

1

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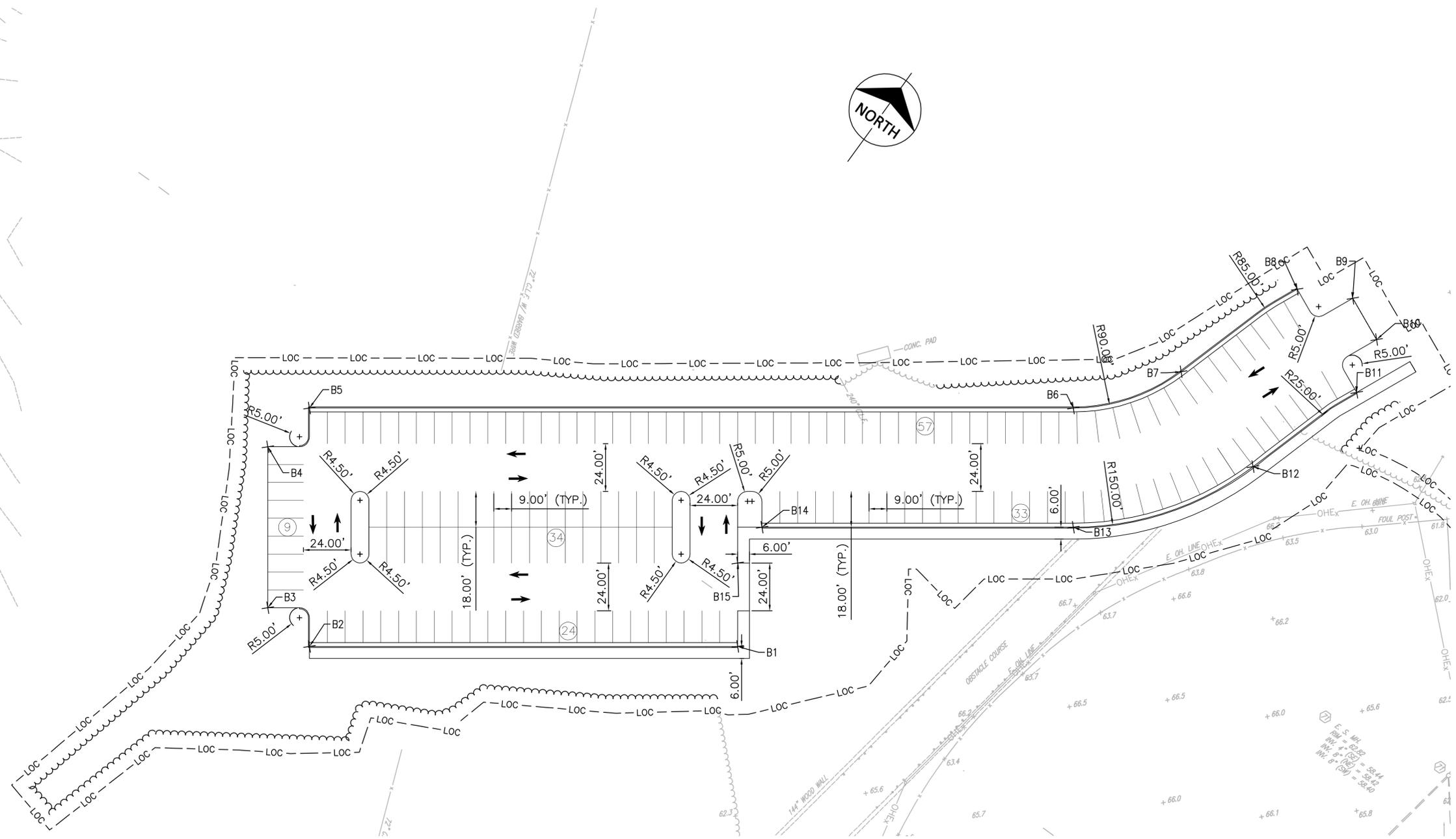
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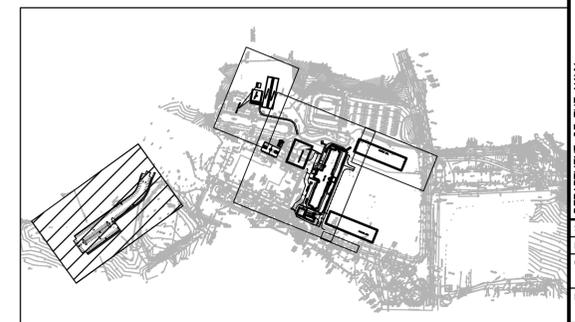
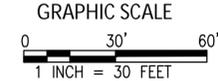


NOTES:
ALL COORDINATES FOR THE PARKING LOT ARE AT THE FACE OF CURB.

POINT #	NORTHING	EASTING
B1	3607850.2038	12039377.5887
B2	3607723.6286	12039202.5610
B3	3607727.1238	12039174.1174
B4	3607792.7593	12039126.6518
B5	3607820.8663	12039132.2414
B6	3608046.6563	12039444.4631
B7	3608093.3353	12039477.8105
B8	3608161.2544	12039500.8866
B9	3608173.9927	12039526.3012
B10	3608164.1949	12039548.2102
B11	3608136.7598	12039555.6590
B12	3608075.8363	12039535.2020
B13	3607998.0375	12039479.6229
B14	3607906.0132	12039352.3721
B15	3607884.2370	12039352.9769



GEOMETRIC PLAN - PARKING A3
1" = 30'



APPR	
DATE	
DESCRIPTION	
SYM	

COMMONWEALTH OF VIRGINIA
JON-MICHAEL C. LEMON
Lic. No. 041993
05/23/2014
PROFESSIONAL ENGINEER

PARSONS BRINCKERHOFF
engineering
architecture
277 Bendix Road
Virginia Beach, Virginia
23452
Phone: 757.466.1732
Fax: 757.466.1493

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	CL	DRW	CL	CHK	JL
PM				MMP	

BRANCH MANAGER: BDB
CHIEF ENG/ARCH: RLJ/CRB
FIRE PROTECTION: DAS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA
HAMPTON ROADS PFT
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

GEOMETRIC PLAN - PARKING

SCALE: AS NOTED
PROJECT NO.: 1113911
CONSTR. CONTR. NO.: N40085-08-D-9739
NAVFAC DRAWING NO.: 12664337
SHEET OF

CS101

DRAWING REVISION: 6 AUG 2007

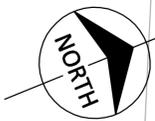
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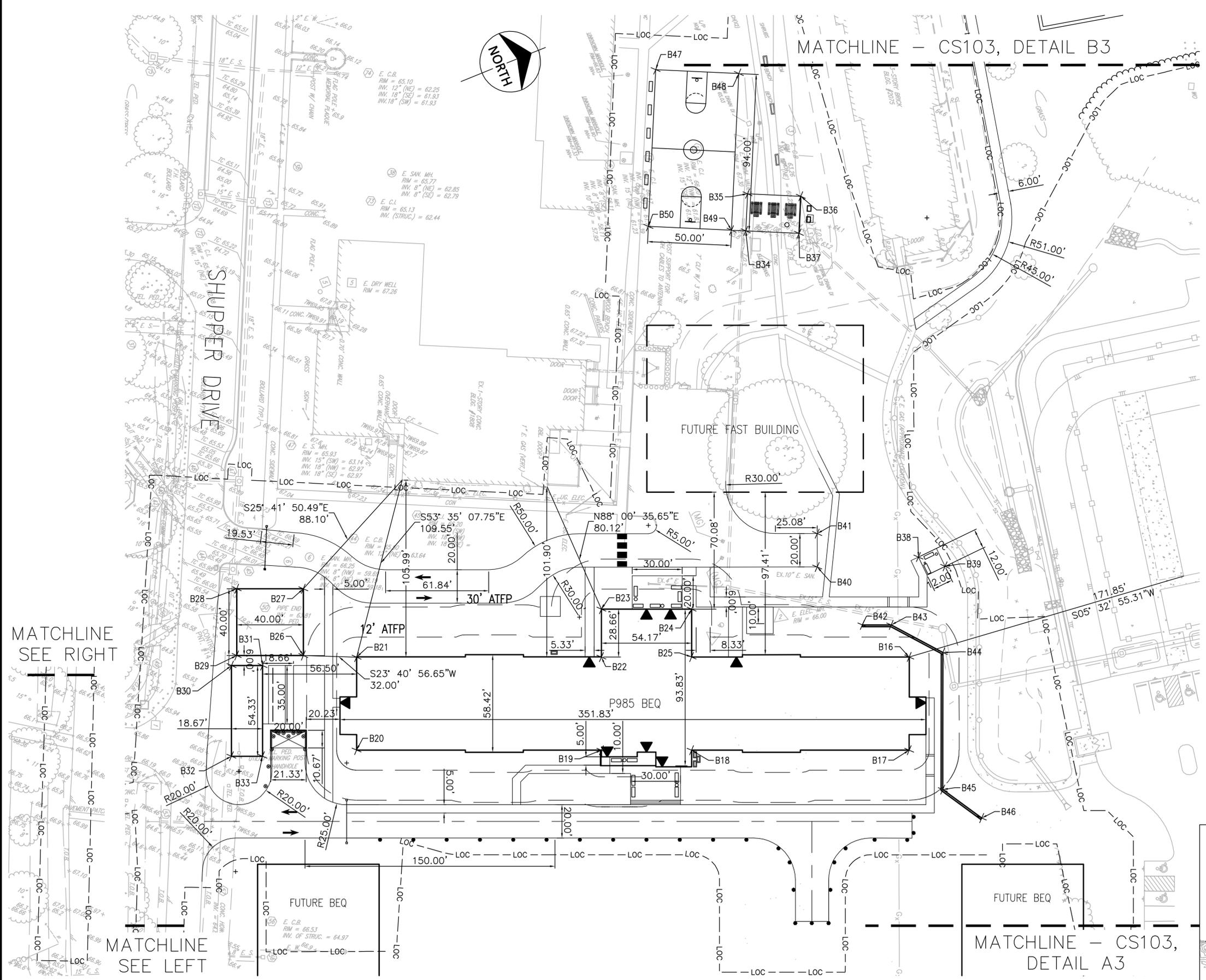
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5



MATCHLINE - CS103, DETAIL B3

POINT TABLE		
POINT #	NORTHING	EASTING
B16	3608297.2514	12040534.2795
B17	3608276.3883	12040586.0679
B18	3608155.1869	12040537.2415
B19	3608104.9440	12040517.0012
B20	3607968.6235	12040461.9944
B21	3607989.4246	12040410.3602
B22	3608125.7761	12040465.2899
B23	3608136.5172	12040438.6271
B24	3608186.7601	12040458.8676
B25	3608176.0501	12040485.4531
B26	3607960.1188	12040397.5066
B27	3607975.0657	12040360.4041
B28	3607937.9633	12040345.4573
B29	3607923.0164	12040382.5597
B30	3607917.8327	12040386.9399
B31	3607935.1502	12040393.9165
B32	3607897.5190	12040437.3281
B33	3607914.8348	12040444.3089
B34	3608301.6676	12040260.7869
B35	3608310.9345	12040240.5658
B36	3608340.0256	12040253.8964
B37	3608330.7527	12040274.1297
B38	3608324.7794	12040480.7950
B39	3608337.5418	12040491.9807
B40	3608266.1842	12040463.6029
B41	3608273.6475	12040445.0476
B42	3608278.3459	12040505.9490
B43	3608294.4207	12040512.4350
B44	3608317.0049	12040539.3431
B45	3608286.2740	12040615.5060
B46	3608301.5818	12040640.0602
B47	3608287.5666	12040150.9338
B48	3608333.0207	12040171.7644
B49	3608293.8591	12040257.2180
B50	3608248.4051	12040236.3874

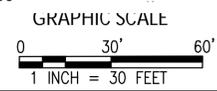


MATCHLINE SEE RIGHT

MATCHLINE SEE LEFT

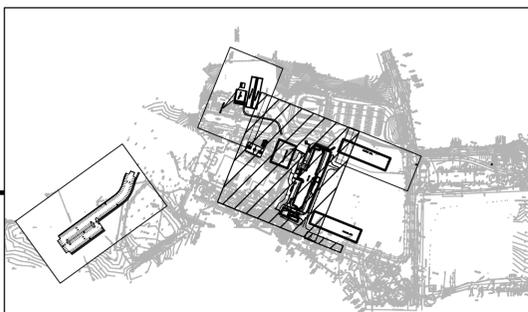
MATCHLINE - CS103, DETAIL A3

GEOMETRIC PLAN - BEQ **A3**



NOTES

- 1 SEE SITE ELECTRICAL PLANS FOR PROPOSED COMMUNICATION UTILITY WORK ON SOUTH SIDE OF SHUPPER DRIVE.



APPR	
DATE	
DESCRIPTION	
SYM	
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Suite 300 Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES. CL.	DRW. CL.
CHK.	JL.
PM	MMP
BRANCH MANAGER	BDB
CHIEF ENG/ARCH	RLJ/CRB
FIRE PROTECTION	DAS
NAVAL FACILITIES ENGINEERING COMMAND	YORKTOWN, VIRGINIA
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC	
NAVAL STATION - NORFOLK, VIRGINIA	
NAVAL WEAPONS STATION	
P-985 BACHELOR ENLISTED QUARTERS	
GEOMETRIC PLAN - BEQ	
SCALE:	AS NOTED
PROJECT NO.	1113911
CONSTR. CONTR. NO.	N40085-08-D-9739
NAVFAC DRAWING NO.	12664338
SHEET	OF
CS102	
<small>DRAWING REVISION: 6 AUG 2007</small>	

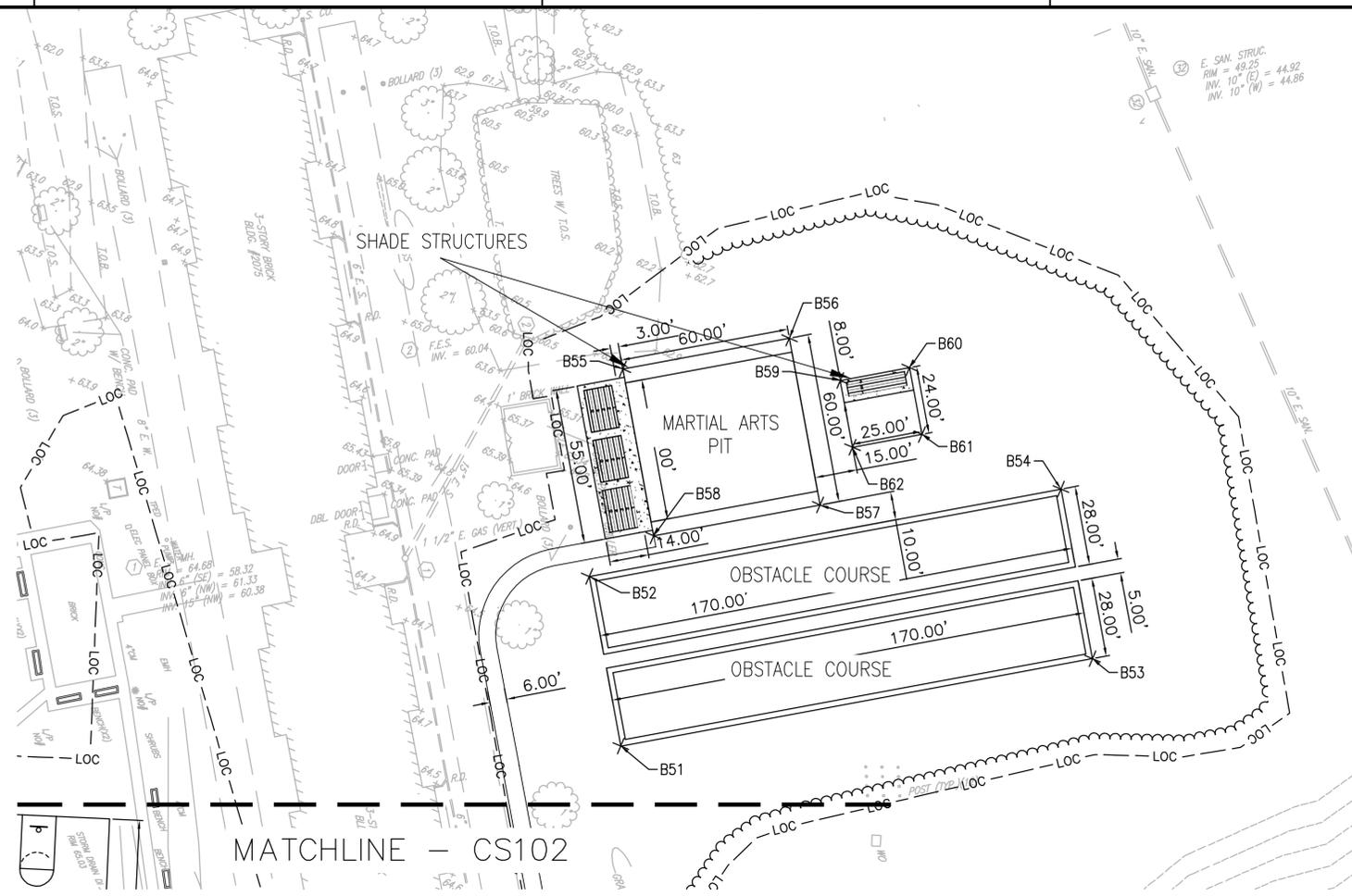
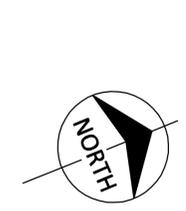
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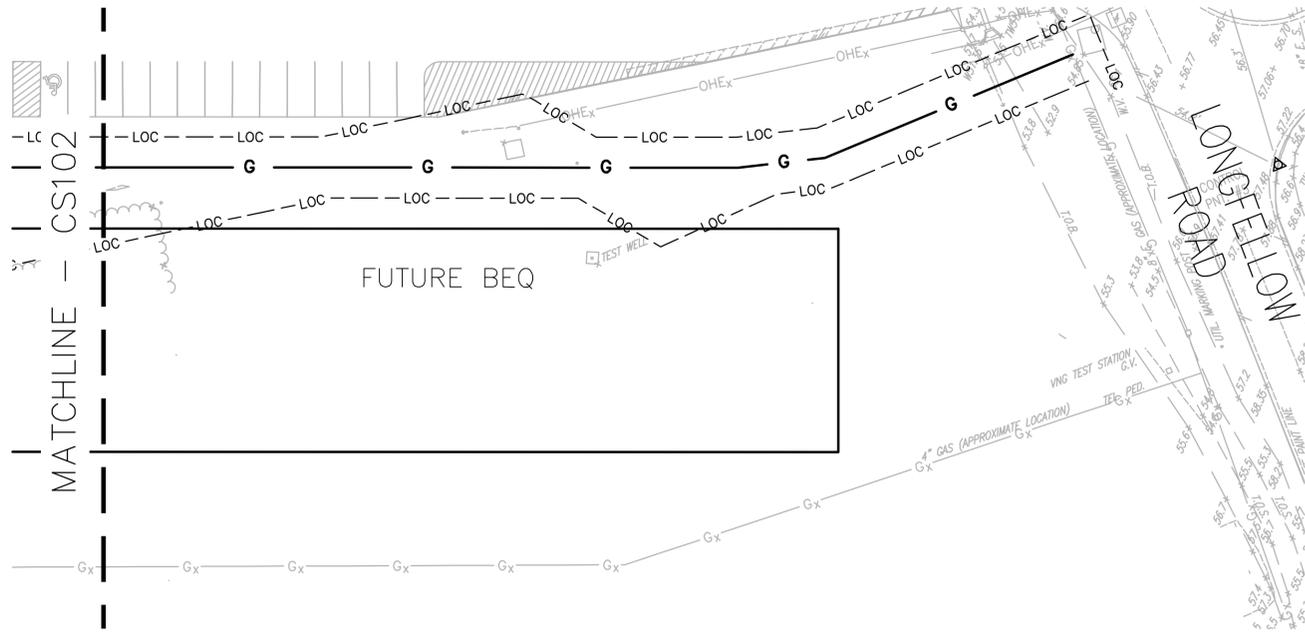
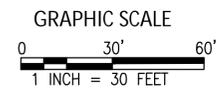
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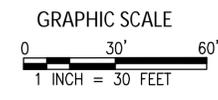
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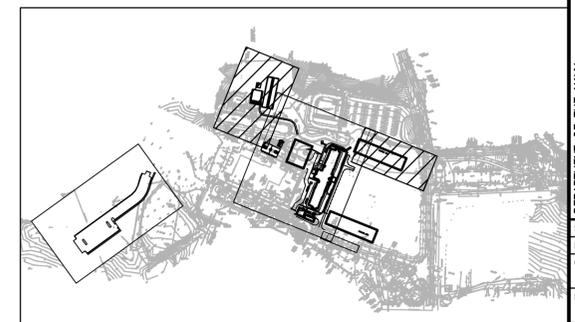
GEOMETRIC PLAN - MARTIAL ARTS PIT (B3)
 1" = 30'

