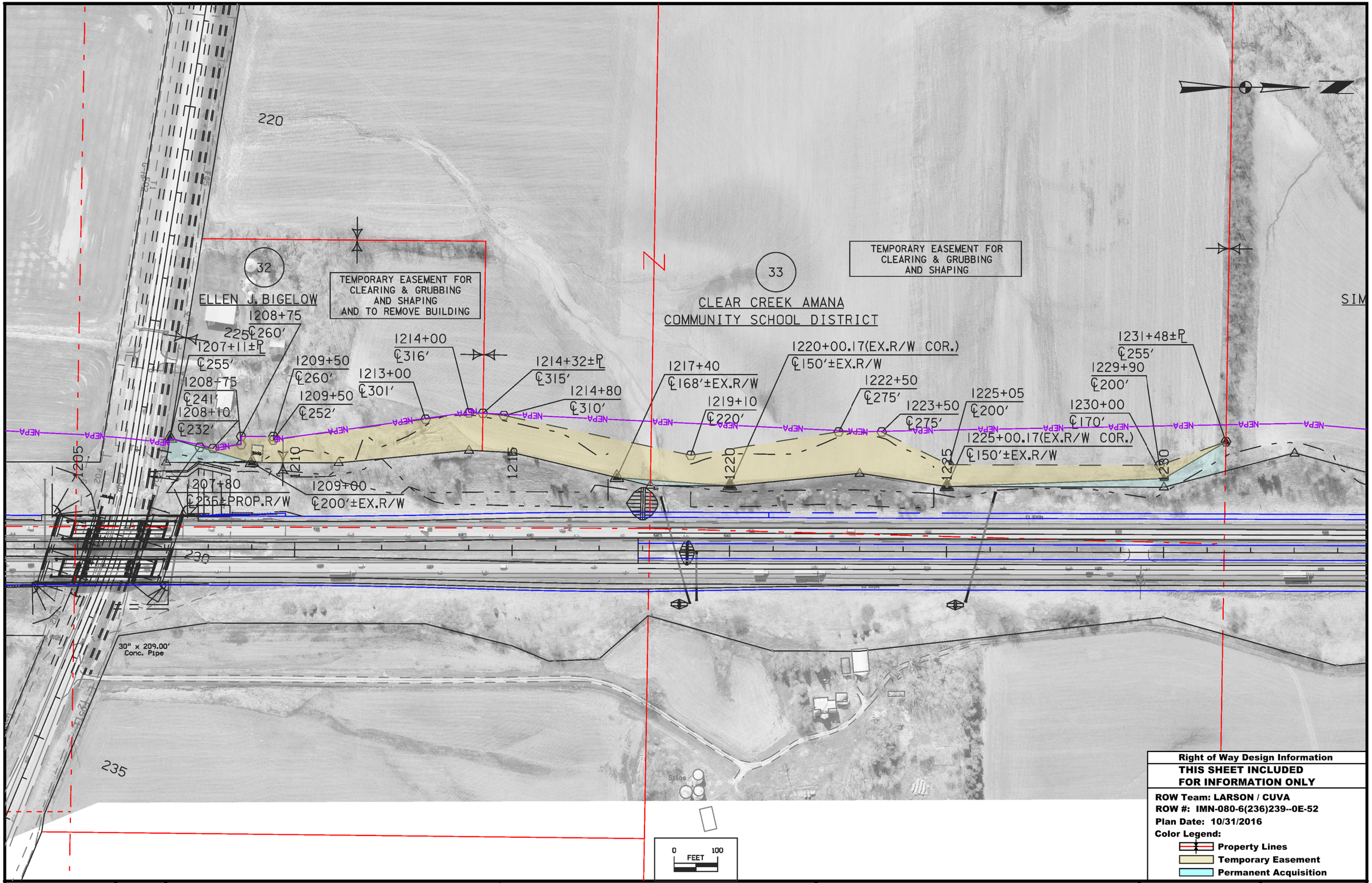
SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ_{scs}	Horizontal Alignment Data												Remarks
			Spiral Data								Curve Data				
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E	
I380 (ML380)																
50001											23° 44′ 52.81″ RT	1,204.70′	2,374.80′	5,729.58′	125.28′	
50002											22° 38′ 40.61″ RT	655.54′	1,293.98′	3,274.04′	64.98′	
50003											1° 16′ 16.63″ LT	381.40′	762.77′	34,377.47′	2.12′	
50004											1° 54′ 47.06″ RT	382.65′	765.23′	22,918.31′	3.19′	

FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER G.10

2:16:22 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_G09.dgn



Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON / CUVA
ROW #: IMN-080-6(236)239--0E-52
Plan Date: 10/31/2016
Color Legend:
- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER H.01

7:57:32 AM 11/1/2016 jlarso1 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\ROW\52080236H1.sht

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Contractor will not be permitted to access the construction area from I-380.

US 6 traffic shall have one lane in each direction maintained at all times except as follows:
- 1 lane of traffic on US 6 may be closed during the times indicated on Tab. 108-23B.

108-23B
04-21-15

* This is to only be used in conjunction with Tabulation 108-23A

Shaded area indicates non-working times

TRAFFIC CONTROL CLOSURE TABLE(S)

	AM																							Noon	PM																							
	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30
SUN																																																
MON																																																
TUE																																																
WED																																																
THU																																																
FRI																																																
SAT																																																

111-01
04-17-12

COORDINATED OPERATIONS

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

Project	Type of Work
ITS-380-6(343)2--25-52	Fiber Optic Installation
IMN-380-6(296)0--0E-52	Culvert Repairs

SURVEY SYMBOLS

- TDC Tree Deciduous
- TEV Evergeen Tree
- SI Sign
- PPA Power Pole Co. 1
- IN Storm Sewer Intake
- MM Mile Marker Post
- LUM Luminaire
- INB Storm Sewer Beehive Intake
- ROW Right of Way Mark
- OUT Tile Outlet
- MH Utility Access (Manhole)
- HT Electrical Highline Tower
- SHR Shrub
- UB Utility Box
- TPD Telephone Pedestal
- GV Gas Valve
- RET Retaining Walls
- WV Water Valve
- WEL Well
- FHD Fire Hydrants
- WHU RV Water Hook Up
- TV Satelite TV Dish
- TA Tower Anchor
- BNK Stream Bank
- CUL Culvert
- D Centerline Draw or Stream (Down)
- DIK Centerline of Dike or Dam
- DU Centerline Draw or Stream (Up)
- EW Edge of Water
- FCL Chain Link and Security Fence
- FW Wire Fence
- FWD Wood Fence
- GDL Guard Rail Steel
- GPR Guard Post (4 or More Posts)
- PIP Pipe Culvert
- RIP Rip-Rap
- SP Stream Profile
- TIL Tile Line

UTILITY LEGEND

PLAN VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Purple (Halo)	(15)	Backslope Drains
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
SHADING	**Design Color No.**	
Brown, Light	(236)	Core Out

PROFILE VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK	Design Color No.	
Blue	(1)	Proposed Alignment, Stationing, and Alignment Annotation
Green	(2)	Existing Ground Line Profile
Green, Med	(227)	Topsoil
Green, Med	(227)	Slope Dressing Only
Orange	(6)	Loam
Brown, Dark	(238)	Class 10
Brown, Med	(237)	Sand
Red	(3)	Unsuitable A
Pink, Dark	(13)	Unsuitable B
Pink	(11)	Unsuitable C
Red	(3)	Shale
Red	(3)	Waste
Gray, Light	(48)	Broken and Weathered Rock
Gray, Med	(80)	Rock
Gray, V.Dark	(128)	Boulders

PATTERN AND SYMBOL LEGEND OF SOILS SHEETS

- Drill
- Dig/Core
- Date(s) Drilled_____
- $-H_2O-$ Water
- Treatment
- Sandstone
- DRY Dry
- Sand Blanket
- Unsuitable A
- S Sample
- Soil Remediation Area
- Unsuitable B
- Plugged
- Select Soil
- Unsuitable C
- M Moisture
- Select Sand
- Sandy Soil
- Shelby
- Slope Dressing Only
- Boulders
- Blow Count
- Broken and Weathered Rock
- Shale
- Dens. Core
- Rock

Reference Point
Survey Line
Station
Section Corner
Ground Line Intercept
Saw Cut
Guardrail
Clearing & Grubbing Area
Pavement Removal

RIGHT-OF-WAY LEGEND

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

NOTE: Sounding and test boring data shown in the plans were accumulated for designing and estimating purposes. Their appearance on the plans does not constitute a guarantee that conditions other than those indicated will be encountered. Details and notes shown elsewhere shall be used for roadway and structure construction.

SOILS LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES Q & R)

FILE NO.	ENGLISH	DESIGN TEAM Holst\Thede\Braun Intertec	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER Q.1

11:14:33 AM 3/9/2017 BMcNelis pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Soils\drawings\Grading_CIPCO_School\CIPCO_School.dgn

CLEAR CREEK TWP.
T-80N R-7W
SEC. 27

STA. 1208+60
BEGIN GRADING

STA. 1224+70
END GRADING

I-380 Intercept
(Future)

Line "A"

Line "A"

BA2342

BA2345

BA2351

BA2354

RB2340

1205

1210

1215

1220

1225

1230

Sta. 51200+72.34 (US6A)
Sta. 11206+73.8, 502.3' Lt. (I380)
4' X 2' X 51.4' R.C.B.
D.A. = 42 Ac. - R

Sta. 11204+07.7
X 17.1' C.M.P.
X 156.3' C.M.P.
= Median Only

36" x 38.4'
C.M.P.

24" x 34.5'
C.M.P.

24" x 34.5'
C.M.P.

