

WATER QUALITY PROTECTION:

THIS PROJECT IS SUBJECT TO THE CONDITIONS OF NPDES PERMIT OH2000001. THE CONTRACTOR MUST SUBMIT A NOTICE OF INTENT AS A CO-PERMITTEE UNDER THIS PROJECT AND RECEIVE OEPA APPROVAL TO OPERATE UNDER THE PERMIT PRIOR TO UNDERTAKING ITEM 530 SPECIAL STRUCTURES MISC.: CLEANING BRIDGES . CONTRACTOR MUST COMPLETE THE " WORK PLAN FOR BRIDGE CLEANING " FOR EACH BRIDGE IN ACCORDANCE WITH THE NPDES PERMIT.

ENVIRONMENTAL COMMITMENTS

ALL EQUIPMENT AND MATERIALS MUST BE STAGED ABOVE THE ORDINARY HIGH WATER MARK.

NO INSTREAM WORK IS PERMITTED.

NO TEMPORARY FILL IS PERMITTED BELOW THE ORDINARY HIGH WATER MARK.

DEBRIS REMOVAL AND DISPOSAL

CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF DEBRIS IN ACCORDANCE WITH ALL ENVIRONMENTAL RESTRICTIONS AND PERMITS. DISPOSE ALL THE DEBRIS AS A RESULT OF THE BRIDGE CLEANING OPERATIONS IN ACCORDANCE WITH CMS 105.16. AND OAC 3745-27-05. UNDER NO CIRCUMSTANCES MAY SWEEPINGS BE SWEEP INTO OPEN DECK DRAINS, OVER THE EDGE OF THE BRIDGE. OR THROWN ALONG THE BANKS, OR INTO THE WATER.

ITEM 530 SPECIAL STRUCTURES MISC.: SWEEPING BRIDGES

PROVIDE MECHANIZED BRIDGE SWEEPING TO CLEAN AND REMOVE SAND, SOIL, PAPER, GLASS, CANS, GRASS CLIPPINGS, AND OTHER DEBRIS. AREAS TO BE SWEEP INCLUDE OUTSIDE AND MEDIAN PAVED SHOULDERS, GORE AREAS, AREAS ADJACENT TO BARRIER WALLS, AREAS ADJACENT TO MEDIAN-NOSES AND IMPACT ATTENUATOR, AREAS ON TOP OF INLET GRATES AND OTHER DESIGNATED SITES AS DETERMINED BY THE ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR CONTROL OF DUST AT ALL TIMES DURING SWEEPING OPERATIONS. DRY POWER BROOMING WILL NOT BE PERMITTED. THE CONTRACTOR SHALL USE VACUUMING, WET SWEEPING, REGENERATIVE AIR SWEEPING, OR WET POWER BROOM SWEEPING. THE USE OF COMPRESSED AIR WILL BE PERMITTED ONLY WITH ACCEPTABLE DUST CONTROLS ARE IN PLACE.

REMOVAL AND DISPOSAL OF DEBRIS.

DEBRIS MAY BE ENCOUNTERED THAT IS LARGER THAN THE MECHANIZED SWEEPER CAN REMOVE SUCH AS; TIRES, TIRE PARTS, HUB CAPS, LARGE STONES, BOXES, TREE LIMBS, WOOD, CABLE, AND OTHER SUCH MATERIALS. REMOVE ALL DEBRIS ENCOUNTERED USING OTHER MEANS (HAND OR MECHANIZED), REGARDLESS OF THE SIZE.

NO SWEEPING OPERATIONS WILL BE PERFORMED BETWEEN THE HOURS OF [] AND [].

COMPLETED WORK WILL BE CLEAN AND FREE OF ALL ACCUMULATED DEBRIS IMMEDIATELY AFTER SWEEPING, AS DETERMINED BY THE ENGINEER. AREAS DETERMINED UNSATISFACTORY BY THE ENGINEER WILL BE RE-SWEEP TO THE SATISFACTION OF THE ENGINEER WITHIN THE TIME SPECIFIED, AT NO ADDITIONAL COST TO THE DEPARTMENT.

