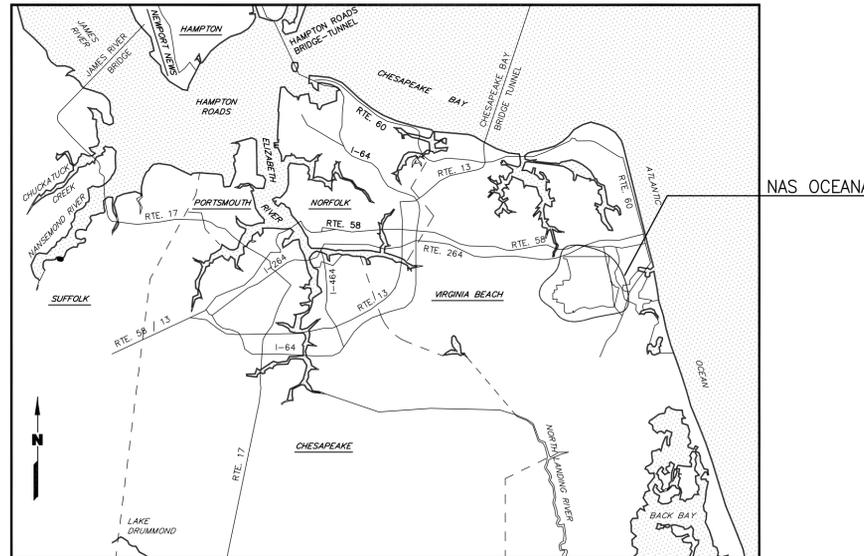


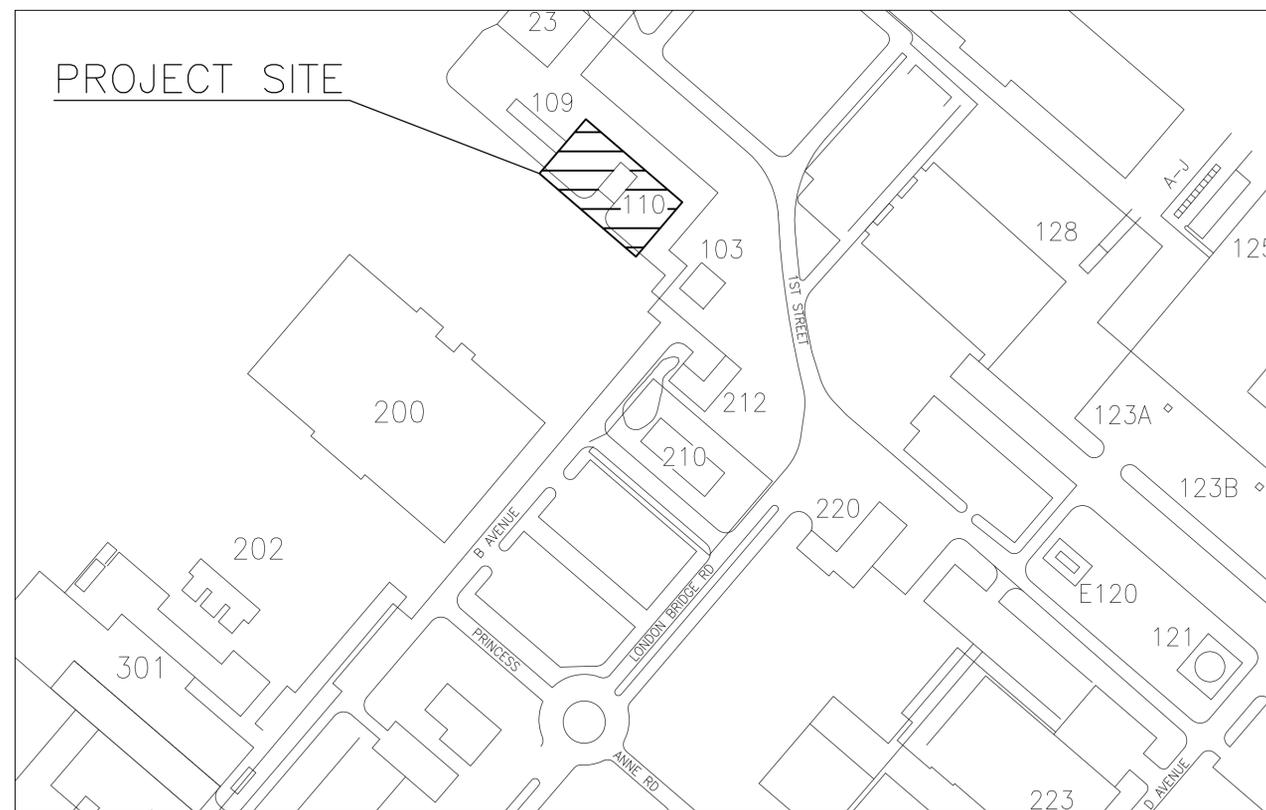
INSTALL CONCRETE PARKING LOT, BLDG 110

NAVAL AIR STATION OCEANA, VIRGINIA BEACH, VA.