30" x 203.0'
Conc. Pipe

30" x 203.0'
Conc. Pipe

24" x 204.0'
Conc. Pipe

Sta. 11209+13.1
NEPA X 186.5' C.M.P.
24" X 113.8' C.M.P.
D.A. = Median Only

18" X 44.1'
C.M.P.

Sta. 11219+24.0
Skew 15° Rt. Ah.
24" X 64.8' Conc. Pipe
DA = 5 Ac. - R

Sta. 11218+75.1
30" X 170.7' Conc. Pipe
DA = Median Only

Sta. 11225+74.7
Skew 15° Lt. Ah.
30" X 194.7' Conc. Pipe
DA = 4 Ac. - R

Sta. 11218+75.1
24" X 70.7' Conc. Pipe
DA = Median Only

UAC

NEPA

SIGN

0 100
FEET

Interstate 80/380 CIPCO Property

FILE NO.	ENGLISH	DESIGN TEAM Holst\Thede\Braun Intertec	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER Q.2

11:15:42 AM 3/9/2017 BMcNelis pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Soils\drawings\Grading_CIPCO_School\CIPCO_School.dgn

Interstate 80/380 CIPCO Property

21,15
106,117
--,--

26,17,18
--,117,116
--,--,--

Cut Moisture
Cut Density
Plastic Limit

15
122
--

22,15
102,122
--,--

800 790 780 770 760 750 740 730 720 710 700 690 680 670 660 650 640 630

Topsoil

Clay
tr. Sand
Brown

A-6(14)
SI LO
BR

A-6(7)
BR
(T1ll)

Sandy Clay
Brown
(T1ll)

VPI +50.0
Elv 725.0

VPI +00.0
Elv 720.7

-0.6%

+2.2%

+1.9%

VPI +60.0
Elv 731.0

+3.9%

Topsoil

A-6(14)
SI LO
109@15
BR

VPI +90.6
Elv 746.0

VPI +42.0
Elv 742.1

108@16

+2.6%

+0.6%

+0.0%

-3.2%

VPI +69.0
Elv 746.5

745.5

Clay
tr. Sand
Brown

VPI +70.000
Elv 746.50

A-6(8)
121@12
BR
(T1ll)

A-6(8)
120@12
BR
(T1ll)

Sandy Clay
tr. Gravel
Brown
(F1ll)

Topsoil

VPI +20.0
Elv 720.0

Sandy Clay
tr. Gravel
Gray
(T1ll)

692.5

+8.3%

Profile Grade Line
See Grading Typical

Sandy Clay
Gray
(T1ll)

Sandy Clay
w/ Sand Seams
Brown & Gray
(T1ll)

Sandy Clay
tr. Gravel
Gray
(T1ll)

RB2340
LT.63

BA2342
LT.221

BA2345
LT.196

BA2351
LT.161

BA2354
LT.171

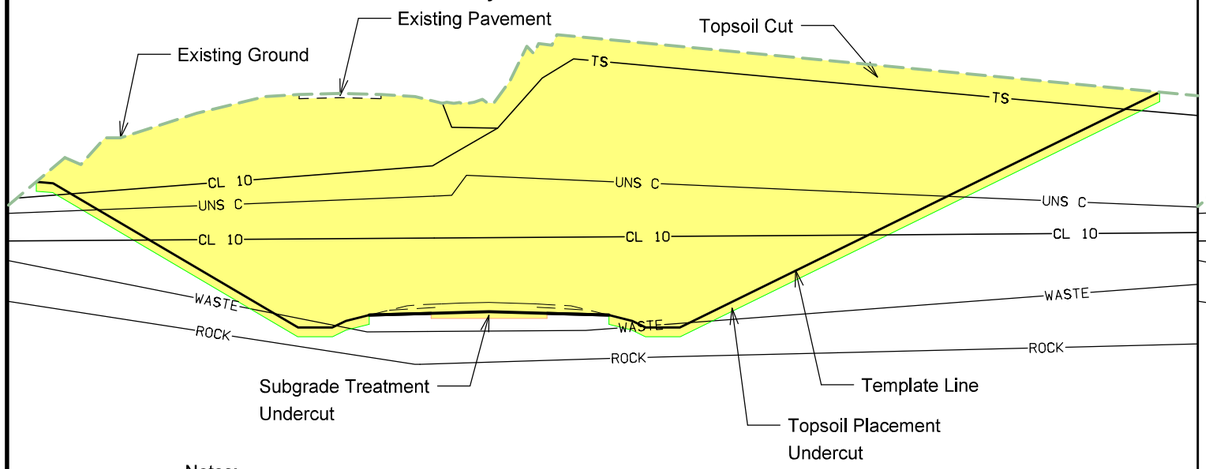
1205 1210 1215 1220 1225 1230 1235

FILE NO.	ENGLISH	DESIGN TEAM Holst\Thede\Braun Intertec	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER Q.3

11:17:45 AM 3/9/2017 BMcNelis pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Soils\drawings\Grading_CIPCO_School\CIPCO_School.dgn

CUT SIDE Total Cut Unadjusted

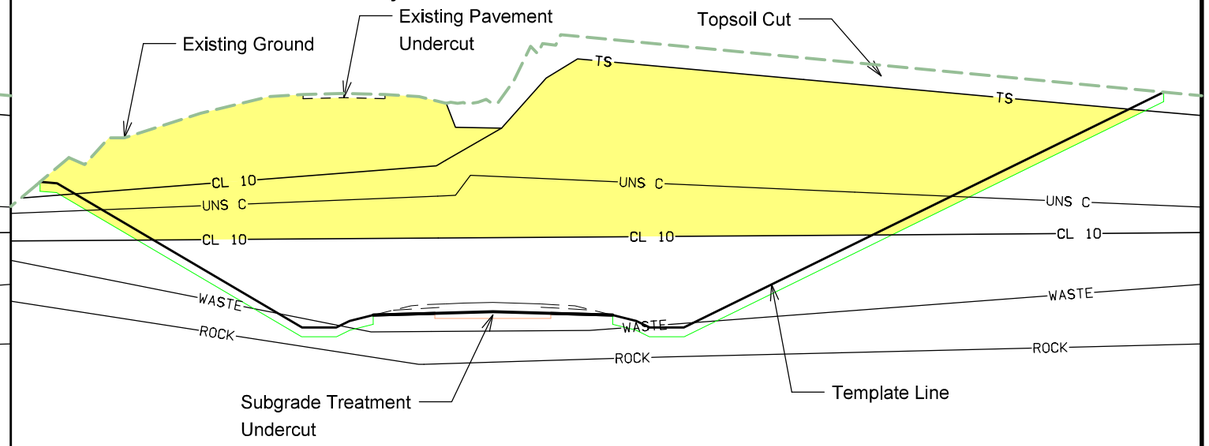
RURAL



Notes:

1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

CUT SIDE Total Cut Adjusted

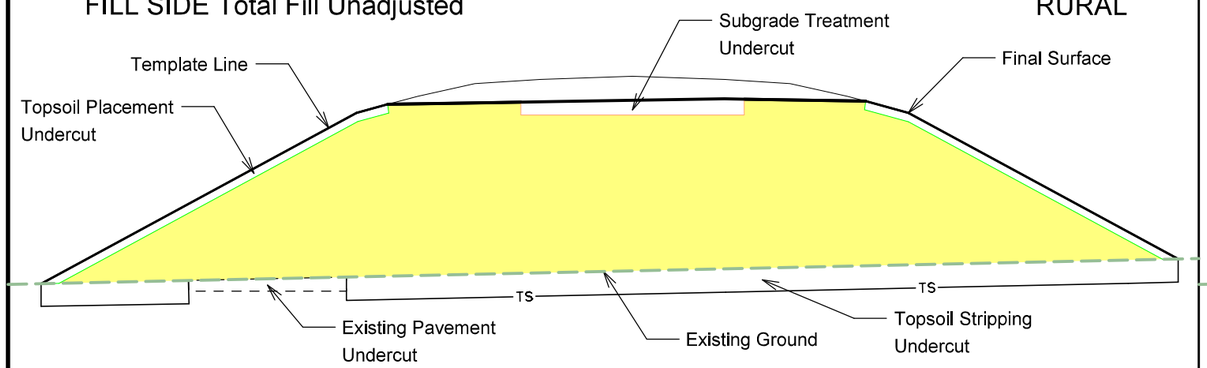


Notes:

1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

FILL SIDE Total Fill Unadjusted

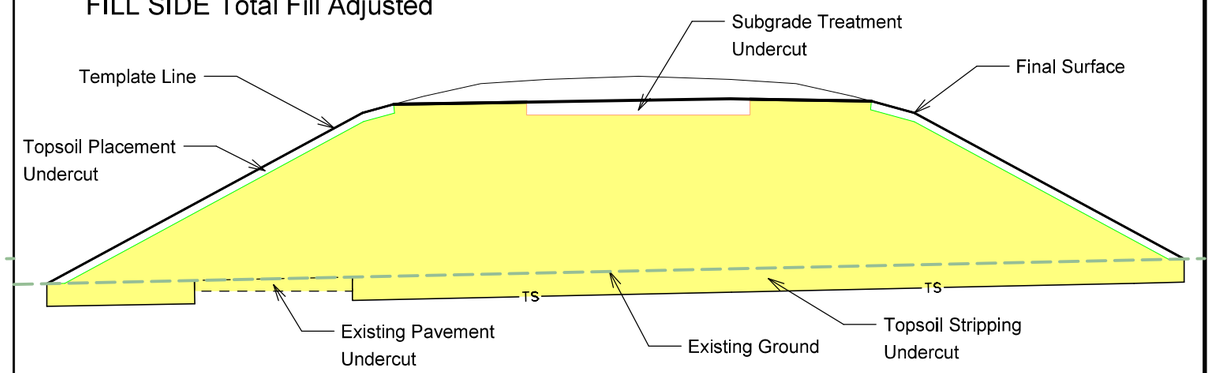
RURAL



Notes:

