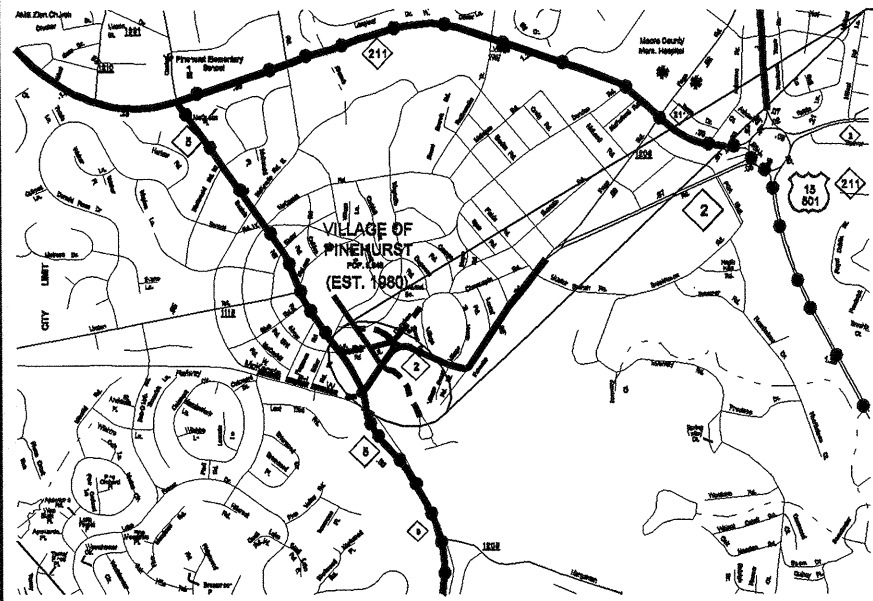


09/08/99

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

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**MOORE COUNTY**

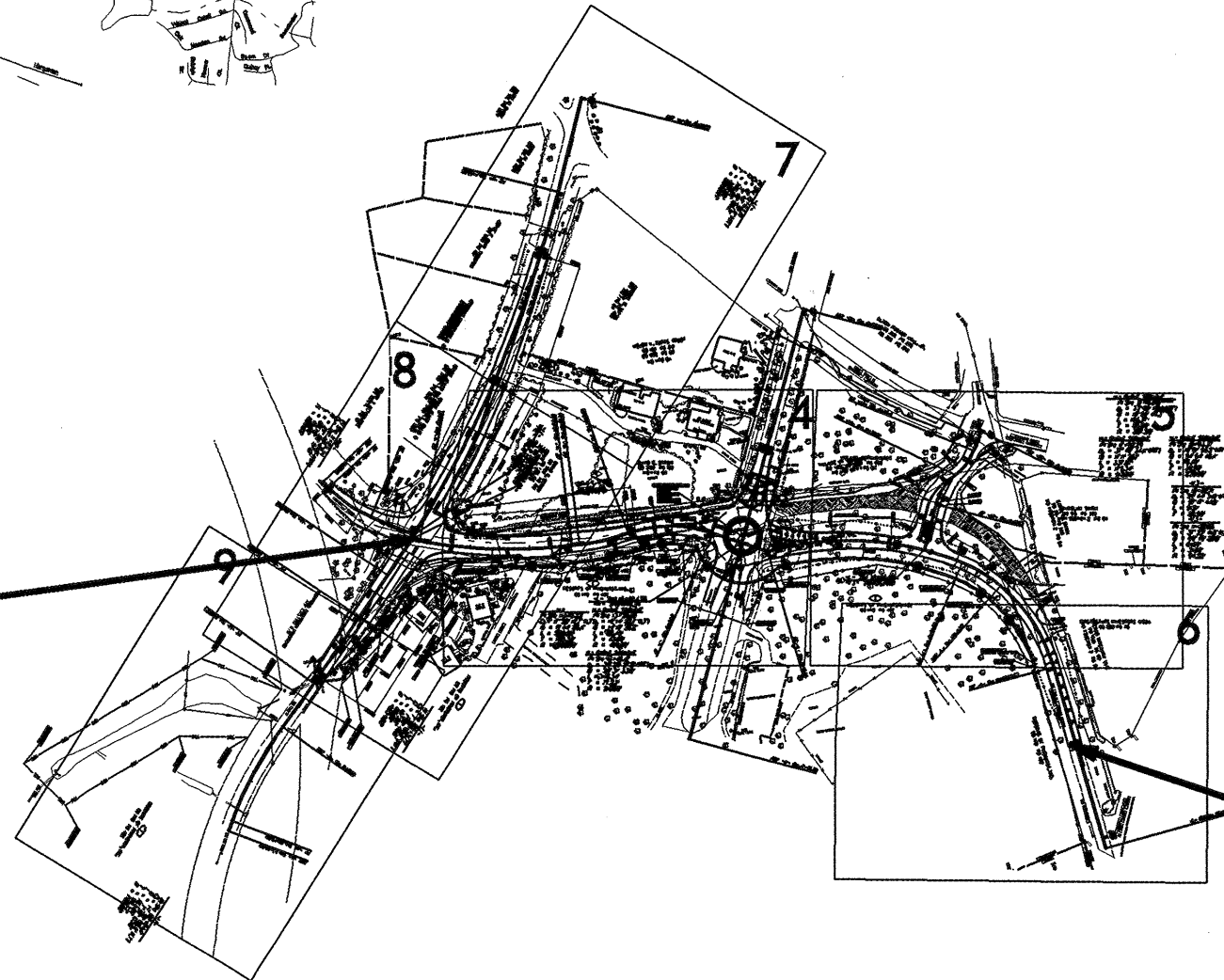
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N.C.	38067	1	
WBS ELEMENT	P.A. PROJ. NO.	DESCRIPTION	
38067,40959		PE, RW	
38067		CONST.	



VICINITY MAP

**LOCATION: ROUNDABOUT AT THE INTERSECTION  
OF NC 2 & CAROLINA VISTA.  
SIGNAL UPGRADE & TURN LANES AT THE INTERSECTION  
OF NC 5 & NC 2.**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND SIGNAL**



**-L- STA. 10+00.00  
BEGIN PROJECT  
WBS 38067**

**-L STA. 23+35.30  
END PROJECT  
WBS ELEMENT 38067**

**CONTRACT: C201861**

**WBS ELEMENT 38067**

10-JUL-2007 13:49  
D:\RDY\MOORE\nc2\nc5\_r0802\_rab\psh\nc2\nc5\_rsh.dgn  
gsdavis AT D8CAD232390

**DESIGN DATA**

ADT 2005 = 11,000  
ADT 2027 = 20,000  
DHV = 2.4 %  
D = 5 %  
T = 3 % \*  
V = 35 MPH

\* TTST DUAL

Prepared in the Office of:  
**DIVISION OF HIGHWAYS  
DIVISION 8 DESIGN/CONSTRUCT UNIT  
902 N. SANDHILLS BLVD.  
ABERDEEN NC 28315**

PLANS PREPARED BY: MRT

**PROJECT LENGTH**

ROADWAY: 0.51 MILES  
STRUCTURE: \_\_\_\_\_ MILES  
TOTAL: 0.51 MILES

**DIVISION OF HIGHWAYS**

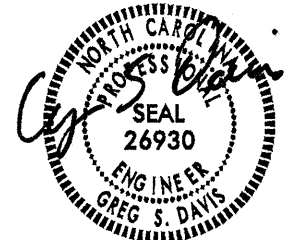
2006 STANDARD SPECIFICATIONS

LETTING DATE:  
September 18, 2007




**DIVISION DESIGN &  
CONSTRUCT ENGINEER**

7-9-07



8/17/99

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DR\NDY\MOORE\20070802.tbl\psh\nc20mc5.syb.dgn

PROJECT REFERENCE NO. 38067	SHEET NO. 1-A
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
	
7-9-07	
DIVISION DESIGN / CONSTRUCT ENGINEER	

# INDEX OF SHEETS

## INDEX OF SHEETS

SHEET NUMBER	SHEET
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1-A	INDEX OF SHEETS
1-B	CONVENTIONAL SYMBOLS
2	TRANSITION DETAIL FOR 1'-6" CURB AND GUTTER
2A	DETAIL - "CONVERT EXISTING CATCH BASIN TO JUNCTION BOX"
2B	DETAIL - "ANCHORAGE FOR FRAMES"
2C THRU 2G	TYPICAL SECTIONS
3	SUMMARY OF QUANTITIES
3A	RIGHT OF WAY AREA DATA, SUMMARY OF EARTHWORK, REMOVAL OF, ETC
3B	LIST OF PIPES ENDWALLS, ETC. (FOR PIPES 48" & UNDER)
TREE MAP 1 THRU TREE MAP5	TREE REMOVAL PLAN
4 THRU 9	PLAN SHEETS
VPF1 THRU VPF2	PROFILE SHEETS
DRN-1 THRU DRN-4	DRAINAGE PLANS
TCP-1 THRU TCP-6	TRAFFIC CONTROL PLAN
PM-1 THRU PM-6	PAVEMENT MARKING PLANS
SIG.1 THRU SIG. 4	SIGNAL PLANS
ECP-1 THRU ECP-7	EROSION CONTROL PLANS
L-1 THRU L-4	LANDSCAPING PLANS
X-0 THRU X-29	CROSS-SECTIONS

## GENERAL NOTES

**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 THE PROPER TIE-IN.

**CLEARING**  
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

**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.

**UTILITIES**  
 UTILITY OWNERS ON THIS PROJECT ARE MOORE COUNTY PUBLIC UTILITIES (WATER AND SEWER), PROGRESS ENERGY, EMBARG, & TIME WARNER COMMUNICATIONS.  
 ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS PRIOR TO THE DATE OF AVAILABILITY.

**WORK DAY**  
 CONTACTOR SHALL WORK ONLY DURING DAYLIGHT HOURS MONDAY THRU SATURDAY

**SUPERELEVATION**  
 ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04. SUPERELEVATION IS TO BE REVOLVED ABOUT THE CROWN POINTS OR GRADE POINTS AS SHOWN ON THE TYPICAL SECTIONS OR AS DIRECTED BY THE ENGINEER.

**STREET TURNOUT**  
 STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

**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.

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

**WHEELCHAIR RAMPS:**  
 WHEELCHAIR RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. THE CONSTRUCTION OF ALL WHEELCHAIR RAMPS SHALL BE IN ACCORDANCE WITH DETAILS IN PLANS.

## ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in the "Roadway standard Drawings" Highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
200.02	Method of Clearing - Method II
225.01	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
300.01	Method of Pipe Installation - Method 'A'
310.03	Cross Pipe End Section
560.01	Method of Shoulder Construction - Method I
560.02	Method of Shoulder Construction - Method II
654.01	Pavement Repairs
806.01	Concrete Right-of-Way Markers
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" - Pipe
840.02	Concrete Catch Basin - 12" thru 54" - Pipe
840.03	Frame, Grates and hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grate - for use with Std. Dwg.s. 840.14 and 840.15
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - Pipe 42" and under
840.45	Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb and Gutter
848.04	Street Turnout
848.05	Wheel Chair Ramps
876.02	Guide for Rip Rap at Pipe Outlets

3/15/06

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
Property Corner
Property Monument
Parcel/Sequence Number
Existing Fence Line
Proposed Woven Wire Fence
Proposed Chain Link Fence
Proposed Barbed Wire Fence
Existing Wetland Boundary
Proposed Wetland Boundary
Existing Endangered Animal Boundary
Existing Endangered Plant Boundary

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
Sign
Well
Small Mine
Foundation
Area Outline
Cemetery
Building
School
Church
Dam

HYDROLOGY:

- Stream or Body of Water
Hydro, Pool or Reservoir
Jurisdictional Stream
Buffer Zone 1
Buffer Zone 2
Flow Arrow
Disappearing Stream
Spring
Swamp Marsh
Proposed Lateral, Tail, Head Ditch
False Sump

RAILROADS:

- Standard Gauge
RR Signal Milepost
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 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 Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
Existing Curb
Proposed Slope Stakes Cut
Proposed Slope Stakes Fill
Proposed Wheel Chair Ramp
Proposed Wheel Chair Ramp Curb Cut
Curb Cut for Future Wheel Chair Ramp
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

EXISTING STRUCTURES:

- MAJOR: Bridge, Tunnel or Box Culvert
Bridge Wing Wall, Head Wall and End Wall
MINOR: Head and End Wall
Pipe Culvert
Footbridge
Drainage Box: Catch Basin, DI or JB
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
A/G Tank; Water, Gas, Oil
U/G Test Hole (S.U.E.\*)
Abandoned According to Utility Records
End of Information

8/17/99

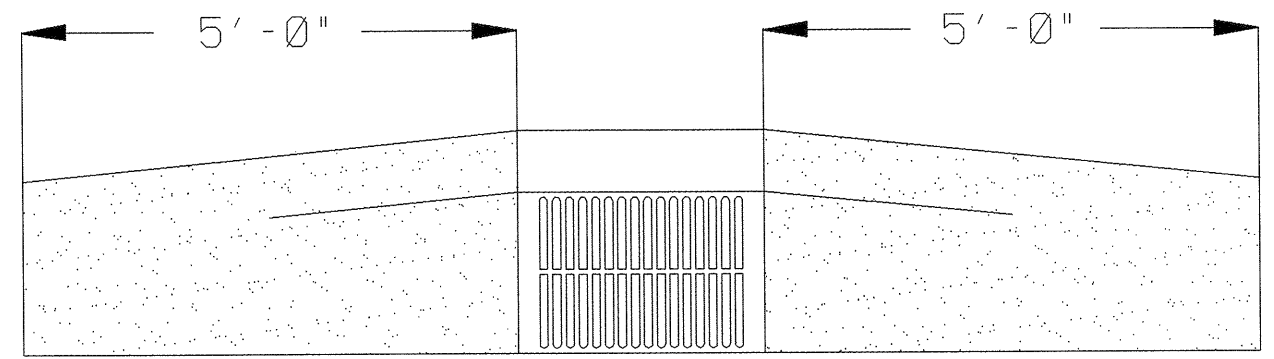
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REVISIONS

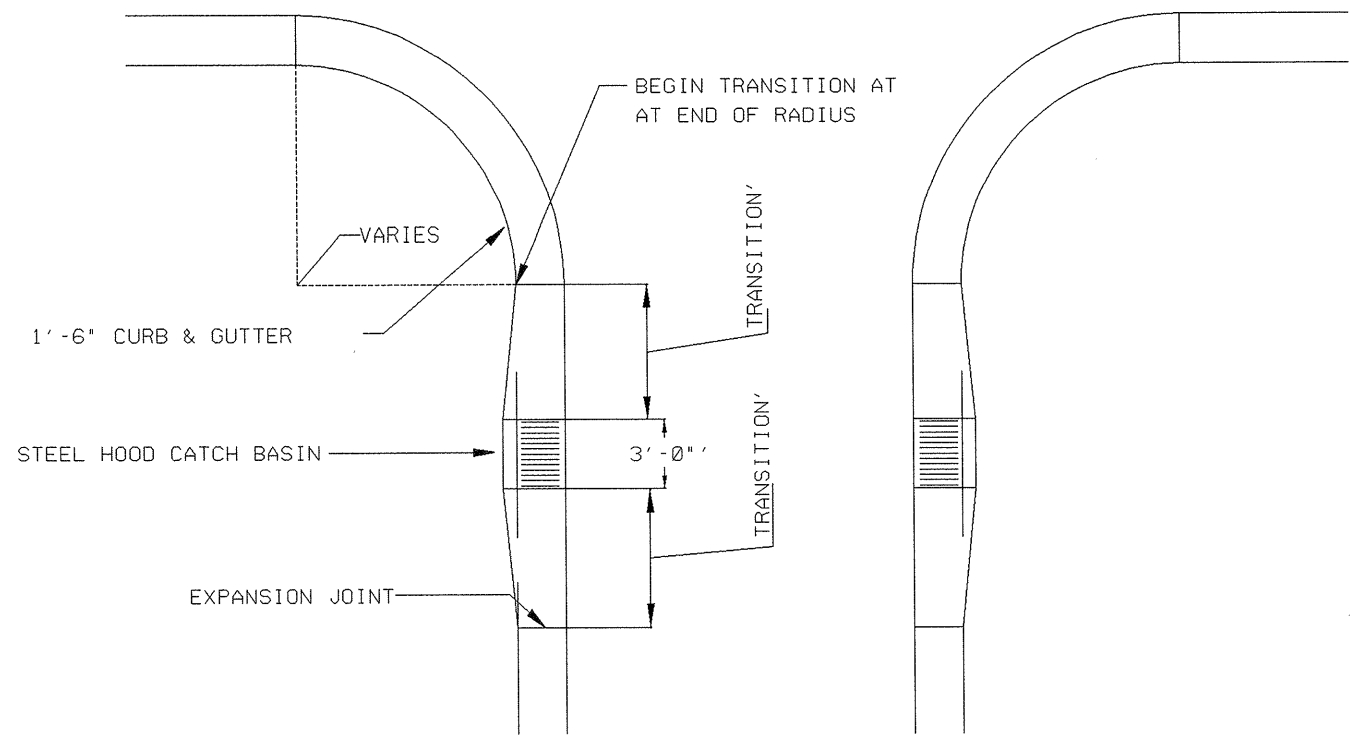
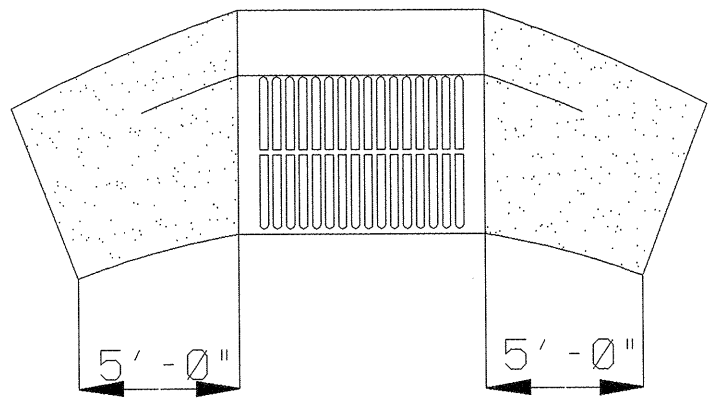
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RW SHEET NO.	
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
	
