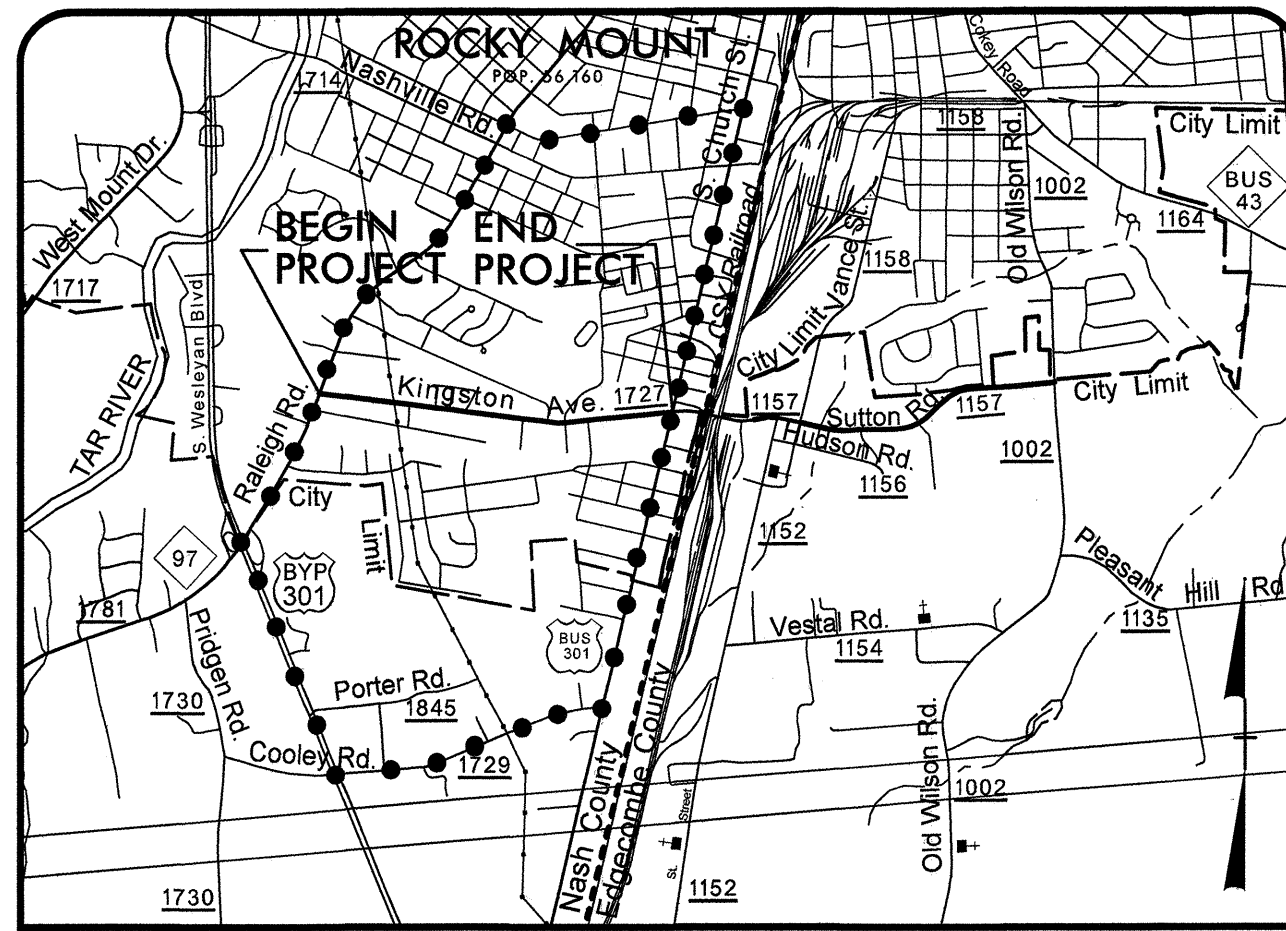


PROJECTS: 40129

See Sheet 1-A For Index of Sheets



VICINITY MAP

●●●●● OFFSITE DETOUR

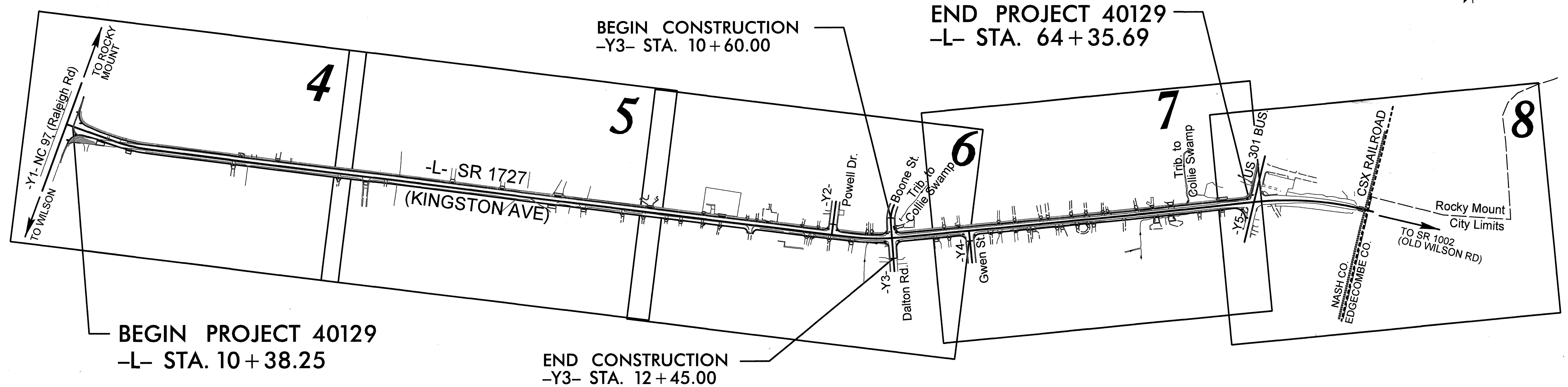
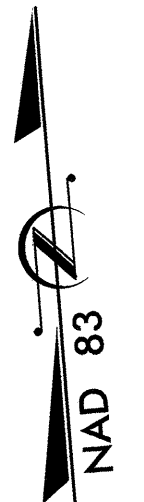
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NASH COUNTY

LOCATION: SR 1727 (KINGSTON AVE) IN NASH COUNTY FROM NC 97 TO US 301 BUS.

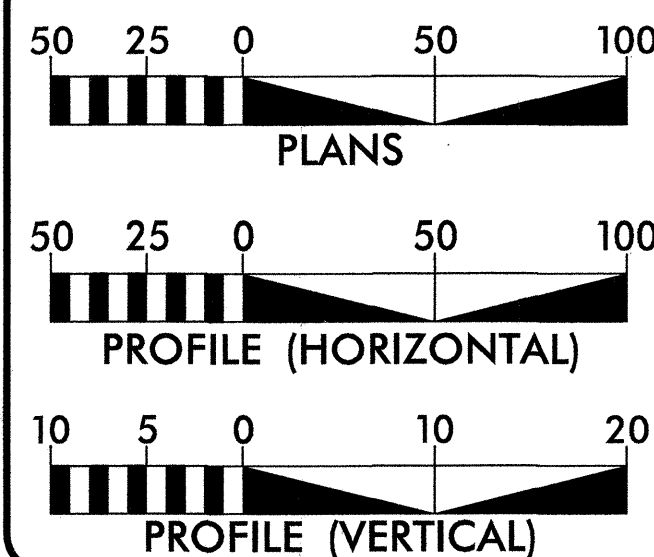
TYPE OF WORK: GRADING, DRAINAGE, & PAVING

STATE	STATE WBS REFERENCE NOS.	SHEET NO.	TOTAL SHEETS
N.C.	40129	1	
STATE WBS NO.	F.A. PROJ. NO.	DESCRIPTION	
40129		PE, RW	
40129		CONST.	



CONTRACT: C203279

GRAPHIC SCALES



DESIGN DATA

Vd = 50 MPH
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY WBS PROJECT 40129 = 1.022 MI
TOTAL LENGTH WBS PROJECT 40129 = 1.022 MI

Plans Prepared By:
TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
August 12, 2010

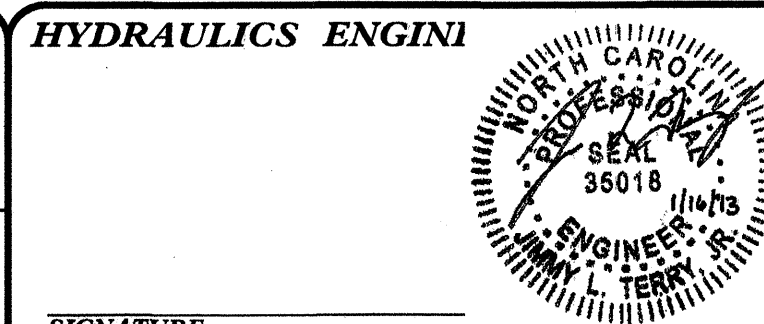
LETTING DATE:
JUNE 18, 2013

Plans Prepared For:
NC DOT DIVISION 4
NCDOT Contact:
JERRY PAGE, PE
DIVISION PROJECT MANAGER

LEONARD G. FLETCHER, PE
PROJECT ENGINEER

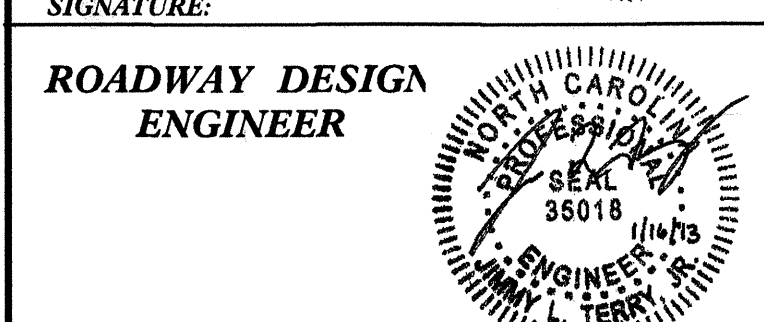
JIMMY L. TERRY, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER



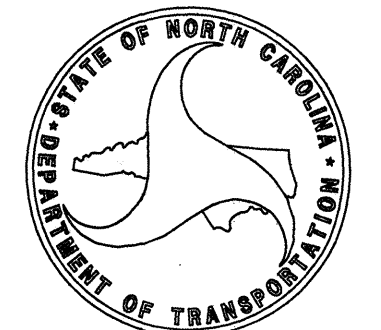
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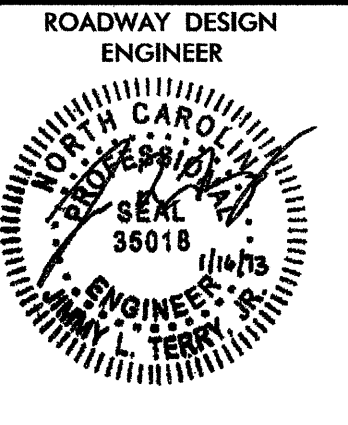
ROADWAY DESIGN ENGINEER



SIGNATURE:

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA





INDEX OF SHEETS

GENERAL NOTES

STANDRAD DRAWINGS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
2-A	DETAIL OF CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERT - 15" THRU 48" PIPE 45 DEG SKEW
2-B	DETAIL OF CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERT - 15" THRU 48" PIPE 60 DEG SKEW
2-C	DETAIL OF CONVERTING CB TO DI
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF EARTHWORK AND ASPHALT PAVEMENT REMOVAL SUMMARY
3-B THRU 3-G	SUMMARY OF DRAINAGE QUANTITIES
3-H	PARCEL INDEX SHEET
4 THRU 8	PLAN SHEET
9 THRU 11	PROFILE SHEET
TCP-1 THRU TCP-8	TRAFFIC CONTROL PLANS
PM-1 THRU PM-4	PAVEMENT MARKING PLANS
SN-1	SIGN DESIGN
EC-1 THRU EC-13	EROSION CONTROL PLANS
UC-1 THRU UC-8	UTILITY CONSTRUCTION
UO-1 THRU UO-6	UTILITIES BY OTHERS PLANS
X-INDEX	CROSS-SECTION INDEX OF SHEETS
X-SUM	CROSS-SECTION SUMMARY
X-1 THRU X-22	CROSS-SECTIONS

GENERAL NOTES: 2012 SPECIFICATIONS

GRADE LINE: GRADING AND SURFACING:
 THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED 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 II.

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.

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.

DRIVEWAYS:
 DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS 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.

UTILITIES:
 UTILITY OWNERS ON THIS PROJECT ARE CITY OF ROCKY MOUNT, PROGRESS ENERGY, CENTURY LINK, AND CATV
 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.

CURB RAMPS
 CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.

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	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.80	Precast Endwalls - 12" thru 72" Pipe 90 Skew
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 Grates - for use with Std. Dwg 840.14 and 840.15
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing 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 & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets

8/17/99

04/16/11

Note: Not to Scale















*S.U.E. = Subsurface Utility Engineering

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






PROJECT REFERENCE NO. 40129
SHEET NO. 1-B

CONVENTIONAL PLAN SHEET SYMBOLS


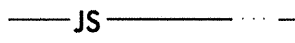



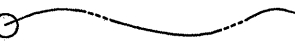
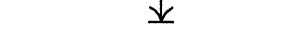
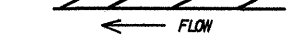


BOUNDARIES AND PROPERTY:

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	_____ 
Known Soil Contamination: Area or Site	_____ 
Potential Soil Contamination: Area or Site	_____ 

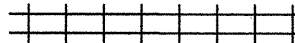




BUILDINGS AND OTHER CULTURE:

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


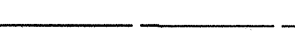





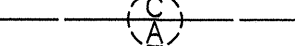

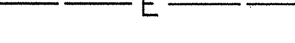








HYDROLOGY:

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

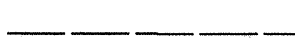
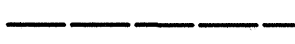
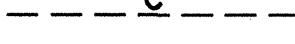
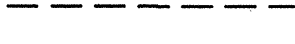
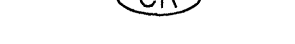

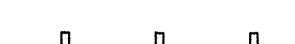




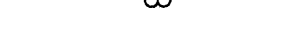



RAILROADS:


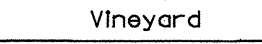
Standard Gauge	_____ 
RR Signal Milepost	_____ 
Switch	_____ 
RR Abandoned	_____ 
RR Dismantled	_____ 

RIGHT OF WAY:

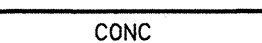
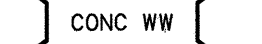
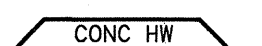
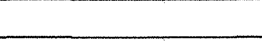

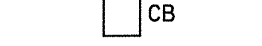



Baseline Control Point	_____ 
Existing Right of Way Marker	_____ 
Existing Right of Way Line	_____ 
Proposed Right of Way Line	_____ 
Proposed Right of Way Line with Iron Pin and Cap Marker	_____ 
Proposed Right of Way Line with Concrete or Granite RW Marker	_____ 
Proposed Control of Access Line with Concrete CA 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:








