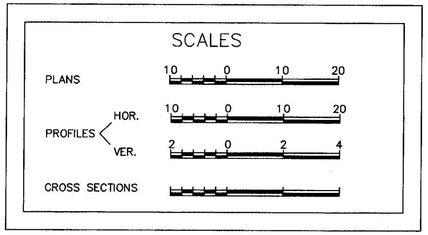


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WATERVILLE

KENNEBEC COUNTY
MAINE

PROJECT NO. IM-95-7800(00)E, IM-95-7789(00)E & IM-95-8695(00)E

PROJECT LENGTH: 1.370 KILOMETERS
BRIDGE DECK REPLACEMENT AND WIDENING

METRIC

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IM-95-7800(00)E IM-95-7789(00)E IM-95-8695(00)E	1	42

SPECIFICATIONS

DESIGN:
LOAD FACTOR DESIGN PER AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1996 AND INTERIM SPECIFICATIONS 1997, 1998 AND 1999.

CONTRACT:
STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF APRIL 1995.

STANDARD DETAILS:
STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD DETAILS, HIGHWAYS AND BRIDGES, APRIL, 1997.

DESIGN LOADING:
LIVE LOAD: MS18
STRESS CYCLES: 500,000 (2,000,000)

MATERIALS:
CONCRETE: SUBSTRUCTURE REPAIR: CLASS AA
ALL OTHER: CLASS A

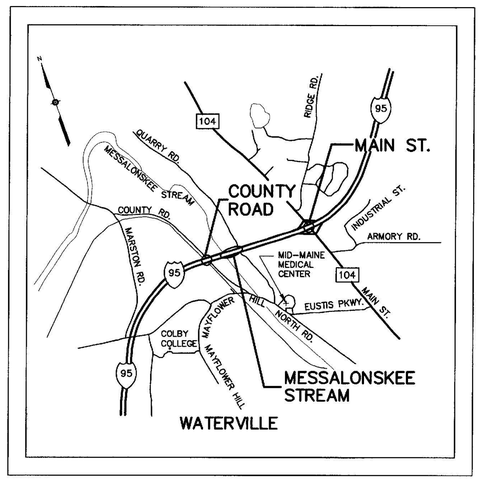
REINFORCING STEEL: ASTM A615M GRADE 420

STRUCTURAL STEEL: ALL MATERIAL ASTM A709/A709M, GRADE 250
HIGH STRENGTH BOLTS ASTM A325M, TYPE 1 OR 2

BASIC DESIGN STRESSES:
CONCRETE: f'c = 30 MPa

REINFORCING STEEL: fy = 420 MPa

STRUCTURAL STEEL: ASTM A709/A709M, GRADE 250 Fy = 250 MPa
ASTM A325M Fy = 170 MPa



TRAFFIC DATA

	IM-95-7800(00)E / IM-95-7789(00)E	IM-95-8695(00)E
AVERAGE ANNUAL DAILY TRAFFIC (1998)	12,300	8,340
AVERAGE ANNUAL DAILY TRAFFIC (2018)	18,465	13,345
DESIGN HOURLY VOLUME	2,400	1,730
HEAVY TRUCKS (% AADT)	13	13
DIRECTIONAL DISTRIBUTION (% DHV)	100	100
80 Kn EQUIVALENT P2.0	1,620	1,150
80 Kn EQUIVALENT P2.5	1,550	1,200
DESIGN SPEED	110 Km/h	110 Km/h

NOTE

ALL WORK CONTEMPLATED UNDER THIS CONTRACT TO BE GOVERNED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (REVISION OF APRIL 1995) AND SUPPLEMENTALS THERETO AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

