

09/08/09

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

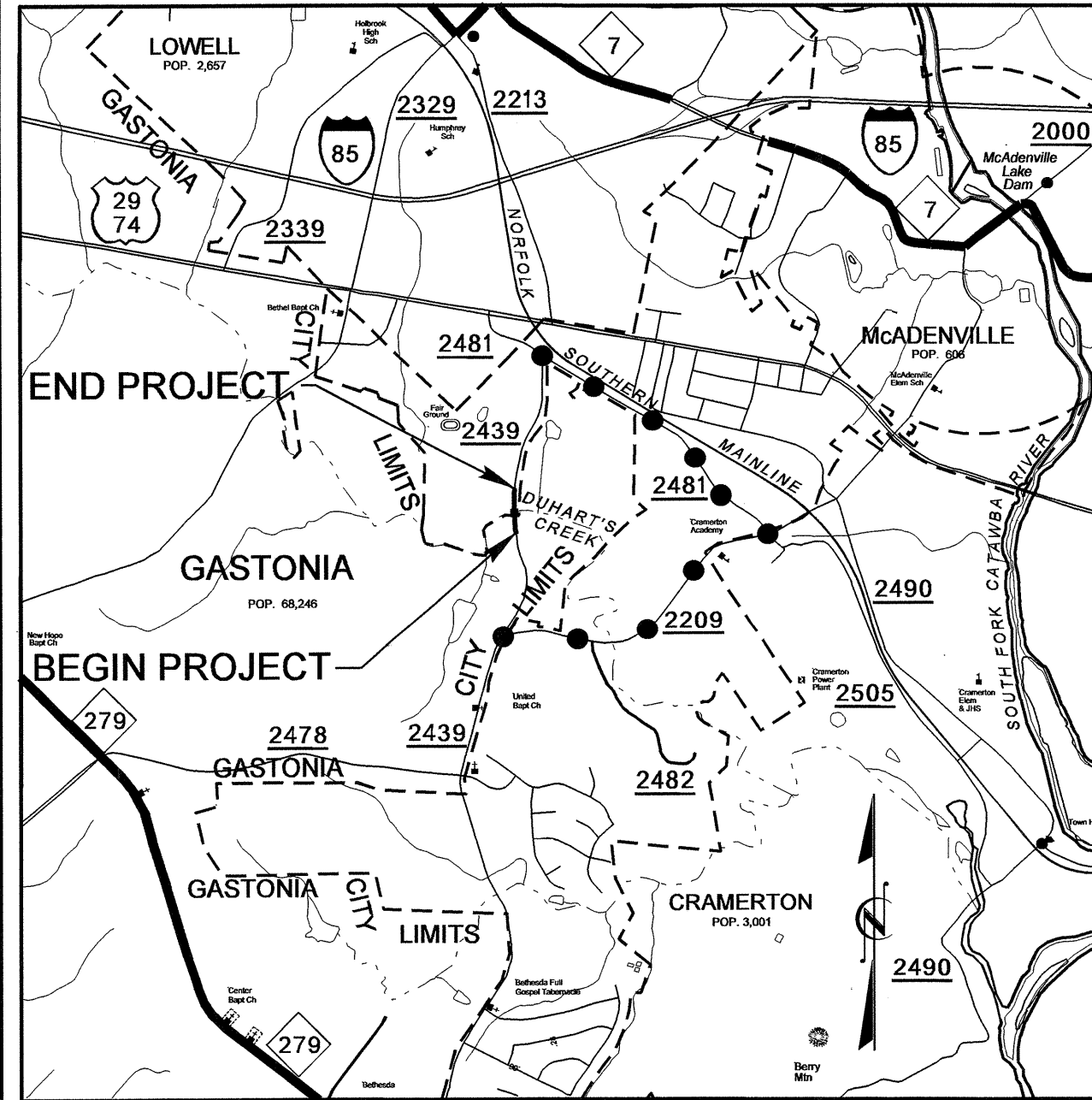
GASTON COUNTY

**LOCATION: BRIDGE NO. 15 OVER DUHART'S CREEK ON SR 2439
(LOWELL BETHESDA RD.)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

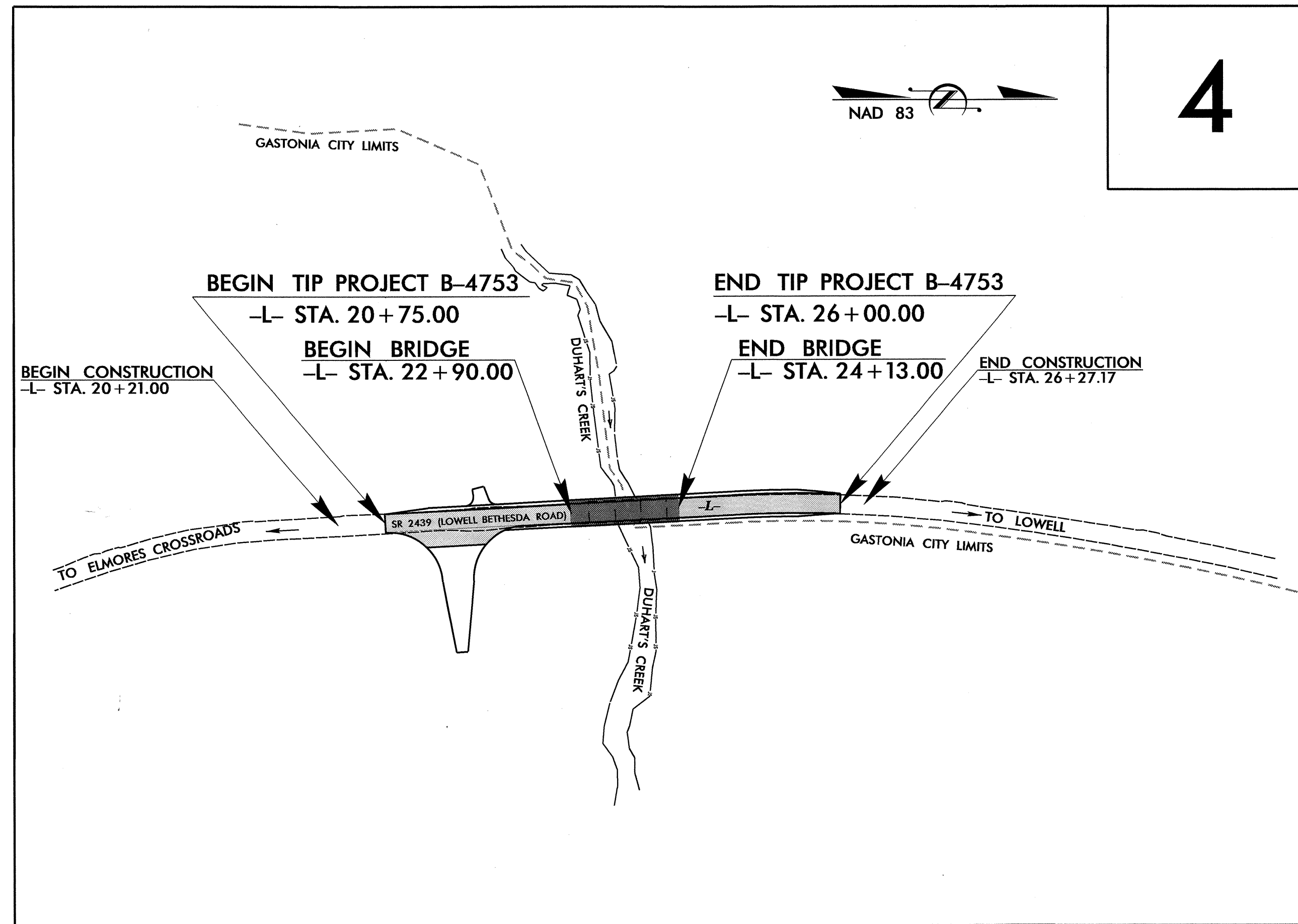
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4753	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38525.1.1	BRSTP-2439(1)	PE	
38525.2.1	BRSTP-2439(1)	RW, UTIL	
38525.3.1	BRSTP-2439(1)	CONST.	