VICINITY MAP

NOT TO SCALE



LOCATION MAP

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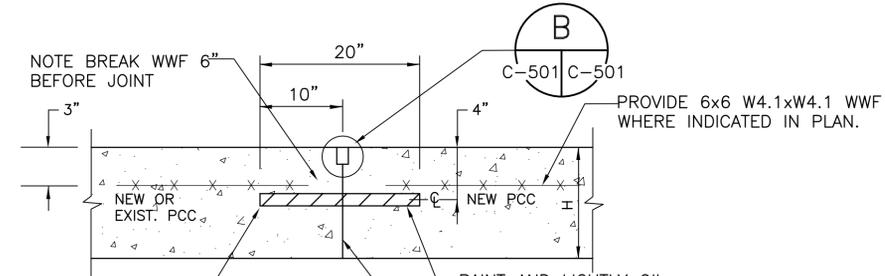
DRAWING INDEX

SHEET NO.	NAVFAC NO.	SHEET TITLE
T-001	4515670	TITLE SHEET
C-001	4515671	PROJECT SITE, LEGEND, NOTES AND ABBREVIATIONS
C-101	4515672	TOPOGRAPHIC SURVEY AND LIMITS OF EXCAVATION
C-102	4515673	GRADING AND PAVEMENT JOINT PATTERN
C-501	4515674	DETAILS
C-701	4515675	CONSTRUCTION NOTES

FILENAME: 03-3A0550-T-001.DWG, UPDATED ON 03/31/04 AT 11:03, XREFS: 3A0550PROJECT-INFO

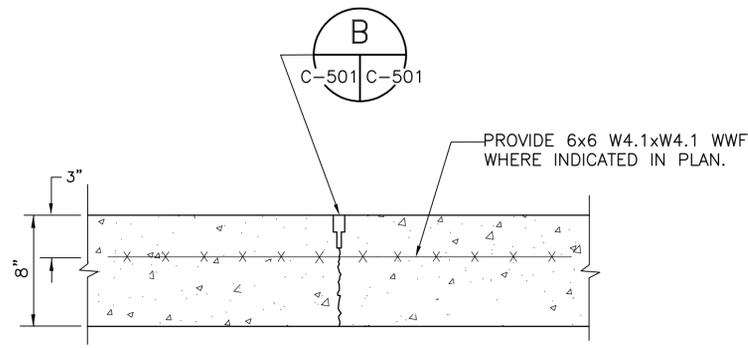
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	DESCRIPTION
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ACTIVITY - SATISFACTORY TO	
ROGER L. WHITE MEMO	
DATE 30-MAR-2004	
APPROVED	
 FOR EFD FOR COMMANDER NAVFAC 4/1/04	
DATE	
A/E	EFD
DESIGN	TCC
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CHEF ARCH/ ENGR	
PROJECT MANAGER	JTD
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
DEPARTMENT OF THE NAVY NAVAL STATION NAVAL AIR STATION, OCEANA VIRGINIA BEACH, VA	NAVAL FACILITIES ENGINEERING COMMAND DIVISION ATLANTIC VIRGINIA NORFOLK, VIRGINIA
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SPEC. NO. 05-03-3087	
CONSTR. CONTR. NO.	
N62470-03-C-3087	
NAVFAC DRAWING NO.	
4515670	
SHEET 1 OF 6	
T-001	
<small>DRAWFORM REVISION SEPT 2001</small>	

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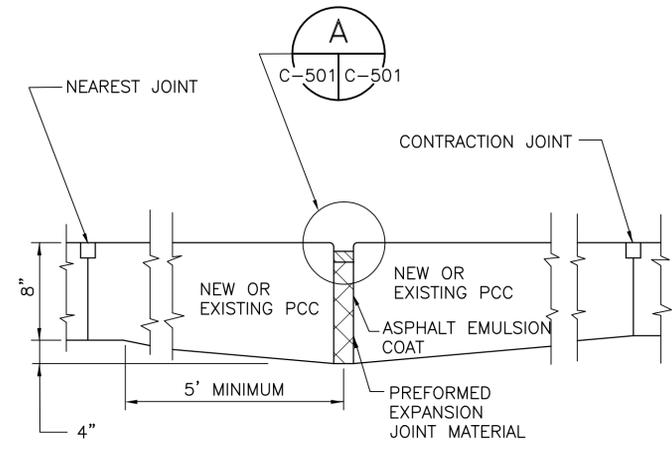


NOTE: AT EXISTING PCC, DRILL AND GROUT DOWEL AT MID-DEPTH OF EXISTING PCC. AT NEW PCC, PLACE DOWEL AT MID-DEPTH OF NEW PCC.

