

**BEGIN
CONTRACT T200911308
STATION 667+50**

221
DELMARVA POWER & LIGHT COMPANY
T.M. #13-012.00-058
D.R. S-91-330

220
DELMARVA POWER & LIGHT COMPANY
T.M. #13-012.00-057
D.R. S-91-330

DRAFT

US 301 SOUTHBOUND

NOT FOR BIDDING

US 301 NORTHBOUND

AUGUST 2015

MATCH LINE STA. 671+00

220
DELMARVA POWER & LIGHT COMPANY
T.M. #13-012.00-057
D.R. S-91-330

220.01 DELMARVA POWER & LIGHT COMPANY
T.M. #13-012.00-059
D.R. S-91-336

223
RAUSCH ENTERPRISES, LLC
T.M. #13-013.00-069
INS. #20060411-0034295

SEE CS-67 FOR STAGING
AREA DETAILS

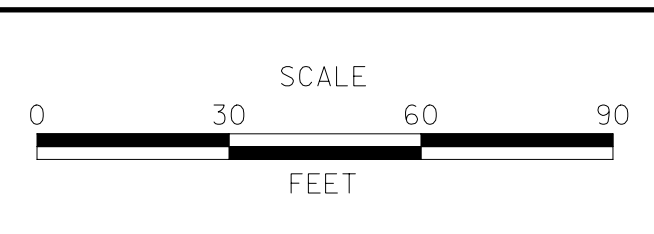
GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
200	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	667+53.00	64.97	50.00
201	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	668+03.00	62.92	303.22

****WORK TO BE PERFORMED UNDER THIS CONTRACT. ALL
OTHER WORK TO BE PERFORMED UNDER CONTRACT
T200911301 - US 301, NORFOLK SOUTHERN RR TO SR 896.**

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ADDENDUMS / REVISIONS	

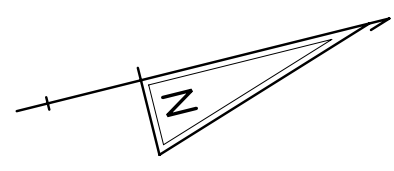


**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: BT

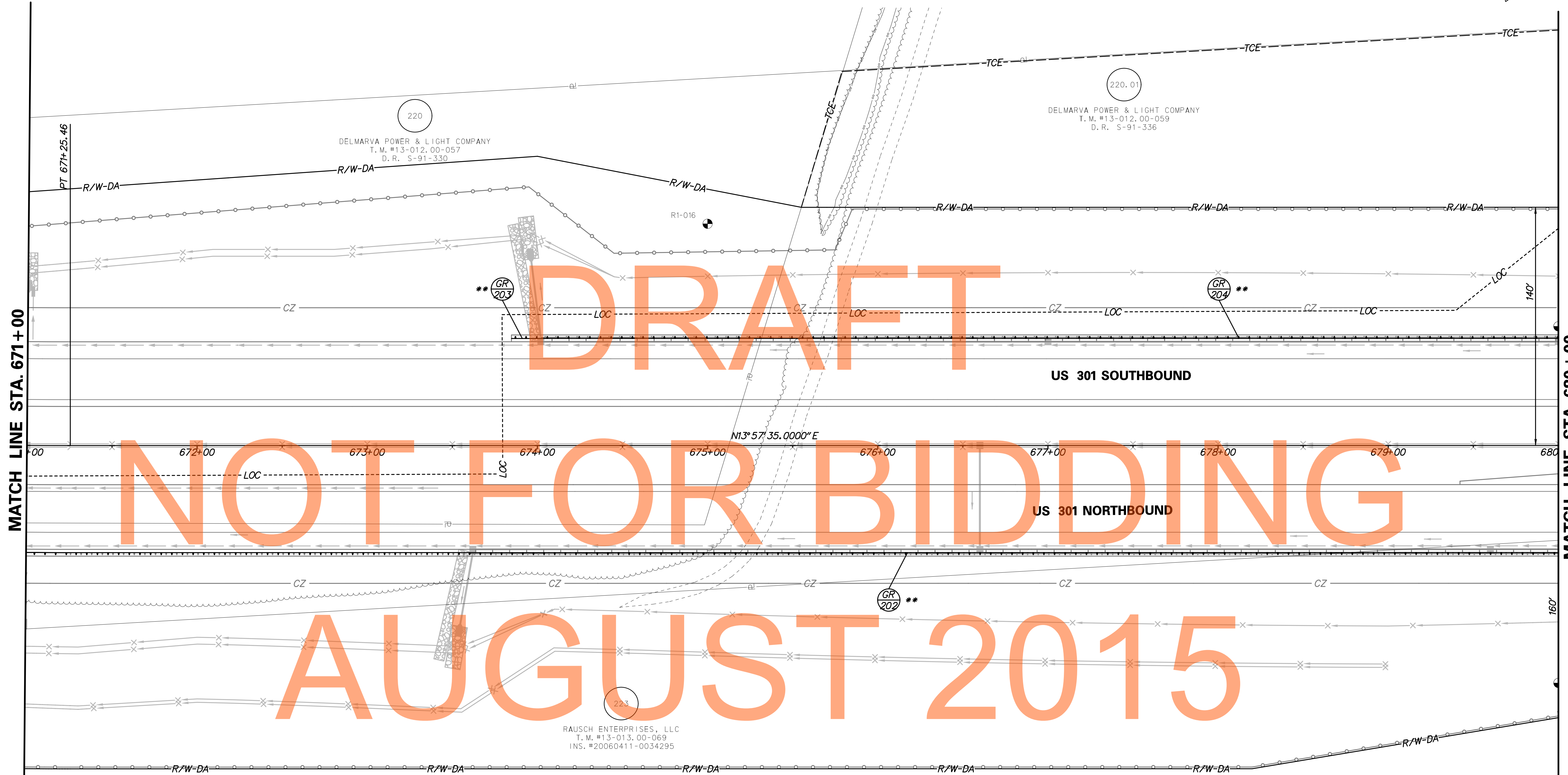
CONSTRUCTION PLAN

CP-01
SHEET NO. 67
TOTAL SHTS. 875



MATCH LINE STA. 671+00

MATCH LINE STA. 680+00



DRAFT

NOT FOR BIDDING

AUGUST 2015

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
202	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	671+00.00	62.92	900.54
203	GUARDRAIL END ANCHORAGE 31	673+84.73	-62.92	12.50
204	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	673+97.23	-62.92	602.77

SEE CS-67 FOR STAGING AREA DETAILS

**WORK TO BE PERFORMED UNDER THIS CONTRACT. ALL OTHER WORK TO BE PERFORMED UNDER CONTRACT T200911301 - US 301, NORFOLK SOUTHERN RR TO SR 896.



ADDENDUMS / REVISIONS



**US 301,
SR 896 TO SR 1**

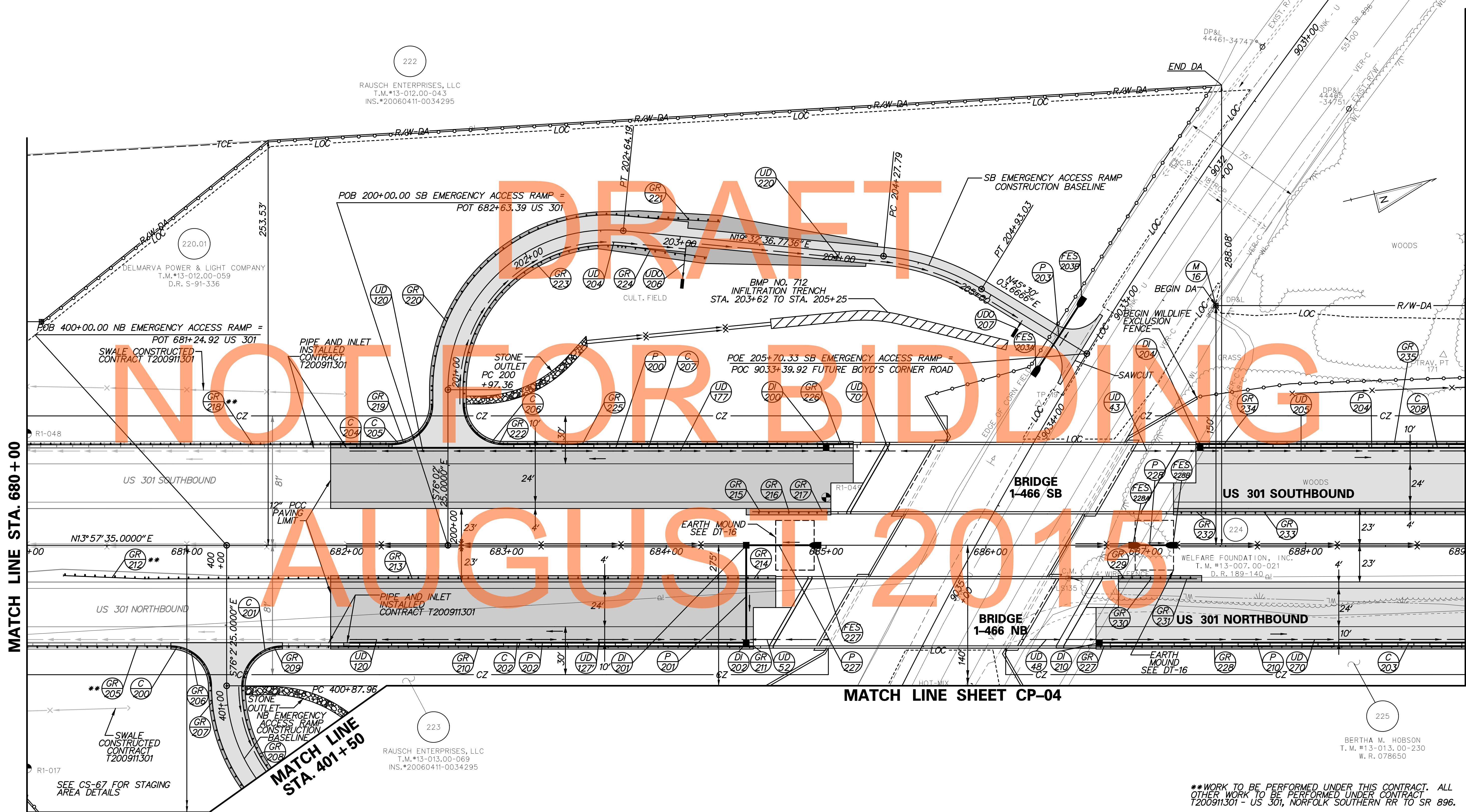
CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: BT

CONSTRUCTION PLAN

CP-02
SHEET NO. 68
TOTAL SHTS. 875

NOTES:

- FOR REMAINDER OF ACTIVITY ON PARCEL 222 AND PARCEL 220.01 SEE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS.
- BETWEEN SR 896/BOYD'S CORNER ROAD AND STATION 700+00, EXCAVATE 2' BELOW EXISTING GRADE FOR ENTIRE ROADWAY FOOTPRINT, PLACE SEPARATION GEOTEXTILE AND BACKFILL 2' WITH BORROW, TYPE B. EXCAVATION WITHIN WOODED AREAS WILL BE INCIDENTAL TO ITEM 201000 - CLEARING AND GRUBBING; ALL OTHER EXCAVATION WILL BE PAID UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.



NOT FOR BIDDING

MATCH LINE SHT CP-04

MATCH LINE STA. 401+50

MATCH LINE SHEET CP-04

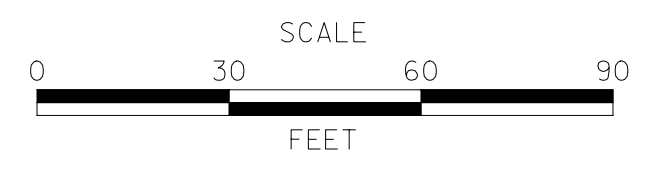
MATCH LINE STA. 689+00

**WORK TO BE PERFORMED UNDER THIS CONTRACT. ALL OTHER WORK TO BE PERFORMED UNDER CONTRACT T200911301 - US 301, NORFOLK SOUTHERN RR TO SR 896.

SEE NEXT SHEET FOR SCHEDULES



ADDENDUMS / REVISIONS	



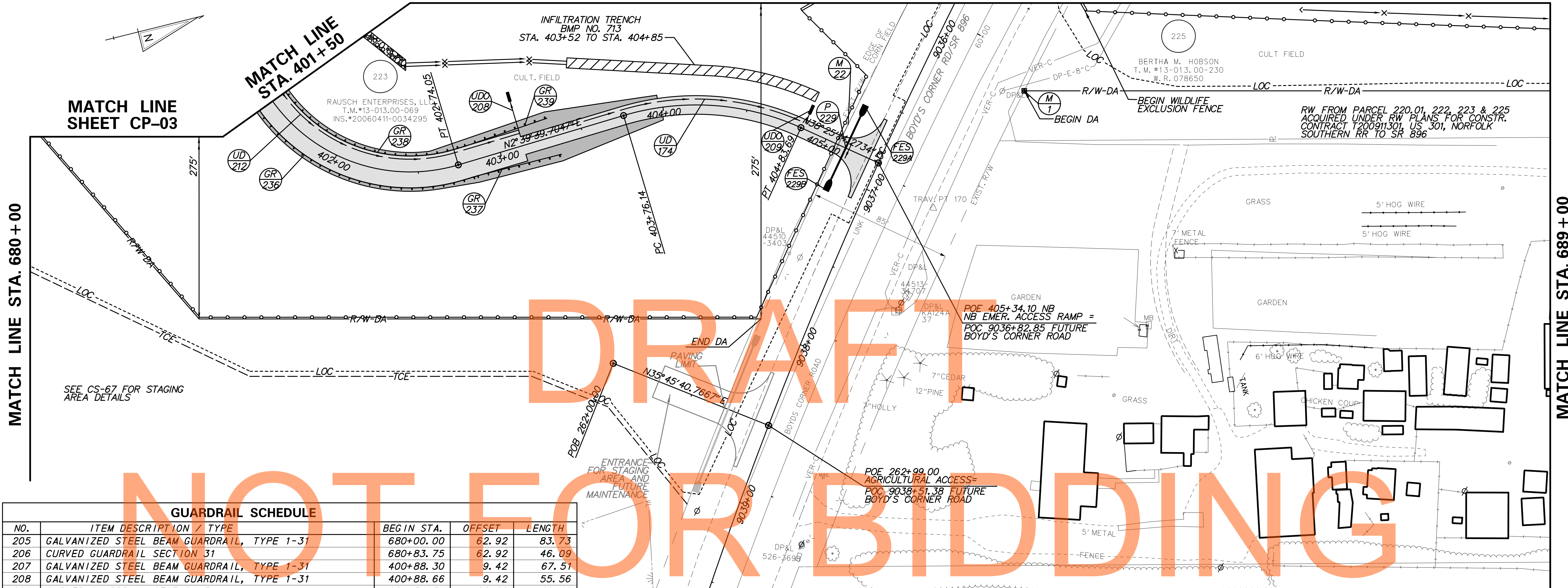
**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO. 1-9
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: BT

CONSTRUCTION PLAN

CP-03
SHEET NO. 69
TOTAL SHTS. 875

MATCH LINE SHEET CP-03



NOT FOR BIDDING

NOTE: BETWEEN SR 896/BOYD'S CORNER ROAD AND STATION 700+00, EXCAVATE 2' BELOW EXISTING GRADE FOR ENTIRE ROADWAY FOOTPRINT, PLACE SEPARATION GEOTEXTILE, AND BACKFILL 2' WITH BORROW, TYPE B. EXCAVATION WITHIN WOODED AREAS WILL BE INCIDENTAL TO ITEM 201000 - CLEARING AND GRUBBING; ALL OTHER EXCAVATION WILL BE PAID UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
205	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	680+00.00	62.92	83.73
206	CURVED GUARDRAIL SECTION 31	680+83.75	62.92	46.09
207	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	400+88.30	9.42	67.51
208	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	400+88.66	9.42	55.56
209	CURVED GUARDRAIL SECTION 31	681+34.34	88.60	46.49
210	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	681+66.17	62.92	268.57
211	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	684+34.74	62.92	19.75
212	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	680+22.90	18.97	50.00
213	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	680+73.74	21.00	375.00
214	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	684+48.74	21.00	19.75
215	END ANCHORAGE 31	684+53.77	-21.00	12.50
216	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	684+66.49	-21.00	25.00
217	GUARDRAIL TO BARRIER CONNECTION EXIT TYPE 31	684+91.49	-21.00	11.50
218	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	680+00.00	-62.96	222.23
219	CURVED GUARDRAIL SECTION 31	682+22.23	-62.92	46.31
220	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	200+88.42	-9.42	200.00
221	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	202+72.11	-9.42	50.00
222	CURVED GUARDRAIL SECTION 31	682+72.81	-88.42	46.31
223	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	200+88.42	9.42	162.50
224	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	202+66.63	9.42	50.00
225	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	683+04.56	-62.92	200.92
226	GUARDRAIL TO BARRIER CONNECTION EXIT TYPE 31	685+05.49	-62.92	11.50
227	GUARDRAIL TO BARRIER CONNECTION EXIT TYPE 31	686+68.88	63.00	11.50
228	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	686+80.38	62.92	219.62
229	GUARDRAIL TO BARRIER CONNECTION EXIT TYPE 31	686+82.88	21.00	11.50
230	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	686+94.38	21.00	25.00
231	END ANCHORAGE 31	687+19.38	21.00	12.50
232	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	687+17.38	-21.00	19.75
233	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	687+37.13	-21.00	162.87
234	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	687+31.38	-63.00	19.75
235	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	687+51.13	-63.00	148.87
236	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	401+50.00	9.42	144.99
237	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	402+81.12	9.42	50.00
238	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	401+50.00	-9.42	119.43
239	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	402+83.31	-9.42	50.00

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
200	685+00.00	-62.92	48" x 30"	2	93.33	88.95
201	684+50.00	0	34" x 24"	2	91.77	88.57
202	684+50.00	62.92	48" x 30"	2	93.58	88.27
204	687+34.00	-62.92	48" x 30"	2	92.16	86.96
210	686+71.00	62.92	48" x 30"	2	92.47	87.90

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
200	15" RCP	IV	298.00	0.005	88.95	87.47
201	18" RCP	IV	60.00	0.005	88.57	88.27
202	15" RCP	IV	248.00	0.005	88.27	87.03
203	18" RCP	IV	60.00	0.011	66.37	65.74
204	15" RCP	IV	278.00	0.005	86.96	85.57
210	15" RCP	IV	272.00	0.006	87.90	86.27
227	15" RCP	IV	39.00	0.071	92.07	89.31
228	15" RCP	IV	20.00	0.005	90.55	90.45
229	18" RCP	IV	56.00	0.011	66.71	66.11
230	18" RCP	IV	100.00	0.005	66.10	65.65

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
203A	18" RCP	0.003	NO
203B	18" RCP	0.003	NO
227	15" RCP	0.071	YES
228A	15" RCP	0.005	YES
228B	15" RCP	0.005	NO
229A	18" RCP	0.006	NO
229B	18" RCP	0.006	NO
230A	18" RCP	0.005	NO
230B	18" RCP	0.005	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
200	P. C. C. CURB, TYPE 1-4	40.00
201	P. C. C. CURB, TYPE 1-4	40.00
202	P. C. C. CURB & GUTTER, TYPE 1-4	265.00
203	P. C. C. CURB & GUTTER, TYPE 1-4	232.00
204	P. C. C. CURB & GUTTER, TYPE 1-4	40.00
205	P. C. C. CURB, TYPE 1-4	40.00
206	P. C. C. CURB, TYPE 1-4	40.00
207	P. C. C. CURB & GUTTER, TYPE 1-4	219.00
208	P. C. C. CURB & GUTTER, TYPE 1-4	169.00

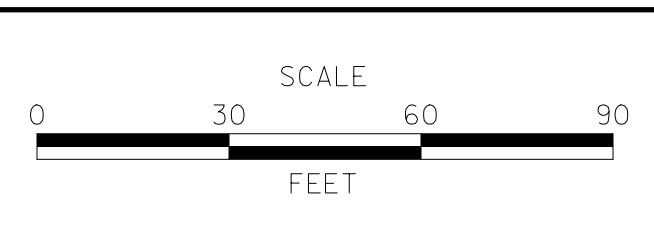
UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
206	25.00	74.00
207	12.00	65.85
208	25.00	72.50
209	12.00	66.50

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ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: BT