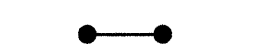
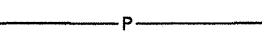
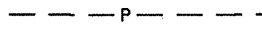

Existing Edge of Pavement	_____ 
Existing Curb	_____ 
Proposed Slope Stakes Cut	_____ 
Proposed Slope Stakes Fill	_____ 
Proposed Curb Ramp	_____ 
Existing Metal Guardrail	_____ 
Proposed Guardrail	_____ 
Existing Cable Guiderail	_____ 
Proposed Cable Guiderail	_____ 
Equality Symbol	_____ 
Pavement Removal	_____ 
VEGETATION:	
Single Tree	_____ 
Single Shrub	_____ 
Hedge	_____ 
Woods Line	_____ 

Orchard	_____ 
Vineyard	_____ 






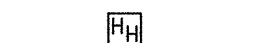
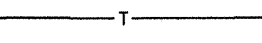
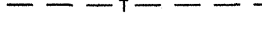





EXISTING STRUCTURES:

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	_____ 


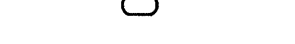



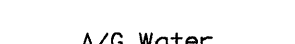

UTILITIES:

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.*)	_____ 


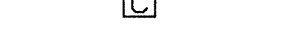




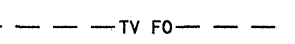

TELEPHONE:

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.*)	_____ 




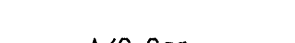

WATER:

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.*)	_____ 


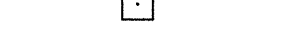




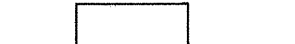




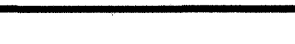
GAS:

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

SANITARY SEWER:

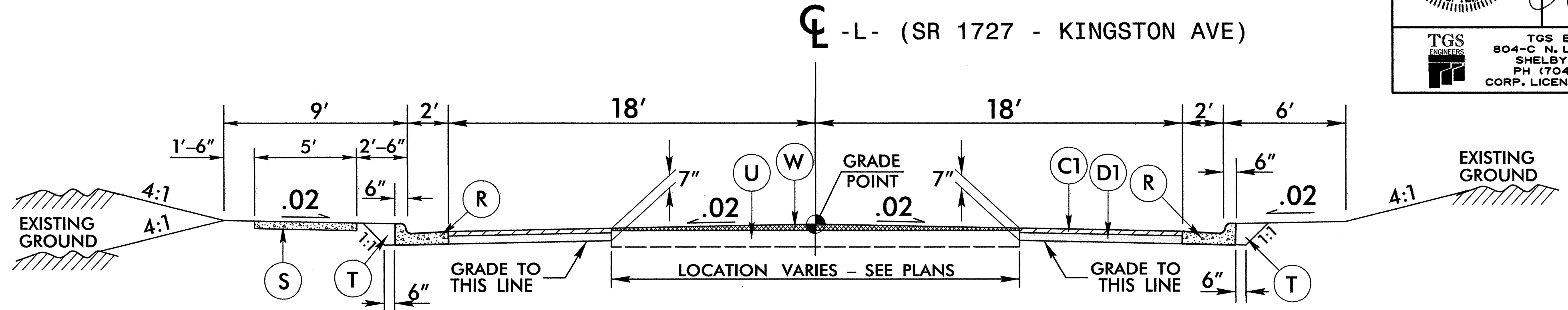
Sanitary Sewer Manhole	_____ 
Sanitary Sewer Cleanout	_____ 
U/G Sanitary Sewer Line	_____ 
Above Ground Sanitary Sewer	_____ 
Recorded SS Forced Main Line	_____ 
Designated SS Forced Main Line (S.U.E.*)	_____ 

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	_____ 
Underground Storage Tank, Approx. Loc.	_____ 
A/G Tank; Water, Gas, Oil	_____ 
Geoenvironmental Boring	_____ 
U/G Test Hole (S.U.E.*)	_____ 
Abandoned According to Utility Records	_____ 
End of Information	_____ 

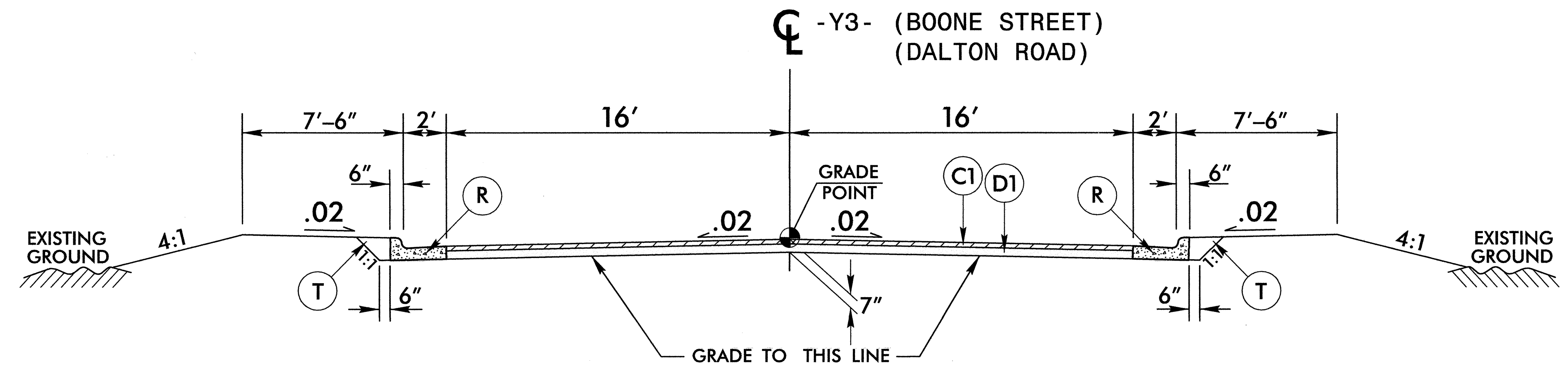
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 1 1/2" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONC. INTER. 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 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
R	2'-6" CONCRETE CURB & GUTTER.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE WEDGING DETAILS)

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



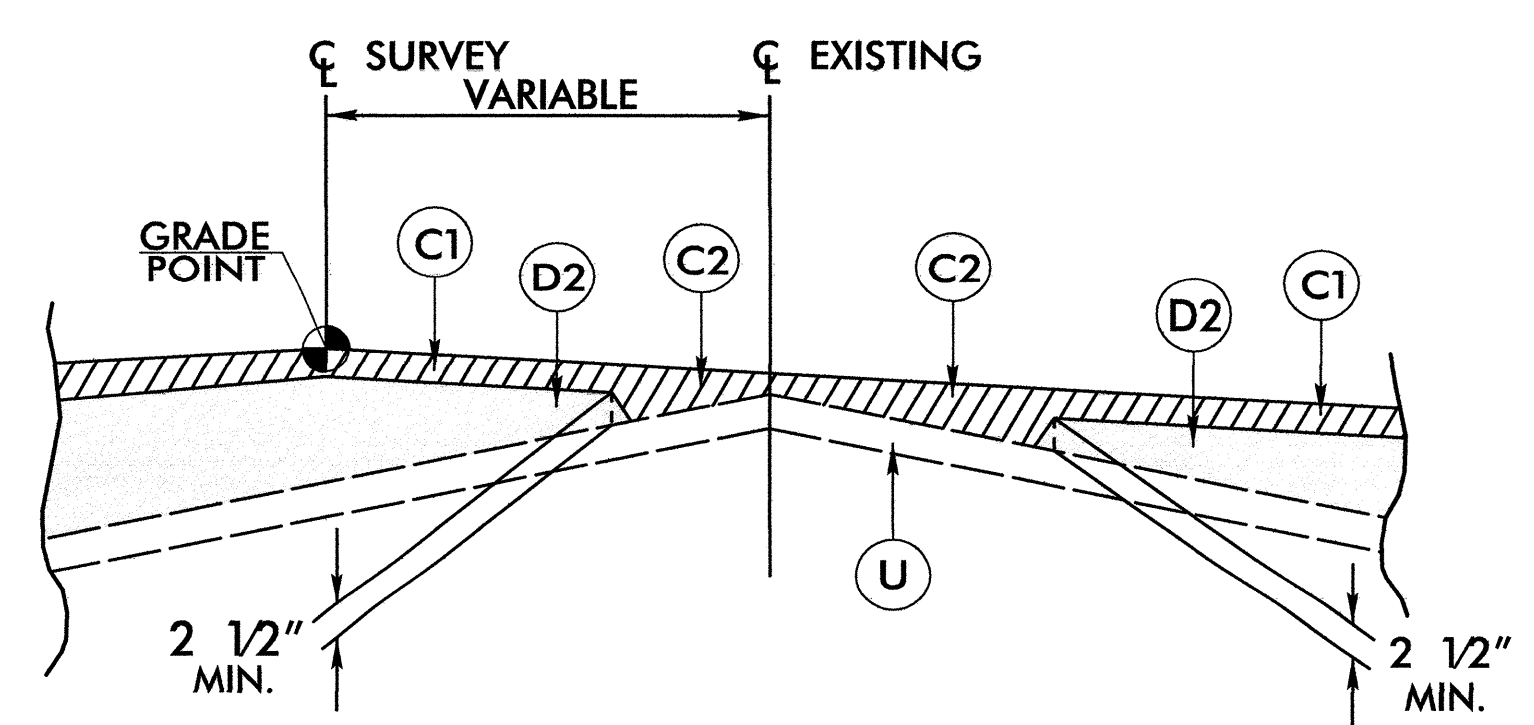
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 AS FOLLOWS:
 -L- STA. 10+38.25 TO STA. 64+35.69

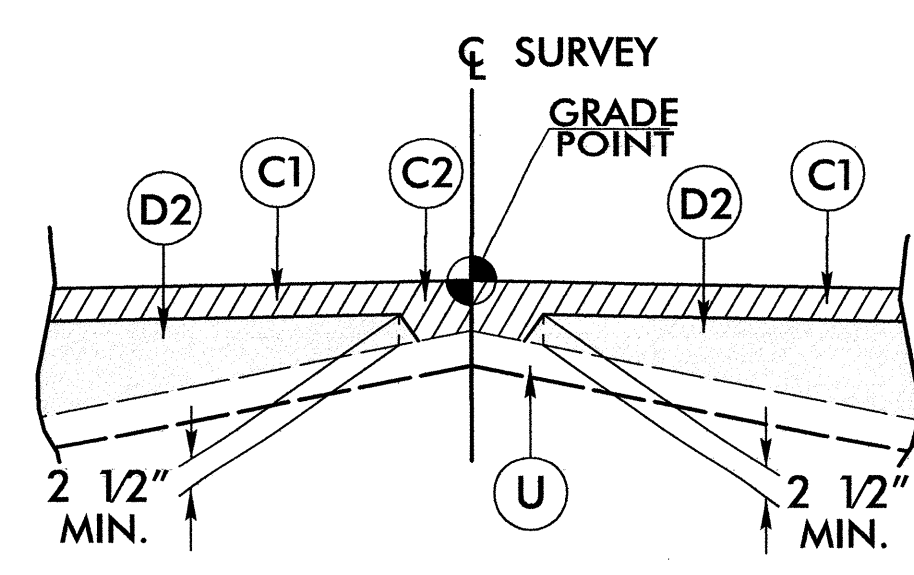


TYPICAL SECTION NO. 2

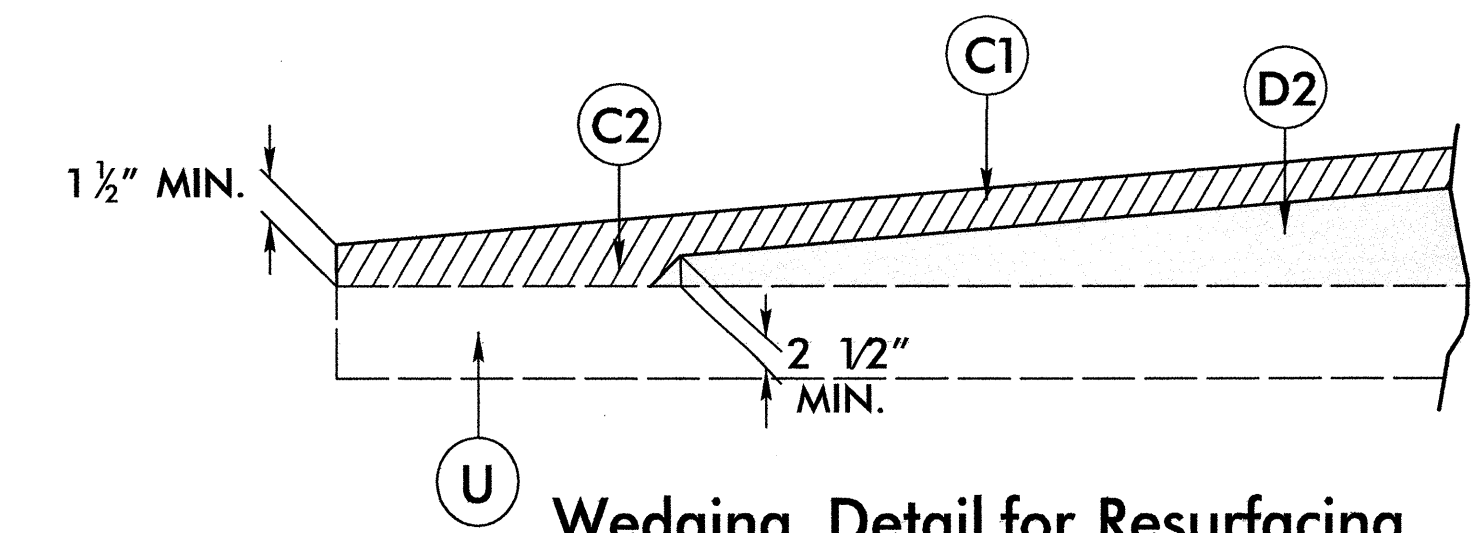
USE TYPICAL SECTION NO. 2 AS FOLLOWS:
 -Y3- STA. 10+60.00 TO STA. 11+33.81
 -Y3- STA. 11+69.81 TO STA. 12+45.00



Detail Showing Method Of Wedging No. 1



Detail Showing Method of Wedging No. 2



Wedging Detail for Resurfacing

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

STATE OF
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 DEPT. OF TRANSPORTATION
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 RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE

SHEET 2 OF 2
838D03

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

ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE

SHEET 2 OF 2
838D03

GENERAL NOTES:
 ALL CORNERS TO BE CHAMFERED 1".
 * THE CONTRACTOR WILL BE REQUIRED TO PLACE 2 - #6 BARS "Y" IN THE TOP OF ALL ENDWALLS FOR PIPE CULVERTS 42" AND OVER WITH A MINIMUM OF 3" COVER AND A LENGTH OF 6" LESS THAN ENDWALL.
 FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
 WALL THICKNESS (T) SHOWN IS NOT TO BE INTERPRETED TO MEAN THE THICKNESS ACCEPTABLE, BUT ARE USED ONLY IN COMPUTING ENDWALL QUANTITIES.
 IF CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE, BAR X (DOWELS SHALL BE PLACED IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS TO BE APPROXIMATELY 12" CENTER UNLESS ENGINEER DIRECTS OTHERWISE.
 WHEN CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE AND POURS BASE SEPARATELY, THE TOP BASE SHALL BE LEFT ROUGH.
 WHEN SKEW ANGLE OF PIPE IS OVER 45° USE G-1 DIMENSION FOR 45° PLUS 6" FOR EACH 5° OVER 45°. G2 DIMENSION WILL BE THE NEW DIMENSION DIVIDED BY THE COSINE OF THE ANGLE OF PIPE SKEW.
 CLASS "B" CONCRETE SHALL BE USED.