STATE OF MAINE JOHN E. DORITY No. 6389 REGISTERED PROFESSIONAL ENGINEER

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISSIONER — DATE 12/1/00

CHIEF ENGINEER — DATE 11/29/00

INDEX OF SHEETS

STATE OF MAINE Wade R. Brown 8648 REGISTERED PROFESSIONAL ENGINEER

WADE R BROWN, PE — DATE 11/21/00

SEA Consultants Inc.
Science/Engineering/Architecture

CAMBRIDGE, MASSACHUSETTS ROCKY HILL, CONNECTICUT
CONCORD, NEW HAMPSHIRE ROCHESTER, NEW YORK

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

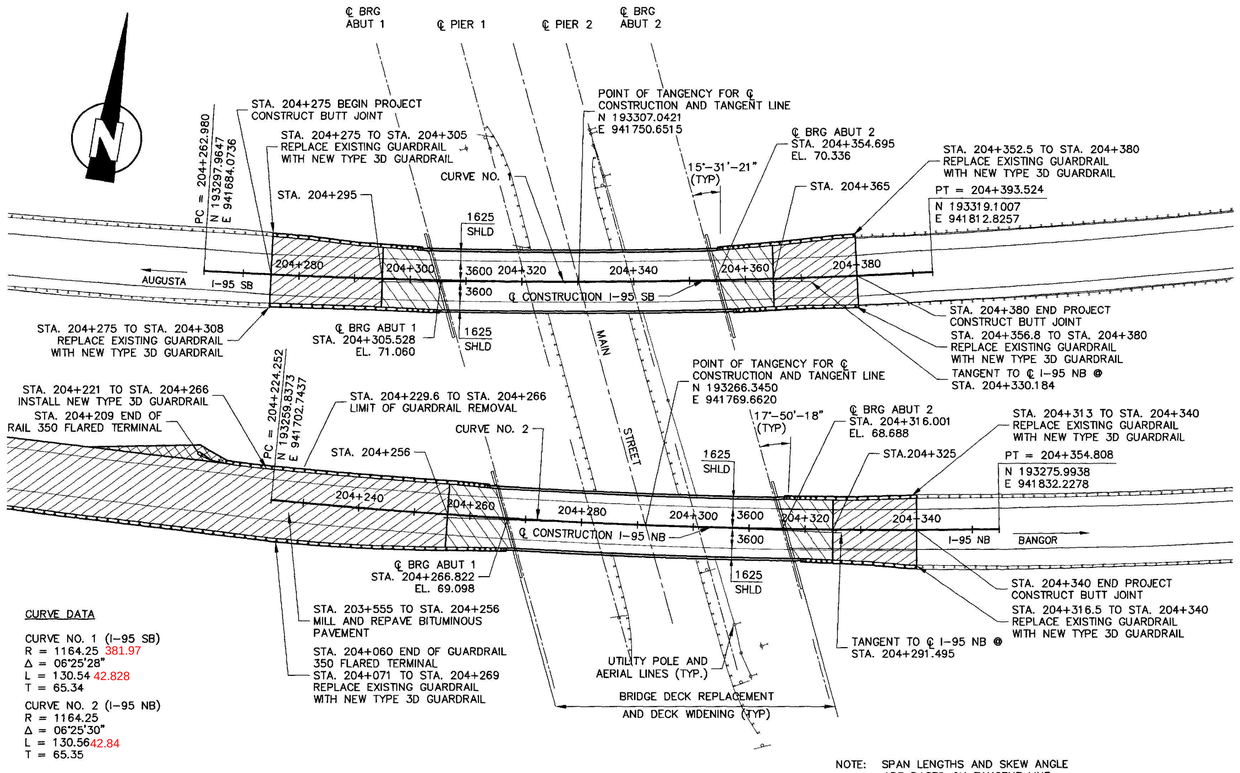
REGION 1

APPROVED:

DIVISION ADMINISTRATOR — DATE

W:\MDOT\99285.01 County Rd\Dwg\1cover.dwg Mon Nov 20 08:13:20 2000 1055CM plotter monochrome setup

METRIC	1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.	F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		1	MAINE	IM-95-8695(00)E	34	42



CURVE DATA

CURVE NO. 1 (I-95 SB)
R = 1164.25 381.97
Δ = 06°25'28"
L = 130.54 42.828
T = 65.34

CURVE NO. 2 (I-95 NB)
R = 1164.25
Δ = 06°25'30"
L = 130.56 42.84
T = 65.35

NOTE: SPAN LENGTHS AND SKEW ANGLE ARE BASED ON TANGENT LINE.