CONSTRUCTION PLAN	
SHEET NO.	70
TOTAL SHTS.	875

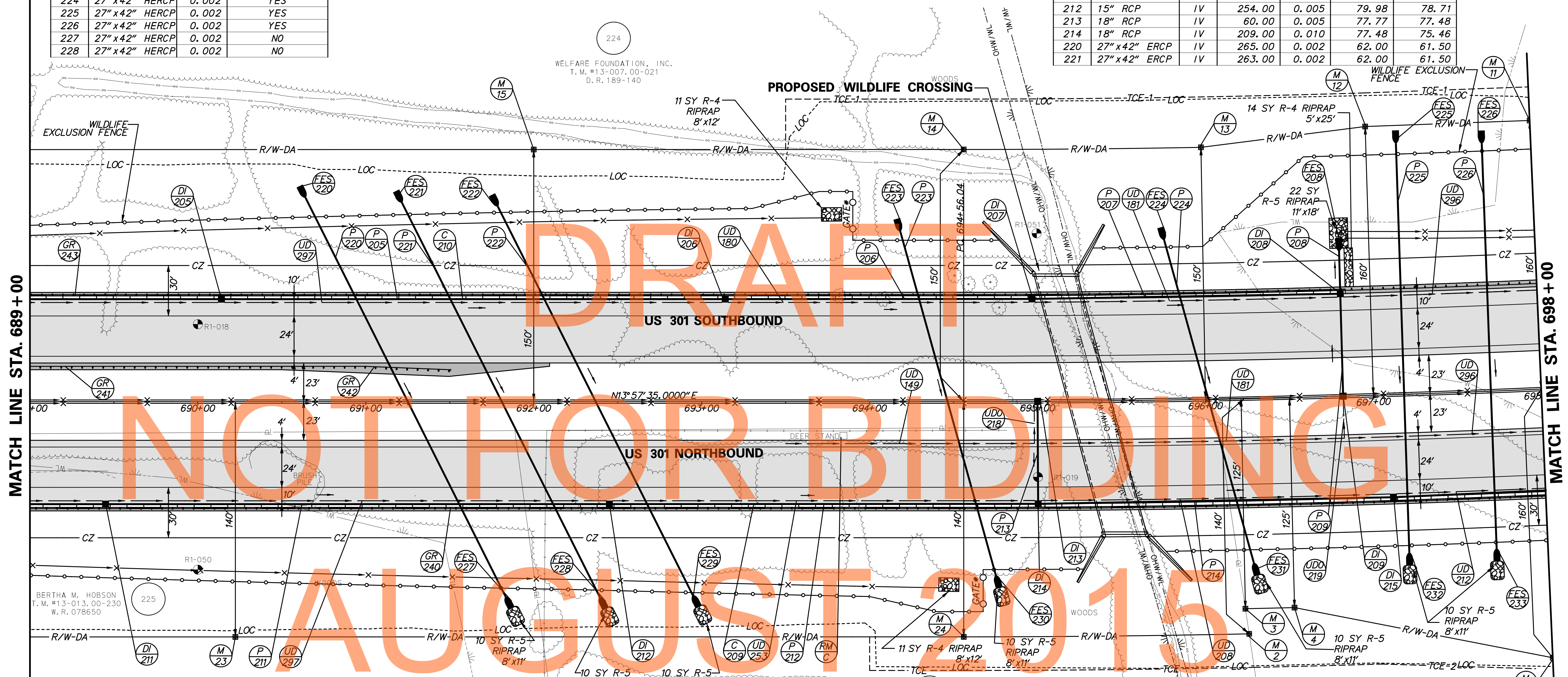
CP-04

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
208	18" RCP	0.010	NO
220	27" x 42" HERCP	0.002	YES
221	27" x 42" HERCP	0.002	YES
222	27" x 42" HERCP	0.002	YES
223	27" x 42" HERCP	0.002	YES
224	27" x 42" HERCP	0.002	YES
225	27" x 42" HERCP	0.002	YES
226	27" x 42" HERCP	0.002	YES
227	27" x 42" HERCP	0.002	NO
228	27" x 42" HERCP	0.002	NO

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
229	27" x 42" HERCP	0.002	NO
230	27" x 42" HERCP	0.002	NO
231	27" x 42" HERCP	0.002	NO
232	27" x 42" HERCP	0.002	NO
233	27" x 42" HERCP	0.002	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
222	27" x 42" ERCP	IV	259.00	0.002	62.00	61.50
223	27" x 42" ERCP	IV	212.00	0.002	62.00	61.50
224	27" x 42" ERCP	IV	199.00	0.002	62.00	61.50
225	27" x 42" ERCP	IV	243.00	0.002	62.00	61.50
226	27" x 42" ERCP	IV	241.00	0.002	62.00	61.50

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
205	15" RCP	IV	298.00	0.005	82.71	81.22
206	15" RCP	IV	181.00	0.004	78.19	77.46
207	15" RCP	IV	181.00	0.018	77.46	74.22
208	18" RCP	IV	26.00	0.010	73.26	73.00
209	18" RCP	IV	60.00	0.005	73.55	73.26
211	15" RCP	IV	298.00	0.005	84.05	82.57
212	15" RCP	IV	254.00	0.005	79.98	78.71
213	18" RCP	IV	60.00	0.005	77.77	77.48
214	18" RCP	IV	209.00	0.010	77.48	75.46
220	27" x 42" ERCP	IV	265.00	0.002	62.00	61.50
221	27" x 42" ERCP	IV	263.00	0.002	62.00	61.50



DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
205	690+14.00	-62.92	48" x 30"	2	89.95	82.71
206	693+14.00	-62.92	48" x 30"	2	85.60	78.19
207	694+97.00	-62.92	48" x 30"	2	81.66	77.46
208	696+82.00	-62.92	48" x 30"	2	78.43	73.26
209	696+82.00	0.00	34" x 24"	2	77.39	73.55
211	689+45.00	62.92	48" x 30"	2	90.64	84.05
212	692+45.00	62.92	48" x 30"	2	86.94	79.98
213	695+00.00	0.00	34" x 18"	2	80.48	77.77
214	695+00.00	62.92	48" x 30"	2	83.36	77.48
215	697+10.00	62.92	48" x 30"	2	79.94	74.72

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
209	P. C. C CURB AND GUTTER, TYPE 1-4	905.00
210	P. C. C CURB AND GUTTER, TYPE 1-4	785.00

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
218	23.00	79.06
219	23.00	75.97

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
240	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	689+00.00	62.92	902.71
241	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	689+00.00	-21.00	199.63
242	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	690+99.63	-21.00	50.00
243	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	689+00.00	-62.92	897.29

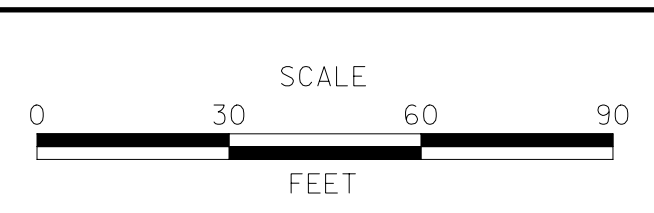
R/W FROM PARCEL 220.01, 222, 223 & 225 ACQUIRED UNDER R/W PLANS FOR CONSTR. CONTRACT T200911301, US 301, NORFOLK SOUTHERN RR TO SR 896

*NOTE: GATES INSTALLED WITHIN LIMITS OF THE ANIMAL EXCLUSION FENCE TO BE PAID UNDER ITEM 727012 - VEHICULAR GATE

NOTE: BETWEEN SR 896/BOYD'S CORNER ROAD AND STATION 700+00, EXCAVATE 2' BELOW EXISTING GRADE FOR ENTIRE ROADWAY FOOTPRINT, PLACE SEPARATION GEOTEXTILE AND BACKFILL 2' WITH BORROW, TYPE B. EXCAVATION WITHIN WOODED AREAS WILL BE INCIDENTAL TO ITEM 201000 CLEARING AND GRUBBING; ALL OTHER EXCAVATION WILL BE PAID UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.



ADDENDUMS / REVISIONS	



US 301, SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: BT

CONSTRUCTION PLAN

SHEET NO.	71
TOTAL SHTS.	875

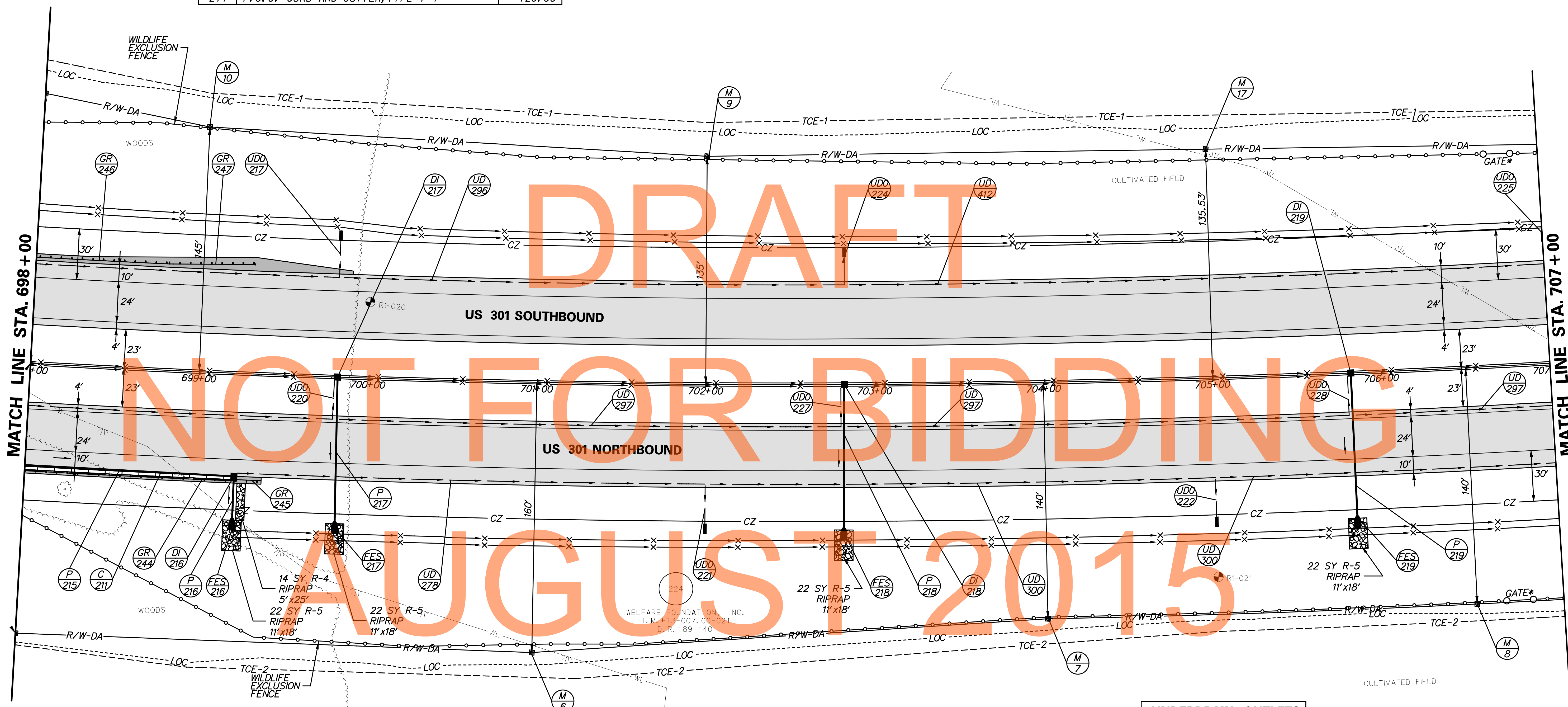
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FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
216	18" RCP	0.010	NO
217	18" RCP	0.005	NO
218	18" RCP	0.004	NO
219	18" RCP	0.003	NO

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
244	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	698+00.00	62.92	127.68
245	END ANCHORAGE 31	699+26.68	62.92	12.50
246	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	698+00.00	-62.92	78.83
247	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	698+79.46	-62.92	50.00

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
215	18" RCP	IV	212.00	0.005	74.72	73.66
216	18" RCP	IV	25.00	0.010	72.37	72.12
217	18" RCP	IV	87.00	0.005	72.25	71.79
218	18" RCP	IV	86.00	0.004	70.96	70.66
219	18" RCP	IV	85.00	0.003	69.46	69.23

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
211	P. C. C. CURB AND GUTTER, TYPE 1-4	126.00



*NOTE: GATES INSTALLED WITHIN LIMITS OF THE ANIMAL EXCLUSION FENCE TO BE PAID UNDER ITEM 727012 - VEHICULAR GATE

NOTE: BETWEEN SR 896/BOYD'S CORNER ROAD AND STATION 700+00, EXCAVATE 2' BELOW EXISTING GRADE FOR ENTIRE ROADWAY FOOTPRINT, PLACE SEPARATION GEOTEXTILE AND BACKFILL 2' WITH BORROW, TYPE B. EXCAVATION WITHIN WOODED AREAS WILL BE INCIDENTAL TO ITEM 201000 - CLEARING AND GRUBBING; ALL OTHER EXCAVATION WILL BE PAID UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.

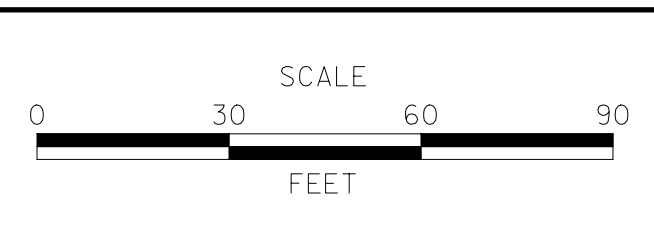
DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
216	699+23.00	62.92	48" x 30"	2	78.33	72.37
217	699+82.00	0.00	34" x 18"	2	74.96	72.25
218	702+82.00	0.00	34" x 18"	2	73.46	70.96
219	705+82.00	0.00	34" x 18"	2	71.96	69.46

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
217	28.00	72.67
220	24.00	73.54
221	28.00	72.48
222	28.00	71.07
224	32.00	71.43
225	28.00	69.64
227	24.00	72.04
228	24.00	70.54

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ADDENDUMS / REVISIONS	

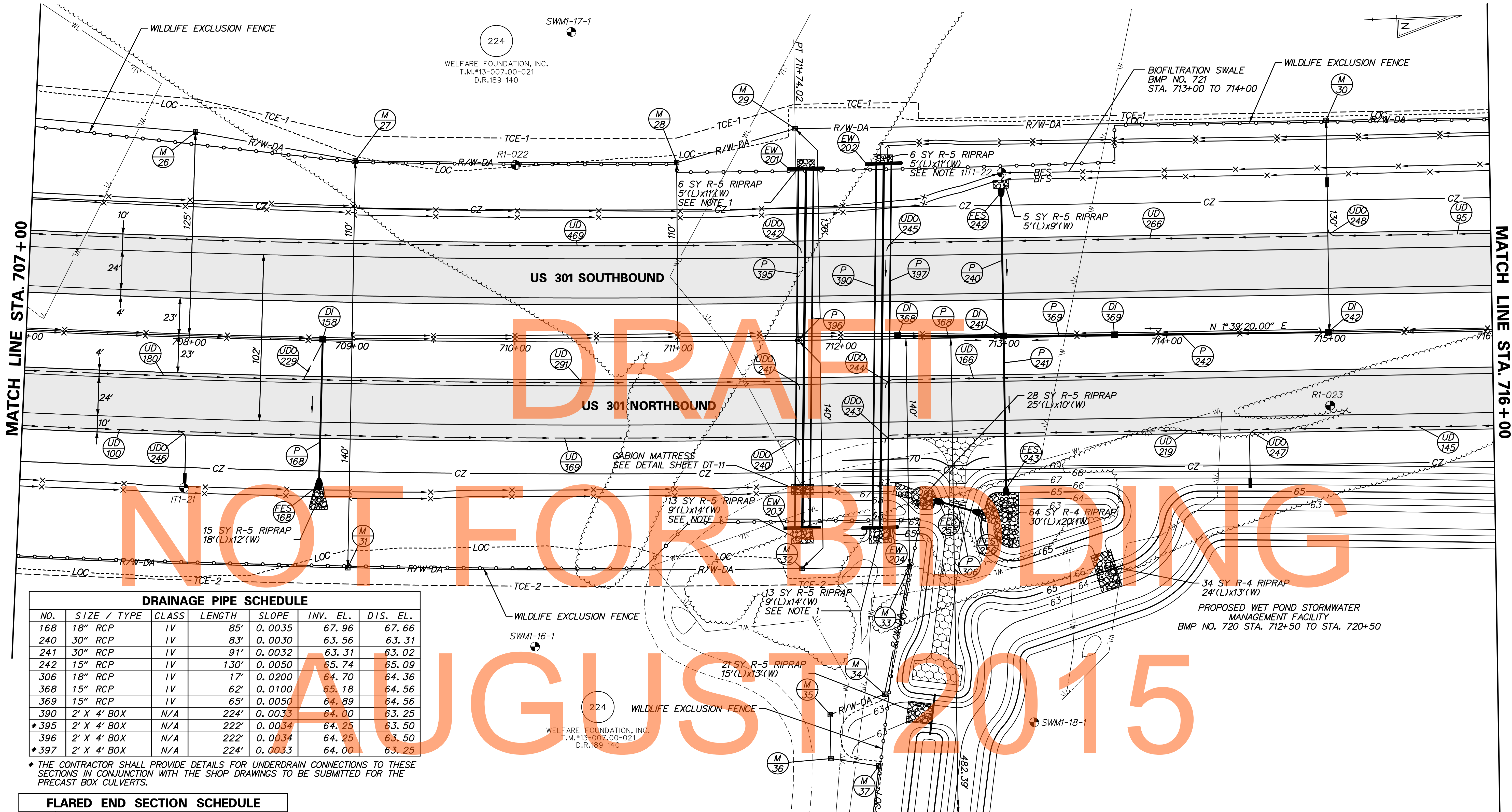


US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: BT

CONSTRUCTION PLAN

CP-06
SHEET NO. 72
TOTAL SHTS. 875



DRAFT

NOT FOR BIDDING

AUGUST 2015

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
168	18" RCP	IV	85'	0.0035	67.96	67.66
240	30" RCP	IV	83'	0.0030	63.56	63.31
241	30" RCP	IV	91'	0.0032	63.31	63.02
242	15" RCP	IV	130'	0.0050	65.74	65.09
306	18" RCP	IV	17'	0.0200	64.70	64.36
368	15" RCP	IV	62'	0.0100	65.18	64.56
369	15" RCP	IV	65'	0.0050	64.89	64.56
390	2' X 4' BOX	N/A	224'	0.0033	64.00	63.25
*395	2' X 4' BOX	N/A	222'	0.0034	64.25	63.50
396	2' X 4' BOX	N/A	222'	0.0034	64.25	63.50
*397	2' X 4' BOX	N/A	224'	0.0033	64.00	63.25

* THE CONTRACTOR SHALL PROVIDE DETAILS FOR UNDERDRAIN CONNECTIONS TO THESE SECTIONS IN CONJUNCTION WITH THE SHOP DRAWINGS TO BE SUBMITTED FOR THE PRECAST BOX CULVERTS.

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
168	18" RCP	0.0035	NO
242	30" RCP	0.0030	YES
243	30" RCP	0.0032	NO
255	18" RCP	0.0200	NO
256	18" RCP	0.0200	NO

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
229	28'	69.71
240	8'	65.73
241	8'	65.84
242	8'	66.10
243	8'	65.47
244	8'	66.53
245	8'	65.85
246	32'	68.77
247	36'	66.33
248	36'	64.70

ENDWALL SCHEDULE

NO.	SIZE / TYPE	INVERT
201	2' X 4' BOX	64.25
202	2' X 4' BOX	64.00
203	2' X 4' BOX	63.50
204	2' X 4' BOX	63.25

ENDWALLS SHALL BE PAID UNDER ITEM NO. 617515 HEADWALL.

NOTES:

1. WHERE NOTED, PLACE RIPRAP TO WITHIN 4-INCHES OF FINAL GRADE. CHOKe RIPRAP VOIDS WITH DELAWARE NO. 57 STONE. FILL ANY REMAINING VOIDS TO TOP OF RIPRAP WITH TOPSOIL. PLACE AN ADDITIONAL 4-INCHES OF TOPSOIL TO FINAL GRADE, COVER WITH TYPE 5 SOIL RETENTION BLANKET MULCH AND SEED. THE COST OF THE TOPSOIL DEPTH TRANSITION SHALL BE INCIDENTAL TO THE TOPSOIL/TOPSOILING ITEM.