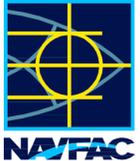


GEOMETRIC PLAN - GAS UTILITY (A3)
 1" = 30'



POINT TABLE		
POINT #	NORTHING	EASTING
B51	3608510.6621	12040215.5353
B52	3608522.6962	12040155.7335
B53	3608677.2767	12040249.2928
B54	3608689.3109	12040189.4909
B55	3608561.1566	12040092.1035
B56	3608619.9618	12040104.0179
B57	3608608.0474	12040162.8231
B58	3608549.2423	12040150.9087
B59	3608631.0888	12040124.6381
B60	3608655.5909	12040129.6024
B61	3608650.8252	12040153.1245
B62	3608626.3230	12040148.1601



APPR			
DATE			
DESCRIPTION			
SYM			
 NAVFAC			
 COMMONWEALTH OF VIRGINIA JON-MICHAEL C. LEMON Lic. No. 041993 05/23/2014 PROFESSIONAL ENGINEER			
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Suite 300 Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493			
APPROVED			
FOR COMMANDER NAVFAC			
ACTIVITY			
SATISFACTORY TO	DATE		
DES. CL.	DRW. CL.	CHK.	JL.
PM		MMP	
BRANCH MANAGER		BDB	
CHEF ENG/ARCH		RLJ/CRB	
FIRE PROTECTION		DAS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA NAVAL WEAPONS STATION YORKTOWN, VIRGINIA		GEOMETRIC PLAN - MARTIAL ARTS	
P-985 BACHELOR ENLISTED QUARTERS		GEOMETRIC PLAN - MARTIAL ARTS	
SCALE: AS NOTED EPROJECT NO. 1113911 CONSTR. CONTR. NO. N40085-08-D-9739 NAVFAC DRAWING NO. 12664339		SHEET OF	
CS103		DRAWING REVISION: 6 AUG 2007	

1

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D

C

B

A

D

C

B

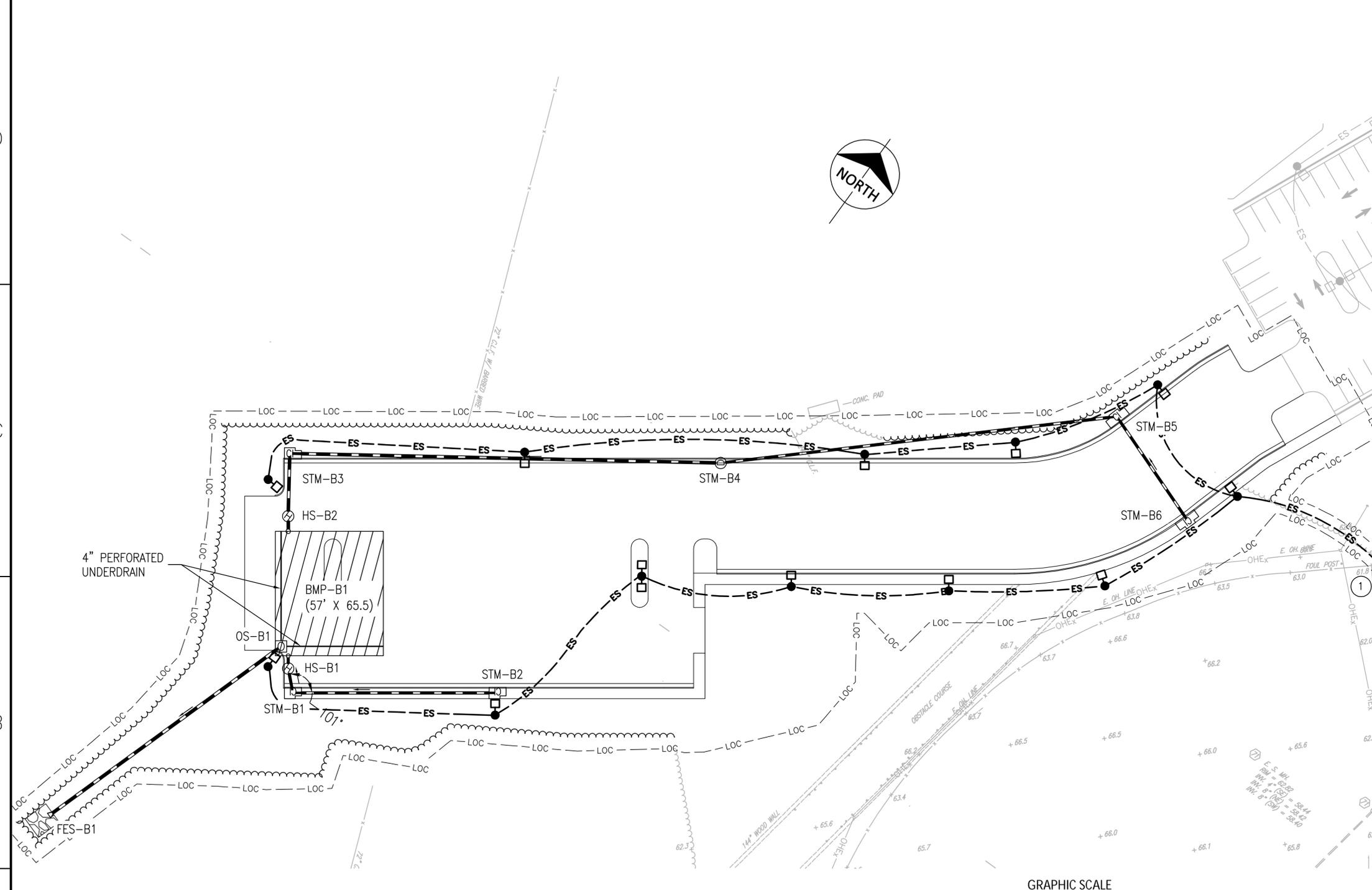
A



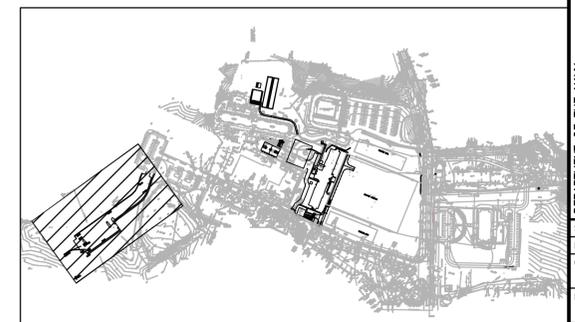
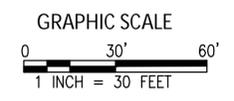
UTILITY LEGEND		
EXISTING	PROPOSED	
--- C _x ---	--- C ---	COMMUNICATIONS UNDERGROUND
--- E _x ---	--- E ---	PRIMARY ELECTRIC UNDERGROUND
--- ES _x ---	--- ES ---	SECONDARY ELECTRIC UNDERGROUND
--- OHE _x ---	--- OHE ---	OVERHEAD ELECTRIC
--- G _x ---	--- G ---	GAS LINE
--- SS _x ---	--- SS ---	SANITARY LINE
--- W _x ---	--- W ---	WATER LINE
---	---	STORM LINE
---	---	FOUNDATION DRAINAGE SYSTEM
---	---	COOLING TOWER RETURN WATER
---	---	COOLING TOWER SUPPLY WATER
	☐	STORM GRATE INLET SEE DETAIL A2 ON SHEET CU511
	☐	STORM CURB INLET ON GRADE SEE DETAIL A2 ON SHEET CU513
	☐	STORM CURB INLET AT SAG SEE DETAIL A2 ON SHEET CU513
	☐	ELEC/COMM MANHOLE/HANDHOLE SEE SHEET CU531
	☐	TRANSFORMER
	☐	GENERATOR
	☐	CLOSED CIRCUIT COOLER
	☐	SWITCHGEAR
	●	LIGHT POLE
	+	ELECTRICAL POLE
	<	FIRE DEPARTMENT CONNECTION SEE DETAIL B5 ON SHEET CU501
	+	FIRE HYDRANT SEE DETAIL A5 ON SHEET CU501
	+	WATER VALVE SEE DETAIL D1 ON SHEET CU501
	⊗	POST INDICATOR VALVE SEE DETAIL C3 ON SHEET CU501
	⊗	SANITARY MANHOLE SEE DETAIL A4 ON SHEET CU521
	CO	CLEANOUT SEE DETAIL B3 ON SHEET CU512
	⊙	STORM MANHOLE SEE DETAIL A5, B5 ON SHEET CU511
	▨	BMP SEE SHEET CU514 AND CU515
	◁	END SECTION SEE DETAIL A2 ON SHEET CU512
	☐	OUTLET STRUCTURE SEE DETAIL A2 ON SHEET CU514
	⊕	HYDRODYNAMIC SEPARATOR SEE DETAIL A5 ON SHEET CU514

KEYNOTES

① SEE SITE ELECTRICAL PLANS FOR CONTINUATION OF THE PROPOSED SITE LIGHTING.



UTILITY PLAN - PARKING A3
1" = 30'



APPR									
DATE									
DESCRIPTION									
SYM									
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Suite 300 Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493									
APPROVED									
FOR COMMANDER NAVFAC									
ACTIVITY									
SATISFACTORY TO DATE									
DES	TC	DRW	TC	CHK	JL				
PM					MMP				
BRANCH MANAGER					BDB				
CHIEF ENG/ARCH					RLJ/CRB				
FIRE PROTECTION					DAS				
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA HAMPTON ROADS PFT NAVAL WEAPONS STATION YORKTOWN, VIRGINIA P-985 BACHELOR ENLISTED QUARTERS UTILITY PLAN - PARKING									
SCALE: AS NOTED									
PROJECT NO. 1113911									
CONSTR. CONTR. NO. N40085-08-D-9739									
NAVFAC DRAWING NO. 12664341									
SHEET OF									
CU101									
DRAWING REVISION: 6 AUG 2007									

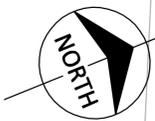
1

2

3

4

5



UTILITY LEGEND		
EXISTING	PROPOSED	
Cx	C	COMMUNICATIONS UNDERGROUND
Ex	E	PRIMARY ELECTRIC UNDERGROUND
ESx	ES	SECONDARY ELECTRIC UNDERGROUND
OHEx	OHE	OVERHEAD ELECTRIC
Gx	G	GAS LINE
SSx	SS	SANITARY LINE
Wx	W	WATER LINE
	SD	STORM LINE
	SD	FOUNDATION DRAINAGE SYSTEM
	RW	COOLING TOWER RETURN WATER
	SW	COOLING TOWER SUPPLY WATER
	Symbol	STORM GRATE INLET SEE DETAIL A2 ON SHEET CU511
	Symbol	STORM CURB INLET ON GRADE SEE DETAIL A2 ON SHEET CU513
	Symbol	STORM CURB INLET AT SAG SEE DETAIL A2 ON SHEET CU513
	Symbol	ELEC/COMM MANHOLE/HANDHOLE SEE SHEET CU531
	Symbol	TRANSFORMER
	Symbol	GENERATOR
	Symbol	CLOSED CIRCUIT COOLER
	Symbol	SWITCHGEAR
	Symbol	LIGHT POLE
	Symbol	ELECTRICAL POLE
	Symbol	FIRE DEPARTMENT CONNECTION SEE DETAIL B5 ON SHEET CU501
	Symbol	FIRE HYDRANT SEE DETAIL A5 ON SHEET CU501
	Symbol	WATER VALVE SEE DETAIL D1 ON SHEET CU501
	Symbol	POST INDICATOR VALVE SEE DETAIL C3 ON SHEET CU501
	Symbol	SANITARY MANHOLE SEE DETAIL A4 ON SHEET CU521
	Symbol	CLEANOUT SEE DETAIL B3 ON SHEET CU512
	Symbol	STORM MANHOLE SEE DETAIL A5, B5 ON SHEET CU511
	Symbol	BMP SEE SHEET CU514 AND CU515
	Symbol	END SECTION SEE DETAIL A2 ON SHEET CU512
	Symbol	OUTLET STRUCTURE SEE DETAIL A2 ON SHEET CU514
	Symbol	HYDRODYNAMIC SEPARATOR SEE DETAIL A5 ON SHEET CU514

- KEYNOTES**
- 1 DUCT BANK
SEE SHEET CU531
 - 4 3" PE GAS LINE (MINIMUM DEPTH 1.5')
 - 5 4" RETURN/SUPPLY WATER AND 1" MAKEUP WATER PIPE
 - 10 SEE MECHANICAL PLANS FOR DETAILS CONCERNING THE CONDENSER UNITS
 - 11 1" PVC CONDUIT
 - 12 3" PVC SANITARY
 - 14 SEE P984 PLAN FOR CONTINUATION OF COMM DUCTBANK
 - 6 6" PVC SANITARY LATERAL
 - 7 3/4" K COPPER FEED WITH 3/8" RESIDENTIAL SERVICE METER
 - 8 SAND FILTER
SEE SHEET CU513 DETAIL C4
 - 9 4" PVC SANITARY LATERAL
 - 13 PLUGGED TEE
 - 15 6" PVC FOUNDATION DRAINAGE SYSTEM SEE RETAINING WALL SECTION ON SHEET S-303

MATCHLINE SEE RIGHT

MATCHLINE SEE LEFT

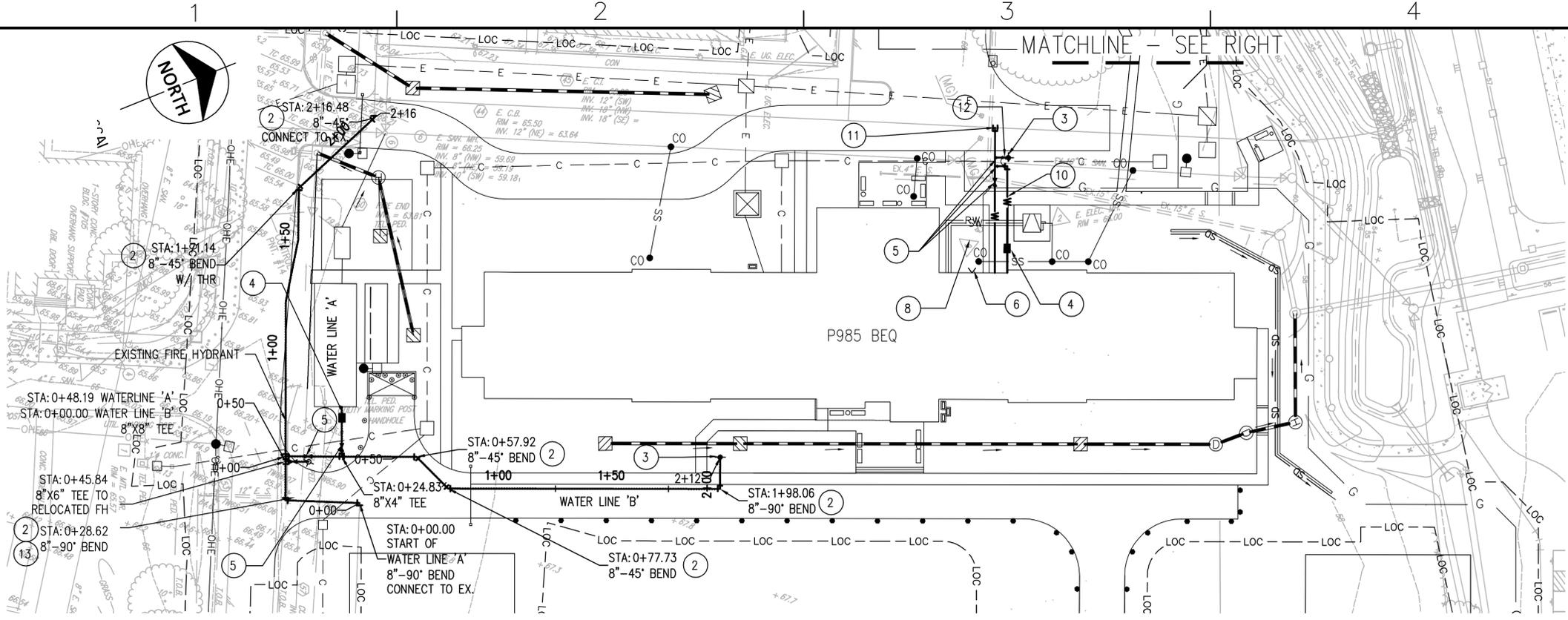
MATCHLINE - CU103, DETAIL B3

MATCHLINE - CU103, DETAIL A3

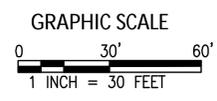
UTILITY PLAN - BEQ A3



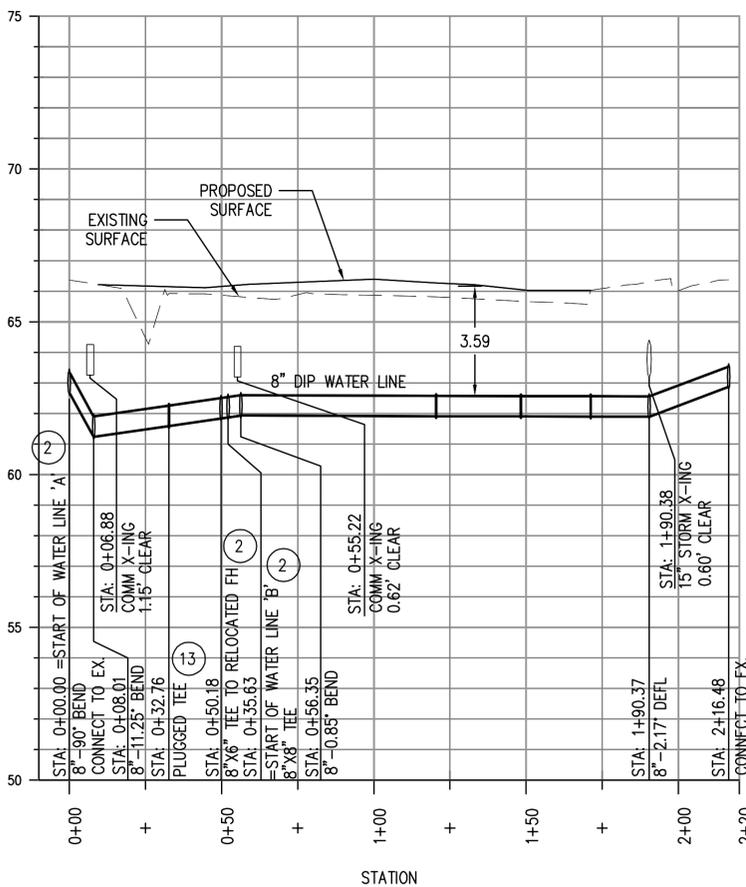
APPR		DATE	
DESCRIPTION			
SYMBOL			
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493			
APPROVED			
FOR COMMANDER NAVFAC			
ACTIVITY			
SATISFACTORY TO	DATE	CHK	JL
DES	TC	DRW	TC
PM		MMP	
BRANCH MANAGER		BDB	
CHIEF ENG/ARCH		RLJ/CRB	
FIRE PROTECTION		DAS	
NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA YORKTOWN, VIRGINIA			
P-985 BACHELOR ENLISTED QUARTERS NAVAL WEAPONS STATION			
UTILITY PLAN - BEQ			
SCALE:	AS NOTED		
PROJECT NO.	1113911		
CONSTR. CONTR. NO.	N40085-08-D-9739		
NAVFAC DRAWING NO.	12664342		
SHEET	OF		
CU102			
<small>DRAWING REVISION: 6 AUG 2007</small>			



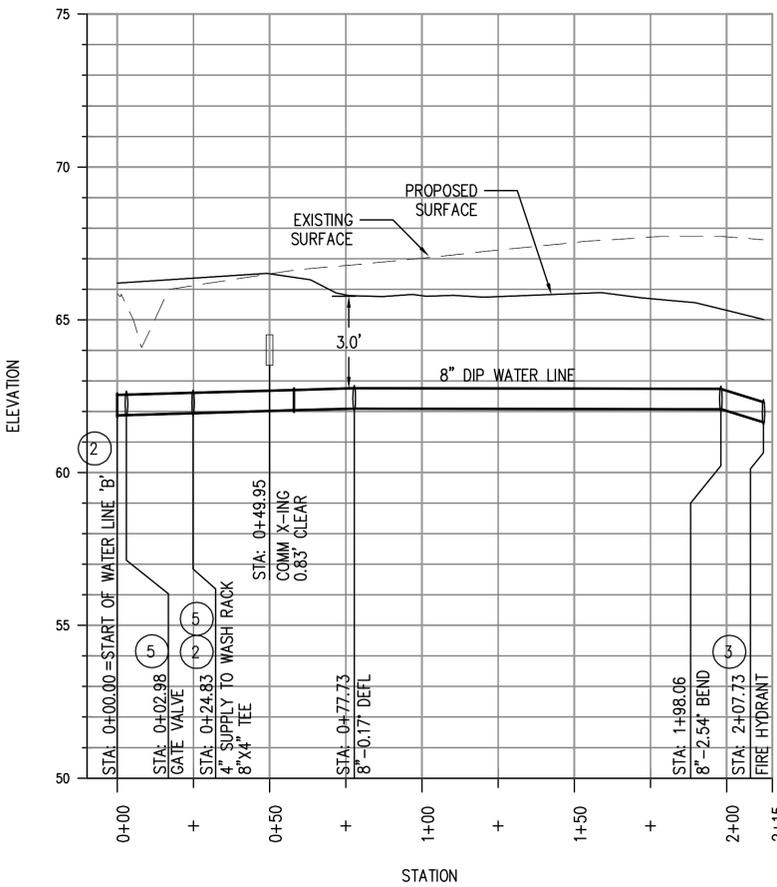
WATER PLAN C2
1" = 30'



