

GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION", DATED 1990, AND ITS LATEST REVISIONS, AND THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION", AND ITS LATEST REVISIONS.
- ANY REFERENCE TO "LEFT" AND/OR "RIGHT" ON THE PLANS OR NOTES REFERS TO THE DIRECTION OF STATIONING AND NOT THE DIRECTION OF TRAFFIC.
- NO SURVEY WAS TAKEN ON THIS PROJECT FOR BRIDGE RELATED WORK. INFORMATION SHEETS INCLUDED IN THE PLANS WERE TAKEN FROM ORIGINAL PLANS AND ARE FOR INFORMATION ONLY. ALL ELEVATIONS SHOWN IN THESE PLANS ARE BASED ON ELEVATIONS FROM THE ORIGINAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING ANY AND ALL DIMENSIONS APPLICABLE TO THIS WORK.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68°F, UNLESS SHOWN OTHERWISE.
- DESIGN CRITERIA:
 - DESIGN LIVE LOAD FOR EXISTING STRUCTURE: HS 20
 - DESIGN LIVE LOAD FOR NEW CONCRETE PIERS: HS 25
- UNLESS OTHERWISE NOTED, THE CONCRETE FOR THE VARIOUS ELEMENTS OF THE WORK SHALL BE:
 - BRIDGE DECK OVERLAY AND FULL-DEPTH REPAIRS
 - CONCRETE CLASS AA, f'c = 4000 PSI
 - PAID AS ITEM 580.19, "CONCRETE CLASS AA OVERLAY" FOR OVERLAY, AND ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" FOR CLASS III REPAIRS
 - BRIDGE DECK FASCIA REPAIR
 - CONCRETE CLASS AA, f'c = 4000 PSI
 - PAID AS ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III"
 - BRIDGE SIDEWALK OVERLAY AND WIDENING
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - BRIDGE AND APPROACH ROADWAY MEDIAN REPLACEMENT
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - APPROACH SLAB REPAIR
 - CONCRETE CLASS AA, f'c = 4000 PSI
 - PAID AS ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III"
 - NEW PIERS
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - ABUTMENT REPAIR
 - CONCRETE TYPE USED IS DEPENDENT ON REPAIR DEPTH, SEE ABUTMENT REPAIR NOTES IN THESE PLANS
 - PAID AS ITEM 580.13, 580.14 OR 580.15, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I, II, OR III"
- ALL EXPOSED EDGES OF NEW SUPERSTRUCTURE CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED.
- NEW REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM-A615), GRADE 60 AND SHALL BE EPOXY COATED WHERE INDICATED. REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH AFFICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI). WHEN EPOXY COATED REINFORCING STEEL IS CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. NO FLAME CUTTING OF NEW REINFORCING STEEL WILL BE ALLOWED.
- REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
 - SPACING +/- 1"
 - CLEARANCE +/- 1/4"
- ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270, GRADE 36, UNLESS OTHERWISE NOTED.
- ALL WELDING AND DIMENSIONAL TOLERANCES OF WELDED MEMBERS SHALL CONFORM TO THE LATEST ANSI/AASHTO/AWS BRIDGE WELDING CODE AND ITS LATEST REVISIONS.