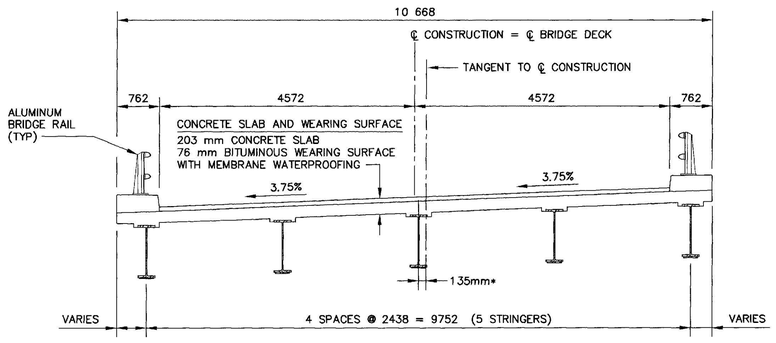
PLAN

LEGEND

MILL 75 mm AND REPAVE TO PROPOSED PROFILE

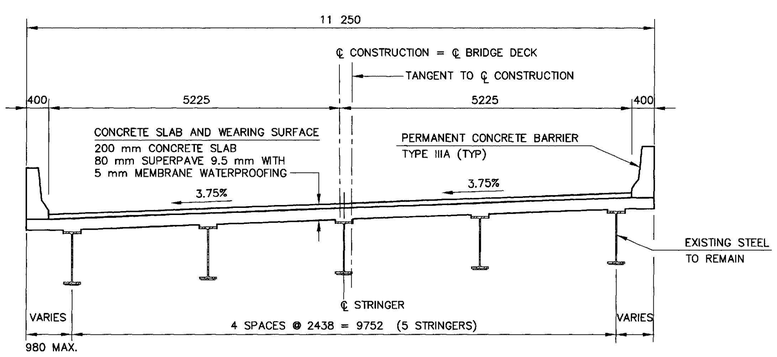
CONSTRUCT PAVING ACCORDING TO BRIDGE APPROACH PLANS

ITEM 606.754
OR
ITEM 205.51
SHOULDER WIDENING



* PER PLANS OF THE EXISTING BRIDGE

TRANSVERSE SECTION (EXISTING)



TRANSVERSE SECTION (PROPOSED)

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	WRB	10/00
CHECKED	JC	10/00
REVISIONS		
FIELD CHANGES		