- KEYNOTES**
- ① 8"X8" WET TAP
SEE SHEET CU501
DETAIL C1
 - ② THRUST BLOCK
SEE SHEET CU501
DETAIL C2
 - ③ FIRE HYDRANT
SEE SHEET CU501
DETAIL A5
 - ④ WATER METER AND
METER BOX
SEE SHEET CU501
DETAIL C4
 - ⑤ GATE VALVE
SEE SHEET CU501
DETAIL D1
 - ⑥ FIRE DEPARTMENT
CONNECTION
SEE SHEET CU501
DETAIL B5
 - ⑧ 6" DIP FIRE
LATERAL
 - ⑩ 4" DIP DOMW
LATERAL
 - ⑪ 8"X6" TEE TO
FIRE LATERAL
 - ⑫ 6" DIP FH LINE
 - ⑬ PLUGGED TEE



WATER LINE 'A' PROFILE
1" = 30'(H) 1" = 3'(V) **A3**



WATER LINE 'B' PROFILE
1" = 30'(H) 1" = 3'(V) **A4**

APPR									
DATE									
DESCRIPTION									
SYM									



COMMONWEALTH OF VIRGINIA
JON-MICHAEL C. LEMON
Lic. No. 041993
05/23/2014
PROFESSIONAL ENGINEER

PARSONS BRINCKERHOFF
engineering
architecture
277 Bendix Road
Suite 300
Virginia Beach, Virginia
23452
Phone: 757.466.1732
Fax: 757.466.1493

APPROVED			
FOR COMMANDER NAVFAC			
ACTIVITY			
SATISFACTORY TO DATE			
DES TC	DRW TC	CHK	JL
PM		MMP	
BRANCH MANAGER		BDB	
CHIEF ENG/ARCH		RLJ/CRB	
FIRE PROTECTION		DAS	

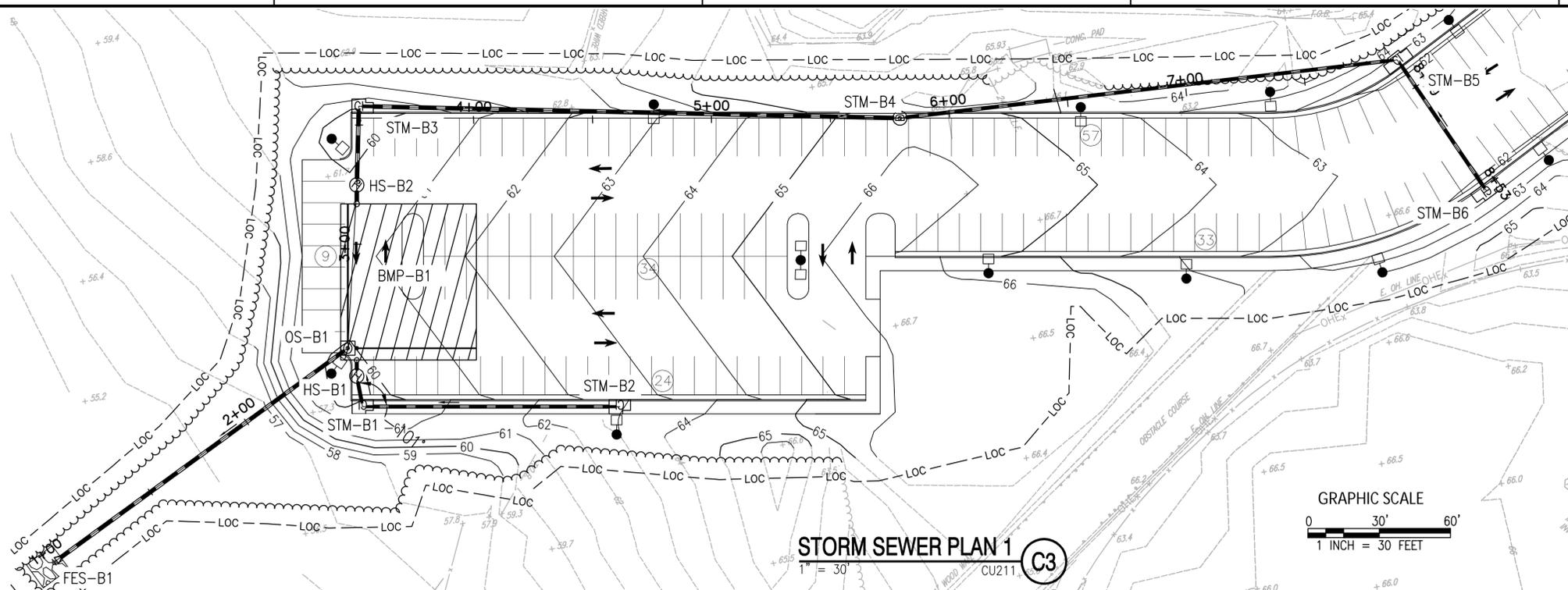
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS
WATER DISTRIBUTION PLAN & PROFILE

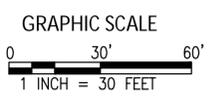
SCALE: AS NOTED
PROJECT NO.: 1113911
CONSTR. CONTR. NO.: N40085-08-D-9739
NAVFAC DRAWING NO.: 12664344
SHEET OF

CU201

DRAWING REVISION: 6 AUG 2007

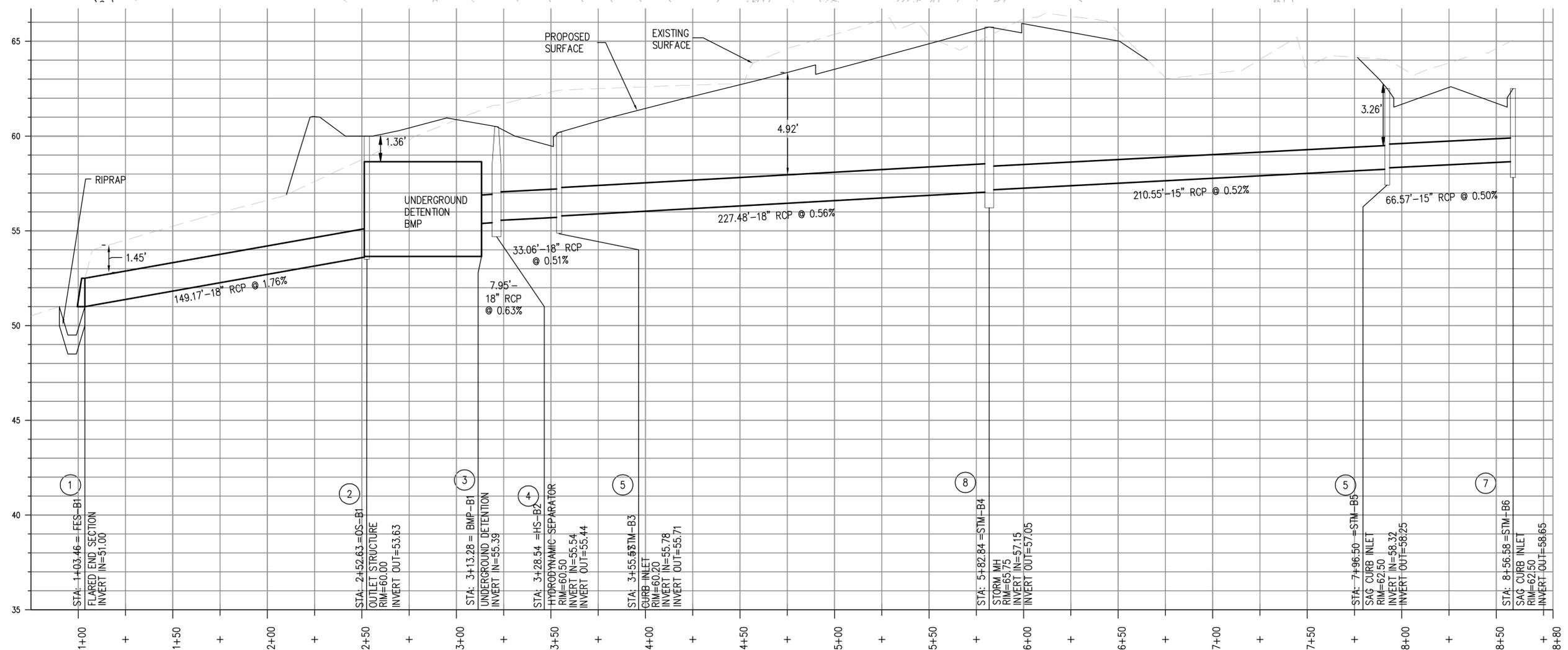


STORM SEWER PLAN 1
 1" = 30'
 CU211 (C3)



- KEYNOTES**
- ① FLARED END SECTION
SEE SHEET CU512 DETAIL A2
 - ② OUTLET STRUCTURE
SEE SHEET CU514 DETAIL A2
 - ③ UNDERGROUND DETENTION BMP
SEE SHEET CU514 DETAIL D4
 - ④ HYDRODYNAMIC SEPARATOR
SEE SHEET CU514 DETAIL A5
 - ⑤ STORM GRATE INLET
SEE SHEET CU511 DETAIL A2
 - ⑥ CURB STORM INLET, DI-3B
SEE SHEET CU515 DETAIL A2
 - ⑦ CURB STORM INLET, DI-3C
SEE SHEET CU515 DETAIL A2
 - ⑧ STORM MANHOLE
SEE SHEET CU511 DETAIL B5
 - ⑨ DROP MANHOLE
SEE SHEET CU513 DETAIL A5

- NOTES**
1. SEE SHEET CU516 FOR STORM CALCULATIONS



STORM SEWER PROFILE 1
 1" = 30'(H) 1" = 3'(V)
 CU211 (A3)

APPR	
DATE	
DESCRIPTION	
SYM	

COMMONWEALTH OF VIRGINIA
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 Lic. No. 041993
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 23452
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 Fax: 757.466.1493

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO	DATE				
DES	SM	DRW	SM	CHK	JL
PM				MMP	
BRANCH MANAGER				BDB	
CHEF ENG/ARCH				RLJ/CRB	
FIRE PROTECTION				DAS	

NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL STATION - NORFOLK, VIRGINIA
 YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

STORM SEWER PLAN & PROFILE

SCALE: AS NOTED

PROJECT NO. 1113911

CONSTR. CONTR. NO. N40085-08-D-9739

NAVFAC DRAWING NO. 12664345

SHEET OF

CU211

DRAWING REVISION: 6 AUG 2007

1

2

3

4

5

D

C

B

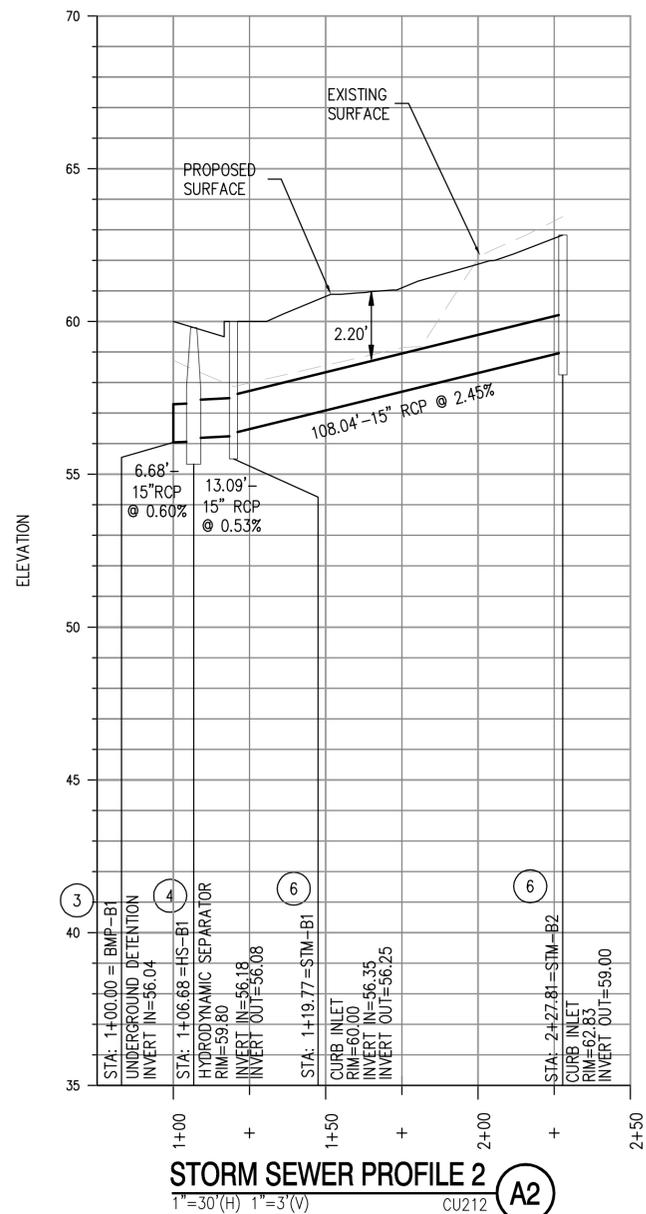
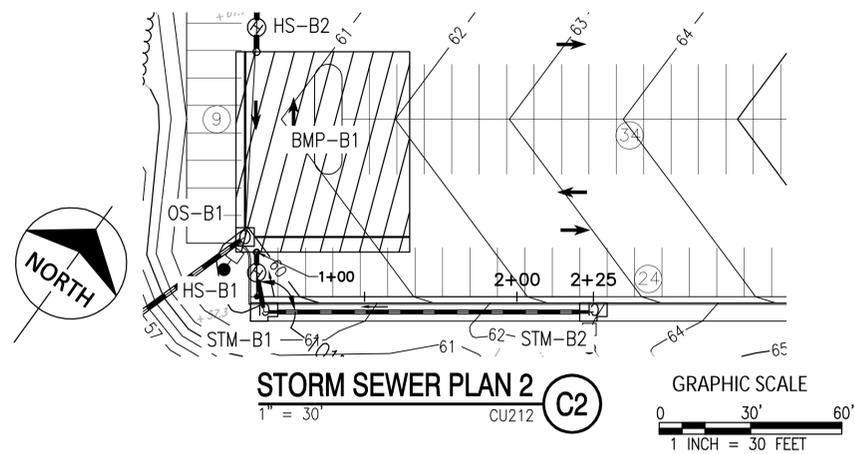
A

D

C

B

A

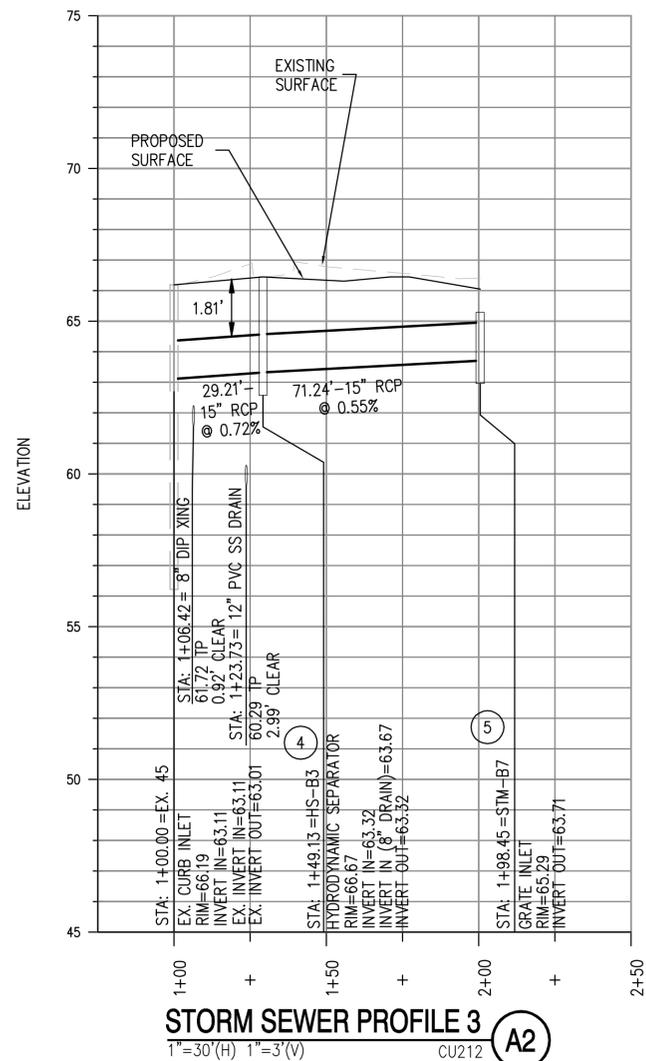
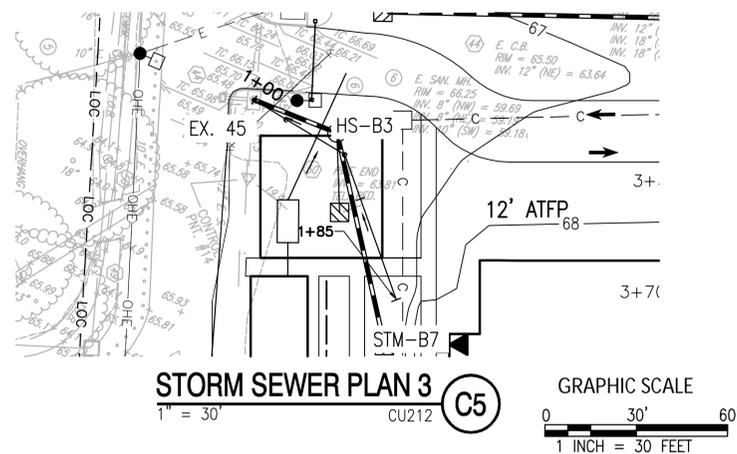
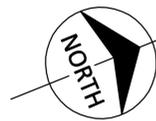


KEYNOTES

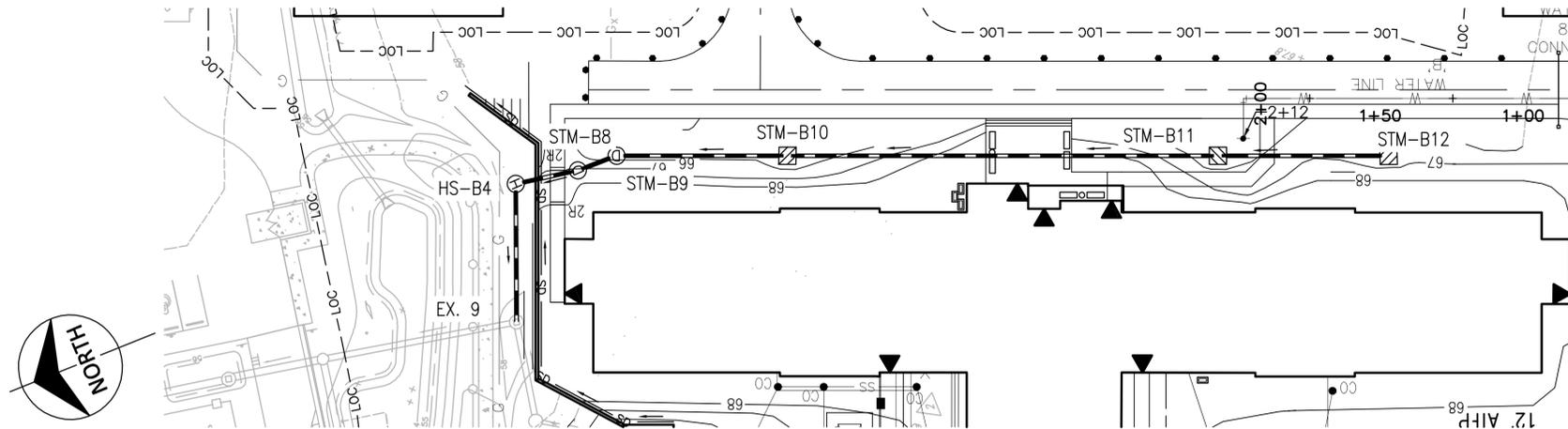
- ① FLARED END SECTION SEE SHEET CU512 DETAIL A2
- ② OUTLET STRUCTURE SEE SHEET CU514 DETAIL A2
- ③ UNDERGROUND DETENTION BMP SEE SHEET CU514 DETAIL D4
- ④ HYDRODYNAMIC SEPARATOR SEE SHEET CU514 DETAIL A5
- ⑤ STORM GRATE INLET SEE SHEET CU511 DETAIL A2
- ⑥ CURB STORM INLET, DI-3B SEE SHEET CU515 DETAIL A2
- ⑦ CURB STORM INLET, DI-3C SEE SHEET CU515 DETAIL A2
- ⑧ STORM MANHOLE SEE SHEET CU511 DETAIL B5
- ⑨ DROP MANHOLE SEE SHEET CU513 DETAIL A5

