

SCOPE OF WORK NOTES:

- 1A. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE TRAFFIC CONTROL NOTES AND PLANS. THIS PROJECT REQUIRES NIGHTTIME CONSTRUCTION AND INCLUDES CONSTRUCTION TIME RESTRICTIONS FOR BOTH DAY AND NIGHT WORK. SEE THE TRAFFIC CONTROL PLAN NOTES ON SHEET 21.
- 1B. PORTIONS OF THE BRIDGE REHABILITATION SHALL BE PERFORMED IN FIVE CONSTRUCTION PHASES AS SHOWN ON SHEETS 11 AND 12. ALL OTHER PHASED BRIDGE CONSTRUCTION SHALL BE PERFORMED IN A MANNER TO BE APPROVED BY THE ENGINEER.
- 1C. PIER RECONSTRUCTION AND BEARING REHABILITATION AND REPLACEMENTS SHALL BE COMPLETED PRIOR TO SETTING ARMORED JOINTS IN THE DECK. NO JACKING OR SHIMMING OF THE SUPERSTRUCTURE SHALL OCCUR AFTER THE ARMORED JOINTS ARE SET.
2. SUPERSTRUCTURE REHABILITATION SHALL INCLUDE THE FOLLOWING:

- REMOVING EXISTING PAVEMENT AND SIDEWALK AND MEDIAN GRANITE CURB

- REMOVING MEDIAN

- COLD PLANING THE APPROACHES

- OVERLAYING THE CONCRETE DECK

- REMOVING ALL EXISTING SCUPPERS

- REMOVING EXISTING ALUMINUM BRIDGE AND APPROACH RAILING

- PARTIALLY REMOVING CONCRETE SIDEWALKS

- OVERLAYING AND WIDENING THE CONCRETE SIDEWALKS

- INSTALLING NEW NETC 4 RAIL BRIDGE RAILING AND SNOW FENCE

- INSTALLING NEW NETC 4 RAIL BRIDGE APPROACH RAILING

- REPLACING DECK JOINTS AT PIERS WITH ARMORED JOINTS

- INSTALLING NEW DRAIN TROUGHS AND DOWNSPOUTS AT PIERS

- REPAIRING DECK JOINTS AT ABUTMENTS

- INSTALLING SHEET MEMBRANE WATERPROOFING

- REPAVING WITH BITUMINOUS CONCRETE PAVEMENT

- APPLYING WATER REPELLENT TO SUPERSTRUCTURE

- CLEANING AND PAINTING EXISTING STRUCTURAL STEEL
3. ALL SPANS OF THE CONCRETE DECK SHALL RECEIVE A CONCRETE OVERLAY. CONCRETE OVERLAY PROCEDURES AND PAYMENT SHALL BE ACCORDING TO THE DECK REHABILITATION NOTES ON SHEET 3.
4. SUBSTRUCTURE REHABILITATION SHALL INCLUDE THE FOLLOWING:

- REPLACING EACH PIER DOWN TO TOP OF EXISTING FOOTING.

- SHORING SUPERSTRUCTURE DURING PIER REPLACEMENT.

- REPLACING ALL PIER BEARINGS AND SELECTED ABUTMENT BEARINGS.

- REHABILITATING EXISTING ABUTMENT BEARINGS.

- REPAIRING DETERIORATED CONCRETE AT ABUTMENTS.