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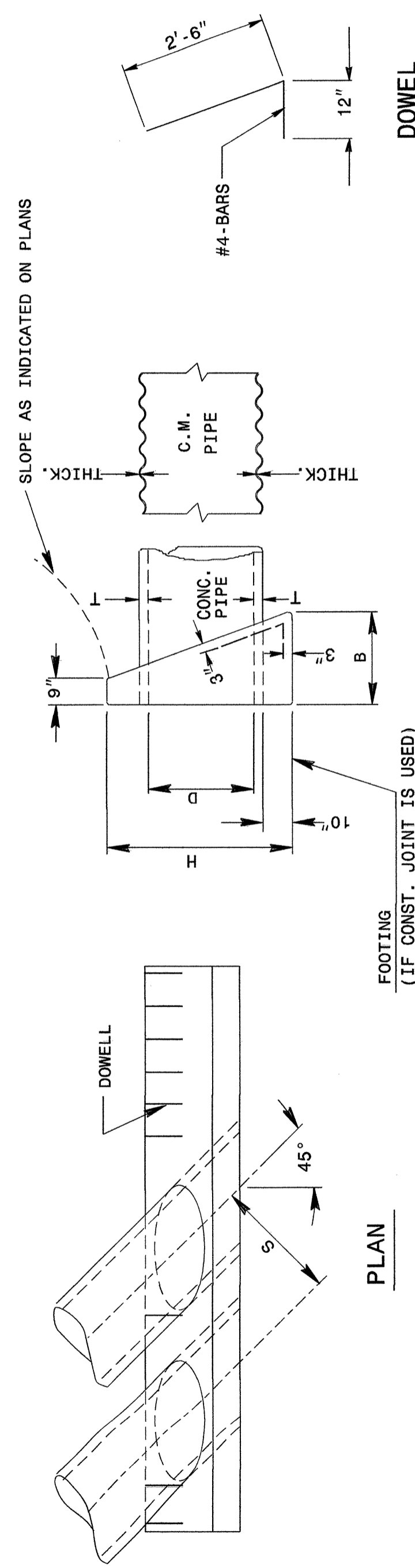
ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE 45° OR 135° SKEW

SHEET 1 OF 2
838D03

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

ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE 45° OR 135° SKEW

SHEET 1 OF 2
838D03



PIPE DIMENSIONS AND CONCRETE QUANTITIES

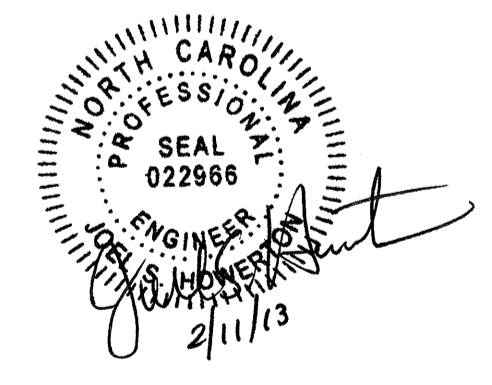
PIPE DIA.	SINGLE PIPE			DOUBLE PIPE		
	L	S	G1	L	S	G1
15"	18"	24"	30"	36"	42"	48"
BARS	"X"	"X"	"X"	"X"	"X"	"X"
G1 QTY.	2	2	2	2	2	2
S QTY.	-	-	-	-	-	-
G2 QTY.	5	6	7	8	9	10
TOT. LBS.	16	19	21	26	30	36

USING CORRUGATED METAL PIPE

PIPE DIA.	SINGLE PIPE			DOUBLE PIPE		
	L	S	G1	L	S	G1
15"	18"	24"	30"	36"	42"	48"
BARS	"X"	"X"	"X"	"X"	"X"	"X"
G1 QTY.	2	2	2	2	2	2
S QTY.	-	-	-	-	-	-
G2 QTY.	4	5	6	7	8	9
TOT. LBS.	14	16	19	21	23	26

DIMENSIONS AND CONCRETE QUANTITIES

COMMON DIMS.	SINGLE PIPE			DOUBLE PIPE		
	H	B	G1	H	B	G1
15"	3'-4"	1'-8"	17/8"	2'-9"	3'-11"	6'-8"
18"	3'-7"	1'-10"	2"	3'-2"	4'-6"	7'-8"
24"	4'-2"	2'-1"	2 1/2"	4'-0"	5'-8"	9'-8"
30"	4'-9"	2'-5"	2 3/4"	4'-7"	6'-6"	11'-11"
36"	5'-3"	2'-8"	3"	5'-6"	7'-9"	13'-3"
42"	5'-10"	2'-11"	3 1/2"	6'-4"	8'-11"	15'-3"
48"	6'-5"	3'-3"	4"	7'-2"	10'-2"	17'-4"



**CONTRACT STANDARDS
 AND DEVELOPMENT UNIT**
 Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: STD.NO.838.01 DATE: 4-17-99
 MODIFIED BY: T.S. SPELL DATE: 12-10-08
 CHECKED BY: DATE:
 FILE SPEC.: s:user/details/metric/stand/838d02s1.dgn

 TIME

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

ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE

SHEET 2 OF 2
838d02s1

GENERAL NOTES:

- * ALL CORNERS TO BE CHAMFERED 1".
- * THE CONTRACTOR WILL BE REQUIRED TO PLACE 2 - #6 BARS "Y" IN THE TOP OF ALL ENDWALLS FOR PIPE CULVERTS 42" AND OVER WITH A MINIMUM OF 3" COVER AND A LENGTH OF 6" LESS THAN ENDWALL.
- * FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
- * WALL THICKNESS (T) SHOWN IS NOT TO BE INTERPRETED TO MEAN THE THICKNESS ACCEPTABLE, BUT ARE USED ONLY IN COMPUTING ENDWALL QUANTITIES.
- * IF CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE, BAR X (DOWELS SHALL BE PLACED IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS TO BE APPROXIMATELY 12" CENTERS UNLESS ENGINEER DIRECTS OTHERWISE.
- * WHEN CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE AND POURS BASE SEPARATELY, THE TOP BASE SHALL BE LEFT ROUGH.
- * WHEN SKEW ANGLE OF PIPE IS OVER/UNDER 30° USE G-1 DIMENSION FOR 30° PLUS/MINUS 3" FOR EACH 5° OVER/UNDER 30°.
- * G2 DIMENSION WILL BE THE NEW DIMENSION DIVIDED BY THE COSINE OF THE ANGLE OF PIPE SKEW.
- * CLASS "B" CONCRETE SHALL BE USED.

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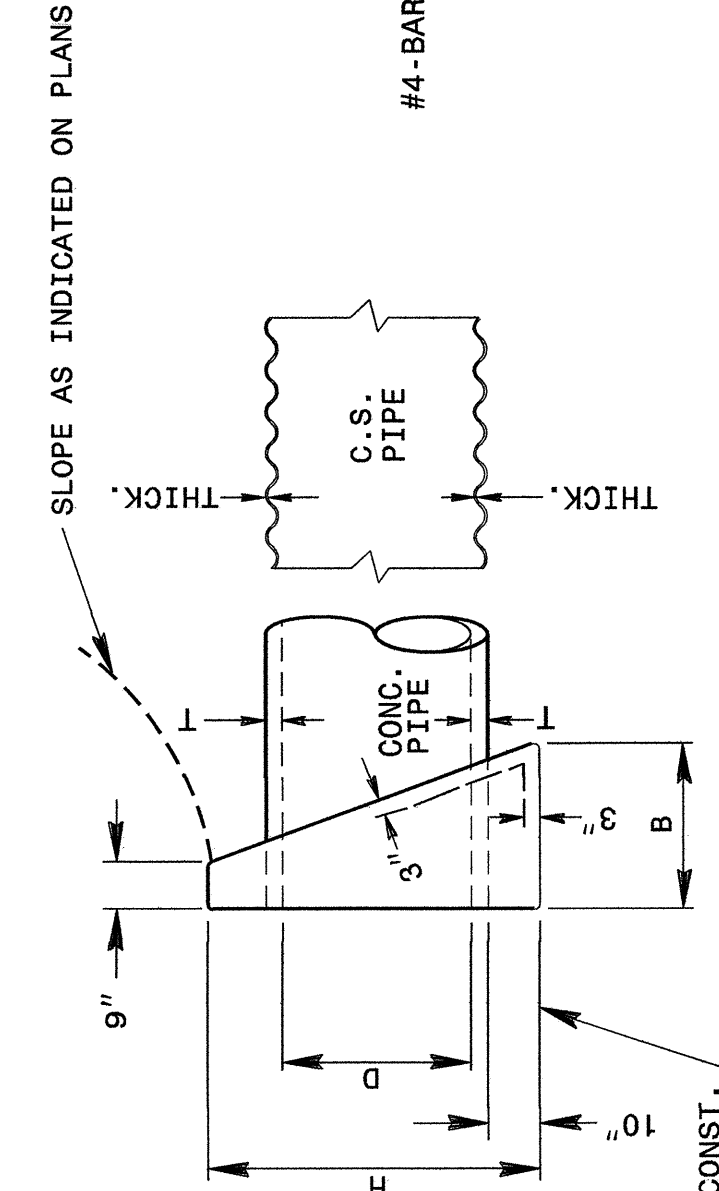
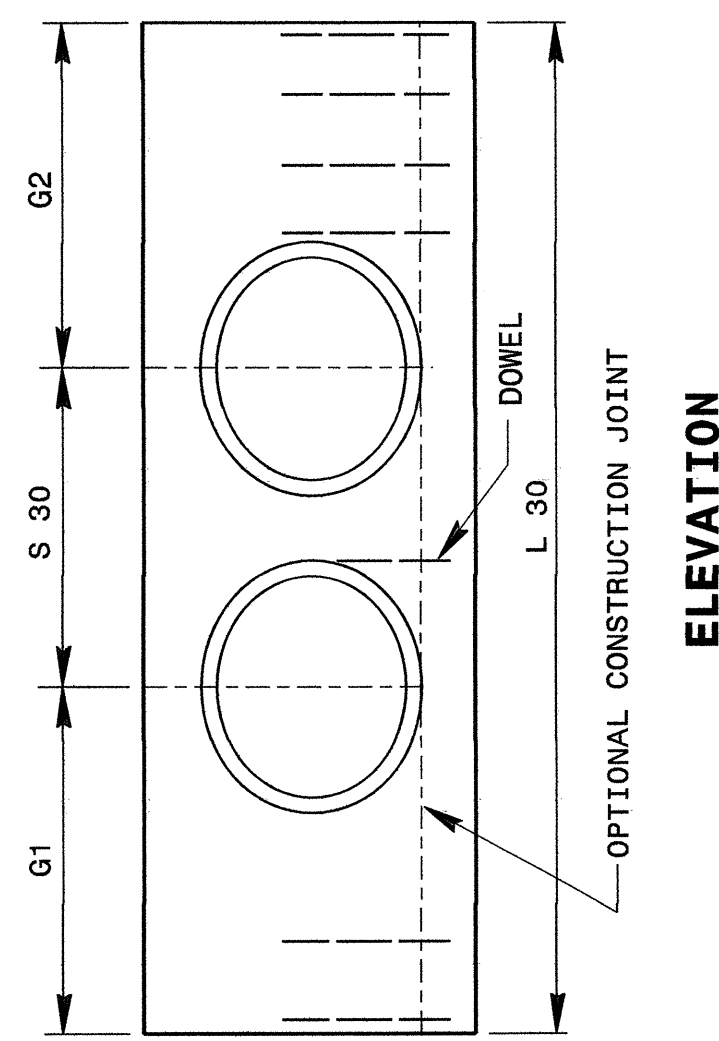
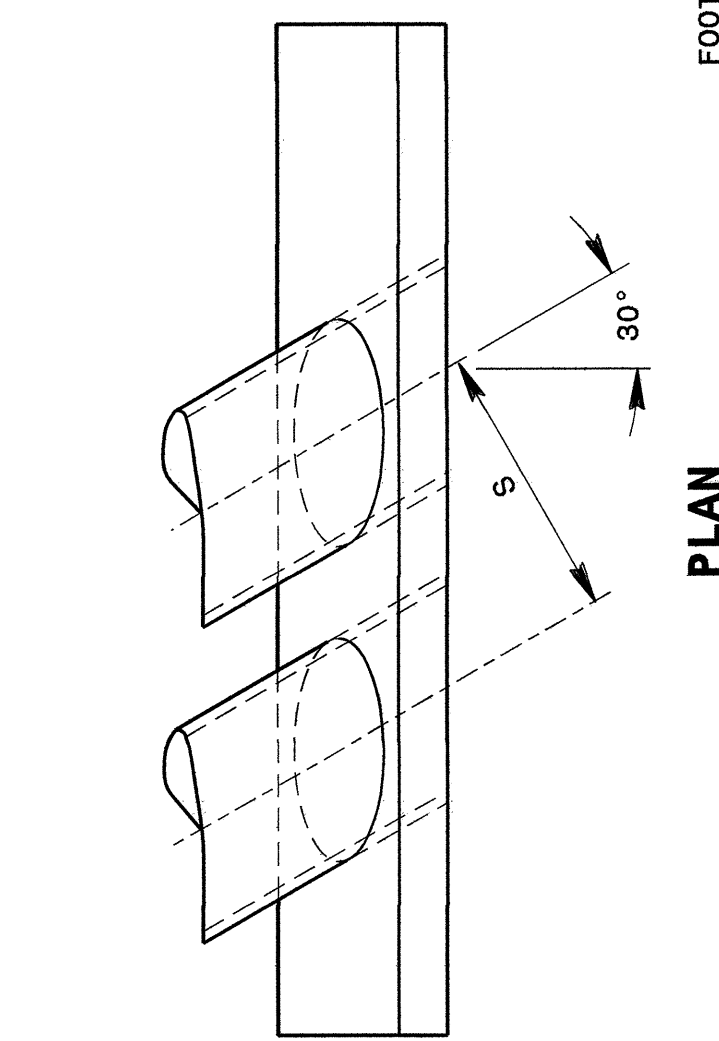
ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE

SHEET 2 OF 2
838d02s1

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

ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR SINGLE AND
 DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE 60° OR 120° SKEW