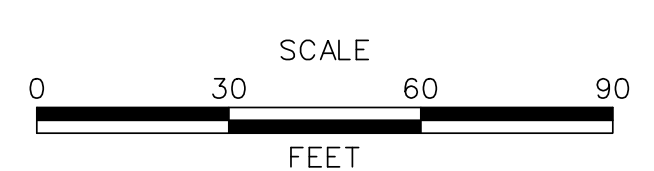
DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
158	708+82	0.00	34" x 24"	2	70.46	67.96
241	713+00	-0.72	48" x 30"	2	68.33	63.31
242	714+99	0.00	34" x 18"	2	68.82	65.74
368	712+32	-1.93	34" x 18"	2	68.53	65.18
369	713+68	-0.35	34" x 18"	2	68.53	64.89

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ADDENDUMS / REVISIONS	

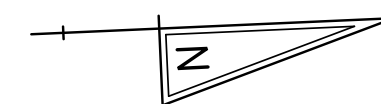


**US 301,
SR 896 TO SR 1**

CONTRACT T20091308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-07
SHEET NO. 73
TOTAL SHTS. 875



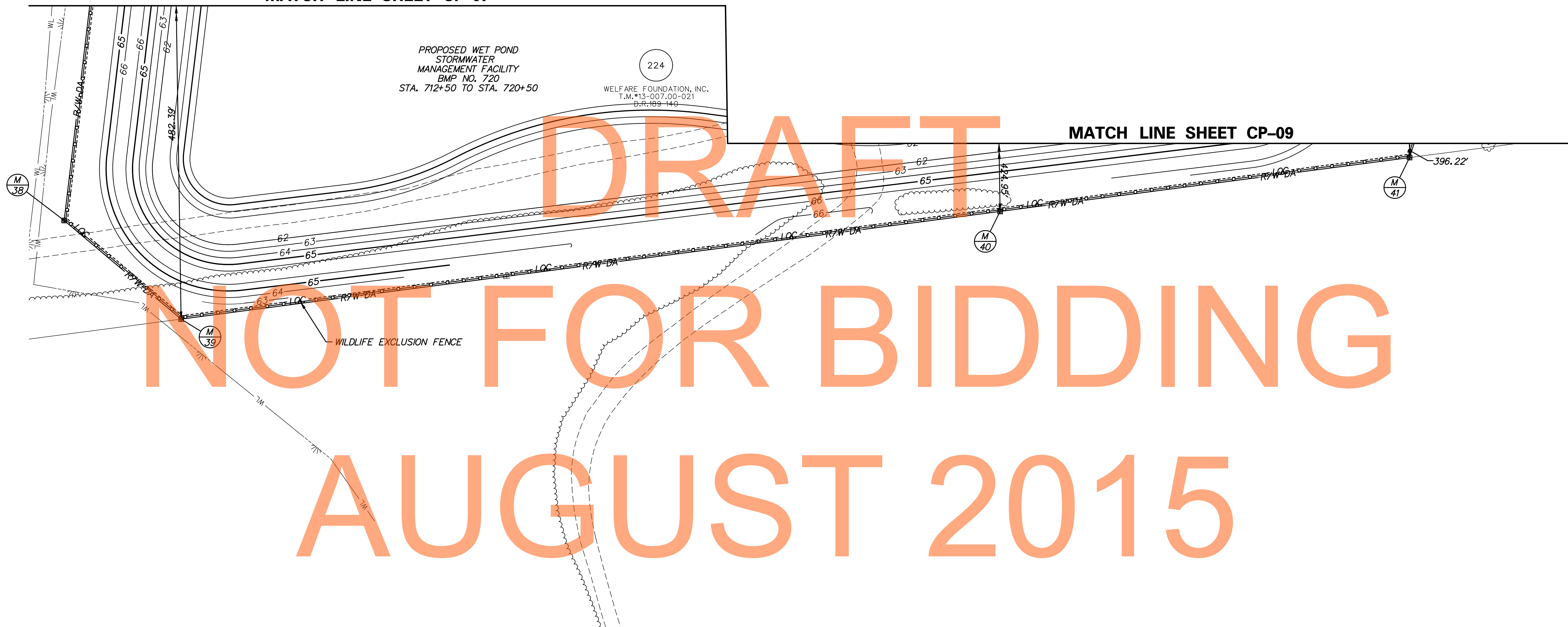
MATCH LINE SHEET CP-07

PROPOSED WET POND
STORMWATER
MANAGEMENT FACILITY
BMP NO. 720
STA. 712+50 TO STA. 720+50

224

WELFARE FOUNDATION, INC.
T.M.#13-007,00-021
D.R.#89-140

MATCH LINE SHEET CP-09



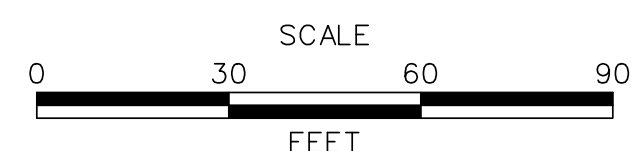
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AUGUST 2015

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS



US 301,
SR 896 TO SR 1

CONTRACT	BRIDGE NO.
T200911308	
COUNTY	DESIGNED BY: KGMA
NEW CASTLE	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-08
SHEET NO.
74
TOTAL SHTS.
875

MATCH LINE STA. 716+00

MATCH LINE STA. 725+00

WELFARE FOUNDATION, INC.
T.M.*13-007.00-021
D.R.189-140

END WILDLIFE
EXCLUSION FENCE
STA. 722+50

WELFARE FOUNDATION, INC.
T.M.*13-007.00-021
D.R.189-140

PROPOSED WET POND
STORMWATER
MANAGEMENT FACILITY
BMP NO. 720
STA. 712+50 TO STA. 720+50

MATCH LINE SHEET CP-08

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AUGUST 2015

US 301 SOUTHBOUND

US 301 NORTHBOUND

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
240	18" RCP	0.0573	NO
241	18" RCP	0.0573	NO
246	18" RCP	0.0040	NO
247	18" RCP	0.0293	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
243	15" RCP	IV	299'	0.0030	67.05	66.15
244	18" RCP	IV	89'	0.0040	65.90	65.55
245	18" RCP	IV	84'	0.0293	69.70	67.24
254	18" RCP	IV	33'	0.0573	65.06	63.18

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
250	39'	63.33
251	39'	65.55
252	27'	69.64
253	39'	67.05
254	29'	71.06
255	53'	67.55

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
243	717+99	0.00	34" x 18"	2	70.30	67.05
244	721+00	1.01	34" x 24"	2	71.64	65.90
245	723+99	3.27	34" x 18"	2	73.06	69.70



ADDENDUMS / REVISIONS



US 301,
SR 896 TO SR 1

CONTRACT
T200911308
COUNTY
NEW CASTLE
BRIDGE NO.
DESIGNED BY: KGMA
CHECKED BY: TAO

CONSTRUCTION PLAN

CP-09

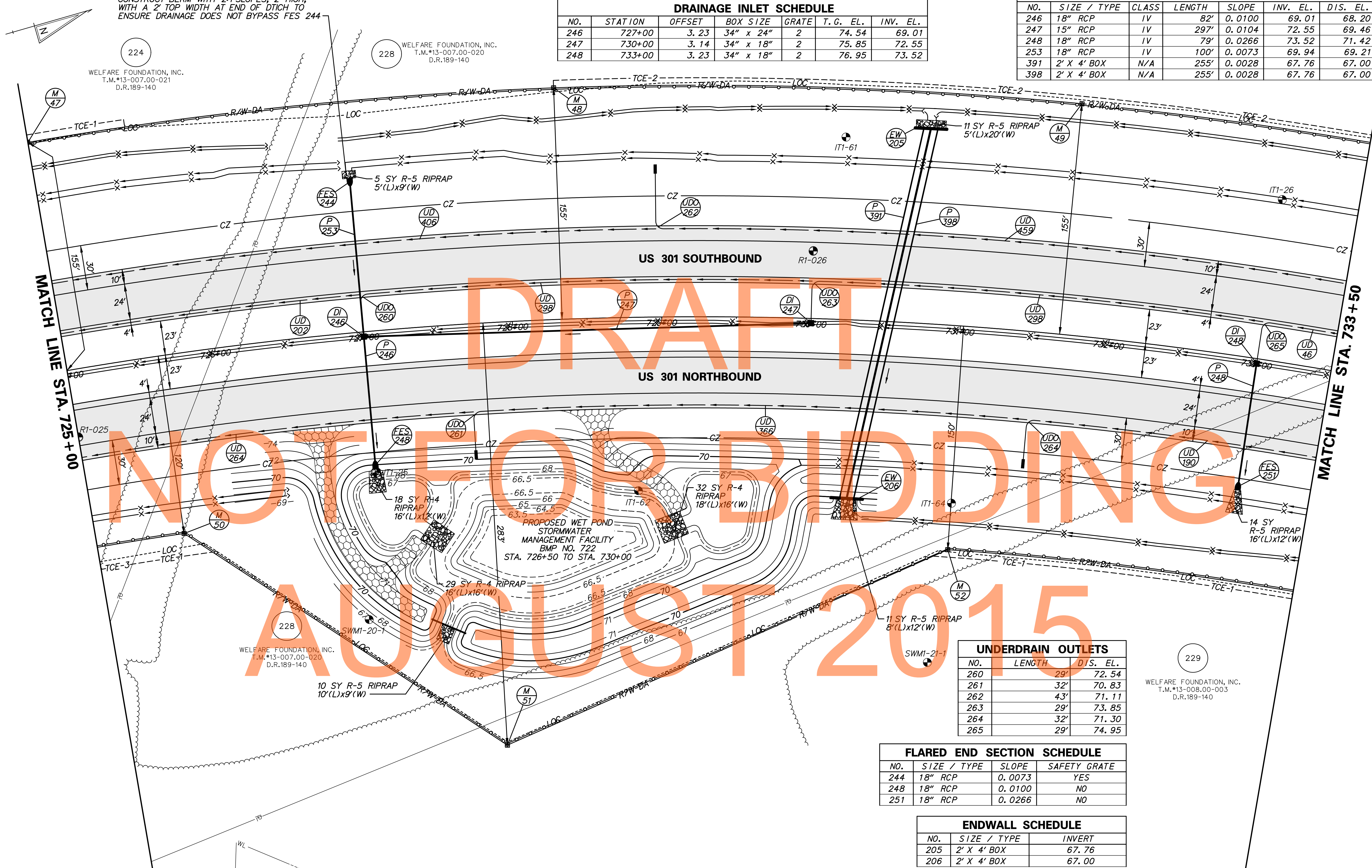
SHEET NO.
75
TOTAL SHTS.
875

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CONSTRUCT BERM WITH 2:1 SLOPES, 2' HIGH, WITH A 2' TOP WIDTH AT END OF DITCH TO ENSURE DRAINAGE DOES NOT BYPASS FES 244

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
246	727+00	3.23	34" x 24"	2	74.54	69.01
247	730+00	3.14	34" x 18"	2	75.85	72.55
248	733+00	3.23	34" x 18"	2	76.95	73.52

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
246	18" RCP	IV	82'	0.0100	69.01	68.20
247	15" RCP	IV	297'	0.0104	72.55	69.46
248	18" RCP	IV	79'	0.0266	73.52	71.42
253	18" RCP	IV	100'	0.0073	69.94	69.21
391	2' X 4' BOX	N/A	255'	0.0028	67.76	67.00
398	2' X 4' BOX	N/A	255'	0.0028	67.76	67.00



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AUGUST 2015

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
260	29'	72.54
261	32'	70.83
262	43'	71.11
263	29'	73.85
264	32'	71.30
265	29'	74.95

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
244	18" RCP	0.0073	YES
248	18" RCP	0.0100	NO
251	18" RCP	0.0266	NO

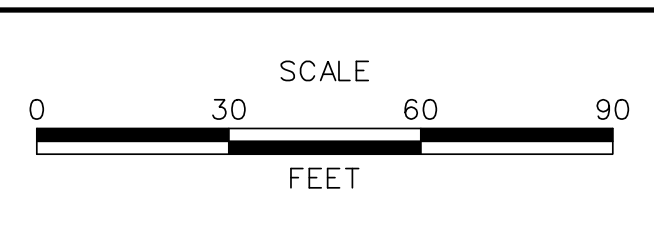
ENDWALL SCHEDULE		
NO.	SIZE / TYPE	INVERT
205	2' X 4' BOX	67.76
206	2' X 4' BOX	67.00

ENDWALLS SHALL BE PAID UNDER ITEM NO. 617515 HEADWALL.

NO. 21653-000, COUNTY OF NEW CASTLE, DE, DATE: 08/11/15, 11:49 AM



ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

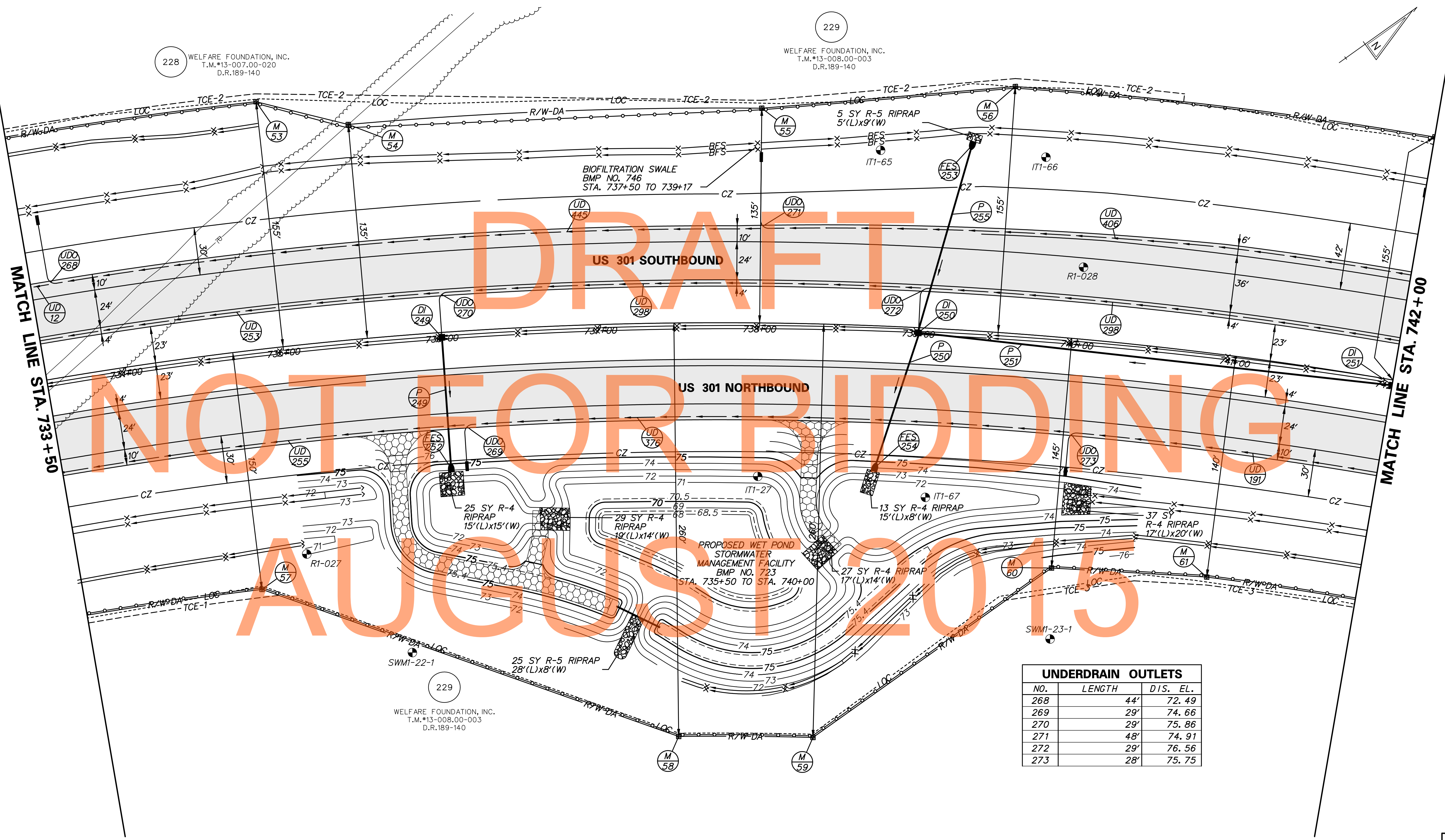
CONSTRUCTION PLAN

CP-10
SHEET NO. 76
TOTAL SHTS. 875

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
249	736+00	3.12	34" x 18"	2	77.86	73.90
250	739+00	3.25	48" x 30"	2	78.56	72.27
251	742+00	3.49	34" x 18"	2	79.06	74.50

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
249	18" RCP	IV	78'	0.0180	73.90	72.50
250	24" RCP	IV	84'	0.0030	72.27	72.02
251	15" RCP	IV	297'	0.0050	74.50	73.02
255	18" RCP	IV	118'	0.0030	72.62	72.27

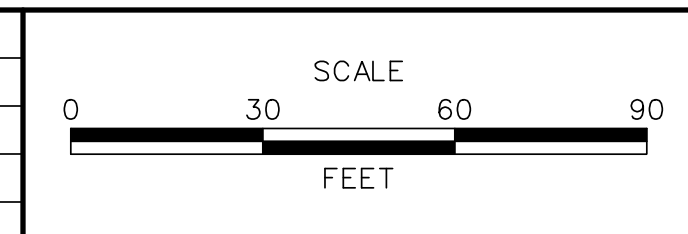
FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
252	18" RCP	0.0180	NO
253	18" RCP	0.0030	YES
254	24" RCP	0.0030	NO



UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
268	44'	72.49
269	29'	74.66
270	29'	75.86
271	48'	74.91
272	29'	76.56
273	28'	75.75

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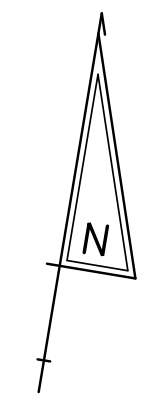
ADDENDUMS / REVISIONS



US 301, SR 896 TO SR 1

CONTRACT	BRIDGE NO.
T200911308	
COUNTY	DESIGNED BY: KGMA
NEW CASTLE	CHECKED BY: TAO

CONSTRUCTION PLAN

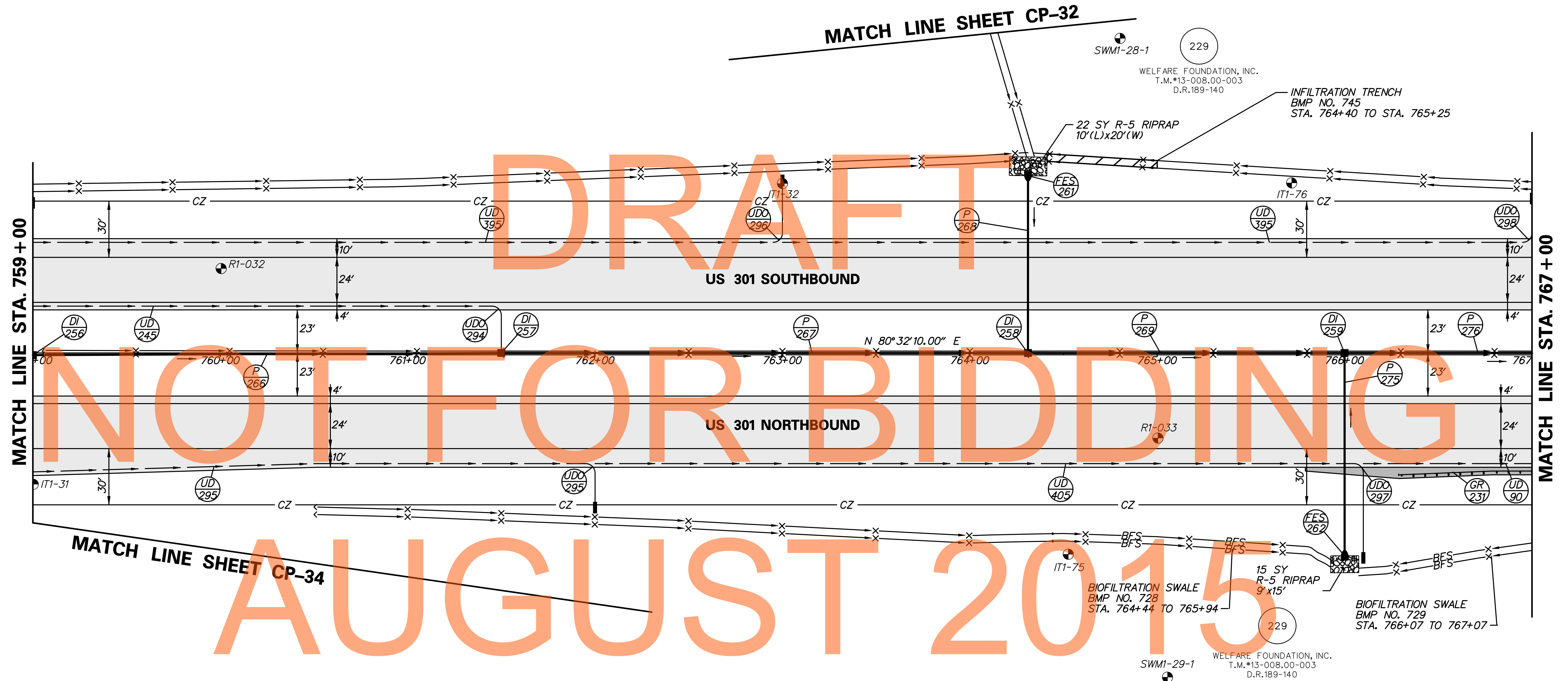


UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
294	26'	75.66
295	26'	75.75
296	36'	73.70
297	45'	70.19
298	26'	74.07

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
256	759+00	1.14	34" x 18"	2	78.15	75.00
257	761+50	0.00	34" x 18"	2	77.66	73.56
258	764+31	0.00	48" x 48"	2	76.72	71.10
259	766+00	0.00	48" x 30"	2	76.13	68.26