7-9-07	
DIVISION DESIGN / CONSTRUCT ENGINEER	

# TRANSITION DETAIL FOR 1'-6" CURB AND GUTTER

PLAN FOR TANGENT SECTION

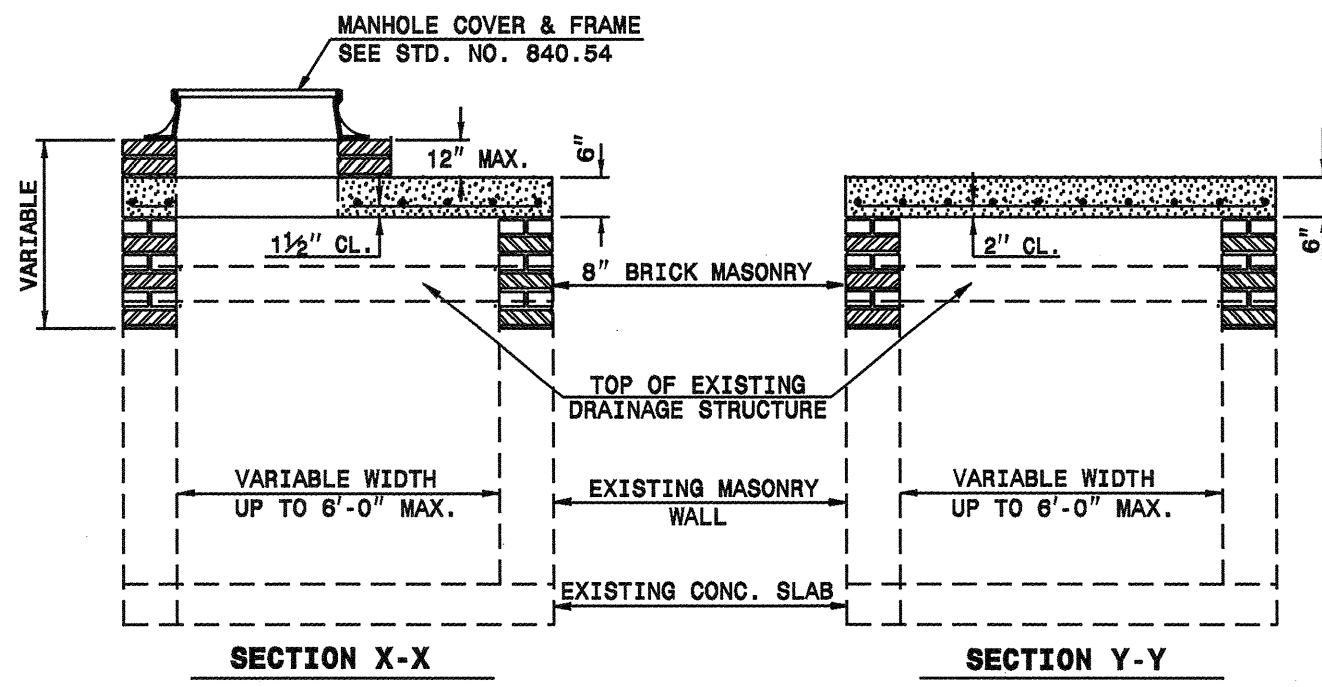
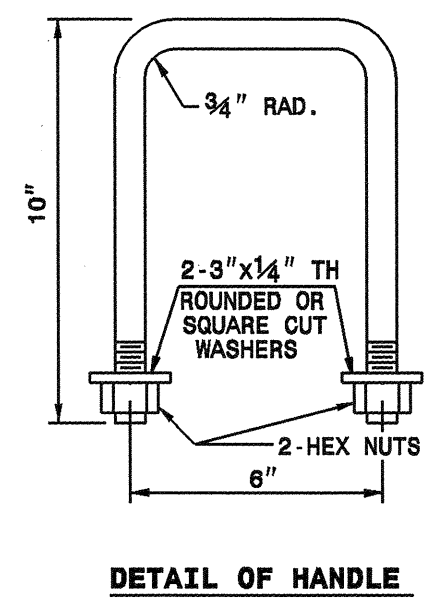
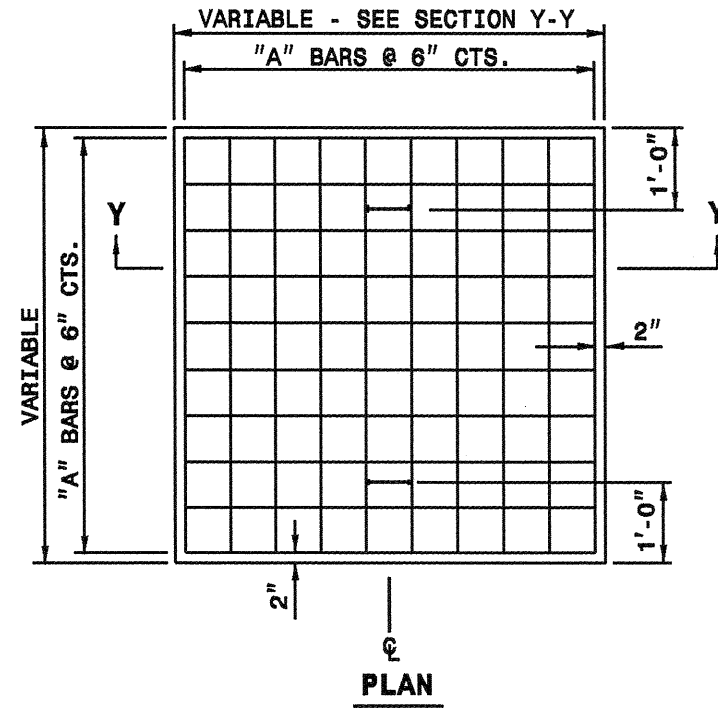
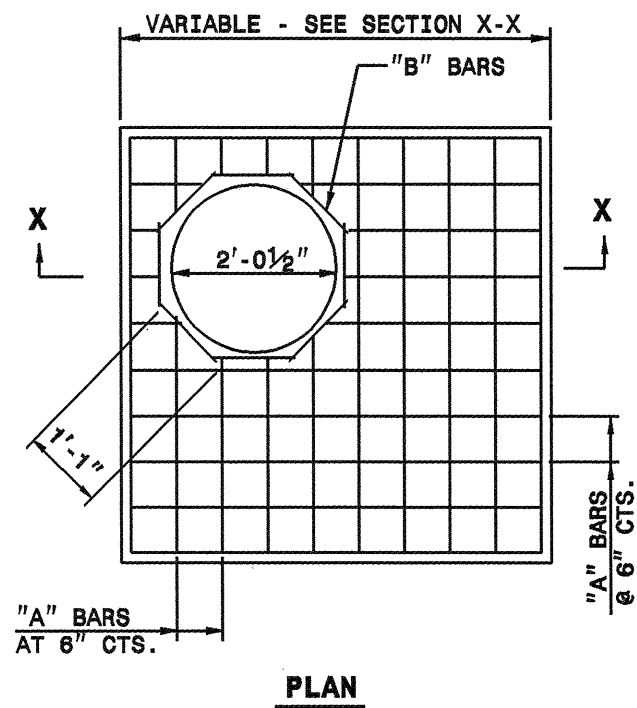
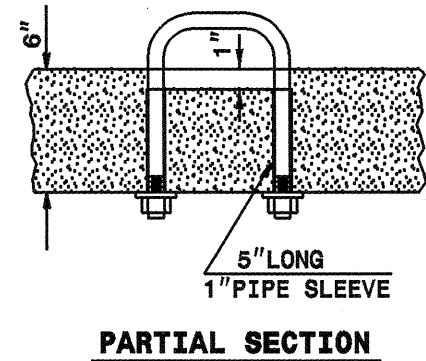


PLAN FOR CURVE SECTION



NOTES:  
1. RADIUS AT INTERSECTION MAY VARY.

NOTES:  
1. TRANSITION FROM 1'-6" CURB AND GUTTER TO 2'-6" CURB AND GUTTER FOR DROP INLETS TO BE MADE OVER 10' LENGTH.



**GENERAL NOTES:**

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

FIELD VERIFY THE DIMENSIONS FOR THE EXISTING BOXES

DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.

BILL OF MATERIALS				
REINFORCING STEEL				
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
TOTAL				65.91 *
MASONRY				CU YDS
TOP SLAB CONCRETE CLASS "B"				.433 *
BRICK MASONRY PER FT HT (MIN)				.4111

**\* NOTE:**  
 QUANTITIES BASED ON 3'-6" X 3'-6" DRAINAGE STRUCTURE. ADJUST QUANTITIES FOR LARGER STRUCTURES AND MANHOLE CONSTRUCTION.

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 jpower-son  
 AT 15212268

**PROJECT SERVICES UNIT  
 STANDARDS AND SPECIAL DESIGN**  
 Office 919-250-4128 FAX 919-250-4119

**DETAIL TO CONVERT EXISTING  
 DROP INLET OR CATCH BASIN  
 TO JUNCTION BOX  
 (MANHOLE OPTIONAL)**

ORIGINAL BY: T.S.B. DATE: NOV. 1997  
 MODIFIED BY: E.E.W. DATE: 8-28-02  
 CHECKED BY: DATE:  
 FILE SPEC.: /usr/details/stand/boxto\jbe.dgn

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

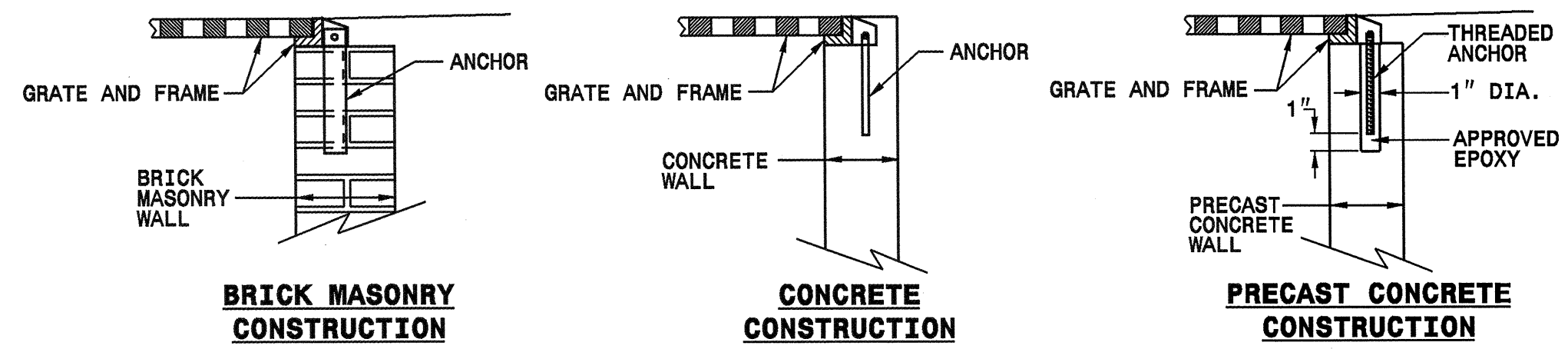
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**ANCHORAGE FOR FRAMES**  
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1  
**840D25**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

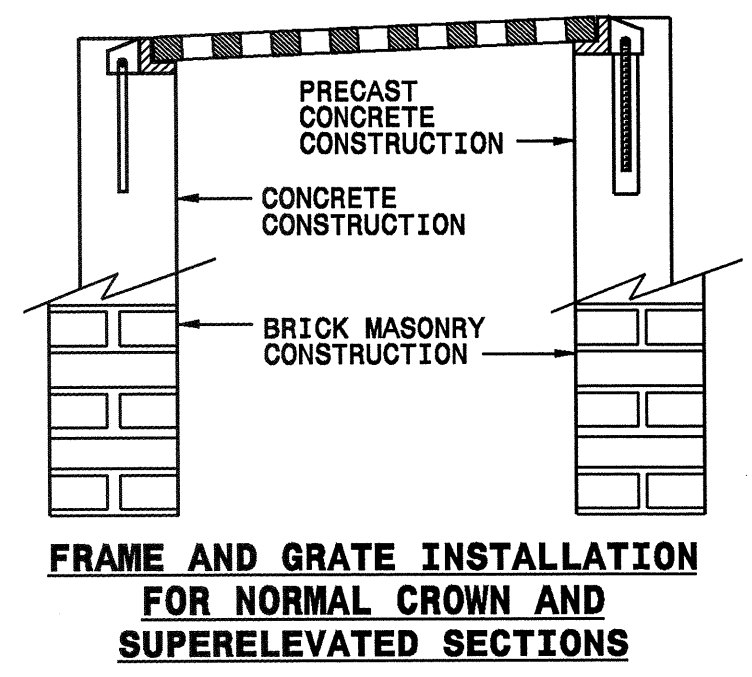
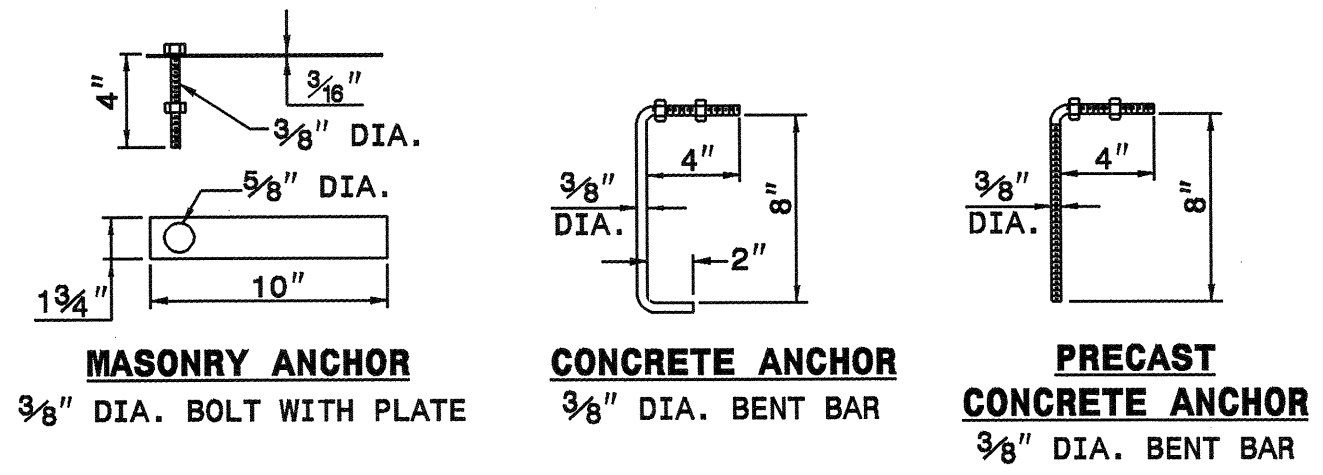
ENGLISH DETAIL DRAWING FOR  
**ANCHORAGE FOR FRAMES**  
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1  
**840D25**



**DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET**

**NOTE:**  
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



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PROJECT SERVICES UNIT  
STANDARDS AND SPECIAL DESIGN  
Office 919-250-4128 FAX 919-250-4119

**SEE PLATE FOR TITLE**

ORIGINAL BY: 2006 STD 840.25 DATE: 07/18/06  
MODIFIED BY: E.E. WARD DATE: 9/25/06  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
FILE SPEC.: \_\_\_\_\_

PROJECT REFERENCE NO.	SHEET NO.
38067	2-C
RW SHEET NO.	
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
7-9-07	
DIVISION DESIGN / CONSTRUCT ENGINEER	

## PAVEMENT SCHEDULE

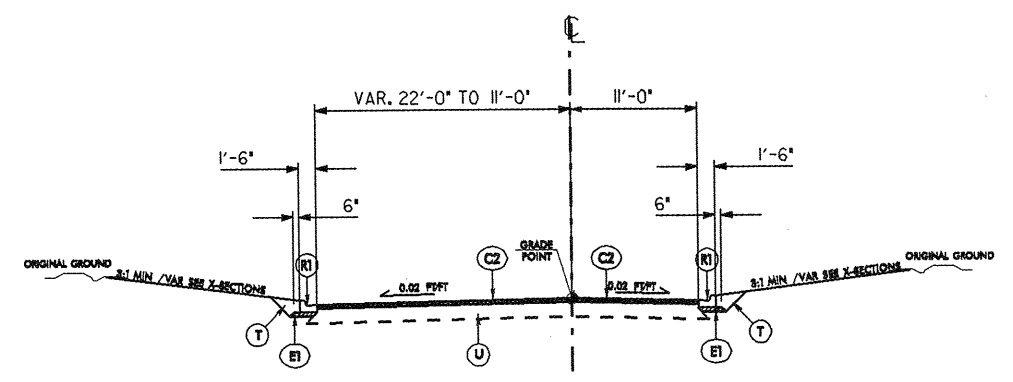
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS OF 1½"	R2	5" MONOLITHIC CONCRETE ISLAND. (KEYED IN)
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R3	1'-6" CONCRETE CURB AND GUTTER. (STD 846.01)
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R4	7" (SEVEN) TH. CLASS 'B' COLORED (GREEN) CONCRETE TRUCK APRON. CONTROL JOINTS 10' o.c. EXPANSION JOINTS 30' o.c. BROOM FINISH.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	R5	2"-6" CONCRETE CURB AND GUTTER.
E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	T	EARTH MATERIAL.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	U	EXISTING PAVEMENT.
R1	1'-6" CONCRETE CURB AND GUTTER (SPECIAL).		