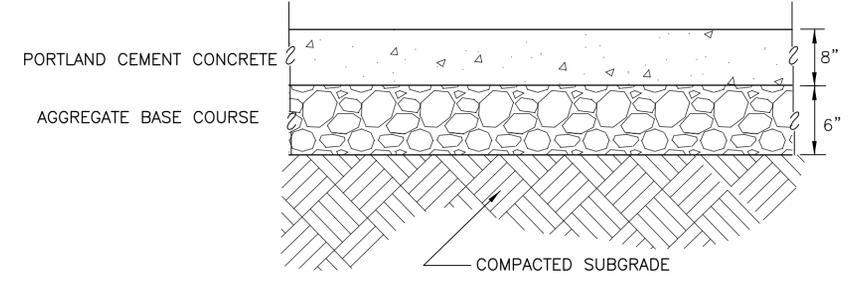
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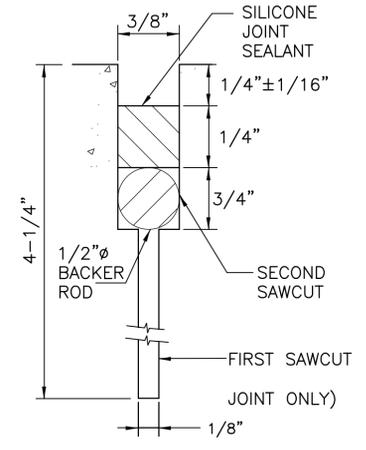
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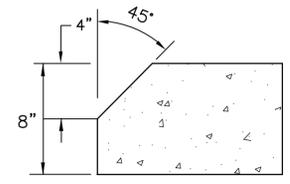
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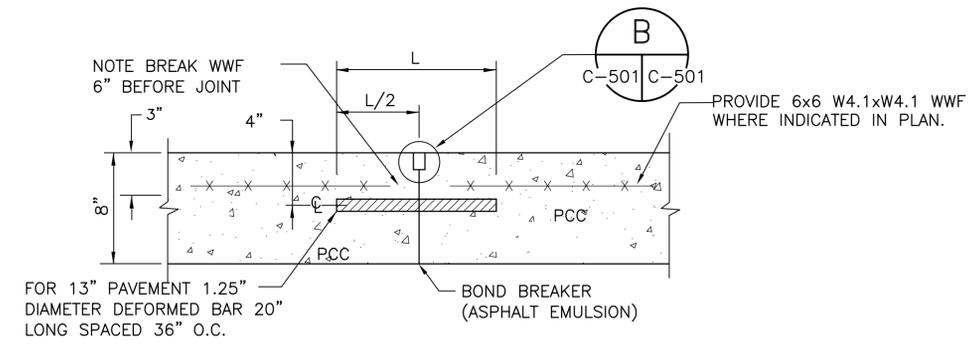
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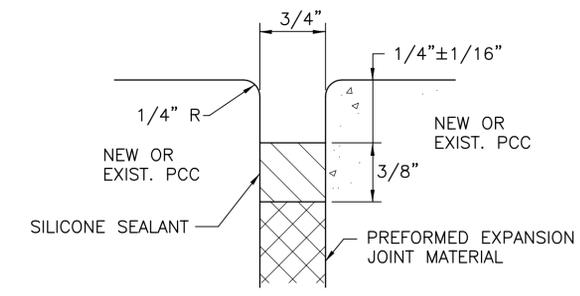
B SAWED JOINT DETAIL
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CE TAPERED CONCRETE EDGE
C-102 C-501 NOT TO SCALE



TKJ TIED CONSTRUCTION JOINT
C-102 C-501 NOT TO SCALE



A EXPANSION JOINT DETAIL
C-501 C-501 NOT TO SCALE

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CHEF	ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	JTD
BRANCH MANAGER	JTK
DESIGN DIRECTOR	KEP
DEPARTMENT OF THE ARMY	
NAVAL FACILITIES ENGINEERING COMMAND	
ATLANTIC DIVISION	
NAVAL STATION	
NAVAL AIR STATION, OCEANA	
NORFOLK, VIRGINIA	
VIRGINIA BEACH, VA	
INSTALL CONCRETE PARKING LOT BUILDING 110 DETAILS	
CODE ID. NO. 80091	SIZE D
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SPEC. NO. 05-03-3087	
CONSTR. CONTR. NO.	
N62470-03-C-3087	
NAVFAC DRAWING NO.	
4515674	
SHEET 5 OF 6	
C-501 <small>DRAWING REVISION MAY 2000</small>	

CONSTRUCTION NOTES

GENERAL CONSTRUCTION NOTES:

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH 2002 VIRGINIA DEPARTMENT OF TRANSPORTATION'S ROAD AND BRIDGE SPECIFICATION (VDOT RBS), EXCEPT AS OTHERWISE NOTED, ALSO PROVISIONS THEREIN FOR METHOD OF MEASUREMENT AND PAYMENT DO NOT APPLY. REFERENCES TO "ENGINEER" AND "STATE" SHALL BE INTERPRETED TO MEAN "CONTRACTING OFFICER" AND THE "FEDERAL GOVERNMENT" RESPECTIVELY.
- VDOT RBS IS AVAILABLE ON LINE AT <http://virginiadot.org/business/locdes/default.asp>, UNDER "PUBLICATIONS & MANUALS" SELECT "ROAD AND BRIDGE SPEC."
- REFERENCES INDICATED HEREIN SHALL BE THE MOST CURRENT VERSION AVAILABLE AT THE TIME OF SIGNATURE OF THESE DRAWINGS, UNLESS NOTED OTHERWISE.