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
261	24" RCP	0.0050	YES
262	18" RCP	0.0030	YES

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
266	15" RCP	IV	248'	0.0050	75.00	73.76
267	15" RCP	IV	278'	0.0061	73.56	71.85
268	24" RCP	IV	89'	0.0050	71.75	71.30
269	24" RCP	IV	166'	0.0141	71.10	68.76
275	18" RCP	IV	103'	0.0030	69.57	69.26
276	30" RCP	IV	248'	0.0050	68.26	67.02

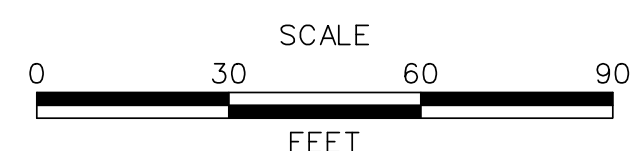


GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
231	END TREATMENT ATTENUATOR, TYPE 1-31	766+22.00	64.60 RT.	50.00'

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ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-14
SHEET NO. 80
TOTAL SHTS. 875

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
220*	CONCRETE SINGLE FACE BARRIER TYPE 1	65.45
221*	CONCRETE SINGLE FACE BARRIER TYPE 1	65.45

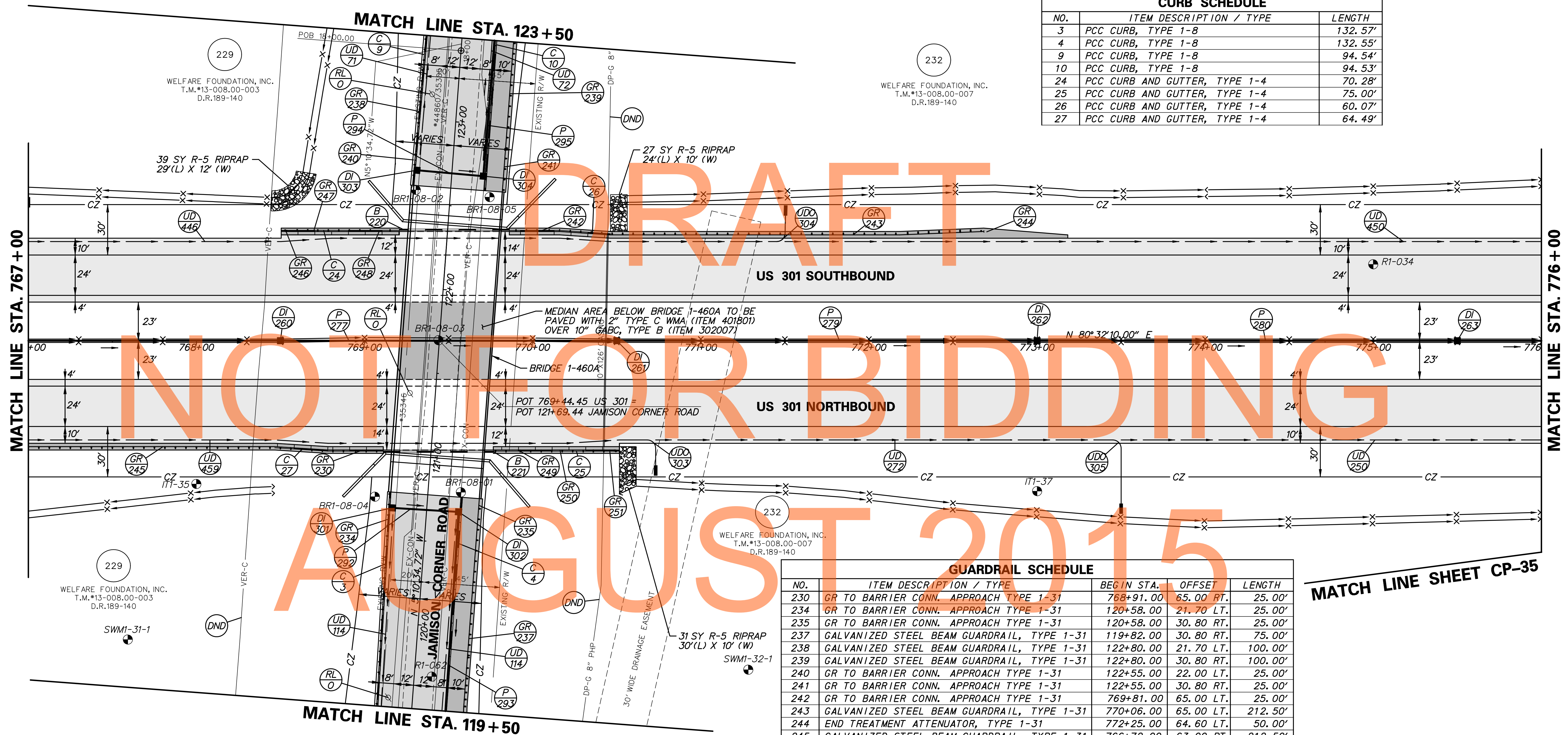
*SEE SHEET DT-18 FOR DETAIL

UNDERDRAIN OUTLETS		
NO.	LENGTH	D/S. EL.
303	19'	73.64
304	20'	73.11
305	44'	67.77

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
260	768+50	0.00	48" x 30"	2	75.22	66.82
261	770+50	0.00	48" x 30"	2	74.30	65.63
262	773+00	0.00	48" x 30"	2	72.86	64.19
263	775+50	0.00	48" x 30"	2	71.11	62.75
301	120+68	-21.85	34" x 24"	1	101.50	97.00
302	120+68	20.00	48" x 30"	1	101.50	96.29
303	122+70	-21.87	34" x 24"	1	101.52	97.00
304	122+70	20.00	48" x 30"	1	101.52	96.32

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	D/S. EL.
277	30" RCP	IV	198'	0.0050	66.82	65.83
279	30" RCP	IV	248'	0.0050	65.63	64.39
280	30" RCP	IV	248'	0.0050	64.19	62.95
292	18" RCP	IV	38'	0.0132	97.00	96.50
293	18" RCP	IV	146'	0.0225	96.29	93.00
294	18" RCP	IV	37'	0.0128	97.00	96.52
295	18" RCP	IV	146'	0.0221	96.31	93.10

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
3	PCC CURB, TYPE 1-8	132.57'
4	PCC CURB, TYPE 1-8	132.55'
9	PCC CURB, TYPE 1-8	94.54'
10	PCC CURB, TYPE 1-8	94.53'
24	PCC CURB AND GUTTER, TYPE 1-4	70.28'
25	PCC CURB AND GUTTER, TYPE 1-4	75.00'
26	PCC CURB AND GUTTER, TYPE 1-4	60.07'
27	PCC CURB AND GUTTER, TYPE 1-4	64.49'

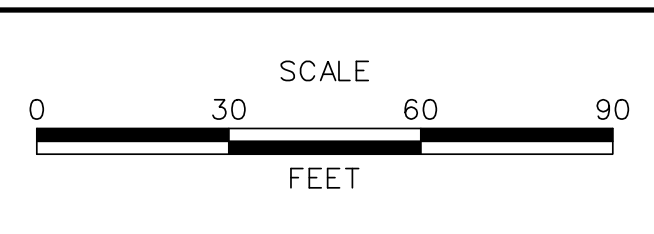


GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
230	GR TO BARRIER CONN. APPROACH TYPE 1-31	768+91.00	65.00 RT.	25.00'
234	GR TO BARRIER CONN. APPROACH TYPE 1-31	120+58.00	21.70 LT.	25.00'
235	GR TO BARRIER CONN. APPROACH TYPE 1-31	120+58.00	30.80 RT.	25.00'
237	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	119+82.00	30.80 RT.	75.00'
238	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	122+80.00	21.70 LT.	100.00'
239	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	122+80.00	30.80 RT.	100.00'
240	GR TO BARRIER CONN. APPROACH TYPE 1-31	122+55.00	22.00 LT.	25.00'
241	GR TO BARRIER CONN. APPROACH TYPE 1-31	122+55.00	30.80 RT.	25.00'
242	GR TO BARRIER CONN. APPROACH TYPE 1-31	769+81.00	65.00 LT.	25.00'
243	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	770+06.00	65.00 LT.	212.50'
244	END TREATMENT ATTENUATOR, TYPE 1-31	772+25.00	64.60 LT.	50.00'
245	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	766+72.00	63.00 RT.	212.50'
246	GUARDRAIL END ANCHORAGE 31	768+54.00	65.00 LT.	12.50'
247	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	768+66.00	65.00 LT.	43.00'
248	GUARDRAIL TO BARRIER CONN. EXIT TYPE 31	769+09.00	65.00 LT.	14.23'
249	GUARDRAIL TO BARRIER CONN. EXIT TYPE 31	769+74.00	65.00 RT.	14.23'
250	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	769+88.00	65.00 RT.	48.00'
251	GUARDRAIL END ANCHORAGE 31	770+36.00	65.00 RT.	12.50'

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ADDENDUMS / REVISIONS	



CONTRACT T200911308
 COUNTY NEW CASTLE
 BRIDGE NO. []
 DESIGNED BY: KGMA
 CHECKED BY: TAO

US 301,
 SR 896 TO SR 1

CONSTRUCTION PLAN

CP-15
SHEET NO. 81
TOTAL SHTS. 875

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
268	786+00	2.66	48" x 30"	2	63.02	55.41
269	788+50	2.74	48" x 48"	2	61.30	53.36
270	791+50	2.71	34" x 18"	2	59.45	56.35

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
288	18" RCP	IV	95'	0.0471	61.35	56.88
289	30" RCP	IV	247'	0.0075	55.41	53.56
291	30" RCP	IV	103'	0.0100	53.36	52.33
270	15" RCP	IV	248'	0.0056	56.35	54.97

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
265	18" RCP	0.0506	YES
297	30" RCP	0.0100	NO

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
319	19'	65.34
320	29'	61.02
321	37'	56.58
322	29'	59.30
323	23'	62.00
324	29'	57.45
325	21'	56.88
326	24'	60.02
327	29'	56.07

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEG IN STA.	OFFSET	LENGTH
213	END TREATMENT ATTENUATOR, TYPE 1-31	789+43.00	71.00 LT.	50.00'
214	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	786+71.00	75.30 LT.	312.50'
215	GUARDRAIL END ANCHORAGE 31	51+63.00	24.00 RT.	12.50'

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NOT FOR BIDDING

AUGUST 2015

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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT	BRIDGE NO.
T200911308	
COUNTY	DESIGNED BY: KGMA
NEW CASTLE	CHECKED BY: TAO

CONSTRUCTION PLAN

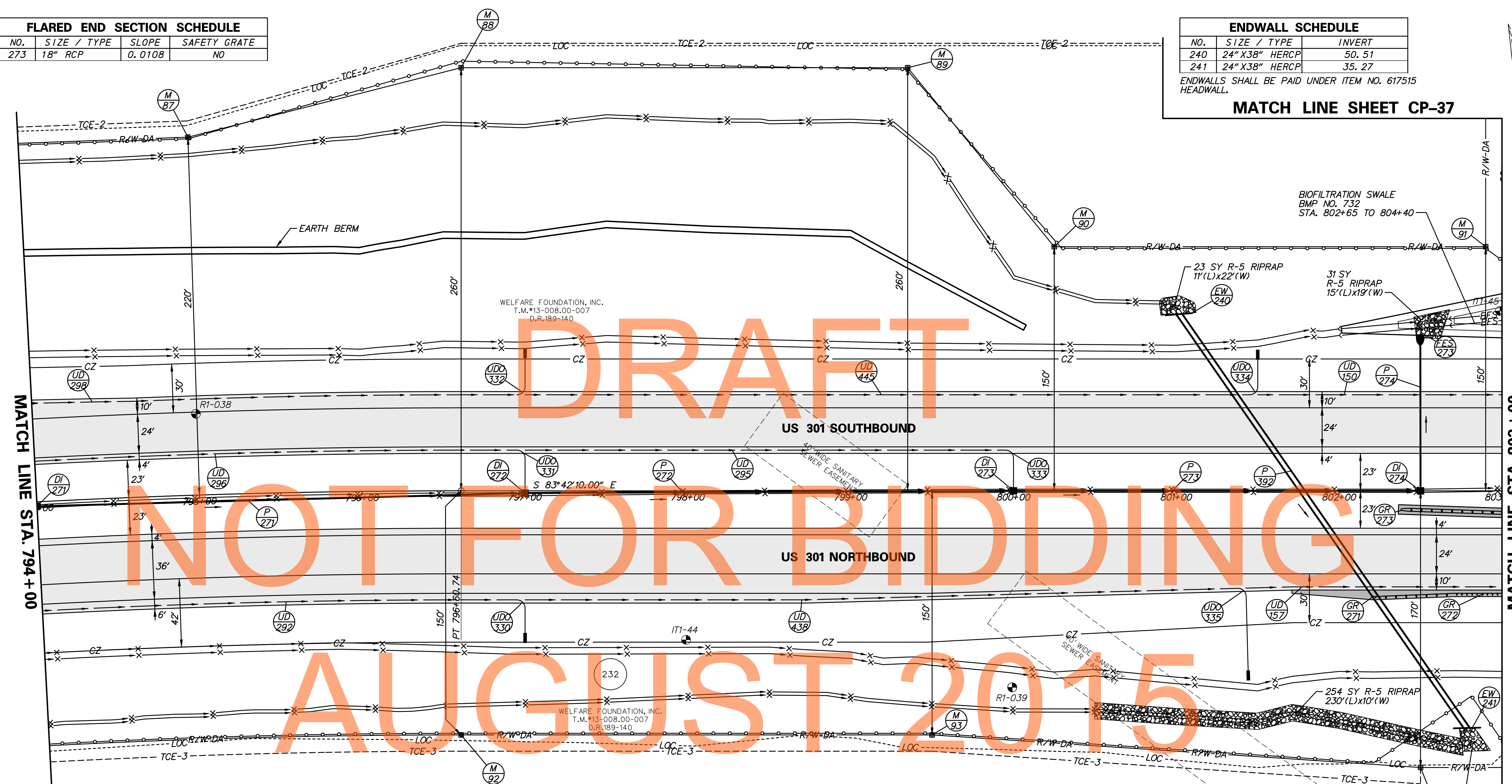
CP-18
SHEET NO.
84
TOTAL SHTS.
875

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
273	18" RCP	0.0108	NO

ENDWALL SCHEDULE		
NO.	SIZE / TYPE	INVERT
240	24" X38" HERCP	50.51
241	24" X38" HERCP	35.27

ENDWALLS SHALL BE PAID UNDER ITEM NO. 617515 HEADWALL.

MATCH LINE SHEET CP-37



DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
271	15" RCP	IV	298'	0.0050	54.77	53.28
272	15" RCP	IV	299'	0.0050	53.08	51.59
273	15" RCP	IV	248'	0.0074	51.39	49.56
274	18" RCP	IV	89'	0.0075	49.31	48.65
392	24" X38" HERCP	IV	311'	0.0491	50.51	35.27

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
271	794+00	2.75	34" x 18"	2	58.07	54.77
272	797+00	1.41	34" x 18"	2	56.57	53.08
273	800+00	0.00	34" x 18"	2	55.31	51.39
274	802+50	0.00	34" x 24"	2	54.06	49.31

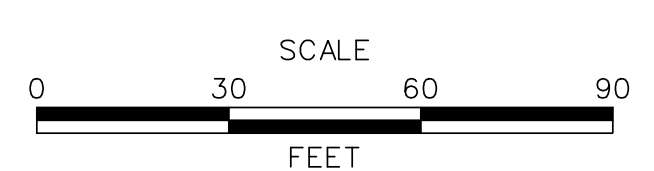
UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
330	24'	54.87
331	27'	54.57
332	27'	56.10
333	26'	53.31
334	27'	52.50
335	56'	43.00

GUARDRAIL SCHEDULE			
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	LENGTH
271	END TREATMENT ATTENUATOR, TYPE 1-31	802+21.00	50.00'
272	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	802+71.00	29.10'
273	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 3-31	802+38.00	50.00'

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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

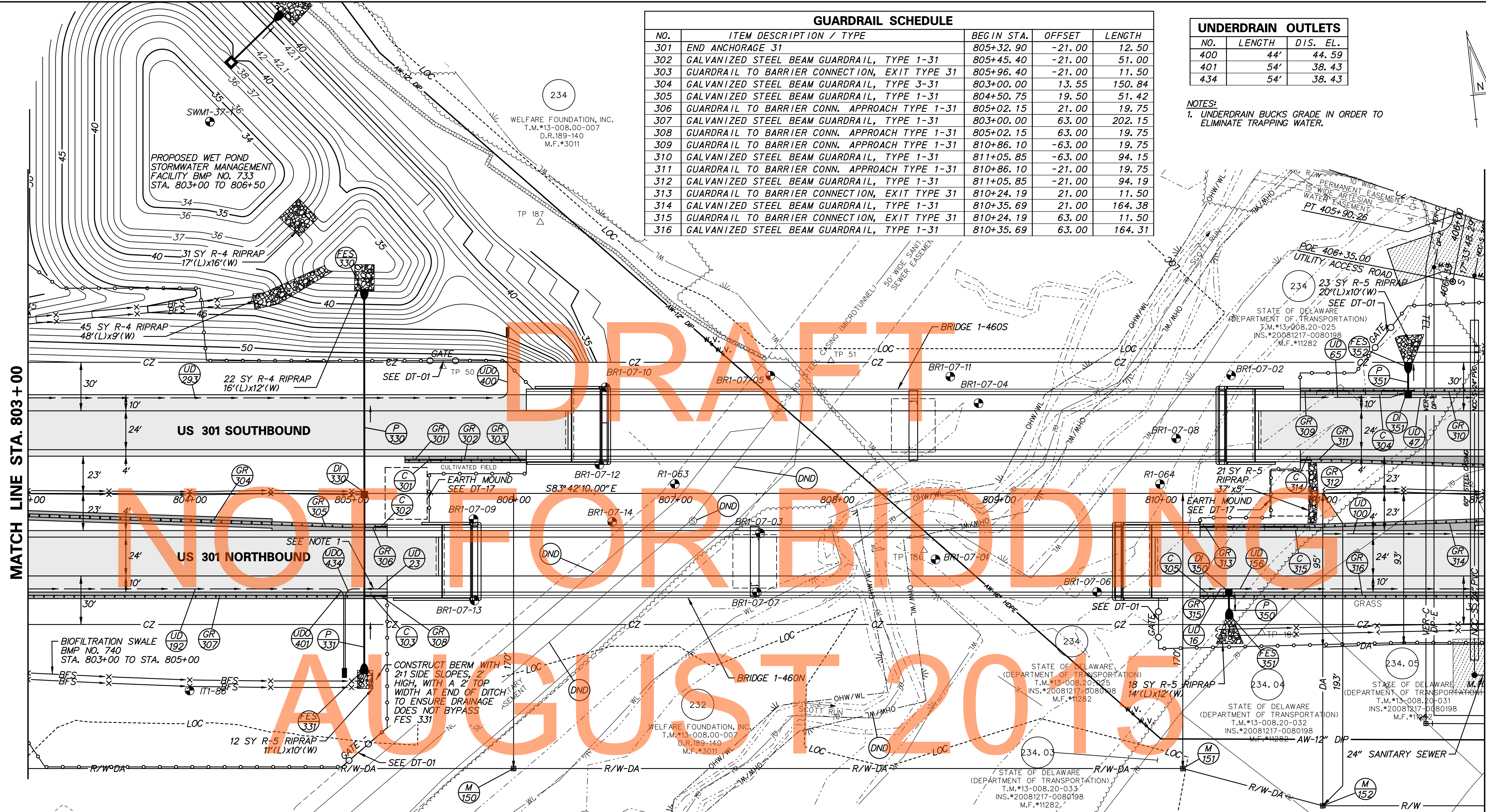
CONSTRUCTION PLAN

CP-19	
SHEET NO.	TOTAL SHTS.
85	875

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
301	END ANCHORAGE 31	805+32.90	-21.00	12.50
302	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	805+45.40	-21.00	51.00
303	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	805+96.40	-21.00	11.50
304	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	803+00.00	13.55	150.84
305	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	804+50.75	19.50	51.42
306	GUARDRAIL TO BARRIER CONN. APPROACH TYPE 1-31	805+02.15	21.00	19.75
307	GUARDRAIL TO BARRIER CONN. APPROACH TYPE 1-31	803+00.00	63.00	202.15
308	GUARDRAIL TO BARRIER CONN. APPROACH TYPE 1-31	805+02.15	63.00	19.75
309	GUARDRAIL TO BARRIER CONN. APPROACH TYPE 1-31	810+86.10	-63.00	19.75
310	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	811+05.85	-63.00	94.15
311	GUARDRAIL TO BARRIER CONN. APPROACH TYPE 1-31	810+86.10	-21.00	19.75
312	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	811+05.85	-21.00	94.19
313	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	810+24.19	21.00	11.50
314	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	810+35.69	21.00	164.38
315	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	810+24.19	63.00	11.50
316	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	810+35.69	63.00	164.31

UNDERDRAIN OUTLETS			
NO.	LENGTH	DIS.	EL.
400	44'		44.59
401	54'		38.43
434	54'		38.43

NOTES:
1. UNDERDRAIN BUCKS GRADE IN ORDER TO ELIMINATE TRAPPING WATER.