DECK REHABILITATION NOTES

- THE EXISTING CONCRETE DECK IN ALL SPANS SHALL BE REHABILITATED BY THE OVERLAY METHOD. IN EACH SPAN THE OVERLAY SHALL EXTEND FROM DECK JOINT TO DECK JOINT IN THE LONGITUDINAL DIRECTION, AND IN THE TRANSVERSE DIRECTION FROM THE JOINT BETWEEN THE EXISTING GRANITE CURB AND SIDEWALK TO THE SAME JOINT ON THE OPPOSITE SIDE OF THE BRIDGE.
- THE OVERLAY MATERIAL SHALL BE "CONCRETE, CLASS AA", AND SHALL BE OF A SUFFICIENT DEPTH TO GIVE A MINIMUM OF TWO (2) INCHES OF COVER OVER THE TOP MAT OF REINFORCING STEEL. THE FINISHED SURFACE OF THE OVERLAY SHALL HAVE THE CROSS SLOPE SHOWN ON SHEET 2. CONCRETE, CLASS AA USED IN OVERLAYS SHALL BE CURED FOR TEN (10) DAYS IN ACCORDANCE WITH SPECIFICATION SECTION 501.16 AND 501.16 EXCEPT THE USE OF MEMBRANE FORMING CURING COMPOUND WILL NOT BE ALLOWED FOR OVERLAYS.
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER ITEM 580.19, "CONCRETE CLASS AA OVERLAY", SHALL BE FROM THE TOP OF THE EXISTING CONCRETE DECK TO A SURFACE FROM 3/4" (+/- 1/4") MINIMUM DEPTH BELOW THE BOTTOM BAR OF THE TOP MAT OF REINFORCING STEEL, TO A MAXIMUM DEPTH OF THE TOP OF THE TOP BAR OF THE BOTTOM MAT OF REINFORCING STEEL. IF MORE THAN ONE-QUARTER OF THE CIRCUMFERENCE OF THE TOP BAR OF THE BOTTOM MAT IS EXPOSED OR THE BOND BETWEEN THE CONCRETE AND REBAR IS BROKEN, THEN ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" SHALL BE USED TO MAKE A FULL DEPTH REPAIR. NO PAYMENT FOR ITEM 580.19, "CONCRETE CLASS AA OVERLAY" SHALL BE MADE WITHIN AREAS OF CLASS III REPAIR. SEE THE DETAIL ON SHEET 12A.
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER ITEM 580.12 "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS III" WILL BE FROM THE TOP OF EXISTING CONCRETE DECK TO THE BOTTOM OF THE CONCRETE DECK (FULL DEPTH REMOVAL). ANY FULL DEPTH REPAIRS SHALL NECESSITATE THE USE OF FORMS AND FALSEWORK. WHERE CLASS III REPAIRS ARE REQUIRED ADJACENT TO THE BARRIERS SEPARATING THE WORK AREA FROM TRAFFIC, THE ENGINEER SHALL DETERMINE WHETHER TEMPORARY SUPPORT OF THE DECK SLAB IS REQUIRED. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING. ALL SHORING, FORMWORK, "CONCRETE, CLASS AA", FALSEWORK, LABOR, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III".
- THE CONTRACTOR MAY USE A SCARIFIER OR COLD-PLANER TO REMOVE CONCRETE TO WITHIN ONE HALF (1/2) INCH OF THE TOP MAT OF REINFORCING STEEL. THIS WORK SHALL BE SUBSIDIARY TO THE BID PRICE FOR ITEM 580.19, "CONCRETE CLASS AA OVERLAY". THE CONCRETE GRINDINGS SHALL BE DISPOSED OF IN ACCORDANCE WITH SPECIFICATION SECTIONS 105.24 AND 105.25. ANY REINFORCING STEEL DAMAGED BY THIS EQUIPMENT, WHICH WOULD NOT OTHERWISE REQUIRE REPLACEMENT, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- A MAXIMUM OF 24 HOURS PRIOR TO PLACING THE NEW CONCRETE OVERLAY, THE EXISTING DECK CONCRETE, AND ALL EXPOSED STEEL WHICH WILL HAVE CONCRETE PLACED AGAINST OR AROUND IT (SUCH AS STEEL DECK JOINTS AND REINFORCING STEEL) SHALL BE ABRASIVE BLASTED. THE AREA SHALL BE VACUUMED OR FLUSHED, USING HIGH PRESSURE AIR OR WATER, TO REMOVE ALL LOOSE PARTICLES, DUST AND DEBRIS. AFTER ABRASIVE BLASTING, ONCE THE EXISTING CONCRETE IS WET, WHETHER FROM FLUSHING OR RAIN, THE CONCRETE MUST BE KEPT WET UNTIL THE PLACING OF NEAT CEMENT PASTE AND NEW CONCRETE. IF THE EXISTING CONCRETE IS ALLOWED TO DRY OUT, THE AREA MUST BE ABRASIVE BLASTED AGAIN AND THE ENTIRE AREA VACUUMED OR FLUSHED AGAIN. THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEMS 580.19, "CONCRETE CLASS AA OVERLAY", AND 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III".
- ALL SURFACES OF STEEL DECK JOINTS, WHICH ARE TO HAVE CONCRETE PLACED AGAINST THEM, SHALL BE COATED WITH EPOXY BONDING COMPOUND. THE COST SHALL BE SUBSIDIARY TO ITEM 516.10, "BRIDGE EXPANSION JOINT (ARMORED JOINT)".
- NEAT CEMENT PASTE SHALL BE APPLIED TO THE LONGITUDINAL JOINT (ON THE FACE OF THE NEW CONCRETE) PRIOR TO PLACEMENT OF THE ADJACENT PHASE OVERLAY. ALSO, THE AREA TO BE OVERLAYED SHALL BE THOROUGHLY CLEANED, WETTED, AND COATED WITH NEAT CEMENT PASTE (THOROUGHLY BRUSHED INTO THE SURFACE). THE CEMENT AND WATER SHALL BE MIXED TO A THICK LATEX PAINT CONSISTENCY AND APPLIED AS THE OVERLAY PROGRESSES TO ENSURE THAT THE PASTE DOES NOT DRY OUT. THIS WORK SHALL BE SUBSIDIARY TO ITEMS 580.12 AND 580.19.
- HYDRO-DEMOLITION SHALL BE THE REQUIRED METHOD OF REMOVAL OF CONCRETE FROM THE EXISTING DECK IN ALL AREAS RECEIVING AN OVERLAY. THE SLURRY GENERATED FROM THIS OPERATION SHALL BE DISPOSED OF IN ACCORDANCE WITH SPECIFICATION SECTIONS 105.24 AND 105.25.
 - HYDRO-DEMOLITION EQUIPMENT SHALL BE CAPABLE OF REMOVING ALL CONCRETE TO THE MINIMUM DEPTH REQUIRED FOR ITEM 580.19 REMOVAL AND REMOVE ONLY UNSOUND CONCRETE BELOW THAT DEPTH. THE DECK SHALL BE INSPECTED BY THE ENGINEER TO ENSURE REMOVAL OF ALL UNSOUND CONCRETE.
 - IN ALL CASES, IF ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" IS REQUIRED AFTER ITEM 580.19 REMOVAL BY THE HYDRO-DEMOLITION EQUIPMENT, THEN AIR HAMMERS WILL BE USED FOR THIS ADDITIONAL REMOVAL. HOWEVER, THE CONTRACTOR SHALL PROVIDE PROTECTION ABOVE TRAFFIC IN THE EVENT THAT THE WATER JET BLOWS THROUGH THE DECK (SEE TRAFFIC CONTROL PLAN NOTES, SHEET 31).