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

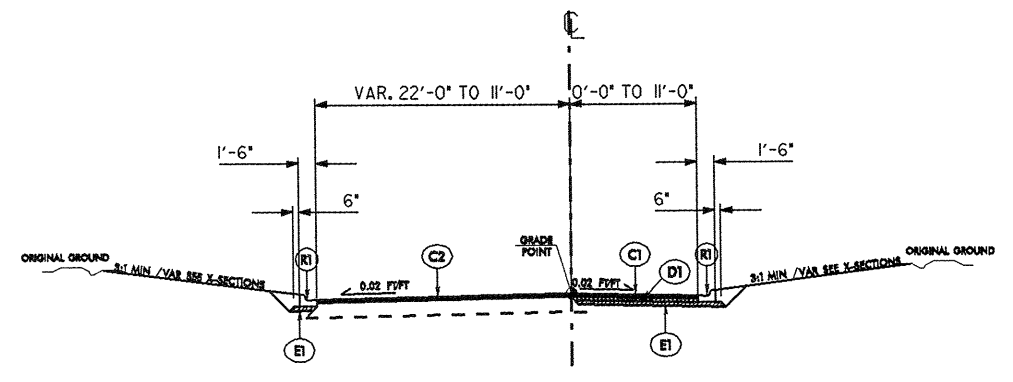
REVISIONS

8/17/99

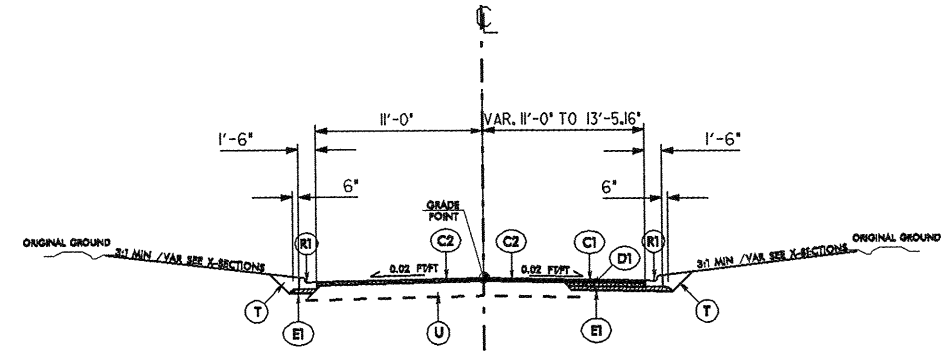
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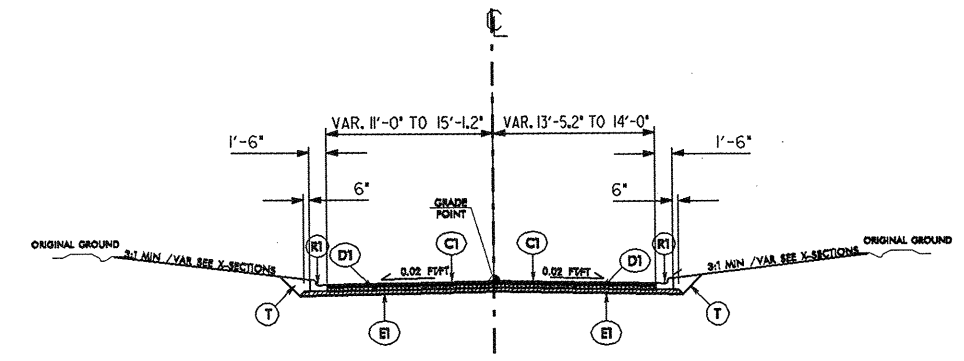
**TYPICAL SECTION NO. 1**  
 USE TYPICAL SECTION NO. 1 FROM  
 -L- STA.10+39 TO -L- STA.12+71 LEFT SIDE.  
 -L- STA.10+39 TO -L- STA.12+39 RIGHT SIDE.  
 NOTE: CONTRACTOR SHALL WEDGE PAVEMENT TO CONSTRUCT PROPER SUPERELEVATION ON THIS TYPICAL (SEE WEDGING DETAIL)



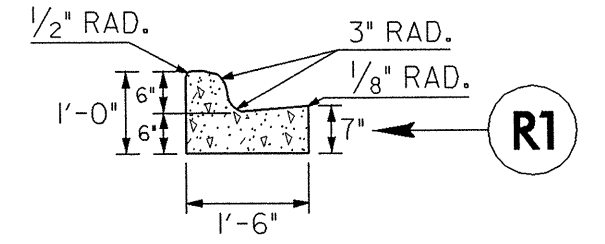
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 USE TYPICAL SECTION NO. 2 FROM  
 -L- STA.12+71 TO -L- STA.13+88 LEFT SIDE.  
 -L- STA.12+39 TO -L- STA.13+47 RIGHT SIDE.  
 NOTE: CONTRACTOR SHALL WEDGE PAVEMENT TO CONSTRUCT PROPER SUPERELEVATION ON THIS TYPICAL (SEE WEDGING DETAIL)



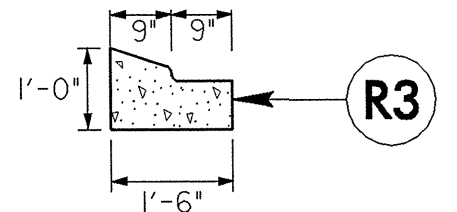
**TYPICAL SECTION NO. 3**  
 USE TYPICAL SECTION NO. 3 FROM  
 -L- STA.13+88 LEFT SIDE TO -L- STA.14+19.  
 -L- STA.13+47 RIGHT SIDE TO -L- STA.14+19.  
 NOTE: CONTRACTOR SHALL WEDGE PAVEMENT TO CONSTRUCT PROPER SUPERELEVATION ON THIS TYPICAL (SEE WEDGING DETAIL)



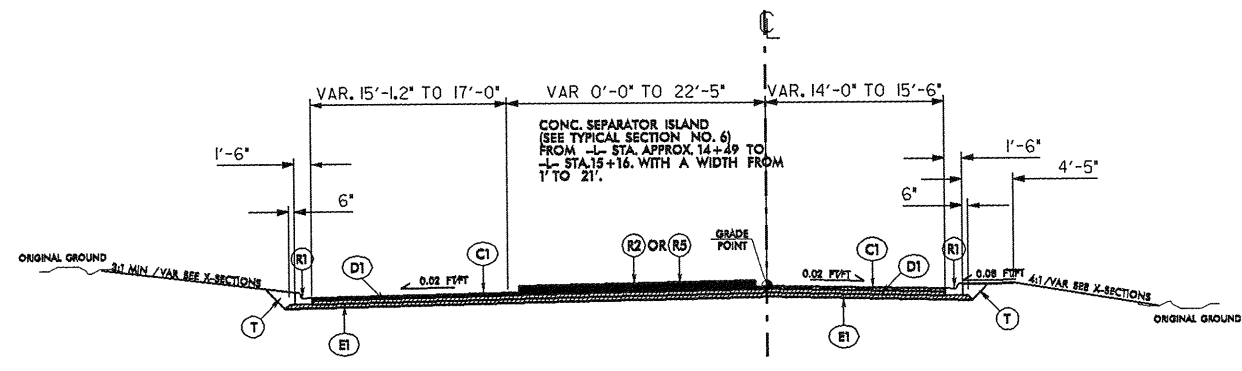
**TYPICAL SECTION NO. 4**  
 USE TYPICAL SECTION NO. 4 FROM  
 -L- STA.14+19 TO -L- STA.14+47.



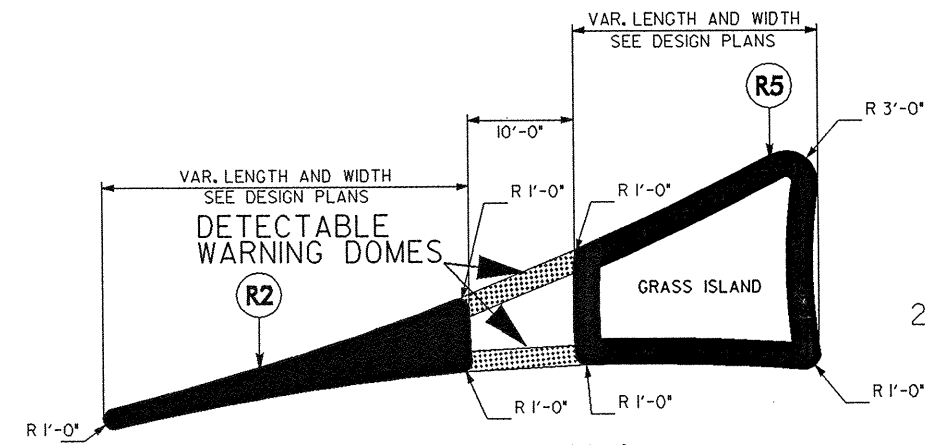
1'-6" CURB AND GUTTER



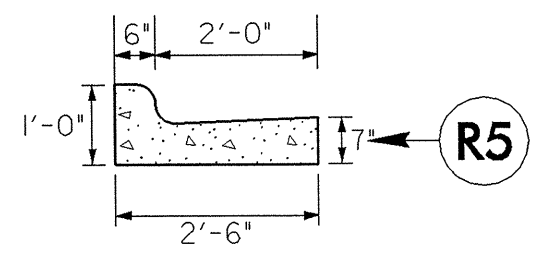
1'-6" CURB AND GUTTER STD 846.01



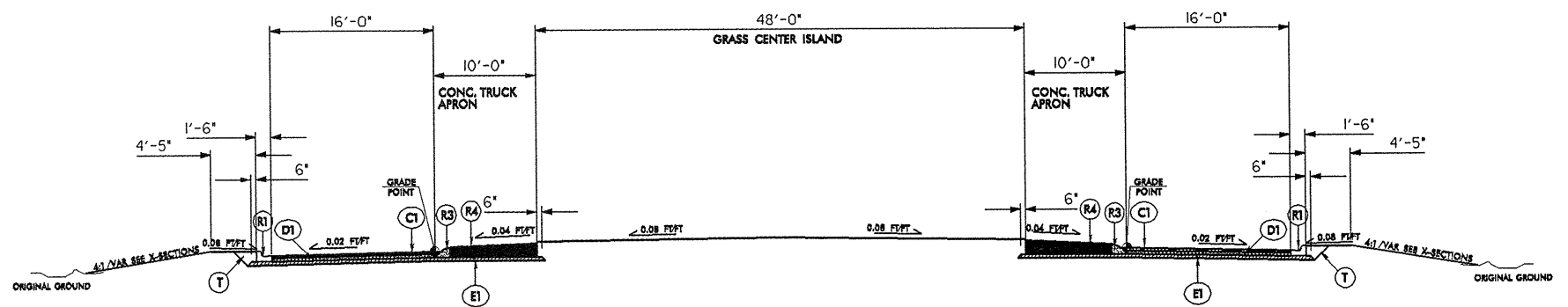
**TYPICAL SECTION NO. 5**  
 USE TYPICAL SECTION NO. 5 FROM  
 -L- STA.14+47 TO STA. APPROX. 15+19.88  
 (EDGE OF ROUNDABOUT).



**TYPICAL SECTION NO. 6**  
 USE TYPICAL SECTION NO. 6 FOR THE 3 CONC SEPARATOR ISLANDS.



2'-6" CURB AND GUTTER STD 846.01



**TYPICAL SECTION NO. 7**  
 USE TYPICAL SECTION NO. 7 FOR THE ROUNDABOUT.

PAVEMENT SCHEDULE			
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 99.08, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD. IN EACH OF TWO LAYERS OF 1 1/2".	R3	1'-6" CONCRETE CURB AND GUTTER. (STD 846.01)
C2	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 99.08, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.	R4	7" (SEVEN) TH. CLASS 'B' COLORED (GREEN) CONCRETE TRUCK APRON. CONTROL JOINTS 10' O.C. EXPANSION JOINTS 30' O.C. BROOD FINISH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.08, AT AN AVERAGE RATE OF 488 LBS. PER SQ. YD.	R5	2'-6" CONCRETE CURB AND GUTTER.
E1	PROP. APPROX. 9" ASPHALT CONCRETE BASE COURSE, TYPE B26.08, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	T	EARTH MATERIAL.
R1	1'-6" CONCRETE CURB AND GUTTER (SPECIAL).	U	EXISTING PAVEMENT.
R2	8" MONOLITHIC CONCRETE ISLAND. (KEYED IN)		

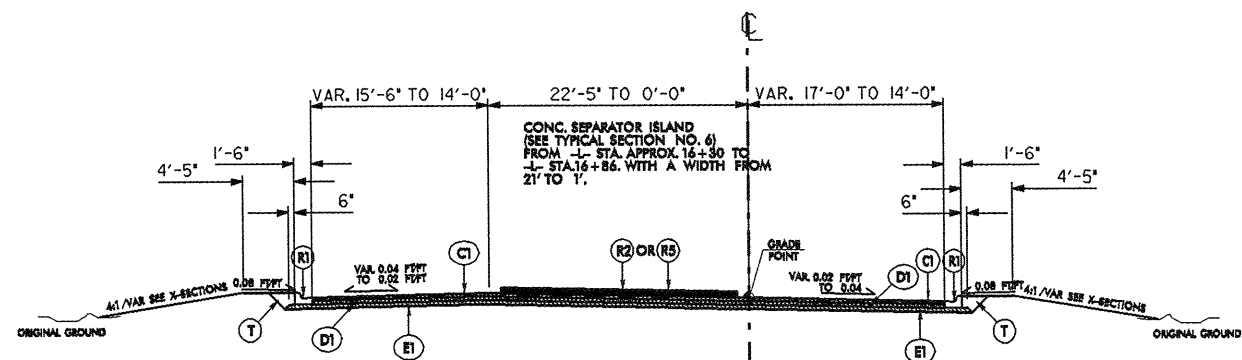
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

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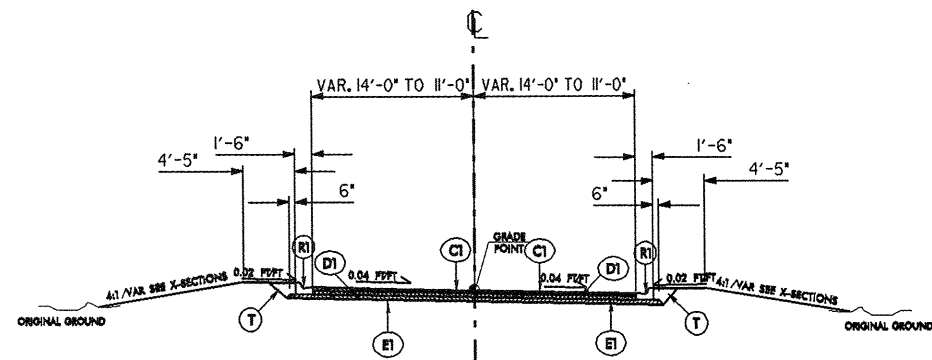
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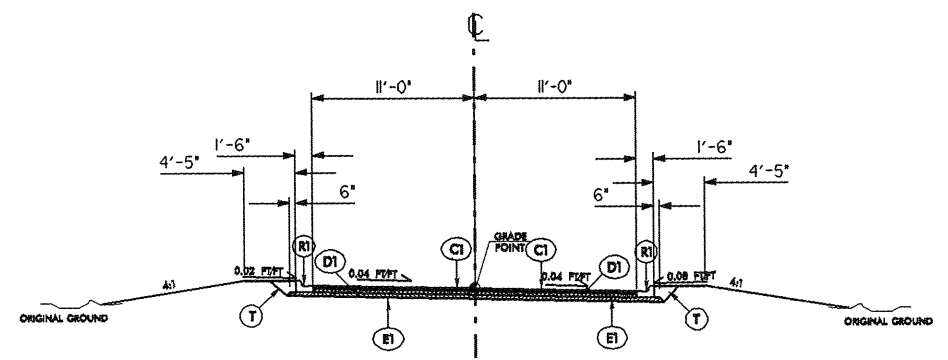




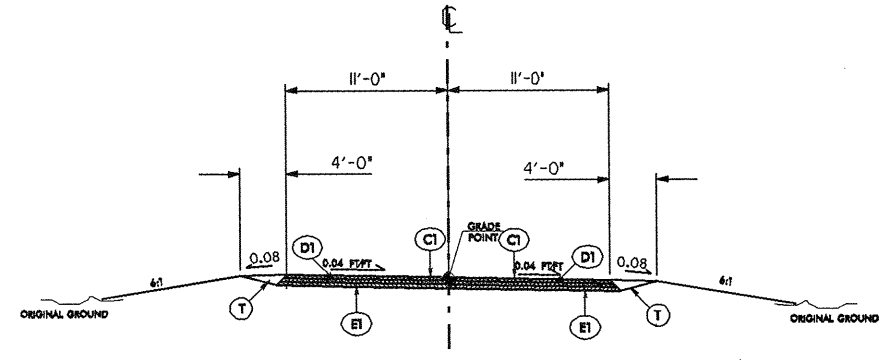
**TYPICAL SECTION NO. 8**  
USE TYPICAL SECTION NO. 8 FROM  
-L- STA. APPROX. 16+16.93 (EDGE OF ROUNDABOUT)  
TO -L- STA. 17+28.



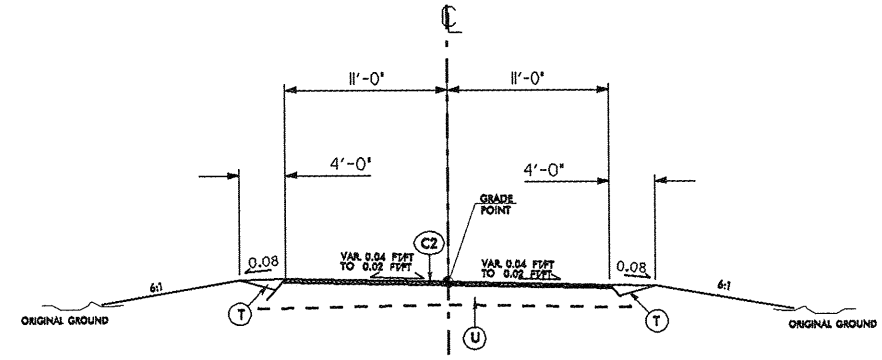
**TYPICAL SECTION NO. 9**  
USE TYPICAL SECTION NO. 9 FROM  
-L- STA. 17+28 TO 18+28.



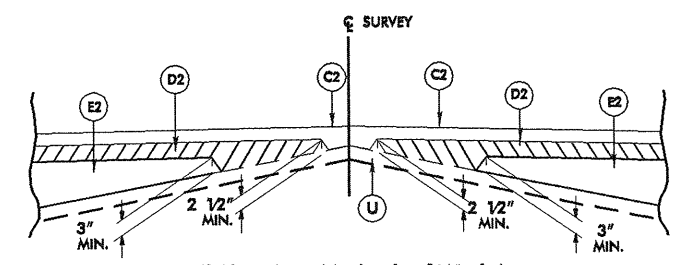
**TYPICAL SECTION NO. 10**  
USE TYPICAL SECTION NO. 10 FROM  
-L- STA. 18+28 TO -L- STA. 19+44.



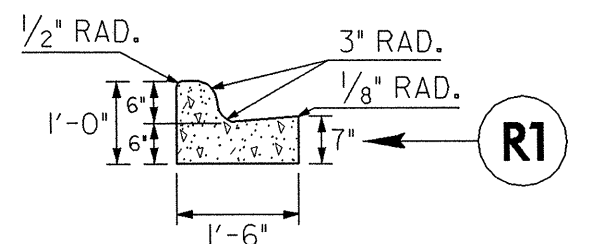
**TYPICAL SECTION NO. 11**  
USE TYPICAL SECTION NO. 11 FROM  
-L- STA. 19+44 TO -L- STA. 21+75.



