

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HAYWOOD & JACKSON COUNTIES

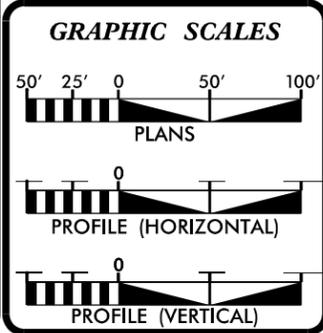
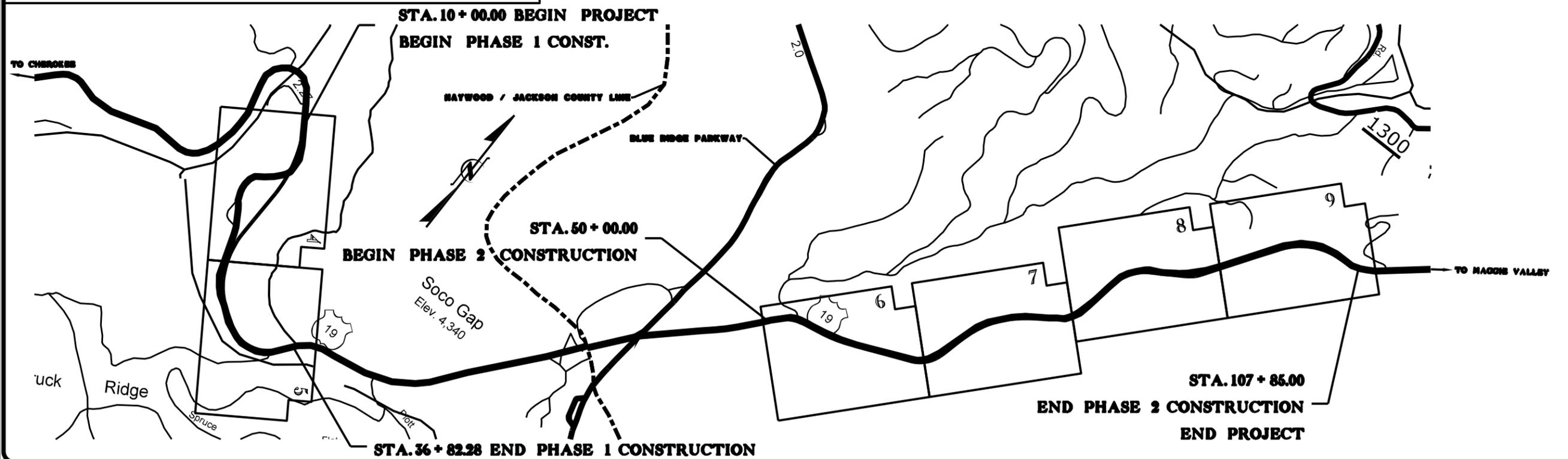
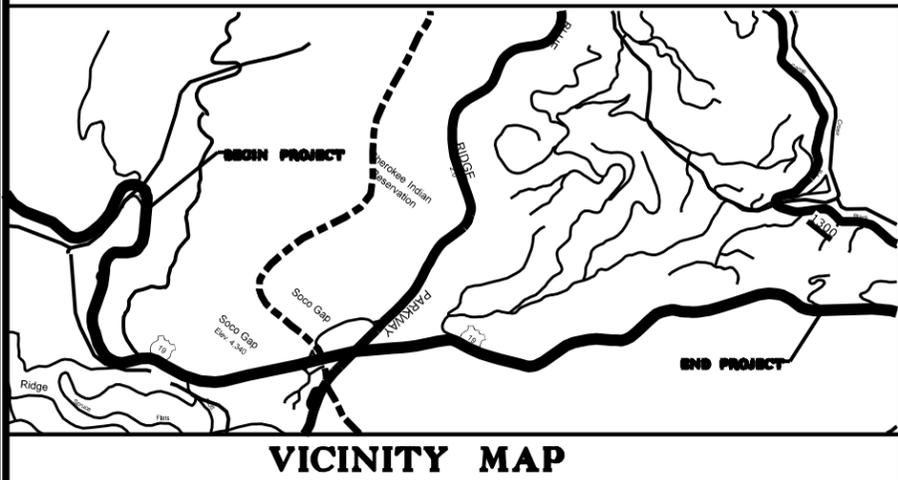
LOCATION: 3-LANE SEGMENTS NEAR THE COUNTY LINE

TYPE OF WORK: SHOULDER PAVING, DRAINAGE, GUARDRAIL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5214L	1	56
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45344.1.FR12	HSIP-0019(46)	PE	
45344.3.FR12	HSIP-0019(46)	CONST.	

TIP PROJECT: W-5214L

CONTRACT: DN00341



DESIGN DATA

ADT	=	_____
ADT	=	_____
DHV	=	_____ %
D	=	_____ %
T	=	_____ % *
V	=	_____ MPH
* TTST	=	_____ DUAL _____
FUNC CLASS	=	_____
_____		TIER _____

PROJECT LENGTH

1.6 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
178 Henry Bird Road, Whittier, NC 28789

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: Jonathan L. Woodard, P.E.
PROJECT ENGINEER

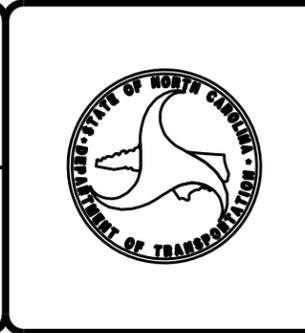
LETTING DATE: Jeffrey E. Alspaugh, E.I.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



\$\$\$\$\$SYTIME\$\$\$\$\$DDGN\$\$\$\$\$USERNAME\$\$\$\$\$

8/17/99

INDEX OF SHEETS

SHEET NUMBER	SHEET
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2	PAVEMENT SCHEDULE, TYPICAL SECTIONS
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF DRAINAGE & GUARDRAIL QUANTITIES
3B	GUARDRAIL BURIED IN CUT DETAIL (SHEET 1 OF 2)
3C	GUARDRAIL BURIED IN CUT DETAIL (SHEET 2 OF 2)
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PM-1 THRU PM-6	PAVEMENT MARKING PLANS
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EC-2, 2A, 2B, 2C, 2D	EROSION CONTROL DETAIL SHEETS
EC-3 THRU EC-8	EROSION CONTROL PLANS

GENERAL NOTES

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

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

LUMP SUM GRADING:
LUMP SUM GRADING SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:
1. CUTTING AND REMOVING THE EXISTING PAVEMENT FROM THE INSIDE EDGE OF THE EXISTING TRAVEL LANE (INCLUDING THE WHITE DELINEATION LANE LINE) TO THE EXISTING EDGE OF PAVEMENT.
2. GRADING TO REMOVE EROSION RILLS AND TO RE-ESTABLISH THE FRONT SLOPES OF THE DITCHES, FROM THE PROPOSED EDGE OF PAVEMENT, TO THE EXISTING DITCH INVERTS.
3. GRADING TO ACCOMPLISH LIMITED DITCH RE-ALIGNMENTS.

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

PAVEMENT REPAIR:
SEGMENTS OF THE ROAD WILL REQUIRE ASPHALT REPAIR. THE RESIDENT ENGINEER, OR HIS INSPECTOR WILL MARK THOSE AREAS OF THE PAVEMENT REQUIRING REPAIR, PRIOR TO THE START OF CONSTRUCTION.