1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

FILL SIDE Total Fill Adjusted

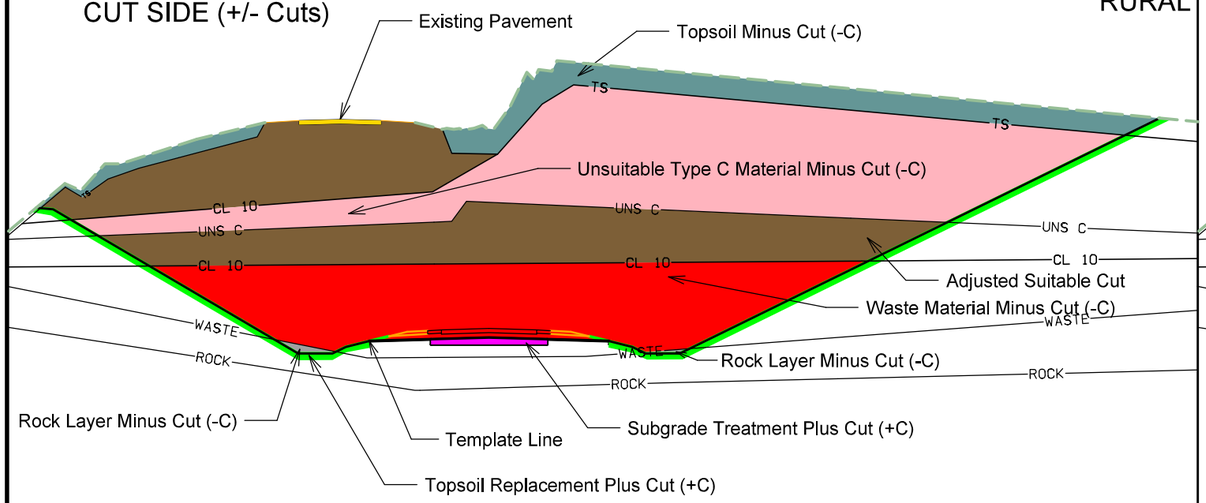


Notes:

1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping

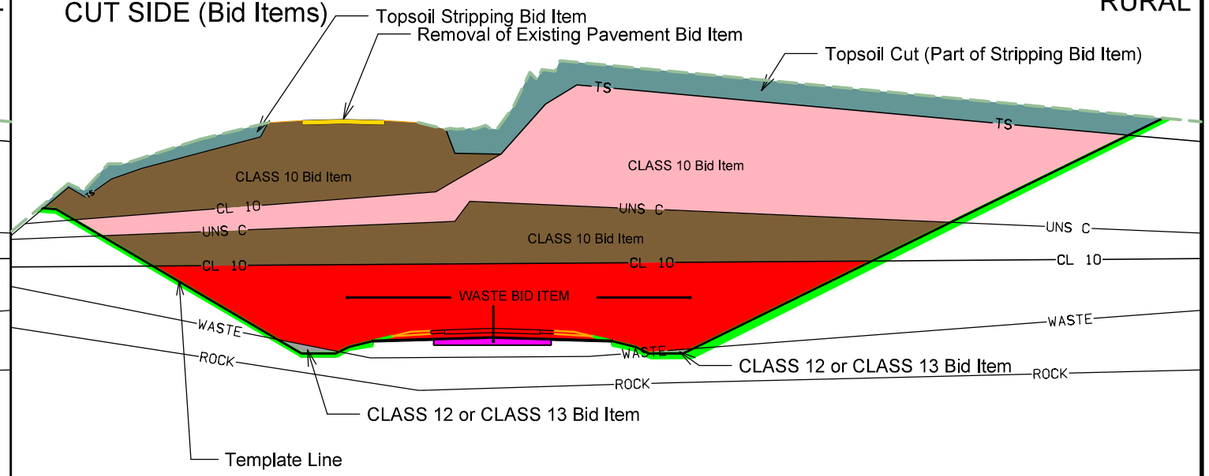
CUT SIDE (+/- Cuts)

RURAL



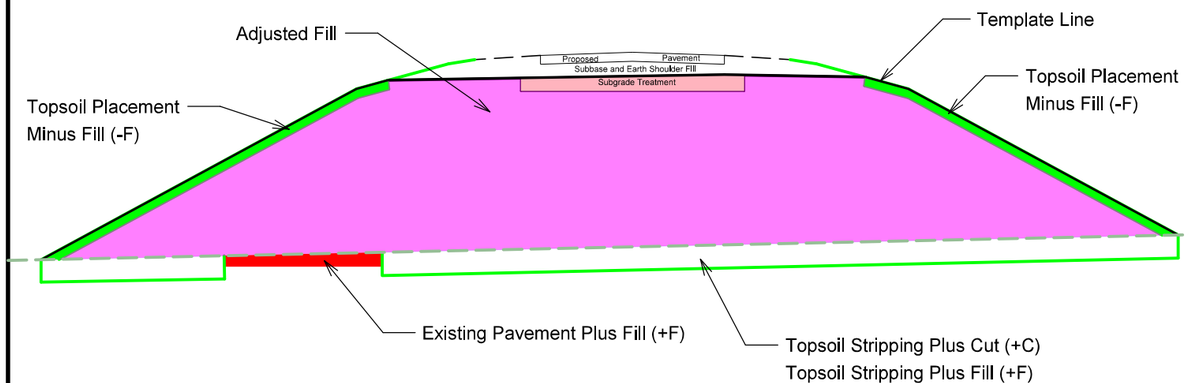
CUT SIDE (Bid Items)

RURAL



FILL SIDE (+/- Fills)

RURAL

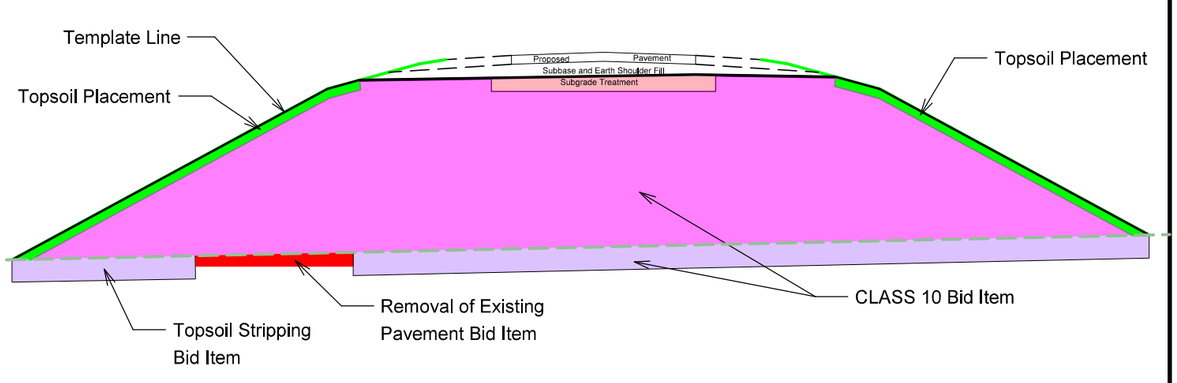


Notes:

1. "Add Quantity +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. (Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12 or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.
5. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

FILL SIDE (Bid Items)

RURAL



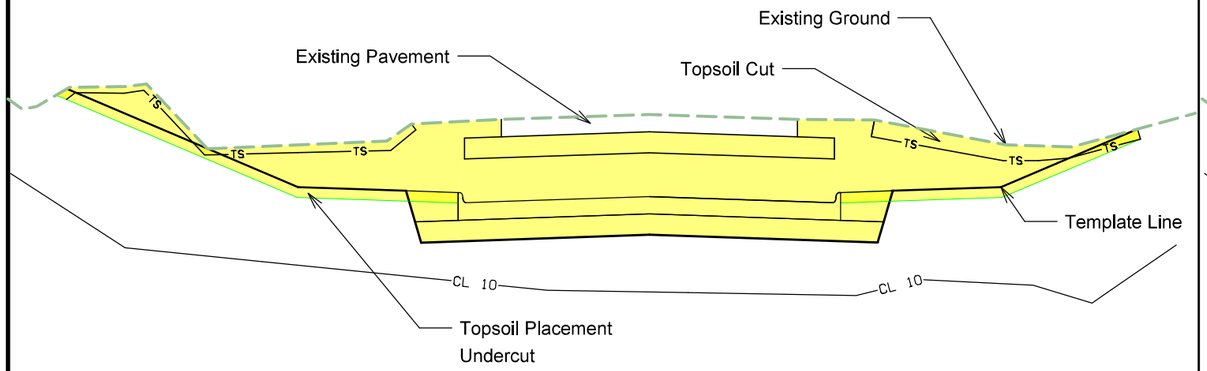
Notes:

1. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

FILE NO.	ENGLISH	DESIGN TEAM Project Manager\Designer	County COUNTY	PROJECT NUMBER	SHEET NUMBER T.1B

3:21:12 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\52080001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_LGD_D01.dgn