PLANS

XXXX, 1998
XXXXXXXX.DWG

BRIDGE No. 1457 SOUTHBOUND
BRIDGE No. 5818 NORTHBOUND

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

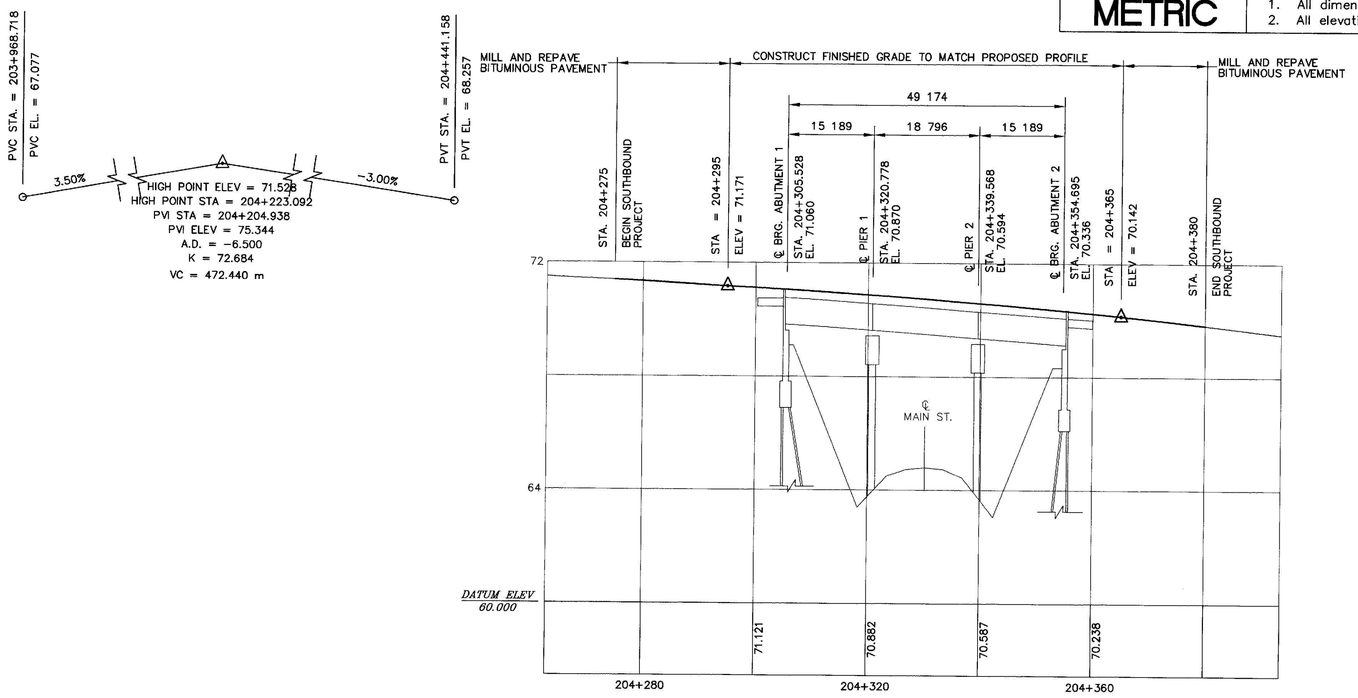
INTERSTATE 95
over
MAIN STREET

WATERVILLE
KENNEBEC COUNTY

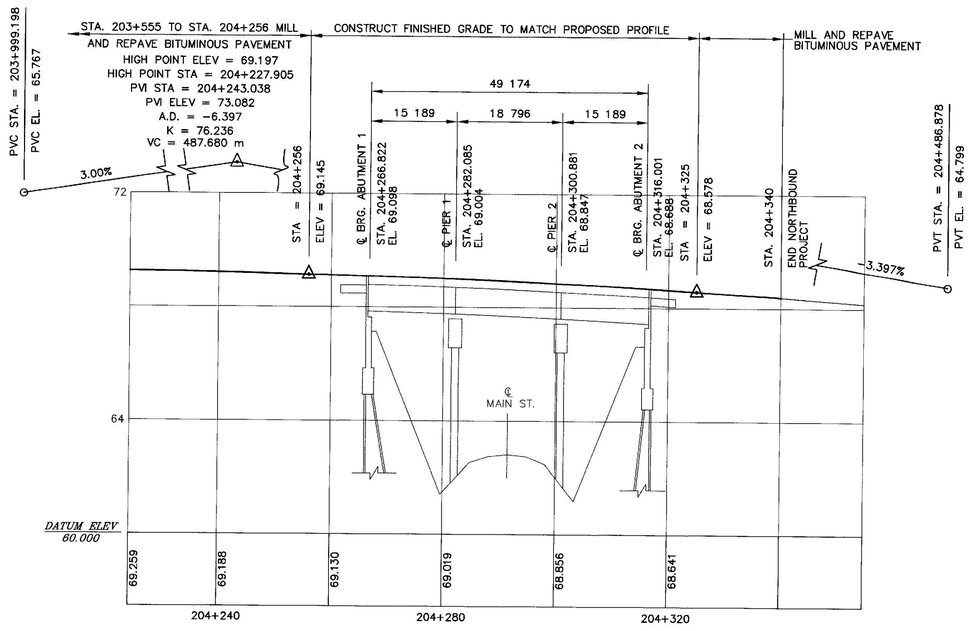
GENERAL PLAN

SHEET 34 OF 42 WATERVILLE, MAINE NOV., 2000

METRIC	1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.	F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		1	MAINE	IM-95-6895(00)X	35	42