SHEET 1 OF 2
838d02s1



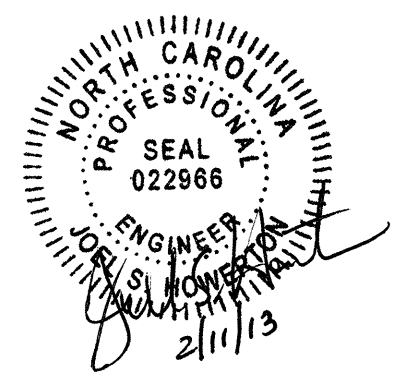
END ELEVATION

DOWEL BAR - 'X'

LOC.	DOWELS IN ENDWALL WITH REINFORCED CONCRETE PIPE										DOWELS IN ENDWALL WITH CORRUGATED STEEL PIPE												
	SINGLE PIPE					DOUBLE PIPE					SINGLE PIPE					DOUBLE PIPE							
PIPE DIA.	15"	18"	24"	30"	36"	42"	48"	15"	18"	24"	30"	36"	42"	48"	PIPE DIA.	16"	18"	24"	32"	36"	40"	48"	
BARS	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"	"X"
G1 QTY.	2	2	2	2	3	3	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
S QTY.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G2 QTY.	3	4	4	5	6	6	7	3	4	4	5	6	6	7	3	3	3	4	5	5	6	6	7
TOT. lbs.	11.7	13.9	13.9	16.3	20.9	60.4	70.3	11.7	13.9	13.9	16.3	20.9	25.6	85.3	102.1	11.7	11.7	11.7	13.9	13.9	16.3	23.1	80.7

DIMENSIONS AND CONCRETE QUANTITIES

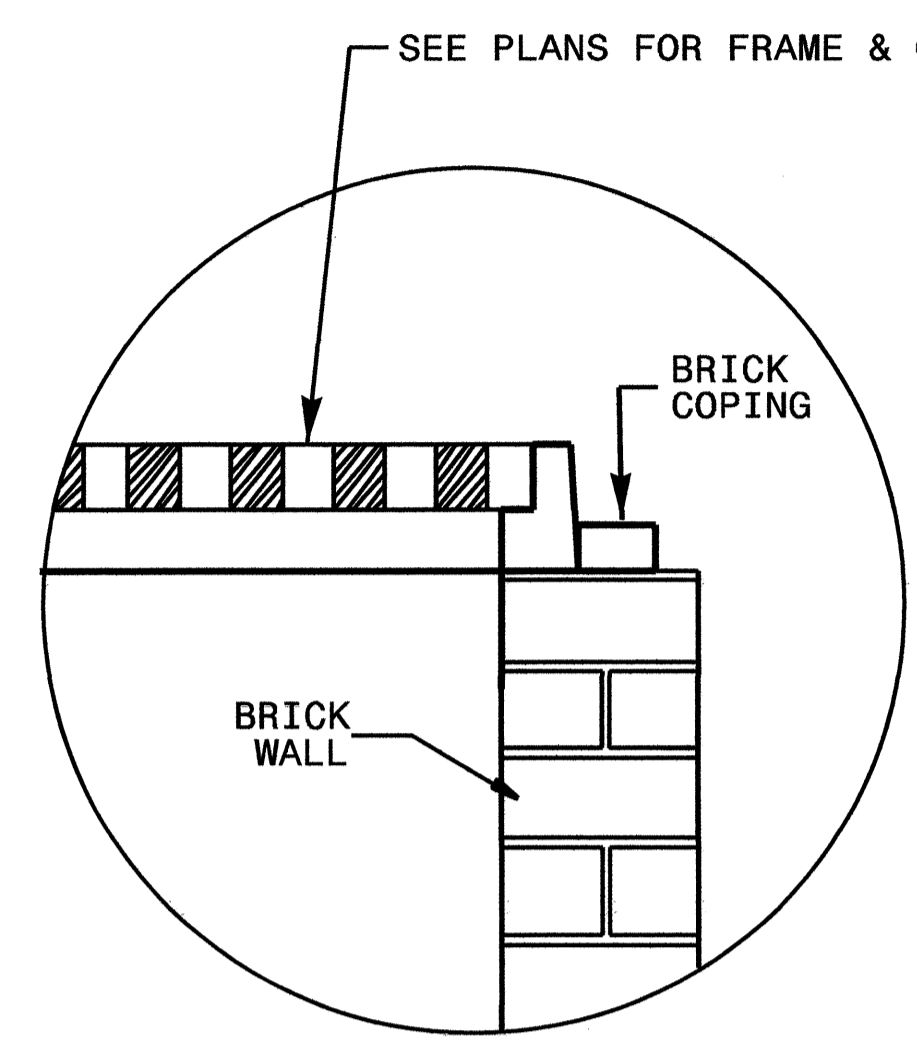
D	USING CONCRETE PIPE										USING CORRUGATED STEEL PIPE																
	COMMON DIMS.					SINGLE PIPE					DOUBLE PIPE					SINGLE PIPE					DOUBLE PIPE						
H	B	T	G1	G2	YD ³	S	30	L	30	YD ³	H	B	G1	G2	L	30	YD ³	S	30	L	30	YD ³	S	30	L	30	YD ³
15"	3'-4"	1'-8"	17/8"	2'-9"	3'-2"	3'-2"	2'-2"	2'-6"	8'-5"	1,054	3'-0"	1'-6"	2'-6"	2'-11"	5'-5"	0.816	2'-6"	2'-11"	2'-0"	2'-4"	7'-9"	0.848	2'-4"	7'-9"	7'-9"	7'-9"	1,109
18"	3'-7"	1'-10"	2"	3'-2"	3'-8 1/4"	2'-7"	2'-11 3/4"	9'-10"	1,390	3'-10"	1'-8"	2'-11"	3'-4"	6'-3"	0.816	2'-11 3/4"	3'-4 1/2"	2'-3 1/2"	2'-9"	8'-11"	1,109	2'-9"	8'-11"	8'-11"	8'-11"	1,747	
24"	4'-2"	2'-1"	2 1/2"	4'-0"	4'-8"	3'-5"	3'-11 1/2"	12'-8"	2,207	3'-9"	1'-11"	3'-8"	4'-3"	7'-11"	1,282	3'-8 3/4"	4'-3 1/4"	3'-0"	3'-5 1/2"	11'-5"	1,747	3'-5 1/2"	11'-5"	11'-5"	1,747	2,531	
30"	4'-9"	2'-5"	2 3/4"	4'-7"	5'-4"	4'-3"	4'-10 3/4"	14'-10"	3,186	4'-3"	2'-2"	4'-5"	5'-1"	9'-6"	1,868	4'-5 1/8"	5'-1 1/8"	3'-8"	4'-2 3/4"	13'-9"	2,531	4'-2 3/4"	13'-9"	13'-9"	2,531	3,596	
36"	5'-3"	2'-8"	3"	5'-6"	6'-4"	5'-0"	5'-9 1/4"	17'-8"	4,447	4'-9"	2'-5"	5'-2"	6'-0"	11'-2"	2,621	5'-2 3/8"	6'-0 3/8"	9'-6"	5'-2 1/4"	16'-5"	3,596	5'-2 1/4"	16'-5"	16'-5"	3,596	4,820	
42"	5'-10"	2'-11"	3 1/2"	6'-4"	7'-4"	5'-10"	6'-8 3/4"	20'-5"	6,012	5'-3"	2'-8"	5'-11"	6'-10"	12'-9"	3,517	5'-11 1/4"	6'-10 1/2"	5'-3"	6'-0 3/4"	18'-10"	4,820	6'-0 3/4"	18'-10"	18'-10"	4,820	6,320	
48"	6'-5"	3'-3"	4"	7'-2"	8'-3 1/4"	6'-8"	7'-2"	23'-2"	8,062	5'-9"	2'-11"	6'-8"	7'-8"	14'-4"	4,581	6'-8 3/8"	7'-6 3/8"	6'-0"	6'-1 1/4"	21'-4"	6,320	6'-1 1/4"	21'-4"	21'-4"	6,320	8,220	



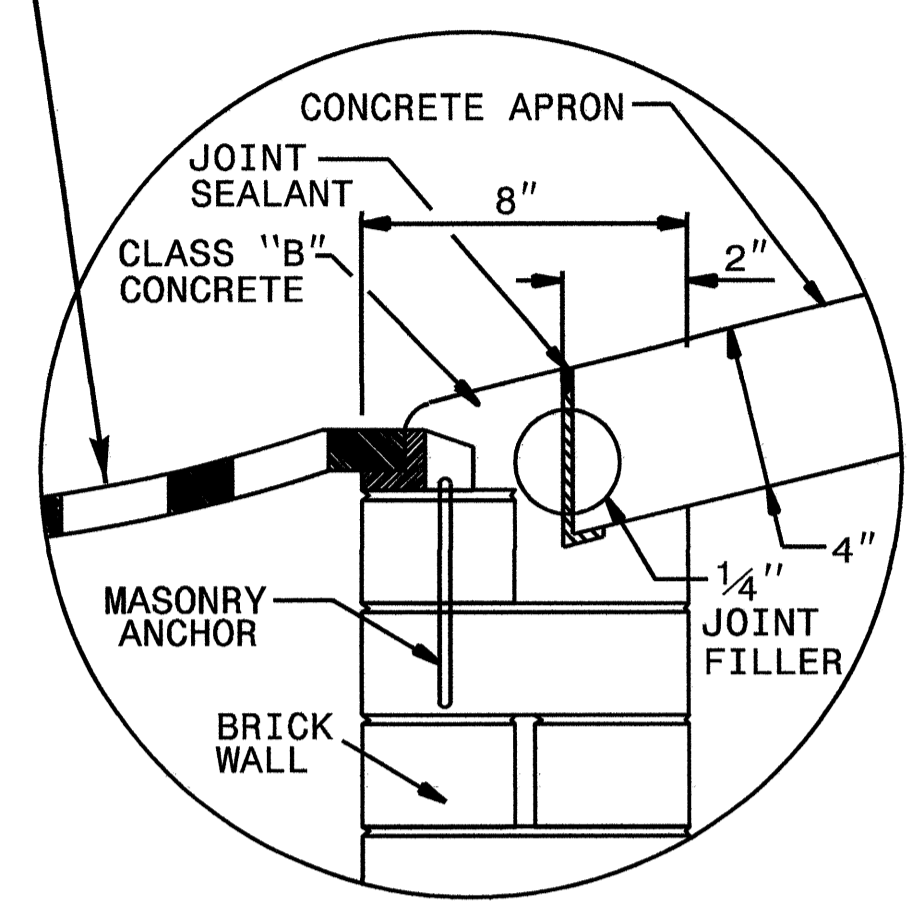
**CONTRACT STANDARDS
 AND DEVELOPMENT UNIT**
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SEE PLATE FOR TITLE

ORIGINAL BY: STD.NO.838.01 DATE: 4-17-99
 MODIFIED BY: T.S. SPELL DATE: 12-10-08
 CHECKED BY: DATE:
 FILE SPEC.: s:user/details/metric/stand/838d02s1.dgn



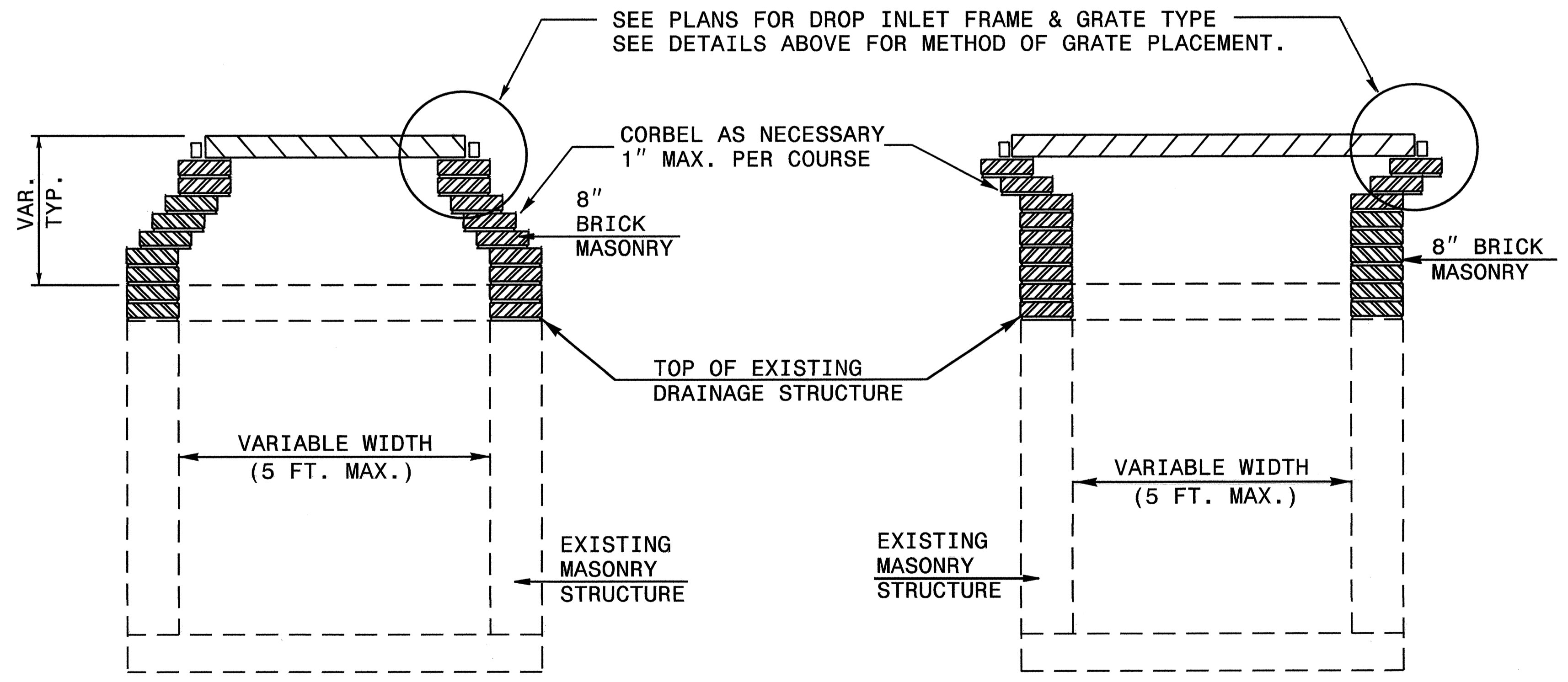
GRATE PLACEMENT DETAIL
FOR DROP INLETS



GRATE PLACEMENT DETAIL
FOR GRATED DROP INLETS

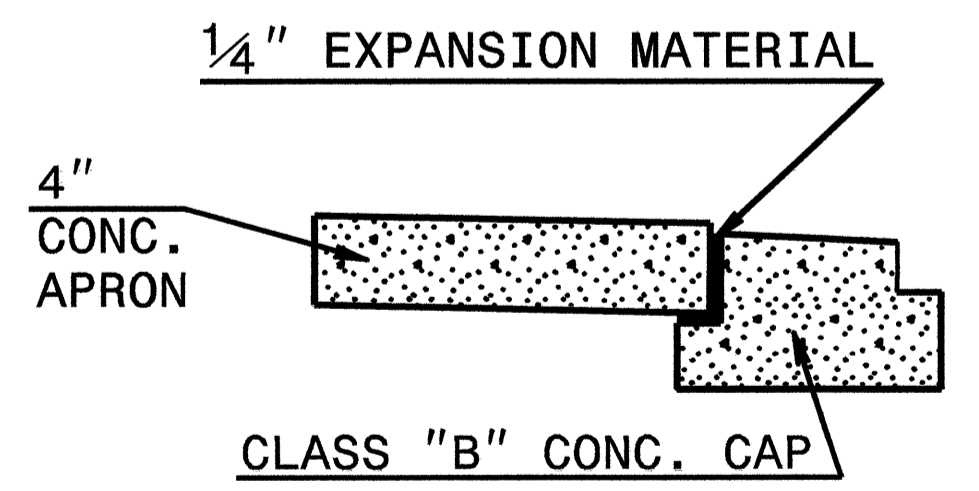
GENERAL NOTES:

- CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.
- USE CLASS B CONCRETE.
- THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.
- JUMBO CONCRETE BRICK WILL BE PERMITTED. 4" CONCRETE BRICK OR 8" SOLID CONCRETE BLOCK ARE REQUIRED FOR DRAINAGE STRUCTURE.
- INCLUDE 18" CONCRETE APRON IN UNIT PRICE BID PER EACH, CONVERT EXISTING CATCH BASIN TO DROP INLET.
- SPECIAL DESIGN IS REQUIRED FOR USE UNDER PAVEMENT.
- CONFIRM DIMENSIONS ON EACH INDIVIDUAL FRAME & GRATE PROPOSAL.
- SEE STD. DRAWING 840.25 FOR MASONRY ANCHORAGE.