MATCH LINE STA. 803+00

MATCH LINE STA. 812+00

NOT FOR BIDDING

MATCH LINE - SEE SHEET CP-44

MATCH LINE - SEE SHEET CP-42

CURB AND GUTTER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
301	PCC CURB AND GUTTER, TYPE 1-4	75.00'
302*	PCC CURB AND GUTTER, TYPE 1-4	7.17'
303*	PCC CURB AND GUTTER, TYPE 1-4	13.98'
304	PCC CURB AND GUTTER, TYPE 1-4	70.04'
305**	PCC CURB AND GUTTER, TYPE 1-4	21.17'
314*	PCC CURB AND GUTTER, TYPE 1-4	5.90'
315	PCC CURB AND GUTTER, TYPE 1-4	67.81'

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
330	24" RCP	0.0030	NO
331	24" RCP	0.0030	YES
351	15" RCP	0.0159	NO
352	15" RCP	0.0346	NO

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
*330	805+08	-0.03	34" x 18"	2	52.63	36.67
350	810+42	63.00	34" x 24"	2	50.67	48.00
351	811+53	-63.00	34" x 24"	2	48.86	46.00

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
330	24" RCP	IV	120'	0.0030	36.67	36.31
331	24" RCP	IV	105'	0.0030	36.98	36.67
350	15" RCP	IV	9'	0.0159	48.00	47.87
351	15" RCP	IV	12'	0.0346	46.00	45.61

* ANY DRAINAGE INLET OR MANHOLE WITH A STRUCTURE DEPTH EXCEEDING THE MAXIMUM DEPTH PROVIDED IN THE DELDOT STANDARD CONSTRUCTION DETAILS WILL REQUIRE THE CONTRACTOR TO SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SECTION 105.04 OF THE STANDARD SPECIFICATIONS. COST FOR THESE STRUCTURES WILL BE INCIDENTAL TO THE RESPECTIVE STANDARD ITEM AS SPECIFIED ON THE CONSTRUCTION PLANS.

SEE CURB TRANSITION DETAILS AT GUARDRAIL TO BARRIER CONNECTION, SHEET DT-03.
*MATCH SHOULDER SLOPE FOR ENTIRE CURB AND GUTTER LENGTH
**TRANSITION GUTTER SLOPE FROM -4.00% AT STA. 810+24.19 TO NORMAL GUTTER SLOPE AT STA. 810+32.27

ADDENDUMS / REVISIONS



US 301,
SR 896 TO SR 1

CONTRACT
T200911308
COUNTY
NEW CASTLE
BRIDGE NO. 1-7
DESIGNED BY: J.A.D.
CHECKED BY: B.R.T.

CONSTRUCTION PLAN

CP-20
SHEET NO.
86
TOTAL SHTS.
875

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
333	24" RCP	0.0030	NO
332	18" RCP	0.0263	YES
355	18" RCP	0.0030	NO

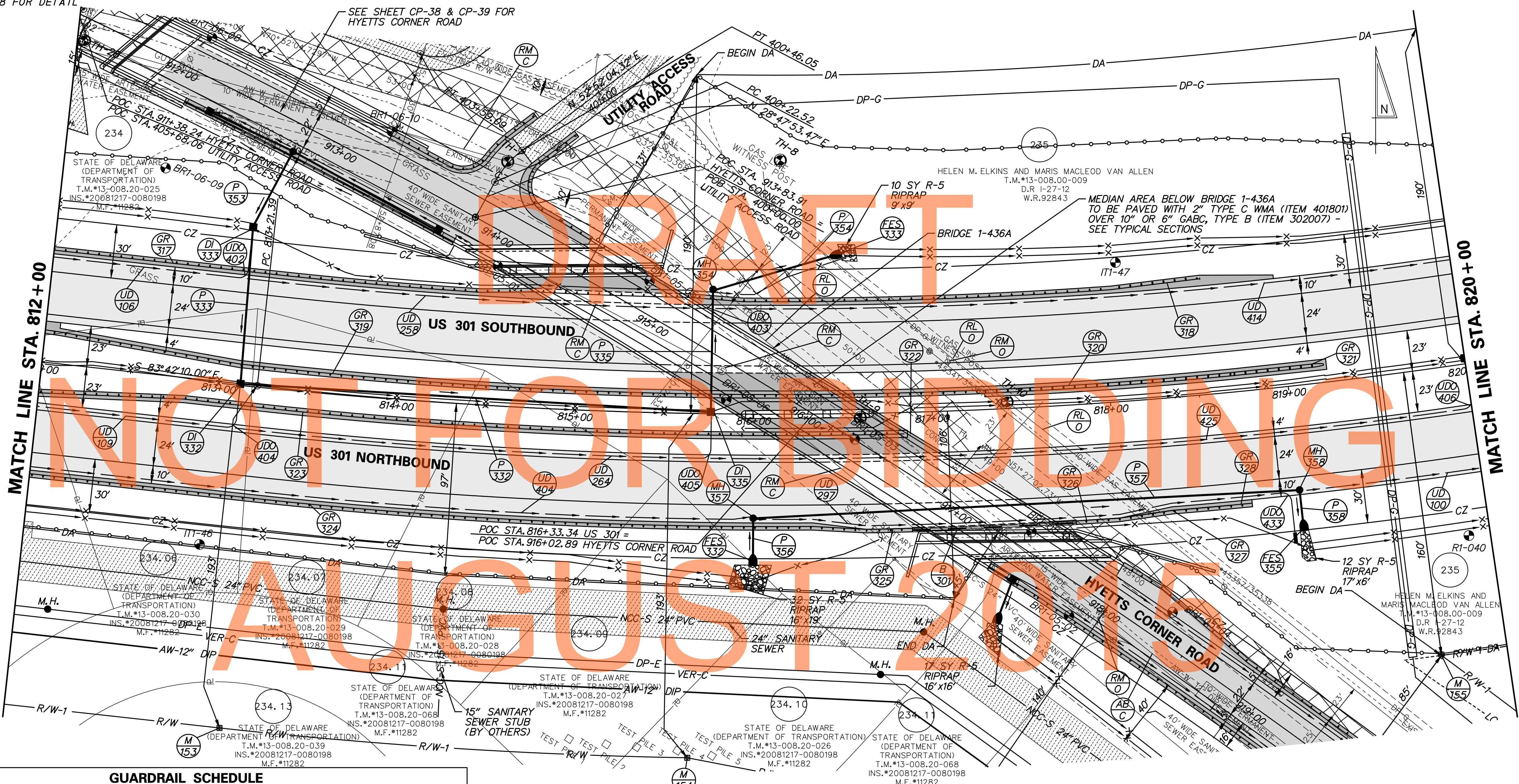
DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
332	24" RCP	IV	261'	0.0034	38.80	37.91
333	18" RCP	IV	86'	0.0050	39.73	39.30
335	24" RCP	IV	65'	0.0030	37.91	37.72
353	15" RCP	IV	47'	0.2308	50.60	39.98
354	24" RCP	IV	67'	0.0030	37.72	37.52
356	18" RCP	IV	19'	0.0263	41.93	41.45
357	18" RCP	IV	304'	0.0050	41.25	39.73
358	18" RCP	IV	15'	0.0030	39.73	39.69

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
402	28'	41.56
403	11'	39.43
404	25'	43.30
405	25'	40.03
406	28'	36.89
433	27'	39.85

MANHOLE SCHEDULE					
NO.	STATION	OFFSET	SIZE	T.G. EL.	INV. EL.
354	815+76.28	-69.67'	48" x 48"	41.84	37.72
357	816+00.00	58.39'	48" x 30"	46.50	41.25
358	819+00.00	58.37'	48" x 30"	44.06	39.73

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
301*	CONCRETE SINGLE FACE BARRIER TYPE 1	91.94

*SEE SHEET DT-18 FOR DETAIL



GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
317	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	812+00.00	-63.00	593.35
318	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	818+04.80	-63.00	50.00
319	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	812+00.00	-18.07	528.38
320	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	817+29.84	-10.08	139.98
321	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 3-31	818+70.35	-10.08	50.00
322	END ANCHORAGE 31	816+83.80	12.00	12.50
323	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	812+00.00	17.41	485.62
324	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	812+00.00	63.00	476.15
325	GUARDRAIL TO BARRIER CONN. APPROACH TYPE 1-31	816+67.83	65.00	19.75

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
326	GUARDRAIL TO BARRIER CONN., EXIT TYPE 31	817+76.85	65.00	11.50
327	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	817+88.07	65.00	75.00
328	END ANCHORAGE 31	818+61.24	63.00	12.50

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
332	813+12	-0.02	48" x 30"	2	44.80	38.80
333	813+09	-88.04	34" x 18"	2	43.05	39.73
335	815+76	-1.00	48" x 48"	2	41.53	37.91

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ADDENDUMS / REVISIONS	

**US 301,
SR 896 TO SR 1**

CONTRACT	BRIDGE NO.	1-5
T200911308	DESIGNED BY:	K.S.B.
COUNTY	CHECKED BY:	B.R.T.
NEW CASTLE		

CONSTRUCTION PLAN	SHEET NO.	CP-21
	TOTAL SHTS.	87
		875

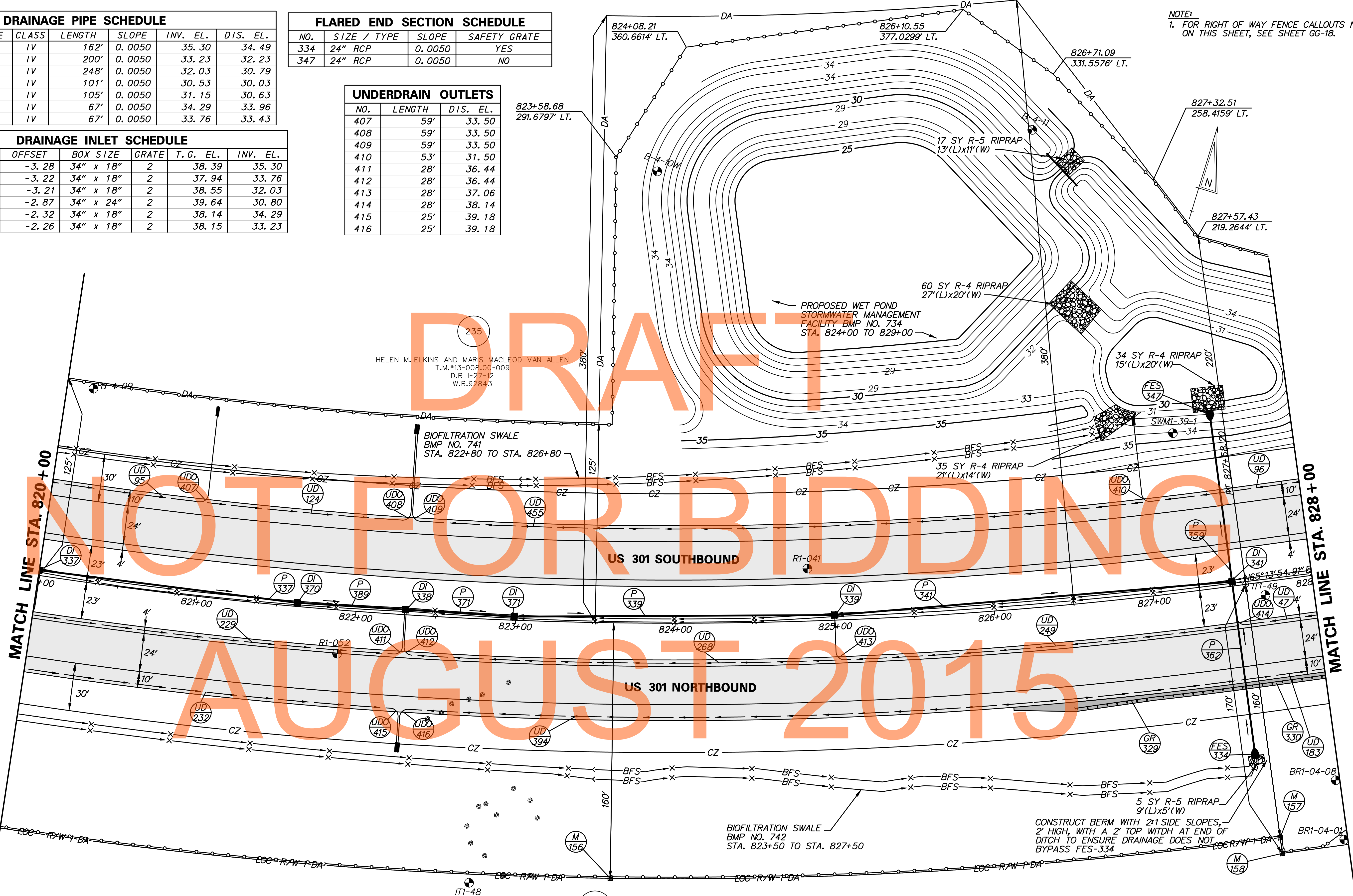
DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
337	15" RCP	IV	162'	0.0050	35.30	34.49
339	15" RCP	IV	200'	0.0050	33.23	32.23
341	15" RCP	IV	248'	0.0050	32.03	30.79
359	24" RCP	IV	101'	0.0050	30.53	30.03
362	24" RCP	IV	105'	0.0050	31.15	30.63
389	15" RCP	IV	67'	0.0050	34.29	33.96
371	15" RCP	IV	67'	0.0050	33.76	33.43

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
334	24" RCP	0.0050	YES
347	24" RCP	0.0050	NO

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
407	59'	33.50
408	59'	33.50
409	59'	33.50
410	53'	31.50
411	28'	36.44
412	28'	36.44
413	28'	37.06
414	28'	38.14
415	25'	39.18
416	25'	39.18

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
337	820+00	-3.28	34" x 18"	2	38.39	35.30
338	822+31	-3.22	34" x 18"	2	37.94	33.76
339	825+00	-3.21	34" x 18"	2	38.55	32.03
341	824+50	-2.87	34" x 24"	2	39.64	30.80
370	821+63	-2.32	34" x 18"	2	38.14	34.29
371	822+99	-2.26	34" x 18"	2	38.15	33.23

NOTE:
1. FOR RIGHT OF WAY FENCE CALLOUTS NOT SHOWN ON THIS SHEET, SEE SHEET GG-18.



MATCH LINE STA. 820+00

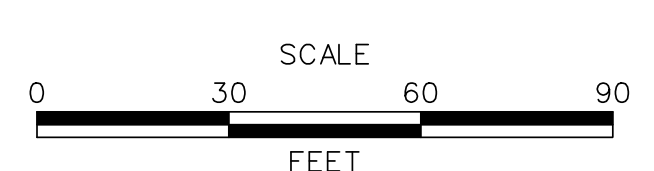
MATCH LINE STA. 828+00

US 301 SOUTHBOUND

US 301 NORTHBOUND

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
329	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	826+44.71	65.00	50.00
330	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	826+93.53	63.00	108.00

HELEN M. ELKINS AND MARIS MACLEOD VAN ALLEN
T.M.*13-008.00-009
D.R. I-27-12
W.R.92843



US 301,
SR 896 TO SR 1

← SITE ACCESS
CONTRACT T200911302 →

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: J.A.D.
	CHECKED BY: B.R.T.

CONSTRUCTION PLAN

CP-22
SHEET NO. 88
TOTAL SHTS. 875

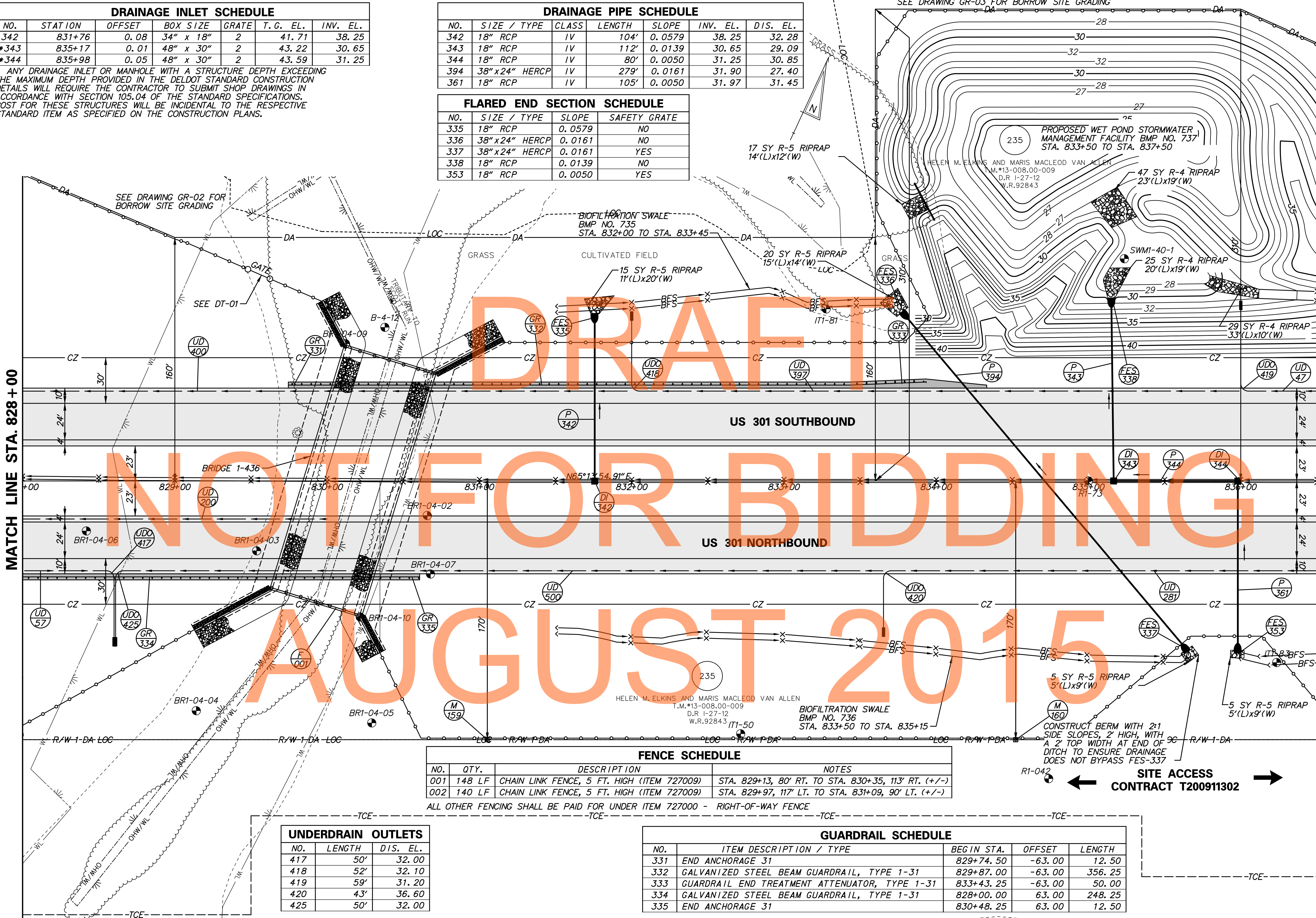
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DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
342	831+76	0.08	34" x 18"	2	41.71	38.25
*343	835+17	0.01	48" x 30"	2	43.22	30.65
*344	835+98	0.05	48" x 30"	2	43.59	31.25

* ANY DRAINAGE INLET OR MANHOLE WITH A STRUCTURE DEPTH EXCEEDING THE MAXIMUM DEPTH PROVIDED IN THE DELDOT STANDARD CONSTRUCTION DETAILS WILL REQUIRE THE CONTRACTOR TO SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SECTION 105.04 OF THE STANDARD SPECIFICATIONS. COST FOR THESE STRUCTURES WILL BE INCIDENTAL TO THE RESPECTIVE STANDARD ITEM AS SPECIFIED ON THE CONSTRUCTION PLANS.

