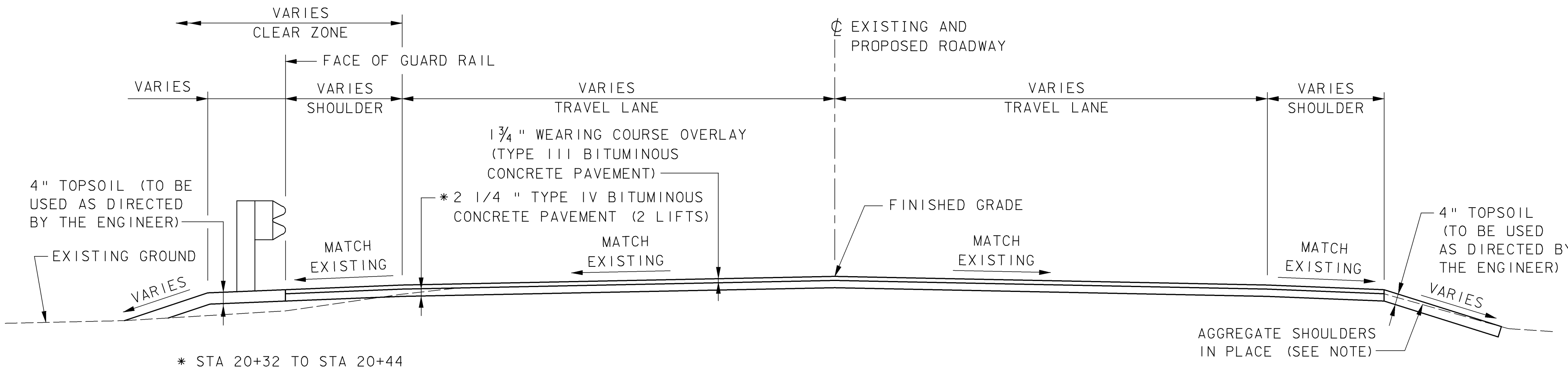


OVERLAY PAVEMENT MATCH TRANSITION DETAIL
N. T. S.

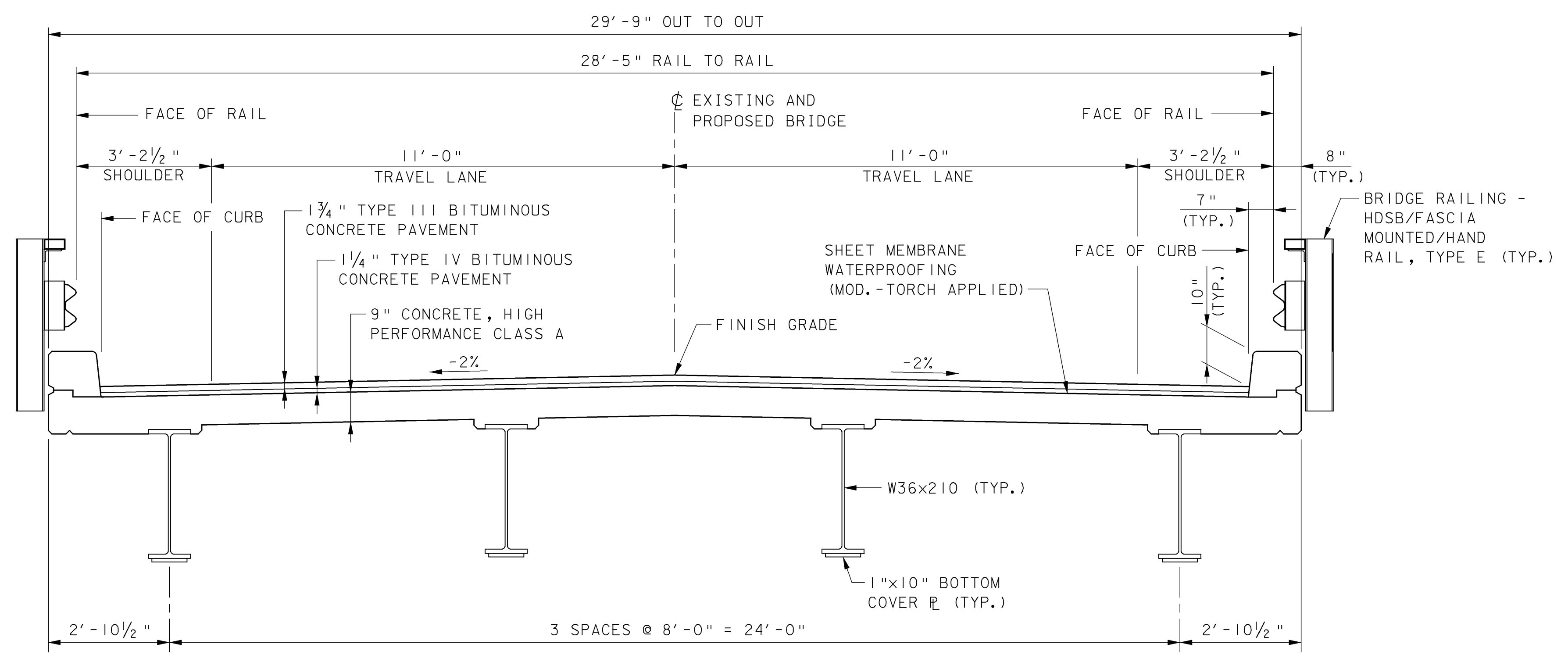
MATERIAL ITEM	THICKNESS TOLERANCE
PAVEMENT	1/8"
SUBBASE	1"



