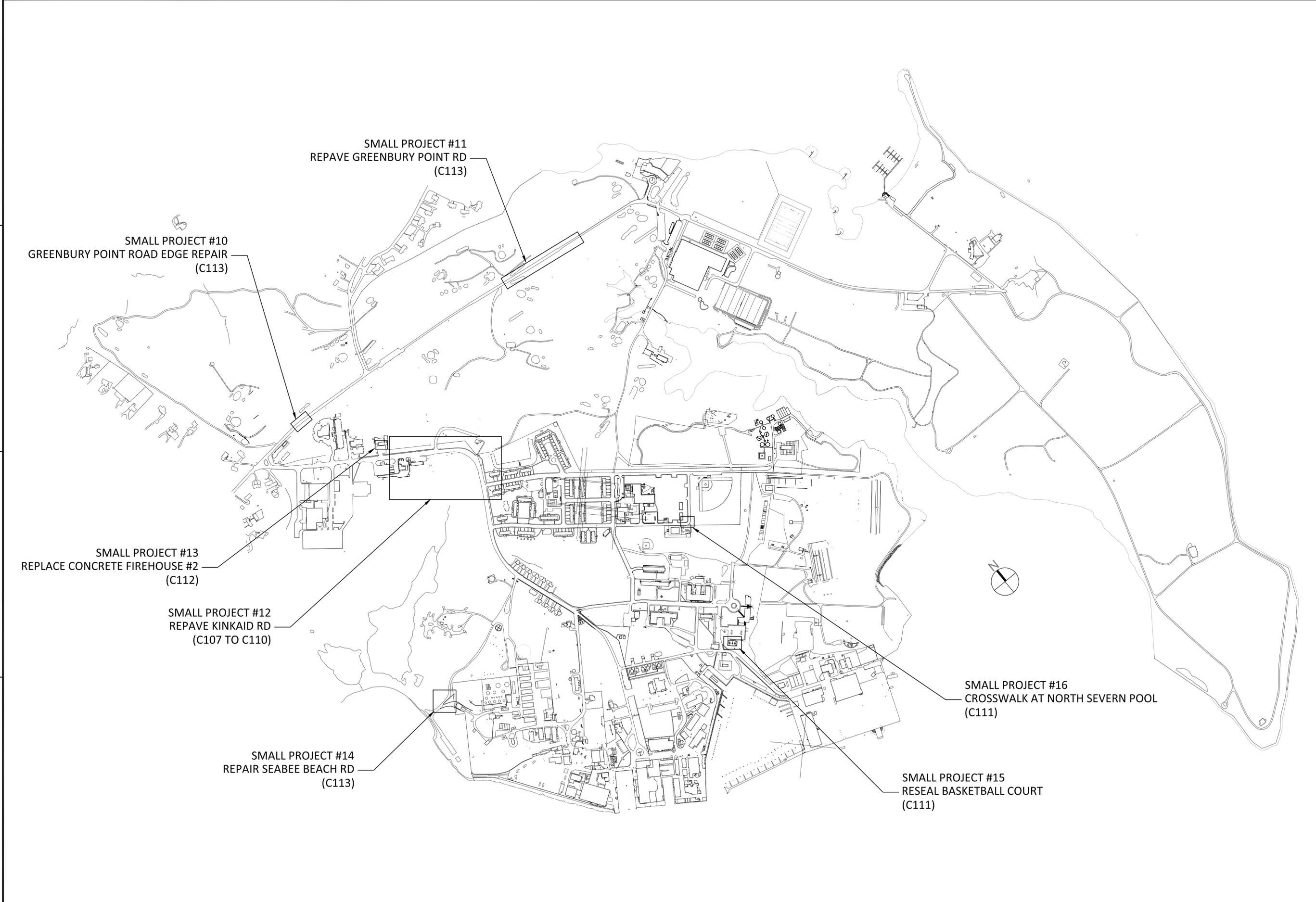


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SMALL PROJECT #10
GREENBURY POINT ROAD EDGE REPAIR
(C113)

SMALL PROJECT #11
REPAVE GREENBURY POINT RD
(C113)

SMALL PROJECT #13
REPLACE CONCRETE FIREHOUSE #2
(C112)

SMALL PROJECT #12
REPAVE KINKAID RD
(C107 TO C110)

SMALL PROJECT #14
REPAIR SEABEE BEACH RD
(C113)

SMALL PROJECT #15
RESEAL BASKETBALL COURT
(C111)

SMALL PROJECT #16
CROSSWALK AT NORTH SEVERN POOL
(C111)

DATE	APPROVED
DESCRIPTION	
	
ROAD REPAIRS NSA ANNAPOLIS NORTH SEVERN COMPLEX LOCATION PLAN	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON DC PUBLIC WORKS DEPARTMENT NSA ANNAPOLIS ANNA POLIS, MD	
SCALE:	
PROJECT NO.:	1518670
CONSTR. CONTR. NO.:	
NAVFAC DRAWING NO.:	13083152
SHEET	3 OF 16
G102	
DRAWING REVISOR: 10 MARCH 2009	

BID OPTION #1

NOTE: SEE GRADING PLAN FOR ADJUSTMENT OF ROAD ELEVATIONS



EXISTING FENCE AND RIPRAP CAN BE MOVED AS NECESSARY, AND MUST BE PLACED BACK AT END OF JOB AT CONTRACTOR'S EXPENSE

CONCRETE HEADWALL TO REMAIN IF SALVAGABLE. DEMOLISH IF NECESSARY TO REPLACE BOX CULVERT. REMOVE DEBRIS.

DEMOLISH EXISTING DRAINAGE FRAMES AND GRATES, BOX CULVERT, AND ROAD AS NECESSARY

DEMOLISH SPALLING CONCRETE AND CURB.

SIDEWALK TO REMAIN

DEMO AND DISPOSE OF RAIL

EX. PIPE. APPROX. 18" DIA. CONTRACTOR TO VERIFY

DEMO EXISTING BOX CULVERT AND SIDEWALK. BOX EXTENDS UNDERNEATH SIDEWALK AND TO EDGE OF PARKING LOT PAVING.