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

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

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE ATT - PHONE, CHARTER - CABLE TV,
HAWOOD ELECTRIC MEMBERSHIP CORPORATION - POWER,
FRONTIER COMMUNICATIONS - PHONE

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
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
840.05	Brick Open Throat Catch Basin - 12" thru 48" Pipe
846.01	Concrete Curb, Gutter and Curb & Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
876.03	Drainage Ditches with Class 'A' Rip Rap
876.04	Drainage Ditches with Class 'B' Rip Rap

\$\$\$ SYSTEMS DESIGN GROUP \$\$\$

12/05/11

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	
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	

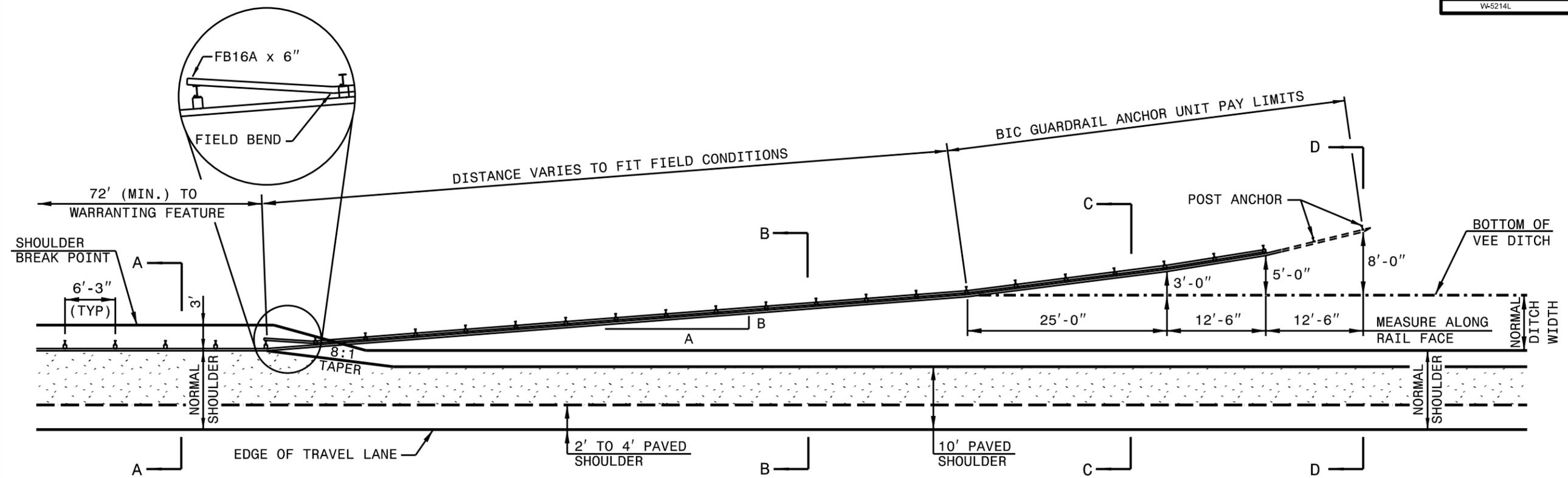
SANITARY SEWER:

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:

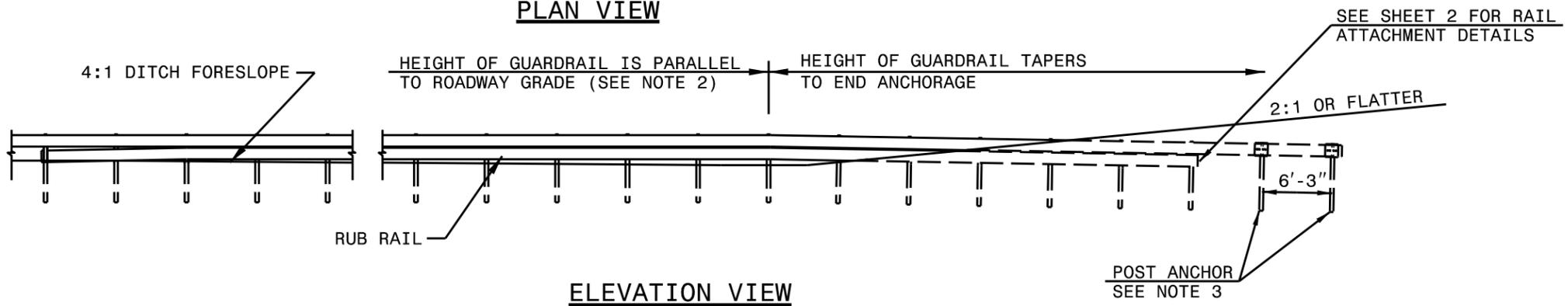
Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
U/G Test Hole (S.U.E.*)	
Abandoned According to Utility Records	
End of Information	

AATUR
E.O.I.

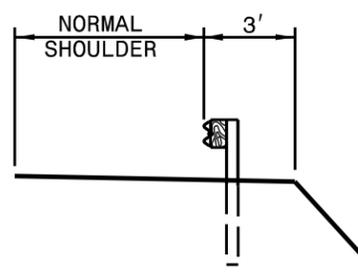


PLAN VIEW

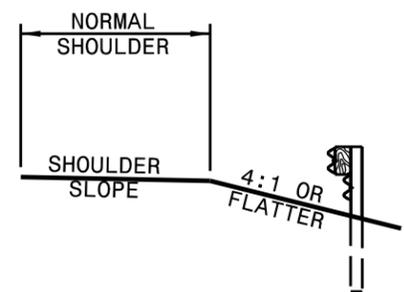
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55	12:1
50	11:1
45	10:1
40	9:1
30 or less	7:1



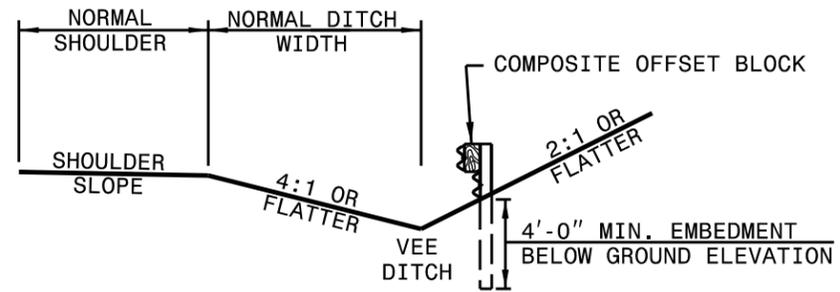
ELEVATION VIEW



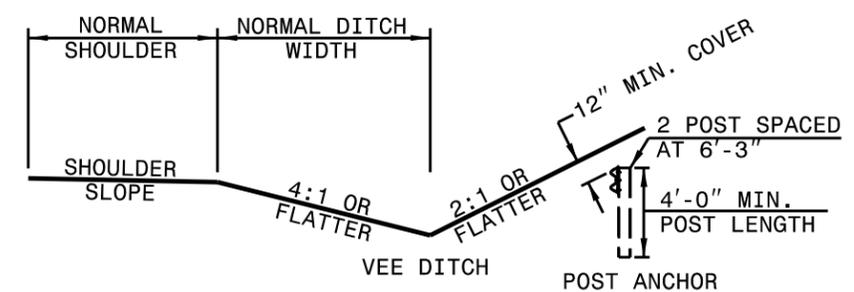
SECTION A-A



SECTION B-B
(WITH RUBRAIL)



SECTION C-C
(WITH RUBRAIL)



SECTION D-D

- NOTES:
- VARIABLE DITCH OFFSETS MAY BE USED TO FIT FIELD CONDITIONS.
 - HEIGHT OF GUARDRAIL MAY BE TAPERED DOWN IN ELEVATION TO MAINTAIN 3'-9" MAXIMUM HEIGHT.
 - ALL POSTS ARE 8'-0" IN LENGTH FROM WHERE THE GUARDRAIL FLARES AWAY FROM THE SHOULDER BACK TO THE DITCH FLOW LINE. GUARDRAIL POSTS BEYOND THE DITCH FLOW LINE MAY BE SHORTENED AS LONG AS A MINIMUM OF 4 FT. EMBEDMENT REMAINS BELOW THE EXISTING GROUND LINE. POST FOR POST ANCHOR MAY BE REDUCED TO 4 FT., ALL OF WHICH WILL BE BELOW GROUND.
 - REFER TO NCDOT STANDARD DRAWINGS 862.02 FOR GUARDRAIL INSTALLATION NOT COVERED IN THIS DETAIL AND INSTALL IN ACCORDANCE WITH SECTION 862 OF THE STANDARDS SPECIFICATIONS.
 - PAYMENT FOR ANY RUBRAIL INSTALLATION BEYOND BIC GUARDRAIL ANCHOR UNIT PAY LIMITS WILL BE INCIDENTAL TO PAYMENT FOR BIC ANCHOR UNIT.