TIP PROJECT: B-4753



VICINITY MAP

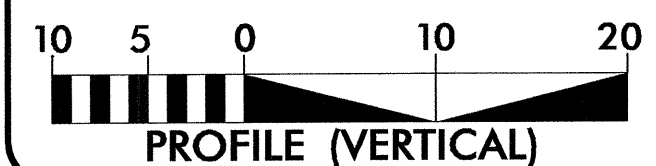
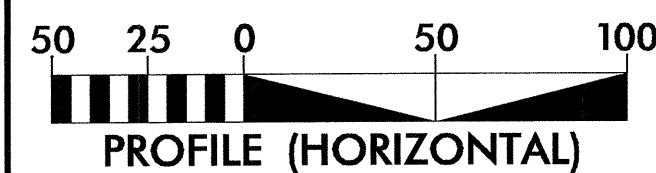
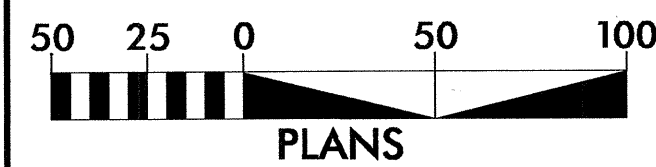
●●●●● OFFSITE DETOUR



4

**DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE "K" VALUES AND ASSOCIATED NIGHTTIME VERTICAL STOPPING SIGHT DISTANCE (SSD).

GRAPHIC SCALES



DESIGN DATA

ADT 2012 = 8700 VPD
 ADT 2035 = 15800 VPD
 DHV = 11 %
 D = 70 %
 T = 3 % *
 V = 45 MPH
 * TTST 1% DUAL 2%
 FUNC. CLASS. = URBAN MINOR ARTERIAL
 SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4753 = 0.076 MILES
 LENGTH STRUCTURE TIP PROJECT B-4753 = 0.023 MILES
 TOTAL LENGTH TIP PROJECT B-4753 = 0.099 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 MARCH 2, 2011

LETTING DATE:
 DECEMBER 18, 2012

JAMES A. SPEER, PE
 PROJECT ENGINEER

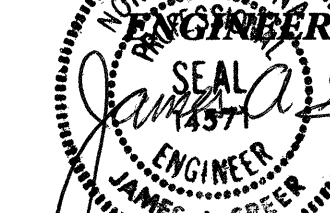
ALLISON K. WHITE
 PROJECT DESIGN ENGINEER

HYDRAULIC ENGINEER

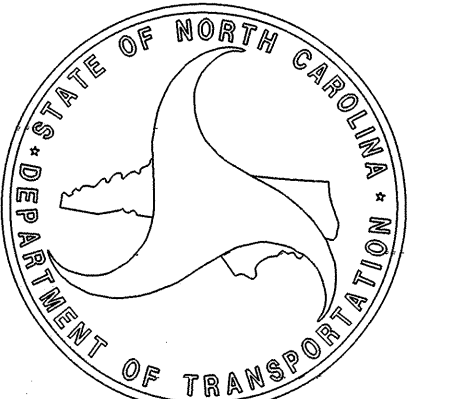


Raymond D. Wood
 SIGNATURE: 27 SEP 2012 P.E.

ROADWAY DESIGN ENGINEER

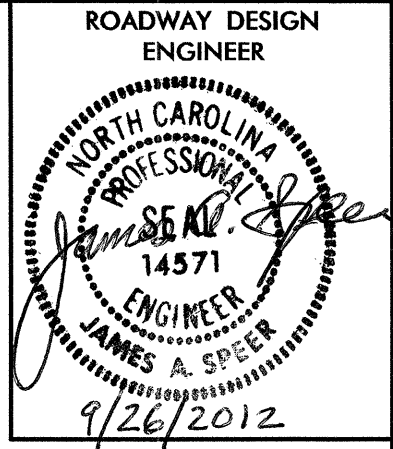


James A. Speer
 SIGNATURE: 7/26/2012 P.E.