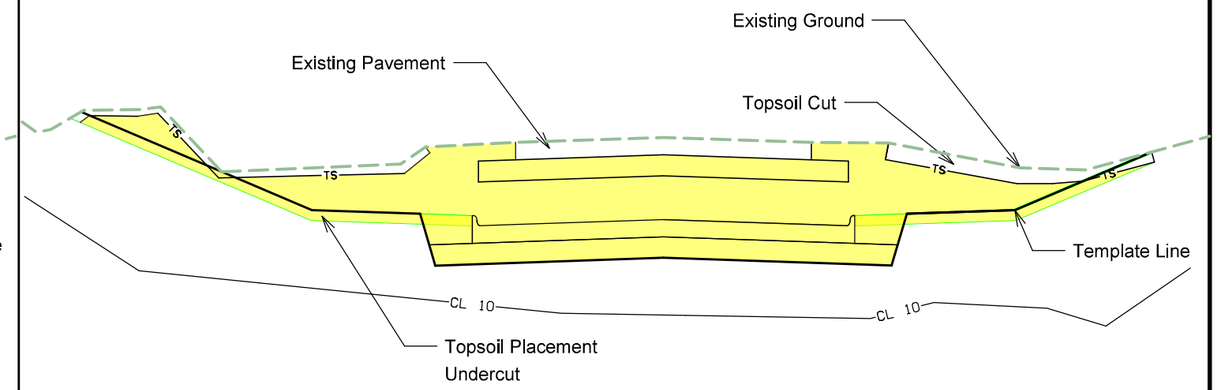
CUT SIDE Total Cut Unadjusted — URBAN



Notes:

1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

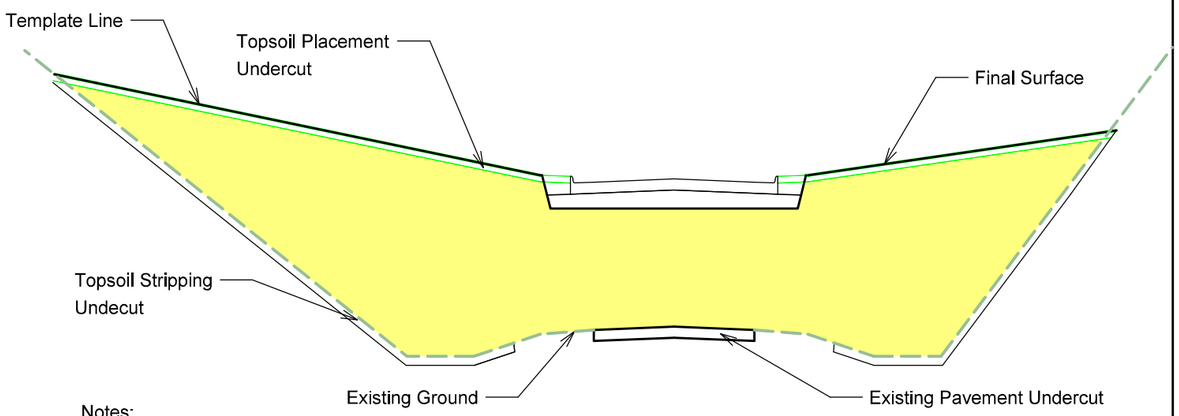
CUT SIDE Total Cut Adjusted — URBAN



Notes:

1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

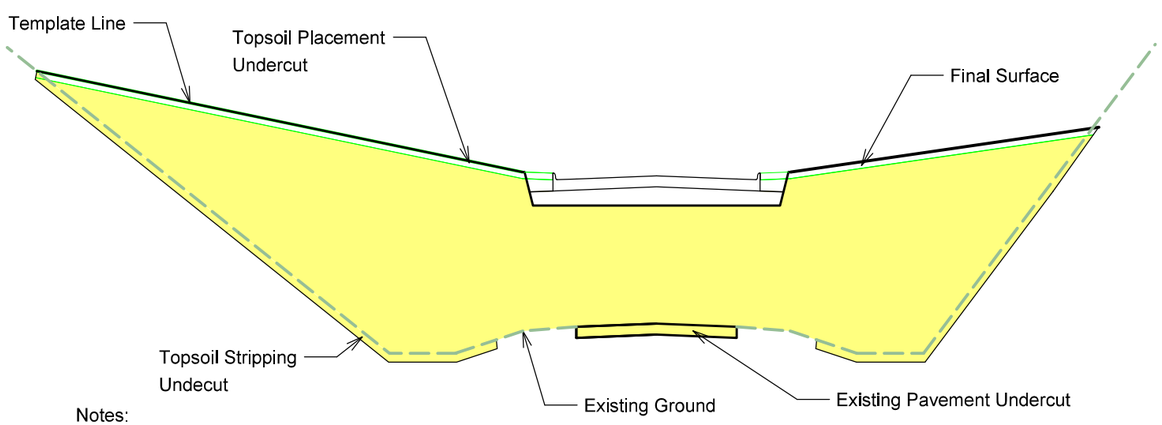
FILL SIDE Total Fill Unadjusted — URBAN



Notes:

1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

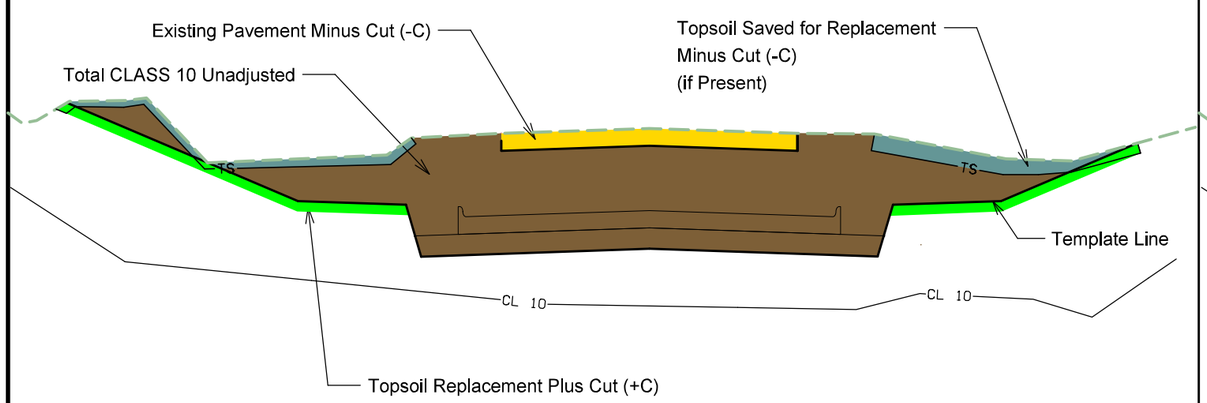
FILL SIDE Total Fill Adjusted — URBAN



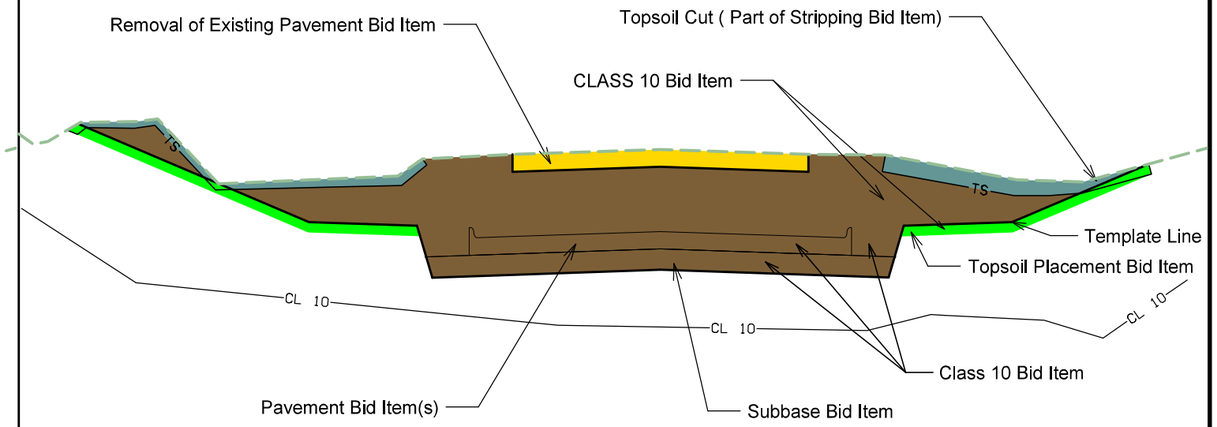
Notes:

1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping

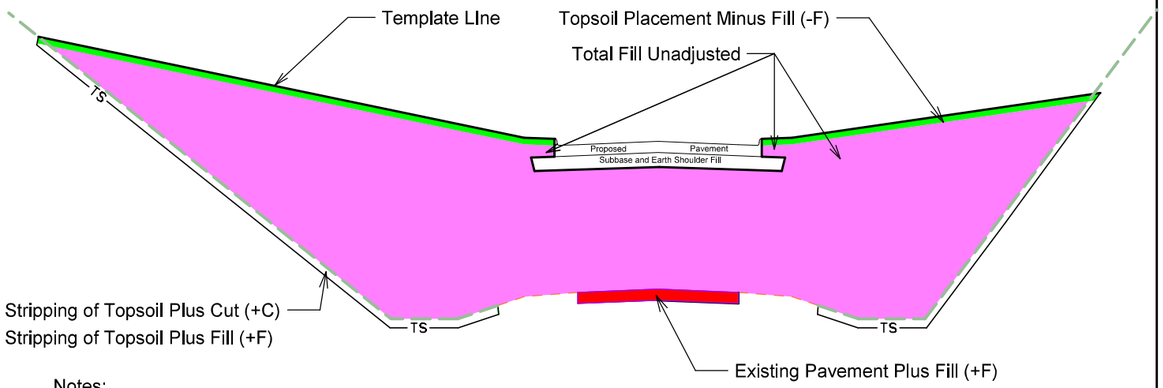
CUT SIDE (+/- Cuts) — URBAN



CUT SIDE (Bid Items) — URBAN



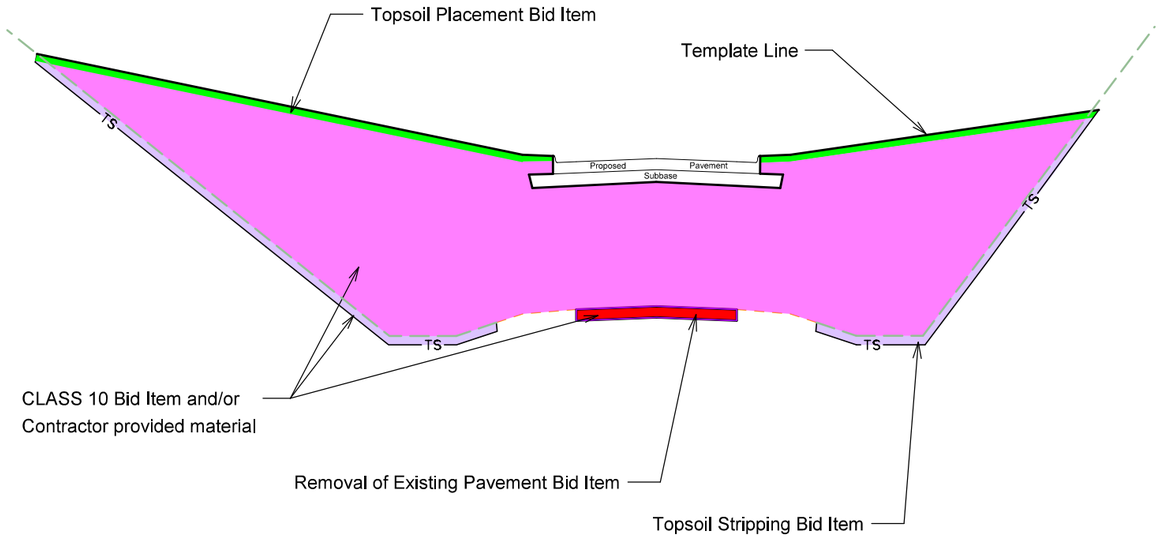
FILL SIDE (+/- Fills) — URBAN



Notes:

1. "Manually Calculated Cut Adjustments +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. (Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12 or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.

FILL SIDE (Bid Items) — URBAN



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

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill													
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink								
ML380_Grading																						
1209+00.00																						
1209+50.00	105	77	28	77	28	28	36	41	0	0	28	27	38	-10								
1210+00.00	237	195	42	195	42	42	55	140	0	0	42	41	57	-15								
1210+50.00	355	302	53	302	53	53	69	233	0	0	53	52	73	-20								
1211+00.00	324	276	48	276	48	48	62	214	0	0	48	47	66	-18								
1211+50.00	178	147	31	147	31	31	40	107	0	0	31	30	42	-11								
1212+00.00	86	62	24	62	24	24	31	31	0	0	24	24	34	-10								
1212+50.00	490	429	61	429	61	61	79	350	0	0	61	61	85	-24								
1213+00.00	2,344	2,217	127	2,217	127	127	165	2,052	0	0	127	124	174	-47								
1213+50.00	5,281	5,105	176	5,105	176	176	229	4,876	0	0	176	164	230	-54								
1214+00.00	7,277	7,081	196	7,081	196	196	255	6,826	0	0	196	183	256	-60								
1214+50.00	7,621	7,426	195	7,426	195	195	254	7,173	0	0	195	188	263	-68								
1215+00.00	7,145	6,958	187	6,958	187	187	243	6,715	0	0	187	181	253	-66								
1215+50.00	6,536	6,183	353	6,183	353	353	459	5,724	0	0	353	173	242	111								
1216+00.00	5,750	5,245	505	5,245	505	505	657	4,589	0	0	505	163	228	277								
1216+50.00	4,462	4,008	454	4,008	454	454	590	3,418	0	0	454	148	207	247								
1217+00.00	2,759	2,386	373	2,386	373	373	485	1,901	0	0	373	122	171	202								
	1,524	1,206	318	1,206	318	318	413	793	0	0	318	105	147	171								
1219+50.00																						
1220+00.00	1,692	1,367	325	1,367	325	325	423	945	0	0	325	107	150	175								
1220+50.00	2,259	2,032	227	2,032	227	227	295	1,737	0	0	227	112	157	70								
1221+00.00	2,255	2,141	114	2,141	114	114	148	1,993	0	0	114	111	155	-41								
1221+50.00	2,105	1,992	113	1,992	113	113	147	1,845	0	0	113	110	154	-41								
1222+00.00	2,386	2,265	121	2,265	121	121	157	2,108	0	0	121	117	164	-43								
1222+50.00	3,285	3,147	138	3,147	138	138	179	2,968	0	0	138	135	189	-51								
1223+00.00	4,166	4,012	154	4,012	154	154	200	3,812	0	0	154	151	211	-57								
1223+50.00	4,189	4,034	155	4,034	155	155	202	3,833	0	0	155	151	211	-56								
1224+00.00	3,210	3,070	140	3,070	140	140	182	2,888	0	0	140	137	192	-52								
1224+50.00	1,849	1,731	118	1,731	118	118	153	1,578	0	0	118	118	165	-47								
ML380_Grading																						
Totals:	79,870	75,094	4,776	75,094	4,776	4,776	6,209	68,886	0	0	4,776	3,082	4,315	462								

FILE NO.	ENGLISH	DESIGN TEAM Holst\Thede\Prindle	Johnson COUNTY	PROJECT NUMBER IMN-380-6(347)6--0E-52	SHEET NUMBER T.2

3/14/2017 1:41:06 PM nthede W:\Projects\5208001002\Design_n\LETTING_FOLDERS\(347)\EW_Grading\52080347_T01.xlsm

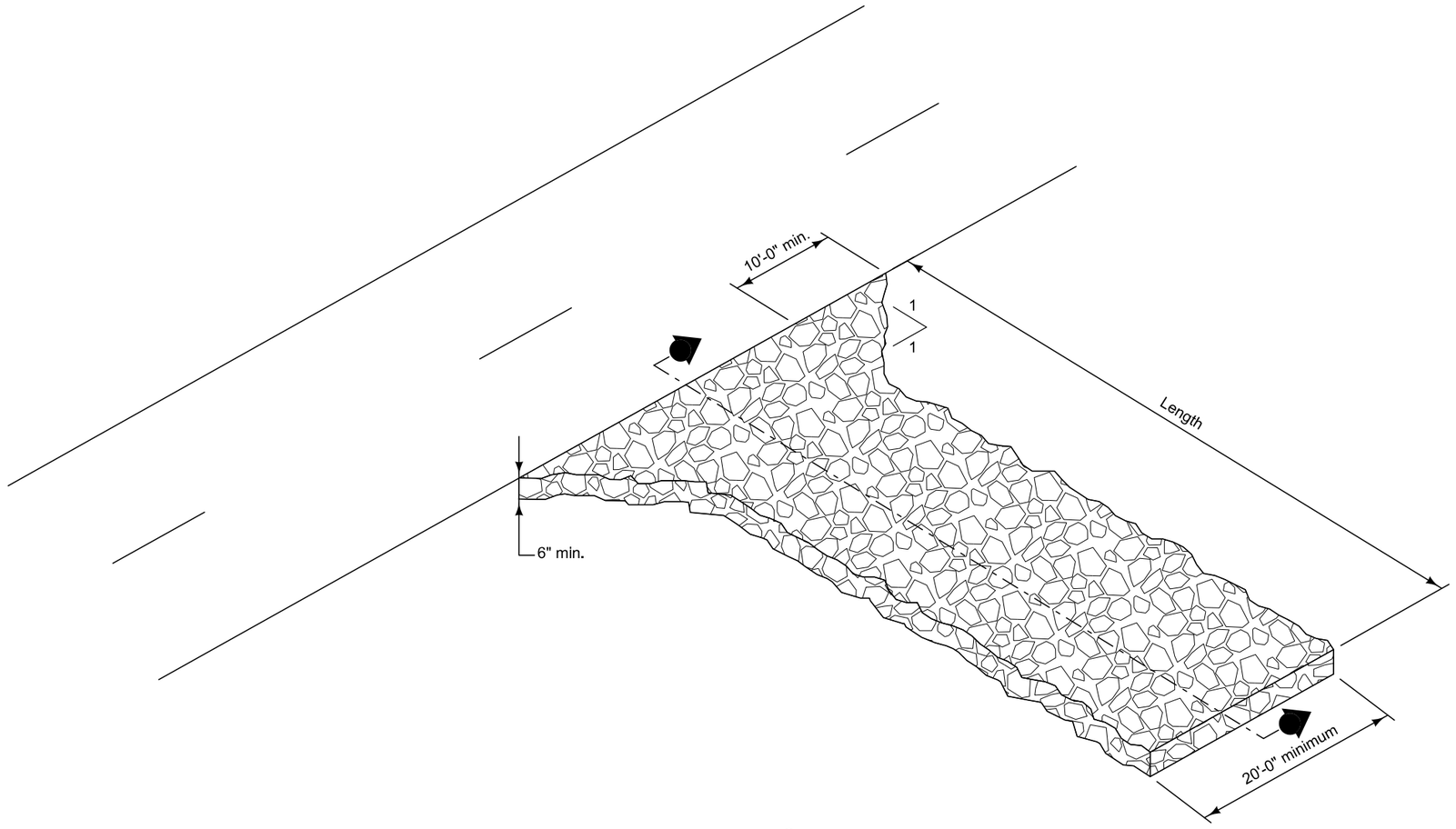
Obtain the Engineer's approval for location and length of stabilized entrances prior to constructing.

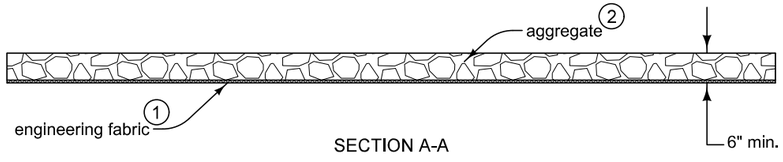
Method of Measurement for Stabilized Construction Entrance will be in linear feet measured along the length of the entrance at the entrance centerline.