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
342	18" RCP	IV	104'	0.0579	38.25	32.28
343	18" RCP	IV	112'	0.0139	30.65	29.09
344	18" RCP	IV	80'	0.0050	31.25	30.85
394	38" x 24" HERCP	IV	279'	0.0161	31.90	27.40
361	18" RCP	IV	105'	0.0050	31.97	31.45

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
335	18" RCP	0.0579	NO
336	38" x 24" HERCP	0.0161	NO
337	38" x 24" HERCP	0.0161	YES
338	18" RCP	0.0139	NO
353	18" RCP	0.0050	YES



FENCE SCHEDULE			
NO.	QTY.	DESCRIPTION	NOTES
001	148 LF	CHAIN LINK FENCE, 5 FT. HIGH (ITEM 727009)	STA. 829+13, 80' RT. TO STA. 830+35, 113' RT. (+/-)
002	140 LF	CHAIN LINK FENCE, 5 FT. HIGH (ITEM 727009)	STA. 829+97, 117' LT. TO STA. 831+09, 90' LT. (+/-)

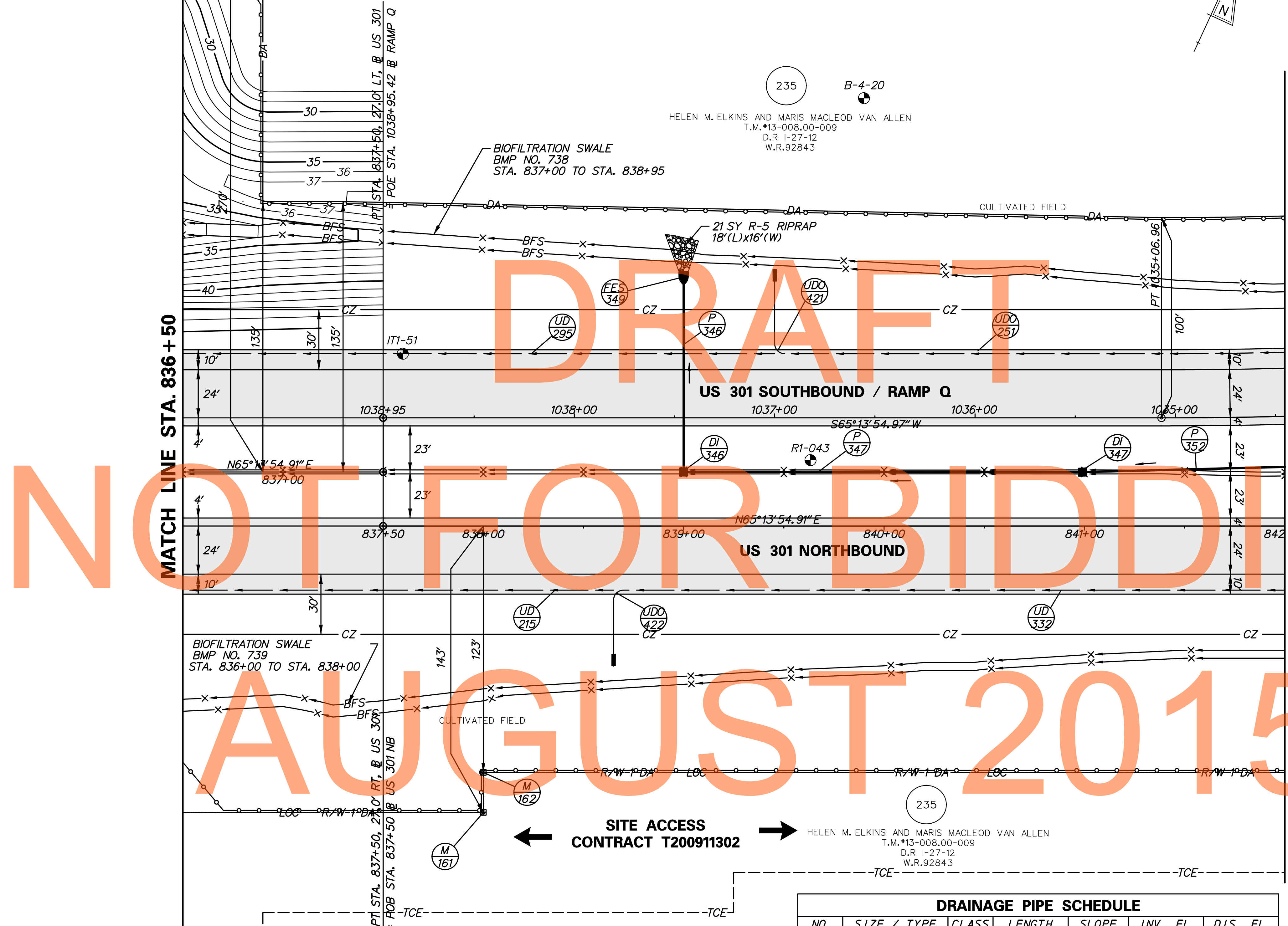
ALL OTHER FENCING SHALL BE PAID FOR UNDER ITEM 727000 - RIGHT-OF-WAY FENCE

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
417	50'	32.00
418	52'	32.10
419	59'	31.20
420	43'	36.60
425	50'	32.00

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
331	END ANCHORAGE 31	829+74.50	-63.00	12.50
332	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	829+87.00	-63.00	356.25
333	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	833+43.25	-63.00	50.00
334	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	828+00.00	63.00	248.25
335	END ANCHORAGE 31	830+48.25	63.00	12.50

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
349	18" RCP	0.0101	NO

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
421	41'	39.42
422	38'	40.00



DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
346	18" RCP	IV	94'	0.0102	39.32	38.38
347	15" RCP	IV	197'	0.0050	40.55	39.57
352	15" RCP	IV	349'	0.0050	42.50	40.75

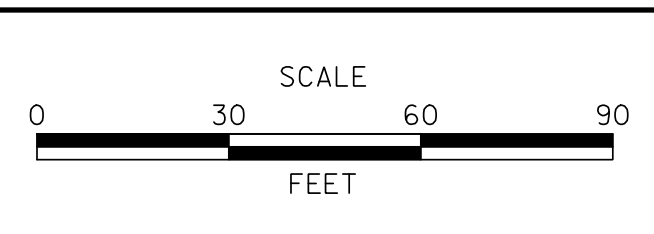
DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
346	839+00	-26.99	34" x 24"	2	44.90	39.33
347	840+99	-26.93	34" x 18"	2	45.78	40.56

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AUGUST 2015

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ADDENDUMS / REVISIONS	

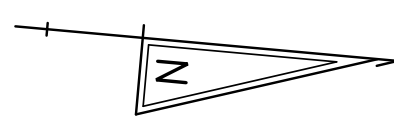


US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: J.A.D.
	CHECKED BY: B.R.T.

CONSTRUCTION PLAN

CP-24
SHEET NO. 90
TOTAL SHTS. 875

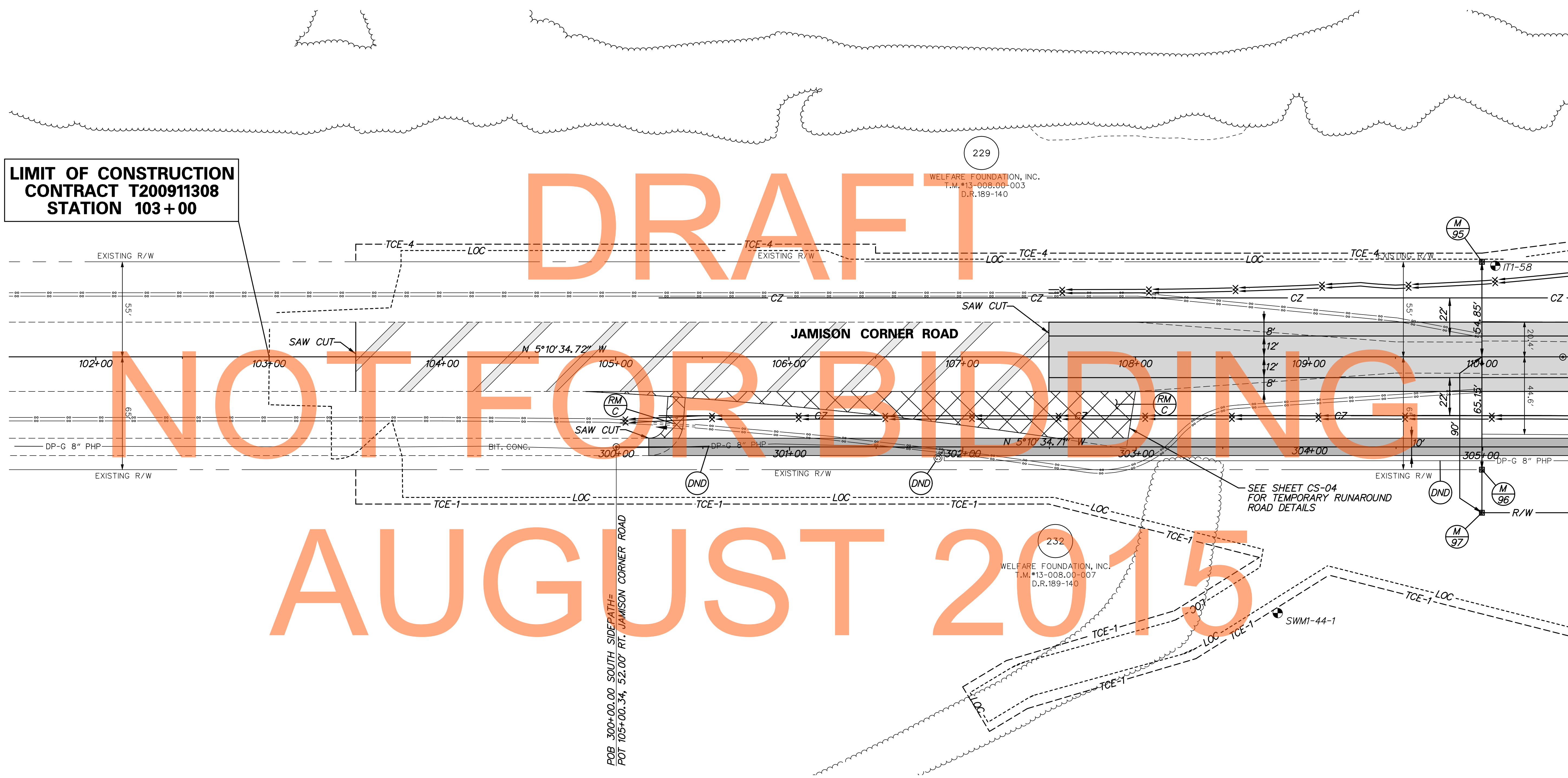


**LIMIT OF CONSTRUCTION
CONTRACT T200911308
STATION 103+00**

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AUGUST 2015

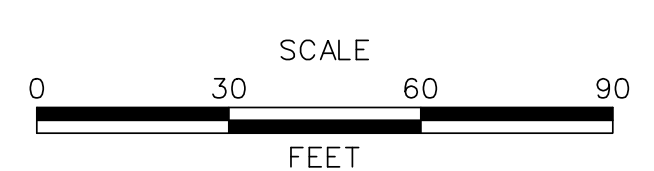


MATCH LINE STA. 110+50

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ADDENDUMS / REVISIONS	



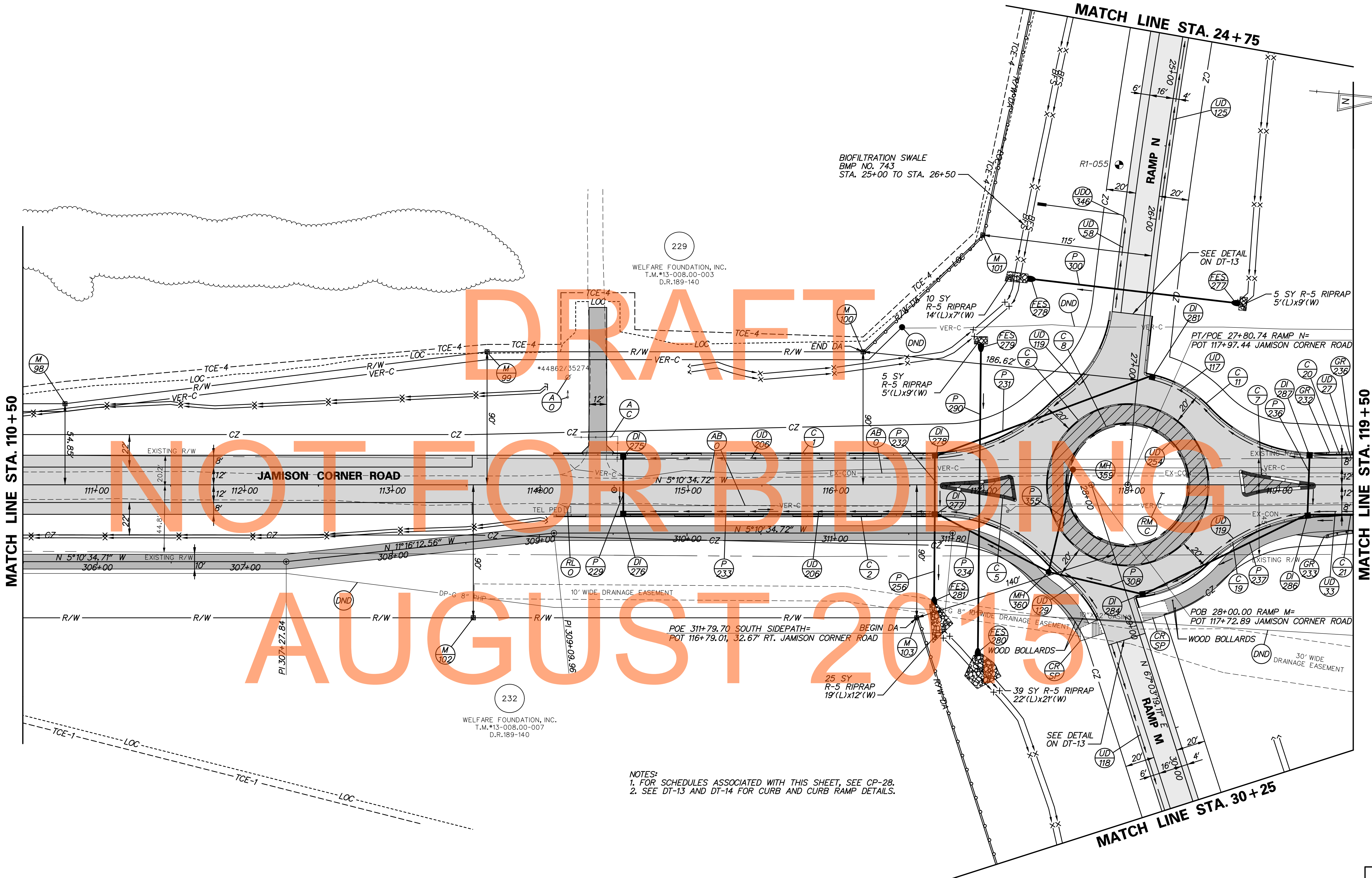
**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-26
SHEET NO. 92
TOTAL SHTS. 875

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AUGUST 2015

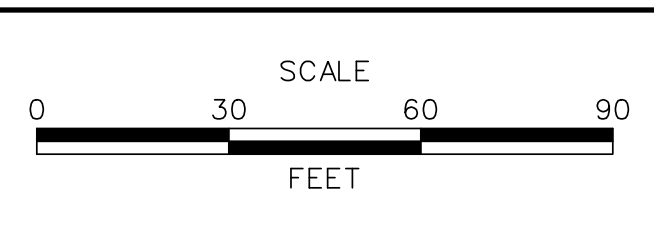


NOTES:
 1. FOR SCHEDULES ASSOCIATED WITH THIS SHEET, SEE CP-28.
 2. SEE DT-13 AND DT-14 FOR CURB AND CURB RAMP DETAILS.

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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-27
SHEET NO. 93
TOTAL SHTS. 875

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
229	18" RCP	IV	38'	0.0030	79.78	79.67
231	18" RCP	IV	153'	0.0262	89.59	85.58
232	18" RCP	IV	37'	0.0050	85.38	85.19
233	18" RCP	IV	208'	0.0030	79.47	78.85
234	18" RCP	IV	83'	0.0340	88.00	85.19
236	18" RCP	IV	38'	0.0050	93.19	93.00
237	18" RCP	IV	120'	0.0198	92.80	90.42
256	18" RCP	IV	55'	0.1435	78.65	70.89
290	24" RCP	IV	199'	0.0054	67.33	66.26
300	24" RCP	IV	132'	0.0079	68.75	67.71
308	18" RCP	IV	62'	0.0327	90.22	88.20
355	18" RCP	IV	69'	0.0150	89.23	88.20

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
275	114+56	-21.00	34" x 24"	1	84.33	79.78
276	114+56	21.00	34" x 24"	1	84.33	79.47
*277	116+68	21.00	48" x 30"	1	90.73	78.65
278	116+68	-21.13	48" x 30"	1	90.79	85.38
281	118+14	-74.08	48" x 30"	1	94.80	89.59
284	118+07	75.28	48" x 30"	1	95.63	90.22
286	119+19	21.82	48" x 30"	1	98.30	92.80
287	119+20	-21.07	34" x 24"	1	98.35	93.19

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
232	GUARDRAIL END ANCHORAGE 31	119+34	20.0 LT.	12.50'
233	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	119+32	34.0 RT.	50.00'
236	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	119+47	20.2 LT.	112.50'

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
277	24" RCP	0.0079	NO
278	24" RCP	0.0079	NO
279	24" RCP	0.0054	NO
280	24" RCP	0.0054	NO
281	18" RCP	0.1435	NO

MANHOLE SCHEDULE					
NO.	STATION	OFFSET	SIZE	T. S. EL.	INV. EL.
359	117+57.00	-11.30'	48" x 30"	94.72	89.23
360	117+47.17	55.59'	48" x 30"	94.56	88.00

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	PCC CURB AND GUTTER, TYPE 3-8	423.42'
2	PCC CURB AND GUTTER, TYPE 3-8	414.86'
5	PCC CURB, TYPE 2, MODIFIED	120.69'
6	PCC CURB, TYPE 1-2	345.58'
7	PCC CURB, TYPE 2, MODIFIED	121.18'
8	PCC CURB, TYPE 1-8	263.89'
11	PCC CURB AND GUTTER, TYPE 3-8	170.40'
19	PCC CURB AND GUTTER, TYPE 3-8	171.84'
20	PCC CURB, TYPE 1-8	26.16'
21	PCC CURB, TYPE 1-8	15.26'

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
346	61'	69.65

* ANY DRAINAGE INLET OR MANHOLE WITH A STRUCTURE DEPTH EXCEEDING THE MAXIMUM DEPTH PROVIDED IN THE DELDOT STANDARD CONSTRUCTION DETAILS WILL REQUIRE THE CONTRACTOR TO SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SECTION 105.04 OF THE STANDARD SPECIFICATIONS. COST FOR THESE STRUCTURES WILL BE INCIDENTAL TO THE RESPECTIVE STANDARD ITEM AS SPECIFIED ON THE CONSTRUCTION PLANS.

DRAFT

NOT FOR BIDDING

AUGUST 2015

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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-28
SHEET NO. 94
TOTAL SHTS. 875

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
268	18" RCP	0.0400	NO
284	18" RCP	0.1150	NO
285	18" RCP	0.0400	NO
287	18" RCP	0.0031	NO
288	18" RCP	0.0031	NO

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
216	GUARDRAIL END ANCHORAGE 31	123+84.00	20.30 LT.	12.50'
217	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	123+81.00	30.80 RT.	50.00'

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
288	124+20	-21.89	34" x 24"	1	98.31	93.29
289	124+19	21.09	48" x 30"	1	98.35	87.73
291	125+30	74.94	48" x 30"	1	95.11	89.90
293	125+36	-75.74	48" x 30"	1	95.50	90.25
*295	126+66	-21.00	48" x 30"	1	91.05	78.86
296	126+65	22.55	48" x 30"	1	91.00	85.59
297	129+00	-21.00	34" x 24"	1	84.32	73.67
298	129+00	21.00	34" x 24"	1	83.70	78.49

* ANY DRAINAGE INLET OR MANHOLE WITH A STRUCTURE DEPTH EXCEEDING THE MAXIMUM DEPTH PROVIDED IN THE DELDOT STANDARD CONSTRUCTION DETAILS WILL REQUIRE THE CONTRACTOR TO SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SECTION 105.04 OF THE STANDARD SPECIFICATIONS. COST FOR THESE STRUCTURES WILL BE INCIDENTAL TO THE RESPECTIVE STANDARD ITEM AS SPECIFIED ON THE CONSTRUCTION PLANS.