NOTES

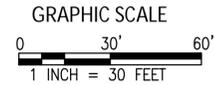
- 1. SEE SHEET CU516 FOR STORM CALCULATIONS



	APPR
	DATE
	SYMBOL DESCRIPTION
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Suite 300 Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	SM
DRW	SM
CHK	JL
MMP	
BRANCH MANAGER	
BDB	
CHIEF ENG/ARCH	
RLJ/CRB	
FIRE PROTECTION	
DAS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA YORKTOWN, VIRGINIA P-985 BACHELOR ENLISTED QUARTERS NAVAL WEAPONS STATION	
STORM SEWER PLAN & PROFILE	
SCALE: AS NOTED	
PROJECT NO. 1113911	
CONSTR. CONTR. NO. N40085-08-D-9739	
NAVFAC DRAWING NO. 12664346	
SHEET OF	
CU212	
DRAWING REVISION: 6 AUG 2007	



STORM SEWER PLAN 4
1" = 30' CU213 C3

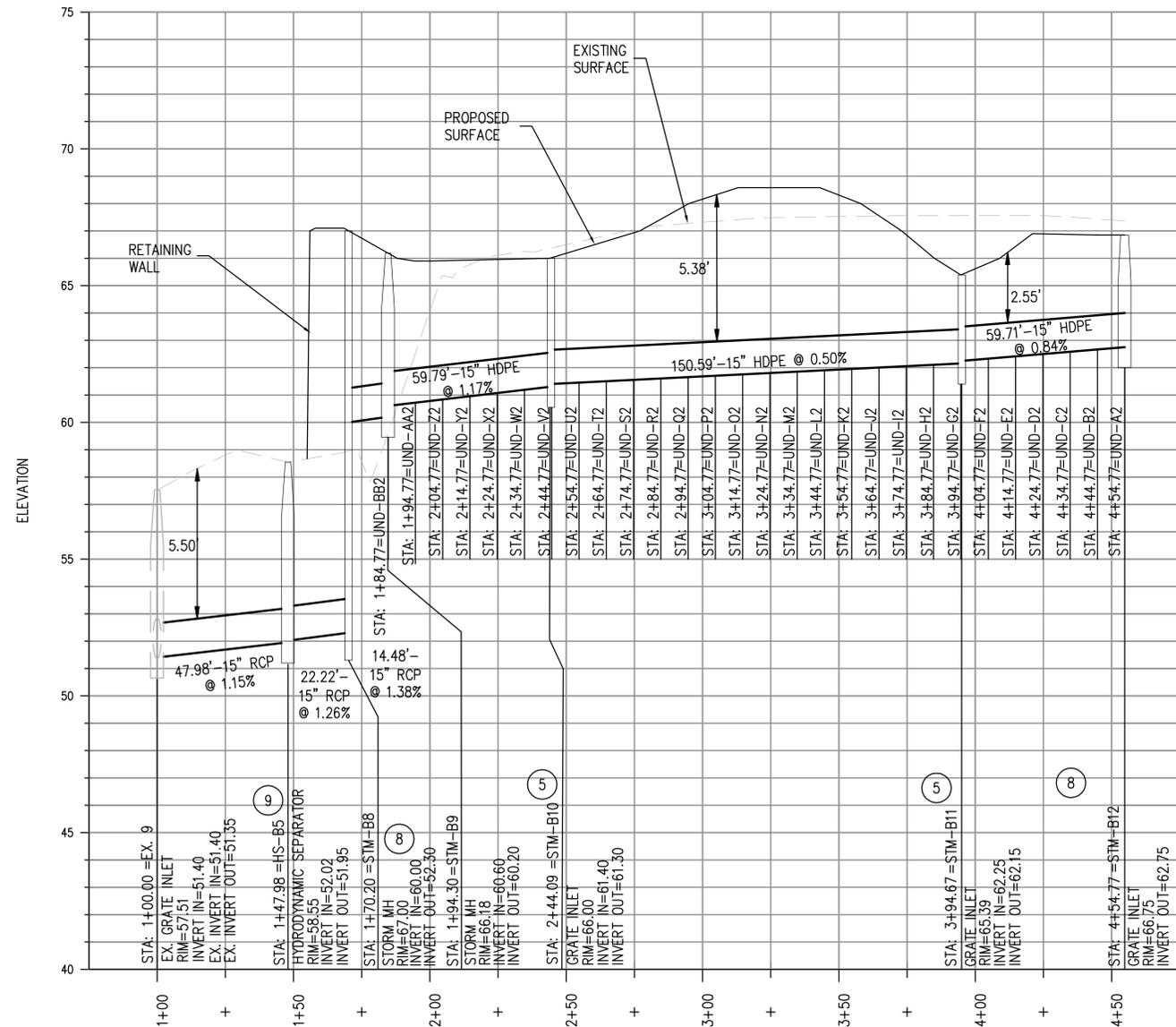


KEYNOTES

- ① FLARED END SECTION
SEE SHEET CU512 DETAIL A2
- ② OUTLET STRUCTURE
SEE SHEET CU514 DETAIL A2
- ③ UNDERGROUND DETENTION BMP
SEE SHEET CU514 DETAIL D4
- ④ HYDRODYNAMIC SEPARATOR
SEE SHEET CU514 DETAIL A5
- ⑤ STORM GRATE INLET
SEE SHEET CU511 DETAIL A2
- ⑥ CURB STORM INLET, DI-3B
SEE SHEET CU515 DETAIL A2
- ⑦ CURB STORM INLET, DI-3C
SEE SHEET CU515 DETAIL A2
- ⑧ STORM MANHOLE
SEE SHEET CU511 DETAIL B5
- ⑨ DROP MANHOLE
SEE SHEET CU513 DETAIL A5

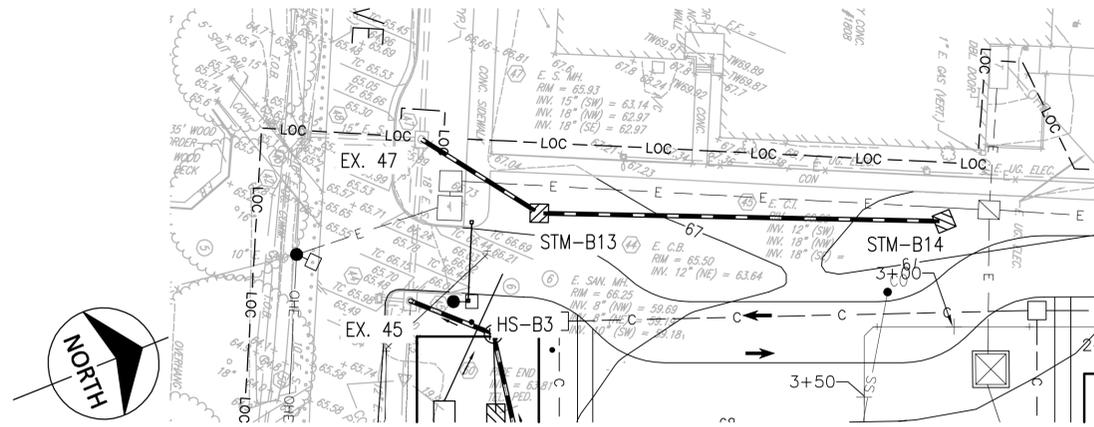
NOTES

- 1. SEE SHEET CU516 FOR STORM CALCULATIONS
- 2. FINAL RETAINING WALL AND FOOTER DESIGN WILL BE INCORPORATED IN THE STRUCTURAL PORTION OF THE BUILDING PACKAGE.
- 3. SEE SHEET CU515 DETAIL A5 FOR PARADE GROUND UNDER DRAIN CONNECTION FROM P-984.

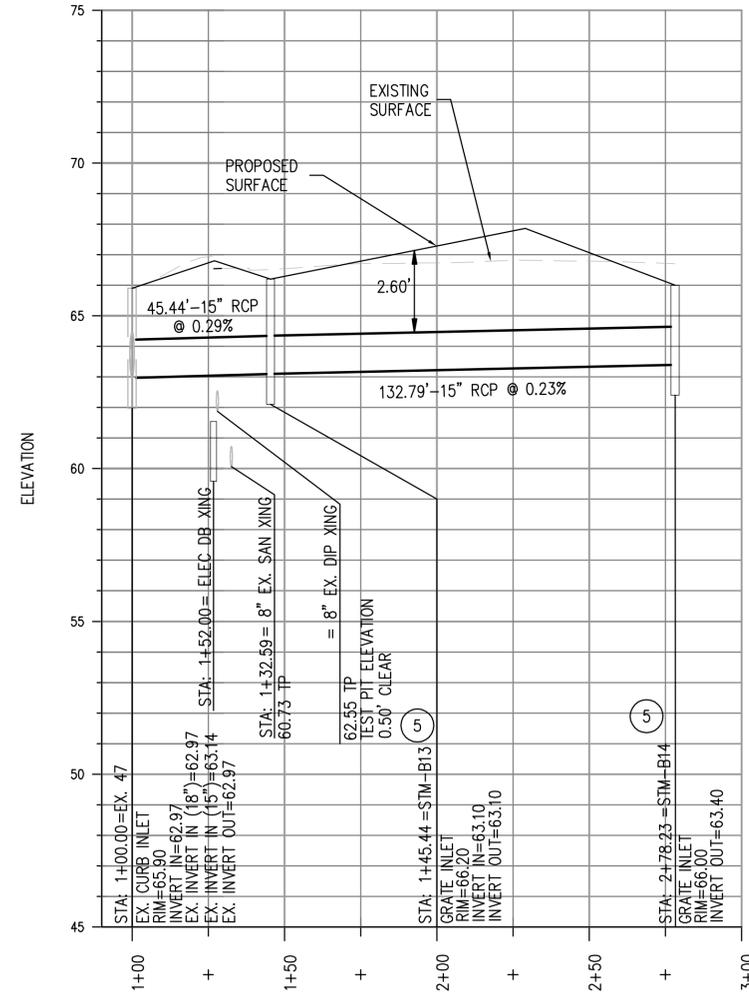
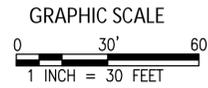


STORM SEWER PROFILE 4
1" = 30' CU213 A3

APPR									
DATE									
DESCRIPTION									
SYM									
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Suite 300 Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493									
APPROVED									
FOR COMMANDER NAVFAC									
ACTIVITY									
SATISFACTORY TO DATE									
DES	SM	DRW	SM	CHK	JL				
PM					MMP				
BRANCH MANAGER					BDB				
CHIEF ENG/ARCH					RLJ/CRB				
FIRE PROTECTION					DAS				
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA YORKTOWN, VIRGINIA P-985 BACHELOR ENLISTED QUARTERS NAVAL WEAPONS STATION									
STORM SEWER PLAN & PROFILE									
SCALE: AS NOTED									
PROJECT NO. 1113911									
CONSTR. CONTR. NO. N40085-08-D-9739									
NAVFAC DRAWING NO. 12664347									
SHEET OF									
CU213									
DRAWING REVISION: 6 AUG 2007									



STORM SEWER PLAN 5
 1" = 30' CU214 (C5)



STORM SEWER PROFILE 5
 1" = 30' (H) 1" = 3' (V) CU214 (A2)

KEYNOTES

- ① FLARED END SECTION
SEE SHEET CU512 DETAIL A2
- ② OUTLET STRUCTURE
SEE SHEET CU514 DETAIL A2
- ③ UNDERGROUND DETENTION BMP
SEE SHEET CU514 DETAIL D4
- ④ HYDRODYNAMIC SEPARATOR
SEE SHEET CU514 DETAIL A5
- ⑤ STORM GRATE INLET
SEE SHEET CU511 DETAIL A2
- ⑥ CURB STORM INLET, DI-3B
SEE SHEET CU515 DETAIL A2
- ⑦ CURB STORM INLET, DI-3C
SEE SHEET CU515 DETAIL A2
- ⑧ STORM MANHOLE
SEE SHEET CU511 DETAIL B5
- ⑨ DROP MANHOLE
SEE SHEET CU513 DETAIL A5

NOTES

- 1. SEE SHEET CU516 FOR STORM CALCULATIONS

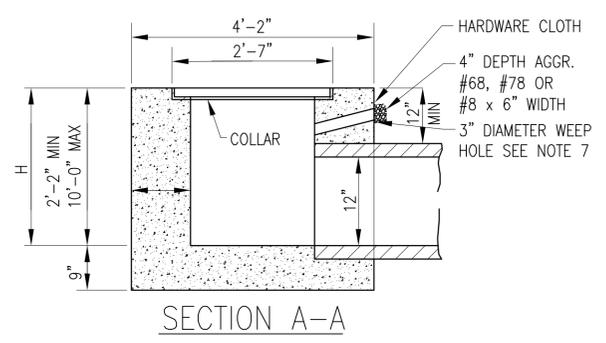
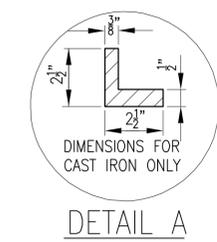
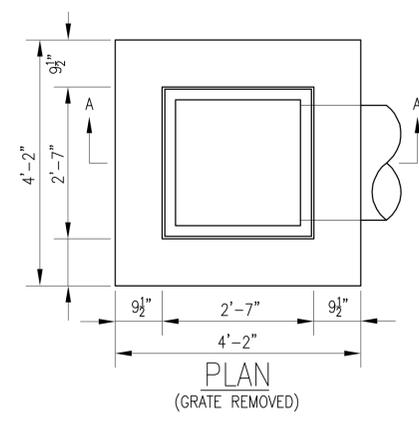


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DES SM DRW SM CHK JL
PM MMP
BRANCH MANAGER BDB
CHIEF ENG/ARCH RLJ/CRB
FIRE PROTECTION DAS

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 HAMPTON ROADS PFT
 NAVAL STATION - NORFOLK, VIRGINIA
 YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
 STORM SEWER PLAN & PROFILE

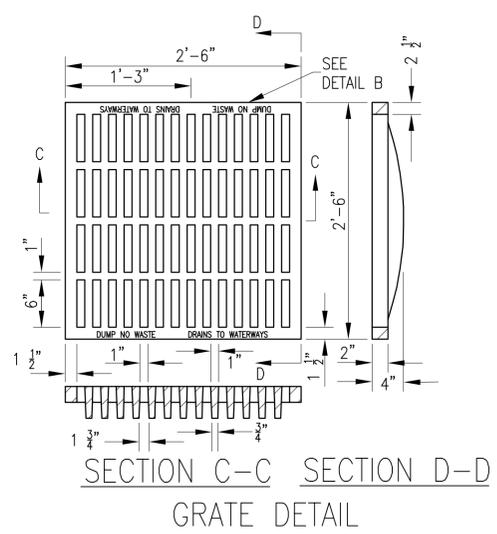
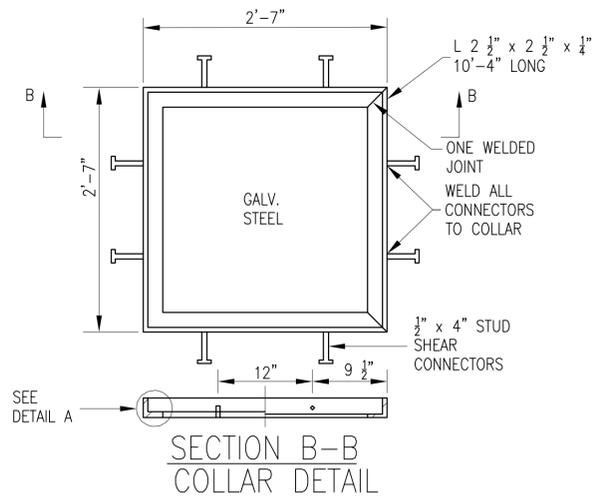
SCALE: AS NOTED
PROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664348
SHEET OF CU214



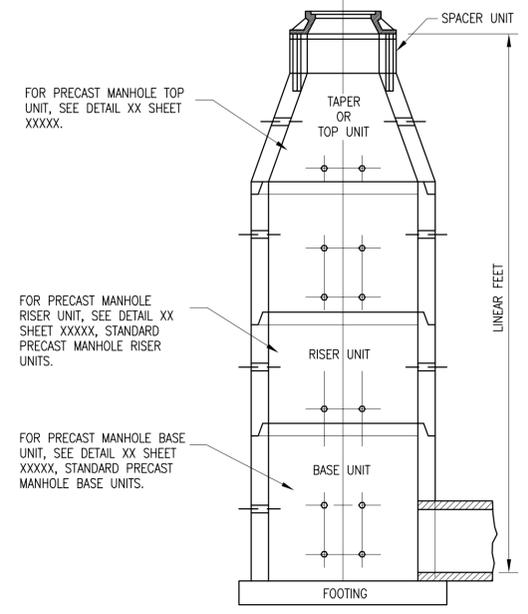
STANDARD GRATE INLET NOTES:

1. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
2. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE TO DETAIL B5 SHEET CU502. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
3. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO INLET SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. STEPS ARE TO BE PROVIDED WHEN "H" IS 4'-0" OR GREATER. FOR DETAILS SEE DETAIL A2 SHEET CU502.
5. THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
6. #4 x 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT. IN LIEU OF DOWELS A 2"x4" NOTCH MAY BE PROVIDED.
7. 3" DIAMETER WEEP HOLE WITH 12"x12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
8. CAST IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
9. ANY ALTERNATE METHODS OF ANCHORAGE MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
10. DUMP NO WASTE DRAINS TO WATERWAY LETTERING IS REQUIRED ON ALL GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.

STANDARD GRATE INLET
NTS CU101, CU102 **A2**

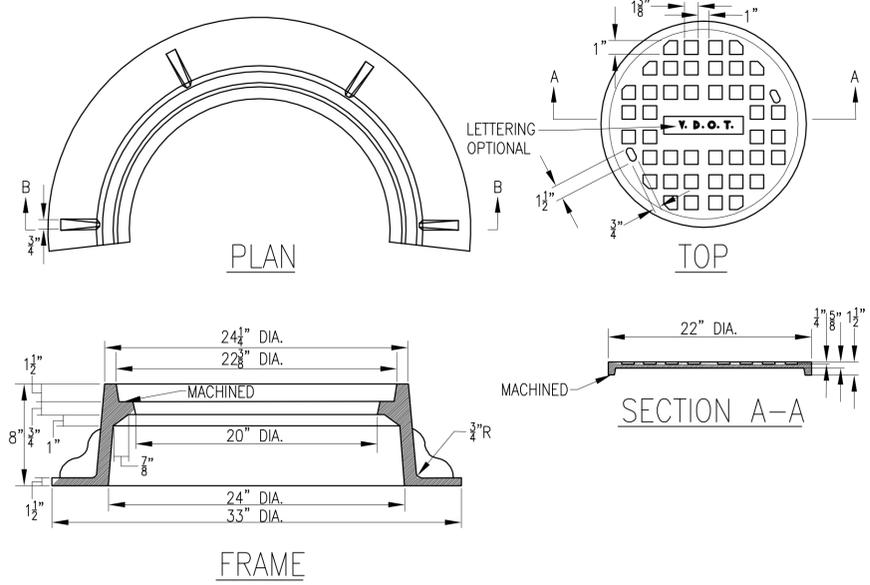


STANDARD GRATE INLET
NTS CU101, CU102 **A2**



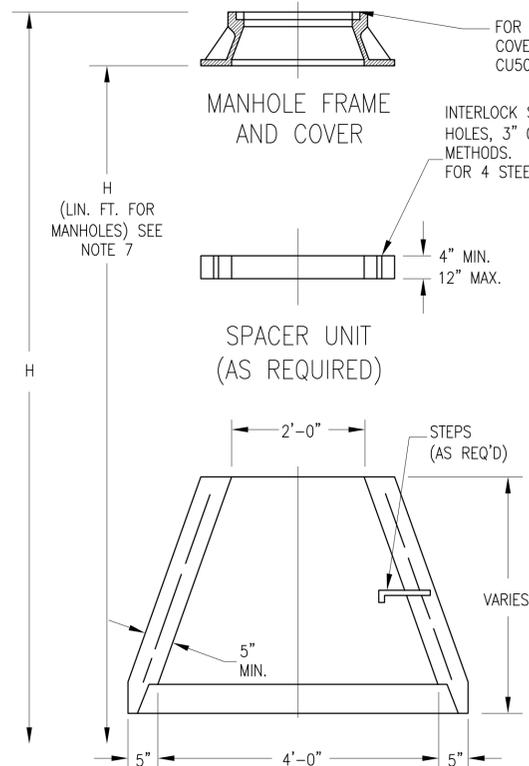
- GENERAL PRECAST MANHOLE NOTES:**
1. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THIS WILL APPLY TO ALL STRUCTURES MEETING THIS CONDITION. THE COST FOR INVERT SHAPING SHALL BE INCLUDED IN THE PRICE BID FOR THE STRUCTURE.
 2. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE TO DETAIL XX SHEET XX. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE PRICE BID FOR THE STRUCTURE.
 3. ALL PRECAST STRUCTURES TO BE CONSTRUCTED WITH 4000 PSI MINIMUM CONCRETE.
 4. STEPS IN ACCORDANCE WITH DETAIL XX SHEET XX ARE TO BE PROVIDED IN ALL MANHOLES AND IN ALL DROP INLETS WITH AN "H" DIMENSION OF 4'-0" OR GREATER.
 5. 3" DIAMETER WEEP HOLES WILL BE REQUIRED IN PRECAST STRUCTURE LOCATED ADJACENT TO THE PAVEMENT TO DRAIN SUBBASE. PLACEMENT OF WEEP HOLES IN THE PRECAST UNIT WILL BE DETERMINED BY THE PROXIMITY OF THE STRUCTURE TO THE SUBBASE.
 6. WEEP HOLES WILL HAVE 12"x12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE.
 7. PRECAST UNITS LOCATED ADJACENT TO CAST-IN-PLACE CONCRETE ITEMS, SUCH AS FLUMES, DITCHES, GUTTERS, AND SIDEWALKS SHALL BE CONNECTED TO THE ADJACENT UNIT BY MEANS OF NO. 4 SMOOTH STEEL DOWELS SPACED ON APPROXIMATELY 12" CENTERS THROUGHOUT THE CONTACT LENGTH AND EXTENDING AT LEAST 4" INTO BOTH THE PRECAST UNIT TO RECEIVE THE DOWELS, THEY SHALL NOT EXCEED 8" DIAMETER.
 8. 3/4" CHAMFER MAY BE PROVIDED ON ALL EDGES AT MANUFACTURER'S OPTION.