EROSION AND SEDIMENT CONTROL:

- PROVIDE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH VIRGINIA SOIL AND WATER CONSERVATION COMMISSION'S (VSWCC) 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK IS AVAILABLE ONLINE AT [HTTP://WWW.DCR.STATE.VA.US/SW/E&S-FTP.HTM](http://www.dcr.state.va.us/sw/e&s-ftp.htm).
- TEMPORARY SEEDING**— PROVIDE TEMPORARY SEED, LIME, AND FERTILIZER IN ACCORDANCE WITH VSWCC VESCH, STANDARD 3.31. WITHIN 48 HOURS AFTER ATTAINING THE GRADING INCREMENT SPECIFIED HEREIN, PROVIDE SEED, FERTILIZER, MULCH AND WATER ON GRADED AREAS WHEN ANY OF THE FOLLOWING CONDITIONS OCCUR:
 - GRADING OPERATIONS STOP FOR AN ANTICIPATED DURATION OF 30 DAYS OR MORE.
 - WHEN IT IS IMPOSSIBLE OR IMPRACTICAL TO BRING AN AREA TO FINISH GRADE SO THAT PERMANENT SEEDING OPERATIONS CAN BE PERFORMED WITHOUT SERIOUS DISTURBANCE FROM ADDITIONAL GRADING.
 - GRADING OPERATIONS FOR A SPECIFIC AREA ARE COMPLETED AND THE SEEDING SEASONS SPECIFIED FOR PERMANENT SEEDING IS MORE THAN 30 DAYS AWAY.
 - WHEN AN IMMEDIATE COVER IS REQUIRED TO MINIMIZE EROSION, OR WHEN EROSION HAS OCCURRED.
 - PROVIDE ON EROSION CONTROL DEVICES CONSTRUCTED USING SOIL MATERIALS.
- STATE STANDARD FILTER BARRIER**—PROVIDE VSWCC VESCH STANDARD 3.05, SILT FENCE WHERE INDICATED.

EARTHWORK:

- ADDITIONAL MATERIAL REQUIRED UNDER PAVEMENTS OR SIDEWALKS SHALL BE IN ACCORDANCE WITH ASTM D 2487, CLASSIFICATION GW, GP, GM, SW, SP, SM WITH A MAXIMUM ASTM D 4318 LIQUID LIMIT OF 35, MAXIMUM ASTM D 4318 PLASTICITY INDEX OF 12, AND A MAXIMUM OF 25 PERCENT BY WEIGHT PASSING ASTM D 1140, NO. 200 SIEVE.
- ADDITIONAL MATERIAL REQUIRED FOR OPEN AREAS, SUCH AS GRASS AREAS, SHALL BE NATURAL, FRIABLE SOIL REPRESENTATIVE OF PRODUCTIVE, WELL-DRAINED SOILS IN THE AREA, FREE OF SUBSOIL, STUMPS, ROCKS LARGER THAN 25 MM DIAMETER, BRUSH, WEEDS, TOXIC SUBSTANCES, AND OTHER MATERIAL DETRIMENTAL TO PLANT GROWTH. AMEND TOPSOIL PH RANGE TO OBTAIN A PH OF 5.5 TO 7.
- COMPACTION**—FOR AREAS UNDER PAVEMENTS AND SIDEWALKS COMPACT TOP 300 MM[12 INCHES] OF SUBGRADES TO 95 PERCENT OF ASTM D 698. PLACE FILL MATERIAL IN 150 MM MAXIMUM LIFTS AND COMPACT TO 95 PERCENT OF ASTM D 698.
- PERMANENT SEEDING**— PROVIDE STATE CERTIFIED SEED MIXTURE AS SPECIFIED IN VSWCC VESCH STANDARD 3.32. PLANT FESCUE DURING FALL MONTHS, PLANT BERMUDA DURING SUMMER MONTHS.