- APPLYING WATER REPELLENT TO SUBSTRUCTURES.
5. THE EXISTING EXPANSION JOINT AT ABUTMENT 1 SHALL BE REPLACED WITH A FIXED JOINT AS SHOWN ON SHEET 13.
6. DECK JOINTS AT PIERS SHALL BE REPLACED WITH ARMORED JOINTS AS SHOWN ON SHEETS 14-16.
- 7A. THE EXISTING FABRIC DRAIN TROUGHS UNDER THE DECK JOINTS AT EACH PIER SHALL BE REPLACED AS SHOWN ON SHEET 17. PAYMENT FOR DRAIN TROUGH REPLACEMENT SHALL BE UNDER ITEM 506.80, "DRAIN TROUGH". ALL DRAIN TROUGHS SHALL BE FLUSHED, USING A METHOD APPROVED BY THE ENGINEER, AFTER ALL DECK AND JOINT WORK IS COMPLETE AND PAVEMENT HAS BEEN PLACED. COST FOR FLUSHING THE TROUGHS SHALL BE SUBSIDIARY TO ITEM 506.80.
- 7B. DOWNSPOUTS SHALL BE INSTALLED AT BOTH ENDS OF EACH PIER TO COLLECT THE DRAINAGE FROM THE FABRIC DRAIN TROUGHS BELOW THE DECK JOINTS. SEE SHEET 17 FOR DETAILS.
8. ALL EXISTING STRUCTURAL STEEL SHALL BE ENCLOSED, 100% CLEANED AND PAINTED PER SUPPLEMENTAL SPECIFICATION SECTION 513, AND GREASED PER SECTION 513.06(d). NOTE THAT THE ENDS OF THE BEAMS AT ABUTMENTS AND PIERS HAVE A GREASE COATING WHICH SHALL BE REMOVED PRIOR TO CLEANING AND PAINTING. THE "BRIDGE INFORMATION SUMMARY" ON SHEET 8 SHOWS WHEN THE STEEL WAS LAST PAINTED, AS WELL AS DATA ON BEAM SIZES AND APPROXIMATE STEEL WEIGHT.
9. BASED ON AN OCTOBER, 1992 PRELIMINARY INSPECTION, EXISTING BEARINGS SHALL BE REPAIRED OR REPLACED IN ACCORDANCE WITH THE "BEARING REPAIR NOTES" ON SHEET 18 AND THE "BEARING CONDITION AND TREATMENT SUMMARY" ON SHEET 19. A THOROUGH INSPECTION BY VERMONT AOT PERSONNEL ASSIGNED TO THE PROJECT WILL BE MADE TO DETERMINE IF ANY OTHER BEARING REPAIRS ARE NECESSARY, WHICH THE CONTRACTOR SHALL BE REQUIRED TO PERFORM.
10. ALL EXISTING PIERS SHALL BE REPLACED DOWN TO THE TOPS OF THE EXISTING FOOTINGS AS SHOWN ON SHEETS 28-31. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPERSTRUCTURE SHORING FOR REPLACEMENT OF PIERS 1, 2, AND 3. THE SCHEME FOR TEMPORARY SHORING SHALL BE SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL. ALSO, THE CONTRACTOR SHALL SUBMIT DETAILS AND CALCULATIONS PREPARED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER TO THE STRUCTURES ENGINEER FOR INFORMATION ONLY AT LEAST TWO WEEKS PRIOR TO PERFORMING WORK. SHORING SHALL BE DESIGNED FOR H20 LOADING. WELDING TO EXISTING STEEL SHALL NOT BE PERMITTED. ALL COSTS SHALL BE INCLUDED IN ITEM 502.10, "SHORING SUPERSTRUCTURE (AT PIERS 1, 2, AND 3)".
11. ABUTMENT CONCRETE REPAIRS SHALL BE PERFORMED IN ACCORDANCE WITH THE NOTES AND DETAILS ON SHEET 32. THE "ABUTMENT REPAIR AREAS" PLAN, SHEET 32 WAS DEVELOPED FROM NOTES OF AN OCTOBER, 1992 PRELIMINARY INSPECTION, AND SHALL BE USED ONLY AS AN INDICATION OF THE GENERAL CONDITION OF THE ABUTMENTS. A THOROUGH INSPECTION BY VERMONT AOT PERSONNEL ASSIGNED TO THE PROJECT WILL BE MADE OF ABUTMENT AREAS AT THE TIME OF CONSTRUCTION, AND THOSE AREAS FOUND TO HAVE SPALLED, DELAMINATED OR OTHERWISE UNSOUND CONCRETE WILL BE REPAIRED.

12. ITEM 514.10, "WATER REPELLENT" SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BRIDGE SUPERSTRUCTURE AND APPROACH SLABS EXCEPT THE BOTTOM OF THE DECK BETWEEN THE DRIF BEADS. IT SHALL ALSO BE APPLIED TO THE EXPOSED CONCRETE ON ALL ABUTMENTS, WINGWALLS, PIER CAPS AND COLUMNS.
13. ITEM 525.34, "BRIDGE RAIL - NETC 4 RAIL" AND ITEM 620.75, "SNOW BARRIER - GALVANIZED", SHALL BE INSTALLED AS SHOWN ON SHEET 24. ITEM 621.73, "GUARD RAIL APPROACH SECTION, NETC 4 RAIL" SHALL BE INSTALLED AT ALL FOUR CORNERS OF THE BRIDGE AS SHOWN ON SHEET 25.
14. THE CONTRACTOR SHALL CALL "DIG-SAFE" PRIOR TO PERFORMING ANY EXCAVATION, IN ACCORDANCE WITH DIG-SAFE'S RULES OF NOTIFICATION. THE COST OF COORDINATING WITH "DIG-SAFE" AND THE FOLLOWING UTILITY COMPANIES SHALL BE SUBSIDIARY TO ITEM 635.10, "MOBILIZATION".