PRECAST CONCRETE STORM MANHOLE
NTS CU101, CU103 **B5**



STORM MANHOLE FRAME & COVER
NTS CU101, CU103 **A5**

APPR	
DATE	
DESCRIPTION	
SYM	
PARSONS BRINCKERHOFF engineering architecture 277 Bendix Road Suite 300 Virginia Beach, Virginia 23452 Phone: 757.466.1732 Fax: 757.466.1493	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES SM DRW KC CHK JL	
PM MMP	
BRANCH MANAGER BDB	
CHIEF ENG/ARCH RLJ/CRB	
FIRE PROTECTION DAS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC HAMPTON ROADS PFT NAVAL STATION - NORFOLK, VIRGINIA YORKTOWN, VIRGINIA NAVAL WEAPONS STATION P-985 BACHELOR ENLISTED QUARTERS STORM SEWER DETAILS	
SCALE: AS NOTED	
PROJECT NO. 1113911	
CONSTR. CONTR. NO. N40085-08-D-9739	
NAVFAC DRAWING NO. 12664350	
SHEET OF	
CU511	
DRAWING REVISION: 6 AUG 2007	



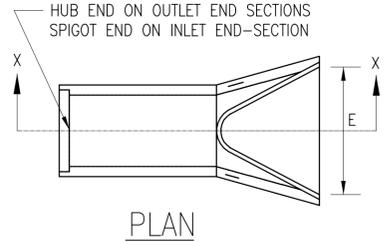
FOR MANHOLE FRAME AND COVER, SEE DETAIL C5 SHEET CU502.

INTERLOCK SHALL BE PROVIDED BY 1" DIAMETER HOLES, 3" OVAL SLOT, OR OTHER VDOT APPROVED METHODS.
FOR 4 STEEL DOWELS. CENTERS TO BE 180° APART.

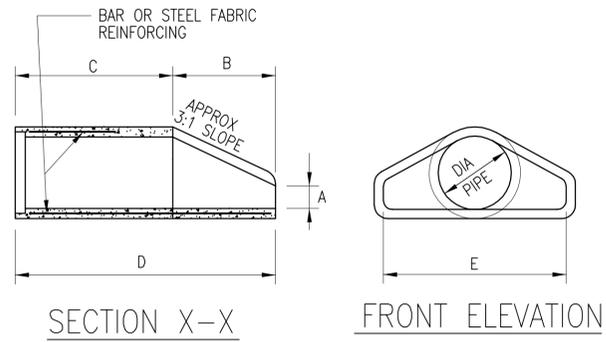
PRECAST MANHOLE TOP UNIT NOTES:

1. ALL SPACER UNITS AND ARE TAPER UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
2. DIMENSION SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
3. SPACER UNITS SHOWN HEREON ARE ALSO KNOWN AS "GRADE RINGS" OR "ADJUSTMENT RINGS".
4. WHEN SPACER UNITS ARE REQUIRED, "H" IS TO BE MEASURED FROM THE TOP OF THE UPPERMOST SPACER.
5. SPACER UNIT IS TO BE DOWELED OR MORTARED TO TAPER UNIT OR FLAT SLAB TOP.

STANDARD PRECAST MANHOLE TOP UNITS
NTS CU101, CU103 **C2**

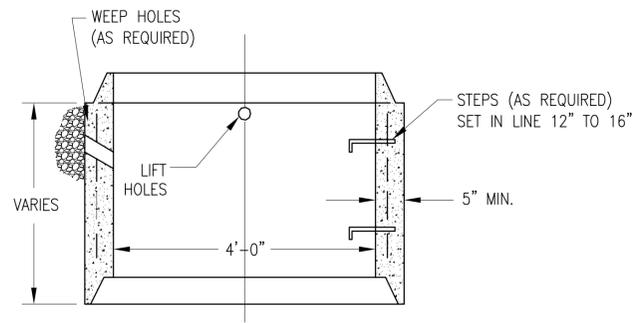


PROVIDE 4000 PSI CONCRETE MINIMUM



END SECTION DIMENSIONS					
PIPE DIAMETER (IN.)	A	B	C	D	E
15	6"	2'-3"	1'-9"	4'-0"	2'-6"
18	9"	2'-3"	1'-9"	4'-0"	3'-0"
24	9 1/2"	3'-7"	2'-6"	6'-1"	4'-0"

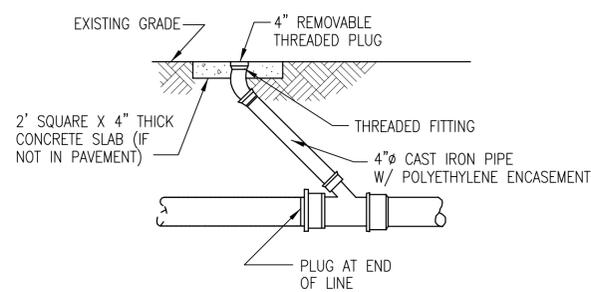
FLARED END SECTION
NTS CU101 **A2**



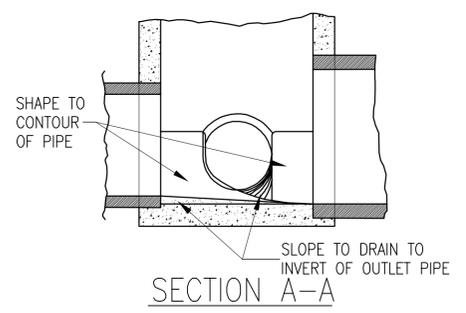
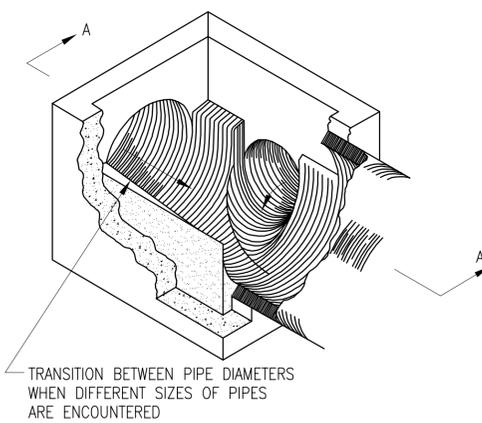
PRECAST MANHOLE RISER UNIT NOTES:

1. ALL RISER UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OR AASHTO M199
2. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE.
3. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
4. "D" IS NOMINAL DIAMETER.
5. TONGUE AND GROOVE JOINT ARE TO BE OR FABRICATOR'S DESIGN MEETING VDOT APPROVAL. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.

STANDARD PRECAST MANHOLE RISER UNITS
NTS CU101, CU103 **D5**



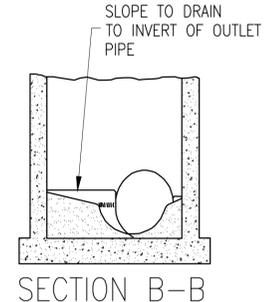
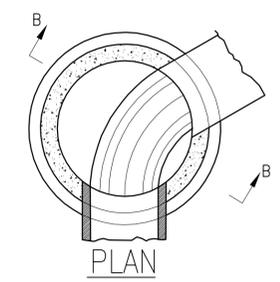
CLEANOUT
NTS CU102 **B3**



STANDARD METHOD OF SHAPING MANHOLE & INLET INVERTS NOTES:

1. SHAPING OF MANHOLE AND INLET INVERTS IN ACCORDANCE WITH THIS DRAWING IS TO APPLY TO THOSE STRUCTURES SPECIFIED ON PLANS OR WHERE INVERT OF PIPE IS ABOVE INVERT OF STRUCTURE.
2. MANHOLE OR DROP INLET IS TO BE FORMED AND CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STANDARD OR SPECIAL DRAWING. THE INVERT SHAPING AS DETAILED HEREON IS TO CONSIST OF A PORTLAND CEMENT CONCRETE MIX CONFORMING TO CLASS A3 OR CLASS C1, EXCEPT THAT 25% OF COARSE AGGREGATE MAY BE BROKEN CONCRETE OR BROKEN CONCRETE BLOCK. THE SURFACE SHALL BE LEFT SMOOTH BY MEANS OF HAND TROWELLING. NONE OF THE COARSE AGGREGATE SHALL REMAIN EXPOSED.
3. DETAILS OF INVERT SHAPING AS SHOWN HEREON ARE FOR EXAMPLE PURPOSES ONLY. EACH MANHOLE OR DROP INLET IS TO BE SHAPED INDIVIDUALLY TO BEST FIT THE PARTICULAR INLET AND OUTLET CONFIGURATION AND FLOW LINES.

METHOD OF TREATMENT IN DROP INLETS



METHOD OF TREATMENT IN MANHOLES

STANDARD METHOD OF SHAPING MANHOLE & INLETS
NTS CU101, CU103 **A5**

DATE	APPR
DESCRIPTION	SYM

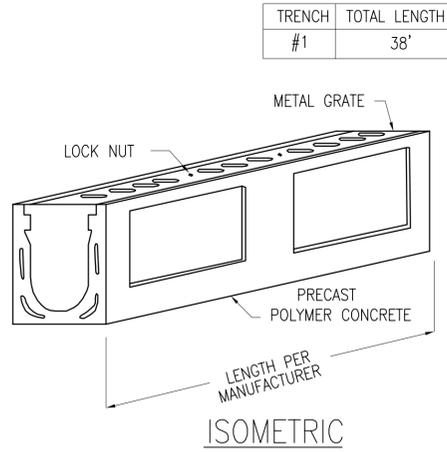


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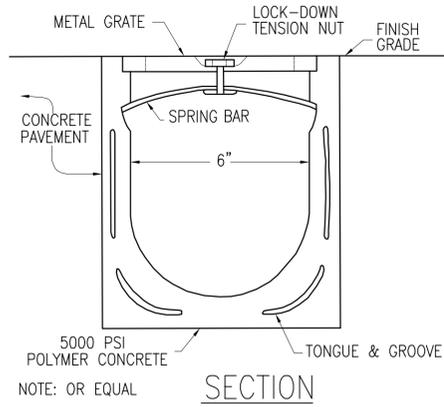
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SM DRW KC CHK JL
PM MMP
BRANCH MANAGER BDB
CHEF ENG/ARCH RLJ/CRB
FIRE PROTECTION DAS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA
YORKTOWN, VIRGINIA
NAVAL WEAPONS STATION
P-985 BACHELOR ENLISTED QUARTERS
STORM SEWER DETAILS

SCALE: AS NOTED
PROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664351
SHEET OF
CU512

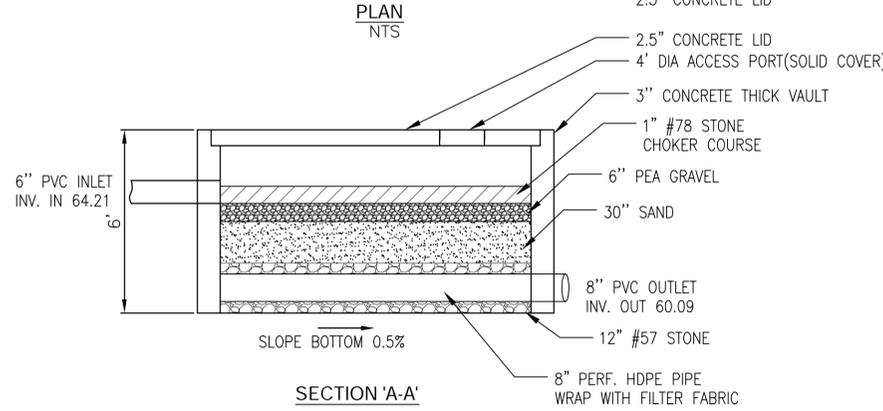
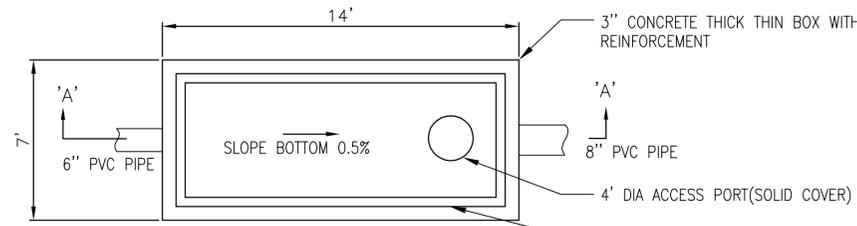


TRENCH	TOTAL LENGTH
#1	38'



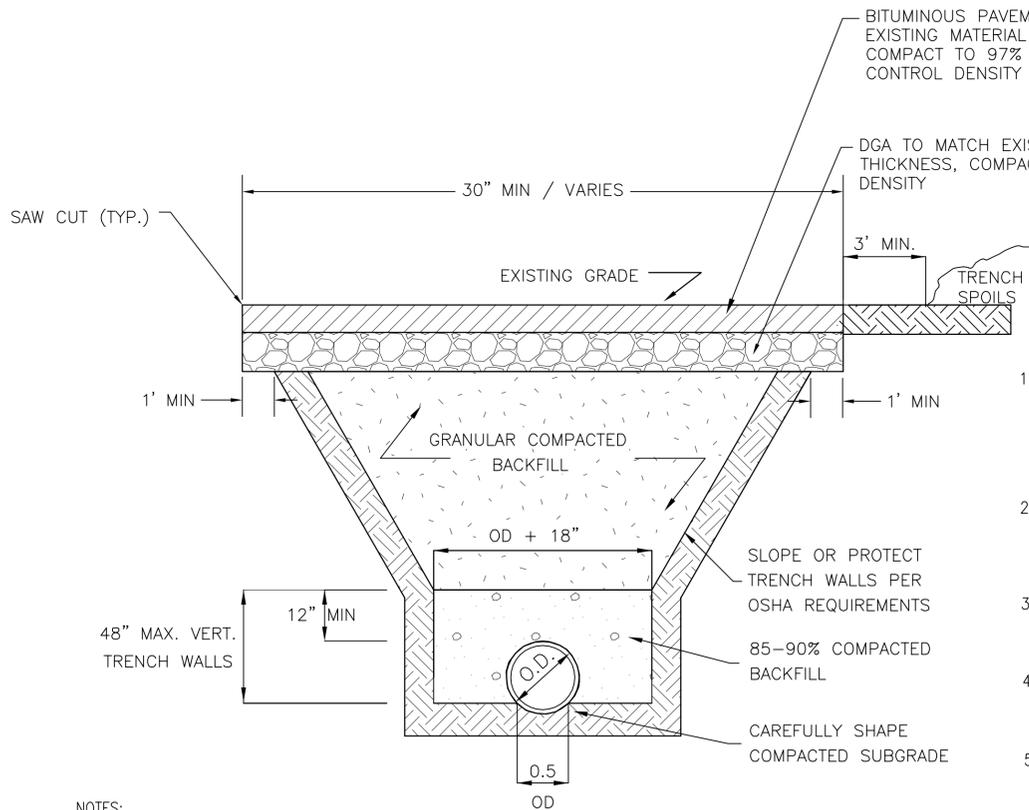
TRENCH DRAIN INLET
NTS

C2



SAND FILTER FOR WASHING STATION
NTS

C4



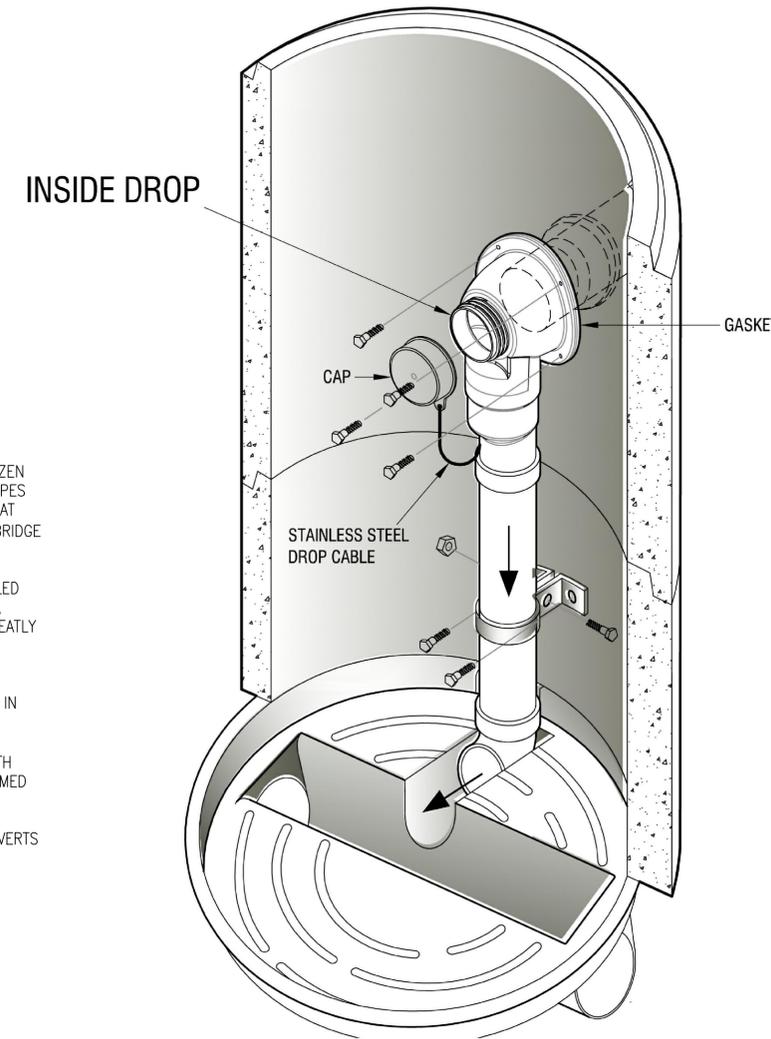
BACKFILLING NOTES:

- BACKFILL MATERIAL SHALL BE SUITABLE RANDOM MATERIAL, CONTROLLED LOW STRENGTH MATERIAL OR SELECT BACKFILL MATERIAL. RANDOM MATERIAL SHALL BE FREE FROM PARTICLES LARGER THAN 3 INCHES (75 MM), FROZEN LUMPS, WOOD, OR OTHER EXTRANEIOUS MATERIAL. UNLESS OTHERWISE SPECIFIED IN THE PLANS, ANY OF THE TYPES OF CONTROLLED LOW STRENGTH MATERIAL MAY BE USED AND SHALL BE AN ALTERNATIVE TO RANDOM MATERIAL AT THE CONTRACTOR'S OPTION. SELECT BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE VDOT ROAD AND BRIDGE STANDARD SPECIFICATIONS.
- ALL SPACES EXCAVATED AND NOT OCCUPIED BY ABUTMENTS, PIERS, OR OTHER STRUCTURES SHALL BE BACKFILLED TO THE SURFACE OF THE SURROUNDING GROUND. ALL BACKFILL, EXCEPT CONTROLLED LOW STRENGTH MATERIAL, SHALL BE THOROUGHLY COMPACTED BY ROLLING OR TAMPING AS PRESCRIBED BELOW AND THE TOP SURFACE NEATLY GRADED.
- RANDOM MATERIAL AND SELECT BACKFILL MATERIAL BEHIND AND AROUND ABUTMENTS, WINGWALLS, PIERS, BENTS, PEDESTALS AND ALL OTHER STRUCTURES, INCLUDING THOSE INACCESSIBLE TO A ROLLER, SHALL BE COMPACTED IN LAYERS NOT TO EXCEED 4 INCHES (100 MM) AFTER COMPACTION.
- THE QUALITY CONTROL AND ACCEPTANCE FOR COMPACTION OR RANDOM MATERIAL SHALL BE IN ACCORDANCE WITH APPLICABLE OF THE VDOT ROAD AND BRIDGE STANDARD SPECIFICATIONS. FIVE DENSITY TESTS SHALL BE PERFORMED FOR QUALITY CONTROL. THE TARGET PERCENTAGE OF DRY DENSITY SHALL BE 95%.
- SELECT BACKFILL MATERIAL SHALL BE PLACED BEHIND ABUTMENTS, WINGWALLS, RETAINING WALLS, AND BOX CULVERTS TO THE DIMENSIONS SHOWN ON THE PLANS. THE MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 4 INCHES (100 MM) COMPACTED. THE QUALITY CONTROL TESTING AND ACCEPTANCE FOR THE SELECT BACKFILL SHALL BE IN ACCORDANCE WITH THE VDOT ROAD AND BRIDGE STANDARD SPECIFICATIONS.
- THE MAXIMUM TRENCH LAYBACK SLOPE IS 2:1 PROVIDE 1" STEEL PLATE OVER ANY OPEN TRENCH IN AN EXISTING TRAVEL LANE.
- TRENCH DETAIL APPLY TO BOTH SANITARY SEWER AND WATER LINE INSTALLATION.
- 18" MINIMUM COVER FOR SANITARY SEWER AND 36" MINIMUM COVER FOR WATER LINE.