Basis of Payment for Stabilized Construction Entrance will be at the contract unit price per linear foot. Payment is full compensation for furnishing all materials and work necessary for installation, maintenance, and removal of stabilized construction entrance. Maintenance includes installing additional material or cleaning required to maintain the entrance in a functional contdition.

(1) Place engineering fabric prior to placing aggregate. Use fabric for Embankment Erosion Control complying with Section 4196 of the Standard Specifications.

(2) Use aggregate meeting Gradation No. 13 of Section 4109 of the Standard Specificaitons.





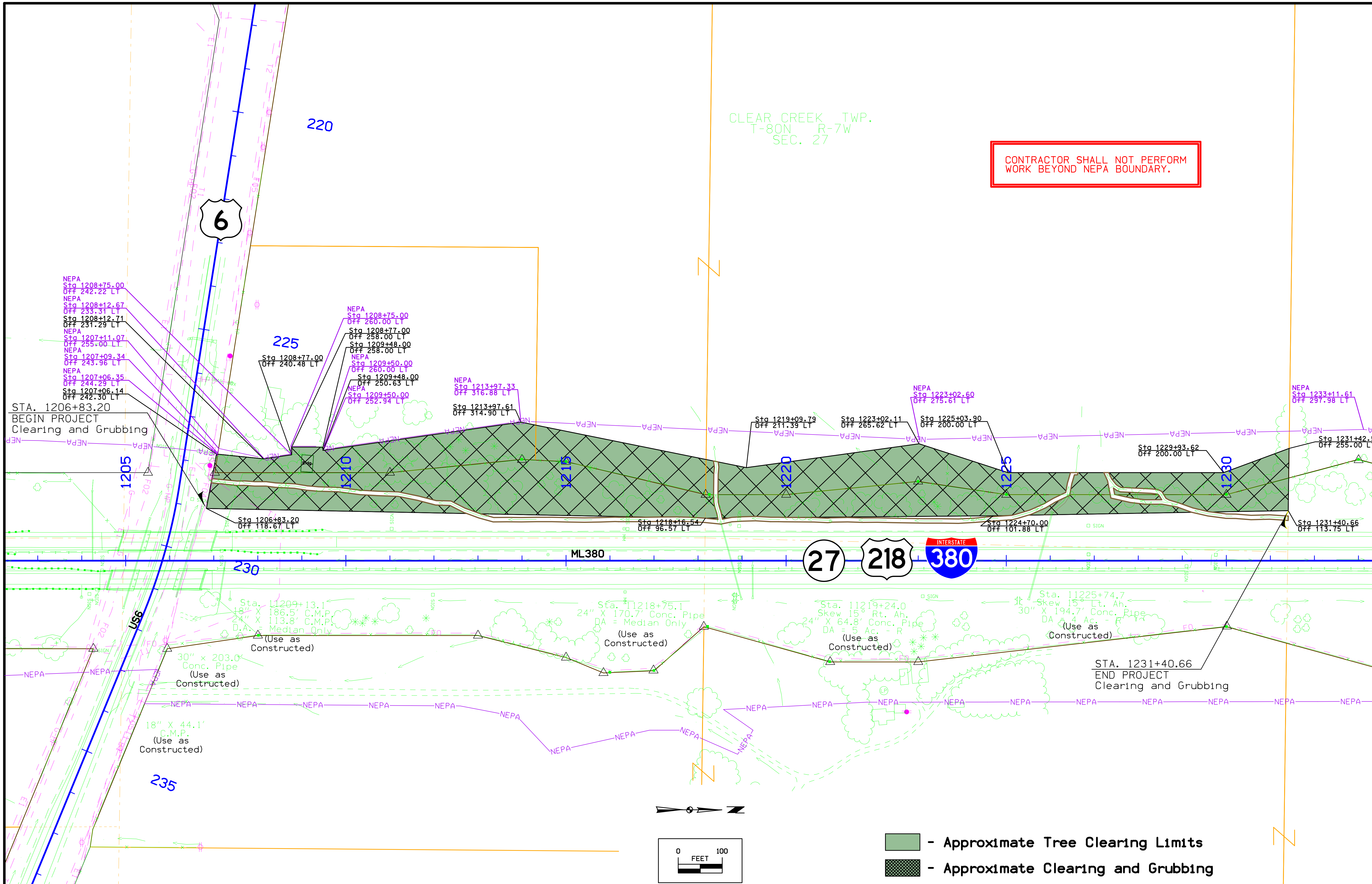
SECTION A-A

Possible Contract Item:
Stabilized Construction Entrance

STABILIZED CONSTRUCTION ENTRANCE

FILE NO.	ENGLISH	DESIGN TEAM Holst \ Thede \ Prindle	JOHNSON COUNTY	PROJECT NUMBER IMN-380-6(347)1--0E-52	SHEET NUMBER U.1

2:16:38 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Clearing_Grubbing\SHT_52080347_U01.dgn



FILE NO. | ENGLISH | DESIGN TEAM Holst \ Thede \ Prindle | JOHNSON COUNTY | PROJECT NUMBER IMN-380-6(347)1--0E-52 | SHEET NUMBER U.2

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- Additional Topsoil Removal
- Subgrade Treatment
- Granular Shoulder
- Pavement
- Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS — Topsoil (Class 10)
- SLOPE DRESSING — Slope Dressing Only
- CL 10 — Class 10 Materials
- SEL LO — Select Loams And Clay-Loams
- SEL SA — Select Sand
- UNS A — Unsuitable Type A Disposal
- UNS B — Unsuitable Type B Disposal
- UNS C — Unsuitable Type C Disposal
- SHALE — Shale
- WASTE — Waste
- B&W LS — Broken and Weathered Rock
- ROCK — Solid Rock
- BLDRS — Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

SYMBOL LEGEND OF CROSS SECTION SHEETS

Existing ROW — Existing Right-of-Way Limit

Proposed ROW — Proposed Right-of-Way Limit

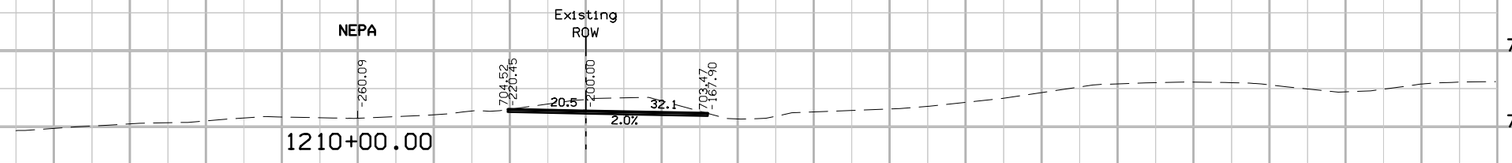
Temporary ROW — Temporary Right-of-Way Limit

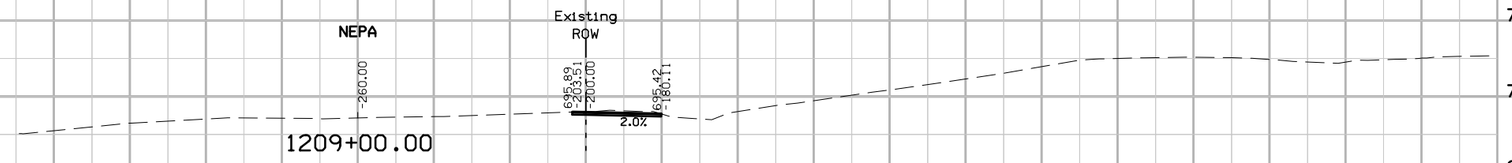
CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

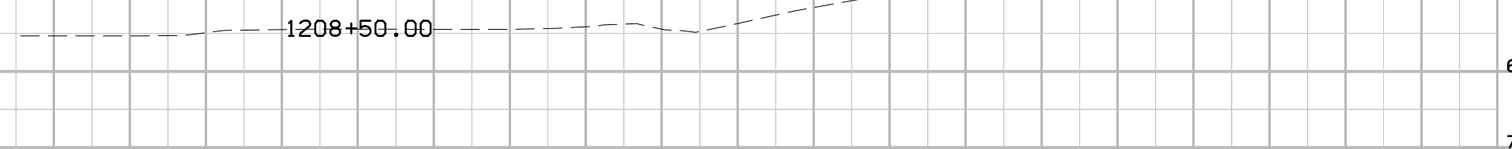
(COVERS SHEET SERIES W, X, Y, & Z)

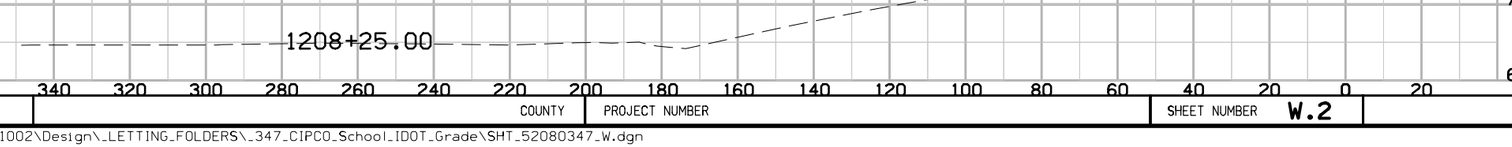
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.1