18-SEP-2012 14:24
R:\ROADWAY\PROJ\01\B4753_rdy_tsh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

CONTRACT: C202814



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
INDEX OF SHEETS

INDEX OF SHEETS

GENERAL NOTES

STANDARD DRAWINGS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY Control Sheets
2	TYPICAL SECTION AND PAVEMENT SCHEDULE
3	
3-A	SUMMARY OF QUANTITIES
	SUMMARY OF DRAINAGE QUANTITIES, SUMMARY OF PAVEMENT REMOVAL, EARTHWORK SUMMARY AND SUMMARY OF GUARDRAIL
4	PLAN SHEET
5	PROFILE SHEET
TMP-1 THRU TMP-3	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS
X-1A	CROSS-SECTION SUMMARY
X-1 THRU X-5	CROSS-SECTIONS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 07/30/12

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:
ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:
ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:
THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UNDERDRAINS:
UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 816.03 AT LOCATIONS DIRECTED BY ENGINEER.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:
NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

END BENTS:
THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE AT&T OF NC, DUKE ENERGY, CITY OF GASTON ELECTRICAL, TIME WARNER CABLE, TWO RIVERS UTILITIES
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.11	Reinforced Bridge Approach Fills - Sub Regional Tier
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
815.03	Pipe Underdrain and Blind Drain
840.13	Concrete Bridge Approach Drop Inlet - 12" thru 24" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class B Rip Rap

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	--- WLB
Proposed Wetland Boundary	--- WLB
Existing Endangered Animal Boundary	--- EAB
Existing Endangered Plant Boundary	--- EPB

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□ †
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	--- JS
Buffer Zone 1	--- BZ 1
Buffer Zone 2	--- BZ 2
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Wetland	---
Proposed Lateral, Tail, Head Ditch	-----
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite Marker	○
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	--- C ---
Proposed Slope Stakes Fill	--- F ---
Proposed Wheel Chair Ramp	WCR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊗

VEGETATION:

Single Tree	⊕
Single Shrub	⊕
Hedge	-----
Woods Line	-----
Orchard	⊕
Vineyard	□ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊕
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	□
H-Frame Pole	●
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	□
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	□
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Satellite Dish	⊕
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	□
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

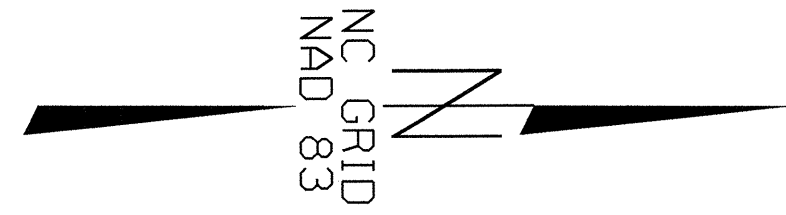
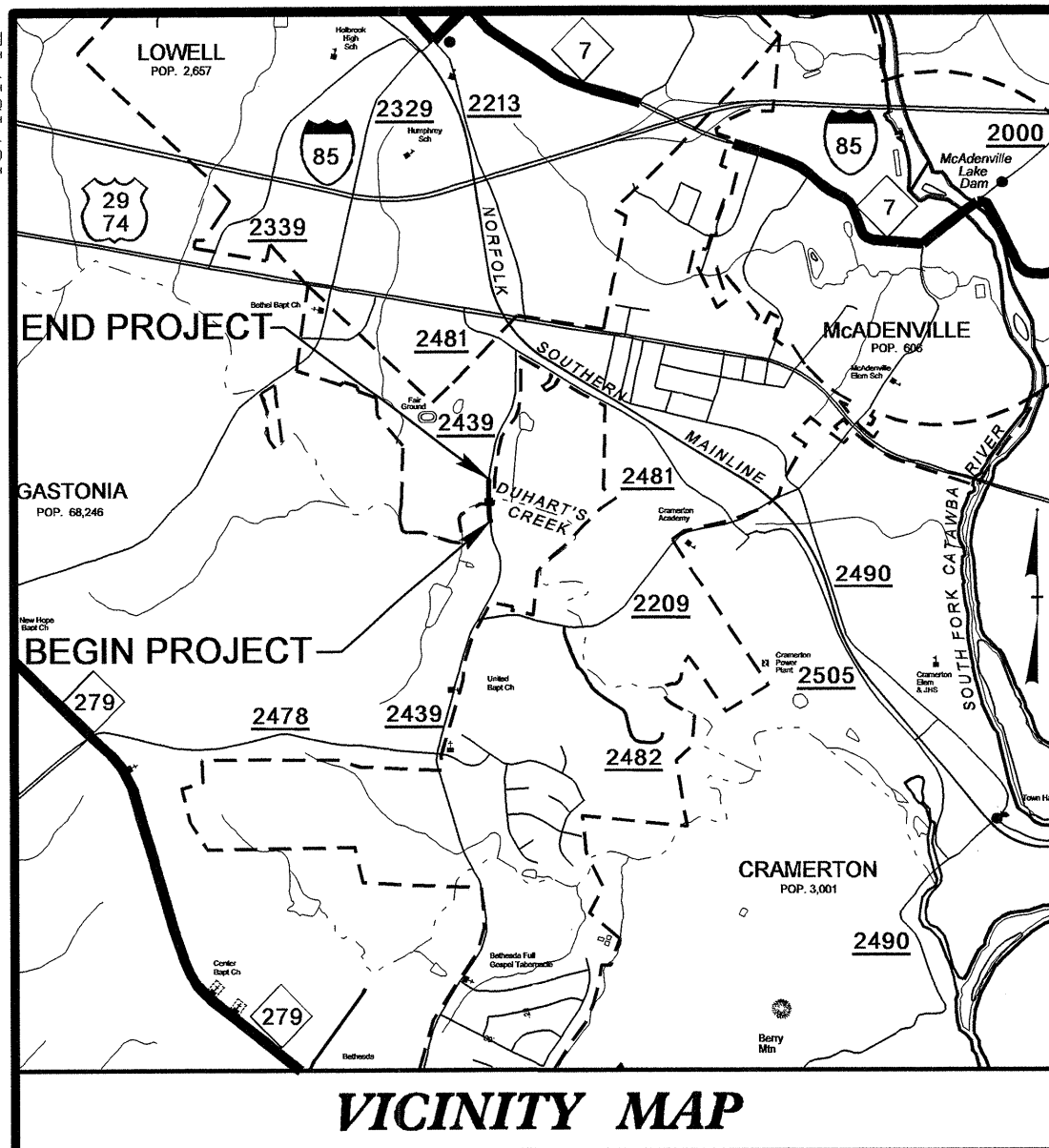
SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	□
AG Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

SURVEY CONTROL SHEET FINAL PLANS



BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
3	BL-3	550789.3400	1373907.1130	691.15	14+02.38	33.74 RT
1	B4753-1	551270.5800	1373764.2370	680.61	19+04.39	26.43 RT
4	BL-4	551658.6000	1373694.6000	652.10	22+97.18	21.69 LT
2	B4753-2	552290.0090	1373724.9790	674.29	29+27.02	18.90 LT
5	BL-5	552641.8420	1373803.5510	683.48	32+85.22	22.85 LT

.....