PLUG EXISTING DRAINAGE INLET AT OUTLET, AND DEWATER UPSTREAM STRUCTURES PRIOR TO DEMOLITION. CLEANOUT EXISTING PIPE TO REMAIN.

ROW OF PARKING OFF CAN BE UTILIZED BY CONTRACTOR FOR PARKING/STAGING

PROVIDE TRAFFIC CONTROL TO DIVERT ALL TRAFFIC THROUGH PARKING LOT AREA (TYP.)

SCALE:
1"=10'

	
APPROVED FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	JCI
DRW	JCI
CHK	JCI
PM/DM	R. TAYLOR
BRANCH MANAGER	
CHIEF ENG / ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON D.C. PUBLIC WORKS DEPARTMENT	
REPAIR ROADS NSA ANNAPOLIS	
BOWYER ROAD STORM DRAINAGE DEMO PLAN	
SCALE: 1"=10'	
PROJECT NO.:	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 13083153	
SHEET 4 OF 16	
C101	

1 2 3 4 5

D
C
B
A

BID OPTION #1

NOTE:
EXISTING BOX CULVERT EXTENDS FROM EXISTING HEADWALL TO APPROX. EDGE OF ADJACENT PARKING LOT, AS SHOWN. DEMOLISH EXISTING BOX CULVERT UNDERNEATH LIMITS OF EXISTING ROAD AS SHOWN ON PLAN. PROPOSED PRECAST BOX CULVERT IS APPROX. 38'-4" LONG. SIZE TO BE FIELD VERIFIED BY CONTRACTOR. SIZE OF INSIDE DIMENSIONS IS APPROXIMATELY 96"W x 20"H.

ENGINEER RECOMMENDS SUBCONTRACTING INSTALLATION TO A SPECIALIZED CONTRACTOR PER MANUFACTURERS RECOMMENDATION. INQUIRE WITH ENGINEER AND/OR MANUFACTURER FOR RECOMMENDED CONTRACTOR.

INSTALL PRECAST CULVERT END SECTION HEADWALL PER RECOMMENDATION OF PRECAST MANUFACTURER, IF REQUIRED.

SEE CURB CUT DETAIL

APPROX. LENGTH OF PROPOSED BOX CULVERT = 38'-4". CONTRACTOR TO VERIFY FOR ORDERING



PROVIDE MDOT APPROVED FRAME AND GRATE SYSTEM AND FLUSH WITH PAVEMENT AND COMPATIBLE WITH PRECAST INLET (TYP. FOR ALL)

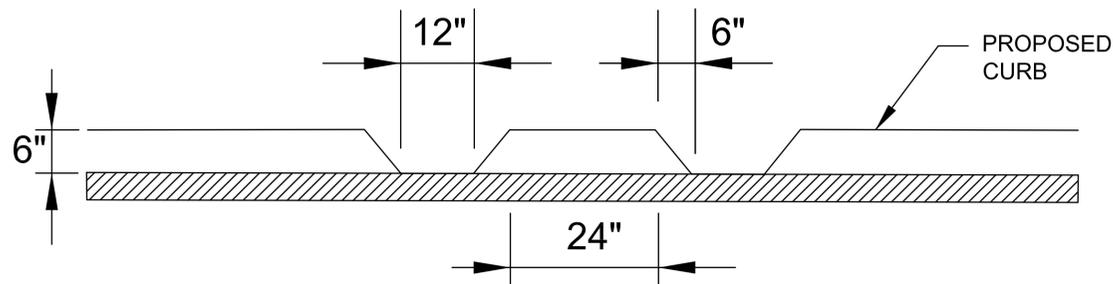
PROPOSED STRAIGHT CURB
PROPOSED SOD

PROPOSED SIDEWALK

DURING CONSTRUCTION INSTALL HAYBALE, SILT SOCK, OR OTHER EROSION AND SEDIMENT CONTROL DEVICE TO RESTRICT SEDIMENT INTO THE EXISTING PIPE. PLUG AND DEWATER AS NECESSARY FOR ANY STORM EVENTS DURING CONSTRUCTION

PROPOSED BOX CULVERT - PLAN VIEW

SCALE: 1"= 5'



CURB CUT DETAIL

N.T.S.

ALL JOINTS MUST BE PARGED WITH JOINT SEALANT

PROVIDE 3" ASPHALTIC HOTMIX, BASE COURSE, AND 2" ASPHALTIC HOTMIX, WEARING COURSE. PROVIDE CROWN IN CENTER AND 1.5% CROSS SLOPE

EXISTING ROAD SHOWN 4" LOWER THAN PROPOSED ROAD

INSTALL PAVING FABRIC OVER BOX

EXISTING INVERT OF EXISTING BOX CULVERT

4"

6"

INSTALL 6" BED OF #57 STONE

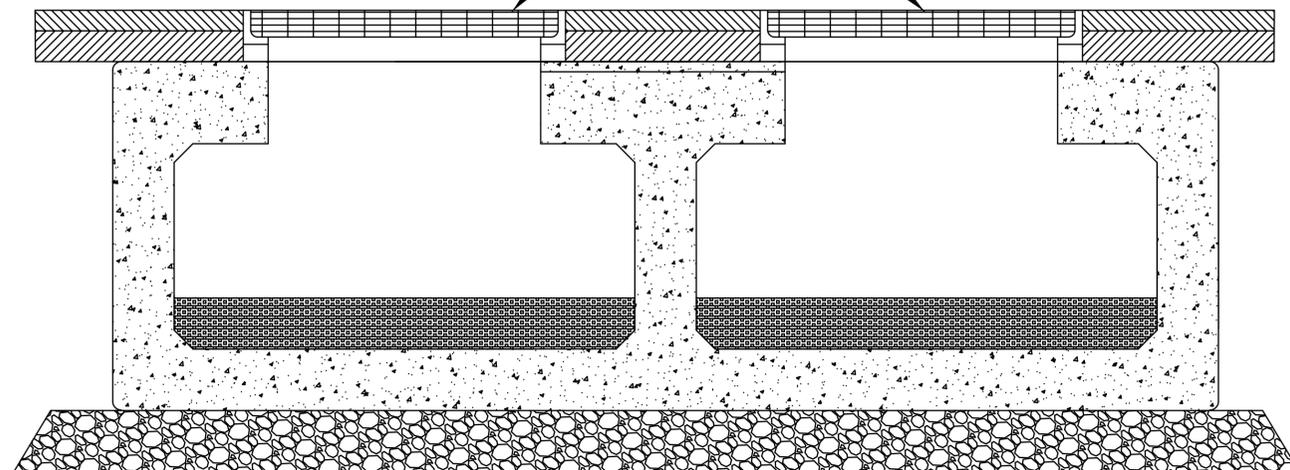
20"