UTILITY TEST HOLE SCHEDULE						
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL
TH-1	VERIZON	129+18.26	-47.78'	74.99	1.09'	(2) 1/2" CABLE
TH-1A	VERIZON	128+19.08	-44.10'	75.37	2.21'	3/4" CABLE
TH-2	VERIZON	127+95.81	-10.63'	76.17	2.83'	1-3/4" CABLE
TH-3	VERIZON	126+38.79	-13.15'	76.34	1.14'	(2) 1/2" CABLE
TH-4	VERIZON	126+45.14	6.95'	76.41	2.51'	1-1/2" CABLE
TH-5	VERIZON	128+96.43	91.40'	75.83	1.02'	2-1/4" CABLE
TH-6	VERIZON	128+72.11	97.93'	76.44	2.68'	1-1/2" CABLE

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
12	PCC CURB AND GUTTER, TYPE 3-8	537.99'
13	PCC CURB AND GUTTER, TYPE 3-8	549.88'
14	PCC CURB, TYPE 2, MODIFIED	120.69'
15	PCC CURB, TYPE 1-2	345.58'
16	PCC CURB, TYPE 2, MODIFIED	125.80'
17	PCC CURB, TYPE 1-8	263.89'
22	PCC CURB, TYPE 1-8	55.82'
23	PCC CURB, TYPE 1-8	62.04'
28	PCC CURB AND GUTTER, TYPE 3-8	168.69'
29	PCC CURB AND GUTTER, TYPE 3-8	185.30'

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
296	18" RCP	IV	39'	0.0050	85.59	85.39
297	18" RCP	IV	43'	0.1150	78.86	73.95
298	18" RCP	IV	39'	0.0050	93.29	93.10
299	18" RCP	IV	119'	0.0050	89.90	89.30
301	18" RCP	IV	141'	0.0313	90.25	85.39
302	18" RCP	IV	40'	0.1000	87.73	83.76
257	18" RCP	IV	38'	0.0050	78.49	78.30
258	18" RCP	IV	38'	0.0400	73.67	72.16
261	18" RCP	IV	71'	0.0031	71.68	71.46
305	18" RCP	IV	52'	0.0200	88.88	87.84
307	18" RCP	IV	53'	0.0350	87.64	85.81
388	18" RCP	IV	49'	0.0400	76.39	74.44

MANHOLE SCHEDULE						
NO.	STATION	OFFSET	SIZE	T. G. EL.	INV. EL.	
351	124+36.45	58.90'	48" x 30"	87.58	83.76	
355	124+36.45	2.94'	48" x 48"	94.76	88.88	
356	124+36.45	45.94'	48" x 48"	93.69	87.64	

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AUGUST 2015

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ADDENDUMS / REVISIONS	

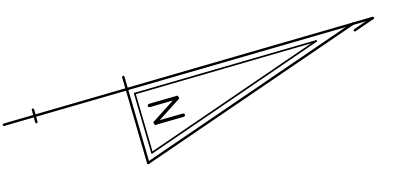


**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-30
SHEET NO. 96
TOTAL SHTS. 875

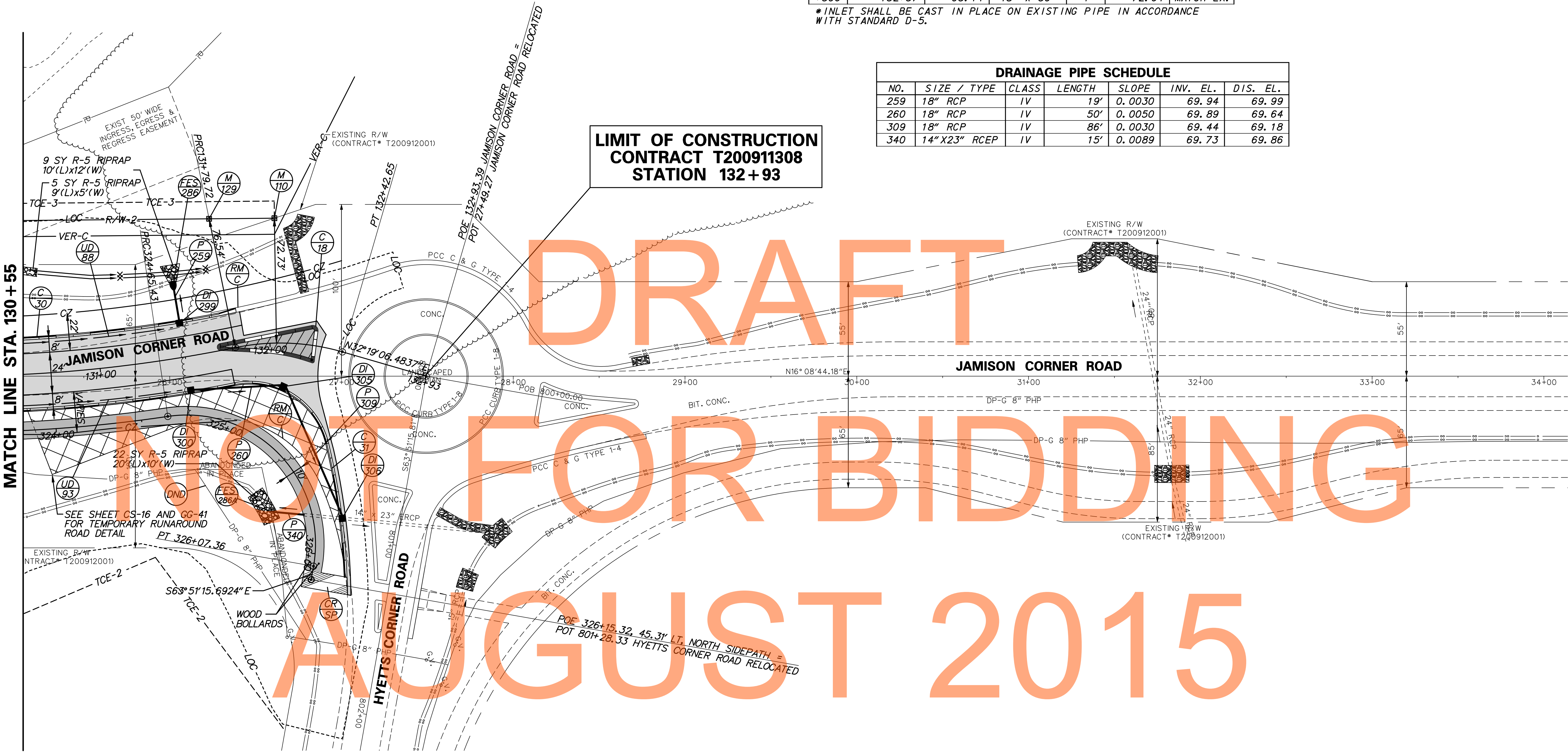


FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
286	18" RCP	0.0030	NO
286A	14" X23" RCEP	0.0089	NO

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
299	131+50	-20.00	34" x 24"	1	74.64	69.99
300	131+50	20.00	48" x 30"	1	74.65	70.41
305	131+51	19.75	48" x 48"	1	73.09	70.16
*306	132+37	93.14	48" x 30"	1	72.64	MATCH EX.

* INLET SHALL BE CAST IN PLACE ON EXISTING PIPE IN ACCORDANCE WITH STANDARD D-5.

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
259	18" RCP	IV	19'	0.0030	69.94	69.99
260	18" RCP	IV	50'	0.0050	69.89	69.64
309	18" RCP	IV	86'	0.0030	69.44	69.18
340	14" X23" RCEP	IV	15'	0.0089	69.73	69.86



MATCH LINE STA. 130+55

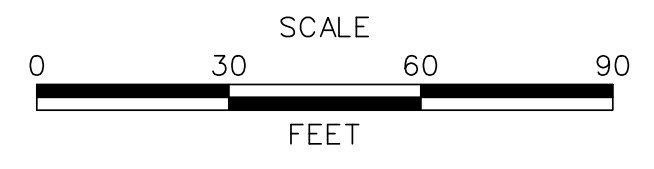
NOTES:
1. SEE DT-13 AND DT-14 FOR CURB AND CURB RAMP DETAILS.

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
18	PCC CURB, TYPE 2, MODIFIED	139.33'
30	PCC CURB AND GUTTER, TYPE 3-8	125.21'
31	PCC CURB AND GUTTER, TYPE 3-8	274.90'

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ADDENDUMS / REVISIONS



US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

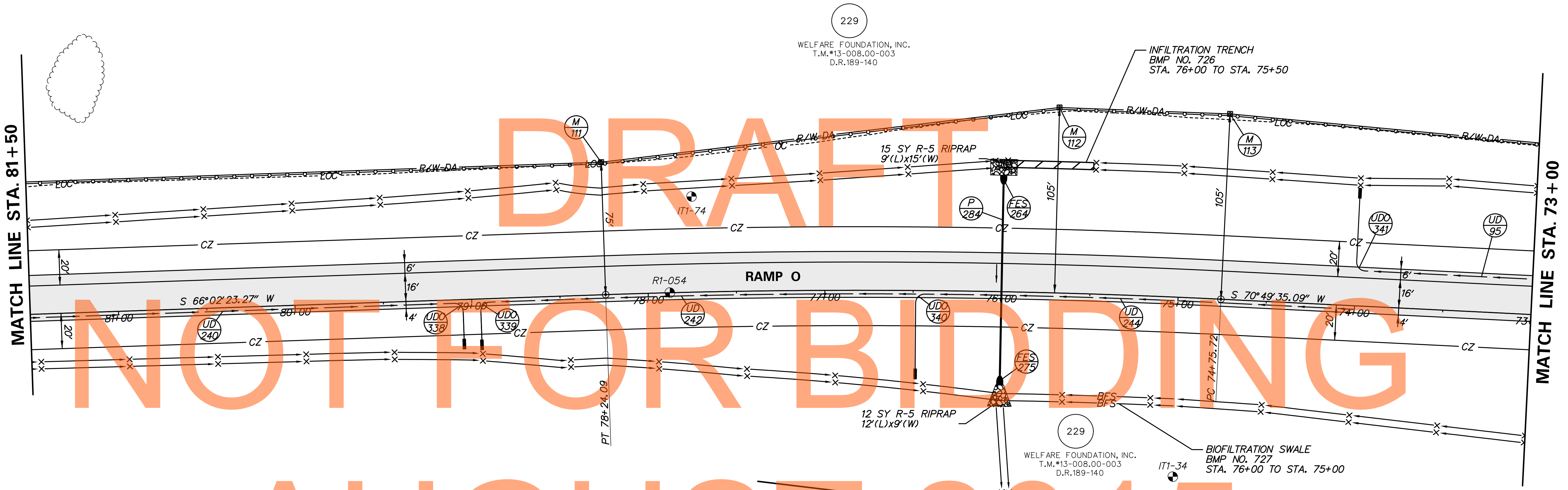
CONSTRUCTION PLAN

CP-31
SHEET NO. 97
TOTAL SHTS. 875

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	DIS. EL.
284	18" RCP	IV	107'	0.0123	73.87	72.56

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
264	18" RCP	0.0123	NO
275	18" RCP	0.0123	NO

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
338	26'	77.58
339	27'	77.58
340	51'	73.48
341	48'	76.95



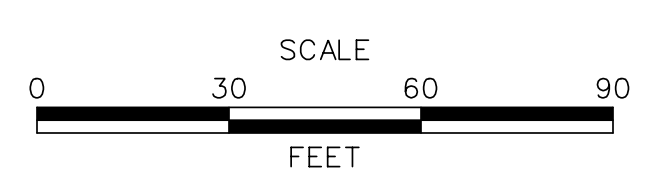
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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-32
SHEET NO. 98
TOTAL SHTS. 875

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
342	63'	72.68
343	67'	70.43

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
218	GUARDRAIL END ANCHORAGE 31	61+32.71	24.00 RT.	12.50'
219	GUARDRAIL END ANCHORAGE 31	60+82.93	6.00 LT.	12.50'
220	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	59+45.21	24.00 RT.	187.50'

232
WELFARE FOUNDATION, INC.
T.M.*13-008.00-007
D.R.189-140

232
WELFARE FOUNDATION, INC.
T.M.*13-008.00-007
D.R.189-140

MATCH LINE STA. 66 + 75

MATCH LINE STA. 59 + 25

MATCH LINE
STA. 58 + 50

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AUGUST 2015

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ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

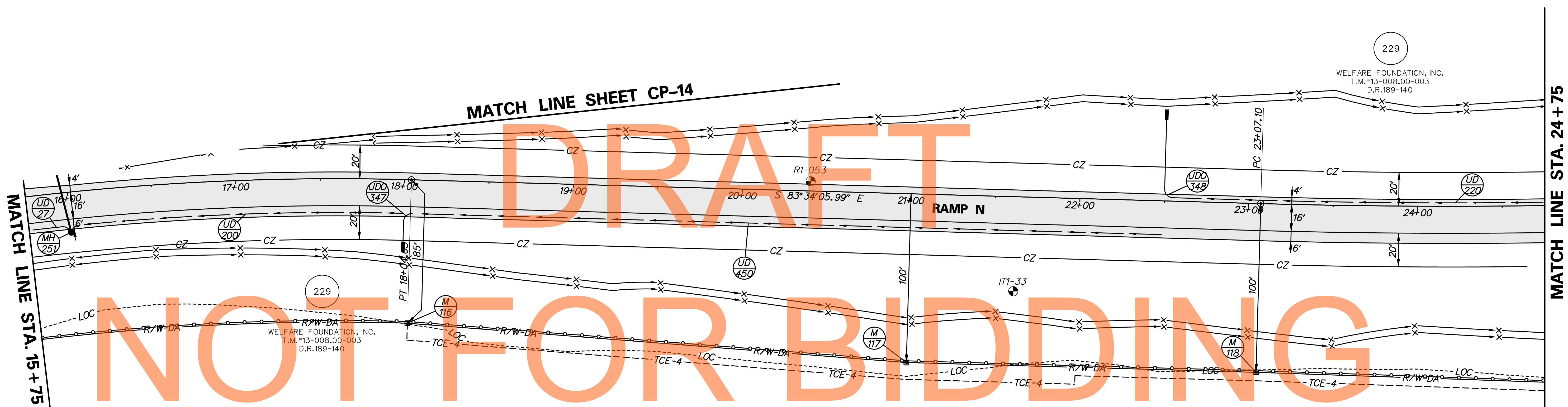
CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-33
SHEET NO. 99
TOTAL SHTS. 875

MANHOLE SCHEDULE					
NO.	STATION	OFFSET	TYPE/SIZE	T. S. EL.	INV. EL.
251	16+00	27.79	48" x 30"	77.44	73.74

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
347	21'	75.06
348	51'	73.06

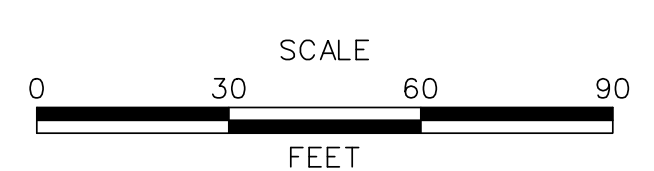


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AUGUST 2015

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ADDENDUMS / REVISIONS	

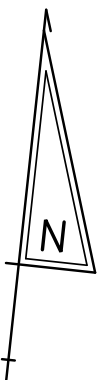


**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-34
SHEET NO. 100
TOTAL SHTS. 875



MATCH LINE SHEET CP-16

MATCH LINE SHEET CP-17

SWM1-35-1

232
WELFARE FOUNDATION, INC.
T.M.*13-008.00-007
D.R.189-140

PROPOSED WET POND
STORMWATER
MANAGEMENT FACILITY
BMP NO. 731
STA. 785+00 TO STA. 789+00

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AUGUST 2015

232
WELFARE FOUNDATION, INC.
T.M.*13-008.00-007
D.R.189-140

415 SY R-5 RIPRAP
163'(L)x23'(W)

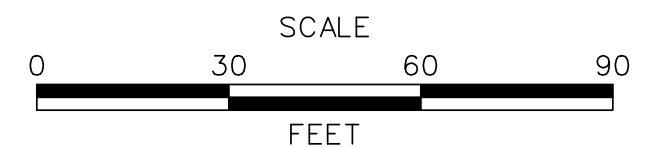
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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NO.	DATE	DESCRIPTION



US 301,
SR 896 TO SR 1

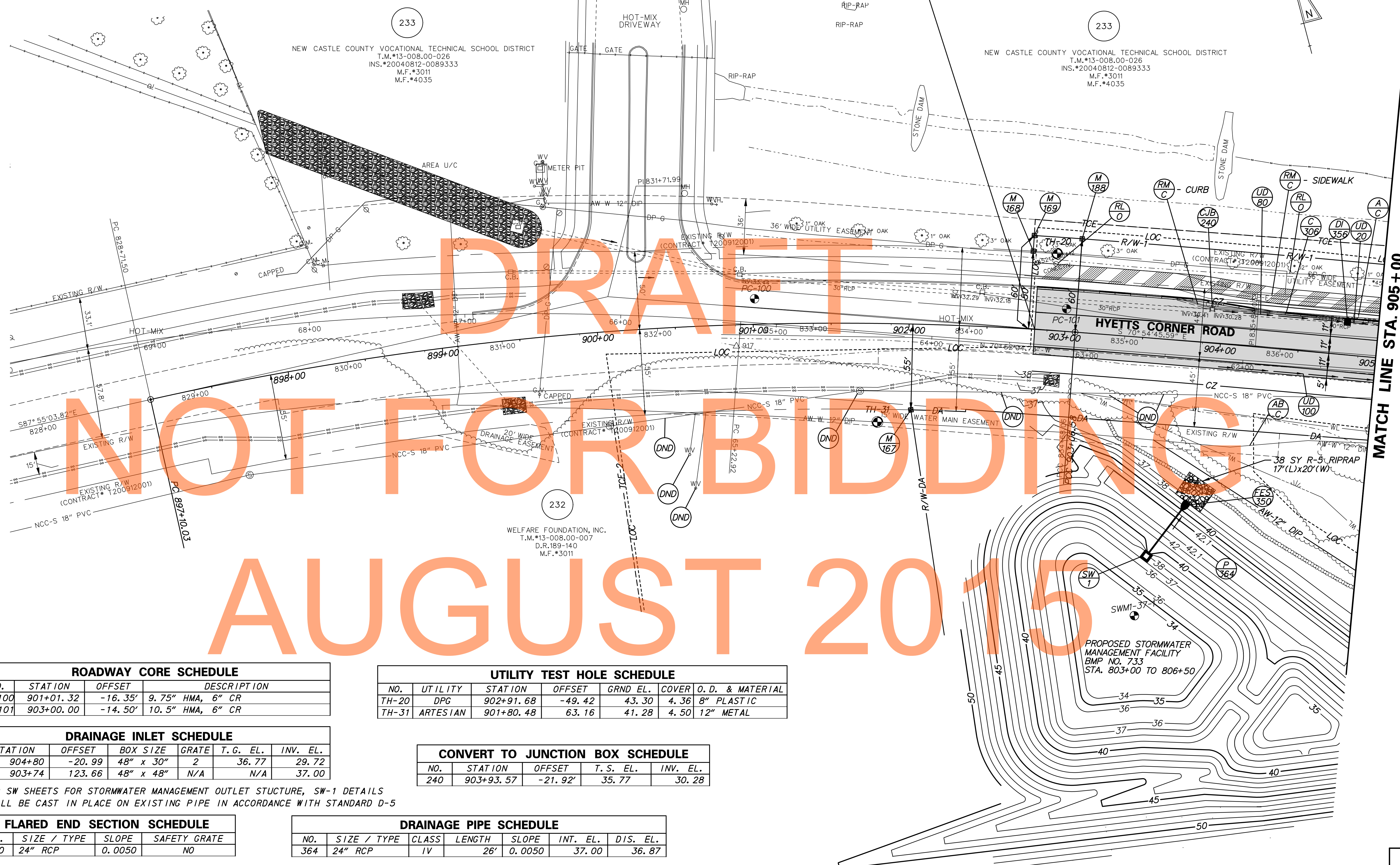
CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KGMA
	CHECKED BY: TAO

CONSTRUCTION PLAN

CP-36
SHEET NO. 102
TOTAL SHTS. 875

CURB AND GUTTER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
306	PCC CURB AND GUTTER, TYPE 3-8	220.35'

**LIMIT OF CONSTRUCTION
CONTRACT T20091308
STATION 902+81**



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AUGUST 2015

ROADWAY CORE SCHEDULE				
NO.	STATION	OFFSET	DESCRIPTION	
PC-100	901+01.32	-16.35'	9.75" HMA	6" CR
PC-101	903+00.00	-14.50'	10.5" HMA	6" CR

UTILITY TEST HOLE SCHEDULE						
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL
TH-20	DPG	902+91.68	-49.42	43.30	4.36	8" PLASTIC
TH-31	ARTESIAN	901+80.48	63.16	41.28	4.50	12" METAL

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
*356	904+80	-20.99	48" x 30"	2	36.77	29.72
**SW-1	903+74	123.66	48" x 48"	N/A	N/A	37.00

CONVERT TO JUNCTION BOX SCHEDULE					
NO.	STATION	OFFSET	T. S. EL.	INV. EL.	
240	903+93.57	-21.92'	35.77	30.28	

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
350	24" RCP	0.0050	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
364	24" RCP	IV	26'	0.0050	37.00	36.87

**REFER TO SW SHEETS FOR STORMWATER MANAGEMENT OUTLET STRUCTURE, SW-1 DETAILS
*INLET SHALL BE CAST IN PLACE ON EXISTING PIPE IN ACCORDANCE WITH STANDARD D-5

**DELAWARE
DEPARTMENT OF TRANSPORTATION**

ADDENDUMS / REVISIONS



**US 301,
SR 896 TO SR 1**

CONTRACT T20091308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: J.A.D.
	CHECKED BY: B.R.T.