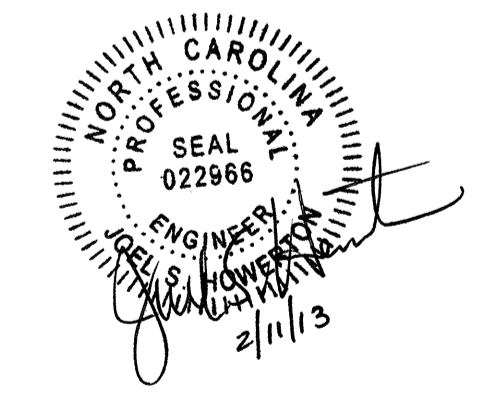


TYPICAL SECTION

TYPICAL SECTION



EXPANSION JOINT DETAIL



CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

DETAIL TO CONVERT EXISTING CATCH BASIN OR JUNCTION BOX TO DI OR 2-GI

ORIGINAL BY: T.S.S. DATE: NOV. 1997
 MODIFIED BY: T.S.S. DATE: FEB. 2000
 CHECKED BY: DATE:
 FILE SPEC.: s:\usr\details\stand\cbtod102.dgn

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5/28/99

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203279

ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION	2209000000-E	838	29	CY	ENDWALLS	4405000000-E	1110	192	SF	WORK ZONE SIGNS (PORTABLE)
000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING	2253000000-E	840	0.5	CY	PIPE COLLARS	4410000000-E	1110	125	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
0001010000-N	200	25	EA	SELECT TREE REMOVAL	2275000000-E	SP	13	CY	FLOWABLE FILL	4430000000-N	1130	600	EA	DRUMS
0015000000-N	205	1	EA	SEALING ABANDONED WELLS	2286000000-N	840	121	EA	MASONRY DRAINAGE STRUCTURES	4435000000-N	1135	30	EA	CONES
0043000000-N	226	Lump Sum		GRADING	2308000000-E	840	15.79	LF	MASONRY DRAINAGE STRUCTURES	4445000000-E	1145	152	LF	BARRICADES (TYPE III)
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING	2364000000-N	840	38	EA	FRAME WITH TWO GRATES, STD 840.16	4450000000-N	1150	1,800	HR	FLAGGER
0318000000-E	300	790	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	2366000000-N	840	3	EA	FRAME WITH TWO GRATES, STD 840.24	4686000000-E	1205	9,738	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
0320000000-E	300	2,460	SY	FOUNDATION CONDITIONING GEOTEXTILE	2367000000-N	840	1	EA	FRAME WITH TWO GRATES, STD 840.29	4710000000-E	1205	119	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
0366000000-E	310	4,408	LF	15" RC PIPE CULVERTS, CLASS III	2374000000-N	840	28	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	4725000000-E	1205	27	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)
0372000000-E	310	1,544	LF	18" RC PIPE CULVERTS, CLASS III	2374000000-N	840	27	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	4810000000-E	1205	24,144	LF	PAINT PAVEMENT MARKING LINES (4")
0378000000-E	310	560	LF	24" RC PIPE CULVERTS, CLASS III	2374000000-N	840	23	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	4835000000-E	1205	38	LF	PAINT PAVEMENT MARKING LINES (24")
0384000000-E	310	96	LF	30" RC PIPE CULVERTS, CLASS III	2396000000-N	840	2	EA	FRAME WITH COVER, STD 840.54	6000000000-E	1605	4,410	LF	TEMPORARY SILT FENCE
0390000000-E	310	48	LF	36" RC PIPE CULVERTS, CLASS III	2549000000-E	846	9,640	LF	2'-6" CONCRETE CURB & GUTTER	6006000000-E	1610	495	TON	STONE FOR EROSION CONTROL, CLASS A
0396000000-E	310	316	LF	42" RC PIPE CULVERTS, CLASS III	2591000000-E	848	2,610	SY	4" CONCRETE SIDEWALK	6009000000-E	1610	595	TON	STONE FOR EROSION CONTROL, CLASS B
0402000000-E	310	396	LF	48" RC PIPE CULVERTS, CLASS III	2605000000-N	848	10	EA	CONCRETE CURB RAMP	6012000000-E	1610	1,170	TON	SEDIMENT CONTROL STONE
0995000000-E	340	1,742	LF	PIPE REMOVAL	2612000000-E	848	970	SY	6" CONCRETE DRIVEWAY	6015000000-E	1615	4	ACR	TEMPORARY MULCHING
1099500000-E	505	350	CY	SHALLOW UNDERCUT	2830000000-N	858	19	EA	ADJUSTMENT OF MANHOLES	6018000000-E	1620	100	LB	SEED FOR TEMPORARY SEEDING
1099700000-E	505	709	TON	CLASS IV SUBGRADE STABILIZATION	2845000000-N	858	19	EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES	6021000000-E	1620	0.5	TON	FERTILIZER FOR TEMPORARY SEEDING
1220000000-E	545	1,500	TON	INCIDENTAL STONE BASE	2875000000-N	859	1	EA	CONVERT EXISTING CATCH BASIN TO DROP INLET	6024000000-E	1622	50	LF	TEMPORARY SLOPE DRAINS
1330000000-E	607	500	SY	INCIDENTAL MILLING	3628000000-E	876	76	TON	RIP RAP, CLASS 1	6029000000-E	SP	1,300	LF	SAFETY FENCE
1498000000-E	610	3,400	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B	3649000000-E	876	16	TON	RIP RAP, CLASS B	6030000000-E	1630	1,725	CY	SILT EXCAVATION
1525000000-E	610	4,000	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	3656000000-E	876	1,169	SY	GEOTEXTILE FOR DRAINAGE	6036000000-E	1631	1,540	SY	MATTING FOR EROSION CONTROL
1575000000-E	620	435	TON	ASPHALT BINDER FOR PLANT MIX	3659000000-N	SP	1	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	6042000000-E	1632	2,180	LF	1/4" HARDWARE CLOTH
1693000000-E	654	250	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR	4400000000-E	1110	534	SF	WORK ZONE SIGNS (STATIONARY)	6070000000-N	1639	8	EA	SPECIAL STILLING BASINS
										6071010000-E	SP	360	LF	WATTLE
										6071020000-E	SP	135	LB	POLYACRYLAMIDE (PAM)
										6071030000-E	1640	250	LF	COIR FIBER BAFFLE
										6084000000-E	1660	5	ACR	SEEDING & MULCHING
										6087000000-E	1660	3	ACR	MOWING
										6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
										6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
										6096000000-E	1662	75	LB	SEED FOR SUPPLEMENTAL SEEDING
										6108000000-E	1665	2.25	TON	FERTILIZER TOPDRESSING
										6111000000-E	SP	80	LF	IMPERVIOUS DIKE
										6114500000-N	1667	5	MHR	SPECIALIZED HAND MOWING
										6117000000-N	SP	27	EA	RESPONSE FOR EROSION CONTROL

SYTIME/CON/SH/NG

COMPUTED BY: SGM DATE: 6/14/2012
 CHECKED BY: JLT DATE: 6/14/2012

PROJECT NO. 40129 SHEET NO. 3-A

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

**SUMMARY OF EARTHWORK
 "IN CUBIC YARDS"**

**SUMMARY OF EXISTING ASPHALT
 PAVEMENT REMOVAL**

LINE	Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
-L-	10+38.25	40+00.00	302		4,416	4,113	
SUBTOTAL			302		4,416	4,113	
-L-	40+00.00	64+35.69	710		2,807	2,097	
-Y3-	10+60.00	11+33.81	24		87	64	
-Y3-	11+69.81	12+45.00	8		207	199	
SUBTOTAL			742		3,101	2,360	
TOTAL			1,044		7,517	6,473	
LOSS DUE TO CLEARING & GRUBBING			-52			52	
PROJECT TOTAL			992		7,517	6,525	
TEMP. EARTH BERM QUANTITIES					93	93	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						326	
REMOVAL OF TEMPORARY EARTH BERM			74				74
GRAND TOTAL			1,066		7,610	6,944	74
SAY			1,120			7,290	

LINE	Station	Station	LOC LT/RT/CL	YD ²
-L-	10+41	12+77	RT	615.54
-L-	22+00	24+00	LT	7.75
-L-	29+97	32+82	LT	10.23
-Y3-	10+60	11+34	LT/RT/CL	277.56
-Y3-	10+70	12+45	LT/RT/CL	269.17
-Y5-	11+38	11+77	RT	3.52
			TOTAL:	1,183.77
			SAY:	1,250

PAVEMENT STRUCTURE VOLUME= 836 CUBIC YARDS
 EST. SHALLOW UNDERCUT = 350 CUBIC YARDS
 CL IV SUBGRADE STABILIZATION = 709 TONS

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".

**STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PARCEL INDEX SHEET**

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	W-H ROCKY MOUNT, LLC
2	4	W-H ROCKY MOUNT, LLC
3	4 & 5	ALTON GRAY MELVIN & WIFE DELPHIA ANN E. MELVIN
4	4	CARVEY L. JONES & WIFE NELL M. WOODS
5	4	CARVEY L. JONES & WIFE NELL M. WOODS
6	4	ALTON GRAY MELVIN & WIFE DELPHIA ANN E. MELVIN
7	4 & 5	CARVEY L. JONES & WIFE NELL M. WOODS
8	5	BOBBY M. CONNIE
9	5	SAMUEL J. PARHAM d.b.a. NEW SOUTH CONSTRUCTION CO.
10	5	SHADY GROVE MOBILE HOME PARK, LLC.
11	5	H. MARK DALEY, JR.
12	5	GENE G. ARNOLD
13	5	COMMUNITY APARTMENT CORPORATION OF ROCKY MOUNT
14	5	HERMAN D. CANNON & WIFE ILENE R. CANNON
15	5 & 6	COMMUNITY APARTMENT CORPORATION OF ROCKY MOUNT
16	5 & 6	BOBBY LEE LILES
17	6	THOMAS TODD SPIKES
18	6	THOMAS TODD SPIKES
19	6	DOMINION OUTREACH MINISTRIES
20	6	HERBERT L. GRANT, SR. & MELISSA R. SAULS
21	6	WILHEMENIA C. MANLEY
22	6	THE FIRST APOSTOLIC CHURCH OF ROCKY MOUNT
23	6	RHONDA FELICA LYNCH
24	6	FAITH TABERNACLE UNITED PENTACOSTAL CHURCH
25	6	GRACE FREEWILL BAPTIST CHURCH
26	6	WILLARD ODIS MANNING HEIRS
27	6	ROY N. THOMAS & WIFE SUSAN W. THOMAS
28	6	GRACE FREEWILL BAPTIST CHURCH
29	6	GRACE FREEWILL BAPTIST CHURCH
30	6	DEXTER BURWELL & WIFE JOYCE R. BURWELL
31	6	WILLIE T. KEARNEY, JR. & WIFE BARBARA J. KEARNEY
32	6	GRACE FREEWILL BAPTIST CHURCH
33	6	UNKNOWN
34	6	ARLEATHA HELTON
35	6	BRUCE BARNES & WIFE WANDA BARNES
36	6	MABLE L. ALSTON
37	6	RAY O. SILVER
38	6	E. C. POWELL & WIFE RUBY P. POWELL
39	6	POWELL PROPERTIES OF NASH COUNTY, LLC.
40	6	COLIN M. SHOLAR
41	6	HARVEY F. LONG & WIFE LOIS M. LONG
42	6	MARIE L. MOORE & GEORGE T. MOORE
43	6	GENE A. HARVARD
44	6 & 7	IRIS J. SHARPE
45	6 & 7	AMOS BATTS & WIFE KIMBERLY WINSTON BATTS
46	7	FRED L. SESSOMS HEIRS
47	7	WILBERT LAMONT RICKS & WIFE PEGGY D. RICKS
48	7	ROBERT J. DURHAM
49	7	H. F. SPIKES TESTAMENTARY TRUST
50	7	JOHN R. HUNTER & ROBERT L. WILLIAMS
51	7	JOHN B. TAYLOR & WIFE GLADYS ELAINE TAYLOR
52	7	MILTON R. STATON & WIFE MAXINE M. STATON
53	7	H. F. SPIKES TESTAMENTARY TRUST
54	7	MILTON R. STATON & WIFE MAXINE M. STATON
55	7	DAVID LEE KIRBY
56	7	WEAVER PROPERTIES OF NASH COUNTY, LLC.
57	7	JAMES ARTHUR TUCKER
58	7	FAYE J. LYNN, EDITH J. BAKER, & KERMIT R. JOHNSON, JR.
59	7	WANDA L. PITTMAN
60	7	KERMIT R. JOHNSON, JR. & WIFE DORIS P. JOHNSON
61	7	ALONZA J. SEABREEZE & WIFE SHELBY L. SEABREEZE
62	7	WILLIAM ROY SMITH & WIFE GENICE P. SMITH
63	7	UNKNOWN
64	7	NORTHERN L. LANIER & WIFE LUCINDA M. LANIER
65	7	WILLIAM ROY SMITH & WIFE GENICE P. SMITH
66	7	JAMES EARL JONES & WIFE ELVIRA LYNCH JONES
67	7	THOMAS LYNCH, SR. & WIFE LOU ELLEN LYNCH
68	7	CHARLES M. JOHNSON & WIFE EVELYN G. JOHNSON
69	7 & 8	NAHRO SUDQI INNAB & WIFE MARIE I. INNAB
70	7 & 8	DALAIL ISMAIL & WIFE WADJI ISMAIL