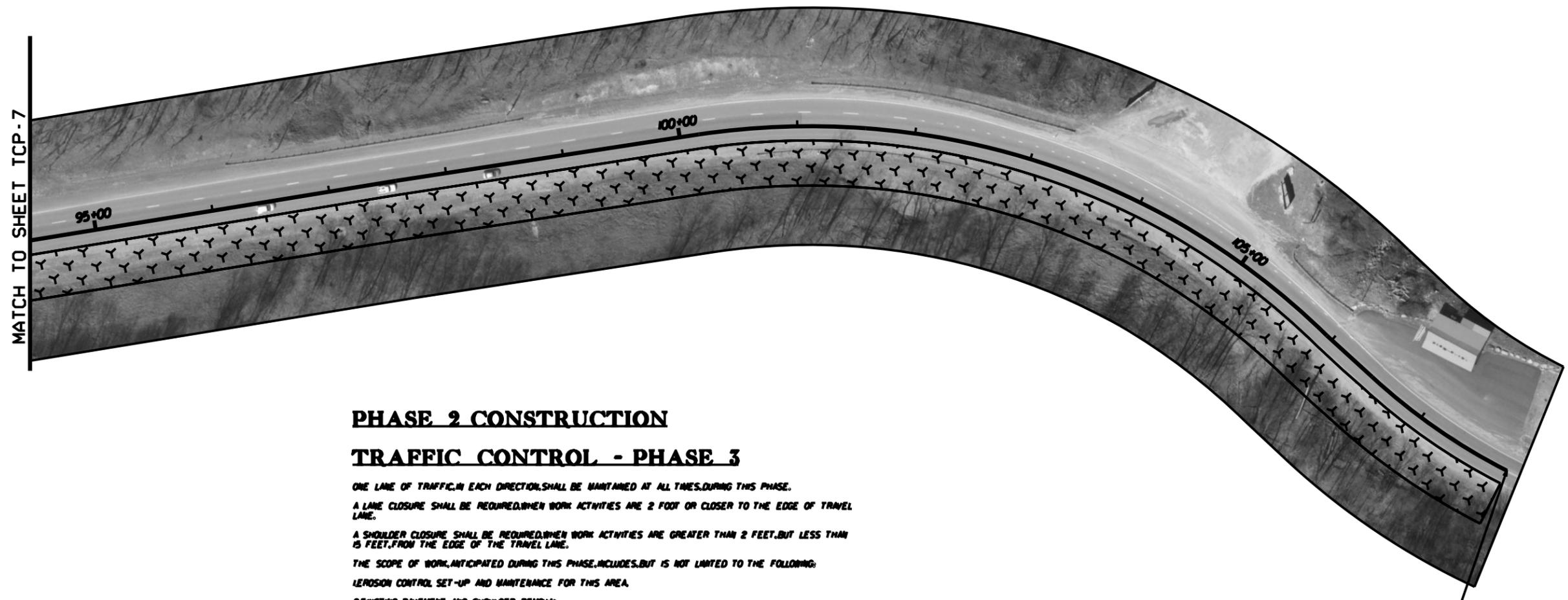
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

DETAIL OF GUARDRAIL BURIED IN CUT (BIC)

ORIGINAL BY: FHWA-G4 SYSTEM DATE: 8-13-98
 MODIFIED BY: F. E. WARD DATE: 12-7-01
 CHECKED BY: DATE:
 FILE SPEC.: ericward/misc_guardrail/BIC.dwg

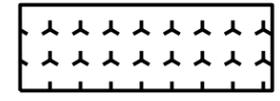
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PROJECT REFERENCE NO.	SHEET NO.
W-524L	TCP-8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PHASE 2 CONSTRUCTION
TRAFFIC CONTROL - PHASE 3

- ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES DURING THIS PHASE.
- A LANE CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE 2 FEET OR CLOSER TO THE EDGE OF TRAVEL LANE.
- A SHOULDER CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE GREATER THAN 2 FEET, BUT LESS THAN 15 FEET, FROM THE EDGE OF THE TRAVEL LANE.
- THE SCOPE OF WORK, ANTICIPATED DURING THIS PHASE, INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
 1. PERSON CONTROL SET-UP AND MAINTENANCE FOR THIS AREA.
 2. EXISTING PAVEMENT AND SHOULDER REMOVAL.
 3. ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES.
 4. ADJUSTMENTS TO EXISTING GUARDRAILS.
 5. GRADING.
 6. PAVING OF PROPOSED SHOULDER.



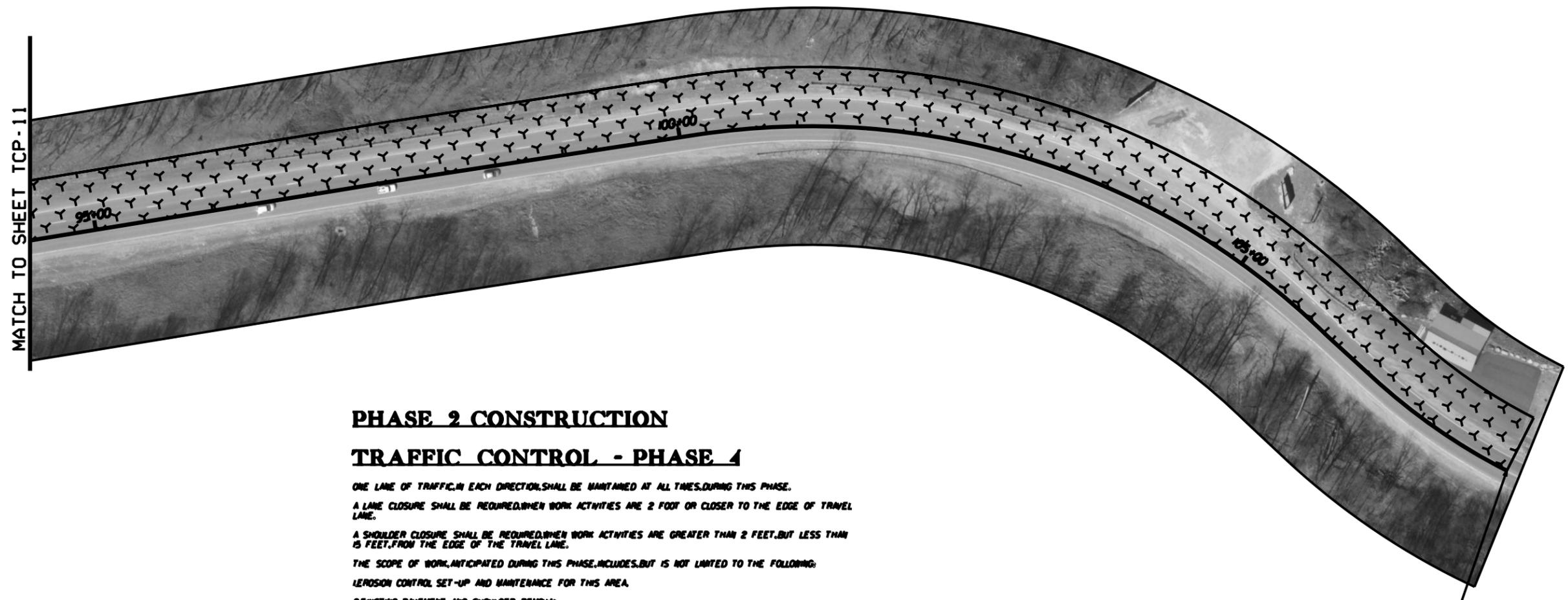
ANTICIPATED WORK ZONE AREA

STA. 107 + 05.00
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 END TRAFFIC CONTROL - PHASE 3
 END PROJECT

REVISIONS

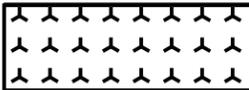
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 \$\$\$\$L1\$\$\$\$

PROJECT REFERENCE NO.	SHEET NO.
W-524L	TCP-12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PHASE 2 CONSTRUCTION
TRAFFIC CONTROL - PHASE 4

- ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES DURING THIS PHASE.
- A LANE CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE 2 FEET OR CLOSER TO THE EDGE OF TRAVEL LANE.
- A SHOULDER CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE GREATER THAN 2 FEET, BUT LESS THAN 15 FEET, FROM THE EDGE OF THE TRAVEL LANE.
- THE SCOPE OF WORK ANTICIPATED DURING THIS PHASE INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
 1. EROSION CONTROL SET-UP AND MAINTENANCE FOR THIS AREA.
 2. EXISTING PAVEMENT AND SHOULDER REMOVAL.
 3. ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES.
 4. ADJUSTMENTS TO EXISTING GUARDRAILS.
 5. GRADING.
 6. PAVING OF PROPOSED SHOULDER.