PAYMENT WILL BE FULL COMPENSATION FOR FURNISHING ALL EQUIPMENT, MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE ALL SWEEPING OPERATIONS, INCLUDING HAND WORK, AS SPECIFIED.

PAYMENT FOR ALL OF THE ABOVE WILL BE MADE AT CONTRACT BID PRICE AS FOLLOWS:

ITEM 530 SPECIAL - STRUCTURE, MISC.: SWEEPING BRIDGES.

ITEM 530 SPECIAL STRUCTURES MISC.: CLEANING BRIDGES

THE WORK SHAL CONSIST OF THE REMOAVL OF DIRT, SAND, SOIL, PAPER, GLASS, CANS, AND OTHER DEBRIS FROM DARAINAGE SYSTEMS, EXPANSION JOINTS, AND ABUTMENT SEATS. EQUIPMENT MAY CONSIST OF HAND TOOLS, MANUAL BROOMS, POWER BROOMS, AIR COMPRESSORS, WATER TANKS, WATER PUMPS WITH ASSOCIATED DELIVERY HARDWARE TO CLEAN, FLUSH, AND REMOVE DIRT AND DEBRIS.

THE CLEANING OF SCUPPERS AND JOINTS SHALL NOT BE PERFORMED PRIOR TO PERFORMING ITEM 530 SPECIAL STRUCTURES MISC.: SWEEPING BRIDGES.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A BRIDGE CLEANING WORK PLAN INDICATING LOCATIONS OF ALL TEMPORARY BMP INSTALLED TO CAPUTURE ANY WASH WATER USED IN THE CLEANING PROCESS. THE PLAN SHALL INCLUDE INSPECTION AND DOCUMATION OF BMP PERFORMANCE PRIOR TO WORK AND IMMEDIATELY FOLLOWING THE WORK. INTERMIDATE INSPECTION SHALL BE CONDUCTED EVERY 4 HOUR UNTIL WORK IS COMPLETED.

CONTRACTOR SHALL FURNISH ALL MATERIAL, EQUIPMENT, LABOR AND INCIDENTAL ITEMS NECESSARY TO PROPERLY REMOVE AND DISPOSE OF ALL DEBRIS AND OTHER FOREIGN MATERIAL BY POWER SWEEPING, SHOVELING, SCRAPING, ETC. FOLLOWED BY INSTALLING BMPs AS IDENTIFIED IN THE WORK PLAN FOR BRIDGE CLEANING, AND PRESSURE WASHING THE CURB LINES, SHOULDERS, JOINTS, SCUPPERS, DOWNSPOUTS, AND THE BRIDGE SEAT ALONG WITH THE END OF THE BEAMS.

THE FOLLOWING AREAS OF THE BRIDGE ARE TO BE CLEANED:

1. CLEANING JOINTS FOR THE FULL WIDTH OF THE BRIDGE:
 - A) PREVENT ALL DIRT, DEBRIS, AND WASHWATER FROM ENTERING ANY DRAINAGE SYSTEM DURING THE CLEANING OPERATIONS.
 - B) REMOVE AND COLLECT LOOSE DEBRIS FROM THE JOINTS PRIOR TO INTRODUCING WATER. CARE SHOULD BE TAKEN WHEN BREAKING UP DEBRIS IN THE JOINTS IN ORDER NOT TO DAMAGE THE ELASTOMERIC SEAL.
 - C) SWEEP AND COLLECT SAND, DEBRIS AND SEDIMENT BY USE PRESSURE WASHING THE JOINTS OR COMPRESSED AIR.
2. CLEANING SCUPPERS AND DOWNSPOUTS:
 - A) USE SHOVEL, HAND SCRAPERS, AND OTHER HAND TOOLS TO BREAK UP DEBRIS IN SCUPPERS TO THE MAXIMUM EXTENT PRACTICABLE. COLLECT LOOSE AND LARGE DEBRIS FROM THE SCUPPERS PRIOR TO INTRODUCING WATER.
 - B) PRESSURE WASH THE SCUPPERS AND DOWNSPOUTS FOR FINAL CLEANING.
 - C) ALL DIRT OR DEBRIS FROM THE CLEANING OPERATION SHALL BE REMOVED.
3. BRIDGE SEATS:
 - A) REMOVE WITH A SHOVEL, BROOM, HAND SCRAPER OR OTHER MECHANICAL MEANS, ALL GROSS SOLIDS FROM THE ENTIRE BEAM SEATS AND AROUND ALL AREAS SURROUNDING THE BEAM BEARINGS, TO THE MAXIMUM EXTENT PRACTICABLE PRIOR TO INTRODUCING WATERS.
 - B) AFTER REMOVING ALL GROSS SOLIDS PRESSURE WASH THE ABUTMENTS, BACKWALLS, BEAM SEATS AND THE END OF THE BEAMS AS SHOWN ON THE PLANS.