8"

SECTION A-A

N.T.S.

PROVIDE PRECAST BOX CULVERT WITH OPENINGS FOR MDOT APPROVED FRAME AND GRATE SYSTEM. RECOMMEND MDOT SHA DOUBLE SS FULL 4-FLANGE FRAME AND VANE GRATE SET 370.05-01 OR SMALLER AND COMPATIBLE WITH PRECAST BOX CULVERT. INSTALL FLUSH WITH PAVEMENT. DETAIL UPON REQUEST.



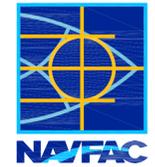
SECTION B-B

N.T.S.

GENERAL NOTES:

1. ALL BOX CULVERT DIMENSIONS MUST BE VERIFIED BY PRECAST MANUFACTURER AND CONTRACTOR.
2. ALL JOINTS MUST BE PARGED WITH CONSEAL CS-102 OR JOINT SEALANT APPROVED BY THE PRECAST MANUFACTURER THAT MEETS ASTM C990. CUT SHEET UPON REQUEST.
3. BOX CULVERT MUST BE LOAD RATED FOR HS-25 TRAFFIC.

INSTRUCT PRECAST MANUFACTURER TO PROVIDE 4" OF CONCRETE SLURRY FILL AT BOTTOM TO MATCH EXISTING INVERT OF BOX CULVERT. DEPTH OF SLURRY FILL MUST BE FIELD VERIFIED BY CONTRACTOR



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY-TO DATE

DES JCI DRW JCI CHK JCI

FM / DM R. TAYLOR

BRANCH MANAGER

CHIEF ENG / ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON D.C.

PUBLIC WORKS DEPARTMENT

UNITED STATES NAVAL ACADEMY - ANNAPOLIS, MD

ROAD REPAIRS
NSA ANNAPOLIS

BOWYER ROAD STORM DRAIN DETAILS

SCALE: AS NOTED

EPROJECT NO.:

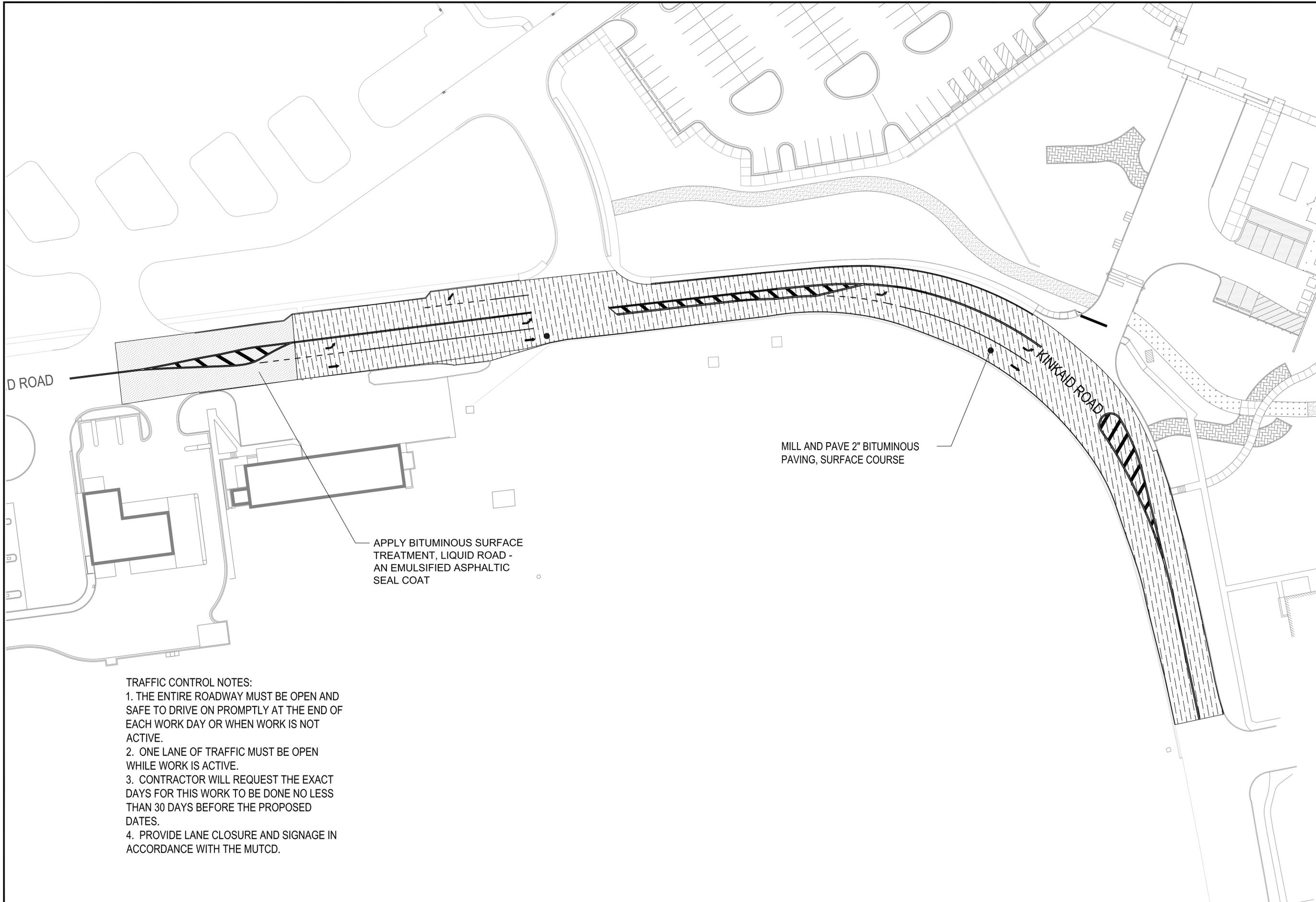
CONSTR. CONTR. NO.:

NAVFAC DRAWING NO.:

13083155

SHEET 6 OF 16

C103



D ROAD

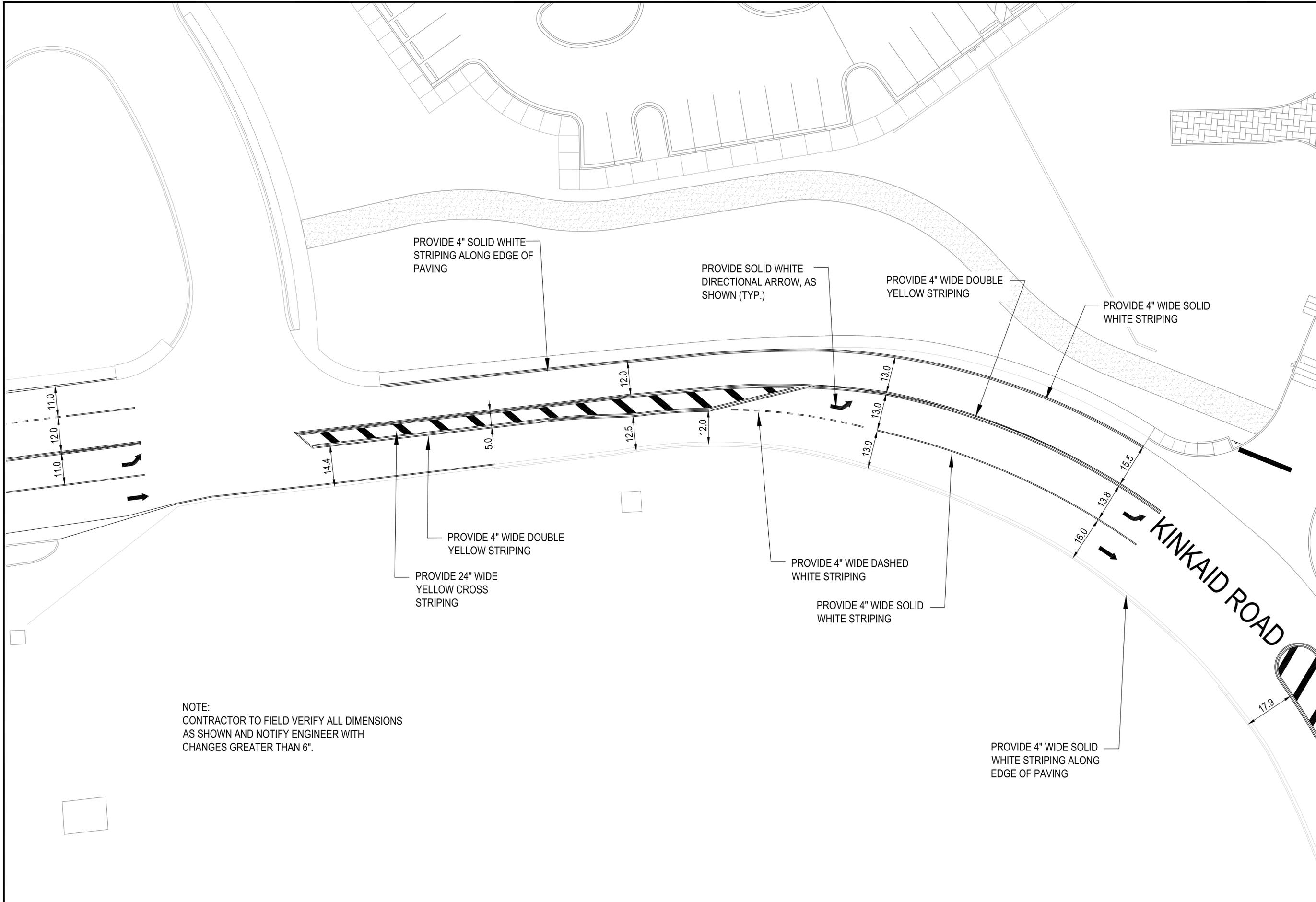
KINKAID ROAD

MILL AND PAVE 2" BITUMINOUS PAVING, SURFACE COURSE

APPLY BITUMINOUS SURFACE TREATMENT, LIQUID ROAD - AN EMULSIFIED ASPHALTIC SEAL COAT

- TRAFFIC CONTROL NOTES:
1. THE ENTIRE ROADWAY MUST BE OPEN AND SAFE TO DRIVE ON PROMPTLY AT THE END OF EACH WORK DAY OR WHEN WORK IS NOT ACTIVE.
 2. ONE LANE OF TRAFFIC MUST BE OPEN WHILE WORK IS ACTIVE.
 3. CONTRACTOR WILL REQUEST THE EXACT DAYS FOR THIS WORK TO BE DONE NO LESS THAN 30 DAYS BEFORE THE PROPOSED DATES.
 4. PROVIDE LANE CLOSURE AND SIGNAGE IN ACCORDANCE WITH THE MUTCD.