NOTES:
TRENCHING OPERATIONS SHALL CONFORM TO ALL OSHA REQUIREMENTS.
IF THE PIPE DIAMETER EXCEEDS 48", THE MINIMUM 12" COVER SHALL STILL APPLY.
CLASS C BEDDING SHALL BE EXCAVATED OR OVER EXCAVATED, IF NECESSARY, SO A UNIFORM FOUNDATION FREE OF PROTRUDING ROCKS IS PROVIDED.
THIS TRENCH SHALL BE USED ONLY UNDER STABLE SOIL CONDITIONS.

TRENCH DETAIL CLASS C BEDDING
NTS

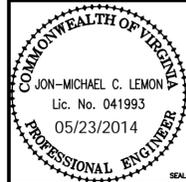
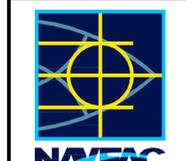
A2



INSIDE DROP MANHOLE
NTS

CU513

A5

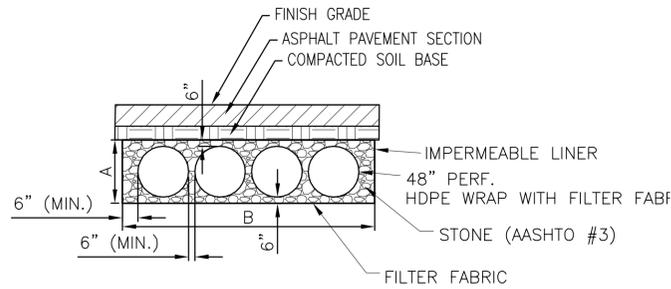


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APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	SM DRW KC CHK JL
PM	MMP
BRANCH MANAGER	BDB
CHIEF ENG/ARCH	RLJ/CRB
FIRE PROTECTION	DAS

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NAVAL FACILITIES ENGINEERING COMMAND
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HAMPTON ROADS, VA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
STORM SEWER DETAILS

SCALE:	AS NOTED
EPROJECT NO.:	1113911
CONSTR. CONTR. NO.:	N40085-08-D-9739
NAVFAC DRAWING NO.:	12664352
SHEET	OF
CU513	

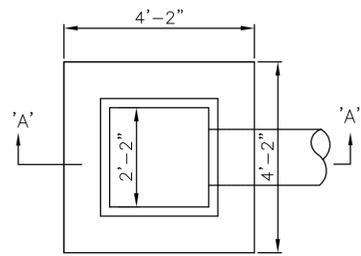
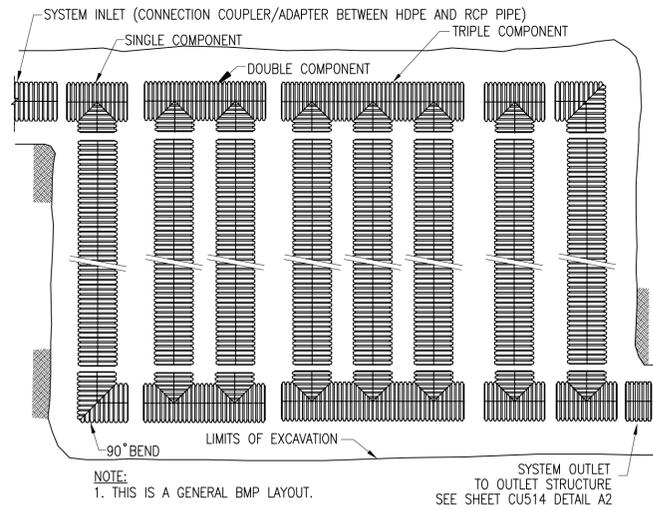


BMP #	ROW	LENGTH (FT)	TOTAL WIDTH (B) (FT)	DEPTH (A) (FT)	PIPE SIZE DIA. (FT)	COVER (FT)	SURFACE ELEV.
BMP B1	10	65	50	5	4	2	60

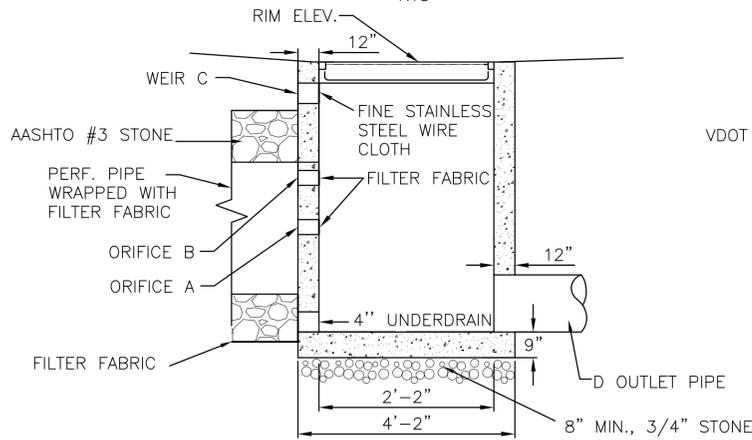
STORMWATER BMP

NTS

CU101 **D2**



PLAN
NTS



SECTION 'A-A'

NOTES:

1. OUTLET STRUCTURE WAS MODIFIED FROM VDOT DI-1 STANDARD DROP INLET. ALL HARDWARE AND COVER ARE TO MATCH VDOT SPECIFICATIONS.
2. THE TOP OF WEIR ELEVATION CORRESPONDS TO THE TOP ELEVATION OF THE AASHTO #3 STONE REFERENCED IN THE STORMWATER BMP DETAIL ABOVE.

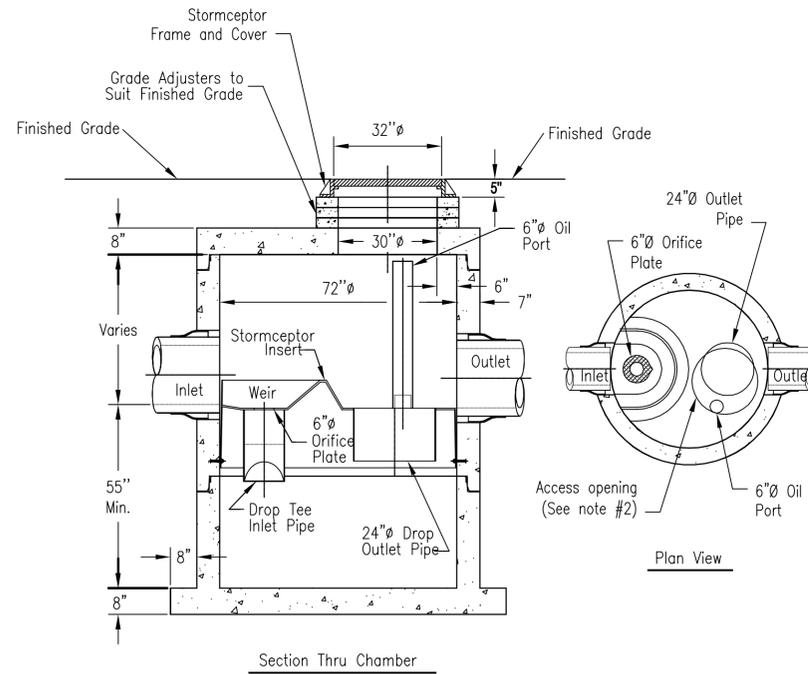
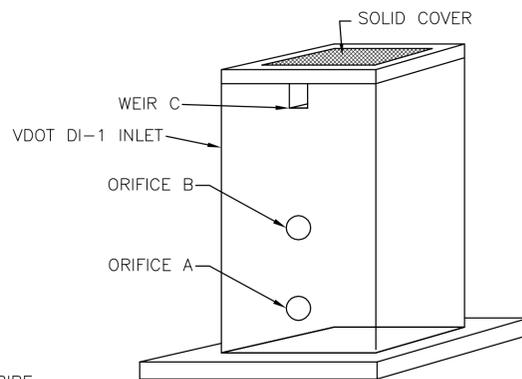
BMP #	ORIFICE A SIZE (INCHES)	ORIFICE B SIZE (INCHES)	WEIR C WIDTH (FT)	OUTLET PIPE SIZE DIA. (FT)
BMP B1	6	NA	1	18

BMP #	GRATE ELEV.	ORIFICE A ELEV.	ORIFICE B ELEV.	WEIR C ELEV.	OUTLET PIPE INVERT ELEV.	UNDERDRAIN PIPE INVERT ELEV.
BMP B1	60	55	-	56.7	53.63	53.63

STONE TRENCH OUTLET STRUCTURE

NTS

CU101 **A2**



Section Thru Chamber

Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Stormceptor Selection				
BMP -B1	Area (sf)	Area (ac)	Percent Impervious (%)	Stormceptor Model
Stormceptor 1 (west)	30,354	0.70	100	STC-900
Stormceptor 2 (east)	37,600	0.86	80	STC-900
BEQ (east)	86,619	1.99	20	STC-450i
BEQ (west)	37,003	0.85	85	STC-900

HYDRODYNAMIC SEPARATOR

NTS

CU101, CU102

A5

SYMBOL	DESCRIPTION	DATE	APPROVED

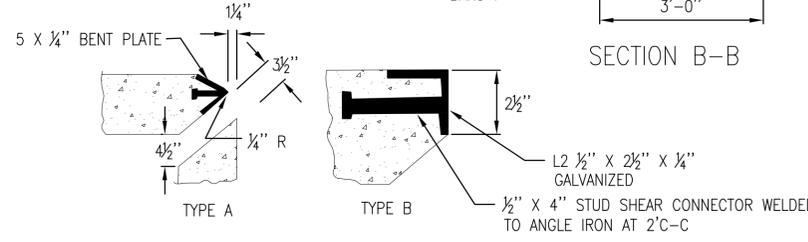
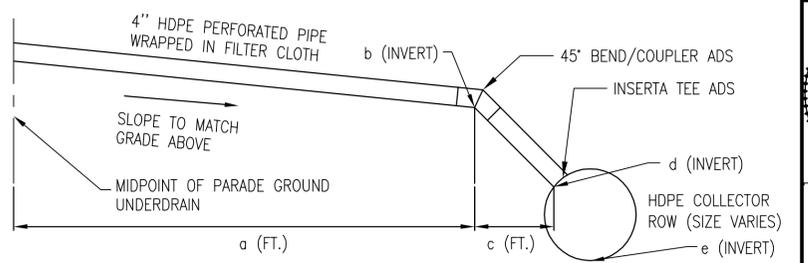
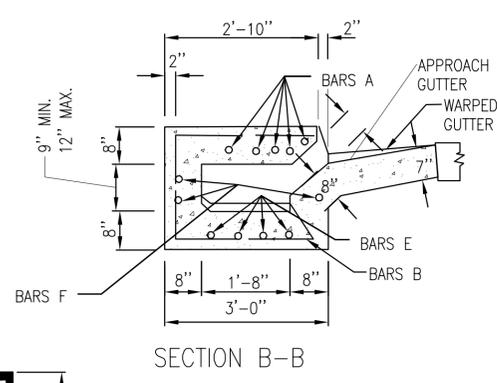
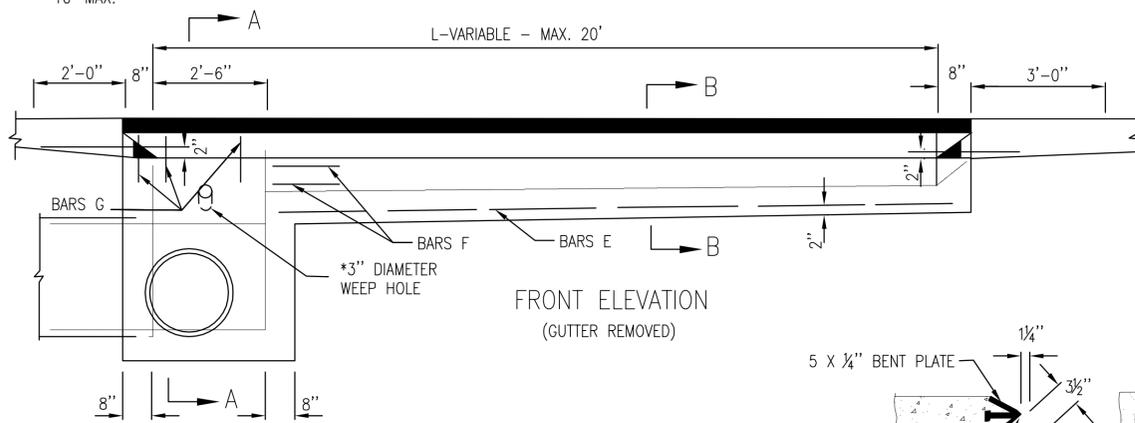
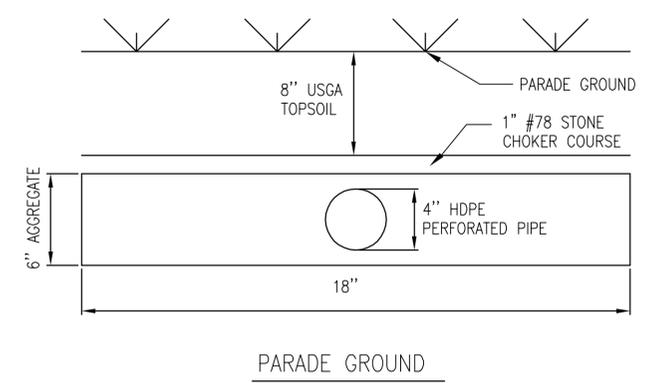
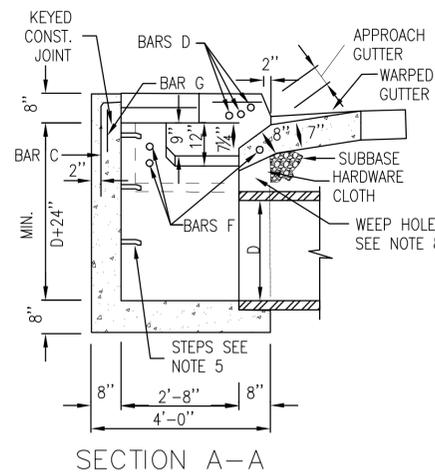
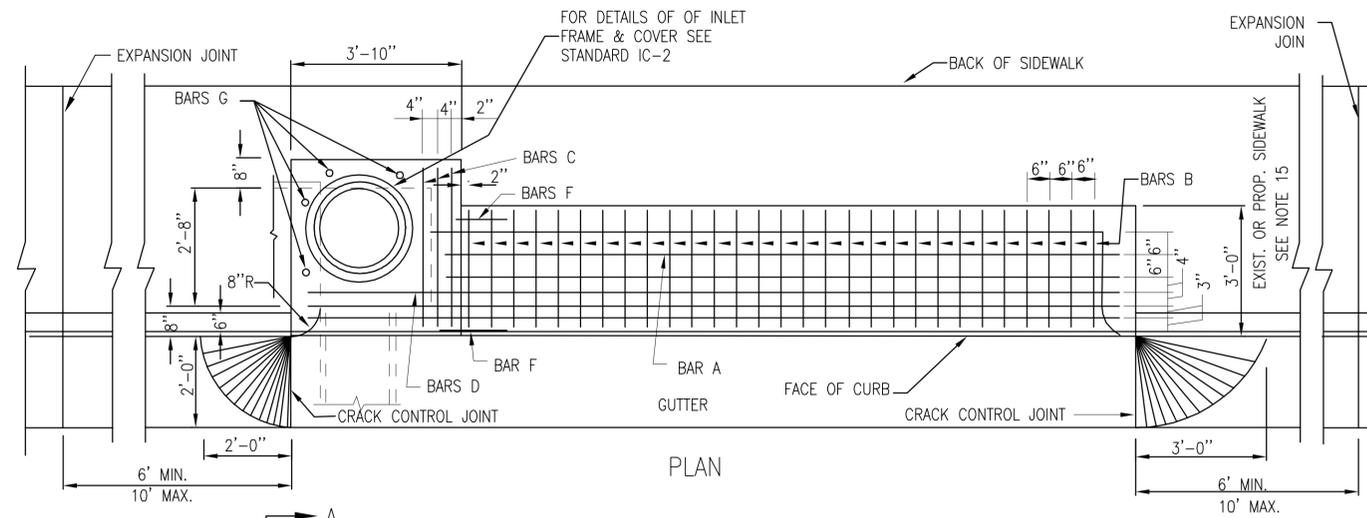


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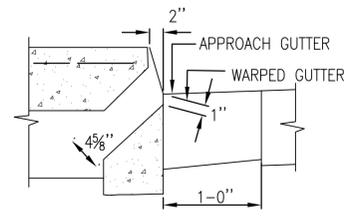
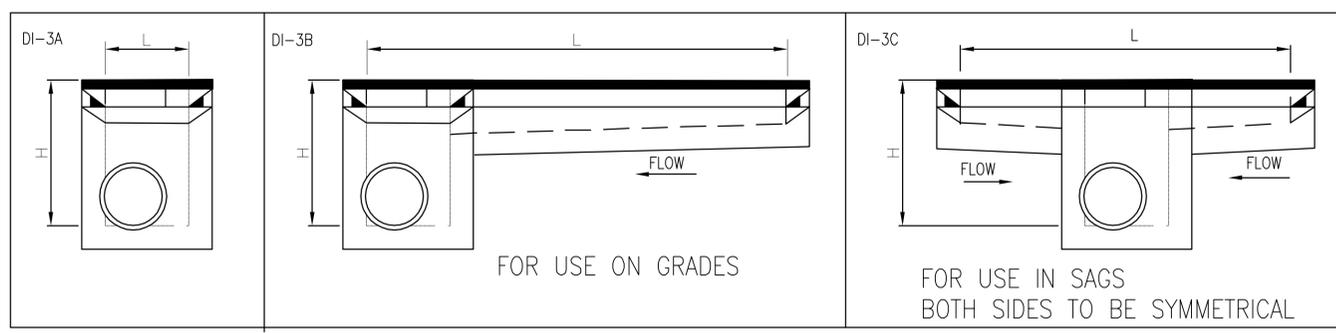
APPROVED	
FOR COMMANDER NAVFAC	ACTIVITY
SATISFACTORY TO DATE	DES CL DRW KC CHK JL
PM	MMP
BRANCH MANAGER	BDB
CHIEF ENG/ARCH	RLJ/CRB
FIRE PROTECTION	DAS

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL STATION - NORFOLK, VIRGINIA
 HAMPTON ROADS, PFT
 NAVAL WEAPONS STATION
 YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
 STORM BMP DETAILS

SCALE: AS NOTED	
PROJECT NO.	1113911
CONSTR. CONTR. NO.	N40085-08-D-9739
NAVFAC DRAWING NO.	12664-353
SHEET	OF
CU514	



TYPE A A NOSE DETAIL SHALL BE USED WITH CG-3 & CG-7 STANDARDS.
 TYPE B NOSE DETAIL SHALL BE USED WITH CG-2 STANDARDS.
 GALVANIZED PLATE FOR TYPE A TO BE BENT ON AN ANGLE OF 68°30' CONNECTORS AND IS TO BE ANCHORED WITH 1/2" X 4" STUD SHEAR WELDED TO BENT PLATE AT 2' C-C.