PRESSURE WASHING STRUCTURE CONCRETE

THE CONTRACTOR SHALL USE PORTABLE WATER FOR THE CLEANING OPERATION. DISCHARGING TO OR COLLECTING WATER FROM STREAMS IS PROHIBITED.

PRESSURE WASHER WATER PRESSURE SHALL BE CAPABLE OF 1,500 PSI. CONTRACTOR SHALL NOT PRESSURE WASH NEAR EXISTING UTILITIES OR BRIDGE ITEMS CONTAINING OR COATED WITH ASBESTOS OR TRANSITE. OPERATING PRESSURES SHALL BE SUFFICIENT TO REMOVE THE ACCUMULATED MATERIAL WITHOUT DAMAGING PAINT COVERAGE OF THE STRUCTURAL STEEL.

PRESSURE WASH THE ABUTMENTS, BACKWALLS AND SCUPPERS AS SHOWN IN THE PLANS TO REMOVE DIRT AND DEBRIS. MINIMUM WATER PRESSURE SHALL BE 1,500 PSI. CONTRACTOR SHALL NOT PRESSURE WASH NEAR EXISTING UTILITIES OR BRIDGE ITEMS CONTAINING OR COATED WITH ASBESTOS OR TRANSITE.

BRIDGE DESINGATED OVER A SUPERIOR OR OUTSTANDING WATERWAY REQUIRE ADDITIONAL PRECAUTIONS TO PREVENT WASH WATER FROM ENTERING THE WATERWAY. SHALL INCLUDE THE FOLLOW;

1. CLEANING JOINTS FOR THE FULL WIDTH OF THE BRIDGE:
 - A) SWEEP AND COLLECT SAND, DEBRIS AND SEDIMENT FROM THE JOINTS BY VACUUMING WASH WATER USING A VACUUM TRUCK.
2. CLEANING SCUPPERS AND DOWNSPOUTS:
 - A) REMOVE SCUPPER GRATE. USE SHOVEL, HAND SCRAPERS AND OTHER HAND TOOLS TO BREAK UP DEBRIS IN SCUPPERS TO THE MAXIMUM EXTENT PRACTICABLE. COLLECT LOOSE AND LARGE DEBRIS FROM THE SCUPPERS PRIOR TO INTRODUCING WATER.
 - B) SWEEP AND COLLECT SAND, DEBRIS AND SEDIMENT FROM THE SCUPPERS BY VACUUMING WASH WATER USING A VACUUM TRUCK.
3. BRIDGE SEATS:
 - A) REMOVE WITH A SHOVEL, BROOM, HAND SCRAPER OR OTHER MECHANICAL MEANS, ALL GROSS SOLIDS FROM THE ENTIRE BEAM SEATS AND AROUND ALL AREAS SURROUNDING THE BEAM BEARINGS.
 - B) IF THE OVERLAND FLOW FROM THE BRIDGE SEAT TO THE WATER'S EDGE IS LESS THAN 20 FEET, NO WATER SHALL SHALL BE USED. COMPRESSED AIR MAY BE USED

THE CONTRACTOR SHALL ENSURE THAT THE DRAINAGE SYSTEM REMAINS CLEAN AND FREE OF ALL DEBRIS UNTIL ALL WORK UNDER THIS CONTRACT IS COMPLETE. ANY DAMAGED OR DETERIORATED SYSTEMS SHALL BE REPORTED TO THE ENGINEER