ANTICIPATED WORK ZONE AREA

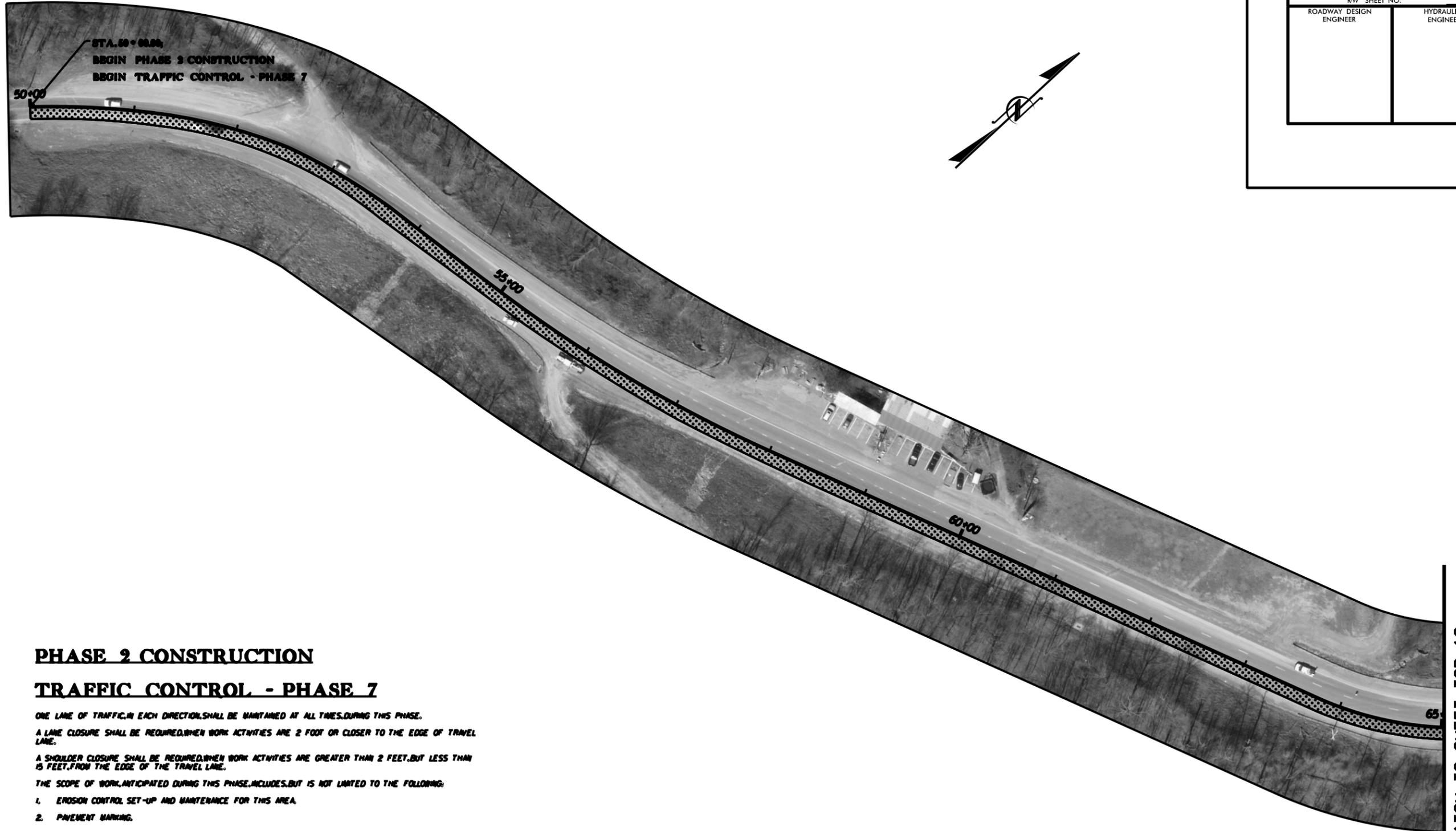
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REVISIONS

8/17/99

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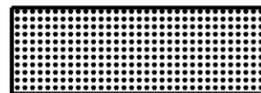
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W-524L	TCP-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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 BEGIN PHASE 3 CONSTRUCTION
 BEGIN TRAFFIC CONTROL - PHASE 7

PHASE 2 CONSTRUCTION
TRAFFIC CONTROL - PHASE 7

- ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES DURING THIS PHASE.
 A LANE CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE 2 FEET OR CLOSER TO THE EDGE OF TRAVEL LANE.
 A SHOULDER CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE GREATER THAN 2 FEET, BUT LESS THAN 15 FEET, FROM THE EDGE OF THE TRAVEL LANE.
 THE SCOPE OF WORK ANTICIPATED DURING THIS PHASE INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
1. EROSION CONTROL SET-UP AND MAINTENANCE FOR THIS AREA.
 2. PAVEMENT MARKING.