															
<p>APPROVED</p> <p>FOR COMMANDER NAVFAC</p> <p>ACTIVITY</p>															
<p>SATISFACTORY-TO DATE</p> <table border="1"> <tr> <td>DES</td> <td>JCJ</td> <td>DRW</td> <td>JCJ</td> <td>CHK</td> <td>JCJ</td> </tr> <tr> <td>PM / DM</td> <td colspan="5">R. TAYLOR</td> </tr> </table> <p>BRANCH MANAGER</p> <p>CHIEF ENG / ARCH</p> <p>FIRE PROTECTION</p>				DES	JCJ	DRW	JCJ	CHK	JCJ	PM / DM	R. TAYLOR				
DES	JCJ	DRW	JCJ	CHK	JCJ										
PM / DM	R. TAYLOR														
<p>DEPARTMENT OF THE NAVY</p> <p>NAVAL FACILITIES ENGINEERING COMMAND</p> <p>NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON D.C.</p> <p>PUBLIC WORKS DEPARTMENT</p>		<p>NAVAL FACILITIES ENGINEERING COMMAND</p> <p>UNITED STATES NAVAL ACADEMY - ANNAPOLIS, MD</p>													
<p>ROAD REPAIRS</p> <p>NSA ANNAPOLIS</p>		<p>KINKAID ROAD SITE PLAN</p>													
<p>SCALE: 1" = 30'</p> <p>EPROJECT NO.:</p> <p>CONSTR. CONTR. NO.:</p> <p>NAVFAC DRAWING NO. 13083159</p> <p>SHEET 10 OF 16</p>															
<p>C107</p>															



PROVIDE 4" SOLID WHITE STRIPING ALONG EDGE OF PAVING

PROVIDE SOLID WHITE DIRECTIONAL ARROW, AS SHOWN (TYP.)

PROVIDE 4" WIDE DOUBLE YELLOW STRIPING

PROVIDE 4" WIDE SOLID WHITE STRIPING

PROVIDE 4" WIDE DOUBLE YELLOW STRIPING

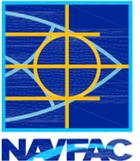
PROVIDE 24" WIDE YELLOW CROSS STRIPING

PROVIDE 4" WIDE DASHED WHITE STRIPING

PROVIDE 4" WIDE SOLID WHITE STRIPING

PROVIDE 4" WIDE SOLID WHITE STRIPING ALONG EDGE OF PAVING

NOTE:
CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AS SHOWN AND NOTIFY ENGINEER WITH CHANGES GREATER THAN 6".

		D	
		C	
APPROVED		B	
FOR COMMANDER NAVFAC		A	
ACTIVITY		KINKAID ROAD STRIPING PLAN	
SATISFACTORY-TO DATE		ROAD REPAIRS NSA ANNAPOLIS	
DES JCI	DRW JCI	CHK JCI	
PM / DM	R. TAYLOR		
BRANCH MANAGER			
CHIEF ENG / ARCH			
FIRE PROTECTION			
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON D.C. UNITED STATES NAVAL ACADEMY - ANNAPOLIS, MD PUBLIC WORKS DEPARTMENT			
SCALE: 1" = 15'			
EPROJECT NO.:			
CONSTR. CONTR. NO.:			
NAVFAC DRAWING NO.:		13083161	
SHEET 12 OF 16		C109	

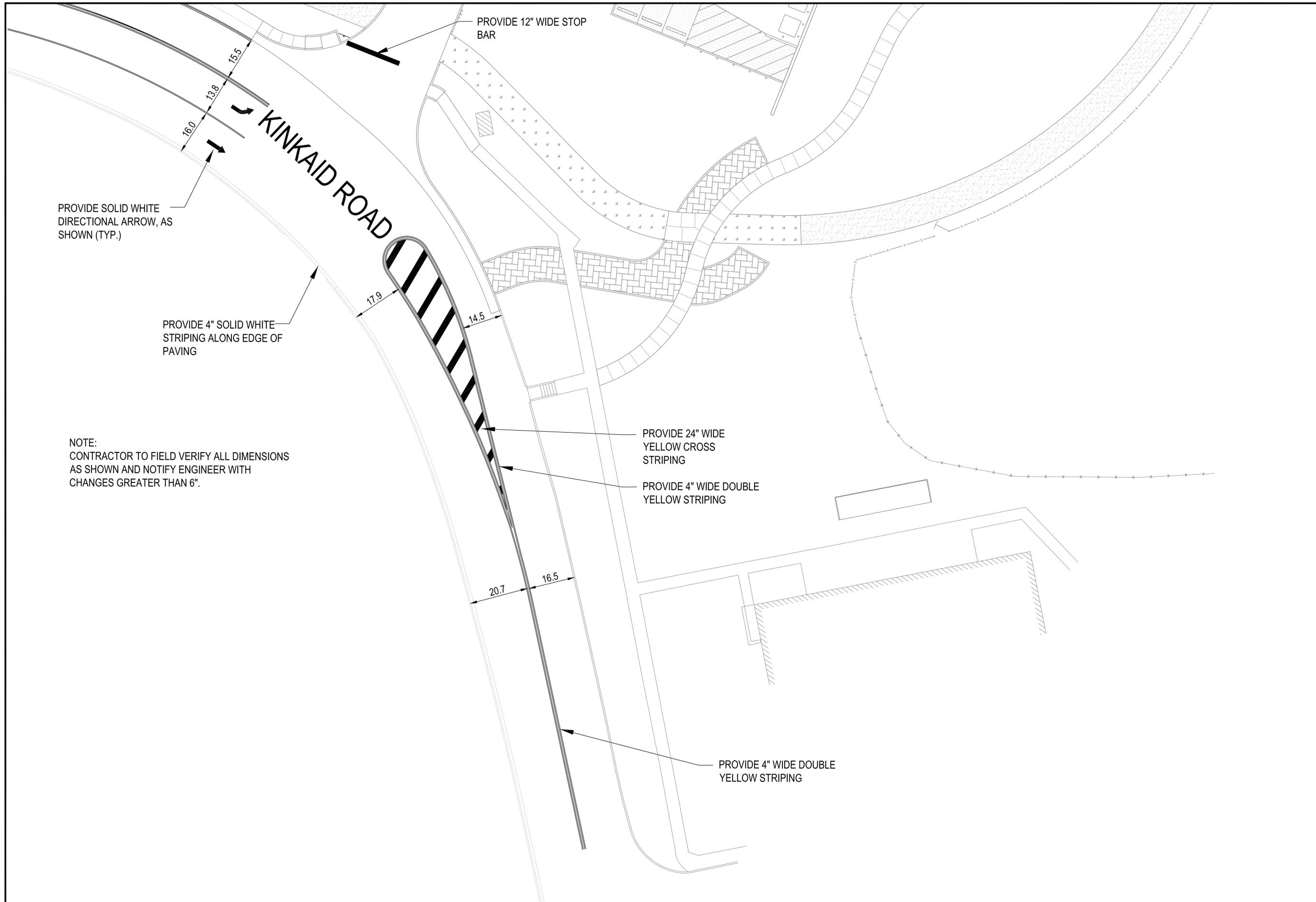
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PROVIDE SOLID WHITE DIRECTIONAL ARROW, AS SHOWN (TYP.)