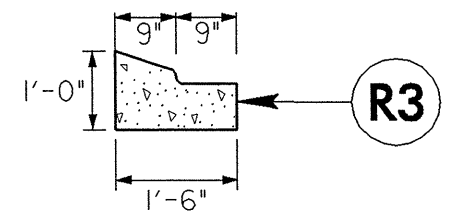
**TYPICAL SECTION NO. 12**  
USE TYPICAL SECTION NO. 12 FROM  
-L- STA. 21+75 TO -L- STA. 23+35.50  
(TIE TO EXISTING ALIGNMENT).  
NOTE: CONTRACTOR SHALL WEDGE PAVEMENT  
TO CONSTRUCT PROPER SUPERELEVATION  
ON THIS TYPICAL (SEE WEDGING DETAIL)



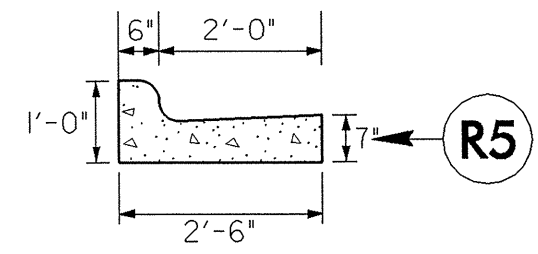
Detail Showing Method of Wedging



1'-6" CURB AND GUTTER



1'-6" CURB AND GUTTER STD 846.01



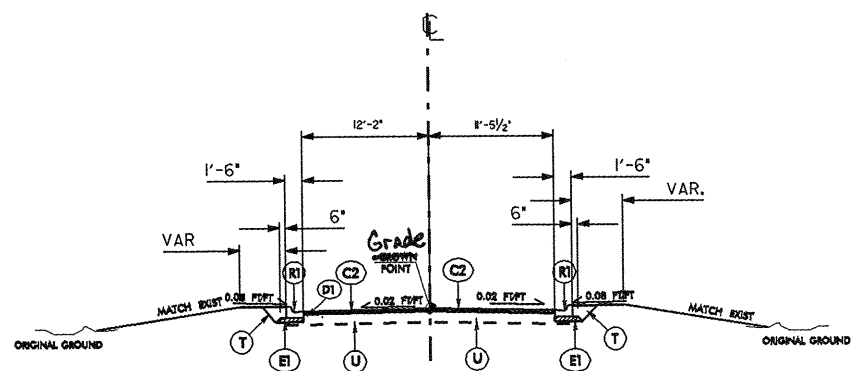
2'-6" CURB AND GUTTER STD 846.01

PAVEMENT SCHEDULE			
C1	PROP. APPROX. 8" ASPHALT CONCRETE SURFACE COURSE, TYPE 89.88, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS OF 1 1/2".	R2	8" MONOLITHIC CONCRETE ISLAND. (KEYED IN)
C2	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 89.88, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R3	1'-6" CONCRETE CURB AND GUTTER. (STD 846.01)
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.08, AT AN AVERAGE RATE OF 408 LBS. PER SQ. YD.	R4	7" (SEVEN) TH. CLASS 'B' COLORED (GREEN) CONCRETE TRUCK APRON. CONTROL JOINTS 10' O.C. EXPANSION JOINTS 80' O.C. BROOK FINISH.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.08, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.	R5	2'-6" CONCRETE CURB AND GUTTER.
E1	PROP. APPROX. 8" ASPHALT CONCRETE BASE COURSE, TYPE 828.08, AT AN AVERAGE RATE OF 842 LBS. PER SQ. YD.	T	EARTH MATERIAL.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE 828.08, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 6 1/2" IN DEPTH.	U	EXISTING PAVEMENT.
R1	1'-6" CONCRETE CURB AND GUTTER (SPECIAL)		

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

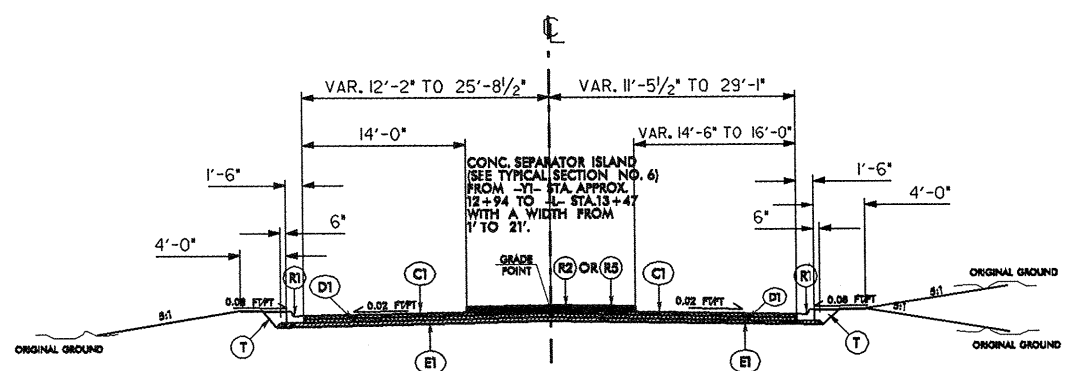
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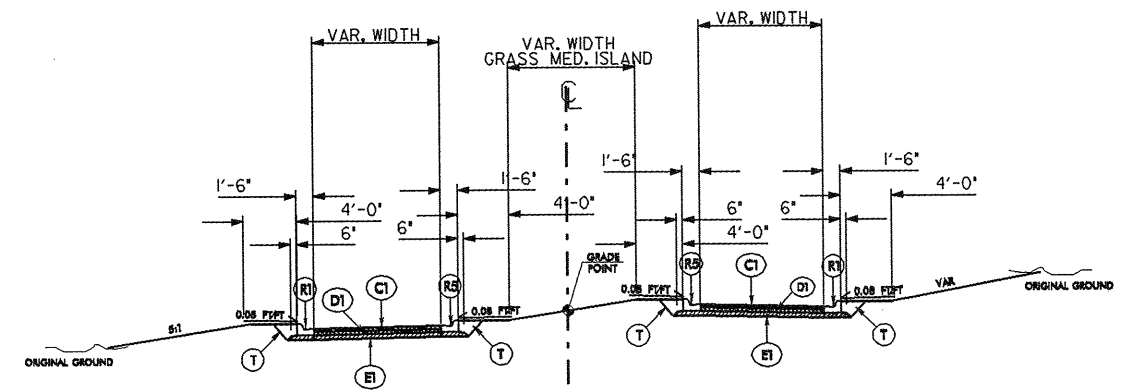
**TYPICAL SECTION NO. 18**  
 USE TYPICAL SECTION NO. 18 FROM  
 -Y1- STA. 12+44 TO -Y1- STA. 12+73.

NOTE: CONTRACTOR SHALL WEDGE PAVEMENT TO CONSTRUCT PROPER SUPERELEVATION ON THIS TYPICAL (SEE WEDGING DETAIL)

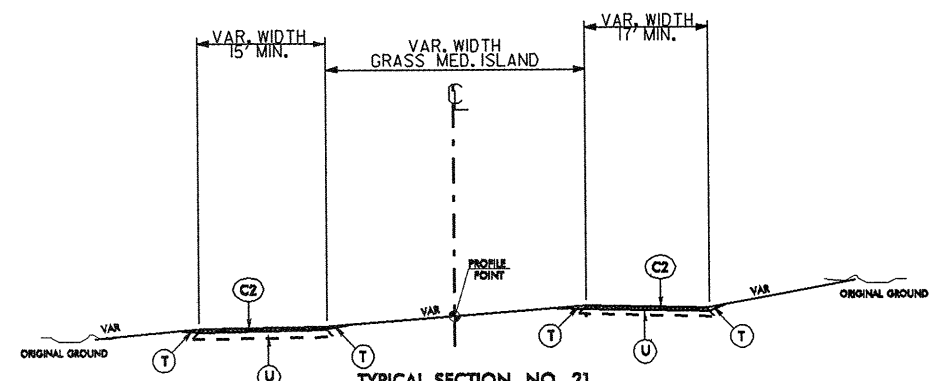


**TYPICAL SECTION NO. 19**  
 USE TYPICAL SECTION NO. 19 FROM  
 -Y1- STA. 12+73 TO -Y1- STA. 13+47.

NOTE: CONTRACTOR SHALL WEDGE PAVEMENT TO CONSTRUCT PROPER SUPERELEVATION ON THIS TYPICAL (SEE WEDGING DETAIL)

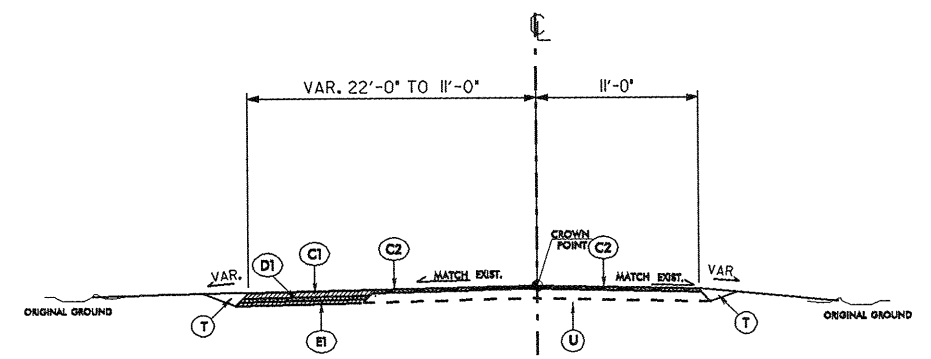


**TYPICAL SECTION NO. 20**  
 USE TYPICAL SECTION NO. 20 FROM  
 -Y1- STA. 14+50 TO -Y1- STA. 14+65.

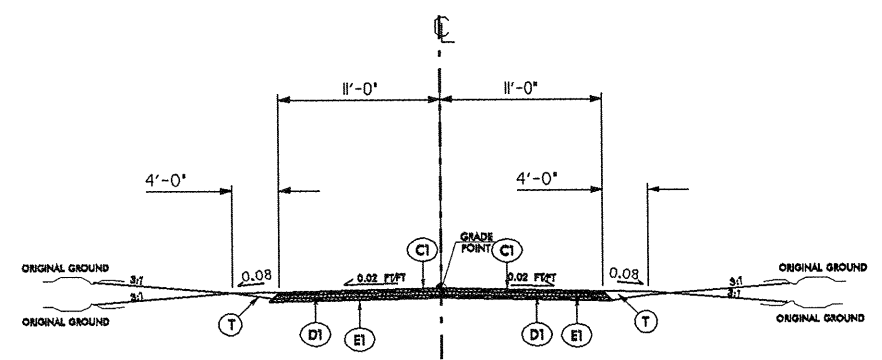


**TYPICAL SECTION NO. 21**  
 USE TYPICAL SECTION NO. 21 FROM  
 -Y1- STA. 14+65 TO -Y1- STA. 13+23.

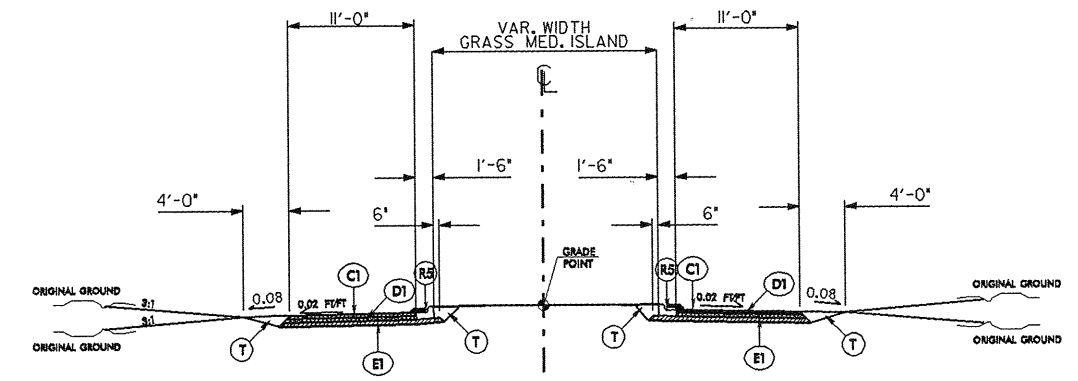
NOTE: CONTRACTOR SHALL WEDGE PAVEMENT TO CONSTRUCT PROPER SUPERELEVATION ON THIS TYPICAL (SEE WEDGING DETAIL)



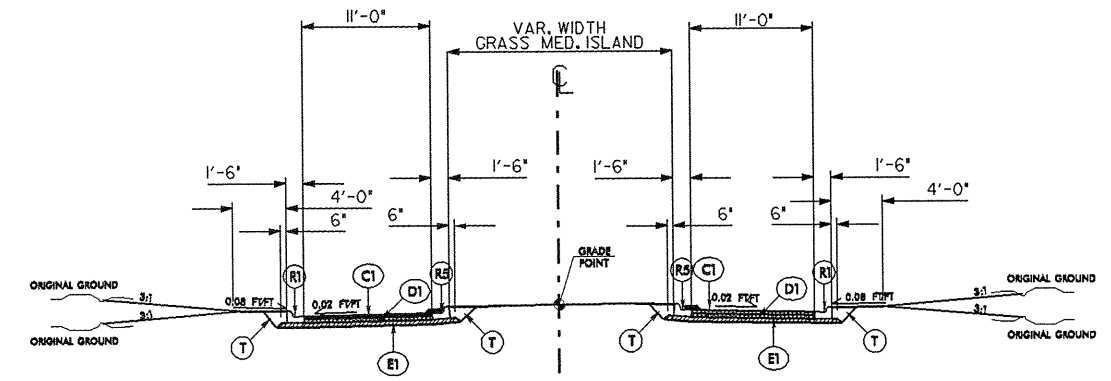
**TYPICAL SECTION NO. 22**  
 USE TYPICAL SECTION NO. 22 FROM  
 -Y2- STA. 10+14 TO -Y2- STA. 11+67.



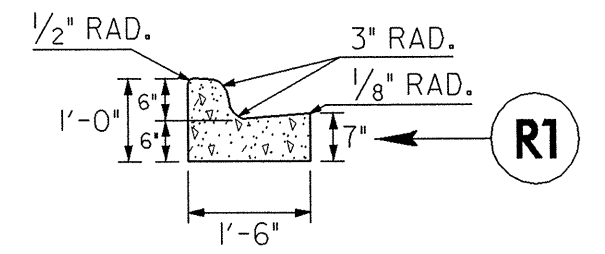
**TYPICAL SECTION NO. 23**  
 USE TYPICAL SECTION NO. 23 FROM  
 -Y3- STA. 10+10 TO -Y3- STA. 10+92.



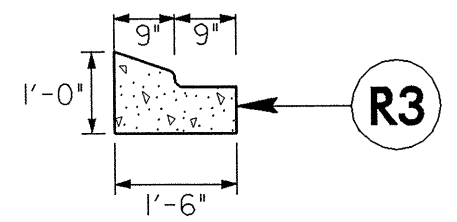
**TYPICAL SECTION NO. 24**  
 USE TYPICAL SECTION NO. 24 FROM  
 -Y3- STA. 10+92 TO -Y3- STA. 11+82.



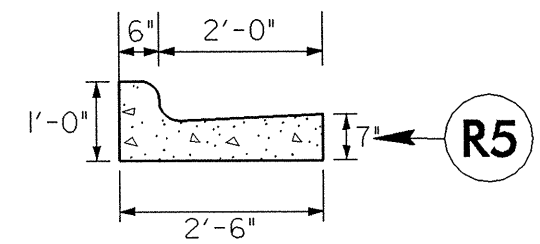
**TYPICAL SECTION NO. 25**  
 USE TYPICAL SECTION NO. 25 FROM  
 -Y3- STA. 11+82 TO -Y3- STA. 12+18.



1'-6" CURB AND GUTTER



1'-6" CURB AND GUTTER STD 846.01



2'-6" CURB AND GUTTER STD 846.01

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 89.08, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD. IN EACH OF TWO LAYERS OF 1 1/2".
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 89.08, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.08, AT AN AVERAGE RATE OF 488 LBS. PER SQ. YD.
E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE 85.08, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
R1	1'-6" CONCRETE CURB AND GUTTER. (SPECIAL)
R2	8" MONOLITHIC CONCRETE ISLAND. (KEYED IN)
R3	1'-6" CONCRETE CURB AND GUTTER. (STD 846.01)
R4	7" (SEVEN) TH. CLASS 'B' COLORED (GREEN) CONCRETE TRUCK APRON. CONTROL JOINTS 10' o.o. EXPANSION JOINTS 30' o.o. BROOK FINISH.
R5	2'-6" CONCRETE CURB AND GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

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STATE OF NORTH CAROLINA  
SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201861

ItemNumber	Sec #	Quantity	Unit	Description
000010000-N	800	Lump Sum		MOBILIZATION
000101000-N	200	64	EA	SELECT TREE REMOVAL
004300000-N	226	Lump Sum		GRADING
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
031800000-E	300	170	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
036600000-E	310	598	LF	15" RC PIPE CULVERTS, CLASS III
037200000-E	310	858	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E	310	84	LF	24" RC PIPE CULVERTS, CLASS III
045300000-E	310	1	EA	*** PIPE END SECTION (15")
099500000-E	340	213	LF	PIPE REMOVAL
122000000-E	545	100	TON	INCIDENTAL STONE BASE
133000000-E	607	200	SY	INCIDENTAL MILLING
148900000-E	610	910	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
149800000-E	610	975	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE 119.0B
151900000-E	610	1,360	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
156000000-E	620	170	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
169300000-E	654	40	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
200000000-N	806	13	EA	RIGHT OF WAY MARKERS
225300000-E	840	0.45	CY	PIPE COLLARS
228600000-N	840	28	EA	MASONRY DRAINAGE STRUCTURES
230800000-E	840	43.69	LF	MASONRY DRAINAGE STRUCTURES
236400000-N	840	3	EA	FRAME WITH TWO GRATES, STD 840.16
237400000-N	840	5	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)
237400000-N	840	6	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)
237400000-N	840	10	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)
239600000-N	840	5	EA	FRAME WITH COVER, STD 840.54
254200000-E	846	215	LF	1'-6" CONCRETE CURB & GUTTER
254900000-E	846	315	LF	2'-6" CONCRETE CURB & GUTTER
260500000-N	848	12	EA	CONCRETE WHEELCHAIR RAMPS
265500000-E	852	40	SY	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)
273800000-E	SP	205	SY	GENERIC PAVING ITEM 7" CONCRETE TRUCK APRON
275200000-E	SP	4,765	LF	GENERIC PAVING ITEM 1'-6" CONCRETE CURB & GUTTER (SPECIAL)
284500000-N	858	1	EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES
286000000-N	859	1	EA	CONVERT EXISTING CATCH BASIN TO JUNCTION BOX
458900000-N	SP	Lump Sum		GENERIC TRAFFIC CONTROL ITEM TRAFFIC CONTROL
468500000-E	1205	2,740	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
468600000-E	1205	6,550	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
469500000-E	1205	175	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)
469700000-E	1205	215	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 120 MILS)
471000000-E	1205	380	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
472500000-E	1205	59	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)
481000000-E	1205	500	LF	PAINT PAVEMENT MARKING LINES (4")
483500000-E	1205	50	LF	PAINT PAVEMENT MARKING LINES (24")
490000000-N	1251	145	EA	PERMANENT RAISED PAVEMENT MARKERS