ML 380





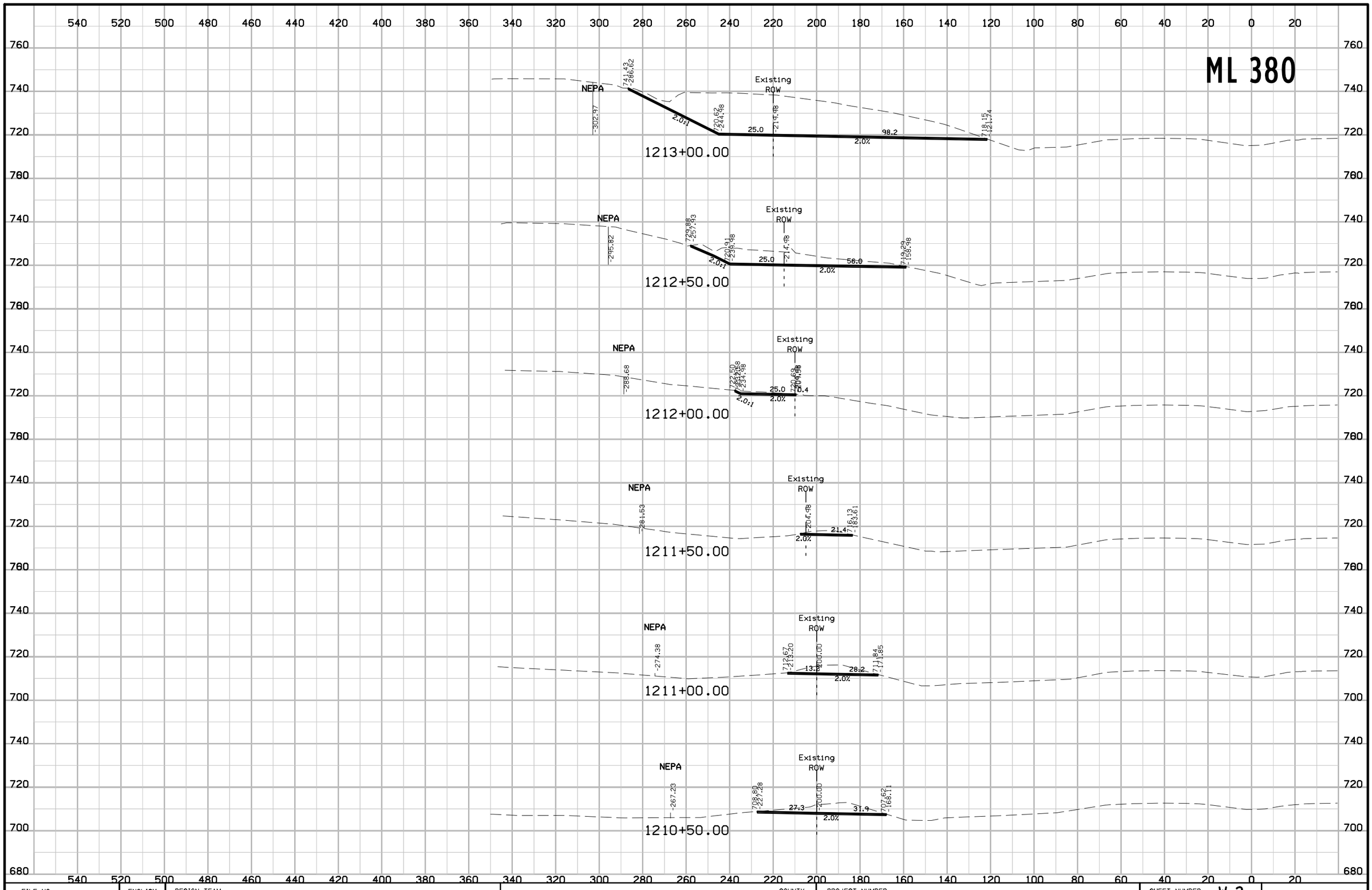




FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.2

2:18:37 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Grade\SHT_52080347_W.dgn

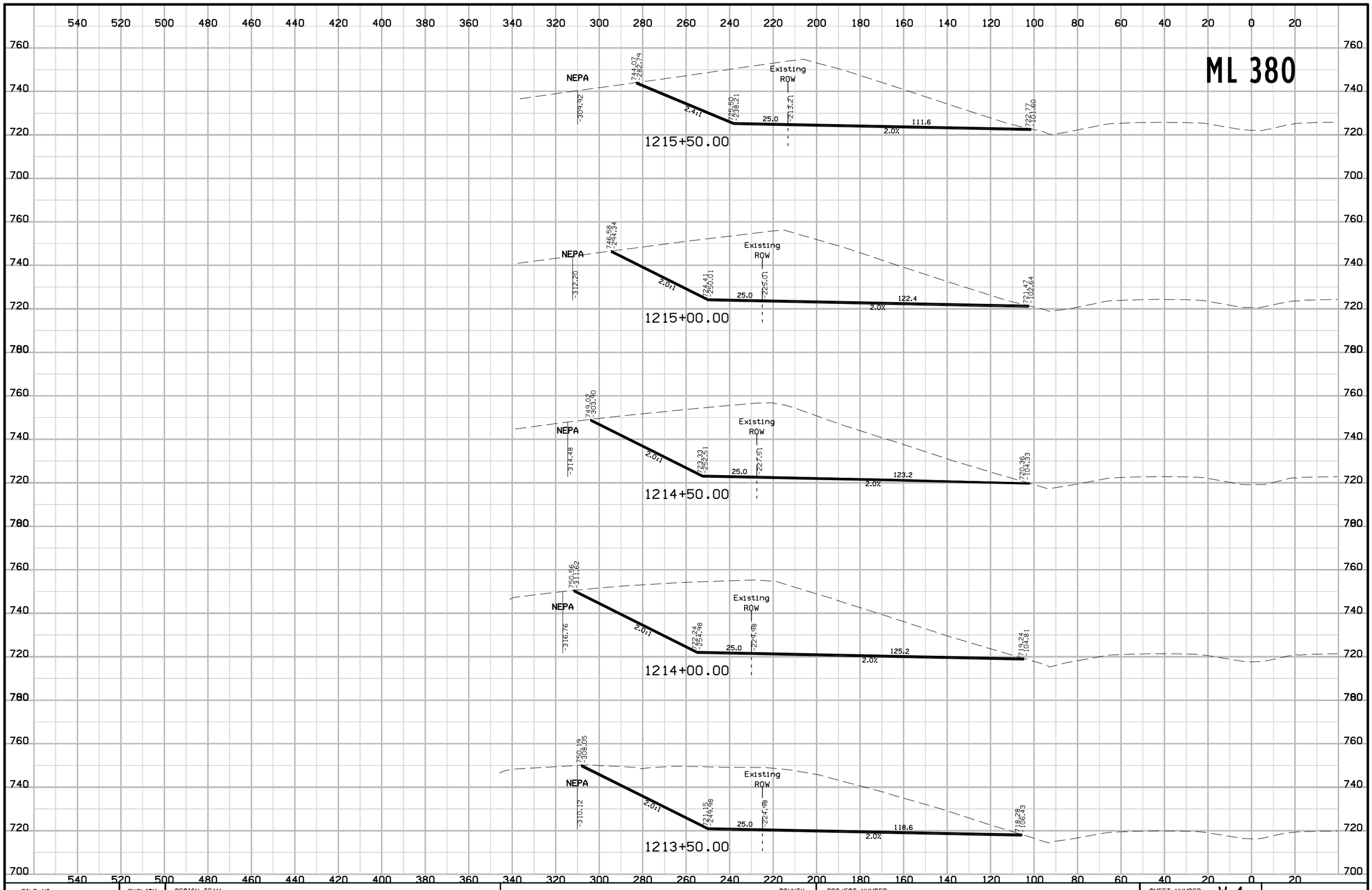
ML 380



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.3

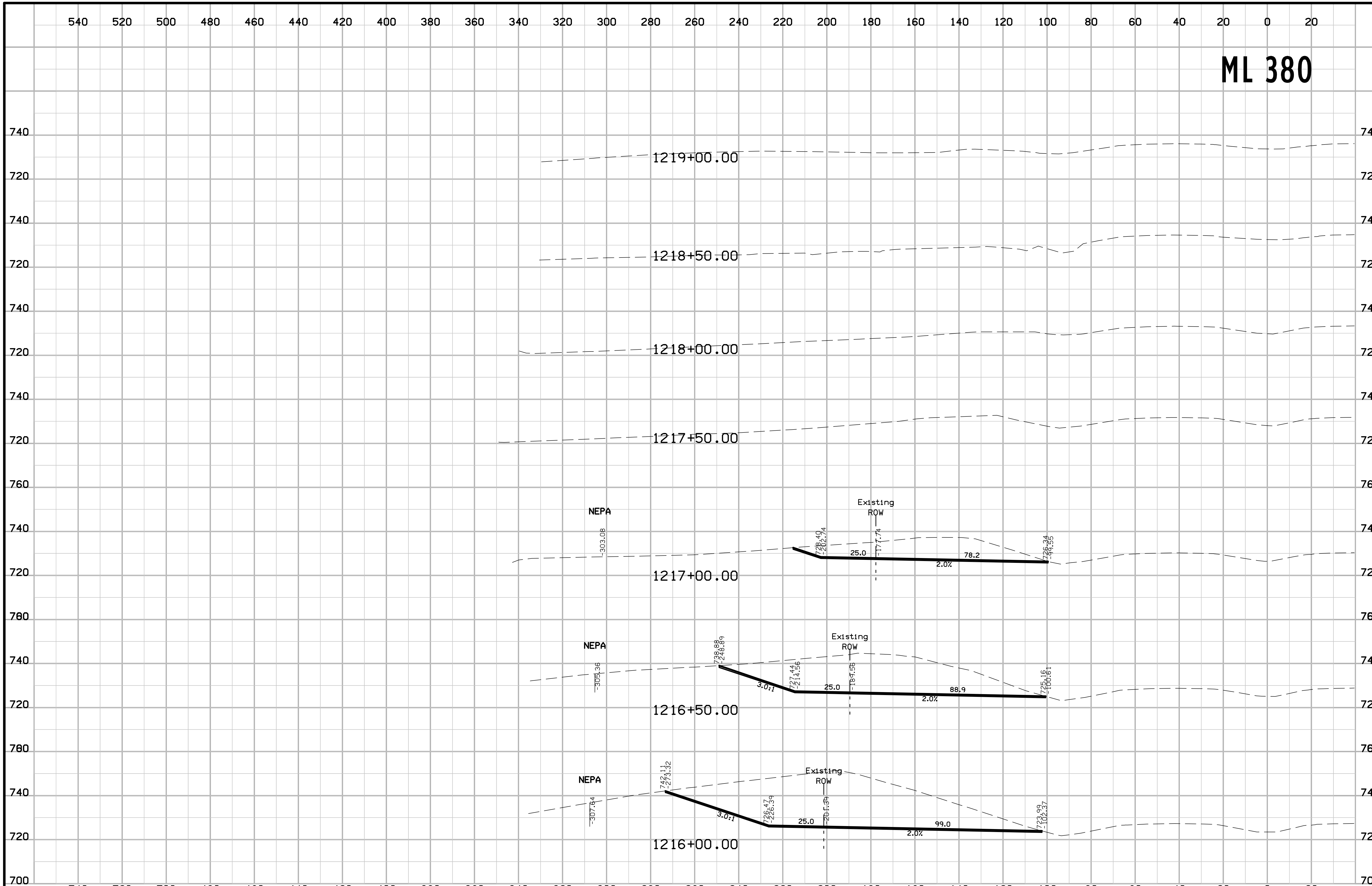
2:18:38 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Grade\SHT_52080347_W.dgn