* STA 20+32 TO STA 20+44
STA 21+72 TO STA 22+60
STA 40+00 TO STA 41+00

NOTE: AGGREGATE SHOULDER, IN PLACE TO BE USED FOR TRANSITION BETWEEN OVERLAY AND EXISTING SHOULDERS AND DRIVES.

ROADWAY TYPICAL SECTION
SCALE: 1/2" = 1'-0"



BRIDGE TYPICAL SECTION
SCALE: 1/2" = 1'-0"

FINAL HYDRAULICS REPORT

HYDROLOGIC DATA (SEE NOTE 1)

DRAINAGE AREA= _____
 CHARACTER OF TERRAIN: _____
 CHARACTER & TYPE OF STREAM: _____
 NATURE OF STREAMBED: _____
 Q2,33= _____ Q50= _____
 Q10= _____ Q100= _____
 Q25= _____ Q500= _____
 DATE OF FLOOD OF RECORD: _____
 WATER SURFACE ELEV.: _____ ESTIMATED DISCHARGE: _____
 NATURAL STREAM VELOCITY @ Q: _____
 ICE CONDITIONS: _____ DEBRIS: _____
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEVATION RAPIDLY?
 IS ORDINARY RISE RAPID?
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?
 IF YES, DESCRIBE. _____
 WATERSHED STORAGE: _____ HEADWATERS: _____ UNIFORM THROUGHOUT WATERSHED: _____ IMMEDIATELY ABOVE SITE: _____

EXISTING STRUCTURE

STRUCTURE TYPE: STEEL BEAMS, CONCRETE DECK YEAR BUILT: 1941
 CLEAR SPAN (NORMAL TO STREAM): 44.8 FT - 44.8 FT
 VERTICAL CLEARANCE ABOVE STREAMBED: 12.5 FT
 WATERWAY OF FULL OPENING: 1120 SF
 DISPOSITION OF STRUCTURE: SUPERSTRUCTURE TO BE REPLACED, PIER TO BE REMOVED
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: UNKNOWN
 WATER SURFACE ELEV. @ Q2,33= _____ VELOCITY= _____
 Q10= _____ " _____
 Q25= _____ " _____
 Q50= _____ " _____
 Q100= _____ " _____
 LONG TERM STREAM BED CHANGES: _____
 IS THE ROADWAY OVERTOPPED BELOW THE Q100? _____ FREQUENCY: _____
 RELIEF ELEVATION: _____ DISCHARGE OVER ROAD @ Q100: _____
 UPSTREAM STRUCTURE: TOWN: _____ DISTANCE: _____
 HIGHWAY NO.: _____ STRUCTURE NO.: _____
 STRUCTURE TYPE: _____
 CLEAR SPAN: _____ CLEAR HEIGHT: _____
 YEAR BUILT: _____ FULL WATERWAY: _____
 DOWNSTREAM STRUCTURE: TOWN: _____ DISTANCE: _____
 HIGHWAY NO.: _____ STRUCTURE NO.: _____
 STRUCTURE TYPE: _____
 CLEAR SPAN: _____ CLEAR HEIGHT: _____
 YEAR BUILT: _____ FULL WATERWAY: _____