ItemNumber	Sec #	Quantity	Unit	Description
600000000-E	1605	2,800	LF	TEMPORARY SILT FENCE
600600000-E	1610	25	TON	STONE FOR EROSION CONTROL, CLASS A
600900000-E	1610	40	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	155	TON	SEDIMENT CONTROL STONE
601500000-E	1615	1.5	ACR	TEMPORARY MULCHING
604200000-E	1632	720	LF	1/4" HARDWARE CLOTH
608400000-E	1660	1.65	ACR	SEEDING & MULCHING
613500000-E	SP	0.4	ACR	GENERIC EROSION CONTROL ITEM TOP SOIL - STOCKPILED & REAPPLIED
613800000-E	SP	110	CY	GENERIC EROSION CONTROL ITEM TOPSOIL - FURNISHED
664000000-N	1670	118	EA	GENERIC PLANTING ITEM HEMEROCALLIS 'MARY TODD'
664500000-N	SP	874	EA	GENERIC PLANTING ITEM MULCH - PINE STRAW BALES
664500000-N	SP	2	EA	GENERIC PLANTING ITEM RELOCATION OF POST TOP LIGHTS
665000000-E	1670	17	CY	MULCH FOR PLANTING
665500000-E	1670	1	M/G	WATER FOR PLANTING
666500000-E	1670	46	SY	POSTEMERGENT HERBICIDAL TREATMENT FOR PLANT BEDS
667000000-E	1670	46	SY	PREEMERGENT HERBICIDAL TREATMENT FOR PLANT BEDS
667400000-N	SP	Lump Sum		GENERIC PLANTING ITEM (LS) IRRIGATION SYSTEM
667500000-E	SP	1,916	SY	GENERIC PLANTING ITEM SOD (BERMUDA - TIFWAY 419)
667500000-E	SP	465	SY	GENERIC PLANTING ITEM SOD (FESCUE)
667600000-E	SP	1,523	SF	GENERIC PLANTING ITEM BRICK SIDEWALK
668500000-E	SP	13	M/G	GENERIC PLANTING ITEM WATER FOR SOD
669000000-E	SP	5,080	LF	GENERIC PLANTING ITEM TREE PROTECTION FENCE
706000000-E	1705	750	LF	SIGNAL CABLE

ItemNumber	Sec #	Quantity	Unit	Description
730000000-E	1715	1,920	LF	UNPAVED TRENCHING (*****) (1 CONDUIT, 2")
730100000-E	1715	255	LF	DIRECTIONAL DRILL (*****) (2 CONDUITS, 2")
732400000-N	1716	8	EA	JUNCTION BOX (STANDARD SIZE)
744400000-E	1725	970	LF	INDUCTIVE LOOP SAWCUT
745600000-E	1726	1,480	LF	LEAD-IN CABLE (*****) (18-2 PAIR)
759000000-N	SP	2	EA	METAL POLE WITH DUAL MAST ARM
761300000-N	SP	2	EA	SOIL TEST
761410000-E	SP	16	CY	DRILLED PIER FOUNDATION
763100000-N	SP	2	EA	MAST ARM WITH METAL POLE DESIGN
798000000-N	SP	8	EA	GENERIC SIGNAL ITEM VEHICLE SIGNAL HEAD INSTALLATION
859400000-E	876	10	TON	RIP RAP, CLASS B
862200000-E	876	28	SY	FILTER FABRIC FOR DRAINAGE

**RIGHT OF WAY AREA DATA**

PARCEL NO.	PROPERTY OWNERS NAMES	TOTAL ACREAGE	AREA TAKEN	AREA REMAINING RT.	AREA REMAINING LT.	CONST. EASE. (sf)	PERM. DRAIN. EASE.	TEMP. DRAIN. EASE.
1	RESORTS OF PINEHURST, INC.	69.73 ac	41,805 sf (0.96 ac)	68.77 ac		23,993		42468

**SUMMARY OF EARTHWORK  
 IN CUBIC YARDS**

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT +%	BORROW	WASTE
-L- 10+50 TO -L 15+00	793	-	35		758
-L- 16+50 TO -L 23+00			2297	2297	
Roundabout Area	32		788	756	
-L1- 12+75 TO -L1- 20+87	219	-	368	149	
-Y1- 12+50 TO -Y1- 15+25	605		284		321
-Y2- 10+25 TO -Y2- 11+67	60		1		59
-Y3-10+25 TO -Y3-12+00	26		120	94	
<b>PROJECT TOTAL</b>	<b>1735</b>		<b>3893</b>	<b>3296</b>	<b>1138</b>
WASTE TO REPLACE BORROW				- 1138	- 1138
<b>PROJECT TOTALS</b>				<b>2158</b>	
EST. 5% TO REPLACE TOPSOIL ON BORROW PIT				108	
<b>GRAND TOTAL</b>	<b>1735</b>			<b>2266</b>	
SAY	1750			2300	

**REMOVAL OF EXISTING  
 "ASPHALT" PAVEMENT**

LOCATION	LOCATION	SQ. FT
STA. 16+45 -L- TO STA. 18+61 -L-	LT	6,539 *
STA. 19+10 -L- TO STA. 21+14 -L-	LT	4,836 *
STA. 17+84 -L1- TO STA. 18+80 -L1-	LT	628 *
STA. 10+20 -L- TO STA. 11+56 -L-	RT	856
STA. 11+66 -L- TO STA. 14+19 -L-	LT	1453
STA. 14+19 -L- TO STA. 16+67 -L-	LT & RT	10056
STA. 16+99 -L1- TO STA. 17+77 -L1-	RT	512
STA. 18+32 -L1- TO STA. 20+69 -L1-	LT	1308
STA. 12+73 -Y1- TO STA. 13+53 -Y1-	LT & RT	2830
STA. 14+50 -Y1- TO STA. 14+65 -Y1-	RT	407
STA. 14+50 -Y1- TO STA. 15+28 -Y1-	LT	762
STA. 10+40 -Y2- TO STA. 10+62 -Y2-	LT	209
STA. 10+27 -Y2- TO STA. 11+10 -Y2-	RT	507
STA. 10+10 -Y3- TO STA. 12+82 -Y3-	LT & RT	4796
<b>GRAND TOTALS:</b>		<b>35699</b>

\* DENOTES PAVEMENT OUTSIDE OF CONSTRUCTION LIMITS

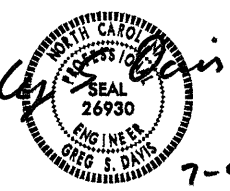
\* - EARTHWORK TOTALS ARE APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR GRADING

6/21/00

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# TREES TO BE REMOVED WITHIN THE PROJECT LIMITS

PROJECT REFERENCE NO.	SHEET NO.
38067	TREE MAP 1
RW SHEET NO.	
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
	
7-9-07	
DIVISION DESIGN / CONSTRUCT ENGINEER	

POINT NUMBER	TREE SIZE AND TYPE	POINT NUMBER	TREE SIZE AND TYPE	POINT NUMBER	TREE SIZE AND TYPE	POINT NUMBER	TREE SIZE AND TYPE
1138	20" Pine	1238	15" Pine	1794	12" Holly	3001	11" Maple (Quad Trunk)
1147	6" Pin Oak	1239	18" Pine	1795	18" Pine	3003	21" Pine
1148	20" Pine	1245	3" Dogwood **S**	1796	20" Pine	3005	11" Maple (Double Trunk)
1149	3" Dogwood **S**	1246	8" Pine **S**	1806	2" Dogwood **S**	3025	15" Pine
1150	8" Cedar **S**	1247	8" Pine **S**	1992	18" Pine	3026	16" Pine
1227	17" Pine	1259	4" Spruce **S**	1993	17" Pine	3027	8" Pine
1230	12" Pine **S**	1260	4" Dogwood **S**	3046	2" Pine	3028	12" Pine
1231	15" Pine	1261	8" Pine **S**	3047	3" Pine	3029	10" Pine (Double Trunk)
1258	9" Holly	1262	8" Pine **S**	3049	5" Pine	3030	4" Pine
1762	20" Pine	1277	7" Pine **S**	3050	17" Pine	3031	8" Pine
1763	6" Pine **S**	1278	24" Pine	3051	7" Pine	3032	11" Pine
1764	24" Pine	1279	8" Holly	3052	11" Pine	3033	6" Maple (Double Trunk)
1765	6" Pine **S**	1280	8" Pine **S**	3053	9" Pine	3034	11" Pine
1766	7" Pine **S**	1281	8" Pine **S**	3054	8" Pine	3035	10" Pine
1768	10" Pine **S**	1781	3" Dogwood **S**	3057	17" Pine	3036	8" Pine
1235	20" Pine	1782	24" Pine	3059	9" Pine	3037	5" Pine
1236	15" Pine	1783	20" Pine	3060	10" Pine	3038	15" Maple
		1784	18" Pine	3061	18" Pine	3039	7" Pine
		1785	20" Pine	3062	12" Pine	3040	11" Pine
		1787	3" Dogwood **S**	3063	15" Pine	3041	15" Pine
		1790	3" Dogwood **S**	3064	16" Pine	3043	20" Pine
		1792	3" Dogwood **S**	3068	8" Pine	3044	11" Pine
		1793	3" Dogwood	3070	8" Pine	3045	9" Pine

\*\*S\*\* DENOTES TREES THAT WILL BE RELOCATED PRIOR TO CONSTRUCTION AND THEN REPLANTED IN OLD ROAD BED BY THE RESORTS OF PINEHURST.

# TREES THAT COULD BE REMOVED WITHIN THE PROJECT LIMITS IF NEEDED FOR CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
38067	TREE MAP 2
RW SHEET NO.	
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
	
7-9-07	
DIVISION DESIGN / CONSTRUCT ENGINEER	

POINT NUMBER	TREE SIZE AND TYPE	POINT NUMBER	TREE SIZE AND TYPE	POINT NUMBER	TREE SIZE AND TYPE
1151	15" Pine				
		3016	7" Oak (Double Trunk)		
1152	16" Pine				
		3017	10" Pine		
1226	24" Pine				
		3018	10" Oak		
1232	8" Holly				
		3019	5" Oak (Quad Trunk)		
1248	8" Pine **S**				
		3020	15" Pine		
1625	20" Pine				
		3021	21" Pine		
1655	6" Dogwood				
		3022	10" Pine		
1656	24" Pine				
		3023	15" Pine		
1657	16" Pine				
		3024	22" Pine		
1769	6" Pine **S**				
		3055	17" Pine		
1237	20" Pine				
		3056	7" Pine		
1244	4" Dogwood **S**				
		3048	11" Pine		
1308	18" Pine				
		3058	7" Pine		
1780	8" Pine **S**				
		3065	8" Pine		
1788	22" Pine				
		3066	20" Pine		
1789	20" Pine				
		3067	13" Pine		
1791	18" Pine				
		3071	8" Pine		
1989	11" Holly				
1990	12" Holly				
1991	11" Holly				
1767	24" Pine				

**\*\*S\*\* DENOTES TREES THAT WILL BE RELOCATED PRIOR TO CONSTRUCTION AND THEN REPLANTED IN OLD ROAD BED BY THE RESORTS OF PINEHURST.**





PROJECT REFERENCE NO. <b>38067</b>	SHEET NO. <b>TREE MAP 4</b>
RW SHEET NO.	
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
DIVISION DESIGN / CONSTRUCT ENGINEER	

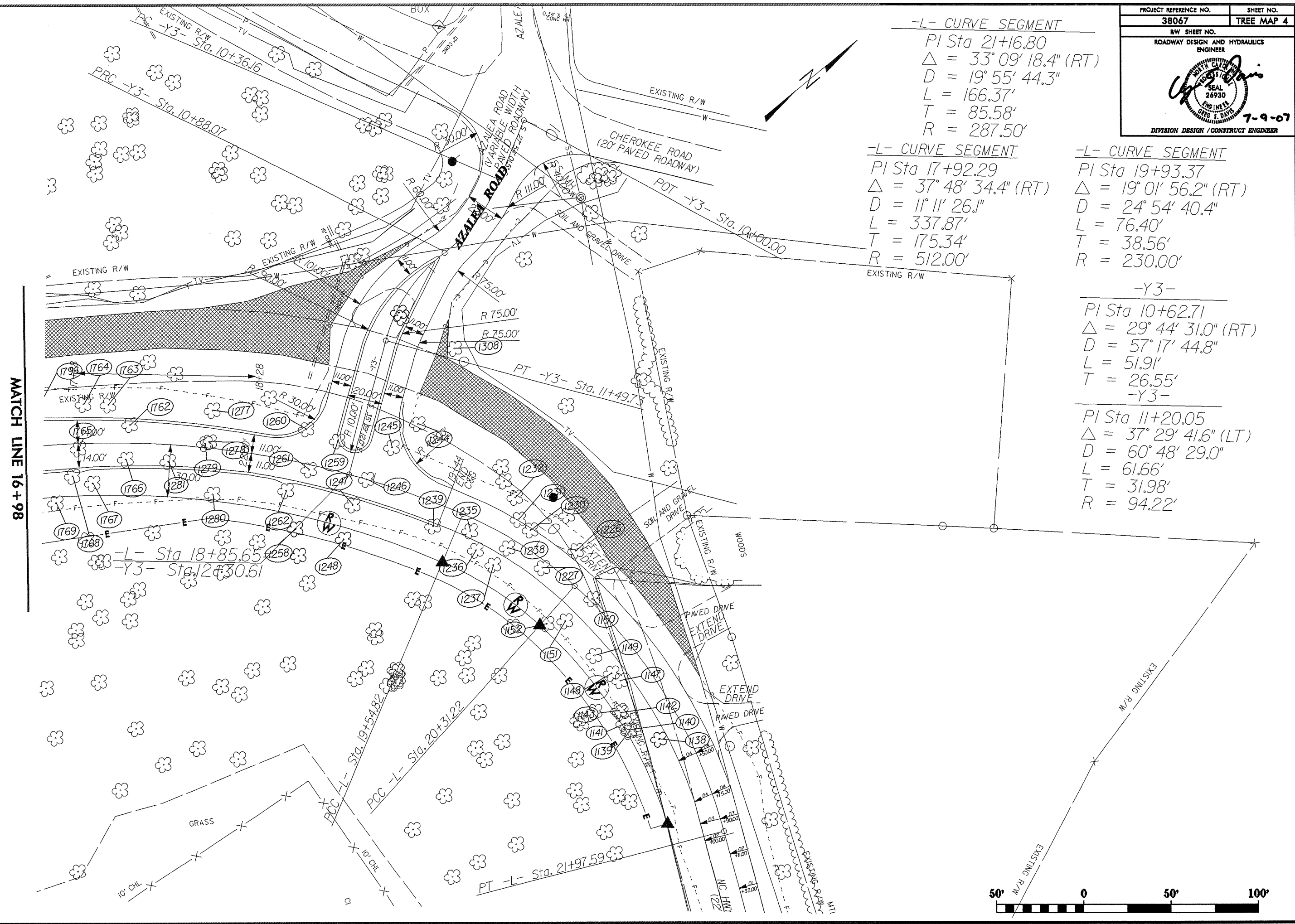
-L- CURVE SEGMENT  
 PI Sta 21+16.80  
 $\Delta = 33^\circ 09' 18.4''$  (RT)  
 D = 19° 55' 44.3"  
 L = 166.37'  
 T = 85.58'  
 R = 287.50'

-L- CURVE SEGMENT  
 PI Sta 17+92.29  
 $\Delta = 37^\circ 48' 34.4''$  (RT)  
 D = 11° 11' 26.1"  
 L = 337.87'  
 T = 175.34'  
 R = 512.00'

-L- CURVE SEGMENT  
 PI Sta 19+93.37  
 $\Delta = 19^\circ 01' 56.2''$  (RT)  
 D = 24° 54' 40.4"  
 L = 76.40'  
 T = 38.56'  
 R = 230.00'

-Y3-  
 PI Sta 10+62.71  
 $\Delta = 29^\circ 44' 31.0''$  (RT)  
 D = 57° 17' 44.8"  
 L = 51.91'  
 T = 26.55'  
-Y3-

PI Sta 11+20.05  
 $\Delta = 37^\circ 29' 41.6''$  (LT)  
 D = 60° 48' 29.0"  
 L = 61.66'  
 T = 31.98'  
 R = 94.22'



REVISIONS

MATCH LINE 16+98

8/17/08  
 10-JUL-2007 13:50  
 D:\pda\mcorp\10622\10622.rab\psh\trees\tree.psh.4.dgn

RESORTS OF PINEHURST, INC.  
DB 1418 PG 402

-L1-  
 PI Sta 20+31.77  
 $\Delta = 1^{\circ} 36' 06.8''$  (RT)  
 D = 1' 09' 40.5"  
 L = 137.95'  
 T = 68.98'  
 R = 4974.00'

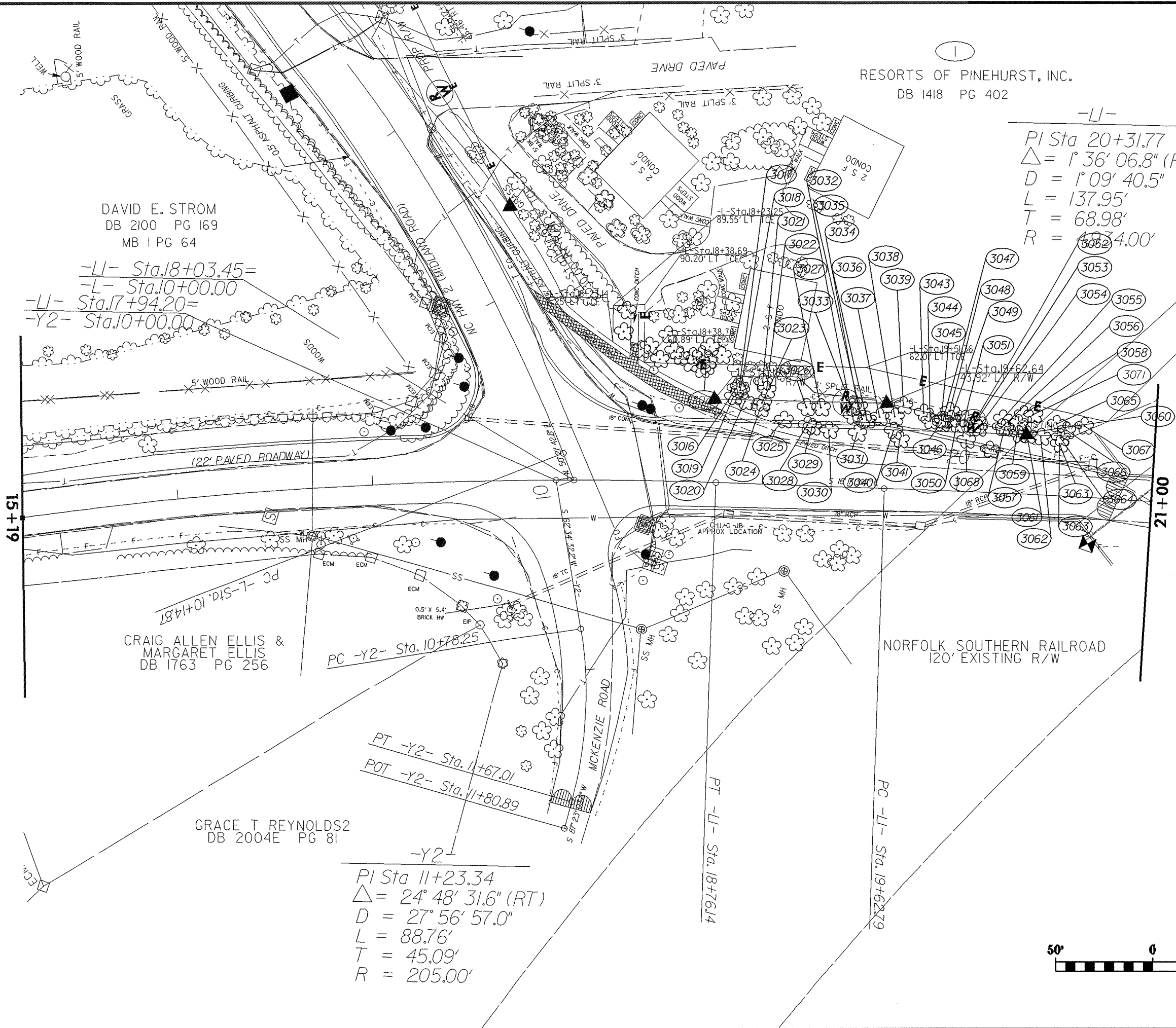
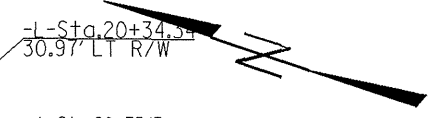
DAVID E. STROM  
DB 2100 PG 169  
MB 1 PG 64