I-95 SOUTHBOUND PROFILE



I-95 NORTHBOUND PROFILE

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	SEN	10/00
CHECKED	SEN	10/00
REVISIONS	DRD	10/00
FIELD CHANGES		

PLANS

JAN., 2000
3PROFILE.DWG

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95
over
MAIN STREET

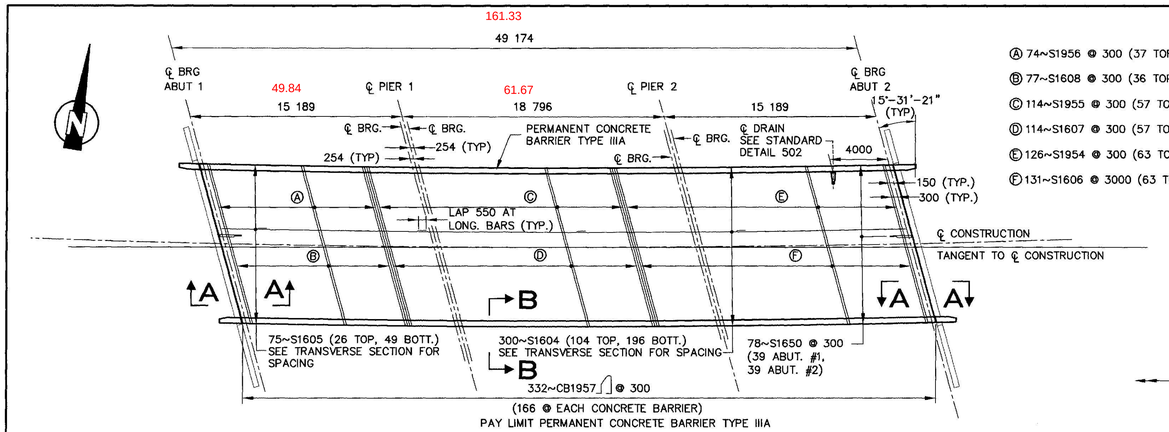
WATERVILLE
KENNEBEC COUNTY

PROFILES

SHEET 35 OF 42 WATERVILLE, MAINE NOV., 2000

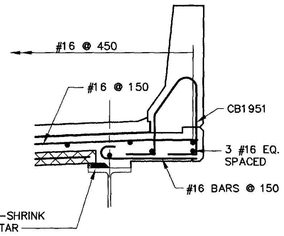
METRIC	1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IM-95-5595(00)E	38	42

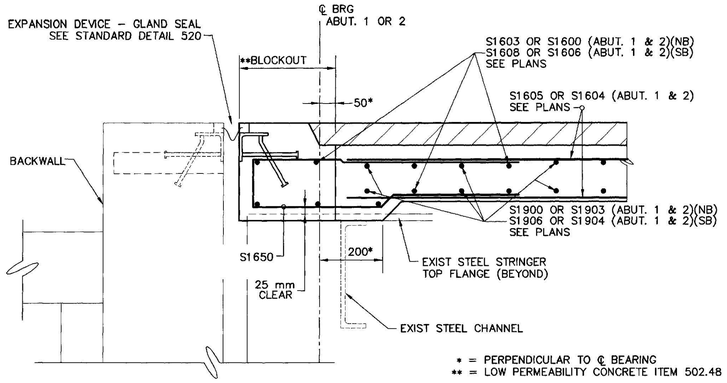


I-95 SOUTHBOUND PLAN

Ⓐ 74~S1956 @ 300 (37 TOP, 37 BOTT.)
Ⓑ 77~S1608 @ 300 (36 TOP, 36 BOTT. & 5 IN HAUNCH)
Ⓒ 114~S1955 @ 300 (57 TOP, 57 BOTT.)
Ⓓ 114~S1607 @ 300 (57 TOP, 57 BOTT.)
Ⓔ 126~S1954 @ 300 (63 TOP, 63 BOTT.)
Ⓕ 131~S1606 @ 3000 (63 TOP, 63 BOTT. & 5 IN HAUNCH)

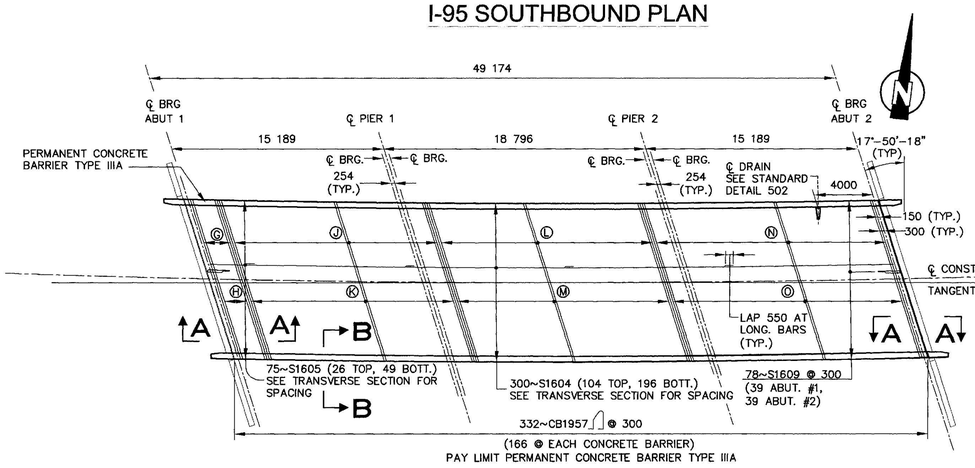


SECTION B-B
(PRECAST CONCRETE PANEL OPTION)