CONTAMINATED SOIL:

- ASSUME SOIL IS CONTAMINATED WITH PETROLEUM PRODUCTS AND HANDLE IN ACCORDANCE TO VIRGINIA SOLID WASTE REGULATIONS AND AS SPECIFIED BELOW, HOWEVER ASSUME NO CONTAMINATED SOIL WILL MEET THE "HAZARDOUS" MATERIAL CRITERIA. EXCAVATE CONTAMINATED SOIL ONLY AS NECESSARY TO CONSTRUCT FACILITIES AS INDICATED. STOCKPILE CONTAMINATED SOILS IN A TEMPORARY CONTAINMENT AREA AS INDICATED. EXCAVATION AND BACKFILLING SCHEDULES SHALL BE PLANNED AND EXECUTED TO MINIMIZE THE LENGTH OF TIME STOCKPILING IS REQUIRED.
- FOLLOW THE PROCEDURES DESCRIBED IN THE PWCNORVA — REGIONAL ENGINEER, MANAGING PETROLEUM—CONTAMINATED SOIL AND GROUNDWATER STANDARD OPERATING PROCEDURES.
- STOP WORK AND CONTACT PWC ENVIRONMENTAL IF SOIL IS SATURATED WITH PETROLEUM PRODUCTS. FOR EXAMPLE, IF FREE PRODUCT IS VISIBLE AND DRIPPING FROM THE SOIL.
- TEMPORARY CONTAINMENT OF EXCAVATED CONTAMINATED SOIL:
 - SOIL TO BE REUSED AS BACKFILL

PLACE EXCAVATED SOIL ON TOP OF 10 MIL REINFORCED POLYETHYLENE SHEETING, AND PROVIDE CONTINUOUS COVER OF 10 MIL REINFORCED POLYETHYLENE SHEETING ON TOP OF THE STOCKPILE. TEMPORARILY STOCKPILE THE EXCAVATED SOIL AS CLOSE TO THE EXCAVATION AS POSSIBLE, BUT NOT SO AS TO IMPEDE CONSTRUCTION PROGRESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION AND SIZE OF THE TEMPORARY STOCKPILE. PLACE STOCKPILES AND SHEETING IN SUCH A MANNER AS TO PREVENT DEPRESSIONS AND PONDING OF WATER ATOP OR ADJACENT TO THE STOCKPILES. PROVIDE A STRAW BALE BERM AROUND THE OUTER LIMITS OF THE STOCKPILE AND COVER WITH POLYETHYLENE SHEETING. SECURE ALL SHEETING SUCH THAT HIGH WINDS AND RAINFALL WILL NOT DISPLACE AND SECURE EDGES OF THE SHEETS WITH WEIGHTS TO KEEP THE SHEETING IN PLACE. ALL WATER RUNOFF SHALL BE DIVERTED FROM THE STOCKPILED MATERIAL. REPLACE DAMAGED AND TORN SHEETING. THE SHEETING ON THE TOP OF THE STOCKPILE SHALL ONLY BE REMOVED WHEN NECESSARY TO ADD OR REMOVE MATERIAL AND SHALL NOT BE REMOVED WHILE RAINING. SOIL EXCAVATED, WITHOUT PETROLEUM SATURATION, CAN BE BACKFILLED INTO THE SAME EXCAVATION SITE. THE SOIL SHALL NOT BE REMOVED TO ANOTHER SITE AND USED AS BACKFILL.

B. SOIL TO BE DISPOSED OF

PROVIDE A "TEMPORARY CONTAINMENT AREA" TO STOCKPILE EXCAVATED SOIL, SAMPLE, TEST, AND DETERMINE OFF-SITE DISPOSAL LOCATION AS DESCRIBED HEREIN. PLACE EXCAVATED SOIL ON TOP OF 10 MIL REINFORCED POLYETHYLENE SHEETING, AND PROVIDE CONTINUOUS COVER OF 10 MIL REINFORCED POLYETHYLENE SHEETING ON TOP OF THE STOCKPILE. PLACE STOCKPILES AND SHEETING IN SUCH A MANNER AS TO PREVENT DEPRESSIONS AND PONDING OF WATER ATOP OR ADJACENT TO THE STOCKPILES. PROVIDE A STRAW BALE BERM AROUND THE OUTER LIMITS OF THE STOCKPILE AND COVER WITH POLYETHYLENE SHEETING. SECURE ALL SHEETING SUCH THAT HIGH WINDS AND RAINFALL WILL NOT DISPLACE, AND SECURE EDGES OF THE SHEETS WITH WEIGHTS TO KEEP THE SHEETING IN PLACE. ALL WATER RUNOFF SHALL BE DIVERTED FROM THE STOCKPILED MATERIAL. REPLACE DAMAGED AND TORN SHEETING. THE SHEETING ON THE TOP OF THE STOCKPILE SHALL ONLY BE REMOVED WHEN NECESSARY TO ADD OR REMOVE MATERIAL; AND SHALL NOT BE REMOVED WHILE RAINING.

5. SAMPLING AND TESTING EXCAVATED CONTAMINATED SOIL:

SAMPLE AND TEST PETROLEUM CONTAMINATED SOIL IN ACCORDANCE WITH VIRGINIA SOLID WASTE MANAGEMENT REGULATIONS (9VAC20-80-700). THE TESTING LABORATORY SHALL BE A CERTIFIED ANALYTICAL LABORATORY. A MAXIMUM TURNAROUND TIME OF 5 DAYS FOR SAMPLE ANALYSIS SHALL BE REQUIRED IN ACCORDANCE WITH THE STANDARD WORK WEEK OF THE CONTRACT. REPORTS SHALL BE PROVIDED WITHIN 5 DAYS OF SAMPLING.