- ADELPHIA CABLE COMMUNICATIONS

- BELL ATLANTIC

- CHAMPLAIN WATER DISTRICT

- VERMONT GAS SYSTEMS, INC.

- GREEN MOUNTAIN POWER CORP.

ITEM 204.20, "TRENCH EXCAVATION OF EARTH" SHALL BE USED FOR EXPLORATORY TRENCHING WHEN THE LOCATION OF BURIED UTILITIES IS IN DOUBT.
15. EXISTING STATE-OWNED UNDERGROUND STREET LIGHTING CONDUIT AND PULL BOXES ARE LOCATED NEAR PIER 1 & 3 FOOTINGS, AS SHOWN ON SHEET 6A. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND TEMPORARILY SUPPORT THESE UTILITIES DURING EXCAVATION. COST TO BE SUBSIDIARY TO ITEM 204.25, "STRUCTURE EXCAVATION".

IN ADDITION, STATE-OWNED STREET LIGHTING, CONDUIT, AND JUNCTION BOXES ARE CURRENTLY MOUNTED ON THE EXISTING PIERS AS SHOWN ON SHEETS 6A AND 28. THESE STREET LIGHTS, CONDUITS, AND JUNCTION BOXES SHALL BE TEMPORARILY REMOVED AND STORED DURING REPLACEMENT OF THE PIERS. A TEMPORARY ILLUMINATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BEFORE THE EXISTING STREET LIGHTING IS REMOVED. SEE THE SPECIAL PROVISIONS FOR REQUIREMENTS FOR THE TEMPORARY ILLUMINATION SYSTEM. THE TEMPORARY ILLUMINATION SYSTEM SHALL BE PAID UNDER ITEM 673.15, STREET LIGHTING (MOD.).

AFTER THE PIER REPLACEMENTS ARE COMPLETED, THE LIGHTING SYSTEM SHALL BE RESTORED TO ITS ORIGINAL CONFIGURATION. THE EXISTING LUMINAIRES MAY BE REUSED IF THEY ARE UNDAMAGED AND MEET THE CURRENT REQUIREMENTS OF SPECIFICATION SECTION 679. ALL ACTIVE CONDUIT, WIRING, AND JUNCTION BOXES THAT ARE TEMPORARILY REMOVED SHALL BE REPLACED IN-KIND. ALL COSTS FOR NEW CONDUIT, WIRING, AND JUNCTION BOXES SHALL BE PAID UNDER ITEM 678.23, "WIRED CONDUIT". EXISTING CONDUIT AND WIRING WHICH IS NOT ACTIVE SHALL BE REMOVED AND CAPPED AT THE NEAREST WATERPROOF JUNCTION BOX, THE COST FOR WHICH SHALL BE SUBSIDIARY TO ITEM 678.23. ALL COSTS FOR REMOVAL, STORAGE, REPLACEMENT, AND REINSTALLATION OF THE PIER STREET LIGHTS SHALL BE PAID UNDER ITEM 673.15, "STREET LIGHTING (MOD.)" UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL ENSURE THAT POWER TO OTHER STREET LIGHTS IS NOT INTERRUPTED DUE TO THIS WORK. ALL WORK ASSOCIATED WITH THE STREET LIGHTING SYSTEM SHALL BE COORDINATED WITH GREEN MOUNTAIN POWER. ANY DAMAGE TO THE STREET LIGHTING SYSTEM CAUSED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
16. ALL EXISTING SCUPPERS SHALL BE REMOVED. ALL COSTS FOR REMOVAL OF EXISTING SCUPPERS SHALL BE INCLUDED IN ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE". THIS SHALL INCLUDE ANY NECESSARY REMOVAL OF ATTACHMENT ANGLE, ANY GRINDING, OR OTHER INCIDENTAL WORK TO REMOVE THE EXISTING SCUPPERS.
17. SOME OF THE EXISTING STONE SLOPE PROTECTION ON THE SLOPES UNDER SPANS 1 AND 4 WILL BE REMOVED DURING REPLACEMENT OF THE PIERS. ITEM 613.10 "STONE FILL TYPE 1" SHALL BE USED TO REPLACE THE STONE SLOPE PROTECTION THAT IS REMOVED. NEW STONE FILL TYPE 1 SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
18. MINOR CLEARING AND GRUBBING IS REQUIRED AT SOME LOCATIONS IN ORDER TO REMOVE VEGETATION WHICH IS GROWING UP AGAINST SUBSTRUCTURE COMPONENTS, AND MAY BE REQUIRED FOR PLACEMENT OF CONSTRUCTION SIGNS. CLEARING AND GRUBBING FOR THESE PURPOSES SHALL BE AS ORDERED BY THE RESIDENT ENGINEER AND COSTS SHALL BE SUBSIDIARY TO ITEM 635.10, "MOBILIZATION".
19. ITEM 203.35, "GRAVEL BACKFILL FOR SLOPE STABILIZATION" SHALL BE USED ON BRIDGE APPROACHES TO REGRADE AROUND GUARDRAIL POSTS AS ORDERED BY THE RESIDENT ENGINEER.
20. THE ENTIRE SURFACE OF THE BRIDGE DECK AND EACH APPROACH SLAB SHALL BE STRIPPED TO BARE CONCRETE WITHIN THE LIMITS OF THE WORK AREA ESTABLISHED FOR THAT PHASE OF CONSTRUCTION. EXISTING PAVEMENT SHALL NOT BE REMOVED FROM AREAS OUTSIDE OF THE CURRENT PHASE WORK AREA TO ENSURE A SMOOTHER RIDE IN THE LANES OPEN TO TRAFFIC, AND LESS IMPACT DAMAGE TO THE REPAIRS MADE WITHIN THE WORK AREA. IF A COLD FLANER IS USED TO STRIP PAVEMENT FROM THE DECK OR THE APPROACH SLABS, THE FINAL ONE HALF (1/2) INCH SHALL BE REMOVED BY LOADER, GRADER, OR EQUIPMENT APPROVED BY THE ENGINEER. THIS WORK SHALL ALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT". IF THE CONTRACTOR DAMAGES AREAS OF THE DECK OR APPROACH SLABS DURING PAVEMENT REMOVAL THAT OTHERWISE WOULD NOT REQUIRE REHABILITATION, THEN THE REQUIRED REPAIRS SHALL BE MADE AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