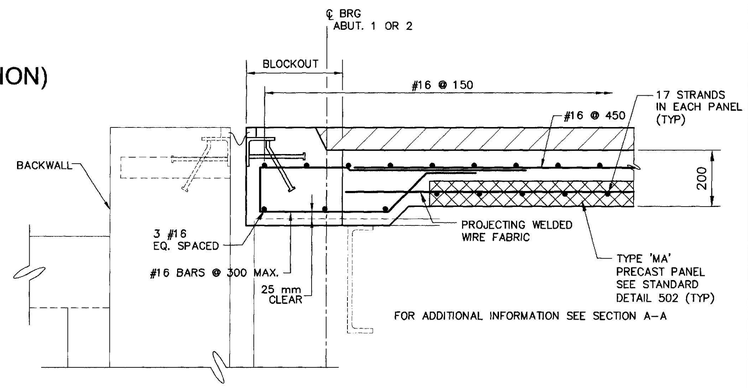
* = PERPENDICULAR TO ℄ BEARING
** = LOW PERMEABILITY CONCRETE ITEM 502.48

SECTION A-A

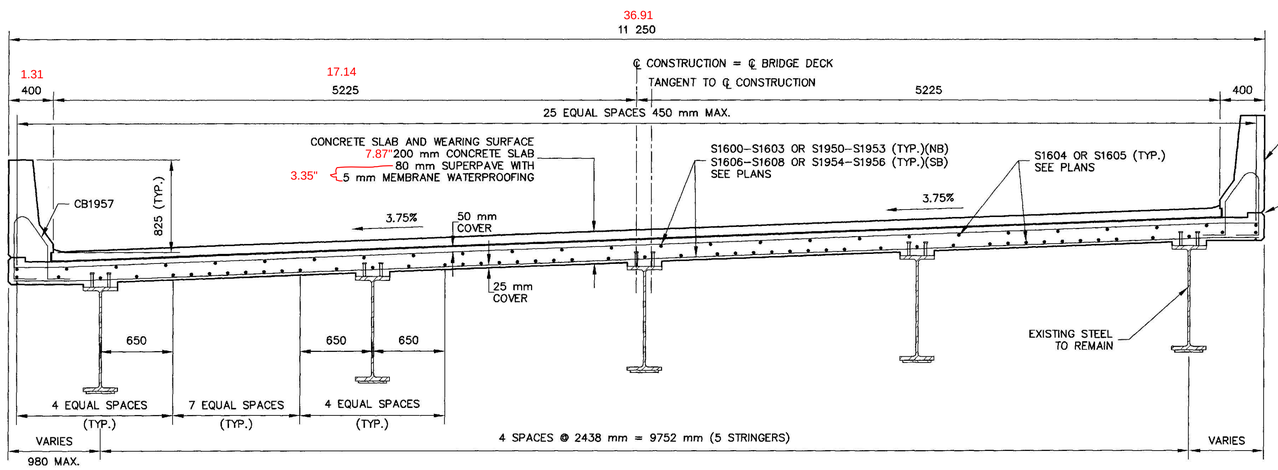


I-95 NORTHBOUND PLAN

Ⓒ 14~S1953 @ 300 (7 TOP, 7 BOTT.)
Ⓗ 17~S1603 @ 300 (6 TOP, 6 BOTT. & 5 IN HAUNCH)
Ⓙ 94~S1952 @ 300 (47 TOP, 47 BOTT.)
Ⓚ 94~S1602 @ 300 (47 TOP, 47 BOTT.)
Ⓛ 98~S1951 @ 300 (49 TOP, 49 BOTT.)
Ⓜ 98~S1601 @ 300 (98 TOP, 98 BOTT.)
Ⓝ 106~S1950 @ 300 (53 TOP, 53 BOTT.)
Ⓞ 111~S1600 @ 300 (53 TOP, 53 BOTT. & 5 IN HAUNCH)



SECTION A-A
(PRECAST CONCRETE PANEL OPTION)



TRANSVERSE SECTION

NOTES

1. THE SUPERSTRUCTURE SLAB CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION AND THE CONCRETE SHALL BE KEPT PLASTIC ONE COMPLETE SPAN BEHIND THE SPAN BEING PLACED."
2. 25 mm DIAMETER TUBE DRAINS SHALL BE INSTALLED IN DECK PER STANDARD DETAIL 502(3).
3. AT DECK EXPANSION JOINTS, PROVIDE EXPANSION DAMS AT FACE OF CONCRETE PARAPETS AND ALONG TOP TO WITHIN 50 mm FROM FASCIA. SEE STANDARD DETAIL 520.
4. PAYMENT FOR THE REINFORCING STEEL, FABRICATED, DELIVERED, AND PLACED, FOR CAST–IN–PLACE STRUCTURAL CONCRETE DECK SHALL BE INCIDENTAL TO ITEM 502.26.