BM1 ELEVATION = 695.25
N 550653 E 1373895
L STATION 12+72 23 RIGHT
RR SPIKE IN POWER POLE

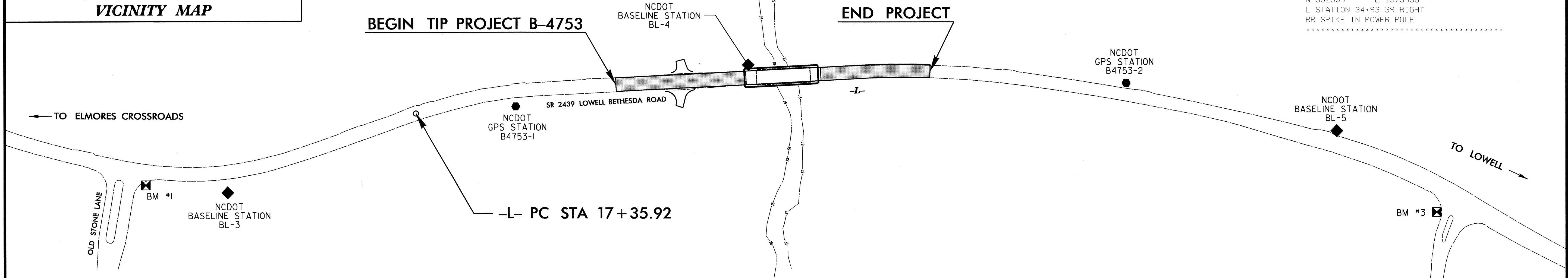
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BM2 ELEVATION = 642.66
N 551642 E 1373526
L STATION 22+89 191 LEFT
RR SPIKE IN 14" PINE

.....

BM3 ELEVATION = 689.98
N 552809 E 1373938
L STATION 34+93 39 RIGHT
RR SPIKE IN POWER POLE

.....



ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L	20+75.00	20.41	551438.8923	1373748.1083
L	20+75.00	30.00	551439.3872	1373757.6847
L	20+75.00	-19.59	551436.8278	1373708.1616
L	20+75.00	-30.00	551436.2905	1373697.7647
L	24+76.07	-30.00	551836.8219	1373677.0648
L	24+76.07	30.00	551839.9186	1373736.9848
L	26+00.00	30.00	551961.3898	1373735.6163
L	26+00.00	20.04	551961.6797	1373725.6605
L	26+00.00	-19.96	551962.8436	1373685.6773
L	26+00.00	-30.00	551963.1358	1373675.6417

TYPE	STATION	NORTH	EAST
PC	10+00.00	550392.1533	1373805.7143
PT	11+77.77	550563.2190	1373853.5950
PC	12+33.80	550618.0522	1373865.1505
PT	15+27.70	550907.6137	1373845.7309
PC	17+35.92	551103.8062	1373775.9698
PT	19+50.81	551313.8154	1373734.1343
PC	24+76.07	551838.3702	1373707.0248
PT	27+77.41	552138.9079	1373721.0169
PC	28+48.27	552209.0199	1373731.2323
PT	32+93.18	552642.9289	1373827.7321
PC	33+09.94	552658.9711	1373832.5715
PRC	35+40.54	552868.5494	1373927.1734
PT	37+56.15	553056.7346	1374032.2480

PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L	20+21.00	-50.00	551381.3302	1373680.5784
L	20+21.00	-19.52	551382.9034	1373711.0178
L	20+75.00	47.00	551440.2646	1373774.6620
L	21+24.00	30.00	551488.3219	1373755.1557
L	22+66.00	-50.00	551626.0037	1373667.9334
L	23+00.00	40.00	551664.6035	1373756.0586
L	23+16.00	-66.00	551675.1113	1373649.3741
L	23+57.00	-50.00	551716.8824	1373663.2367
L	23+95.00	80.00	551761.5414	1373791.1021
L	24+76.07	60.00	551841.4711	1373766.9446
L	24+76.07	-50.00	551835.7937	1373657.0912
L	25+05.00	30.00	551868.2615	1373735.7877
L	26+27.17	-19.92	551990.3399	1373686.7646
L	26+28.62	-50.00	551993.2468	1373656.7864

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/)

THE FILES TO BE FOUND ARE AS FOLLOWS:
B4753_LS_CONTROL.TXT
2. SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION & SURVEYS UNIT.
3. MONUMENTS USED OR SET BY THE NCDOT LOCATION AND SURVEYS UNIT:
 - INDICATES GEODETIC CONTROL MONUMENTS FOR HORIZONTAL PROJECT CONTROL
 - ◆ INDICATES TRAVERSE MONUMENTS FOR HORIZONTAL PROJECT CONTROL
 - ☒ INDICATES BENCHMARKS FOR VERTICAL PROJECT CONTROL
4. PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM. NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4753-1" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 551270.580(±ft) EASTING: 1373764.237(±ft) ELEVATION: 680.61(±ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998450

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4753-1" TO -L- PC STATION 17+35.92 IS S 4°01'27.2" E 167.186