21. DURING EACH PHASE OF CONSTRUCTION, THE PORTIONS OF THE BRIDGE DECK AND APPROACH SLABS WITHIN THE WORK AREA SHALL BE PAVED WITH TWO COURSES OF BITUMINOUS CONCRETE PAVEMENT ON THE BRIDGE DECK, THE BOTTOM LIFT SHALL BE 1-1/4" MIN. OF TYPE IV MIX AND THE TOP LIFT SHALL BE 1-1/4" OF TYPE III MIX. ON THE APPROACH SLABS THE BOTTOM LIFT SHALL BE 3/4" TO 1 1/4" OF TYPE IV MIX AND THE TOP LIFT SHALL BE 1 1/4" OF TYPE III MIX. THIS PAVING SHALL BE PAID AS ITEM 406.25, "BITUMINOUS CONCRETE PAVEMENT (FG 64-28)".
- THE COMBINATION OF THE NEW DECK OVERLAY AND THE NEW THICKER PAVEMENT WILL RESULT IN AN INCREASE IN THE FINISHED GRADE ON THE BRIDGE OF APPROXIMATELY ONE INCH. THE NEW FINISHED GRADE ON THE BRIDGE SHALL BE TEMPORARILY TRANSITIONED INTO THE EXISTING GRADE AT THE ENDS OF THE APPROACH SLABS AS SHOWN IN THE TEMPORARY APPROACH SLAB PAVEMENT TRANSITION DETAIL ON SHEET 12A.
- AFTER ALL THE PHASED REHABILITATION OF THE BRIDGE DECK AND APPROACH SLABS IS COMPLETE, THE APPROACH ROADWAYS, BRIDGE DECK, AND APPROACH SLABS SHALL BE COLD PLANED AND REPAVED AS SHOWN ON SHEETS 44 AND 45. ON THE BRIDGE DECK AND APPROACH SLABS, THE TOP 1-1/4" LIFT OF PAVEMENT SHALL BE REMOVED FROM CURB TO CURB. THE GRINDINGS FROM COLD PLANING THIS RECENTLY PLACED TOP LIFT OF PAVEMENT SHALL BE SALVAGED TO VAOT DISTRICT 5 AS DESCRIBED IN THE SPECIAL PROVISIONS. THE NEW FINISHED GRADE ON THE BRIDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE EXISTING GRADE ON THE APPROACHES AS SHOWN IN THE APPROACH PAVEMENT TRANSITION DETAIL ON SHEET 45.
- ITEM 404.65, "EMULSIFIED ASPHALT" SHALL BE APPLIED BETWEEN EACH LIFT OF NEW PAVEMENT AND TO ALL COLD PLANED SURFACES AT THE RATE OF 0.05 GALLONS/S.Y.