ANTICIPATED WORK ZONE AREA

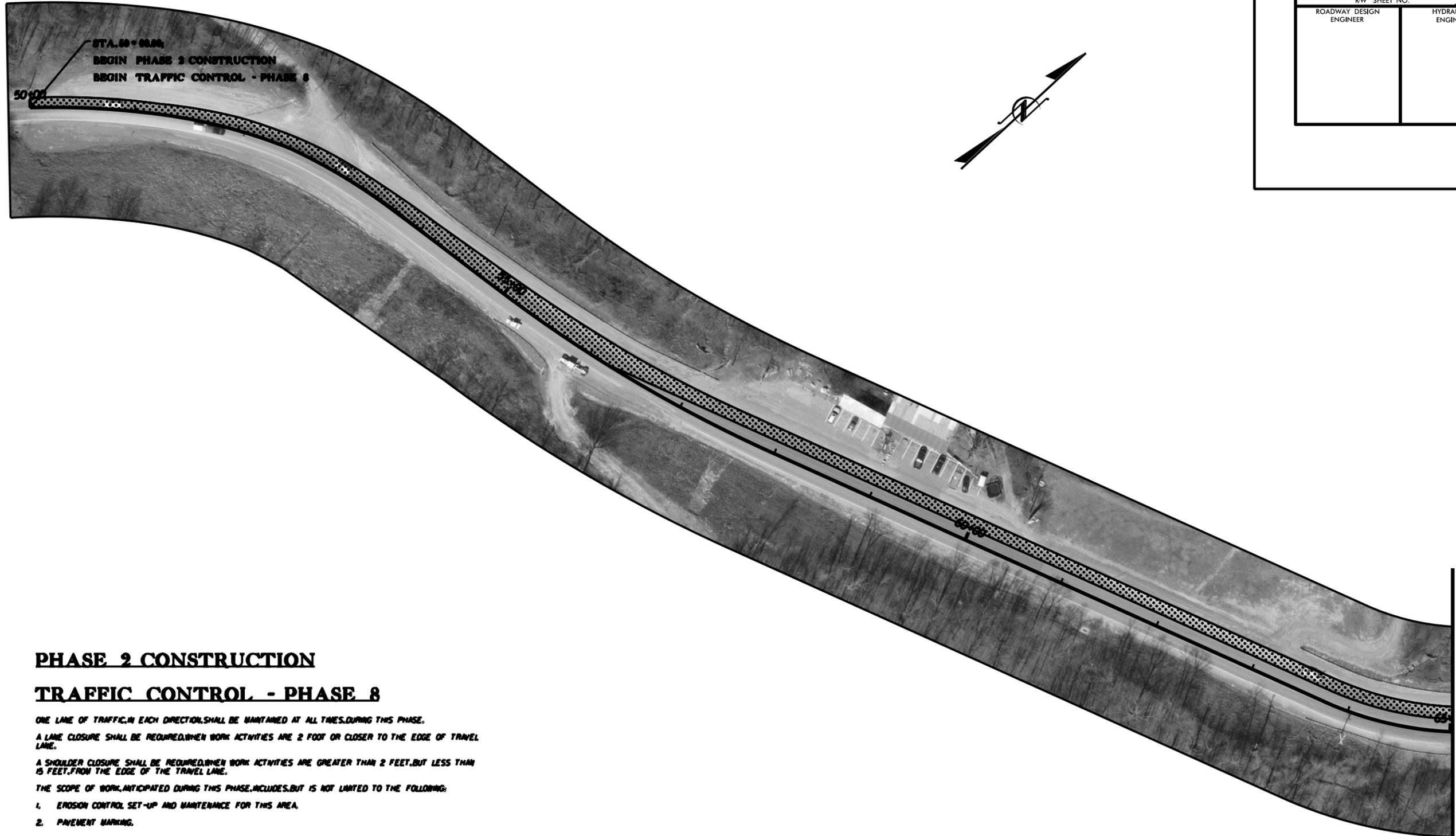
MATCH TO SHEET TCP-18

REVISIONS

8/17/99

SYSTEMS DESIGN CONSULTANTS, INC.

PROJECT REFERENCE NO.	SHEET NO.
W-524L	TCP-21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

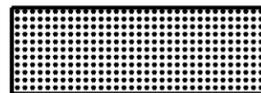


STA. 60+00.00
 BEGIN PHASE 3 CONSTRUCTION
 BEGIN TRAFFIC CONTROL - PHASE 8

50:00

PHASE 2 CONSTRUCTION
TRAFFIC CONTROL - PHASE 8

- ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES DURING THIS PHASE.
 A LANE CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE 2 FEET OR CLOSER TO THE EDGE OF TRAVEL LANE.
 A SHOULDER CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE GREATER THAN 2 FEET, BUT LESS THAN 15 FEET, FROM THE EDGE OF THE TRAVEL LANE.
 THE SCOPE OF WORK ANTICIPATED DURING THIS PHASE INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
1. EROSION CONTROL SET-UP AND MAINTENANCE FOR THIS AREA.
 2. PAVEMENT MARKING.



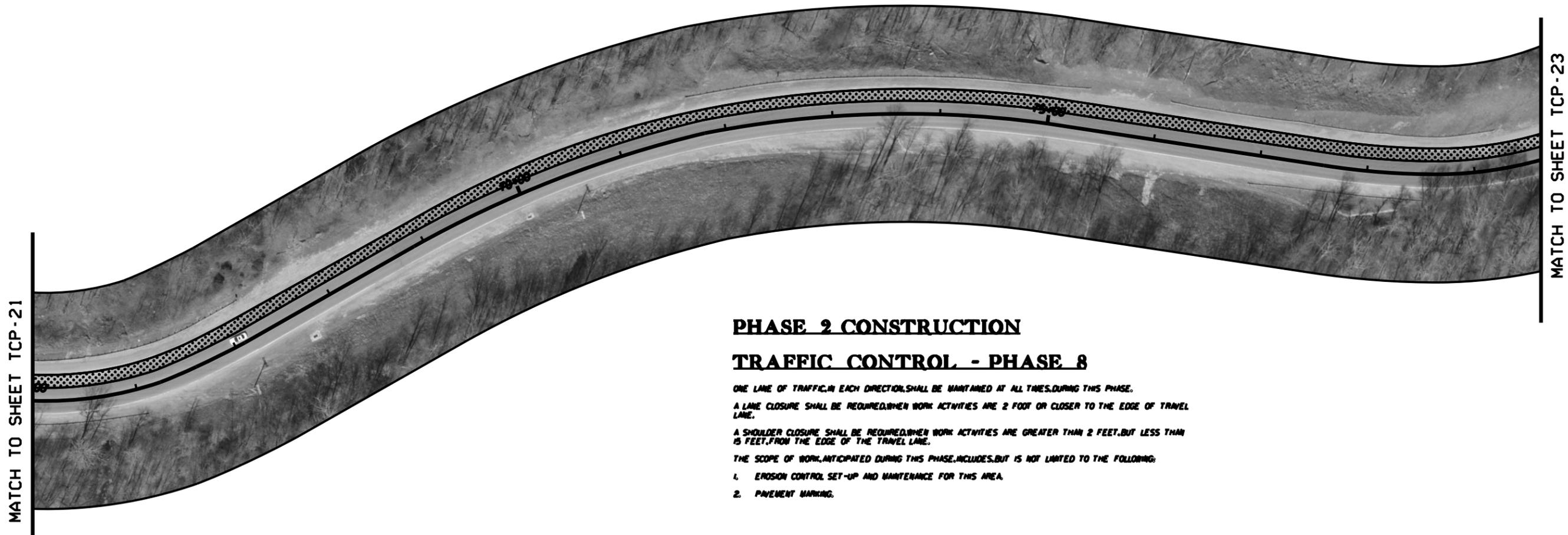
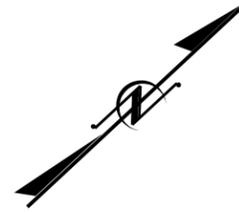
ANTICIPATED WORK ZONE AREA

MATCH TO SHEET TCP-22

REVISIONS

8/17/99
 SYSTEMS DESIGN
 CONSULTING

PROJECT REFERENCE NO.	SHEET NO.
W-5214L	TCP-22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

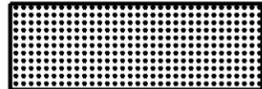


MATCH TO SHEET TCP-21

MATCH TO SHEET TCP-23

PHASE 2 CONSTRUCTION
TRAFFIC CONTROL - PHASE 8

- ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES DURING THIS PHASE.
- A LANE CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE 2 FEET OR CLOSER TO THE EDGE OF TRAVEL LANE.
- A SHOULDER CLOSURE SHALL BE REQUIRED WHEN WORK ACTIVITIES ARE GREATER THAN 2 FEET, BUT LESS THAN 15 FEET, FROM THE EDGE OF THE TRAVEL LANE.
- THE SCOPE OF WORK ANTICIPATED DURING THIS PHASE INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
1. EROSION CONTROL SET-UP AND MAINTENANCE FOR THIS AREA.
 2. PAVEMENT MARKING.



ANTICIPATED WORK ZONE AREA

REVISIONS

8/17/99

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PROJECT REFERENCE NO. SHEET NO.

W-524L

PM-6

R/W SHEET NO.

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

8/17/99

REVISIONS

MATCH TO SHEET PM-5



STA. 107 + 05.00
END PHASE 2 CONSTRUCTION
END PROJECT

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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5214L	EC-1	EC-8
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