PAYMENT FOR ALL OF THE ABOVE WILL BE MADE AT CONTRACT BID PRICE AS FOLLOWS:

- ITEM 530 SPECIAL - STRUCTURE, MISC.: CLEANING OF DRAINAGE SYSTEMS.
- ITEM 530 SPECIAL - STRUCTURE, MISC.: CLEANING OF BRIDGE JOINTS
- ITEM 530 SPECIAL - STRUCTURE, MISC.: CLEANING OF BRIDGE SEATS

ITEM 614 - MAINTAINING TRAFFIC: SEE ROADWAY PLAN.

ESTABLISH TRAFFIC CONTROL OPERATIONS ON THE BRIDGE TO ENSURE WORKER SAFETY DURING MAINTENANCE ACTIVITIES. IF ROAD DEBRIS CAN FALL ON ACTIVE TRAFFIC BELOW BRIDGE, PROVIDE TRAFFIC CONTROL TO THE ROADWAY BELOW IN ACCORDANCE WITH THE ROADWAY PLANS.

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OFFICE OF STRUCTURAL ENGINEERING

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PLAN INSERT SHEET BRIDGE CLEANING GENERAL NOTES

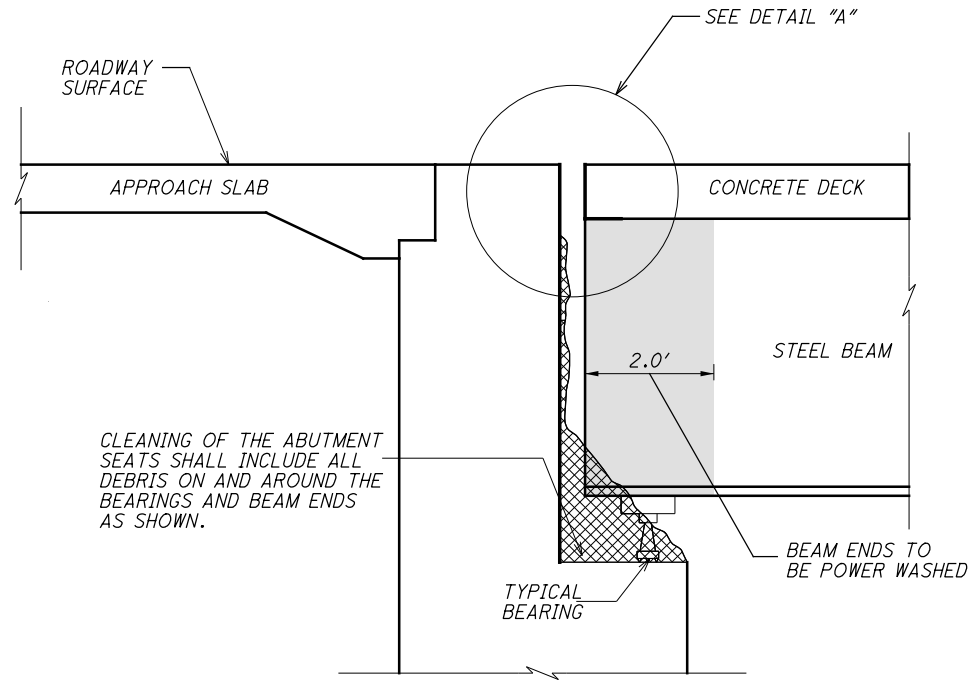
BRIDGE CLEANING

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ESTIMATED QUANTITIES										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	DECK	ABUTMENT	PIERS	SUPER.	GENERAL	SHEET #
SPECIAL	53000400		EACH	STRUCTURE, MISC: SWEEPING BRIDGES						
SPECIAL	53000400		EACH	STRUCTURE, MISC.: CLEANING OF DRAINAGE SYSTEMS						
SPECIAL	53000400		EACH	STRUCTURE, MISC.: CLEANING OF BRIDGE JOINTS						
SPECIAL	53000400		EACH	STRUCTURE, MISC.: CLEANING OF BRIDGE SEATS						

BACKWALL, ABUTMENT SEAT,
BEAM ENDS AND EXPANSION JOINT



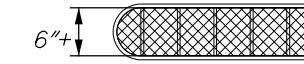
CLEANING OF THE ABUTMENT SEATS SHALL INCLUDE ALL DEBRIS ON AND AROUND THE BEARINGS AND BEAM ENDS AS SHOWN.