6. TESTING REQUIREMENTS FOR DISPOSAL OF CONTAMINATED SOILS

A. ONE COMPOSITE SAMPLE FOR EVERY 100 CUBIC YARDS OF SOIL OR FRACTION THEREOF TO BE REMOVED SHALL BE TAKEN FROM EACH EXCAVATION SITE, AND SHALL BE ANALYZED FOR EACH REQUIRED TEST. TO DEVELOP A COMPOSITE SAMPLE OF THE SIZE NECESSARY TO RUN THE REQUIRED TESTS, THE CONTRACTOR SHALL TAKE SEVERAL SAMPLES FROM DIFFERENT AREAS WITHIN THE SOIL PILE. THESE SAMPLES SHALL BE COMBINED AND THOROUGHLY MIXED TO DEVELOP THE COMPOSITE SAMPLE.

B. THE SOIL SHALL CONTAIN NO FREE LIQUID AS DEMONSTRATED BY EPA SW-846 METHOD 9095, PAINT FILTER LIQUIDS TEST.

C. THE SUM OF BENZENE, TOLUENE, ETHYL BENZENE, AND XYLENE (BTX) CONCENTRATIONS SHALL BE DETERMINED BY USING EPA METHOD 8021B.

D. TPH (TOTAL PETROLEUM HYDROCARBONS) CONCENTRATIONS SHALL BE DETERMINED BY USING EPA METHOD 8015B.

E. MATERIAL SHALL BE TESTED FOR TOX (TOTAL ORGANIC HALOGENS) IN ACCORDANCE WITH EPA SW-846 (EPA METHOD 9020B OR 9022).

F. MATERIAL SHALL BE ANALYZED FOR FULL TCLP IN ACCORDANCE WITH EPA SW-846 METHOD 1311 AND FOR IGNITABILITY, CORROSIVITY, AND REACTIVITY.

G. MATERIAL SHALL BE TESTED FOR PCB'S (POLYCHLORINATED BIPEHENYLS) IN ACCORDANCE WITH EPA SW-846 METHOD 8080.

H. MOISTURE CONTENT OF THE SAMPLE SHALL BE DETERMINED IN ACCORDANCE WITH EPA METHOD 160.3.

I. PROVIDE ADDITIONAL TESTING AS REQUIRED BY TREATMENT FACILITY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY ADDITIONAL TESTS AS SPECIFIED BY THE TREATMENT FACILITY.

7. CRITERIA FOR DISPOSAL APPROVAL FOR SOIL:

AS IDENTIFIED BY THE CONTRACTING OFFICER:

A. SOILS FAILING THE TOXICITY CHARACTERISTIC LEACHATE PROCEDURE (TCLP) TEST SHALL BE MANAGED IN ACCORDANCE WITH THE VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS. ON-SITE SOILS FAILING THE TCLP TESTS SHALL BE CONSIDERED HAZARDOUS WASTE AND SHALL BE DISPOSED OF AT A HAZARDOUS WASTE TREATMENT FACILITY OFF SITE AS SPECIFIED HEREIN. IF THE ON-SITE SOIL CONTAINS GREATER THAN 50 PPM OR MORE OF TPH AND DOESN'T FAIL THE TCLP TEST THE SOIL MAY BE APPROVED FOR PERMITTED SANITARY OR INDUSTRIAL LANDFILLS EQUIPPED WITH LINERS AND LEACHATE COLLECTION SYSTEM OR AN APPROVED TPH INCINERATION FACILITY OFF SITE IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS.

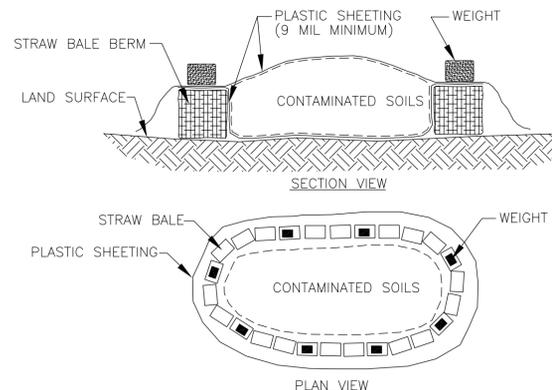
B. SOILS EXHIBITING AN TOX > 100 PPM SHALL NOT BE DISPOSED OF UNTIL SEPARATE APPROVAL FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY IS GRANTED.

C. IF CONCENTRATION OF TPH < 500 PPM AND TOTAL BTX < 10 PPM, THE DISPOSAL OF CONTAMINATED SOIL MAY BE APPROVED FOR PERMITTED SANITARY OR INDUSTRIAL LANDFILLS EQUIPPED WITH LINERS AND LEACHATE COLLECTION SYSTEMS.