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

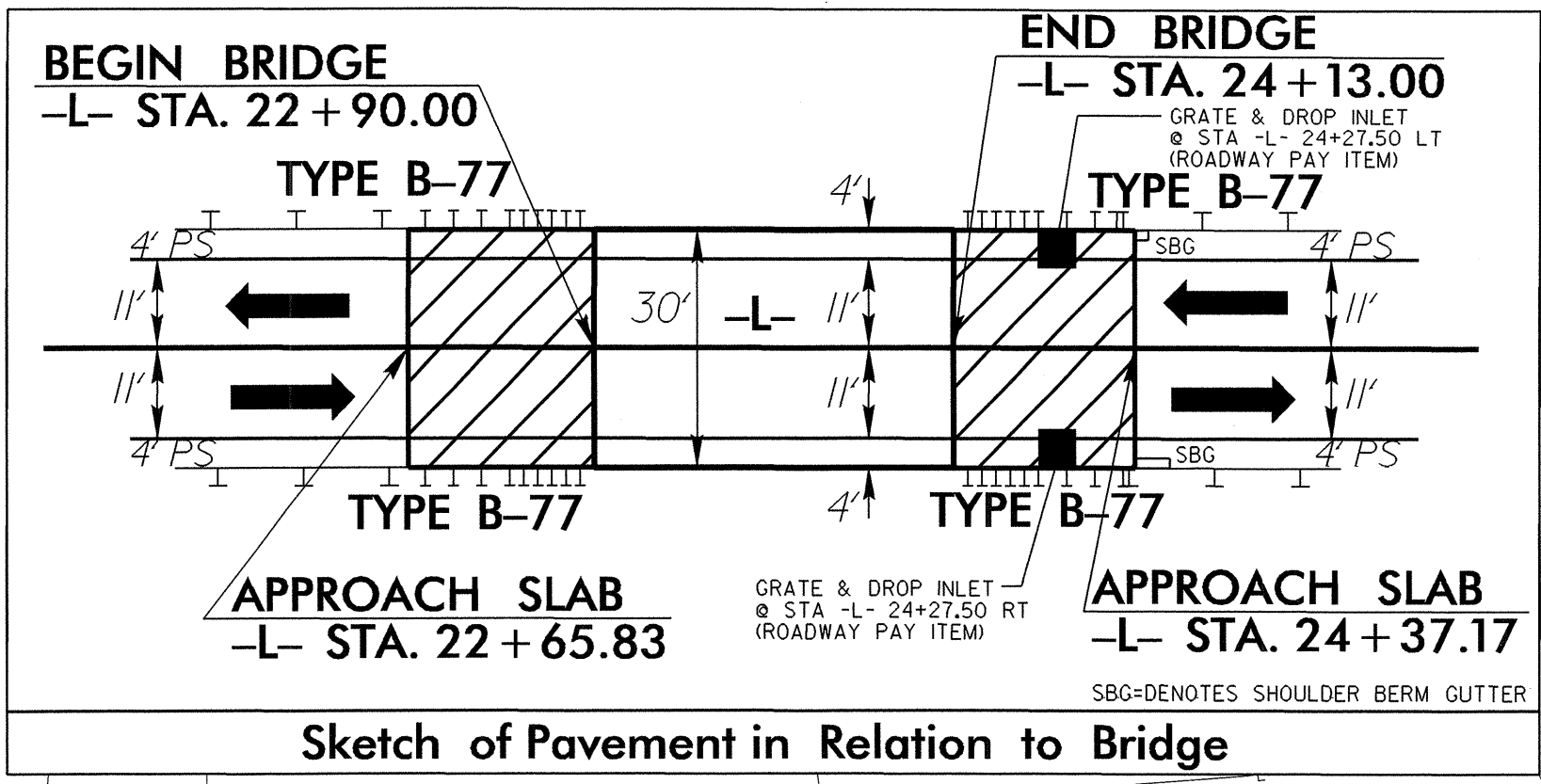
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202814

ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
003000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (23+51.50)
004300000-N	226	Lump Sum		GRADING
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
013400000-E	240	55	CY	DRAINAGE DITCH EXCAVATION
019600000-E	270	500	SY	GEOTEXTILE FOR SOIL STABILIZATION
033520000-E	305	36	LF	15" DRAINAGE PIPE
033530000-E	305	208	LF	18" DRAINAGE PIPE
044820000-E	310	44	LF	15" RC PIPE CULVERTS, CLASS IV
058200000-E	310	40	LF	15" CS PIPE CULVERTS, 0.064" THICK
063600000-E	310	2	EA	*** CS PIPE ELBOWS, ***** THICK (15", 0.064")
099500000-E	340	225	LF	PIPE REMOVAL
109950000-E	505	175	CY	SHALLOW UNDERCUT
109970000-E	505	350	TON	CLASS IV SUBGRADE STABILIZATION
122000000-E	545	200	TON	INCIDENTAL STONE BASE
133000000-E	607	125	SY	INCIDENTAL MILLING
148900000-E	610	295	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
149800000-E	610	230	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
151900000-E	610	245	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
157500000-E	620	40	TON	ASPHALT BINDER FOR PLANT MIX
202200000-E	815	56	CY	SUBDRAIN EXCAVATION
203300000-E	815	42	CY	SUBDRAIN FINE AGGREGATE
204400000-E	815	250	LF	6" PERFORATED SUBDRAIN PIPE
207000000-N	815	1	EA	SUBDRAIN PIPE OUTLET