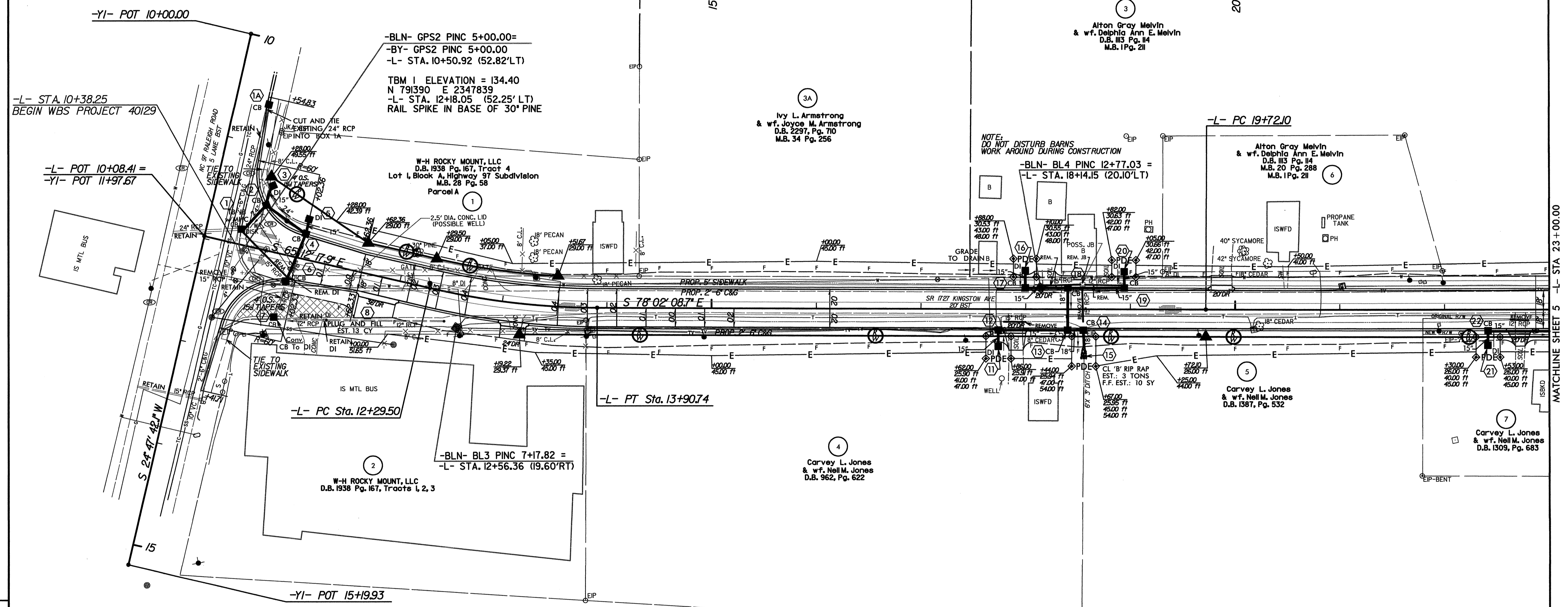
8/17/99

PEDSTRIAN SAFE GRATES TO BE USED FOR ALL DI'S AND 2GI'S
ALL STORM DRAINAGE PIPES ARE REINFORCED CONCRETE, CLASS III.

-L-
PI Sta 13+10.46 PI Sta 22+20.20
Δ = 12' 49" 50.8" (LT) Δ = 0' 32" 25.7" (LT)
D = 7' 57" 27.9" D = 0' 08" 32.1"
L = 161.24' L = 496.18'
T = 80.96' T = 248.09'
R = 720.00' R = 52,600.00'
SE = 0.04 SE = NC



PROJECT WBS ELEMENT		SHEET NO.	
40129		4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		
TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO. C-0275			



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY (OTHERS) FOR MONUMENT "GPS 13"

WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF (NORTHING: 790623.39(F) EASTING: 2353010.42(F))

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99993418

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS 13" TO -L- POT 10+08.41 IS

N 81° 58' 38.63" W 5449.11(F)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD 88

PAVEMENT REMOVAL

SEE FINAL PAVEMENT MARKING PLANS FOR THE CURB RAMP TYPE AND LOCATION

SEE SHEET 9 FOR -L- PROFILE

MATCHLINE SHEET 5 -L- STA 23+00.00

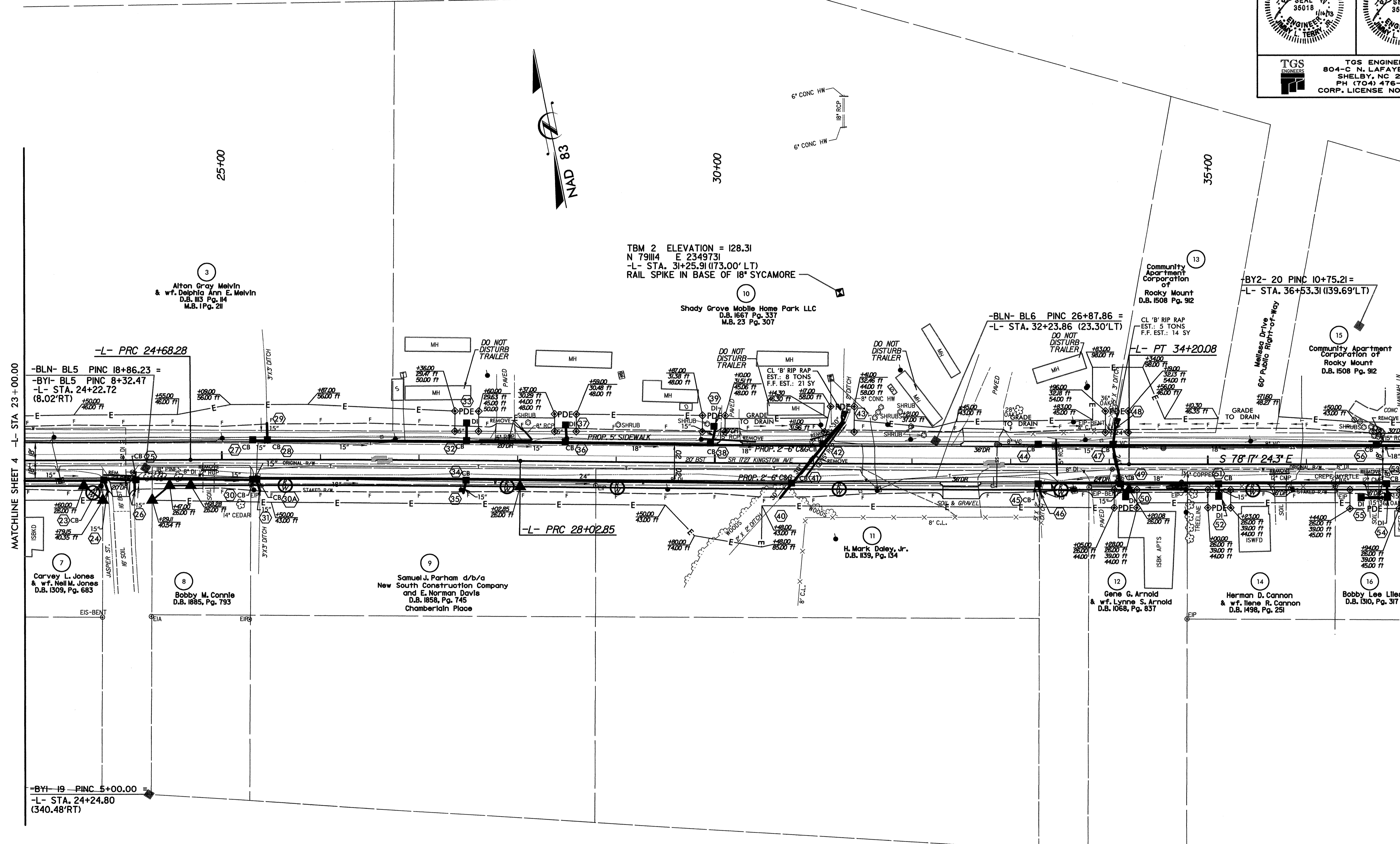
REVISIONS

8/17/99

PEDSTRIAN SAFE GRATES TO BE USED FOR ALL DI'S AND 2GIS
ALL STORM DRAINAGE PIPES ARE REINFORCED CONCRETE, CLASS III.

-L-		
PI Sta 22+20.20	PI Sta 26+35.57	PI Sta 31+11.47
Δ = 0° 32' 25.7" (LT)	Δ = 0° 57' 30.5" (RT)	Δ = 0° 40' 20.4" (LT)
D = 0' 06' 32.1"	D = 0' 17' 11.3"	D = 0' 06' 32.1"
L = 496.18'	L = 334.57'	L = 617.23'
T = 248.09'	T = 167.29'	T = 308.62'
R = 52,600.00'	R = 20,000.00'	R = 52,600.00'
SE = NC	SE = NC	SE = NC

PROJECT WBS ELEMENT	SHEET NO.
40129	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



REVISIONS

SYSTEMS
SECTION
DRAWN
DATE

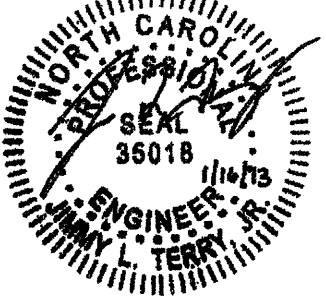
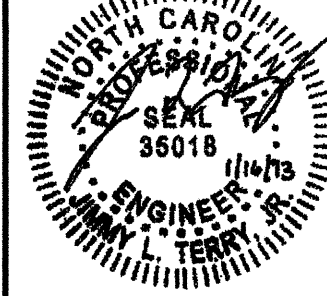

SEE FINAL PAVEMENT MARKING PLANS FOR THE CURB RAMP TYPE AND LOCATION
SEE SHEET 9 FOR -L- PROFILE

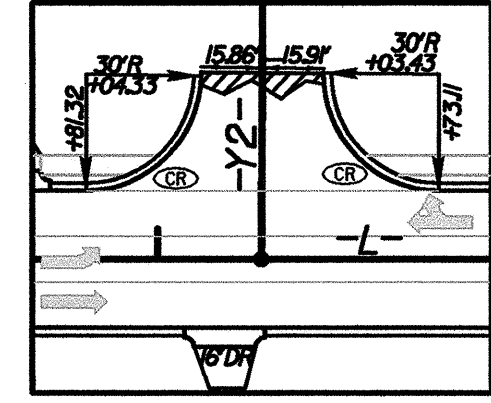
PEDESTRIAN SAFE GRATES TO BE USED FOR ALL DYS AND 2G/5

ALL STORM DRAINAGE PIPES ARE REINFORCED CONCRETE, CLASS III.

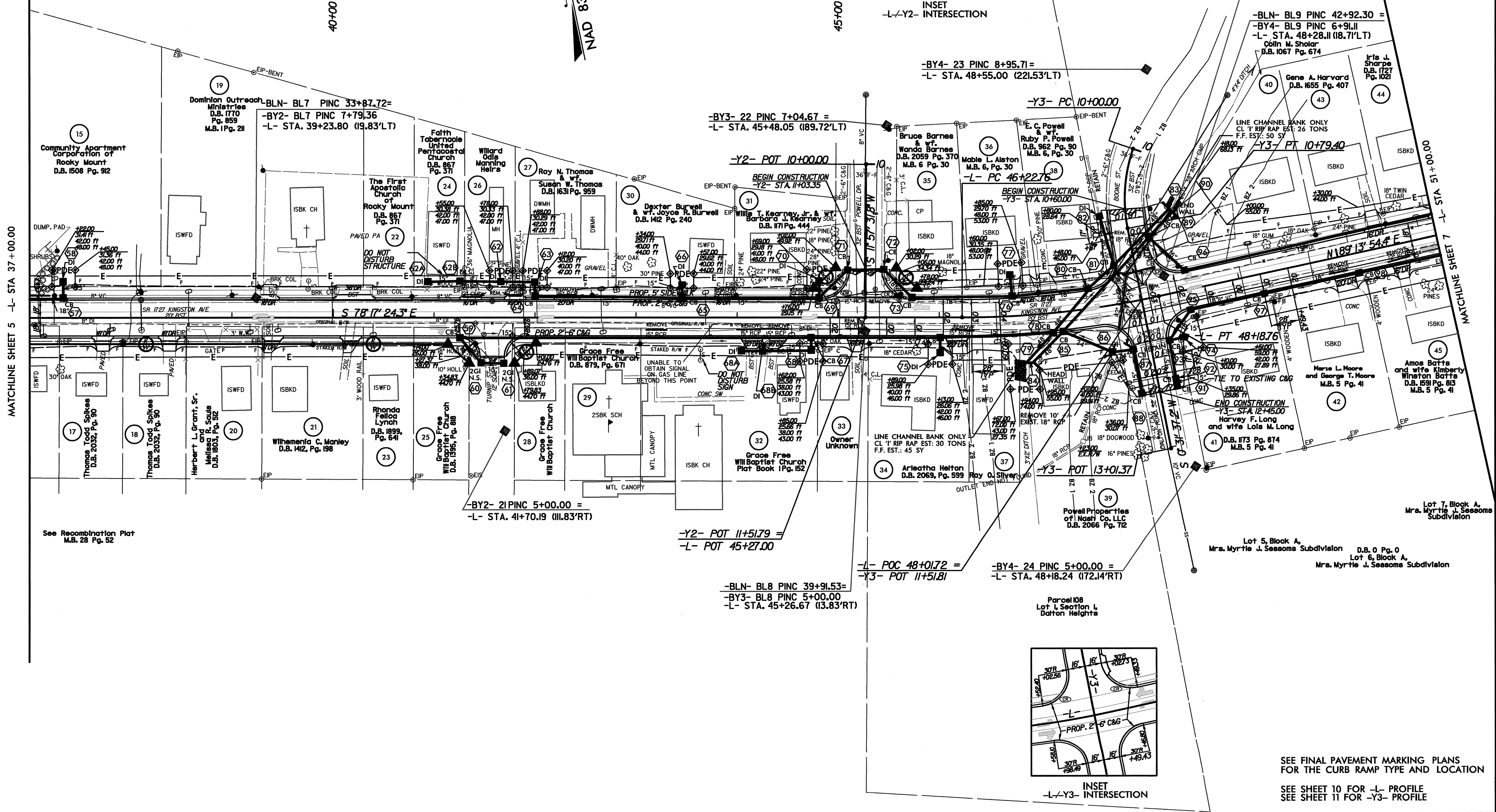
-L-
 PI Sta 47+21.5
 $\Delta = 12' 28" 41.4"$ (LT)
 $D = 6' 21" 58.3"$
 $L = 196.0'$
 $T = 98.39'$
 $R = 900.00'$
 $SE = 0.04$