D. EXCAVATED SOILS MEETING THE REQUIREMENTS FOR FILL ON SITE AS SPECIFIED HEREIN UNDER "EARTHWORK" SHALL BE USED AS EXCAVATION BACKFILL MATERIAL.

8. TRANSPORT PETROLEUM CONTAMINATED SOILS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.

DIAGRAM OF TEMPORARY CONTAINMENT FOR PETROLEUM CONTAMINATED SOILS



CAST-IN-PLACE CONCRETE AND MISCELLANEOUS CONCRETE PAVEMENT:

- CAST-IN-PLACE CONCRETE SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 318-99.
- ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 25 MPA[4000 PSI] AND BE AIR ENTRAINED.
- REINFORCING BARS, ACI 301/301M UNLESS OTHERWISE SPECIFIED. ASTM A 615/A 615M WITH THE BARS MARKED A, S, W, GRADE 400 [60]; OR ASTM A 996/A 996M WITH THE BARS MARKED TYPE R, GRADE 400 [60].
- WELDED WIRE SHALL CONFORM TO ASTM A 185 OR ASTM A 497. PROVIDE FLAT SHEETS OF WELDED WIRE FABRIC FOR SLABS.
- REINFORCING MARKED CONTINUOUS (CONT.) SHALL BE LAPPED 40 BAR DIAMETERS AT SPLICES.
- LAP WELDED WIRE FABRIC 300 MM[12 INCHES] MINIMUM.
- JOINTS:**
 - EXPANSION/CONTRACTION JOINT FILLER:** ASTM D1751, ASTM D1752, OR 100% RECYCLED MATERIAL MEETING ASTM D1752 (SUBPARAGRAPHS 5.1 TO 5.4). MATERIAL SHALL BE 13 MM[1/2 INCH] THICK, UNLESS OTHERWISE INDICATED. FILL EXPANSION JOINTS NOT EXPOSED TO WEATHER WITH PREFORMED JOINT FILLER MATERIAL. COMPLETELY FILL JOINTS EXPOSED TO WEATHER WITH JOINT FILLER MATERIAL AND JOINT SEALANT. DO NOT EXTEND REINFORCEMENT OR OTHER EMBEDDED METAL ITEMS BONDED TO THE CONCRETE THROUGH ANY EXPANSION JOINT UNLESS AN EXPANSION SLEEVE IS USED. PROVIDE CONTRACTION JOINTS, EITHER FORMED OR SAW CUT OR CUT WITH A JOINTING TOOL, TO THE INDICATED DEPTH AFTER THE SURFACE HAS BEEN FINISHED. SAWED JOINTS SHALL BE COMPLETED WITHIN 4 TO 12 HOURS AFTER CONCRETE PLACEMENT. PROTECT JOINTS FROM INTRUSION OF FOREIGN MATTER.
 - CONSTRUCTION JOINTS:** LOCATE JOINTS TO LEAST IMPAIR STRENGTH. CONTINUE REINFORCEMENT ACROSS JOINTS UNLESS OTHERWISE INDICATED.
 - JOINT SEALANTS:**
 - HORIZONTAL SURFACES, 3 PERCENT SLOPE, MAXIMUM: ASTM D1190 OR ASTM C920, TYPE M, CLASS 25, USE T.
 - VERTICAL SURFACES GREATER THAN 3 PERCENT SLOPE: ASTM C920, TYPE M, GRADE NS, CLASS 25, USE T.

REINFORCEMENT OR OTHER EMBEDDED METAL ITEMS BONDED TO THE CONCRETE THROUGH ANY EXPANSION JOINT UNLESS AN EXPANSION SLEEVE IS USED. PROVIDE CONTRACTION JOINTS, EITHER FORMED OR SAW CUT OR CUT WITH A JOINTING TOOL, TO THE INDICATED DEPTH AFTER THE SURFACE HAS BEEN FINISHED. SAWED JOINTS SHALL BE COMPLETED WITHIN 4 TO 12 HOURS AFTER CONCRETE PLACEMENT. PROTECT JOINTS FROM INTRUSION OF FOREIGN MATTER.

B. **CONSTRUCTION JOINTS:** LOCATE JOINTS TO LEAST IMPAIR STRENGTH. CONTINUE REINFORCEMENT ACROSS JOINTS UNLESS OTHERWISE INDICATED.

8. JOINT SEALANTS:

A. HORIZONTAL SURFACES, 3 PERCENT SLOPE, MAXIMUM: ASTM D1190 OR ASTM C920, TYPE M, CLASS 25, USE T.

B. VERTICAL SURFACES GREATER THAN 3 PERCENT SLOPE: ASTM C920, TYPE M, GRADE NS, CLASS 25, USE T.

9. **PAVEMENT FINISHES AND MISCELLANEOUS CONSTRUCTION**— PROVIDE PAVEMENT AND MISCELLANEOUS CONSTRUCTION FINISH IN ACCORDANCE WITH ACI 302.1R, UNLESS OTHERWISE SPECIFIED. PROVIDE BROOMED FINISH FOR CONCRETE SIDEWALKS. FOR ALL OTHER CONCRETE, PROVIDE PAVEMENT FINISH.