PROVIDE 4" SOLID WHITE STRIPING ALONG EDGE OF PAVING

NOTE:
CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AS SHOWN AND NOTIFY ENGINEER WITH CHANGES GREATER THAN 6".

PROVIDE 12" WIDE STOP BAR

PROVIDE 24" WIDE YELLOW CROSS STRIPING

PROVIDE 4" WIDE DOUBLE YELLOW STRIPING

PROVIDE 4" WIDE DOUBLE YELLOW STRIPING

	
<p>APPROVED</p> <p>FOR COMMANDER NAVFAC</p> <p>ACTIVITY</p>	
<p>SATISFACTORY-TO DATE</p> <p>DES JCI DRW JCI CHK JCI</p> <p>FM / DM R. TAYLOR</p> <p>BRANCH MANAGER</p> <p>CHIEF ENG / ARCH</p> <p>FIRE PROTECTION</p>	
<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON D.C. PUBLIC WORKS DEPARTMENT</p> <p>NAVAL FACILITIES ENGINEERING COMMAND UNITED STATES NAVAL ACADEMY - ANNAPOLIS, MD</p> <p>ROAD REPAIRS NSA ANNAPOLIS</p> <p>KINKAID ROAD STRIPING PLAN</p>	
<p>SCALE: 1" = 15'</p> <p>PROJECT NO.:</p> <p>CONSTR. CONTR. NO.:</p> <p>NAVFAC DRAWING NO. 13083161</p> <p>SHEET 12 OF 16</p>	
<p>C110</p>	