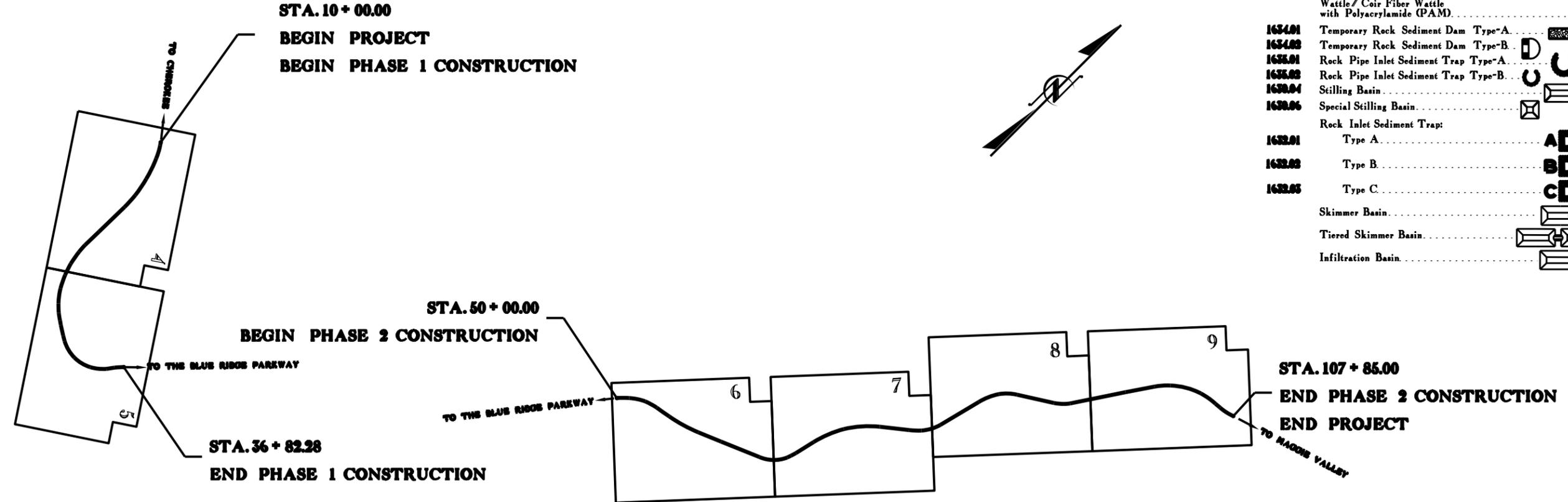
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL

TIP PROJECT: W-5214L

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	---
1630.06	Temporary Diversion	---
1605.01	Temporary Silt Fence	--- --- ---
1606.01	Special Sediment Control Fence	--- --- ---
1632.01	Temporary Berms and Slope Drains	--- --- ---
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle / Coir Fiber Wattle	--- --- ---
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	--- --- ---
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊓
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊓
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	⊓
1632.02	Type B	⊓
1632.03	Type C	⊓
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭



GRAPHIC SCALE

25' 0 50'

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:
DIVISION OF HIGHWAYS
 178 Henry Bird Road
 Whittier, NC 28789
 2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence
 1632.03 Rock Inlet Sediment Trap Type C

*****SYTIME*****
 *****DUNN*****
 *****PERKINS*****

8/17/99

REVISIONS

\$\$\$\$\$SYTIME\$\$\$\$\$
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\$\$\$\$\$DGN\$\$\$\$\$
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\$\$\$\$\$PDF\$\$\$\$\$

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

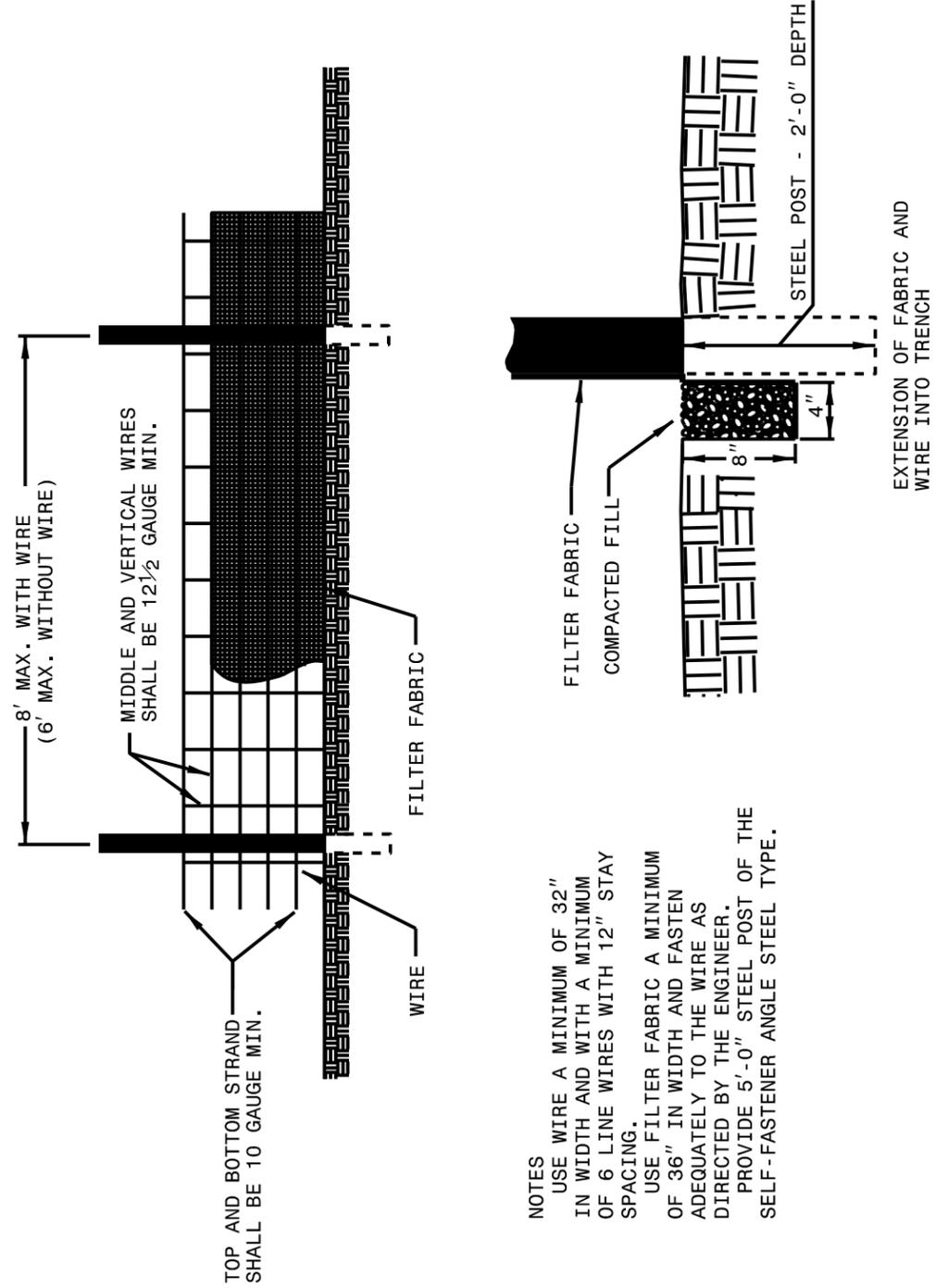
ENGLISH STANDARD DRAWING FOR
TEMPORARY SILT FENCE

SHEET 1 OF 1
1605.01

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

ENGLISH STANDARD DRAWING FOR
TEMPORARY SILT FENCE

SHEET 1 OF 1
1605.01



NOTES
 USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
 USE FILTER FABRIC A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.
 PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