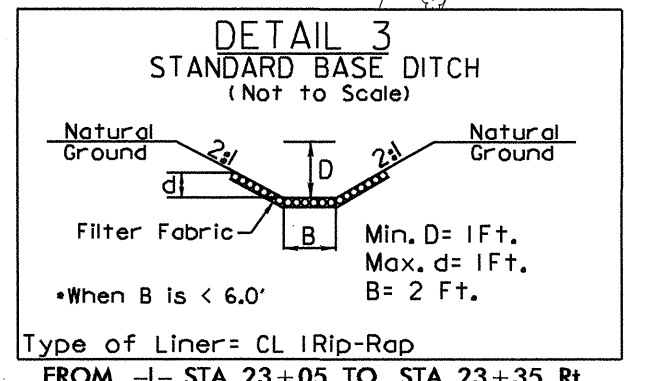
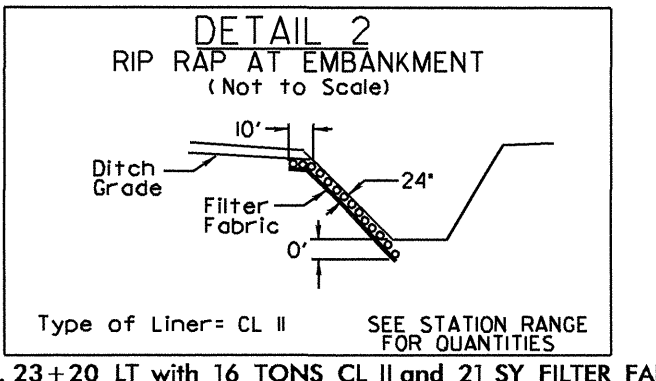
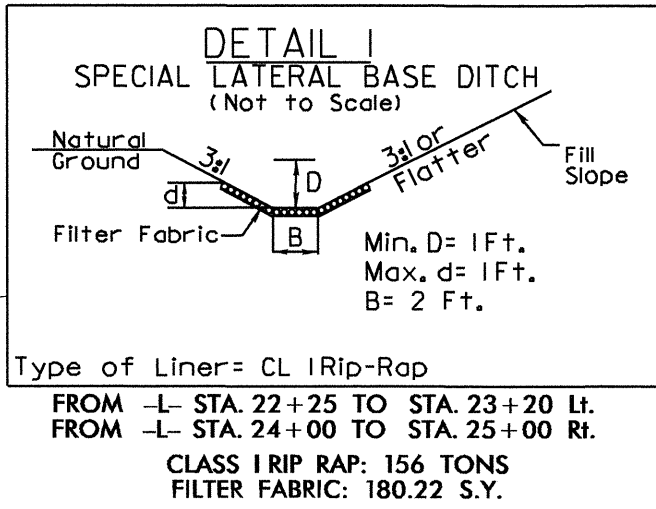
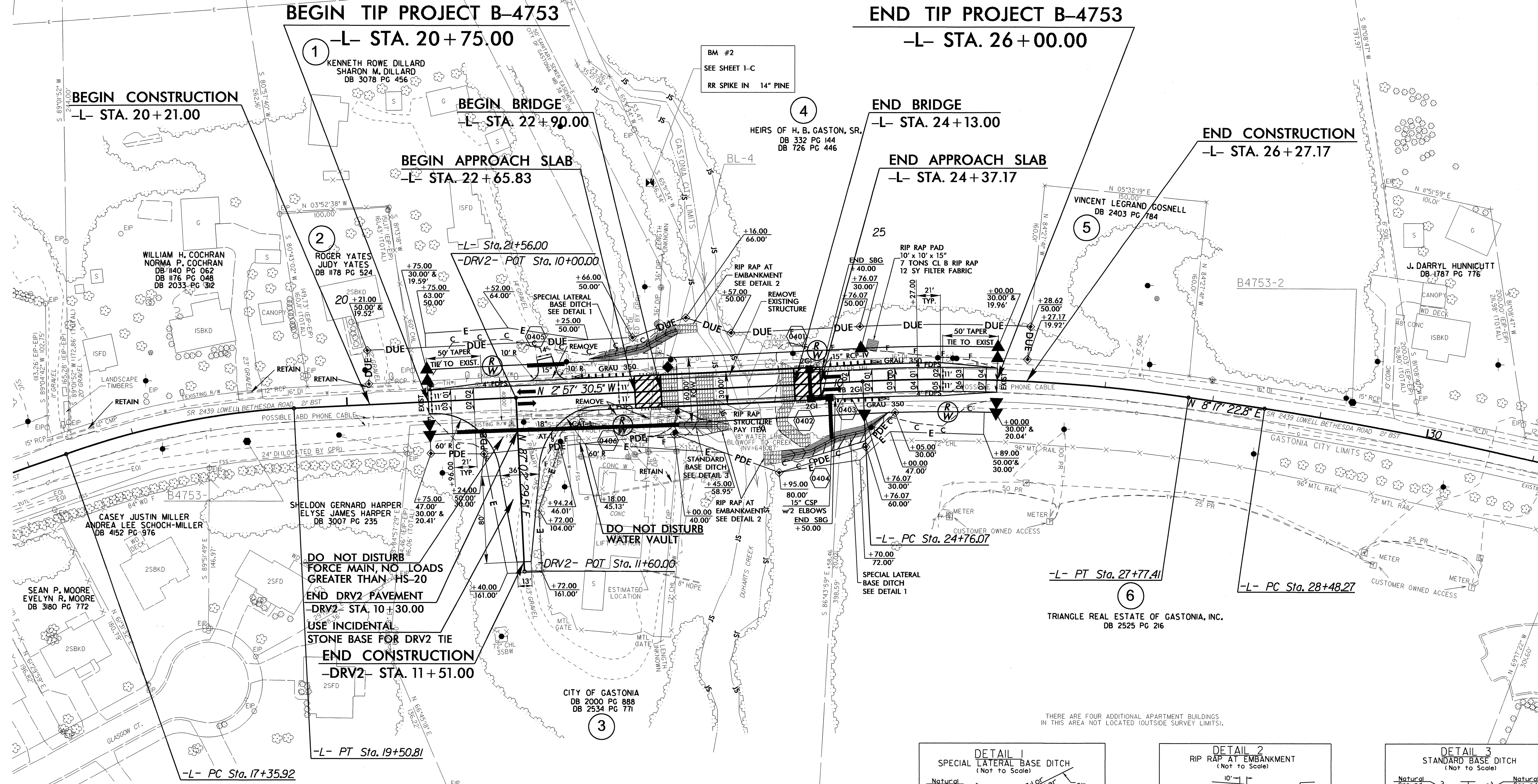
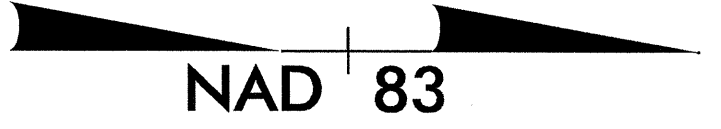
SUMMARY OF QUANTITIES - B-4753