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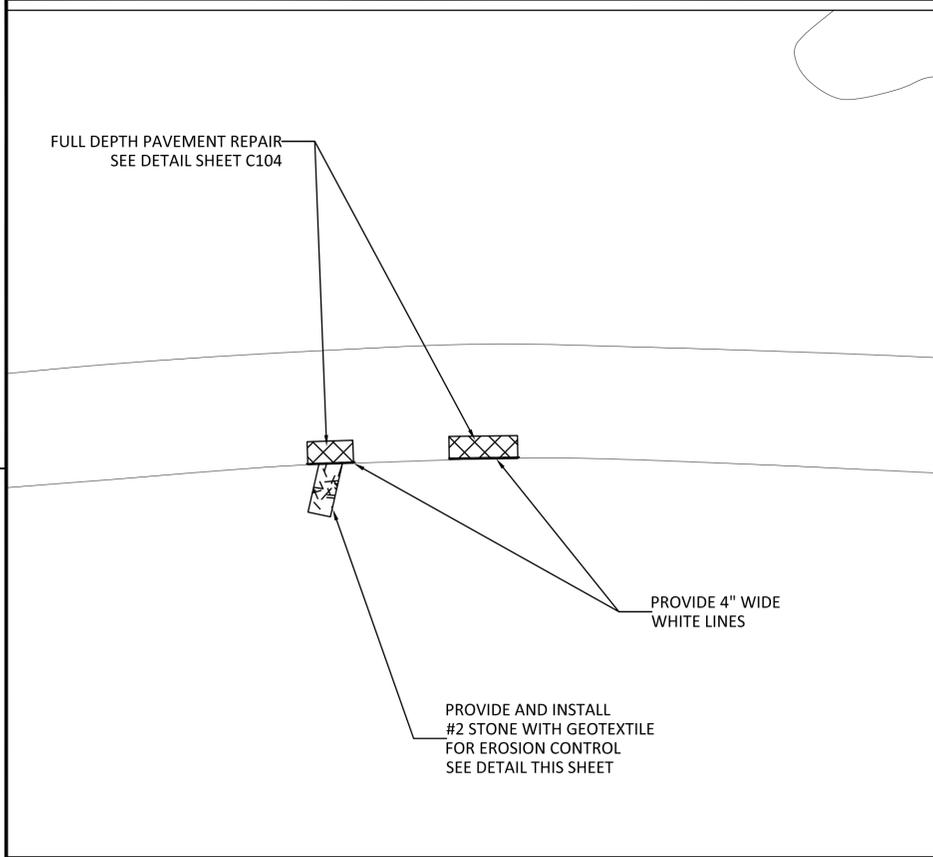
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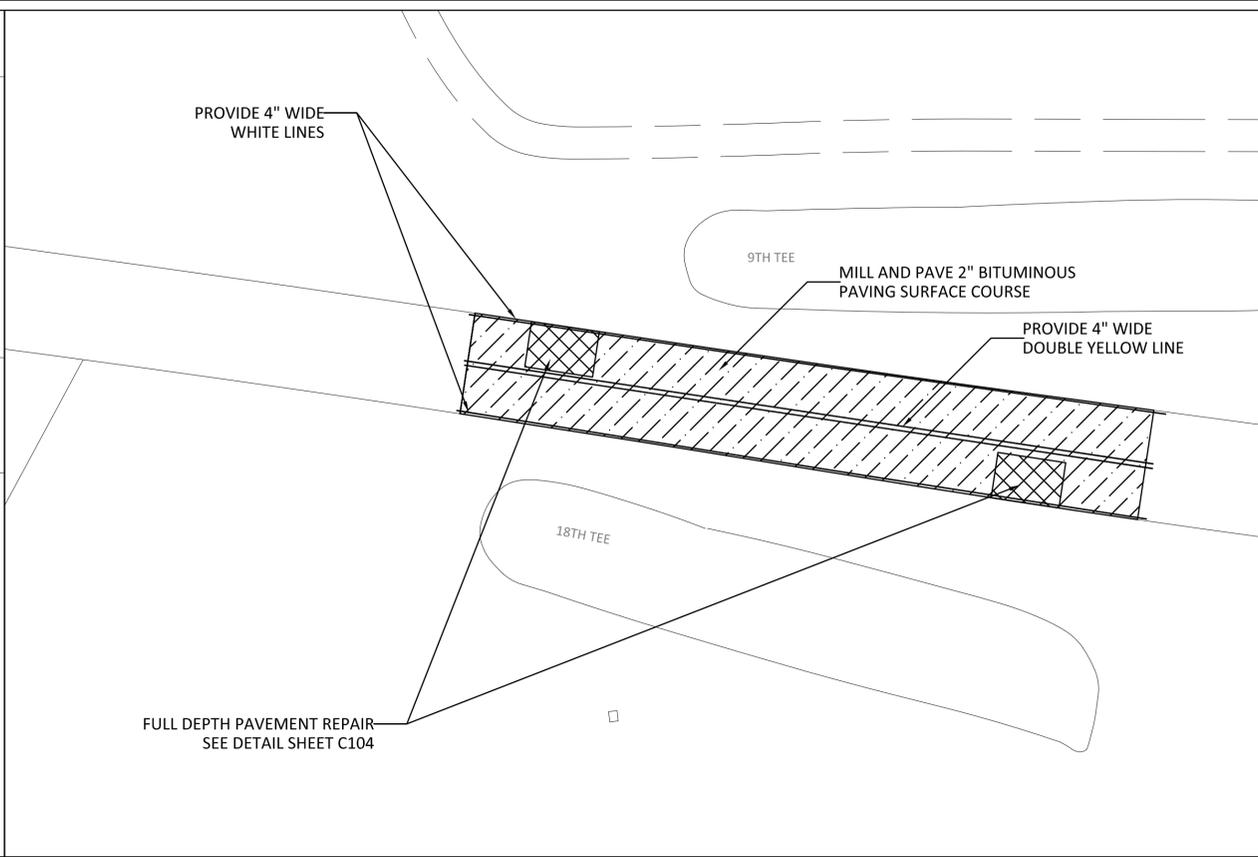
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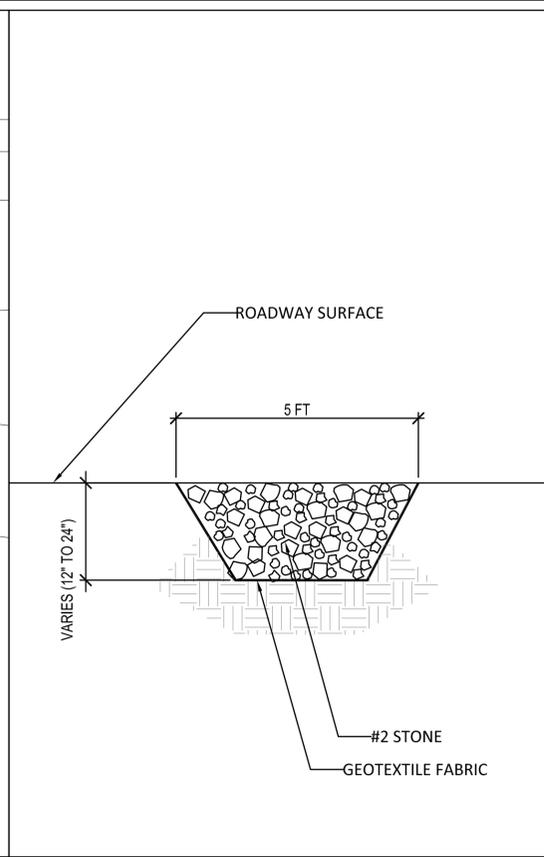
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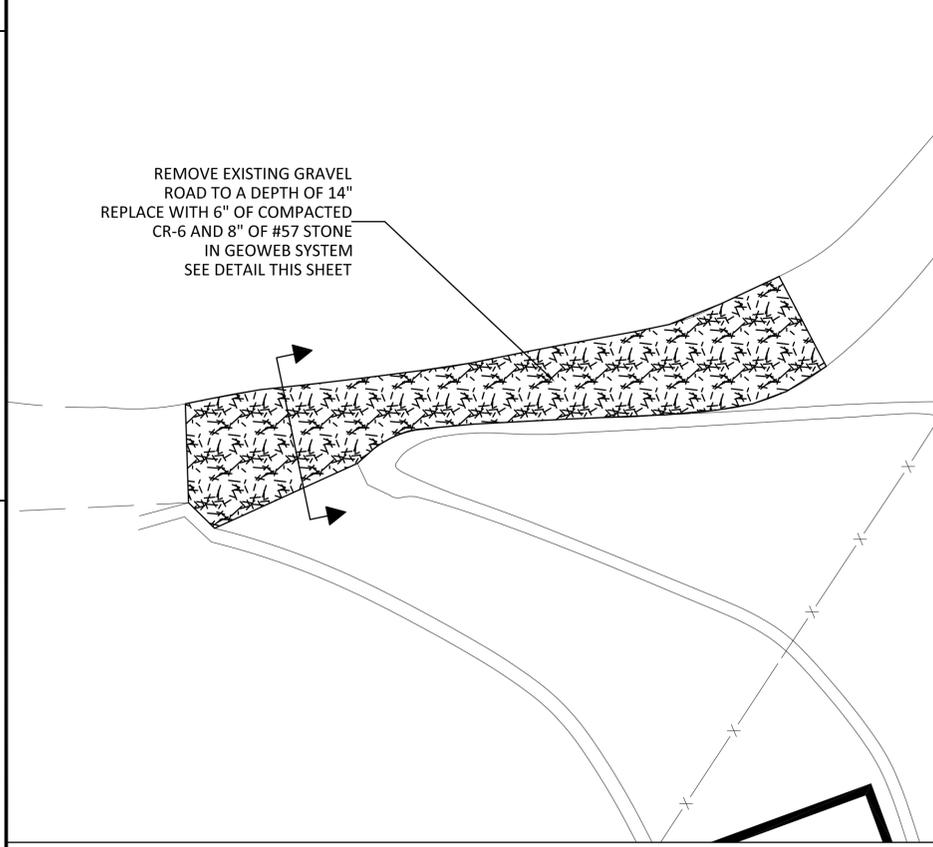
GREENBURY POINT ROAD EDGE REPAIR SCALE: 1"=20'