EXTENSION OF FABRIC AND WIRE INTO TRENCH

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

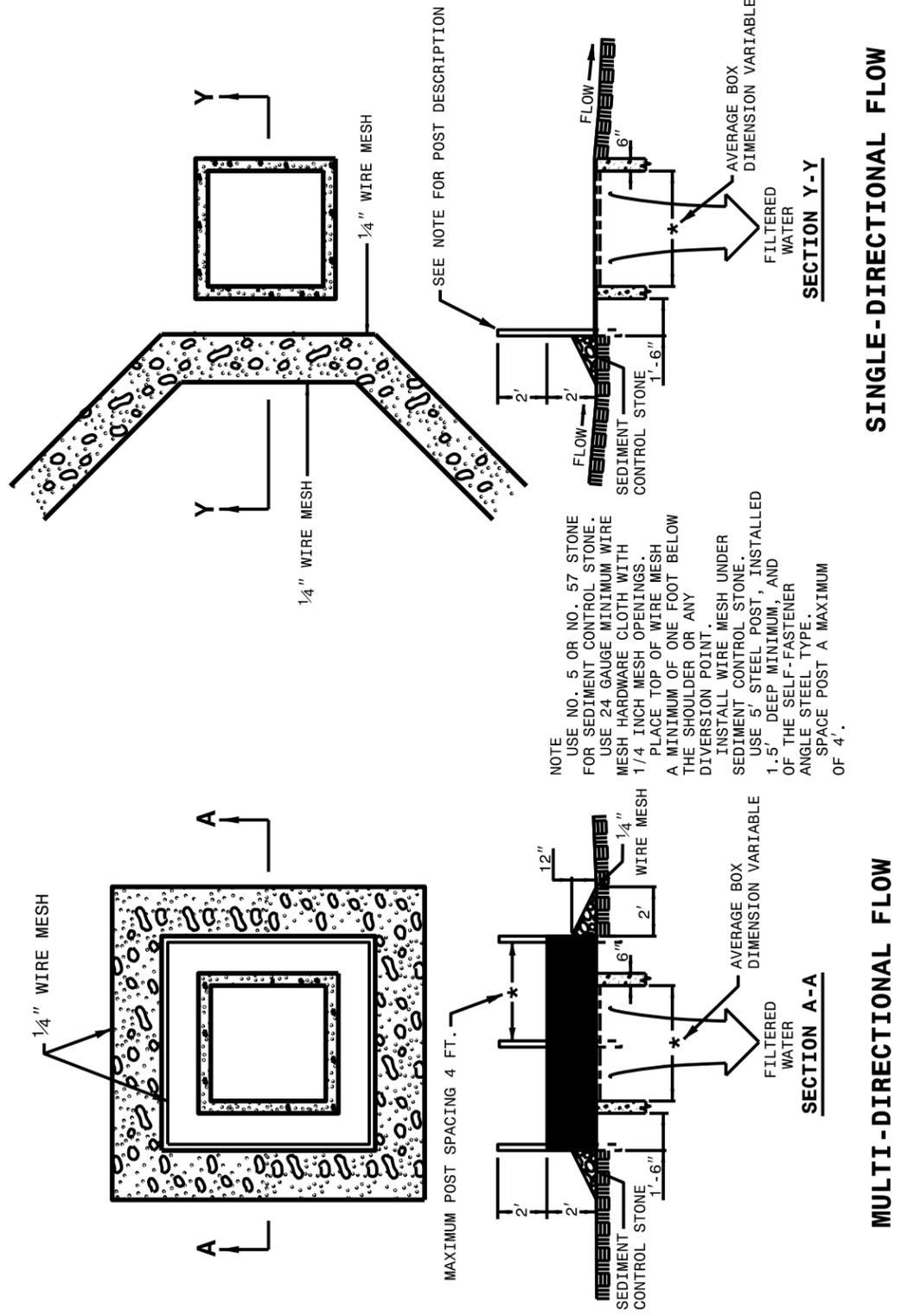
ENGLISH STANDARD DRAWING FOR
ROCK INLET SEDIMENT TRAP TYPE 'C'

SHEET 1 OF 1
1632.03

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

ENGLISH STANDARD DRAWING FOR
ROCK INLET SEDIMENT TRAP TYPE 'C'

SHEET 1 OF 1
1632.03



NOTE
 USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
 USE 24 GAUGE MINIMUM WIRE MESH HARDWARE CLOTH WITH 1/4" INCH MESH OPENINGS.
 PLACE TOP OF WIRE MESH A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
 INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
 USE 5' STEEL POST, INSTALLED 1'-5" DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
 SPACE POST A MAXIMUM OF 4'.

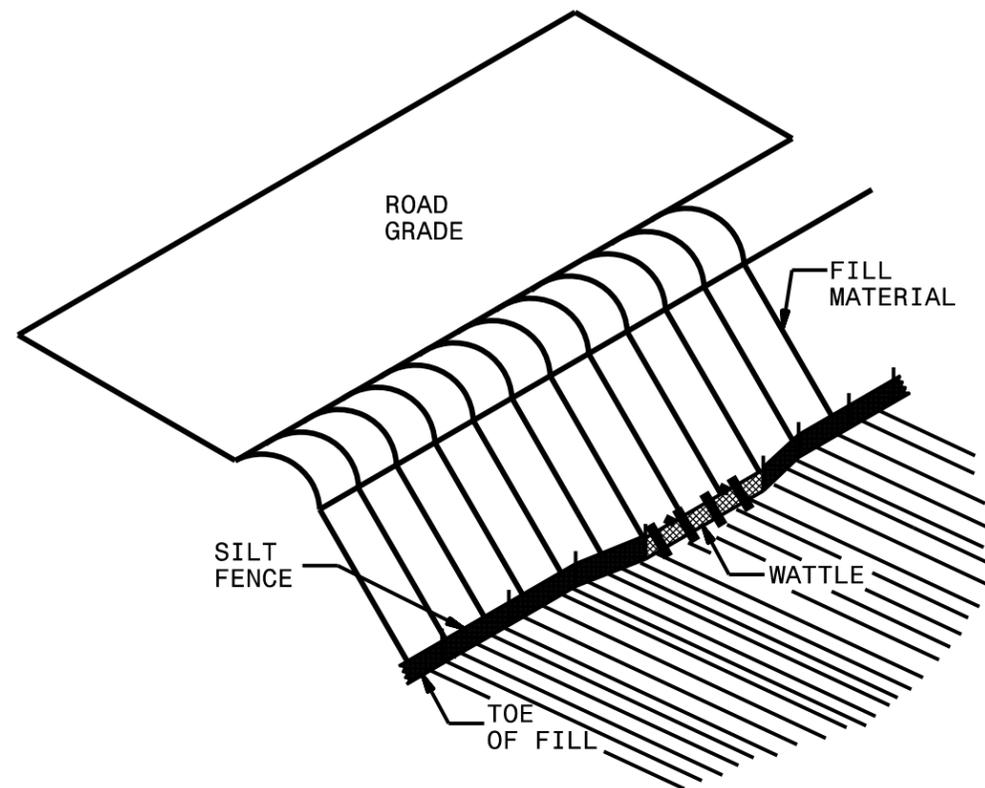
MULTI-DIRECTIONAL FLOW

SINGLE-DIRECTIONAL FLOW

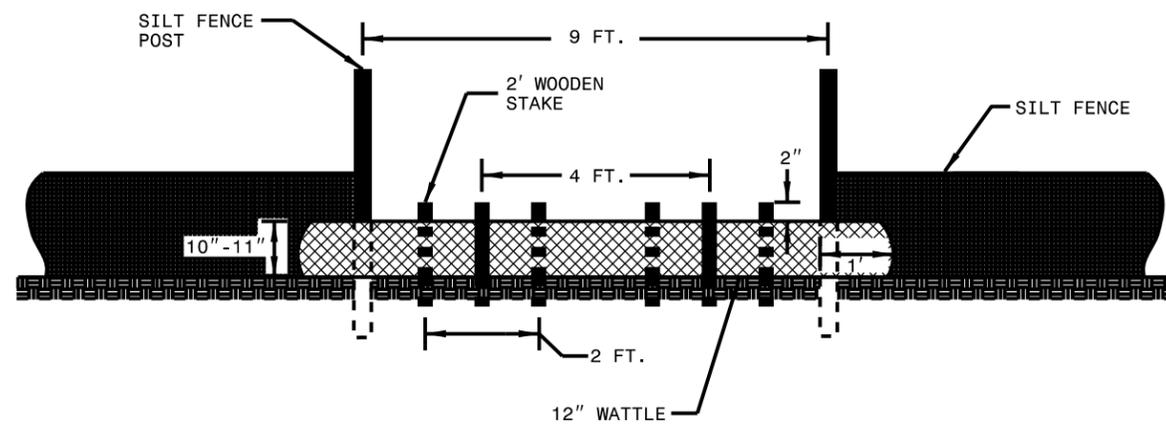
PROJECT REFERENCE NO. W-524L	SHEET NO. EC-2
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

SILT FENCE WATTLE BREAK DETAIL

PROJECT REFERENCE NO. W-5241	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ISOMETRIC VIEW