-Y3-
 PI Sta 10+40.63
 $\Delta = 29' 59" 41.2"$ (LT)
 $D = 37' 48" 32.4"$
 $L = 79.40'$
 $T = 40.63'$
 $R = 151.67'$
 $SE = EXIST.$

PROJECT WBS ELEMENT		SHEET NO.	
40129		6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
 TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO. C-0275			



TBM3 ELEVATION = 117.15
 N 790698 E 2351386
 -L- STA. 48+51.7 (76.30'LT)
 CHISELED SQUARE ON HEADWALL



-BY4- 23 PINC 8+95.71=
 -L- STA. 48+55.00 (221.53'LT)

-BY3- 22 PINC 7+04.67 =
 -L- STA. 45+48.05 (189.72'LT)

-Y3- PC 10+00.00

-Y2- POT 10+00.00

-L- PC 46+22.76

-BLN- BL9 PINC 42+92.30 =
 -BY4- BL9 PINC 6+91.11
 -L- STA. 48+28.11 (18.71'LT)
 Colin M. Sholar
 D.B. 1067 Pg. 674

-Y3- PT 10+79.40

-L- PT 48+18.76

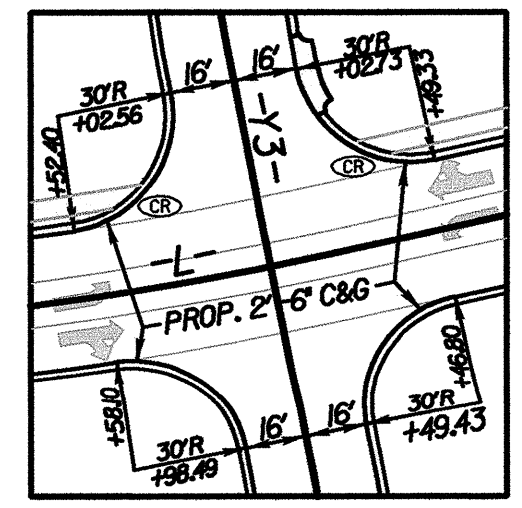
-BY2- 21 PINC 5+00.00 =
 -L- STA. 41+70.19 (111.83'RT)

-Y2- POT 11+51.79 =
 -L- POT 45+27.00

-L- POC 48+01.72 =
 -Y3- POT 11+51.81

-BY4- 24 PINC 5+00.00 =
 -L- STA. 48+18.24 (172.14'RT)

-BLN- BL8 PINC 39+91.53=
 -BY3- BL8 PINC 5+00.00
 -L- STA. 45+26.67 (13.83'RT)



SEE FINAL PAYMENT MARKING PLANS FOR THE CURB RAMP TYPE AND LOCATION
 SEE SHEET 10 FOR -L- PROFILE
 SEE SHEET 11 FOR -Y3- PROFILE

REVISIONS

MATCHLINE SHEET 5 -L- STA 37 + 00.00

MATCHLINE SHEET 7 -L- STA 51 + 00.00

See Recombination Plat M.B. 28 Pg. 52

Lot 5, Block A, Mrs. Myrtle J. Seasons Subdivision D.B. 0 Pg. 0
 Lot 6, Block A, Mrs. Myrtle J. Seasons Subdivision

Lot 7, Block A, Mrs. Myrtle J. Seasons Subdivision

Amos Batts and wife Kimberly Winston Batts D.B. 1891 Pg. 83 M.B. 5 Pg. 41

Marie L. Moore and George T. Moore M.B. 5 Pg. 41

Gene A. Harvard D.B. 1655 Pg. 407

Iris J. Sharpe D.B. 1727 Pg. 1021

Willa T. Kearney, Jr. & wife Barbara J. Kearney D.B. 1171 Pg. 444

Dexter Burwell & wife Joyce R. Burwell D.B. 1412 Pg. 240

Roy N. Thomas & wife Susan W. Thomas D.B. 1631 Pg. 959

Faith Tabernacle United Pentecostal Church D.B. 867 Pg. 371

Willard Odie Manning Heirs

Community Apartment Corporation of Rocky Mount D.B. 1508 Pg. 912

Dominion Outreach Ministries D.B. 1770 Pg. 859 M.B. 1 Pg. 211

Thomas Todd Spikes D.B. 2032, Pg. 90

Thomas Todd Spikes D.B. 2032, Pg. 90

Herbert L. Grant, Sr. Melissa R. Sauls D.B. 1803, Pg. 52

Rhonda Felicia Lynch D.B. 1899, Pg. 641

Wilhemena C. Manley D.B. 1412, Pg. 198

Grace Free Will Baptist Church D.B. 1395, Pg. 818

Grace Free Will Baptist Church D.B. 875, Pg. 671

Grace Free Will Baptist Church Plat Book 1 Pg. 152

Arleatha Heiton D.B. 2069, Pg. 599

Ray O. Silver

Powell Properties of Nash Co. LLC D.B. 2066 Pg. 712

Owner Unknown

Harvey F. Long and wife Lois M. Long D.B. 1173 Pg. 874 M.B. 5 Pg. 41

END CONSTRUCTION -Y3- STA. 12+45.00

REMOVE 10' EXIST. 18" RCP

REMOVE 10' EXIST. 18" RCP

REMOVE 10' EXIST. 18" RCP

REMOVE 10' EXIST. 18" RCP

REMOVE 10' EXIST. 18" RCP

REMOVE 10' EXIST. 18" RCP

REMOVE 10' EXIST. 18" RCP

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REMOVE 10' EXIST. 18" RCP

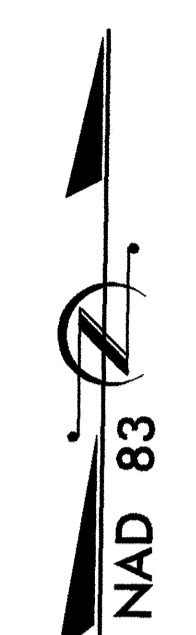
REMOVE 10' EXIST. 18" RCP

8/17/99

PEDSTRIAN SAFE GRATES TO BE USED FOR ALL DI'S AND 2G'S

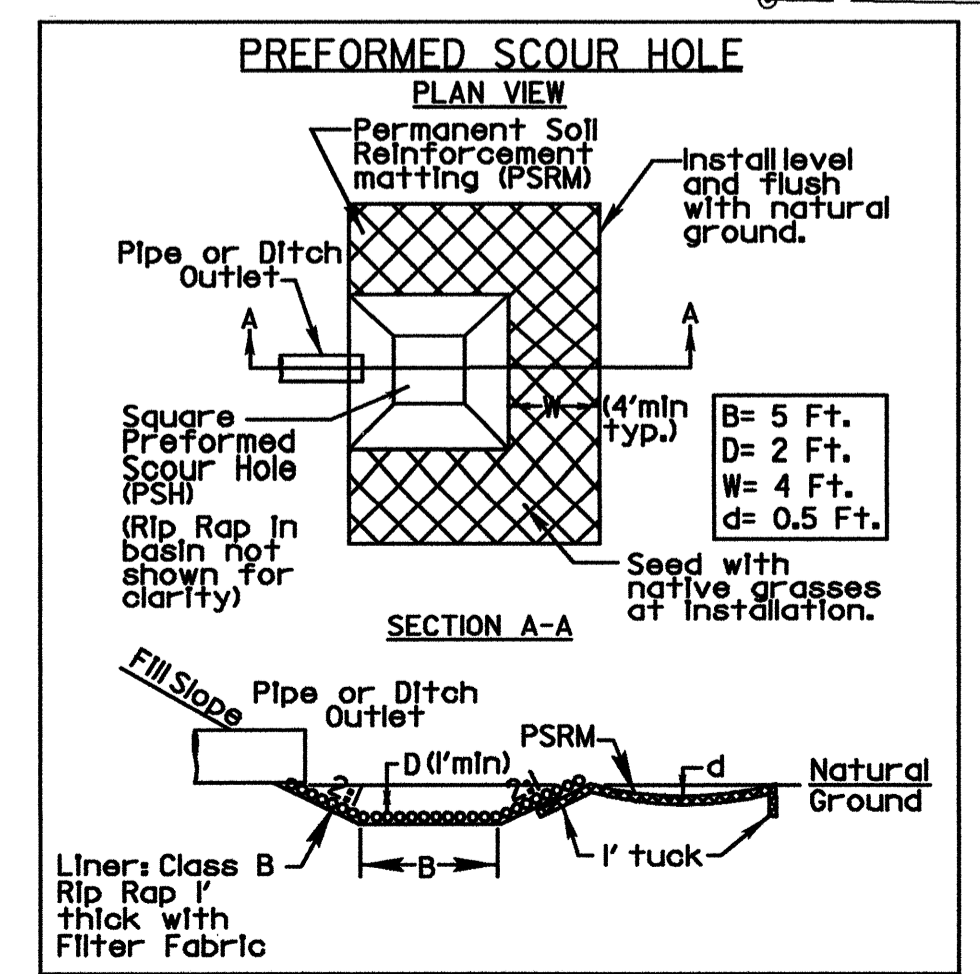
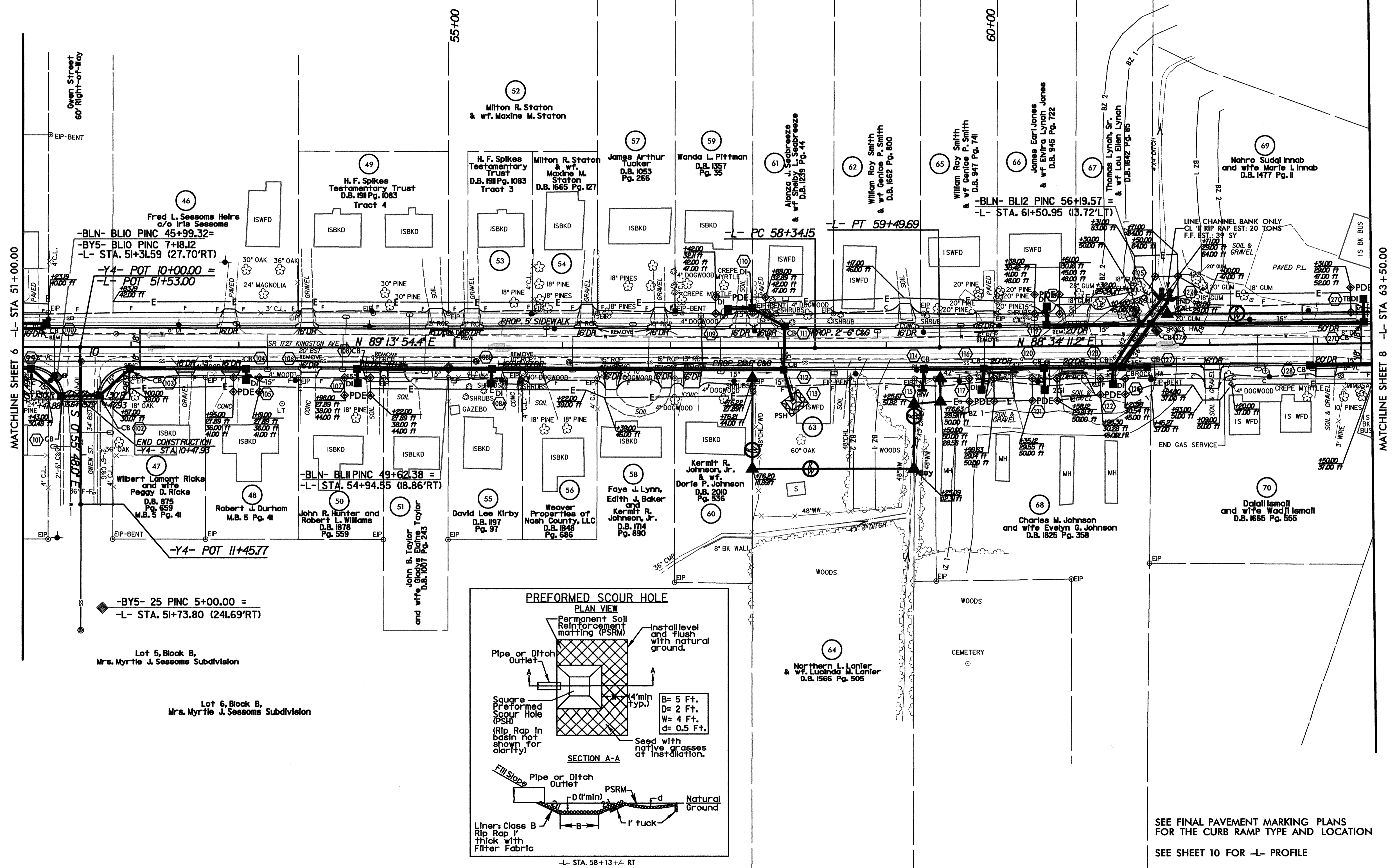
ALL STORM DRAINAGE PIPES ARE REINFORCED CONCRETE, CLASS III.

-L-
PI Sta 58+91.92
 $\Delta = 0' 39' 43.1''$ (LT)
 $D = 0' 34' 22.6''$
 $L = 115.54'$
 $T = 57.77'$
 $R = 10,000.00'$
 $SE = NC$



PROJECT WBS ELEMENT		SHEET NO.	
40129		7	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH: (704) 476-0003 CORP. LICENSE NO. C-0275			

REVISIONS



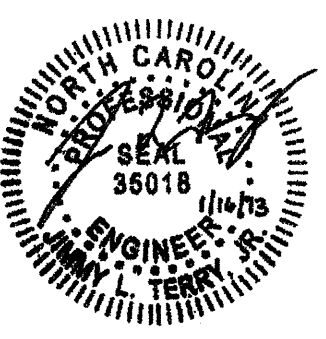
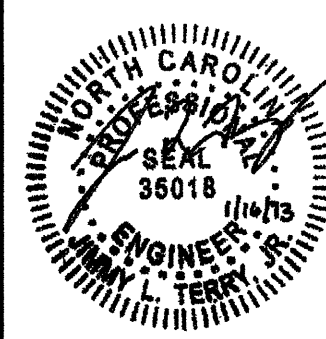

SEE FINAL PAVEMENT MARKING PLANS FOR THE CURB RAMP TYPE AND LOCATION
SEE SHEET 10 FOR -L- PROFILE

SYDNEY W. BOGGS
DIGNITY
SHELLY
SHELLY

8/17/99

PEDSTRIAN SAFE GRATES TO BE USED FOR ALL D1'S AND 2G1'S

ALL STORM DRAINAGE PIPES ARE REINFORCED CONCRETE, CLASS III.