JOINT TEMPERATURE MOVEMENT DATA

	MR	L
ABUTMENT 1	26 mm	25 m
ABUTMENT 2	26 mm	25 m

SEE EXPANSION DEVICE STANDARD DETAIL 520 FOR THE JOINT OPENING TEMPERATURE ADJUSTMENT AT TIME OF INSTALLATION. WHERE ADJUSTMENT (in mm) = 0.012 x "L" x "T". "T" IS THE TEMPERATURE DIFFERENCE. "L" IS GIVEN IN TABLE ABOVE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95
over
MAIN STREET

WATERVILLE
KENNEBEC COUNTY

DECK REPLACEMENT PLAN

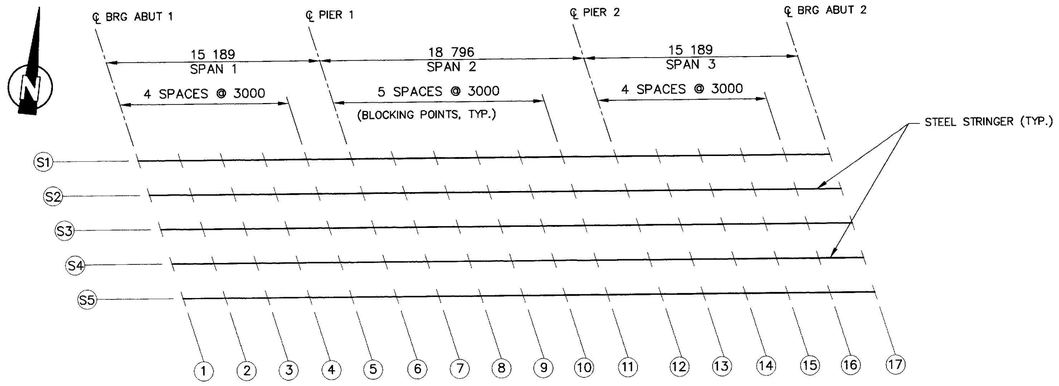
SHEET 38 OF 42 WATERVILLE, MAINE NOV., 2000

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN–DETAILED	WRB	10/00
CHECKED	SEN	10/00
REVISIONS	SEN	
FIELD CHANGES		

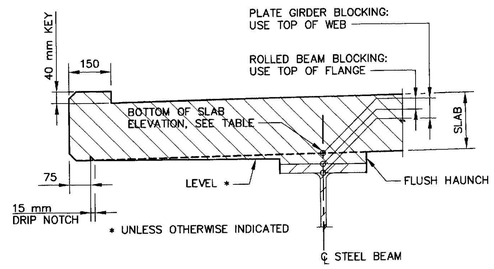
PLANS

JAN., 2000
30DECKPLAN.DWG

METRIC	1. All dimensions are in millimeters unless otherwise noted. 2. All elevations and stations are in meters.	F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		1	MAINE	IM-95-8695(00)E	39	42



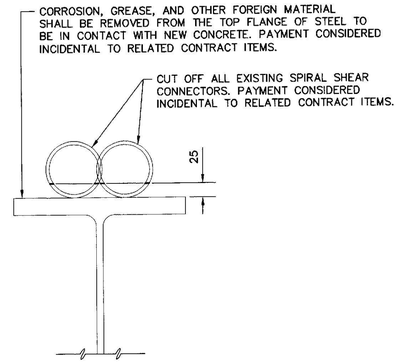
BLOCKING LAYOUT



SLAB DETAIL

I-95 SOUTHBOUND

BOTTOM OF SLAB ELEVATIONS																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
S1	70.620	70.589	70.555	70.517	70.474	70.425	70.395	70.361	70.321	70.274	70.221	70.150	70.108	70.064	70.014	69.960	69.900
S2	70.703	70.671	70.637	70.598	70.555	70.507	70.476	70.441	70.401	70.354	70.301	70.231	70.189	70.144	70.094	70.040	69.980
S3	70.785	70.754	70.719	70.681	70.637	70.589	70.558	70.523	70.482	70.435	70.383	70.312	70.270	70.225	70.175	70.121	70.061
S4	70.868	70.836	70.802	70.763	70.719	70.671	70.640	70.604	70.564	70.517	70.464	70.393	70.351	70.306	70.256	70.202	70.142
S5	70.950	70.919	70.885	70.846	70.802	70.752	70.722	70.688	70.647	70.600	70.546	70.474	70.432	70.387	70.337	70.283	70.222