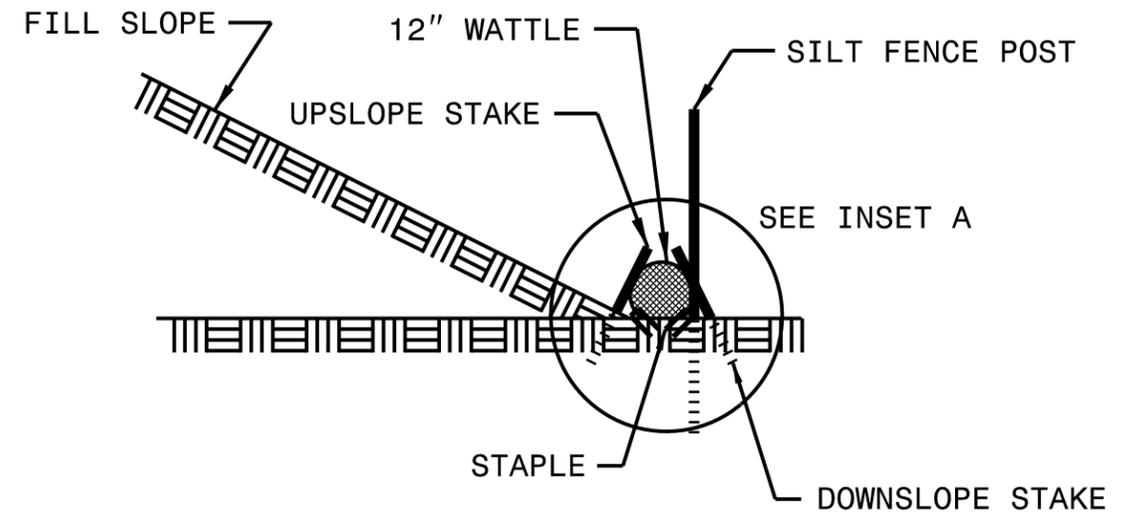
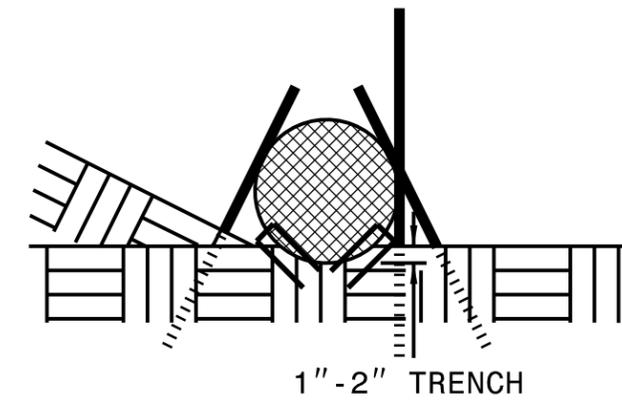


VIEW FROM SLOPE

NOTES:

- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

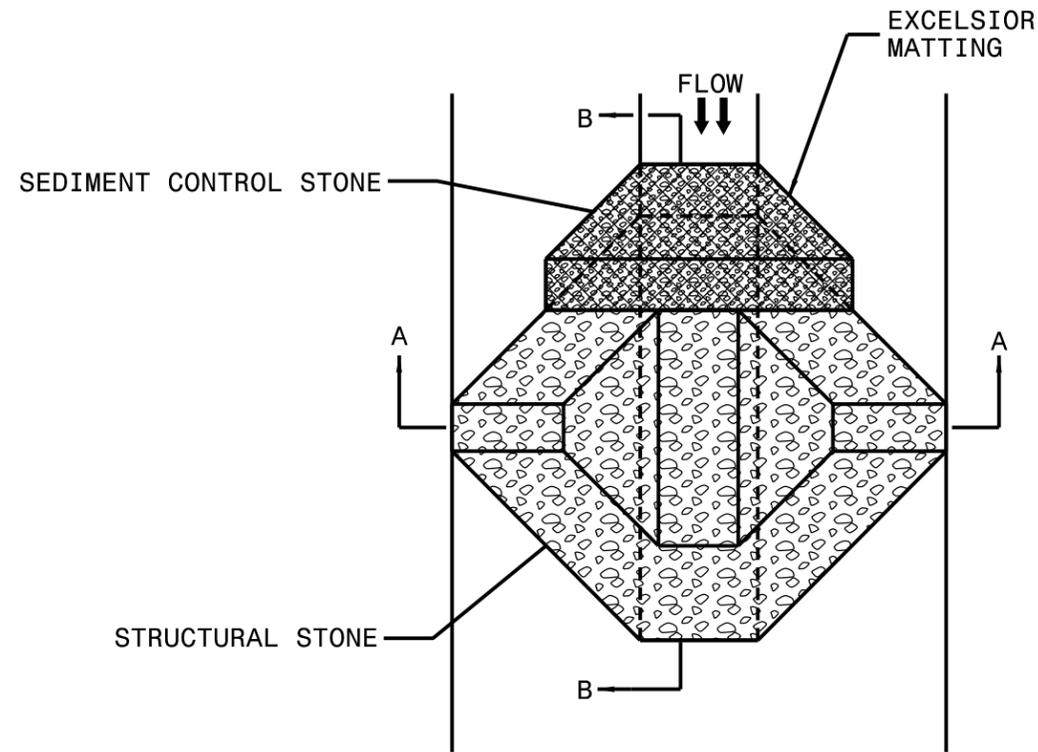
INSET A



SIDE VIEW

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

PROJECT REFERENCE NO. W-5214L	SHEET NO. EC-2C
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



PLAN

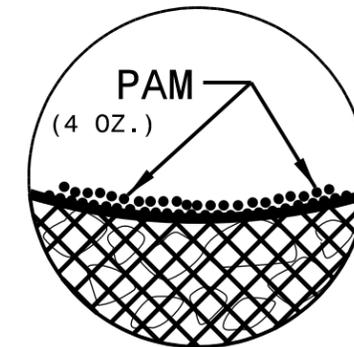
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

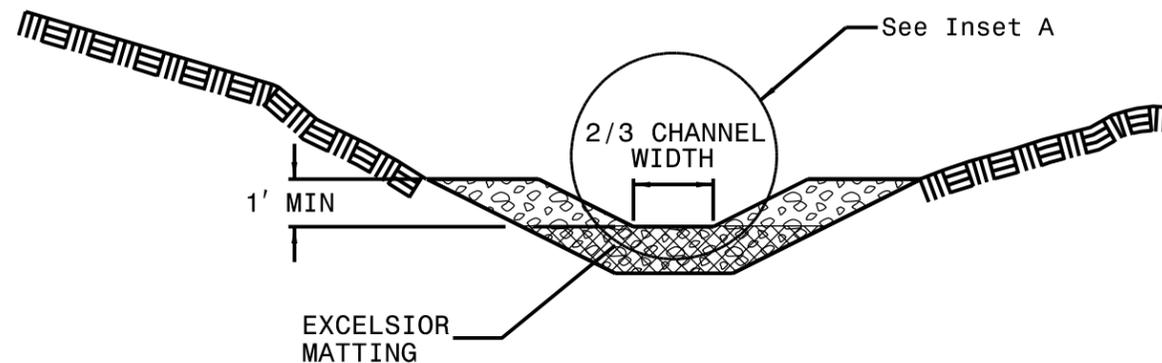
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

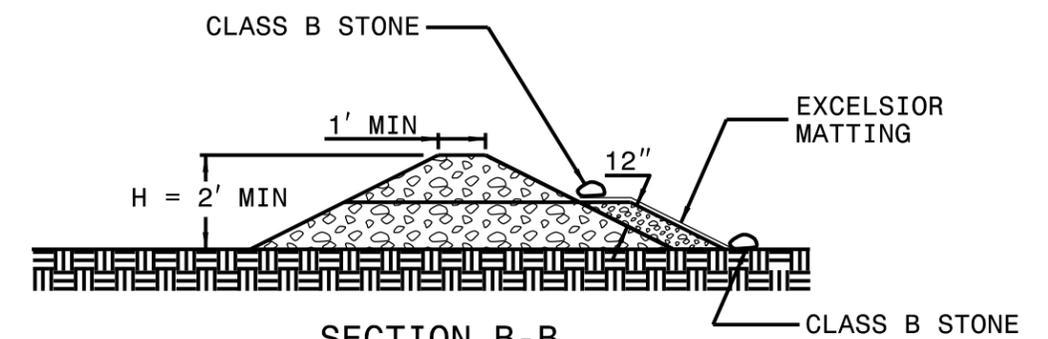
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

PROJECT REFERENCE NO. W-5214L	SHEET NO. EC-20
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