FINAL PAVING ON THE BRIDGE SHALL NOT BE ALLOWED UNTIL BEARINGS HAVE BEEN REPAIRED OR REPLACED AS DESIGNATED IN THESE PLANS, AND ALL JACKING AND SHORING HAS BEEN COMPLETED AND REMOVED.

22. FOLLOWING PAVING, ANY BITUMINOUS CONCRETE PAVEMENT THAT BECOMES LODGED IN THE DECK JOINTS, OR ENTERS THE DRAIN TROUGHS OR DOWNSPOUTS, SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.
23. ITEM 519.20, "SHEET MEMBRANE WATERPROOFING (MOD. - TORCH APPLIED)" SHALL BE INSTALLED ON ALL SPANS OF THE BRIDGE DECK. IT SHALL ALSO BE INSTALLED ON TWO (2) FEET OF EACH APPROACH SLAB AS SHOWN ON SHEET 19. THE MEMBRANE SHALL BE SPICED AT PHASED CONSTRUCTION JOINTS AS RECOMMENDED BY THE MANUFACTURER. BOTH LIFTS OF PAVEMENT SHALL BE INSTALLED ON THE MEMBRANE FOR THE ENTIRE LENGTH OF THE BRIDGE BEFORE TRAFFIC IS ALLOWED ON THAT LANE, UNLESS OTHERWISE SHOWN IN THESE PLANS OR DIRECTED BY THE ENGINEER.
24. SOME OF THE STEEL END DIAPHRAGMS IN THE TWO SOUTHERN-MOST BAYS AT PIER 1 HAVE BEEN DAMAGED DUE TO SHIMMING AND BLOCKING OF THE BEAMS AT THIS LOCATION. AT THE START OF CONSTRUCTION THE ENGINEER SHALL INSPECT THE DIAPHRAGMS IN THESE BAYS AND DETERMINE THE NUMBER TO BE REPLACED. THE CONTRACTOR SHALL REPLACE ALL DAMAGED DIAPHRAGMS IN-KIND. THE NEW DIAPHRAGMS SHALL BE AASHTO M270, GRADE 36, PAINTED. DETAILS OF THE EXISTING DIAPHRAGMS ARE SHOWN IN THE EXISTING PLANS REFERENCE SHEETS THAT ARE INCLUDED IN THIS SET OF PLANS. THE SHIMS AND BLOCKING SHALL BE REMOVED BY THE CONTRACTOR AND RETURNED TO VAOT DISTRICT 5 AS DIRECTED BY THE ENGINEER. ALL COSTS FOR REPLACING THE DIAPHRAGMS SHALL BE INCLUDED IN ITEM 506.60, "STRUCTURAL STEEL".

ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER TYPE 1 BOLTS, CONFORMING TO AASHTO M164, (A8TM-A325). HOLES SHALL BE 15/16" DIAMETER. CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE FAYING SURFACES OF THE EXISTING DIAPHRAGM CONNECTION PLATES SHALL BE CLEANED TO BARE STEEL AND COATED PER SUPPLEMENTAL SPECIFICATION SECTION 513. ALL COSTS ASSOCIATED WITH PREPARING THE FAYING SURFACES SHALL BE INCLUDED IN ITEM 506.60.
25. THE THREE EXISTING STREET LIGHTS THAT ARE MOUNTED TO THE BRIDGE SIDEWALKS MUST BE REMOVED AND RESET IN ORDER TO COMPLETE THE SIDEWALK REHABILITATION. SEE THE BRIDGE SIDEWALK STREET LIGHTING NOTES ON SHEET 10.

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

VANASSE HANGEN BRUSTLIN, INC.

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 1-89			
SCOPE OF WORK NOTES			
Designed By S.M. HODGDON		Drawn By B.J. MASSE	
Checked By	Date	Bridge Design Supervisor	
T.S. BRYANT	2/00	C.D. BAKER Date 2/00	
PROJECT		PROJECT NO.	
SOUTH BURLINGTON		IM DECK(36)	
VHB Cad Drawing No. 50929NOT		Date 2/00	
Bridge Sheet No.		Sheet 7 of 75	