STRINGER FLANGE PREP DETAIL

I-95 NORTHBOUND

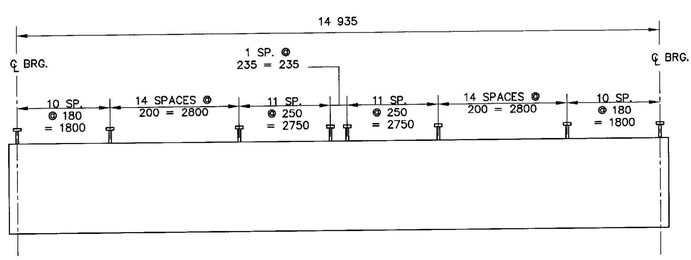
BOTTOM OF SLAB ELEVATIONS																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
S1	68.650	68.638	68.623	68.604	68.579	68.551	68.540	68.526	68.505	68.477	68.443	68.396	68.374	68.349	68.320	68.285	68.246
S2	68.736	68.724	68.709	68.689	68.665	68.636	68.625	68.609	68.588	68.560	68.527	68.481	68.458	68.433	68.403	68.369	68.329
S3	68.823	68.810	68.795	68.775	68.750	68.722	68.710	68.694	68.673	68.645	68.611	68.565	68.542	68.517	68.487	68.452	68.413
S4	68.909	68.897	68.881	68.861	68.836	68.807	68.795	68.779	68.758	68.730	68.696	68.649	68.627	68.601	68.570	68.536	68.496
S5	68.996	68.983	68.967	68.947	68.922	68.893	68.882	68.866	68.844	68.816	68.782	68.734	68.711	68.685	68.655	68.620	68.580

BOTTOM OF SLAB ELEVATIONS

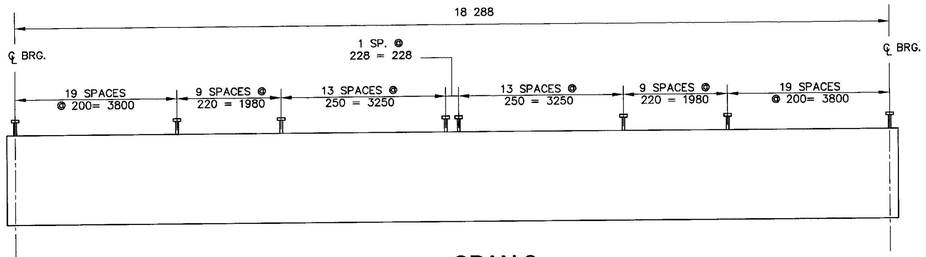
THEORETICAL BLOCKING TABLE

LOCATION	NB	SB
℄ BRG ABUT 1	30	25
℄ BRG PIER 1	50	40
℄ BRG PIER 2	50	40
℄ BRG ABUT 2	35	15

NOTE:
THEORETICAL BLOCKING IS GIVEN FOR REFERENCE PURPOSES ONLY. DO NOT USE THEORETICAL BLOCKING FOR SETTING FORMWORK.



SPANS 1 AND 3



SPAN 2

SHEAR CONNECTOR LAYOUT

NOTES:

1. DOUBLE STUDS (22 mm DIA.) SEE STANDARD DETAIL 505 FOR ADDITIONAL INFORMATION.
2. THE LOCATION OF STUDS SHALL BE ADJUSTED, AS DIRECTED BY THE ENGINEER, TO AVOID THE EXISTING SHEAR CONNECTORS.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95
over
MAIN STREET

WATERVILLE
KENNEBEC COUNTY

DECK REPLACEMENT DETAILS

SHEET 39 OF 42 WATERVILLE, MAINE NOV., 2000

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	WRB	10/00
CHECKED	SEN	10/00
REVISIONS	SEN	
FIELD CHANGES		

PLANS

JAN., 2000
3DECKDETLS.DWG

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