-L1- Sta.18+03.45=  
 -L- Sta.10+00.00  
 -L1- Sta.17+94.20=  
 -Y2- Sta.10+00.00

CRAIG ALLEN ELLIS &  
MARGARET ELLIS  
DB 1763 PG 256

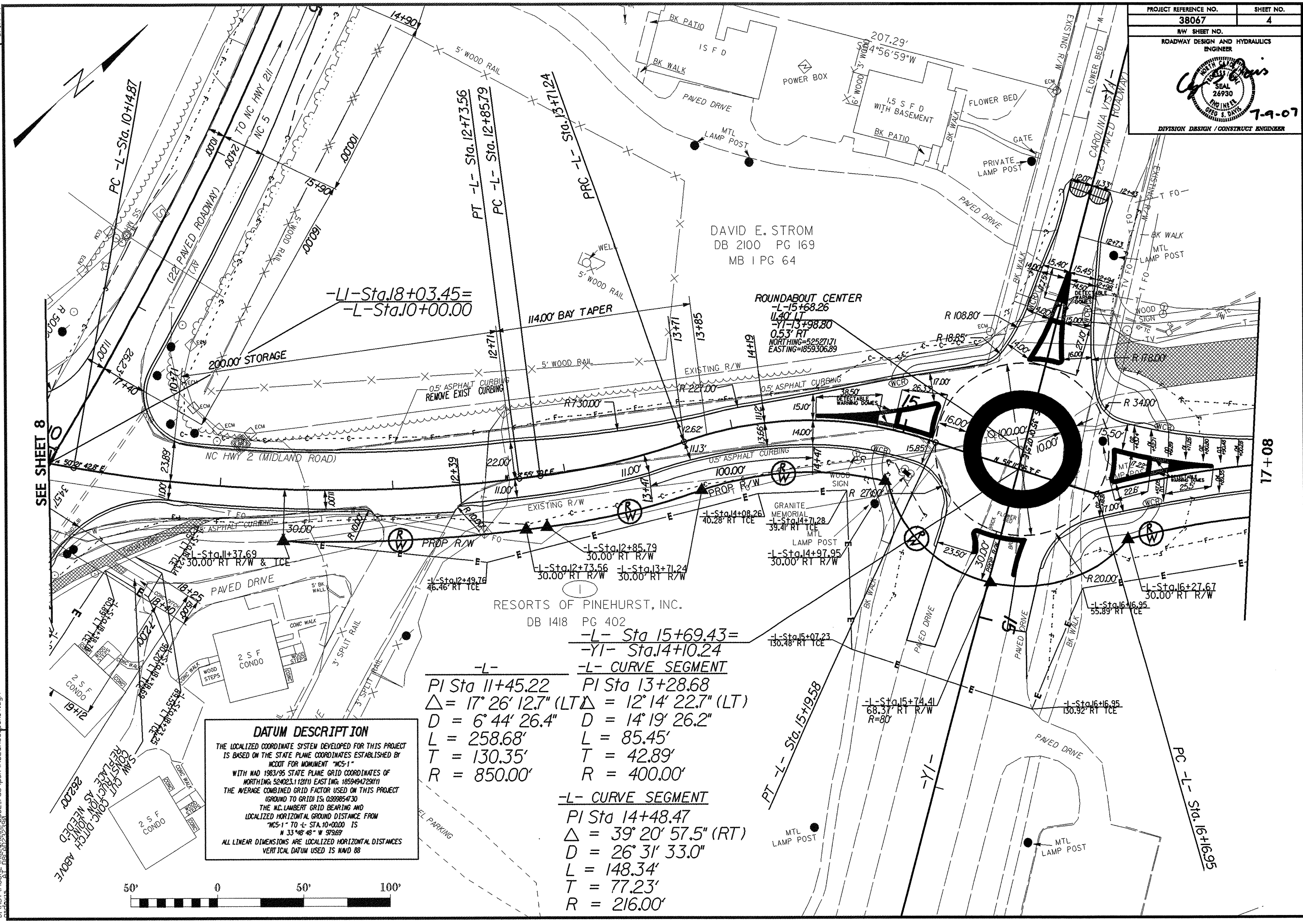
GRACE T REYNOLDS2  
DB 2004E PG 81

-Y2-  
 PI Sta 11+23.34  
 $\Delta = 24^{\circ} 48' 31.6''$  (RT)  
 D = 27' 56' 57.0"  
 L = 88.76'  
 T = 45.09'  
 R = 205.00'



REVISIONS

8/17/99  
 10-JUL-2007 13:50  
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SEE SHEET 8

17+08

**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NC DOT FOR MONUMENT "MCS-1" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 524023.112111 EASTING: 1859494729111 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999854730 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "MCS-1" TO L- STA. 10+00.00 IS N 33°48'48" W 979.69' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

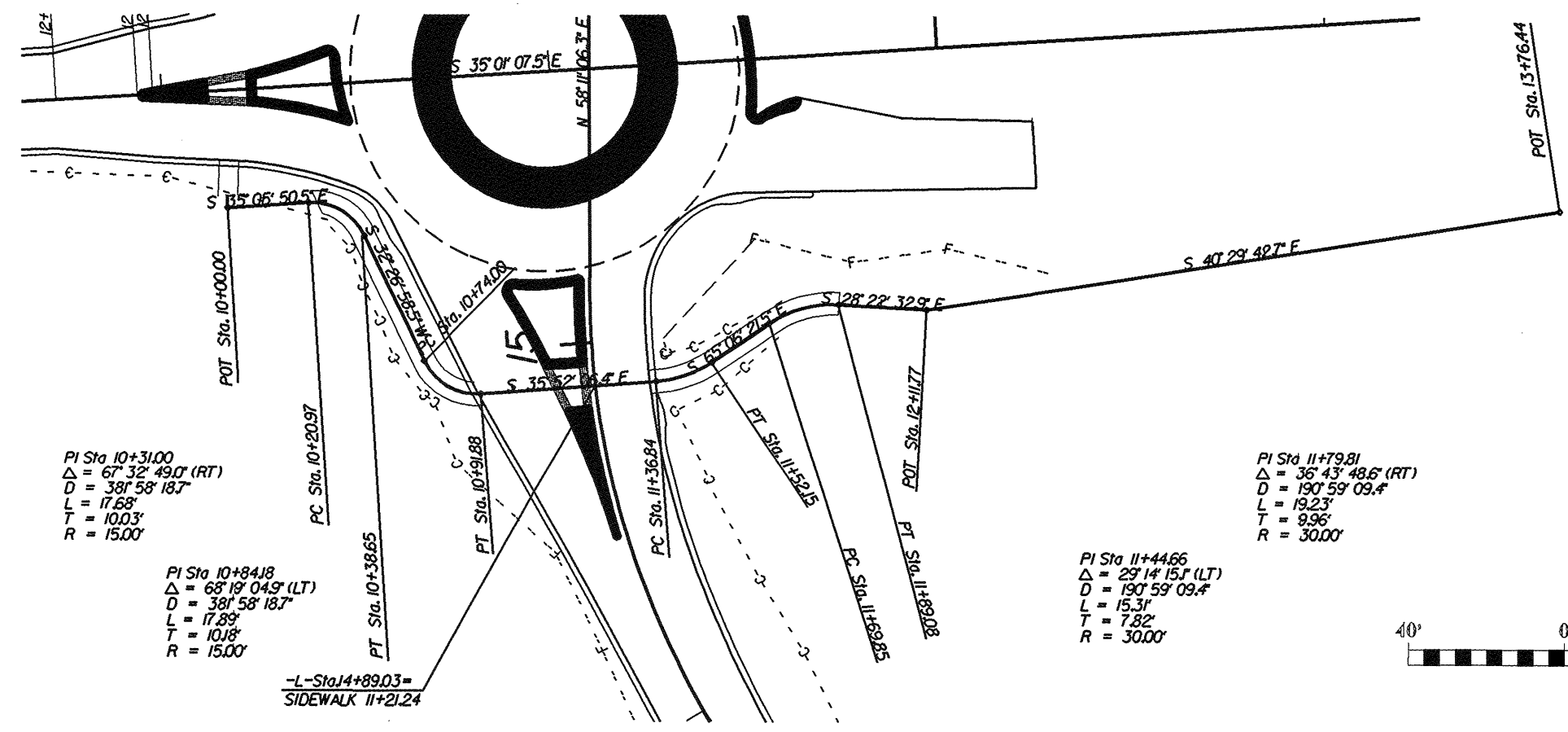
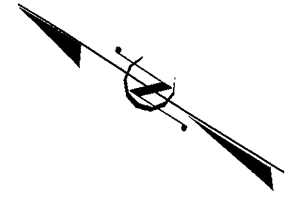
RESORTS OF PINEHURST, INC.  
 DB 1418 PG 402

-L- Sta 15+69.43=  
 -YI- Sta 14+10.24  
 -L- CURVE SEGMENT  
 PI Sta 11+45.22 PI Sta 13+28.68  
 $\Delta = 17^\circ 26' 12.7" (LT)$   $\Delta = 12^\circ 14' 22.7" (LT)$   
 $D = 6' 44' 26.4"$   $D = 14' 19' 26.2"$   
 $L = 258.68'$   $L = 85.45'$   
 $T = 130.35'$   $T = 42.89'$   
 $R = 850.00'$   $R = 400.00'$

-L- CURVE SEGMENT  
 PI Sta 14+48.47  
 $\Delta = 39^\circ 20' 57.5" (RT)$   
 $D = 26' 31' 33.0"$   
 $L = 148.34'$   
 $T = 77.23'$   
 $R = 216.00'$



10-11-2007 13:50 2007 05-08-02\_r.ab.psh\nc28nc05.psh\_4.dgn  
 8/17/99



PI Sta 10+31.00  
 $\Delta = 67^\circ 32' 49.0''$  (RT)  
 $D = 381' 58.187''$   
 $L = 17.68'$   
 $T = 10.03'$   
 $R = 15.00'$

PI Sta 10+84.18  
 $\Delta = 68^\circ 19' 04.9''$  (LT)  
 $D = 381' 58.187''$   
 $L = 17.89'$   
 $T = 10.18'$   
 $R = 15.00'$

-L- Sta 14+89.03 =  
 SIDEWALK 11+21.24

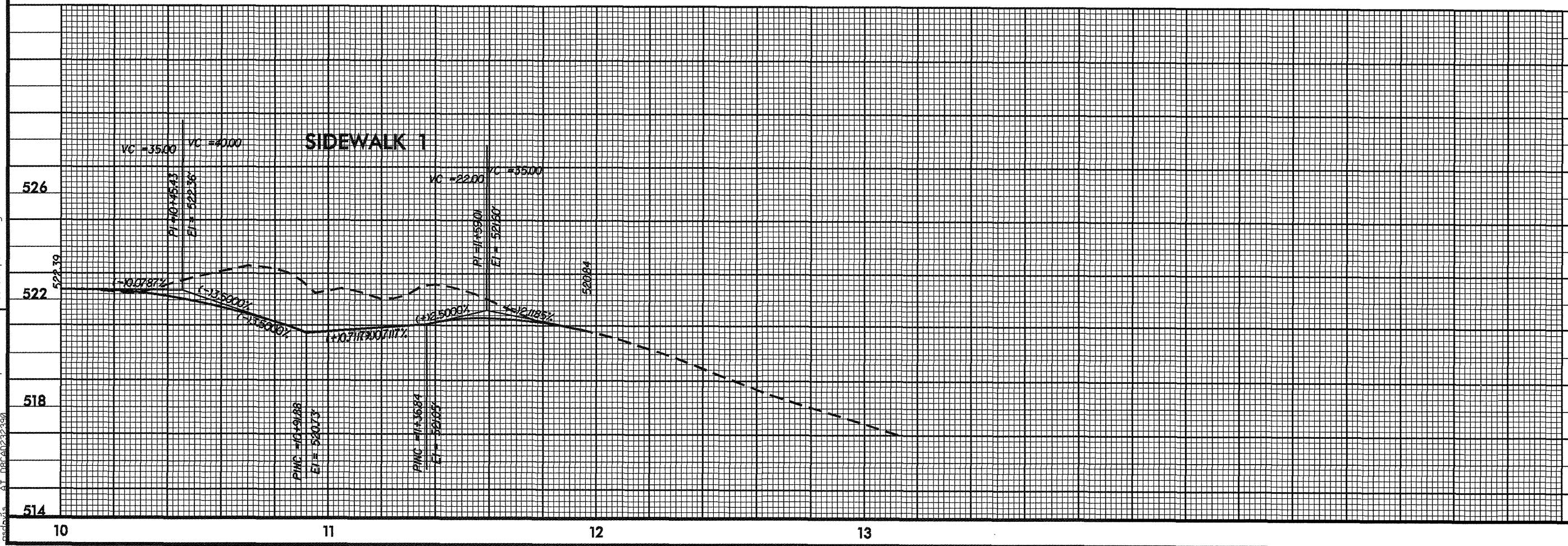
PI Sta 11+79.81  
 $\Delta = 36^\circ 43' 48.6''$  (RT)  
 $D = 190' 59.094''$   
 $L = 19.23'$   
 $T = 9.96'$   
 $R = 30.00'$

PI Sta 11+44.66  
 $\Delta = 29^\circ 14' 15.1''$  (LT)  
 $D = 190' 59.094''$   
 $L = 15.31'$   
 $T = 7.82'$   
 $R = 30.00'$



NOTE: R/W NOT SHOWN FOR CLARITY

NOTE: SEE L-3 FOR BRICK SIDEWALK DETAIL.



REVISIONS

8/17/95

07-Jul-2007 13:03  
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 100%

PI Sta 10+66.31  
 $\Delta = 82^\circ 21' 48.5" (LT)$   
 $D = 381' 58" 18.7"$   
 $L = 21.56'$   
 $T = 13.12'$   
 $R = 15.00'$

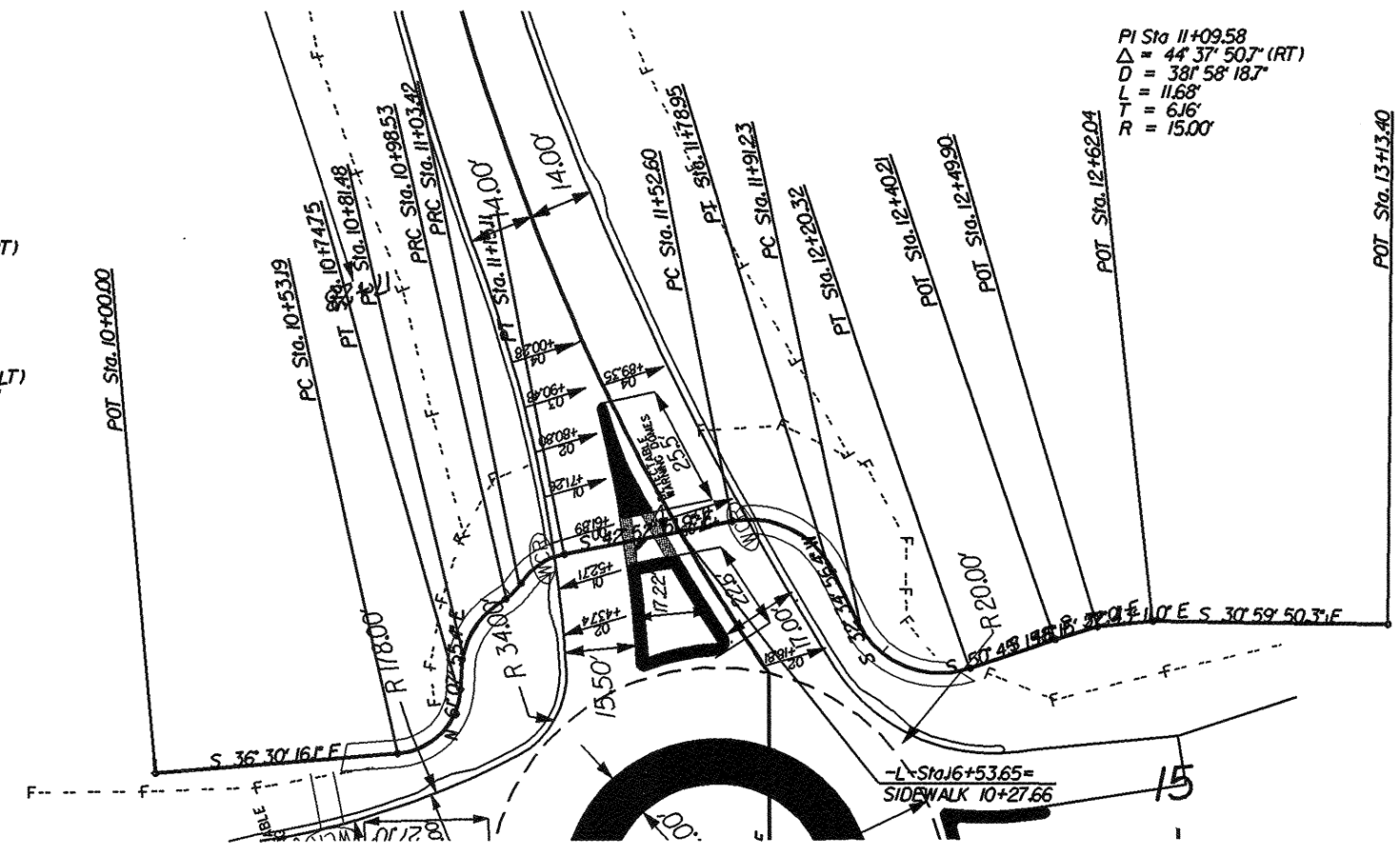
PI Sta 10+90.60  
 $\Delta = 50^\circ 20' 40.9" (RT)$   
 $D = 295' 23' 19.6"$   
 $L = 17.04'$   
 $T = 9.12'$   
 $R = 19.40'$