TYPICAL ABUTMENT DETAIL

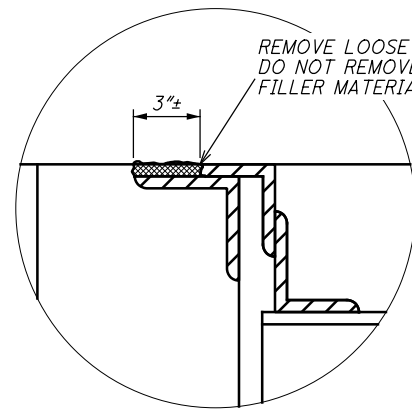
NOTES AND LEGEND:



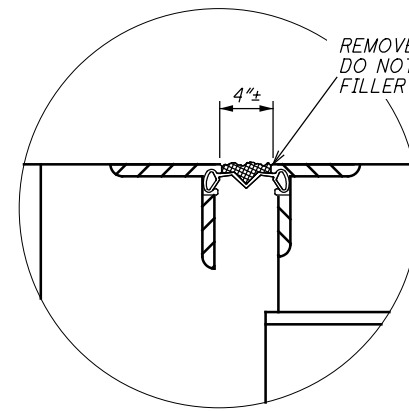
REMOVE DEBRIS AND OTHER FOREIGN MATERIALS, THEN PRESSURE WASH WITH PORTABLE WATER AS DESCRIBED IN THE GENERAL NOTES.



SCUPPER PLAN

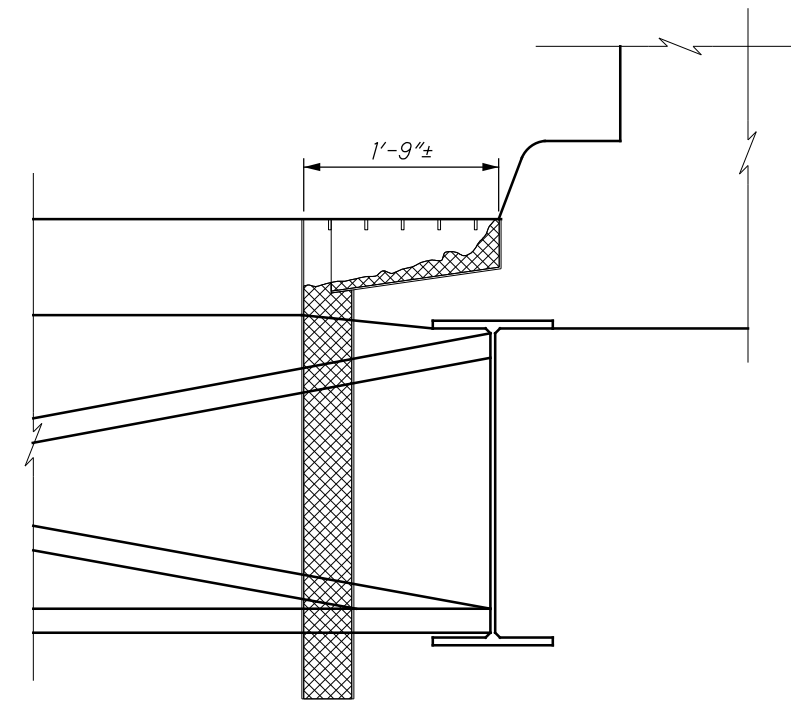


DETAIL "A"
(SLIDING PLATE)



DETAIL "A"
(STRIP SEAL)

AVOID PUNCTURE OR DAMAGE TO SEAL WHILE CLEANING



SCUPPER AND DOWNSPOUTS SIDE VIEW

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PLAN INSERT SHEET
BRIDGE CLEANING
MISCELLANEOUS DETAILS

BRIDGE CLEANING

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