Underdrain	Finished Grade at Center of Parade Ground (FT)	a (FT)	b (FT)	c (FT)	d (FT)	e (FT)
A2	67.66	217.02	65.74	1.48	64.25	62.75
B2	67.50	216.34	65.58	2.16	63.41	61.91
C2	67.34	215.67	65.43	2.83	62.57	61.07
D2	67.18	214.99	65.27	3.51	61.73	60.23
E2	67.02	214.31	65.12	4.19	60.89	59.39
F2	66.86	213.64	64.96	4.86	60.05	58.55
G2	66.70	212.96	64.80	5.54	59.21	57.71
H2	66.86	212.75	64.96	5.75	59.16	57.66
I2	67.02	212.54	65.12	5.96	59.11	57.61
J2	67.18	212.33	65.29	6.17	59.06	57.56
K2	67.34	212.12	65.45	6.38	59.01	57.51
L2	67.50	211.92	65.61	6.58	58.96	57.46
M2	67.66	211.71	65.77	6.79	58.91	57.41
N2	67.82	211.50	65.93	7.00	58.86	57.36
O2	67.82	211.45	65.93	7.05	58.81	57.31
P2	67.66	211.56	65.77	6.94	58.76	57.26
Q2	67.50	211.67	65.61	6.83	58.71	57.21
R2	67.34	211.78	65.44	6.72	58.66	57.16
S2	67.18	211.89	65.28	6.61	58.61	57.11
T2	67.02	212.00	65.12	6.50	58.56	57.06
U2	66.86	212.11	64.96	6.39	58.51	57.01
V2	66.70	212.22	64.80	6.28	58.46	56.96
W2	66.86	211.94	64.96	6.56	58.34	56.84
X2	67.02	211.67	65.13	6.83	58.23	56.73
Y2	67.18	211.39	65.29	7.11	58.11	56.61
Z2	67.34	211.11	65.45	7.39	57.99	56.49
AA2	67.50	210.84	65.61	7.66	57.88	56.38
BB2	67.66	210.57	65.77	7.93	57.77	56.27

PARADE GROUND UNDERDRAIN
 NTS

STANDARD CURB DROP INLET
 NTS CU102 A2

APPR	
DATE	
DESCRIPTION	
SYM	
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FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	SM [] DRW [] KC [] CHK [] JL []
PM	MMP
BRANCH MANAGER	BDB
CHIEF ENG/ARCH	RLJ/CRB
FIRE PROTECTION	DAS
NAVAL FACILITIES ENGINEERING COMMAND	YORKTOWN, VIRGINIA
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC	
HAMPTON ROADS, PFT	
NAVAL WEAPONS STATION	
P-985 BACHELOR ENLISTED QUARTERS	
STORM SEWER DETAILS	
SCALE:	AS NOTED
PROJECT NO.	1113911
CONSTR. CONTR. NO.	N40085-08-D-9739
NAVFAC DRAWING NO.	12664354
SHEET	OF
CU515	
<small>DRAWING REVISION: 6 AUG 2007</small>	

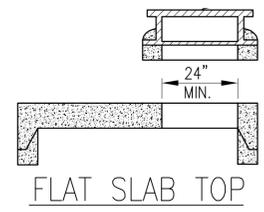
1

2

3

4

5



SEE DETAIL A5 SHEET CU502 FOR MANHOLE FRAME & COVER

CONCRETE ADJUSTMENT RING OR BRICK COLLAR AS REQUIRED

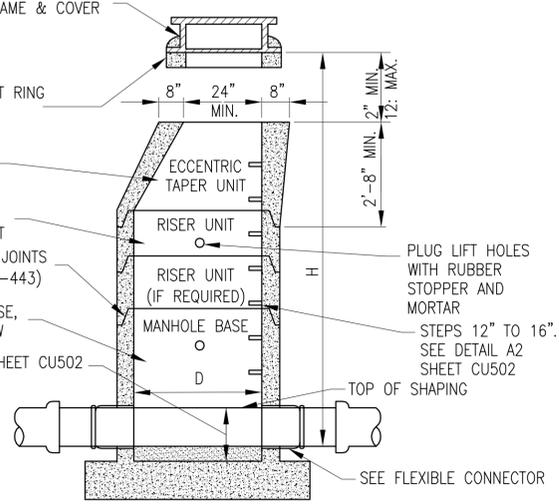
FOR TAPER UNIT, SEE DETAIL TO THE RIGHT

FOR RISER UNIT, SEE DETAIL IN LOWER RIGHT

O-RING JOINTS (ASTM C-443)

FOR MANHOLE BASE, SEE DETAIL BELOW

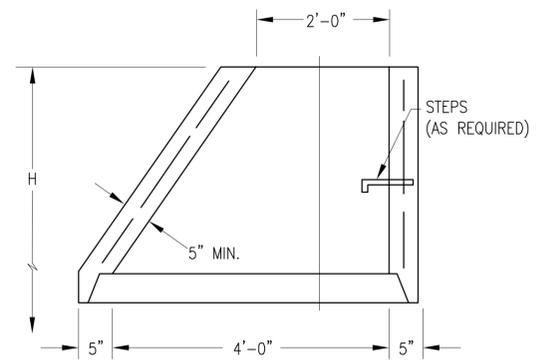
SEE DETAIL B5 SHEET CU502 FOR SHAPING



PRECAST CONCRETE MANHOLE

NOTES:

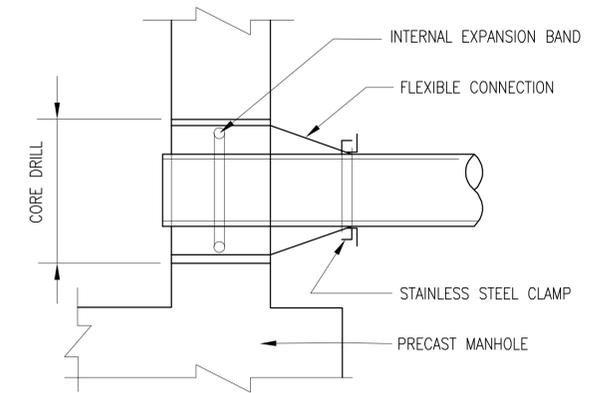
1. STEPS SHALL BE ENCASED IN CORROSION RESISTANT RUBBER OR AN APPROVED EQUAL.



PRECAST MANHOLE TOP UNIT NOTES:

1. ALL SPACER UNITS AND ARE TAPER UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
2. DIMENSION SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
3. SPACER UNITS SHOWN HEREON ARE ALSO KNOWN AS "GRADE RINGS" OR ADJUSTMENT RINGS".
4. WHEN SPACER UNITS ARE REQUIRED, "H" IS TO BE MEASURED FROM THE TOP OF THE UPPERMOST SPACER.
5. SPACER UNIT IS TO BE DOWELED OR MORTARED TO TAPER UNIT OR FLAT SLAB TOP.

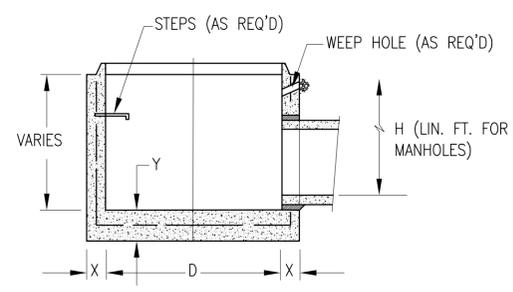
ECCENTRIC TAPER UNIT



FLEXIBLE CONNECTOR

FLEXIBLE CONNECTOR NOTES:

PIPE TO PRECAST MANHOLE CONNECTIONS SHALL BE MADE WITH A FLEXIBLE BOOT. THE BOOT SHALL MEET ASTM SPECIFICATION C-923 AND CONSIST OF NEOPRENE RUBBER, EPDM RUBBER, OR POLYISOPRENE RUBBER, WHERE PREFERENCE MAY BE GIVEN TO A CERTAIN MATERIAL IN PROJECT SPECIFIC INSTANCES. THE INTERNAL EXPANSION BAND TO SECURE THE BOOT IN PLACE SHALL BE COMPOSED OF STAINLESS STEEL OR A NON-METALLIC MATERIAL. THE EXTERNAL BAND TO CLAMP AND SEAL THE BOOT TO THE PIPE SHALL BE CORROSION RESISTANT STAINLESS STEEL CONFORMING TO ASTM SPECIFICATION A-167. THE PORT TO RECEIVE THE BOOT SHALL BE CORE DRILLED AND SHOULD BE MANUFACTURED TO ALLOW FOR LATERAL AND VERTICAL MOVEMENT. ALL FIELD INSTALLATION OF PIPE THRU MANHOLE SEAL SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

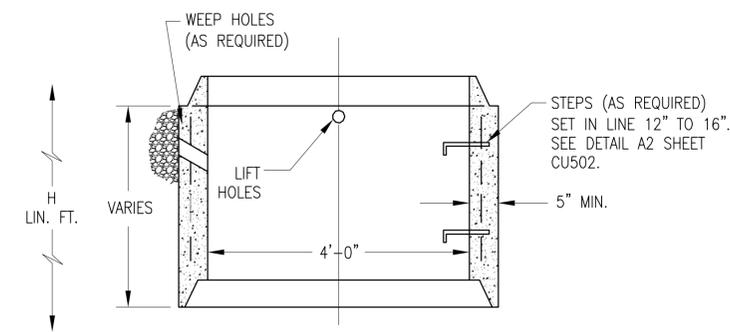


DIMENSIONS				
D	X MINIMUM	Y MINIMUM	SUGGESTED MAX. PIPE SIZE	ABSOLUTE MAXIMUM
48"	5"	6"	24"	27"

STANDARD PRECAST MANHOLE BASE UNITS

PRECAST MANHOLE BASE UNIT NOTES:

1. ALL BASE UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OR AASHTO M199
2. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE. HOLES ARE TO BE A MINIMUM OF 4" TO A MAXIMUM OF 8" LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED SITE.
3. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
4. "D" IS NOMINAL DIAMETER.
5. TONGUE AND GROOVE JOINT ARE TO BE OR FABRICATOR'S DESIGN MEETING VDOT APPROVAL. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.



STANDARD PRECAST MANHOLE RISER UNITS

PRECAST MANHOLE RISER UNIT NOTES:

1. ALL RISER UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OR AASHTO M199
2. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE.
3. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
4. "D" IS NOMINAL DIAMETER.
5. TONGUE AND GROOVE JOINT ARE TO BE OR FABRICATOR'S DESIGN MEETING VDOT APPROVAL. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.

PRECAST SANITARY MANHOLE

NTS

A4

APPR	
DATE	
DESCRIPTION	
SYM	



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ACTIVITY	
SATISFACTORY TO DATE	
DES CL	DRW KC
CHK	JL
FM	MMP
BRANCH MANAGER	BDB
CHIEF ENG/ARCH	RLJ/CRB
FIRE PROTECTION	DAS

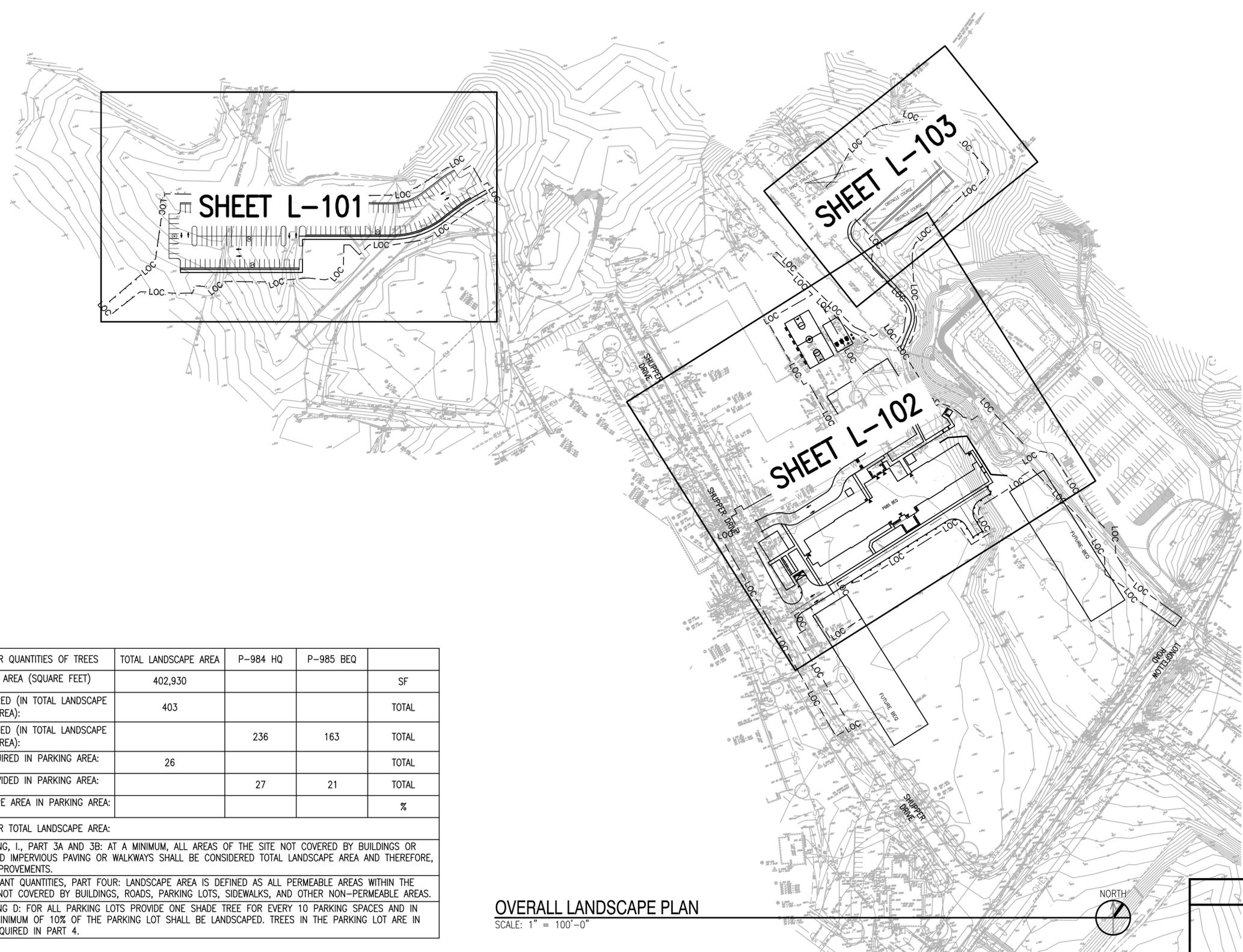
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 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 HAMPTON ROADS, VA
 NAVAL STATION - NORFOLK, VIRGINIA
 YORKTOWN, VIRGINIA
 P-985 BACHELOR ENLISTED QUARTERS
 SANITARY SEWER DETAILS

SCALE:	AS NOTED
PROJECT NO.	1113911
CONSTR. CONTR. NO.	N40085-08-D-9739
NAVFAC DRAWING NO.	12664356
SHEET	OF
CU521	

DRAWING REVISION: 6 AUG 2007

1 2 3 4 5

D
C
B
A



SUMMARY TABLE FOR QUANTITIES OF TREES	TOTAL LANDSCAPE AREA	P-984 HQ	P-985 BEQ	
TOTAL LANDSCAPE AREA (SQURE FEET)	402,930			SF
NO. OF TREES REQUIRED (IN TOTAL LANDSCAPE AREA):	403			TOTAL
NO. OF TREES PROVIDED (IN TOTAL LANDSCAPE AREA):		236	163	TOTAL
NO. OF TREES REQUIRED IN PARKING AREA:	26			TOTAL
NO. OF TREES PROVIDED IN PARKING AREA:		27	21	TOTAL
TOTAL % OF LANDSCAPE AREA IN PARKING AREA:				%

RFP REQUIREMENTS FOR TOTAL LANDSCAPE AREA:
 RFP G2050 LANDSCAPING, I, PART 3A AND 3B: AT A MINIMUM, ALL AREAS OF THE SITE NOT COVERED BY BUILDINGS OR OTHER STRUCTURES AND IMPERVIOUS PAVING OR WALKWAYS SHALL BE CONSIDERED TOTAL LANDSCAPE AREA AND THEREFORE, RECEIVE LANDSCAPE IMPROVEMENTS.
 RFP G205005 1.4.1 PLANT QUANTITIES, PART FOUR: LANDSCAPE AREA IS DEFINED AS ALL PERMEABLE AREAS WITHIN THE PROJECT BOUNDARIES NOT COVERED BY BUILDINGS, ROADS, PARKING LOTS, SIDEWALKS, AND OTHER NON-PERMEABLE AREAS.
 RFP G2050 LANDSCAPING D: FOR ALL PARKING LOTS PROVIDE ONE SHADE TREE FOR EVERY 10 PARKING SPACES AND IN EACH END ISLAND. A MINIMUM OF 10% OF THE PARKING LOT SHALL BE LANDSCAPED. TREES IN THE PARKING LOT ARE IN ADDITION TO THOSE REQUIRED IN PART 4.

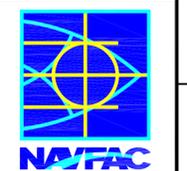
OVERALL LANDSCAPE PLAN
 SCALE: 1" = 100'-0"

GRAPHIC SCALE

SCALE: 1" = 100'-0"

SCALE:	AS NOTED
PROJECT NO.:	1113911
CONSTR. CONTR. NO.:	N40085-08-D-9739
NAVFAC DRAWING NO.:	12664365
SHEET:	234 OF 573
L-100	

SYMBOL	DESCRIPTION	DATE	APPR.



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ACTIVITY:					
SATISFACTORY TO:	DATE:				
DES:	PB	DRW:	PB	CHK:	PB
PM:		MMP:			
BRANCH MANAGER:		BDB:			
CHIEF ENG/ARCH:		RLJ/CRB:			
FIRE PROTECTION:		DAS:			

DEPARTMENT OF THE NAVY
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 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL STATION - NORFOLK, VIRGINIA
 YORKTOWN, VIRGINIA
 P-985 BACHELOR ENLISTED QUARTERS
 OVERALL LANDSCAPE PLAN

1 2 3 4 5

1

2

3

4

5

D

C

B

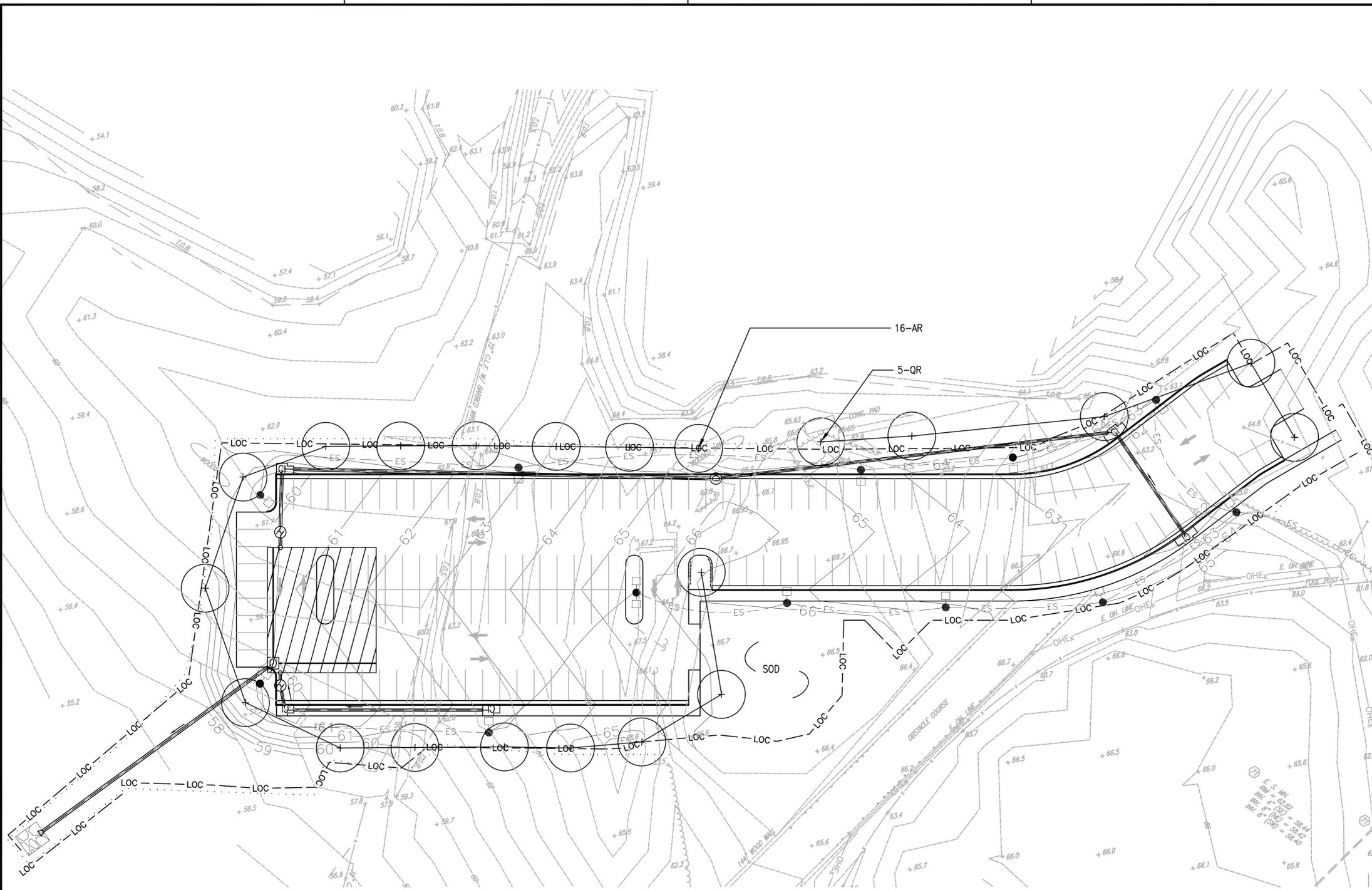
A

D

C

B

A



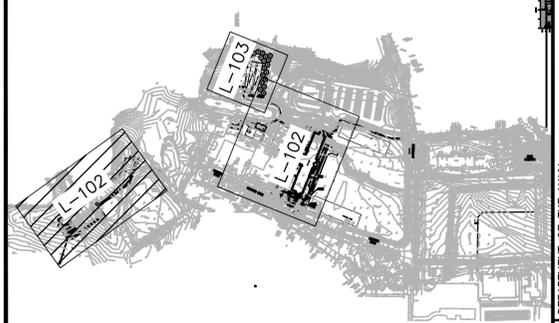
LANDSCAPE PLAN - PARKING
 SCALE: 1" = 30'-0"