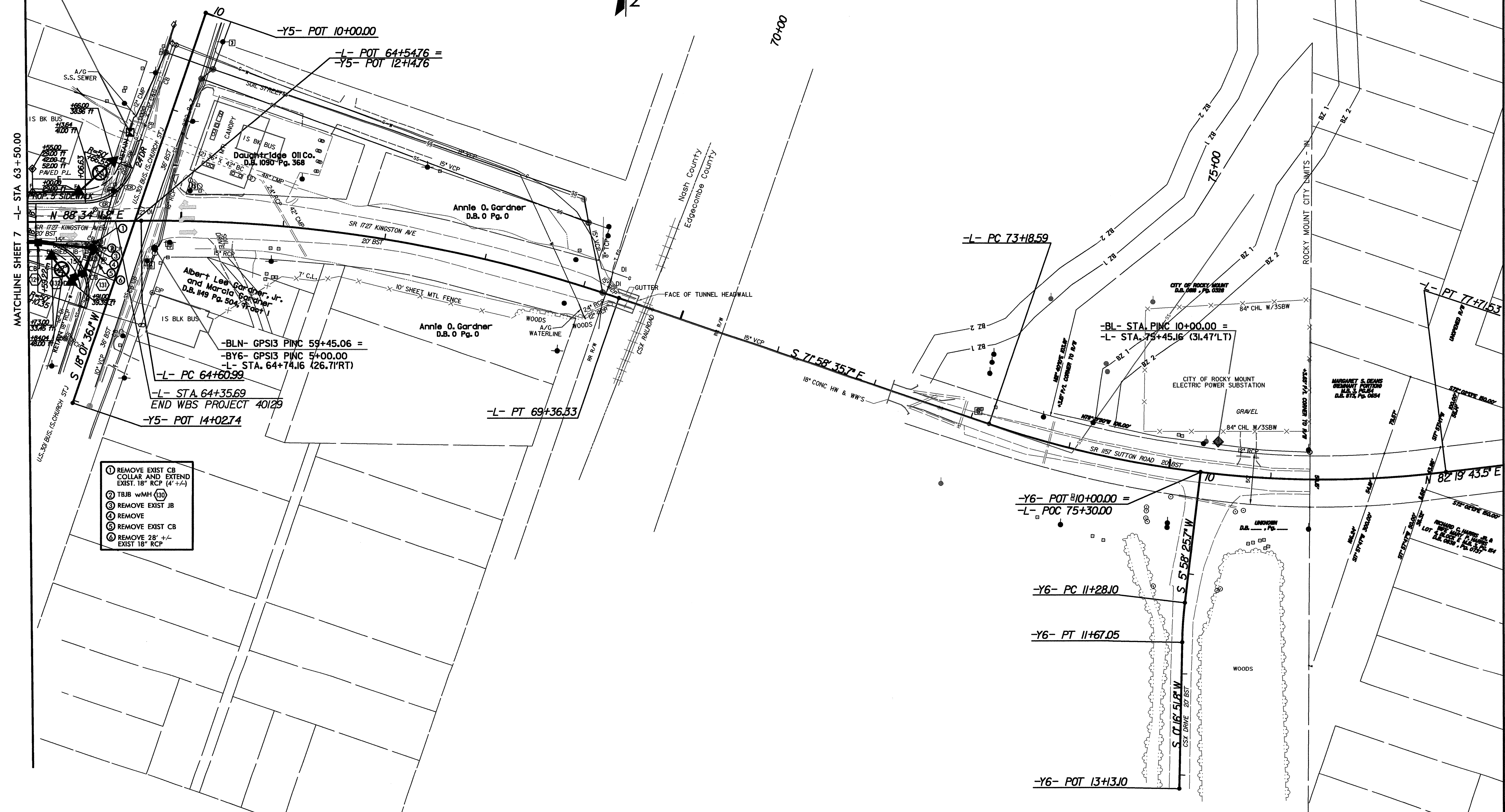
PROJECT WBS ELEMENTS		SHEET NO.	
40129		8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
 TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO. C-0275			

-L-

PI Sta 67+00.97	PI Sta 75+48.94	-Y6-
$\Delta = 19^{\circ} 27' 13.0" (RT)$	$\Delta = 25^{\circ} 41' 40.7" (LT)$	
$D = 4' 05" 33.2"$	$D = 5' 40" 22.3"$	
$L = 475.34'$	$L = 452.94'$	
$T = 239.98'$	$T = 230.34'$	
$R = 1,400.00'$	$R = 1,010.00'$	
SE = EXIST.	SE = EXIST.	



TBM4 ELEVATION = 113.04
 N 790736 E 2352985
 -Y5- STA. 11+34.38 (32.26'RT)
 CHISELED SQUARE IN HEADWALL



- 1 REMOVE EXIST CB COLLAR AND EXTEND EXIST 18" RCP (4' +/-)
- 2 TRJB WMH (30)
- 3 REMOVE EXIST JB
- 4 REMOVE
- 5 REMOVE EXIST CB
- 6 REMOVE 28' +/- EXIST 18" RCP

MATCHLINE SHEET 7 -L- STA 63+50.00

REVISIONS

SYTIME
SYDGN
SYUS
SYERNAME

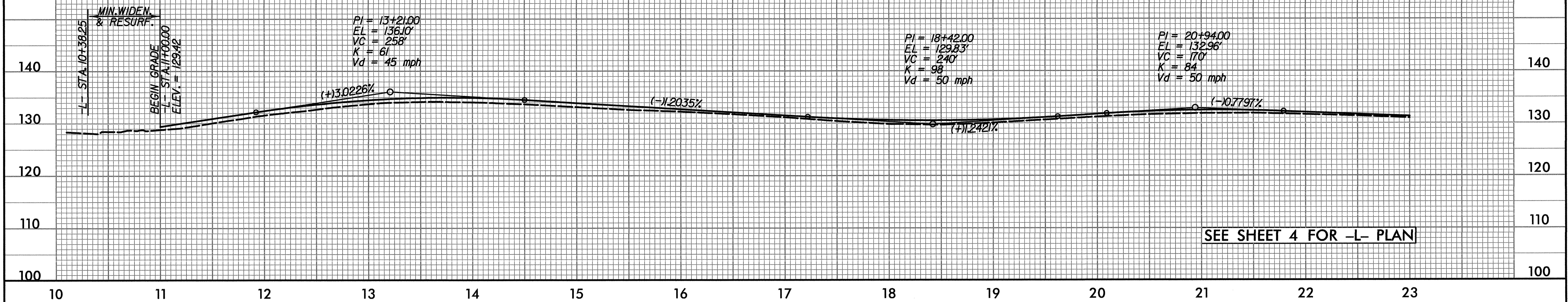
SEE FINAL PAVEMENT MARKING PLANS FOR THE CURB RAMP TYPE AND LOCATION
 SEE SHEET 11 FOR -L- PROFILE

5/28/99

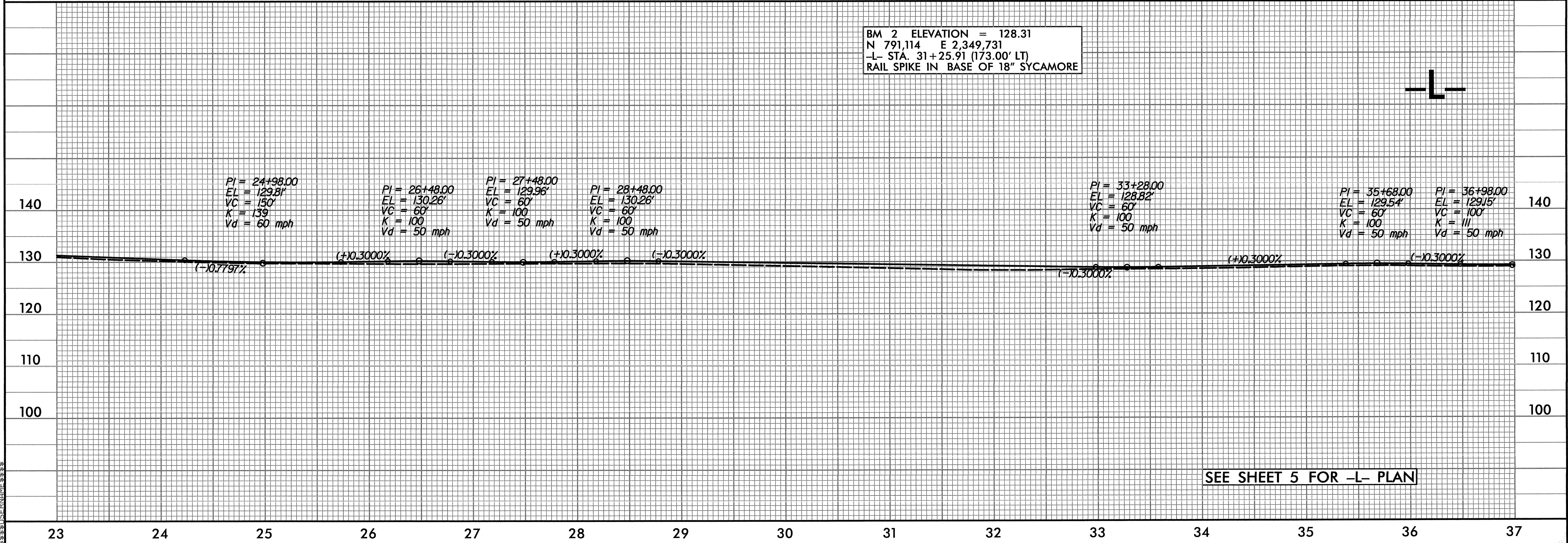
BM 1 ELEVATION = 134.40
N 791,390 E 2,347,839
-L- STA. 12+18.05 (52.25' LT)
RAIL SPIKE IN BASE OF 30" PINE

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO. C-0275

PROJECT WBS ELEMENT 40129	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BM 2 ELEVATION = 128.31
N 791,114 E 2,349,731
-L- STA. 31+25.91 (173.00' LT)
RAIL SPIKE IN BASE OF 18" SYCAMORE

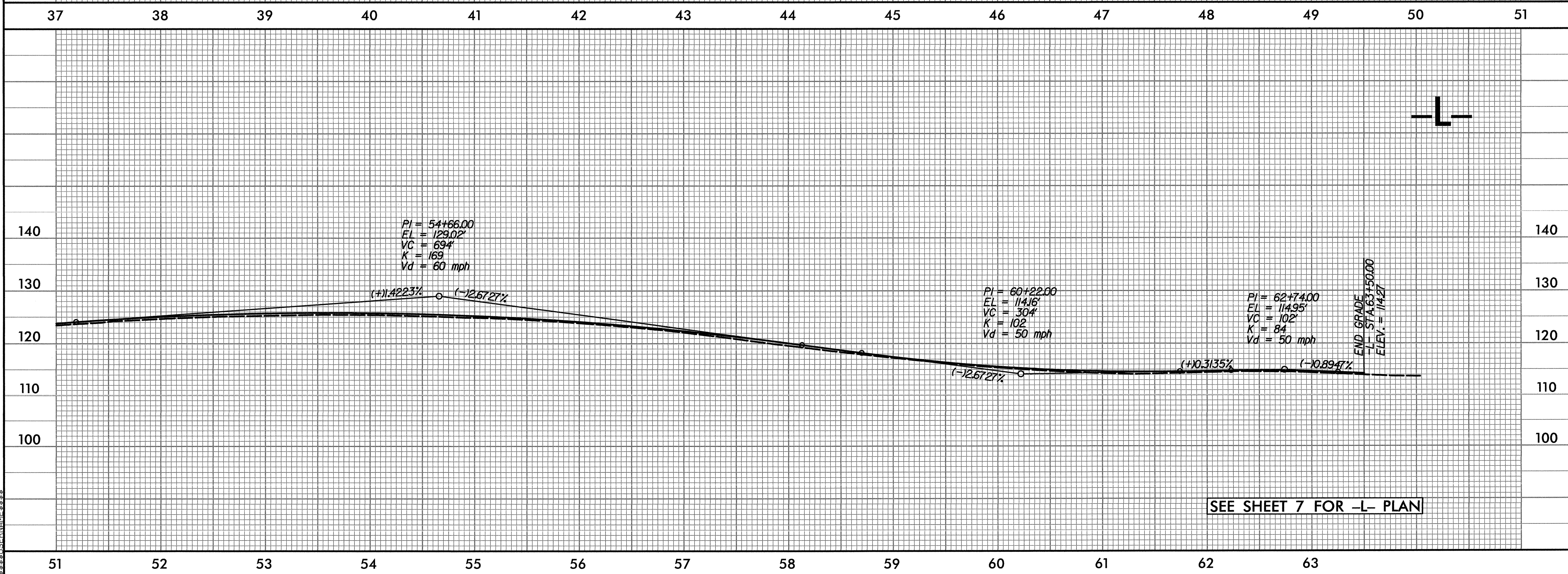
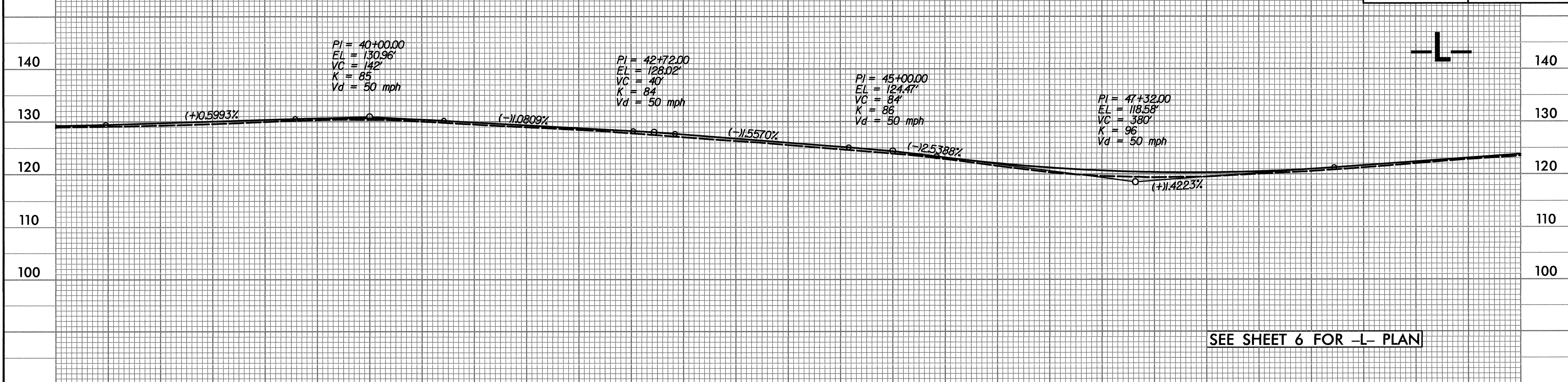


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PROJECT WBS ELEMENT 40129	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BM3 ELEVATION = 117.15
N 790,698 E 2,351,386
-L- STA. 48+51.17 (76.30'LT)
CHISELED SQUARE ON HEADWALL



DATE: 5/28/99
DRAWN BY: [illegible]
CHECKED BY: [illegible]
SCALE: [illegible]

5/28/99

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

PROJECT WBS ELEMENTS 40129	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BM 4 ELEVATION = 114.11
N 790.736 E 2,352.985
-Y5- STA. 11+34.38 (32.26' RT)
CHISELED SQUARE IN HEADWALL