PI Sta 11+01.00  
 $\Delta = 18^\circ 42' 01.3" (LT)$   
 $D = 381' 58" 18.7"$   
 $L = 4.90'$   
 $T = 2.47'$   
 $R = 15.00'$

PI Sta 11+09.58  
 $\Delta = 44^\circ 37' 50.7" (RT)$   
 $D = 381' 58" 18.7"$   
 $L = 11.68'$   
 $T = 6.16'$   
 $R = 15.00'$

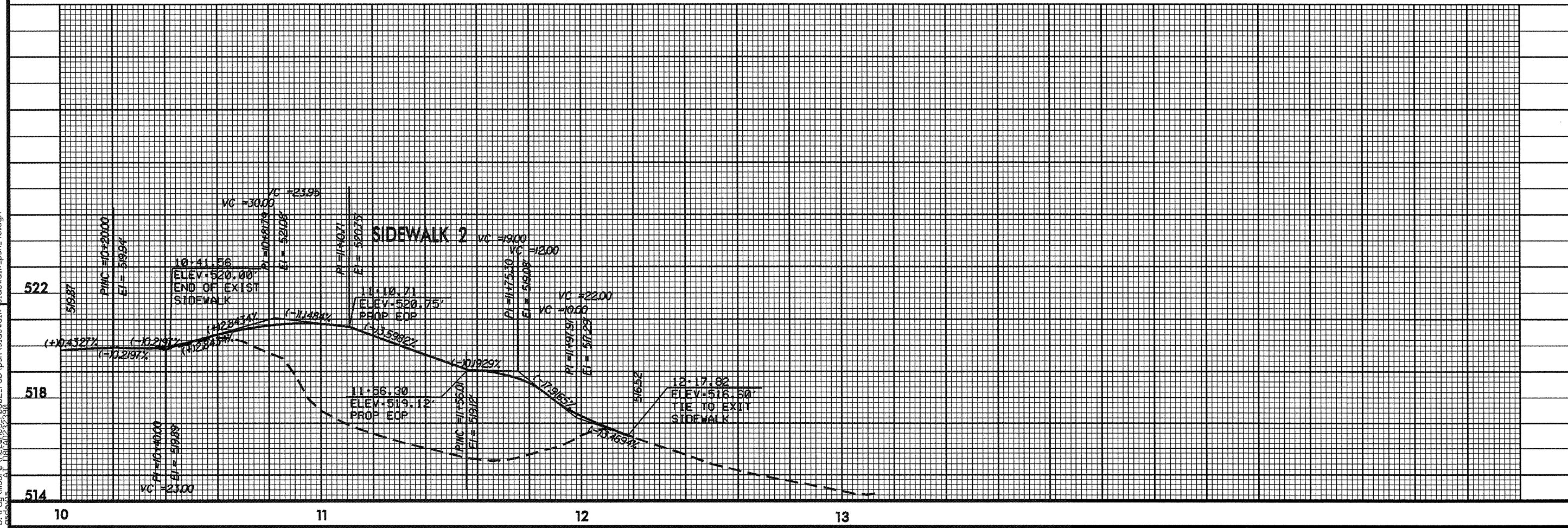
PI Sta 11+68.08  
 $\Delta = 75^\circ 27' 48.3" (RT)$   
 $D = 286' 28' 44.0"$   
 $L = 26.34'$   
 $T = 15.48'$   
 $R = 20.00'$

PI Sta 12+09.03  
 $\Delta = 83^\circ 20' 12.0" (LT)$   
 $D = 286' 28' 44.0"$   
 $L = 29.09'$   
 $T = 17.80'$   
 $R = 20.00'$



NOTE: R/W NOT SHOWN FOR CLARITY

NOTE: SEE L-3 FOR BRICK SIDEWALK DETAIL.



07-JUL-2007 13:00  
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REVISIONS

8/17/07

**-L- CURVE SEGMENT**

PI Sta 21+16.80  
 $\Delta = 33^\circ 09' 18.4''$  (RT)  
 $D = 19^\circ 55' 44.3''$   
 $L = 166.37'$   
 $T = 85.58'$   
 $R = 287.50'$

**-L- CURVE SEGMENT**

PI Sta 17+92.29  
 $\Delta = 37^\circ 48' 34.4''$  (RT)  
 $D = 11^\circ 11' 26.1''$   
 $L = 337.87'$   
 $T = 175.34'$   
 $R = 512.00'$

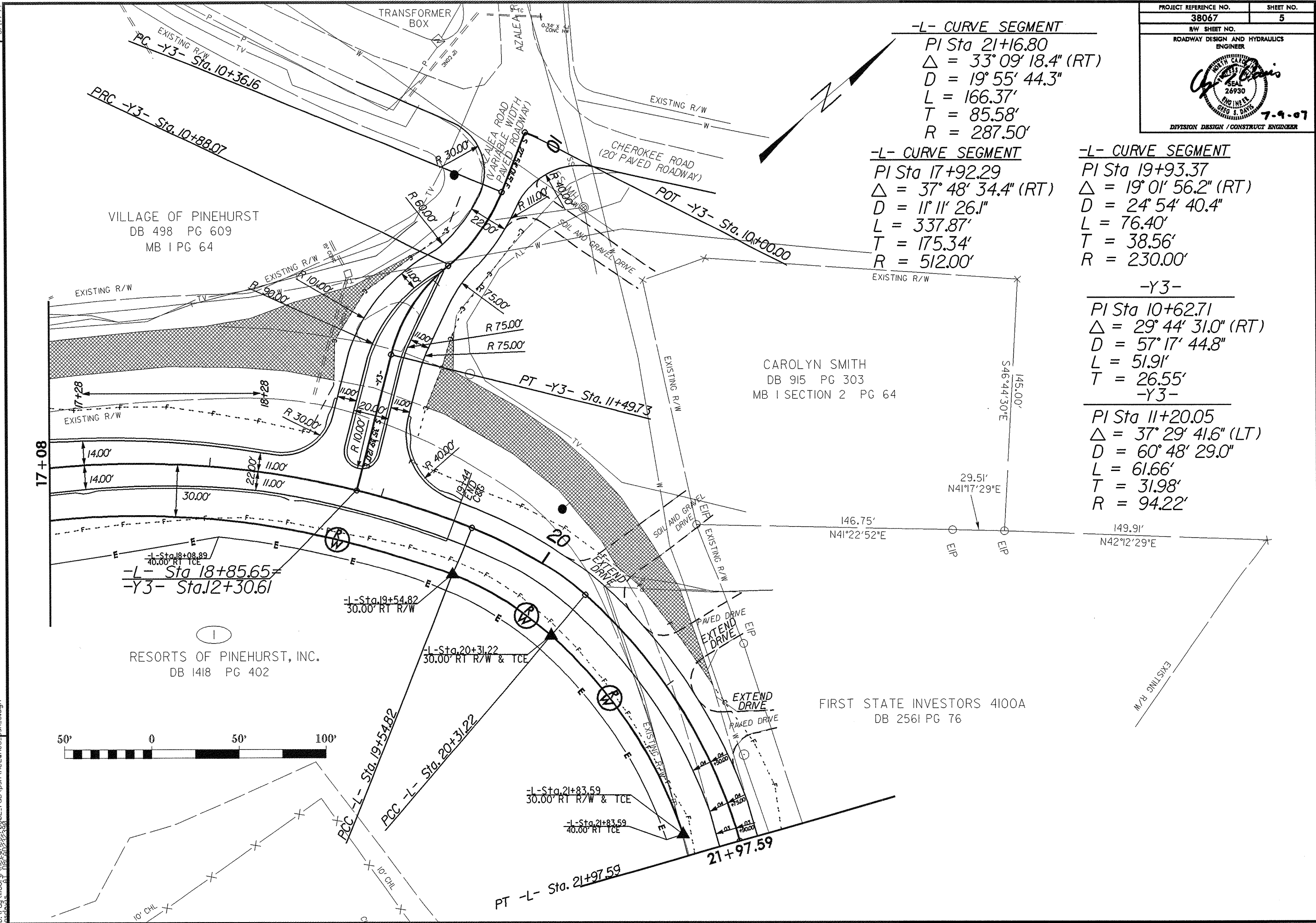
**-L- CURVE SEGMENT**

PI Sta 19+93.37  
 $\Delta = 19^\circ 01' 56.2''$  (RT)  
 $D = 24^\circ 54' 40.4''$   
 $L = 76.40'$   
 $T = 38.56'$   
 $R = 230.00'$

**-Y3-**

PI Sta 10+62.71  
 $\Delta = 29^\circ 44' 31.0''$  (RT)  
 $D = 57^\circ 17' 44.8''$   
 $L = 51.91'$   
 $T = 26.55'$   
**-Y3-**

PI Sta 11+20.05  
 $\Delta = 37^\circ 29' 41.6''$  (LT)  
 $D = 60^\circ 48' 29.0''$   
 $L = 61.66'$   
 $T = 31.98'$   
 $R = 94.22'$



VILLAGE OF PINEHURST  
 DB 498 PG 609  
 MB 1 PG 64

CAROLYN SMITH  
 DB 915 PG 303  
 MB 1 SECTION 2 PG 64

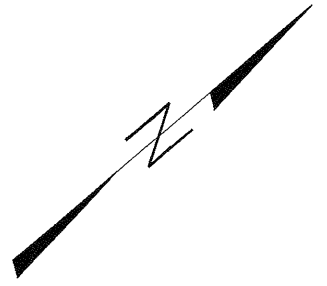
RESORTS OF PINEHURST, INC.  
 DB 1418 PG 402

FIRST STATE INVESTORS 4100A  
 DB 2561 PG 76



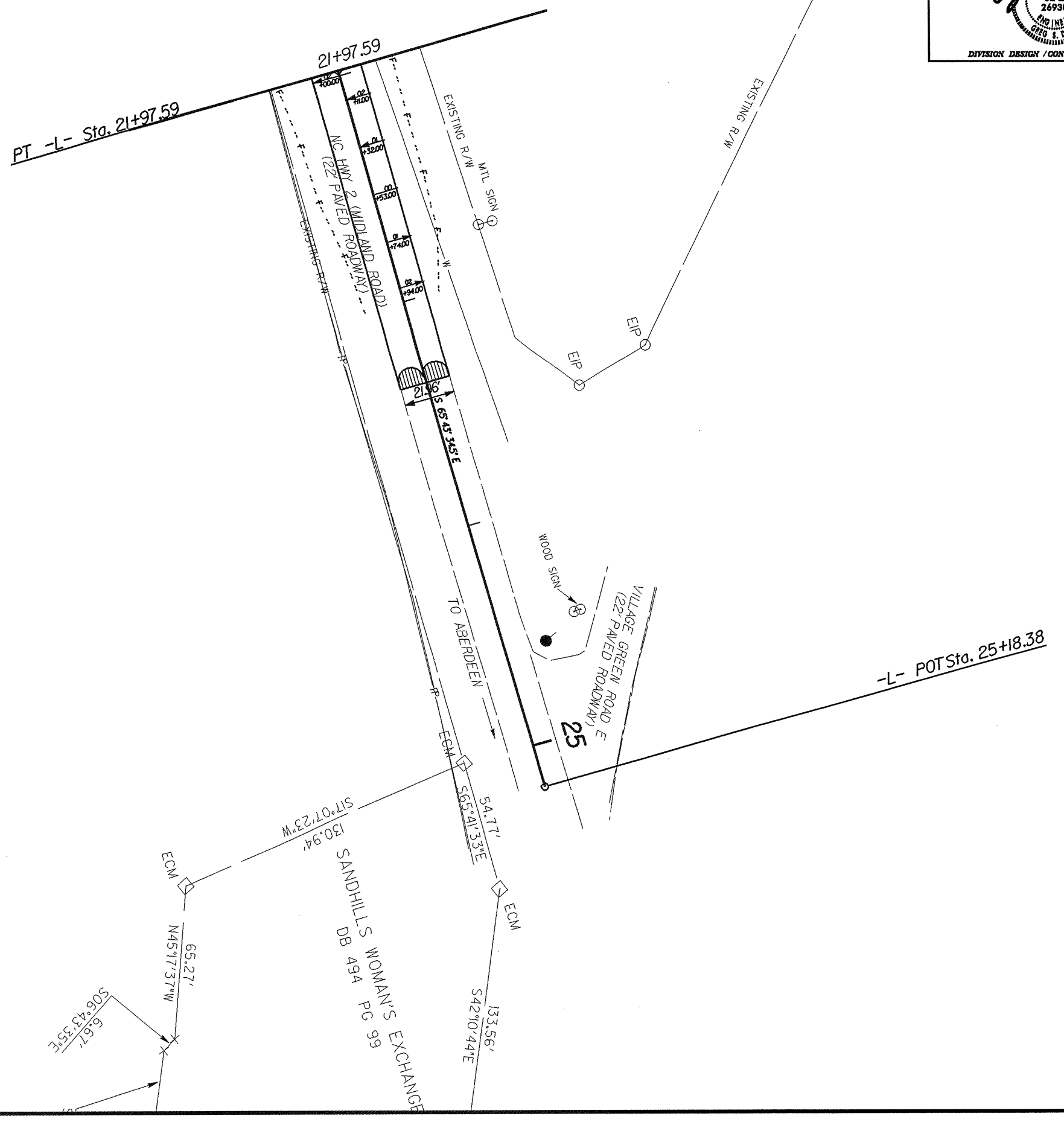
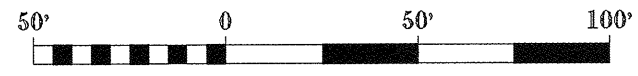
REVISIONS

8/17/99  
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10-JUL-2007 13:50 Di:\vrd\moore\10626\38067\38067.dgn  
 8/17/99  
 10-JUL-2007 13:50 Di:\vrd\moore\10626\38067\38067.dgn  
 8/17/99

REVISIONS





-LI-

PI Sta 15+23.41  
 $\Delta = 19^\circ 43' 37.2''$  (RT)  
 $D = 2^\circ 46' 06.2''$   
 $L = 712.58'$   
 $T = 359.85'$   
 $R = 2,069.64'$



ROBERT W. TUFTS  
 DB 2485 PG 456  
 MB 1 PG 64

CRAIG ALLEN ELLIS &  
 MARGARET ELLIS  
 DB 2202 PG 506

JOYCE C HUNT TRUSTEE  
 DB 605 PG 80

RUTH M BAIRD  
 DB 91E PG 204

RUTH M BAIRD  
 DB 91E PG 204

POT -LI- Sta. 10+00.00

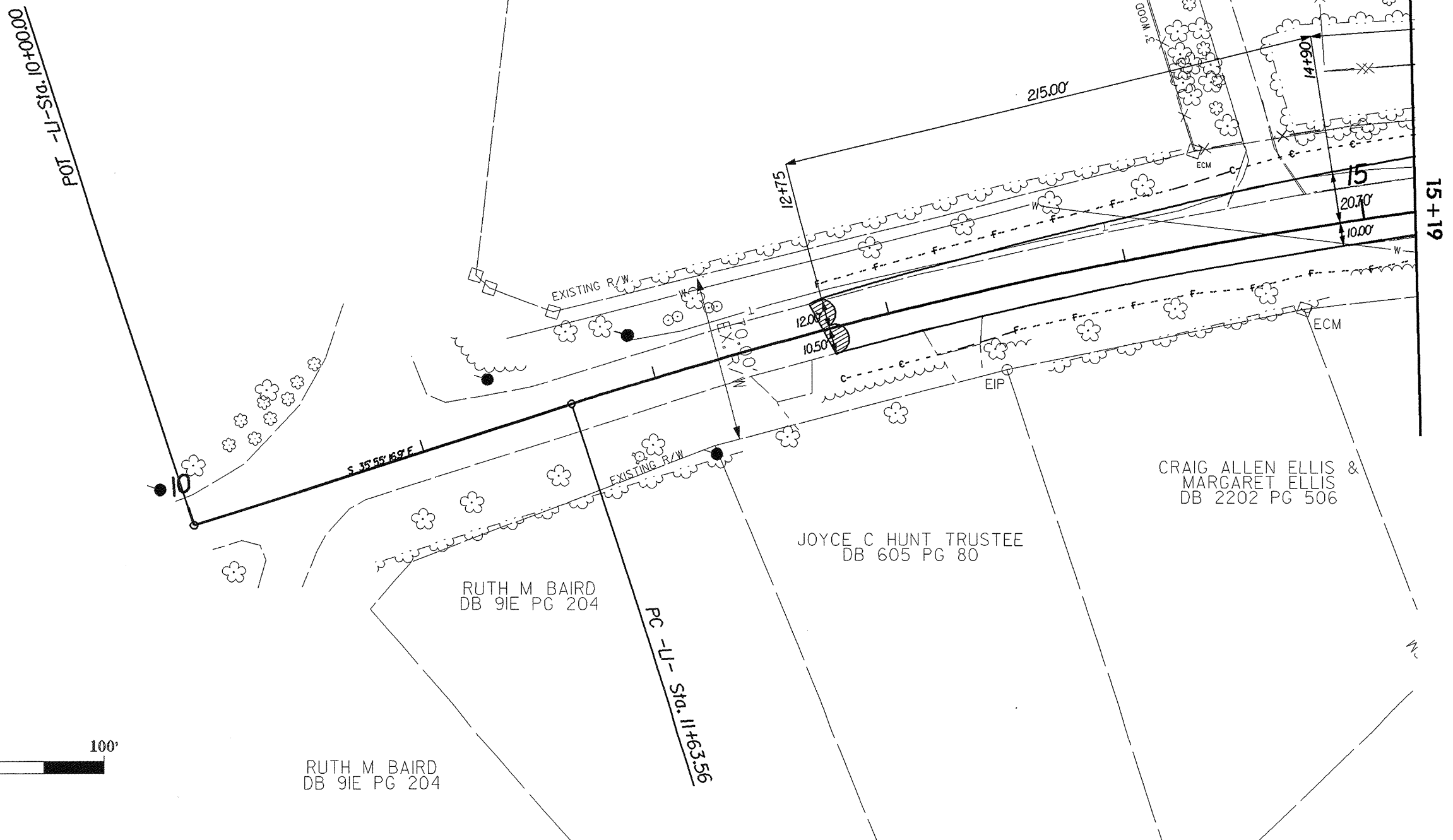
PC -LI- Sta. 11+63.56

S 35°55'16.9"E



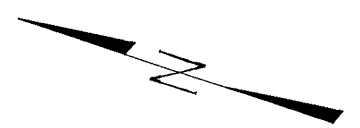
REVISIONS

8/17/99  
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RESORTS OF PINEHURST, INC.  
DB 1418 PG 402