ItemNumber	Sec #	Quantity	Unit	Description
207700000-E	815	6	LF	6" OUTLET PIPE
228600000-N	840	3	EA	MASONRY DRAINAGE STRUCTURES
236700000-N	840	3	EA	FRAME WITH TWO GRATES, STD 840.29
255600000-E	846	20	LF	SHOULDER BERM GUTTER
303000000-E	862	87.5	LF	STEEL BM GUARDRAIL
304500000-E	862	50	LF	STEEL BM GUARDRAIL, SHOP CURVED
315000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
319500000-N	862	1	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
327000000-N	SP	3	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
331700000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
362800000-E	876	185	TON	RIP RAP, CLASS I
363500000-E	876	50	TON	RIP RAP, CLASS II
364900000-E	876	10	TON	RIP RAP, CLASS B
365600000-E	876	1,015	SY	GEOTEXTILE FOR DRAINAGE
407200000-E	903	100	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
409600000-N	904	3	EA	SIGN ERECTION, TYPE D
410200000-N	904	4	EA	SIGN ERECTION, TYPE E
411610000-N	904	1	EA	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (D)
415500000-N	907	10	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
419200000-N	907	1	EA	DISPOSAL OF SUPPORT, U-CHANNEL
440000000-E	1110	374	SF	WORK ZONE SIGNS (STATIONARY)
441000000-E	1110	104	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
443000000-N	1130	12	EA	DRUMS
444500000-E	1145	104	LF	BARRICADES (TYPE III)
481000000-E	1205	4,200	LF	PAINT PAVEMENT MARKING LINES (4")

ItemNumber	Sec #	Quantity	Unit	Description
600000000-E	1605	915	LF	TEMPORARY SILT FENCE
606000000-E	1610	160	TON	STONE FOR EROSION CONTROL, CLASS A
609000000-E	1610	285	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	185	TON	SEDIMENT CONTROL STONE
601500000-E	1615	1	ACR	TEMPORARY MULCHING
601800000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	200	LF	TEMPORARY SLOPE DRAINS
602900000-E	SP	100	LF	SAFETY FENCE
603000000-E	1630	130	CY	SILT EXCAVATION
603600000-E	1631	1,500	SY	MATTING FOR EROSION CONTROL
603700000-E	SP	80	SY	COIR FIBER MAT
603800000-E	SP	150	SY	PERMANENT SOIL REINFORCEMENT MAT
604200000-E	1632	170	LF	1/4" HARDWARE CLOTH
607000000-N	1639	4	EA	SPECIAL STILLING BASINS
607102000-E	SP	80	LB	POLYACRYLAMIDE (PAM)
608400000-E	1660	1.5	ACR	SEEDING & MULCHING
608700000-E	1660	0.5	ACR	MOWING
609000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	0.75	TON	FERTILIZER TOPDRESSING
611450000-N	1667	20	MHR	SPECIALIZED HAND MOWING
611700000-N	SP	18	EA	RESPONSE FOR EROSION CONTROL



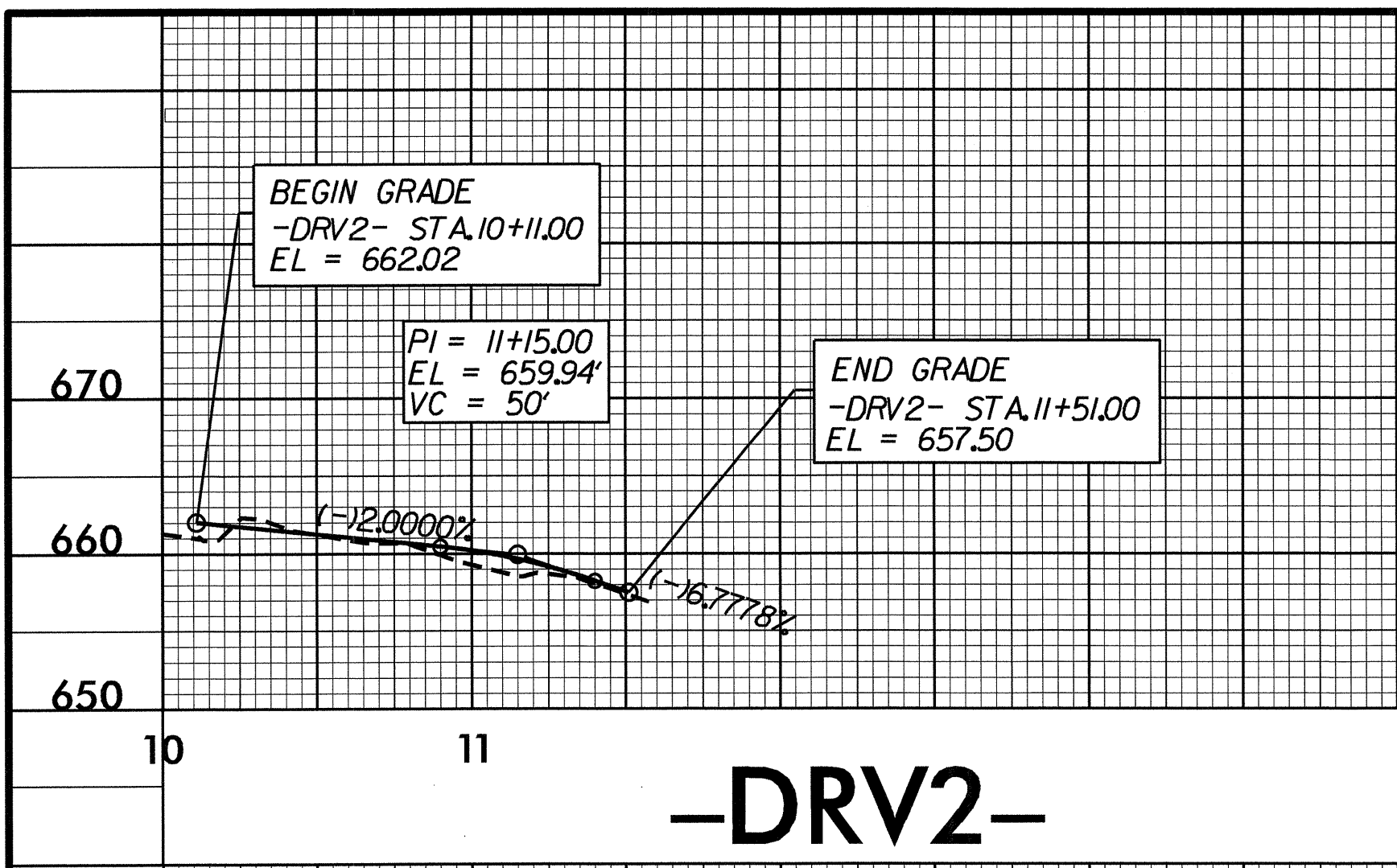
-L-		-DRV2-	
PI Sta 18+44.13	PI Sta 26+27.23	PI Sta 30+71.13	PI Sta 10+28.15
$\Delta = 16' 36" 56.2" (RT)$	$\Delta = 11' 14" 53.3" (RT)$	$\Delta = 8' 29" 50.3" (RT)$	$\Delta = 20' 22" 43.7" (RT)$
$D = 7' 43" 56.0"$	$D = 3' 43" 57.4"$	$D = 1' 54" 35.5"$	$D = 95' 29" 34.7"$
$L = 214.89'$	$L = 301.35'$	$L = 444.92'$	$L = 21.34'$
$T = 108.20'$	$T = 151.16'$	$T = 222.87'$	$T = 10.78'$
$R = 741.00'$	$R = 1,535.00'$	$R = 3,000.00'$	$R = 60.00'$
	SE = VARIES		