A. **FINISH-PLACE**, CONSOLIDATE, AND IMMEDIATELY STRIKE OFF CONCRETE TO OBTAIN PROPER CONTOUR, GRADE, AND ELEVATION BEFORE BLEEDWATER APPEARS. PERMIT CONCRETE TO ATTAIN A SET SUFFICIENT FOR FLOATING AND SUPPORTING THE WEIGHT OF THE FINISHER AND EQUIPMENT. IF BLEEDWATER IS PRESENT PRIOR TO FLOATING THE SURFACE, DRAG THE EXCESS WATER OFF OR REMOVE BY ABSORPTION WITH POROUS MATERIALS. DO NOT USE DRY CEMENT TO ABSORB BLEEDWATER.

B. **FLOATED-USE** FOR EXTERIOR SLABS WHERE NOT OTHERWISE SPECIFIED. AFTER THE CONCRETE HAS BEEN PLACED, CONSOLIDATED, STRUCK OFF, AND LEVELED, DO NOT WORK THE CONCRETE FURTHER, UNTIL READY FOR FLOATING. WHETHER FLOATING WITH A WOOD, MAGNESIUM, OR COMPOSITE HAND FLOAT, WITH A BLADED POWER TROWEL EQUIPPED WITH FLOAT SHOES, OR WITH A POWERED DISC, FLOAT SHALL BEGIN WHEN THE SURFACE HAS STIFFENED SUFFICIENTLY TO PERMIT THE OPERATION. DURING OR AFTER THE FIRST FLOATING, SURFACE SHALL BE CHECKED WITH A 3 METER (10 FOOT) STRAIGHTEDGE APPLIED AT NO LESS THAN TWO DIFFERENT ANGLES, ONE OF WHICH IS PERPENDICULAR TO THE DIRECTION OF STRIKE OFF. HIGH SPOTS SHALL BE CUT DOWN AND LOW SPOTS FILLED DURING THIS PROCEDURE TO PRODUCE A SURFACE LEVEL WITHIN 6 MM IN 3 M.

C. **BROOMED-USE** ON SURFACES OF EXTERIOR WALKS, PLATFORMS, PATIOS, AND RAMPS, UNLESS OTHERWISE INDICATED. PERFORM A FLOATED FINISH, THEN DRAW A BROOM OR BURLAP BELT ACROSS THE SURFACE TO PRODUCE A COARSE SCORED TEXTURE. PERMIT SURFACE TO HARDEN SUFFICIENTLY TO RETAIN THE SCORING OR RIDGES. BROOM TRANSVERSE TO TRAFFIC OR AT RIGHT ANGLES TO THE SLOPE OF THE SLAB.

D. **PAVEMENT-SCREED** THE CONCRETE WITH A TEMPLATE ADVANCED WITH A COMBINED LONGITUDINAL AND CROSSWISE MOTION. MAINTAIN A SLIGHT SURPLUS OF CONCRETE AHEAD OF THE TEMPLATE. AFTER SCREEDING, FLOAT THE CONCRETE LONGITUDINALLY. USE A STRAIGHTEDGE TO CHECK SLOPE AND FLATNESS; CORRECT AND REFLOAT AS NECESSARY. OBTAIN FINAL FINISH BY A BURLAP DRAG. DRAG A STRIP OF CLEAN, WET BURLAP FROM 900 TO 3000 MM WIDE AND 600 MM LONGER (3 TO 10 FEET WIDE AND 2 FEET LONGER) THAN THE PAVEMENT WIDTH ACROSS THE SLAB. PRODUCE A FINE, GRANULAR, SANDY TEXTURED SURFACE WITHOUT DISFIGURING MARKS. ROUND EDGES AND JOINTS WITH AN EDGER HAVING A RADIUS OF 3 MM (1/8 INCH).

12. **PRECAST CONCRETE BUMPER**—PRECAST CONCRETE BUMPERS SHALL BE A STANDARD PRODUCT NORMALLY MANUFACTURED FOR THAT PURPOSE. SIZE SHALL BE AS INDICATED. CONCRETE SHALL BE DEVELOPED TO A 28 DAY COMPRESSIVE STRENGTH OF 21 MPA[3000 PSI] MINIMUM. LOCATE PRECAST CONCRETE BUMPERS AS INDICATED AND CENTERED ON EACH PARKING SPACE.

STEEL:

- ALL STEEL SHALL BE ASTM A 36.
- HOT-DIP GALVANIZE ITEMS AFTER FABRICATION. GALVANIZING: ASTM A 123/A 123M, ASTM A 153/A 153M OR ASTM A 653/A 653M, G90, AS APPLICABLE.

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APPROVED ACTIVITY - SATISFACTORY TO DATE APPROVED  FOR EFD FOR COMMANDER NAVFAC 4/1/04	
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NAVAL STATION	OCEANA VIRGINIA BEACH, VA
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