- AIR HAMMERS, USED FOR THE REMOVAL OF UNSOUND AND DETERIORATED CONCRETE, SHALL BE OPERATED BETWEEN THE HORIZONTAL POSITION AND A FORTY-FIVE (45) DEGREE ANGLE WHEN REMOVING CONCRETE. HOWEVER, THEY MAY BE STARTED IN THE VERTICAL POSITION AND IMMEDIATELY LOWERED. AIR HAMMERS SHALL HAVE A MAXIMUM RATING OF THIRTY (30) POUNDS AND SHALL USE CHISEL POINTS ONLY. IF REINFORCING STEEL IS DAMAGED OR IF CONCRETE IS DEBONDED, DELAMINATED OR OTHERWISE DAMAGED BEYOND THE DEFINED LIMITS OF REMOVAL, BECAUSE OF THE IMPROPER USE OF THE AIR HAMMERS, THEN THE CONTRACTOR SHALL REPAIR THE DAMAGED AREAS BY REMOVING AND REPLACING THE CONCRETE AND/OR REINFORCING STEEL AT HIS OWN EXPENSE.
- NO VEHICLES SHALL BE ALLOWED TO TRAVEL ON THE EXPOSED REINFORCING STEEL ONCE THE EXISTING SUPERSTRUCTURE CONCRETE HAS BEEN REMOVED.
- THE ENGINEER SHALL ORDER REPLACEMENT OF ANY EXISTING REINFORCING STEEL THAT IS DETERIORATED (WITH MORE THAN 25% SECTION LOSS) WITH NEW REINFORCING STEEL OF THE SAME SIZE. ALL REINFORCING STEEL SHALL HAVE A MINIMUM 2'-2" LAP SPlice IN DECK SLAB. EIGHT (8) FEET OF EACH BAR SIZE SHALL BE SAMPLED FOR TESTING PURPOSES IF NEW REINFORCING STEEL IS USED. REINFORCING STEEL SHALL BE PAID UNDER ITEM 501.15. ESTIMATED QUANTITY OF 2500 LBS. HAS BEEN INCLUDED TO PERFORM ANY REQUIRED REINFORCING STEEL REPLACEMENT.
- MECHANICAL CONNECTORS SHALL BE USED TO SPlice TRANSVERSE DECK REINFORCING STEEL AT PHASED CONSTRUCTION JOINTS. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S DATA TO THE ENGINEER FOR APPROVAL. TEST SPlices SHALL BE SUBMITTED TO THE STATE IN ACCORDANCE WITH SPECIFICATION SECTION 713.02. MECHANICAL CONNECTORS SHALL BE PAID UNDER ITEM 507.19, "MECHANICAL BAR CONNECTOR (NO. 5)".
- IT MAY BE NECESSARY TO PATCH THE DECK SLAB FASCIAS IN SOME AREAS. THE ENGINEER SHALL DETERMINE THE AREAS OF THE DECK FASCIAS THAT REQUIRE REPAIR BY VISUAL INSPECTION, HAMMER SOUNDING, OR OTHER METHODS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ACCESS TO THE FASCIAS TO ALLOW THE ENGINEER TO DETERMINE THE REPAIR AREAS. ALL COSTS ASSOCIATED WITH REPAIRING THE DECK FASCIAS SHALL BE INCLUDED IN ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II, OR III". THE PROCEDURES USED FOR THE DECK FASCIA REPAIRS SHALL BE AS DESCRIBED FOR APPROACH SLAB REPAIRS ON SHEET 12.

DECK REPAIR WAS ELIMINATED.
A COMPLETE NEW DECK WAS PLACED.
SEE THE NEW TYPICALS.
UTILITIES WERE RELOCATED.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
GENERAL NOTES & DECK REHABILITATION NOTES			
Designed By	T.S. BRYANT	Drawn By	E.J. MASSE
Checked By	A. SETAS	Date	1/00
		Bridge Design Supervisor	C.D. BAKER Date 1/00
PROJECT	SOUTH BURLINGTON		PROJECT NO. IM DECK (36)
	VHB Cad Drawing No. 50929N011		Date 1/00
	Bridge Sheet No.		Sheet 9 of 15