SEE SHEETS S-1 THRU S-36 FOR STRUCTURE PLANS
SEE SHEET 5 FOR -L- PROFILE & -DRV2- PROFILE

REVISIONS

28-SEP-2012 12:07
R:\Roadwork\B4753\B4753.rdy_pah.dgn
B4753.DWG



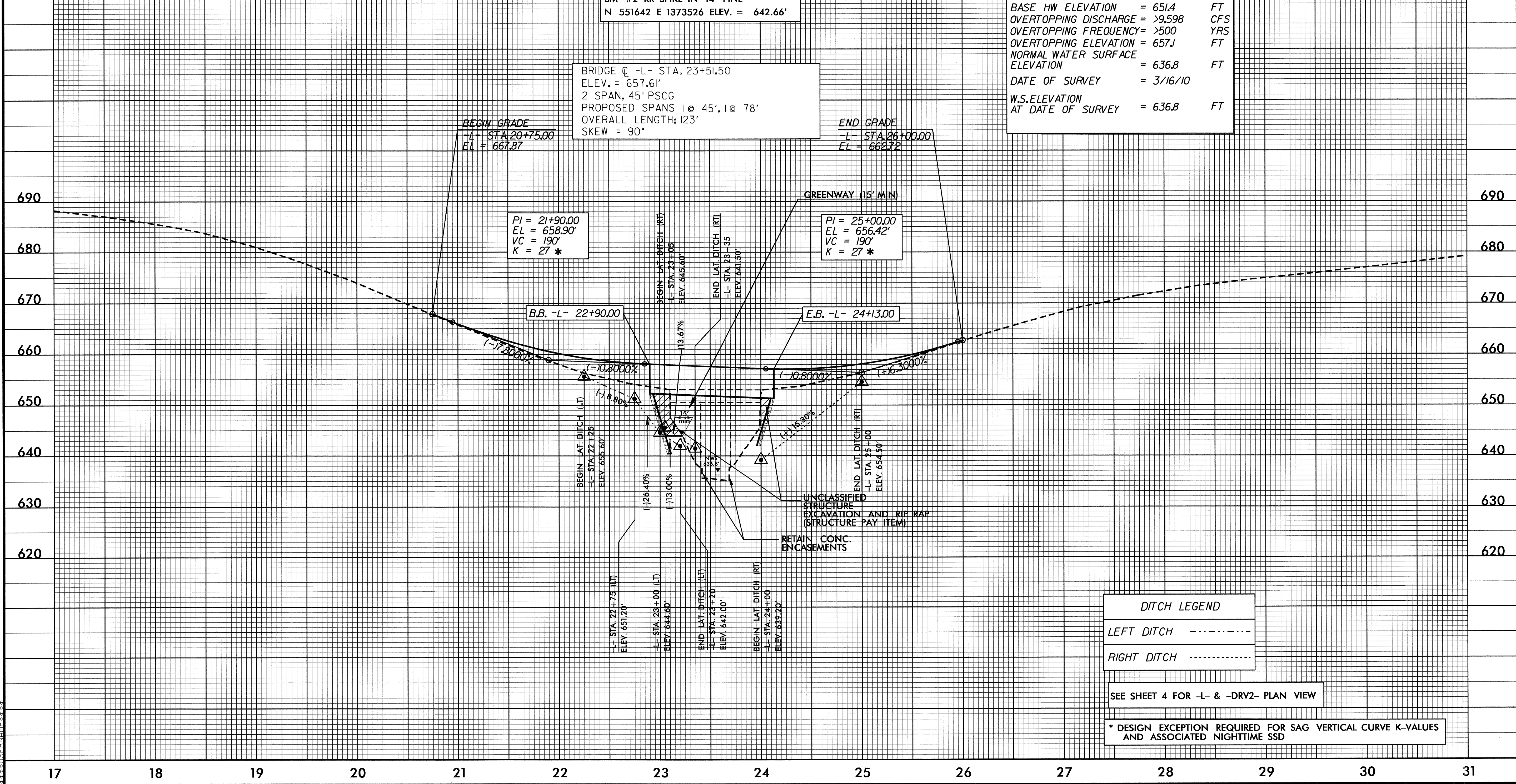
-DRV2-

BM #2 RR SPIKE IN 14" PINE
N 551642 E 1373526 ELEV. = 642.66'

BRIDGE @ -L- STA. 23+51.50
ELEV. = 657.61'
2 SPAN, 45' PSCG
PROPOSED SPANS 1@ 45', 1@ 78'
OVERALL LENGTH: 123'
SKEW = 90°

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 3.717	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 648.9	FT
BASE DISCHARGE	= 5.684	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 651.4	FT
OVERTOPPING DISCHARGE	= >9,598	CFS
OVERTOPPING FREQUENCY	= >500	YRS
OVERTOPPING ELEVATION	= 657.1	FT
NORMAL WATER SURFACE ELEVATION	= 636.8	FT
DATE OF SURVEY	= 3/16/10	
W.S. ELEVATION AT DATE OF SURVEY	= 636.8	FT



DITCH LEGEND
LEFT DITCH - - - - -
RIGHT DITCH - - - - -

SEE SHEET 4 FOR -L- & -DRV2- PLAN VIEW

* DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE K-VALUES AND ASSOCIATED NIGHTTIME SSD