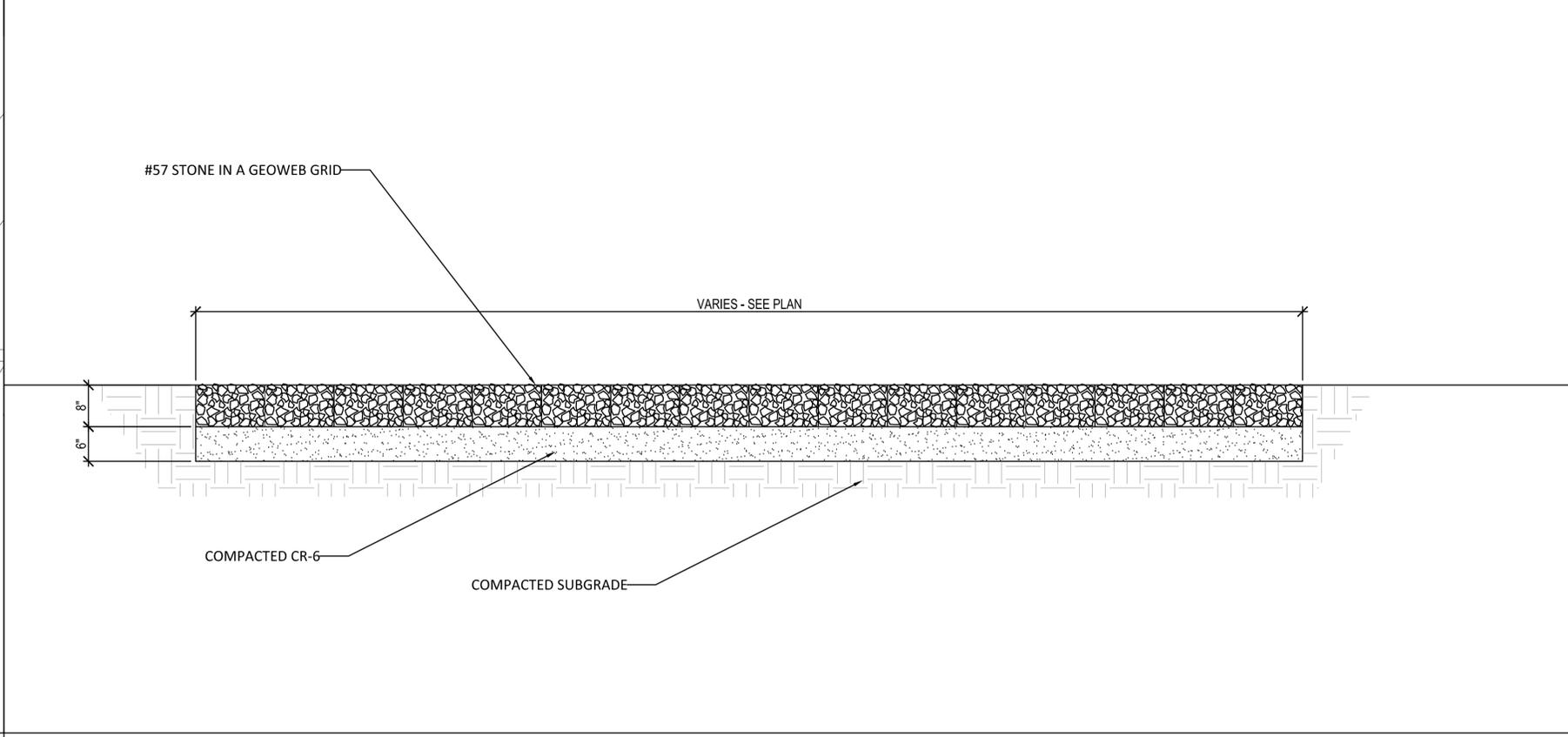
REPAVE GREENBURY POINT ROAD SCALE: 1"=20'



EROSION CONTROL DETAIL NTS



REPAIR SEABEE BEACH RD PLAN SCALE: 1"=20'



SEABEE BEACH ROAD REPAIR DETAIL NTS

DATE	APPROVED
DESCRIPTION	FOR COMMANDER NAVFAC
SYMBOL	ACTIVITY
SATISFACTORY TO DATE DES RET DRW RET CHK RET PMD R. TAYLOR BRANCH MANAGER CHIEF ENGINEER FIRE PROTECTION	
NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND, WASHINGTON DC PUBLIC WORKS DEPARTMENT NSA ANNAPOLIS ANNAPOLIS, MD ROAD REPAIRS NSA ANNAPOLIS GREENBURY POINT ROAD AND SEABEE BEACH ROAD	
SCALE: EPROJECT NO.: 1518670 CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. SHEET 16 OF 16 C113 <small>DRAWING REVISOR: 10 MARCH 2009</small>	