PROPOSED STRUCTURE

(SUPERSTRUCTURE REPLACEMENT)
 STRUCTURE TYPE: STEEL BEAMS, CONCRETE DECK
 CLEAR SPAN (NORMAL TO STREAM): 96 FT
 VERTICAL CLEARANCE ABOVE STREAMBED: 12.5 FT
 WATERWAY OF FULL OPENING: 1138 SF
 WATER SURFACE ELEV. @ Q2,33= _____ VELOCITY= _____
 Q10= _____ " _____
 Q25= _____ " _____
 Q50= _____ " _____
 Q100= _____ " _____
 IS THE ROADWAY OVERTOPPED BELOW THE Q100? _____ FREQUENCY: _____
 RELIEF ELEVATION: _____ DISCHARGE OVER ROAD @ Q100: _____
 AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: _____
 VERTICAL CLEARANCE @ Q: _____
 SCOUR: _____
 REQUIRED CHANNEL PROTECTION: _____

PERMIT INFORMATION

AVERAGE DAILY FLOW: _____ DEPTH: _____
 ORDINARY LOW WATER: _____ DEPTH: _____
 ORDINARY HIGH WATER: _____ DEPTH: _____

ADDITIONAL COMMENTS

NOTE:
 1. THE PROPOSED BRIDGE REHABILITATION DOES NOT INCLUDE ANY WORK IN THE CHANNEL OTHER THAN EXISTING PIER REMOVAL, THEREFORE NO HYDROLOGIC DATA IS REQUIRED OR PROVIDED.

THIS SHEET SUPERSEDES CONTRACT PLAN SHEET 2 DATED 6/05. REVISIONS ON THIS SHEET REFLECT CHANGES IN DESIGN AND DETAILS AS PER CHANGE ORDER NO. 2. SUBSTITUTING NEW STEEL BEAMS FOR RECYCLED BEAMS.

DESIGN CRITERIA:

- DESIGN LIVE LOAD AASHTO HS25
- DESIGN SPAN 96 FT
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL _____ N/A ON LEDGE _____ N/A
- ALLOWABLE LOAD FOR PILING _____ N/A TYPE _____ N/A ESTIMATED LENGTH _____ N/A
- STRUCTURAL STEEL AASHTO M270, GR. 50W
- REINFORCING STEEL AASHTO M31 GR. 60
- CONCRETE, HIGH PERFORMANCE CLASS A F_c 4000 PSI
- CONCRETE, HIGH PERFORMANCE CLASS B F_c 3500 PSI

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE _____ OR ON TEMPORARY BRIDGE YES
- TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY ONE TRAFFIC CONTROL SIGNALS REQUIRED YES
 MINIMUM CLEAR SPAN (NORMAL TO STREAM): 90 FT VERTICAL CLEARANCE ABOVE STREAMBED: 13'-10"
 WATERWAY OF FULL OPENING: 1138 SF
 ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE? _____
 STRUCTURE TYPE: UNKNOWN - SEE SHEET 12 FOR REQUIREMENTS

LOADING LEVELS (LOAD FACTOR)	LOAD FACTOR LOAD RATING (TONS)						
	H	HS	3S2	6 AXLE	3A.STR.	4A.STR.	5A. SEMI
INVENTORY A=2.17 B=1.00	34	50					
POSTED A=1.55 B=1.40	48	70	81		64	66	75
OPERATING A=1.30 B=1.67		88	96	110	77	79	
GOVERNING FACTOR D=DECK S=SERVICEABILITY	S	S	S	S	S	S	S

STRENGTH RF = $\frac{\phi M_N - 1.3 M_{DL}}{A \times M_{LL+1}}$ SERVICEABILITY RF = $B \left[\frac{.95 F_y S_{LL+1} - M_{DL} \frac{S_{LL+1}}{S_{SM}} - M_{SD} \frac{S_{LL+1}}{S_{SM}}}{1.67 M_{LL+1}} \right]$

TOWN OF GRAFTON
CAMBRIDGEPORT BRIDGE

Town Of GRAFTON Bridge No. 16G
 Highway No. TH 1 Log Sta. _____
 Surv. Sta. _____
 TH 1 (CAMBRIDGEPORT BRIDGE) OVER THE SAXTONS RIVER
PRELIMINARY INFORMATION SHEET
 Designed By J. T. KLEIN Drawn By B. J. MASSE
 Checked By _____ Date _____ Bridge Design Supervisor
 M. A. COLGAN 12/05 M. A. COLGAN Date 12/05
 PROJECT GRAFTON PROJECT NO. TH2-0104
 I.G.C. Info. _____
 File No. 51335P1 Sheet 2R of 42