CONSTRUCTION PLAN

CP-37
SHEET NO. 103
TOTAL SHTS. 875

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CURB AND GUTTER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
307	PCC CURB AND GUTTER, TYPE 3-8	156.12'
308	PCC CURB AND GUTTER, TYPE 3-8	94.62'
309	PCC CURB AND GUTTER, TYPE 1-4	90.45'
310	PCC CURB AND GUTTER, TYPE 1-4	70.06'

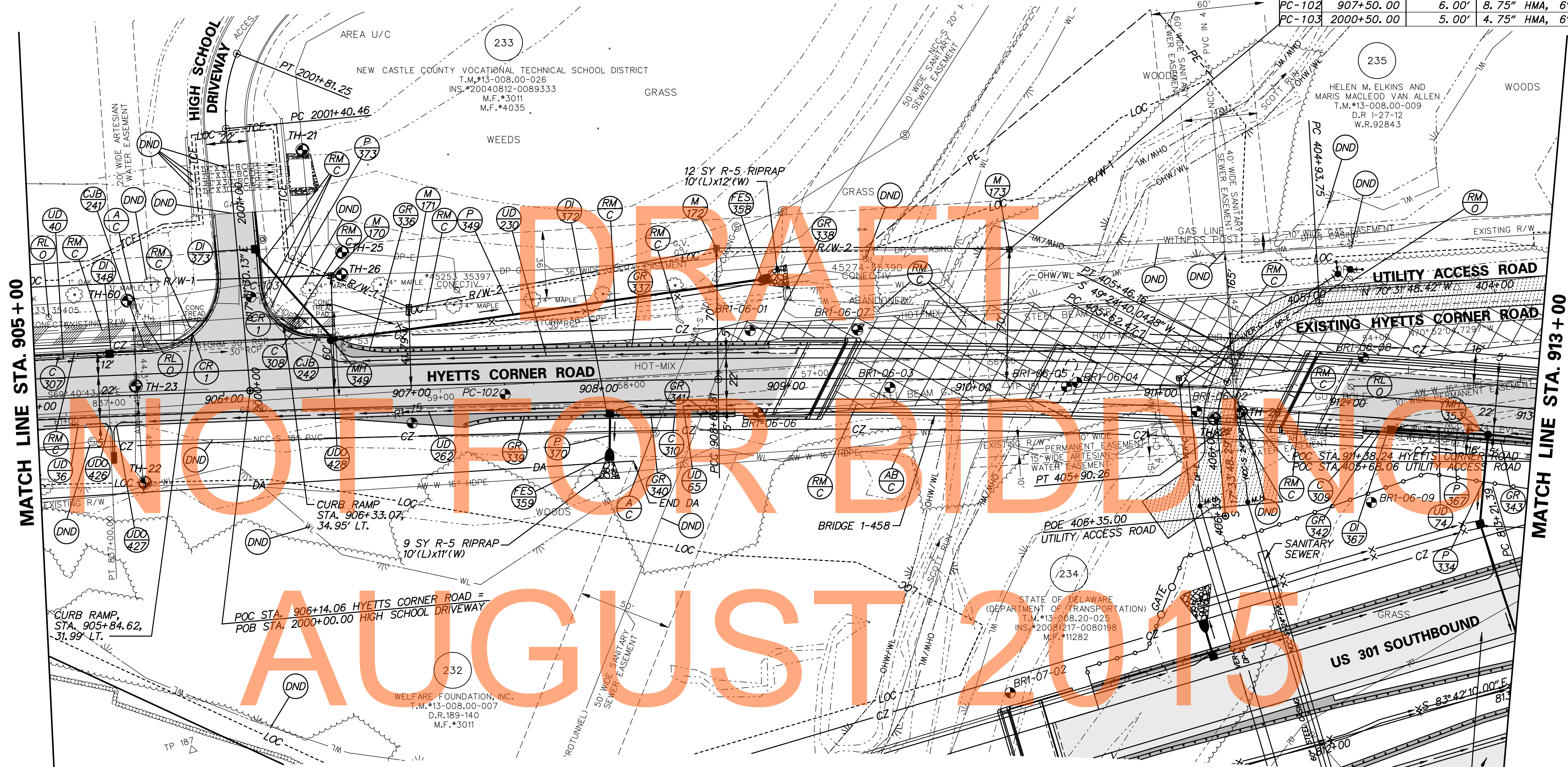
SEE CURB TRANSITION DETAILS AT GUARDRAIL TO BARRIER CONNECTION, SHEET DT-03.

UTILITY TEST HOLE SCHEDULE						
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O.D. & MATERIAL
TH-21	DPG	906+46.26	-127.40	33.38	2.98	6" PLASTIC
TH-22	ARTESIAN	905+55.97	46.86	32.49	3.72	12" METAL
TH-23	ARTESIAN	905+53.24	-4.82	35.93	7.60	12" METAL
TH-25	DPE	906+65.42	-72.25	36.36	3.53	3/4" CABLE
TH-26	DPG	906+64.70	-60.32	36.46	4.90	8" PLASTIC
TH-27	ARTESIAN	911+29.39	16.53	32.29	12.66	12" PLASTIC
TH-28	ARTESIAN	911+43.58	12.39	32.00	10.96	12" PLASTIC
TH-60	DPG	905+50.66	-50.55	37.45	4.76	8" PLASTIC

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
*348	905+40	-22.70	48" x 30"	1	36.46	29.33
367	912+24	-18.00	34" x 24"	1	61.27	56.50
372	908+06	18.00	34" x 18"	1	41.04	33.02
373	906+21	-75.57	48" x 30"	1	35.49	32.26

*INLET SHALL BE CAST IN PLACE ON EXISTING PIPE IN ACCORDANCE WITH STANDARD D-5

ROADWAY CORE SCHEDULE			
NO.	STATION	OFFSET	DESCRIPTION
PC-102	907+50.00	6.00'	8.75" HMA, 6" CR
PC-103	2000+50.00	5.00'	4.75" HMA, 6" CR



GUARDRAIL SCHEDULE			
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	LENGTH
336	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	906+67.69	50.00
337	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	907+18.79	153.20
338	GUARDRAIL TO BARRIER CONN., APPROACH TYPE 1-31	908+63.81	19.75
339	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	907+27.98	50.00
340	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	907+78.94	75.00
341	GUARDRAIL TO BARRIER CONN., APPROACH TYPE 1-31	908+52.79	19.75
342	GUARDRAIL TO BARRIER CONN., APPROACH TYPE 1-31	912+09.22	19.75
343	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	912+29.05	70.66

FLARED END SECTION SCHEDULE			
NO.	SIZE/TYPE	SLOPE	SAFETY GRATE
358	30" RCP	0.0030	NO
359	15" RCP	0.0500	NO

CONVERT TO JUNCTION BOX SCHEDULE				
NO.	STATION	OFFSET	T.C. EL.	INV. EL.
241	905+58.89	-23.11'	35.54	29.18
242	906+50.59	-25.79'	34.06	29.04

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
349	30" RCP	IV	229'	0.0030	28.91	28.22
367	15" RCP	IV	49'	0.0050	56.50	56.26
373	15" RCP	IV	60'	0.0101	32.26	31.66
370	15" RCP	IV	19'	0.0500	33.02	32.12
334	15" RCP	IV	90'	0.0337	63.00	60.00

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
426	16'	34.24
427	16'	34.24
428	12'	34.00

MANHOLE SCHEDULE					
NO.	STATION	OFFSET	SIZE	T.G. EL.	INV. EL.
349	906+57.95	-25.43'	48" x 30"	37.27	28.91
353	912+76.21	15.63'	48" x 30"	63.40	50.50

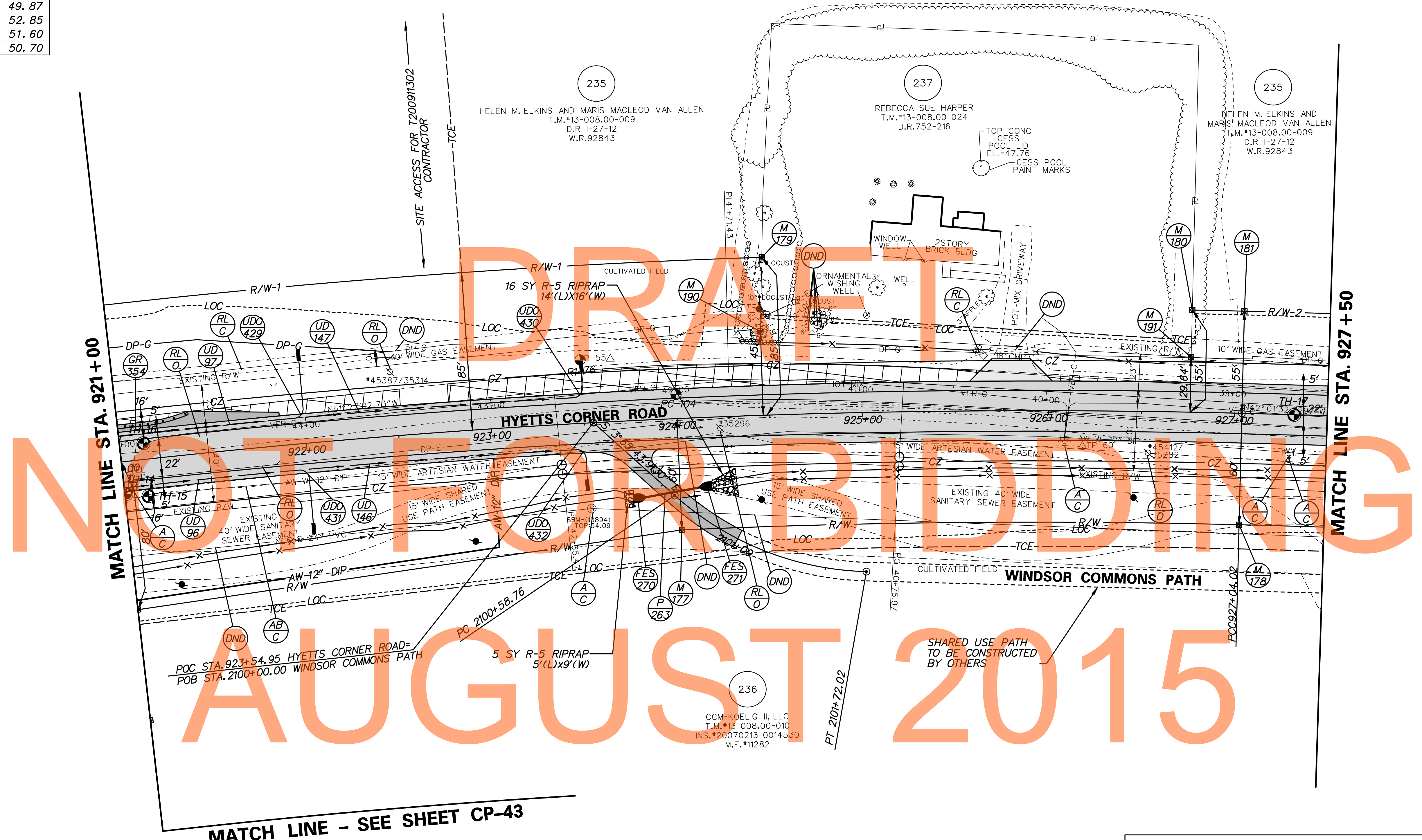
SEE SHEETS CP-20 - CP-21 FOR US 301

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
354	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	920+87.16	-18.00	50.00

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
270	18" RCP	0.0070	NO
271	18" RCP	0.0070	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
263	18" RCP	IV	37	0.0070	50.02	49.75

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
429	37'	49.87
430	18'	52.85
431	35'	51.60
432	22'	50.70



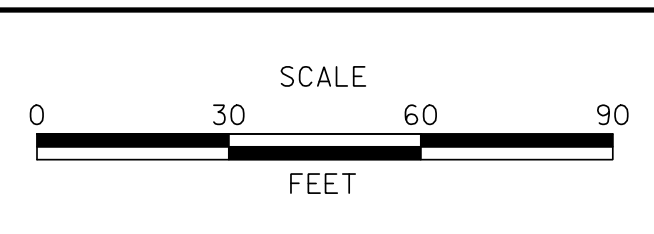
UTILITY TEST HOLE SCHEDULE						
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL
TH-14	VERIZON	921+00.78	17.41	54.06	1.32	2 1/4" CABLE
TH-15	ARTESIAN	921+12.52	19.93	53.89	3.74	12" METAL
TH-16	VERIZON	921+12.95	-8.75	53.57	2.43	1" CABLE
TH-17	VERIZON	927+32.19	0.12	45.48	3.06	1" CABLE

ROADWAY CORE SCHEDULE			
NO.	STATION	OFFSET	DESCRIPTION
PC-104	924+00.00	13.00' LT.	3" HMA, 5.5" STONE

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ADDENDUMS / REVISIONS	

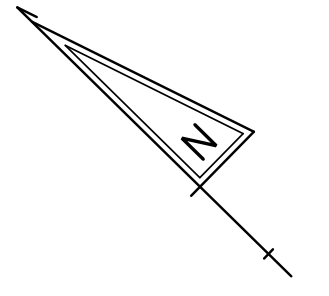


US 301,
 SR 896 TO SR 1

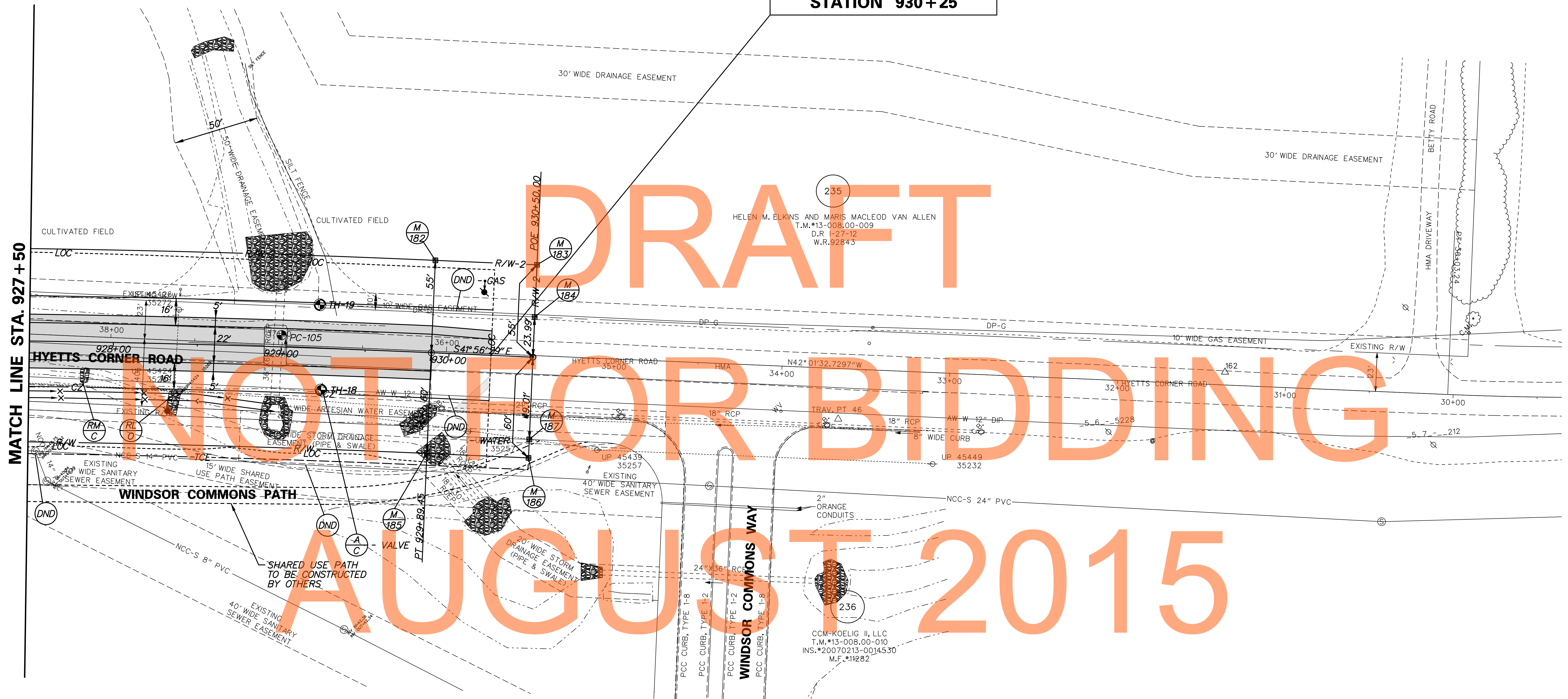
CONTRACT	T200911308	BRIDGE NO.	
COUNTY	NEW CASTLE	DESIGNED BY:	K.S.B.
		CHECKED BY:	B.R.T.

CONSTRUCTION PLAN

CP-40
SHEET NO.
106
TOTAL SHTS.
875



**LIMIT OF CONSTRUCTION
CONTRACT T200911308
STATION 930+25**



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ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
PC-105	929+00.00	-7.00'	3.5" HMA, 3" ATB

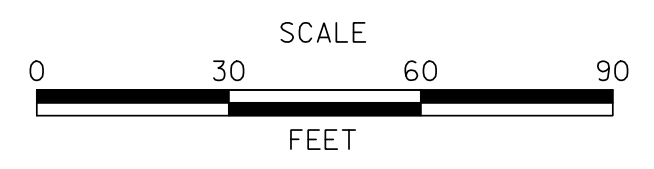
UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL
TH-18	ARTESIAN	929+24.54	24.82	43.37	4.24	12" METAL
TH-19	DPG	929+22.19	-25.84	42.86	4.74	8" PLASTIC

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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: K.S.B.
	CHECKED BY: B.R.T.

CONSTRUCTION PLAN

CP-41
SHEET NO. 107
TOTAL SHTS. 875

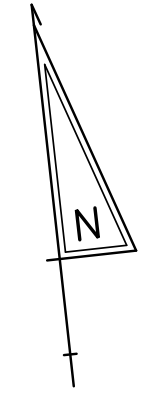
MATCH LINE - SEE SHEET CP-20

MATCH LINE - SEE SHEET CP-21

MATCH LINE - SEE SHEET CP-44

MATCH LINE - SEE SHEET CP-43

MATCH LINE - SEE SHEET CP-45



DRAFT

NOT FOR BIDDING

AUGUST 2015

234.03
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-033
INS.#20081217-0080198
M.F.#11282

234.02
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-034
INS.#20081217-0080198
M.F.#11282

234.01
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-035
INS.#20081217-0080198
M.F.#11282

234.11
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-068
INS.#20081217-0080198
M.F.#11282

234.13
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-039
INS.#20081217-0080198
M.F.#11282

234.13
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-039
INS.#20081217-0080198
M.F.#11282

234
STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-025
INS.#20081217-0080198
M.F.#11282

CONTRACTOR'S LAYDOWN AREA

\\s31653-000\centric\l\cadd\CP042\B01_1A.dgn
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ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT	BRIDGE NO.
T200911308	
COUNTY	DESIGNED BY: KAH
NEW CASTLE	CHECKED BY: BRT

CONSTRUCTION PLAN

CP-42
SHEET NO.
108
TOTAL SHTS.
875

MATCH LINE - SEE SHEET CP-21

MATCH LINE - SEE SHEET CP-39

MATCH LINE - SEE SHEET CP-40

MATCH LINE - SEE SHEET CP-42

DRAFT
NOT FOR BIDDING
AUGUST 2015



234.10

STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-026
INS.#20081217-0080198
M.F.#11282

234.11

STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-068
INS.#20081217-0080198
M.F.#11282

234.12

STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-067
INS.#20081217-0080198
M.F.#11282

236

CCM-KOELIG II, LLC
T.M.#13-008.00-010
INS.#20070213-0014530
M.F.#11282

CONTRACTOR'S LAYDOWN AREA

DEDICATED
SEWER EASEMENT
40' WIDE SANITARY
SEWER

10' WIDE ACCESS E

\\s01\proj\13\1300\CP043\0301_1A.dgn 3/2/2014 12:24:45 PM



DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS



US 301,
SR 896 TO SR 1

CONTRACT
T200911308
COUNTY
NEW CASTLE

BRIDGE NO.
DESIGNED BY: KAH
CHECKED BY: BRT

CONSTRUCTION PLAN

CP-43
SHEET NO. 109
TOTAL SHTS. 875

DRAFT
NOT FOR BIDDING
AUGUST 2015

234

STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-025
INS.#20081217-0080198
M.F.#11282

10' WIDE ACCESS EASEMENT

CONTRACTOR'S LAYDOWN AREA

234.11

STATE OF DELAWARE,
DEPARTMENT OF TRANSPORTATION
T.M.#13-008.20-068INS.#20081217-0080198
M.F.#11282

MATCH LINE - SEE SHEET CP-20

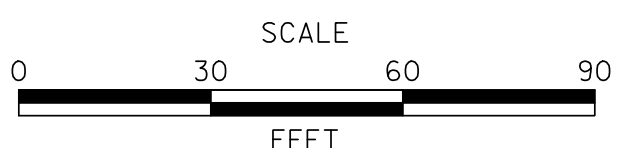
MATCH LINE - SEE SHEET CP-42

MATCH LINE - SEE SHEET CP-42

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ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KAH
	CHECKED BY: BRT

CONSTRUCTION PLAN

CP-44
SHEET NO. 110
TOTAL SHTS. 875