-LI-  
 PI Sta 20+31.77  
 $\Delta = 1^{\circ} 36' 06.8''$  (RT)  
 $D = 1^{\circ} 09' 40.5''$   
 $L = 137.95'$   
 $T = 68.98'$   
 $R = 4,934.00'$



DAVID E. STROM  
DB 2100 PG 169  
MB 1 PG 64

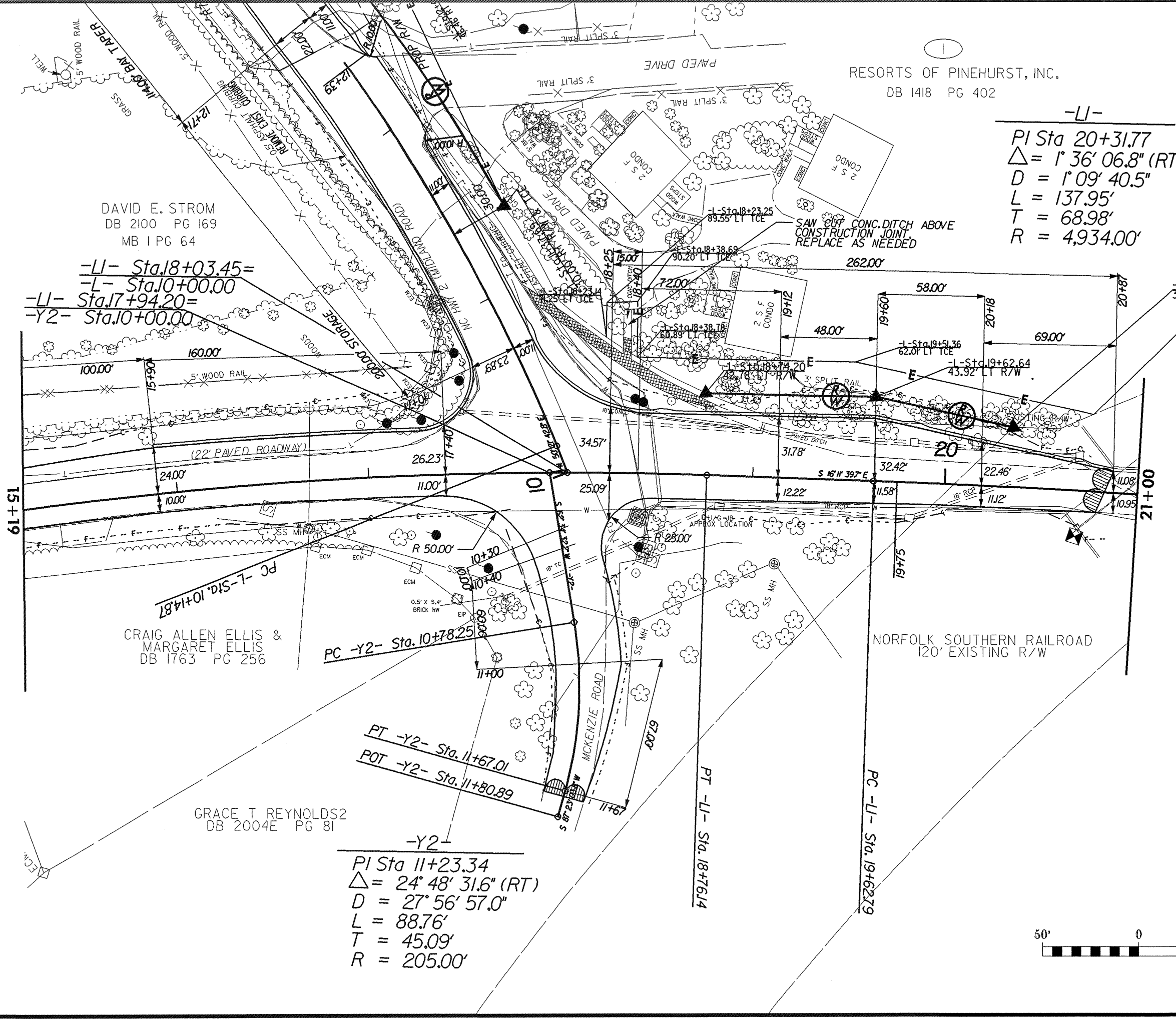
-LI- Sta.18+03.45=  
 -L- Sta.10+00.00  
 -LI- Sta.17+94.20=  
 -Y2- Sta.10+00.00

CRAIG ALLEN ELLIS &  
MARGARET ELLIS  
DB 1763 PG 256

GRACE T REYNOLDS2  
DB 2004E PG 81

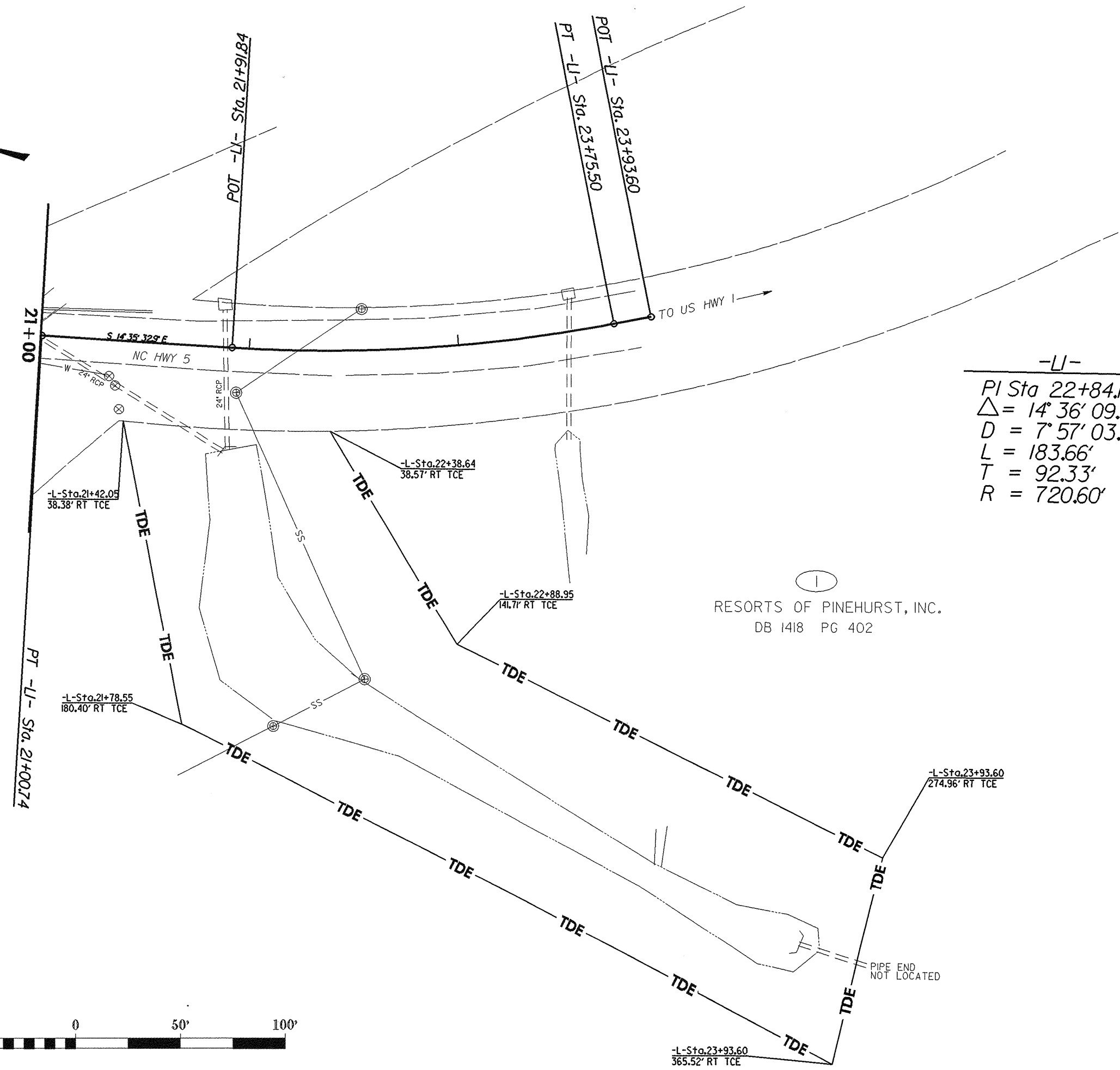
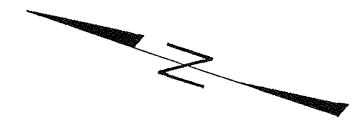
-Y2-  
 PI Sta 11+23.34  
 $\Delta = 24^{\circ} 48' 31.6''$  (RT)  
 $D = 27^{\circ} 56' 57.0''$   
 $L = 88.76'$   
 $T = 45.09'$   
 $R = 205.00'$

8/17/99  
 10-JUL-2007 13:50  
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 REVISIONS  
 61+19  
 15+19



07-JUL-2007 13:01  
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 8/17/05

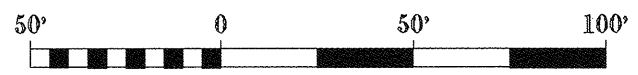
REVISIONS



-L-

PI Sta 22+84.17  
 $\Delta = 14^\circ 36' 09.5''$  (LT)  
 $D = 7^\circ 57' 03.9''$   
 $L = 183.66'$   
 $T = 92.33'$   
 $R = 720.60'$

(1)  
 RESORTS OF PINEHURST, INC.  
 DB 1418 PG 402




-L-Sta.23+93.60  
365.52' RT TCE

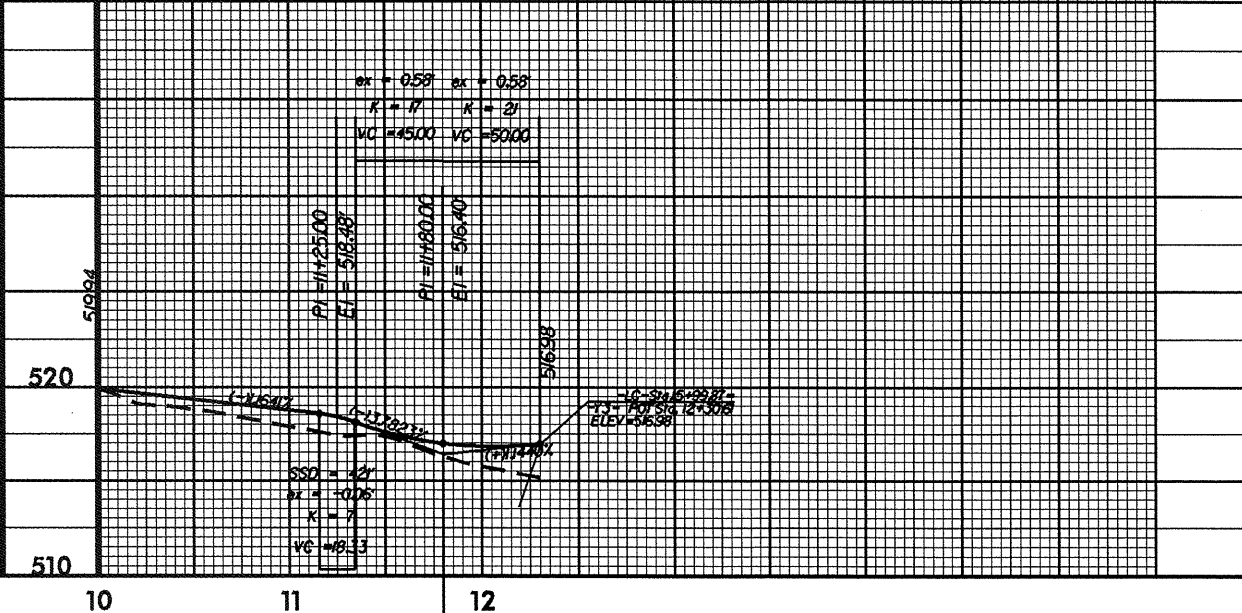
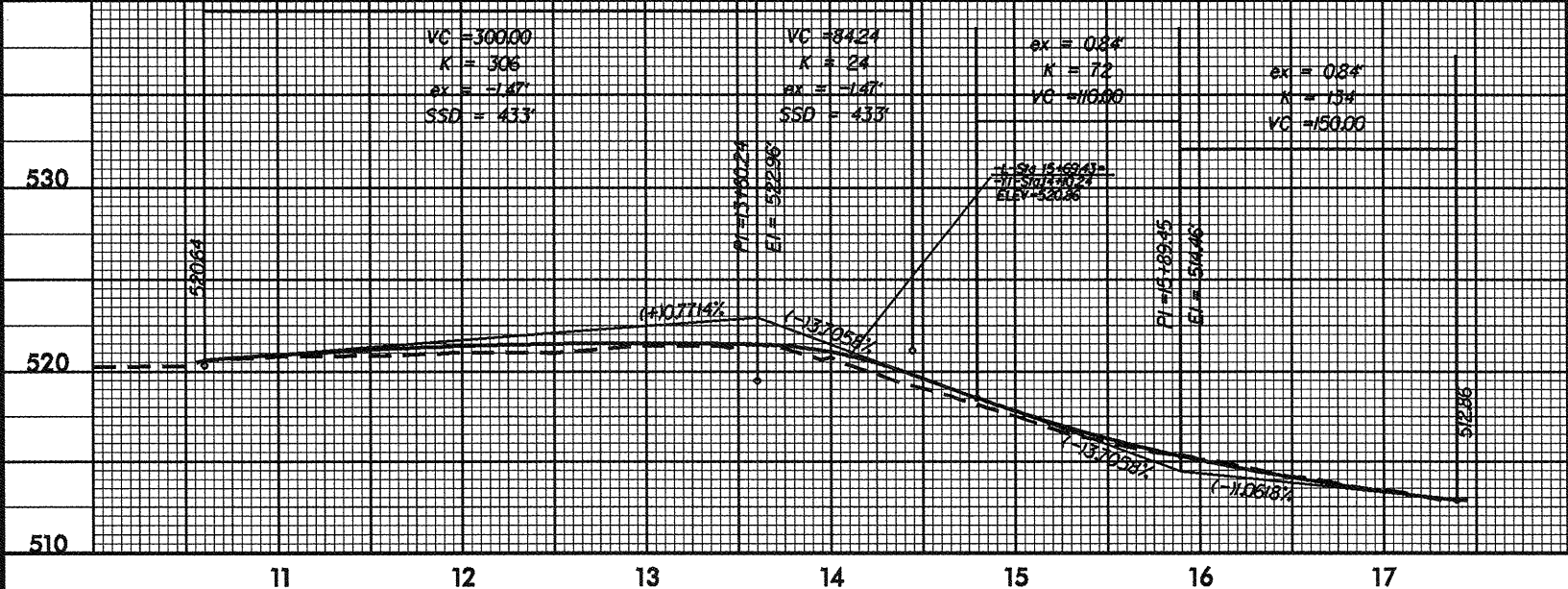
PIPE END NOT LOCATED

5/28/07  
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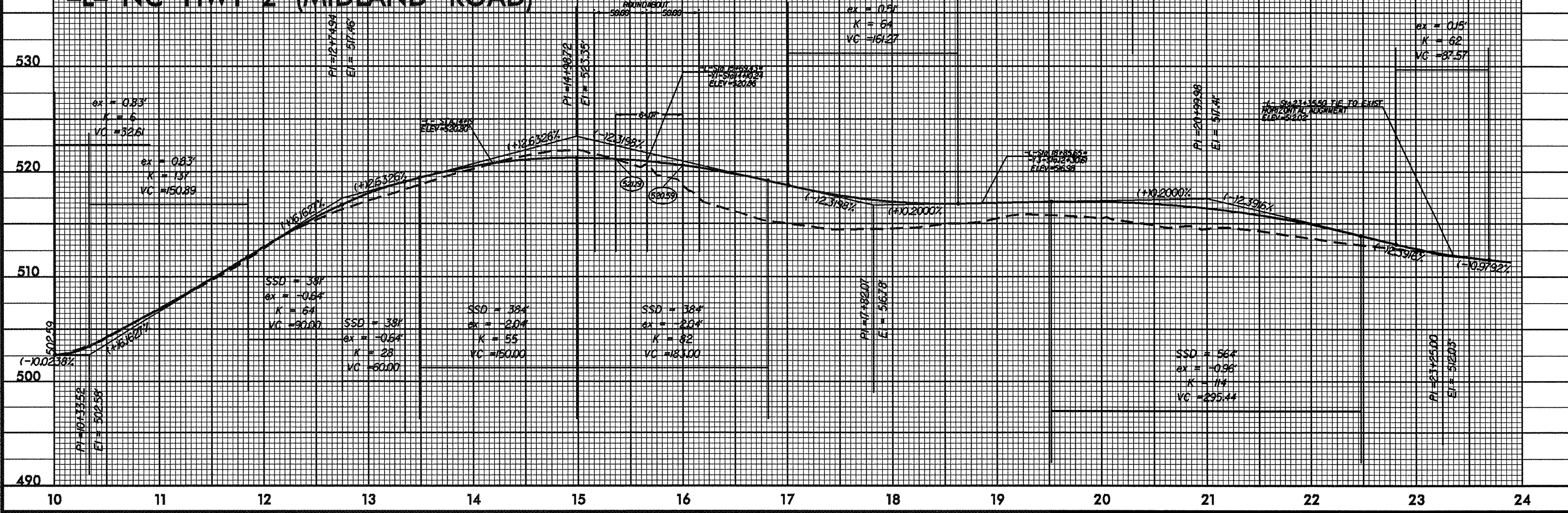
# -Y1- CAROLINA VISTA

# -Y3- AZALEA ROAD

PROJECT REFERENCE NO. 38067 SHEET NO. VPF 1  
ROADWAY DESIGN AND HYDRAULICS ENGINEER  
  
DIVISION DESIGN / CONSTRUCT ENGINEER

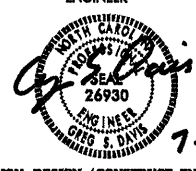


# -L- NC HWY 2 (MIDLAND ROAD)



5/28/07

# -Y2- MCKENZIE RD

PROJECT REFERENCE NO. 38067	SHEET NO. VPF 2
ROADWAY DESIGN AND HYDRAULICS ENGINEER	
	
7-9-07	
DIVISION DESIGN / CONSTRUCT ENGINEER	

510  
500  
490  
480  
530 10 11  
520  
510  
500  
490  
480  
10 11 12 13 14 15 16 17 18 19 20 21

1.12 %  
3.24 %

# -L1- NC 5 (BEULAH HILL RD)

-2.04 %

-4.48 %

-0.66 %

D:\JUL-2007\3101  
D:\JUL-2007\3101\moore\nc5\nc5-0802.rab\psh\nc2enc5.psh\_vpf-2.dgn