ML 380



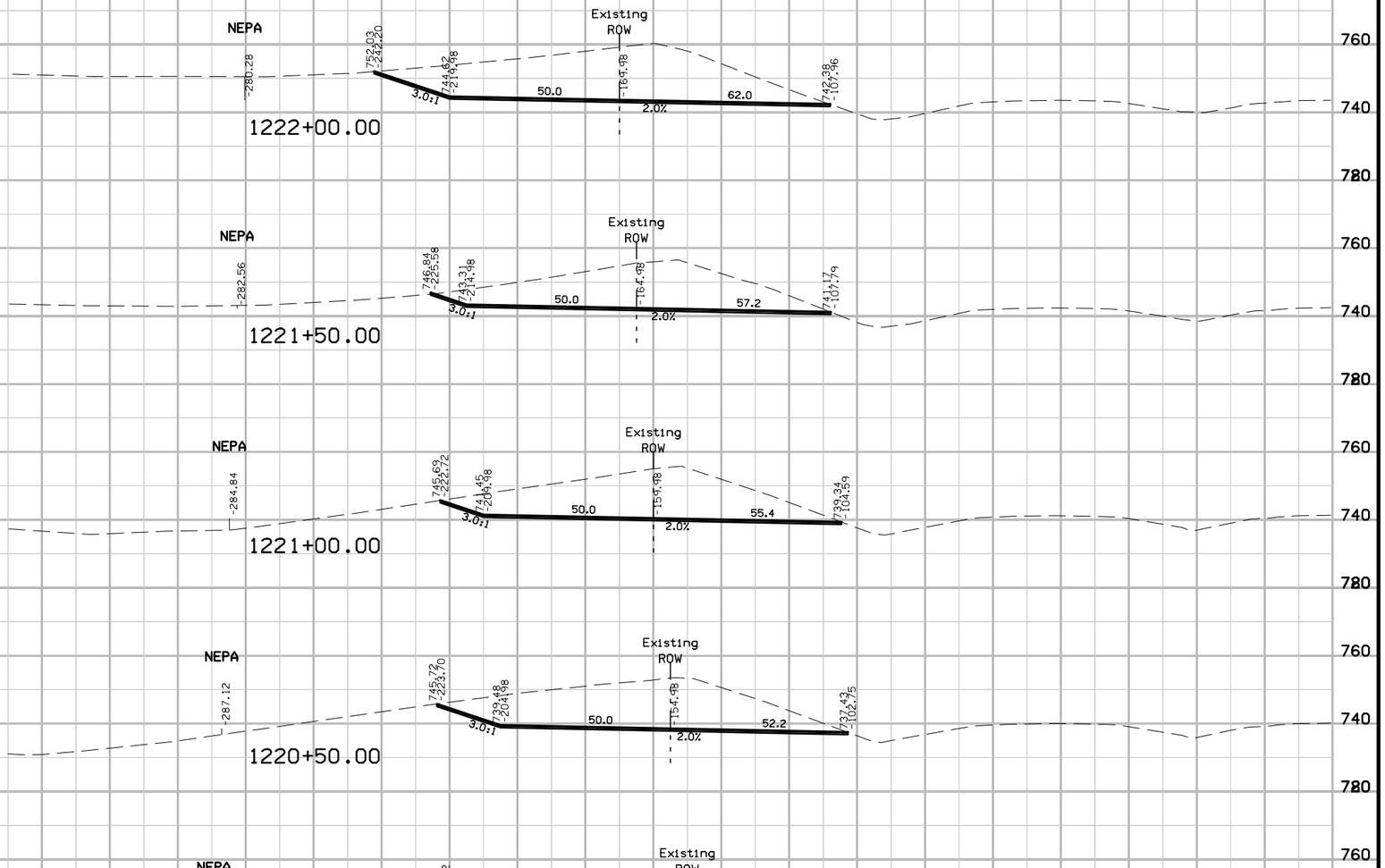
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.4

2:18:39 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Grade\SHT_52080347_W.dgn



FILE NO.	ENGLISH	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.5

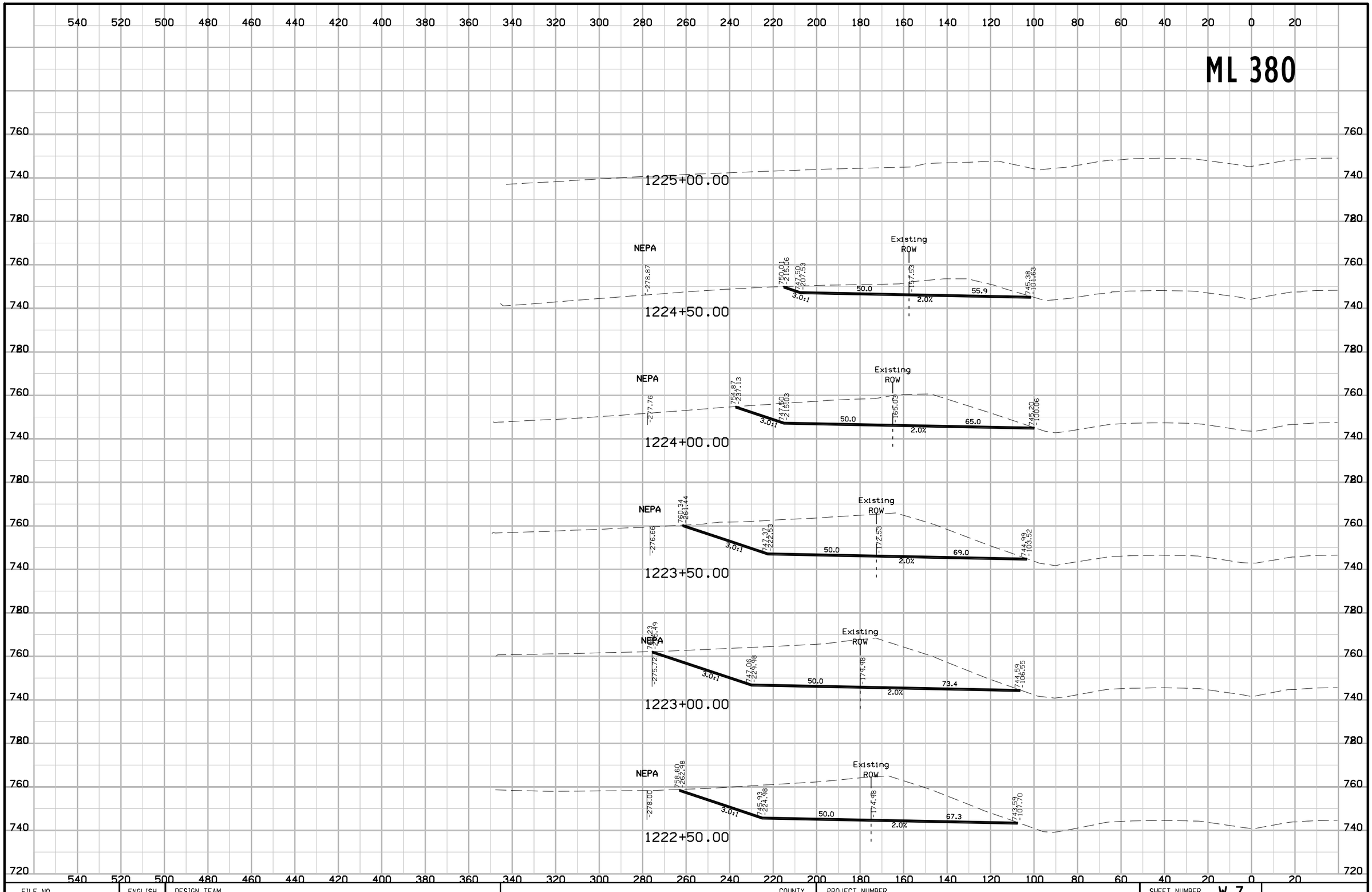
ML 380



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.6

2:18:41 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Grade\SHT_52080347_W.dgn

ML 380



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.7

2:18:42 PM 2/3/2017 jprindl pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5208001002\Design_LETTING_FOLDERS_347_CIPCO_School_IDOT_Grade\SHT_52080347_W.dgn