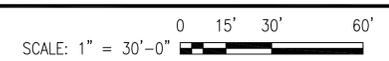
LEGEND

- RIVER ROCK
- GROUNDCOVER/ORNAMENTAL GRASS
- CONCRETE UNIT PAVER PAVING
- BENCH
- TRASH RECEPTACLE
- BIKE RACK
- PICNIC TABLE
- GRILL (CHARCOAL OR GAS)
- SHELTER
- LIMIT OF CONSTRUCTION/
LIMIT OF SOD
- QUANTITY AND PLANT NAME-
REFERENCE SHEET L-501 FOR
PLANT SCHEDULE
- ROOT CONTROL BARRIER

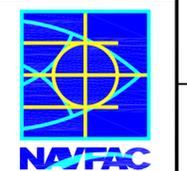
KEY PLAN



GRAPHIC SCALE



APPR	DATE	DESCRIPTION	SYM

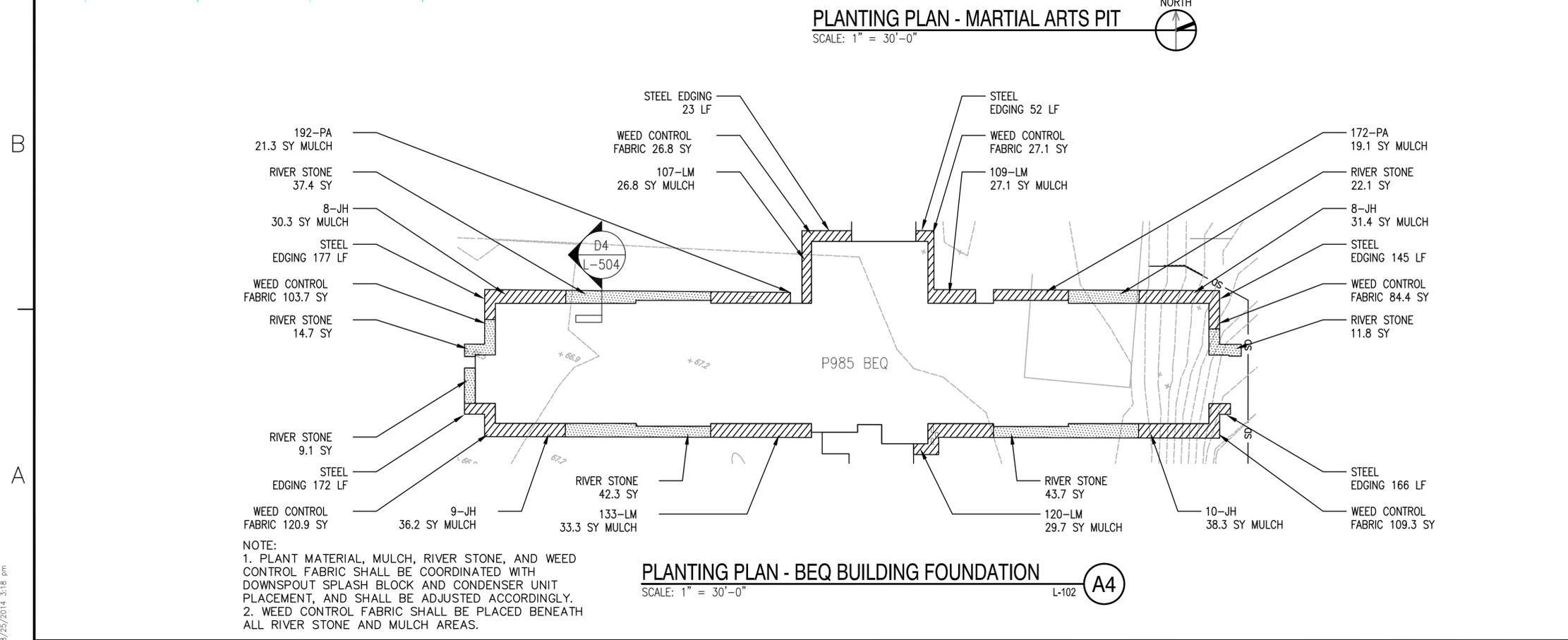
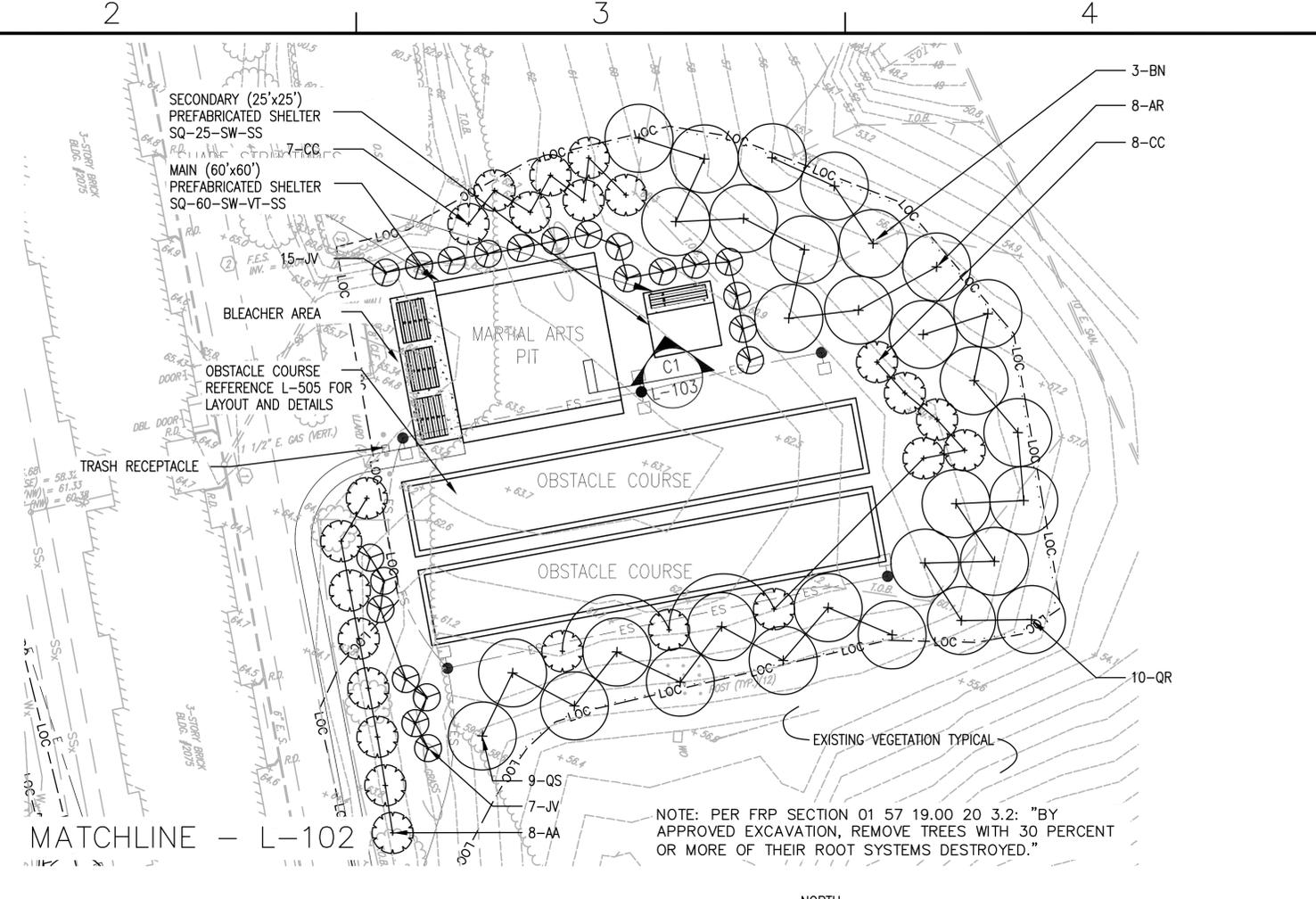
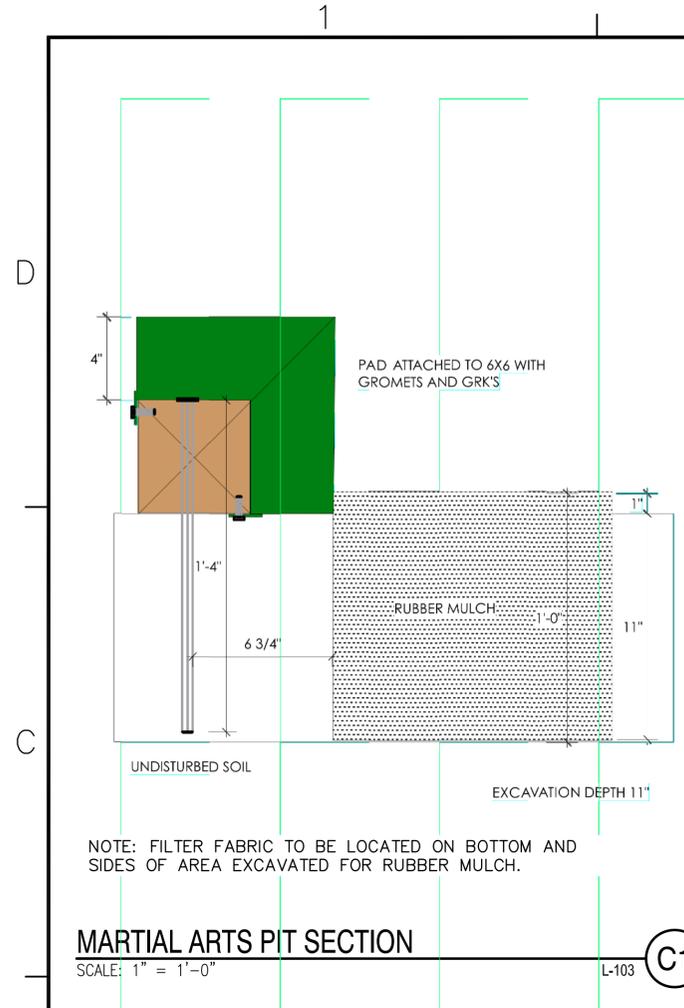


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 Fax: 757.466.1493

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FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: PB	DRW: PB
CHK: PB	
PM: MMP	
BRANCH MANAGER: BDB	
CHEF ENG/ARCH: RLJ/CRB	
FIRE PROTECTION: DAS	

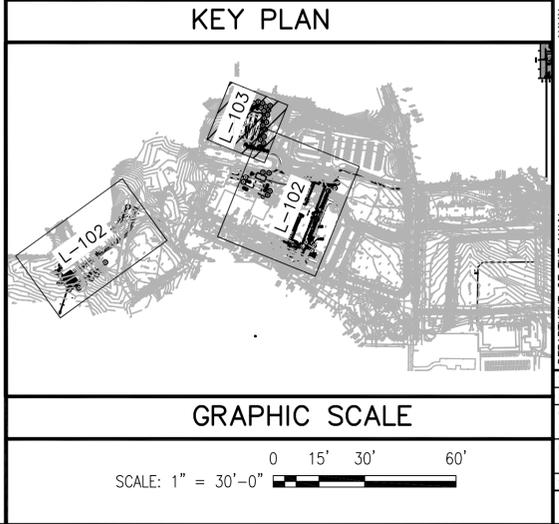
DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL STATION - NORFOLK, VIRGINIA
 YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
 LANDSCAPE PLAN - PARKING

SCALE:	AS NOTED
PROJECT NO.:	1113911
CONSTR. CONTR. NO.:	N40085-08-D-9739
NAVFAC DRAWING NO.:	12664366
SHEET:	235 OF 573
L-101	



LEGEND

- RIVER ROCK
- GROUNDCOVER/ORNAMENTAL GRASS
- CONCRETE UNIT PAVER PAVING
- BENCH
- TRASH RECEPTACLE ON 30" x 30" CONCRETE BASE
- ASH RECEPTACLE
- BIKE RACK
- PICNIC TABLE
- GRILL (CHARCOAL OR GAS)
- SHELTER
- LIMIT OF CONSTRUCTION/ LIMIT OF SOD
- QUANTITY AND PLANT NAME- REFERENCE SHEET L-501 FOR PLANT SCHEDULE
- ROOT CONTROL BARRIER



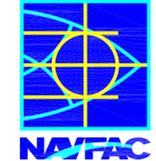
APPR	
DATE	
DESCRIPTION	
SYM	
AUGUST 22, 2014	
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FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES	PB
DRW	PB
CHK	PB
IN	MMP
BRANCH MANAGER	BDB
CHEF ENG/ARCH	RLJ/CRB
FIRE PROTECTION	DAS
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA	YORKTOWN, VIRGINIA
NAVAL WEAPONS STATION	P-985 BACHELOR ENLISTED QUARTERS
	LANDSCAPE PLAN - MARTIAL ARTS PIT
SCALE	AS NOTED
PROJECT NO.	1113911
CONSTR. CONTR. NO.	N40085-08-D-9739
NAVFAC DRAWING NO.	12664368
SHEET	237 OF 573
L-103	
DRAWING REVISION: 6 AUG 2007	

GENERAL NOTES:

1. EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ON THESE PLANS ARE FROM THE BEST AVAILABLE RECORDS. VERIFY PRIOR TO CONSTRUCTION.
2. CALL "MISS UTILITY" PRIOR TO THE COMMENCEMENT OF PLANTING OPERATIONS.
3. MAKE REPAIRS OR REPLACEMENT TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF NEGLIGENCE, OR METHOD OF OPERATION, TO THE SATISFACTION OF THE CONTRACTING OFFICER.
4. PERFORM WORK IN A MANNER THAT WILL ENSURE SAFETY OF THE GENERAL PUBLIC, EMPLOYEES AND THE CONTRACTING OFFICER AND OWNER.
5. LAYOUT PLANTING FOR APPROVAL BY THE CONTRACTING OFFICER PRIOR TO THE COMMENCEMENT OF PLANTING OPERATIONS.
6. COORDINATE PLANTING PLAN WITH OTHER ELEMENTS OF WORK PERFORMED UNDER THE PROJECT, INCLUDING BUT NOT LIMITED TO FINAL GRADING, TOPSOIL PLACEMENT, TURF ESTABLISHMENT, UTILITIES, AND SIGNING/LIGHTING; INSTALLATION APPEARANCE PLAN, NAVAL WEAPONS STATION YORKTOWN, APRIL 18, 2008; LEED GREEN BUILDING RATING SYSTEM, 2009 v3; AND UNIFIED FACILITIES CRITERIA UFC 3-201-02 LANDSCAPE ARCHITECTURE.
7. PLACE TOPSOIL AND SOD IN ACCORDANCE WITH THE ENGINEERING AND LANDSCAPE PLANS AND SPECIFICATIONS; AND THE UFGS PERFORMANCE TECHNICAL SPECIFICATIONS, INCLUDING SECTION NUMBER 32 05 33 LANDSCAPE ESTABLISHMENT AND SECTION NUMBER 32 92 23 SODDING.
8. PLACE PLANT MATERIAL IN ACCORDANCE WITH THE LANDSCAPE PLANS; AND THE UFGS PERFORMANCE TECHNICAL SPECIFICATIONS, INCLUDING SECTION NUMBER 32 05 33 LANDSCAPE ESTABLISHMENT AND SECTION NUMBER 32 93 00 EXTERIOR PLANTS.
9. PROVIDE COMPLETE LANDSCAPING MAINTENANCE, INCLUDING ROUTINE MOWING, FOR ONE FULL GROWING SEASON AFTER COMPLETION OF PLANTING.
10. PROVIDE TREES AT THE MINIMUM SIZE INDICATED ON THE PLANT SCHEDULE, BALLED AND BURLAPPED, AND GROWN AT A NURSERY FROM WITHIN 150 MILES OF THE PROJECT SITE.
11. TAG LANDSCAPE MATERIALS DELIVERED TO THE SITE WITH A PLANT IDENTIFICATION TAG FROM THE NURSERY INDICATING SPECIES AND COMMON NAME. STORE IN A SHADED AREA AS DIRECTED BY THE CONTRACTING OFFICER AND HEEL IN WITH STRAW MULCH. COVER ROOT BALLS WITH UP TO 4 INCHES OF STRAW MULCH AND WATER DAILY UNTIL PLANTED.
12. STORE LANDSCAPING MATERIAL ON SITE FOR NO MORE THAN THREE WEEKS. REJECT MATERIALS STORED FOR MORE THAN THREE WEEKS.
13. MAINTAIN AND WARRANTY PLANT MATERIALS FOR ONE YEAR FROM THE TIME OF PROJECT ACCEPTANCE.
14. PLANT MATERIAL TO COMPLY WITH ANSI Z60.1 INCLUDING MINIMUM ROOT BALL SIZE, MINIMUM HEIGHT, AND MINIMUM STEMS FOR MULTI-STEM PLANTS.
15. PROVIDE SITE FURNISHINGS BY THE MANUFACTURERS SPECIFIED IN THE SCHEDULE OF SITE FURNISHINGS IN UFGS PERFORMANCE TECHNICAL SPECIFICATION SECTION NUMBER 12 93 00 SITE FURNISHINGS. PER RFP, ANCHOR SITE FURNISHINGS TO THE CONCRETE FOOTINGS BELOW.
16. FOR LIMIT OF CONSTRUCTION FOR P-984, REFERENCE SITE/CIVIL EROSION AND SEDIMENT CONTROL AND GRADING PLANS.
17. PER G205004: "AREAS INDICATED TO BE TURF SHALL BE SODDED. PROVIDE SOD AND FERTILIZE EXISTING GRASS AREAS DISTURBED BY CONTRACTOR OPERATIONS." FOR LIMIT OF CONSTRUCTION/LIMIT OF SOD FOR P-984, REFERENCE SITE/CIVIL EROSION AND SEDIMENT CONTROL AND GRADING PLANS.
18. FOR SUMMARY TABLE FOR QUANTITIES OF TREES PER RFP PART 3 G2050 (m), REFERENCE SHEET L-100.
19. PROVIDE ROOT CONTROL BARRIER FOR TREES WITHIN 8 FEET OF HARDSCAPE (SIDEWALK, CURB AND GUTTER, RETAINING WALL).

MASTER PLANT SCHEDULE									
SYMBOL	TOTAL QUANTITY	SHEET L-101	SHEET L-102	SHEET L-103	BOTANICAL NAME	COMMON NAME	SIZE	ROOT TYPE	COMMENTS
SHADE TREES WITHIN ATFP									
QR1	3		3		QUERCUS RUBRA	RED OAK	4" CAL.	B&B	
SHADE TREES									
AR	24	16		8	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	3" CAL.	B&B	
BN	11		8	3	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	3" CAL.	B&B	MULTI-STEM
QR	31	5	16	10	QUERCUS RUBRA	RED OAK	3" CAL.	B&B	
QS	9			9	QUERCUS SHUMARDII	SHUMARD OAK	3" CAL.	B&B	
FLOWERING TREES									
AA	28		20	8	AMELANCHIER ARBOREA 'SNOWCLOUD'	SNOWCLOUD SERVICEBERRY	8' HT.	B&B	MULTI-STEM
CC	18		3	15	CERCIS CANADENSIS	EASTERN REDBUD	2" CAL.	B&B	
EVERGREEN TREES									
IOK	1		1		ILEX OPACA 'JERSEY KNIGHT'	JERSEY KNIGHT AMERICAN HOLLY	10' HT.	B&B	
IOP	2		2		ILEX OPACA 'JERSEY PRINCESS'	JERSEY PRINCESS AMERICAN HOLLY	10' HT.	B&B	
JV	36		14	22	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	10' HT.	B&B	
SHRUBS									
IGC	15		15		ILEX GLABRA 'COMPACTA'	DWARF INKBERRY	3 Gal.	Cont.	6' O.C. TYP.
GROUNDCOVER AND ORNAMENTAL GRASSES									
JH	35			35	JUNIPERUS HORIZONTALIS 'WILTONI'	BLUE RUG JUNIPER	1 GAL.	CONT.	6' O.C. TYP.
LM	469			469	LIRIOPE SPICATA	CREEPING LILY TURF	1 GAL.	CONT.	18" O.C. TYP.
PA	364			364	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	1 GAL.	CONT.	12" O.C. TYP.

181.1 SY RIVER STONE
 291.0 SY MULCH
 729.8 LF STEEL EDGING
 469.7 SY WEED CONTROL FABRIC

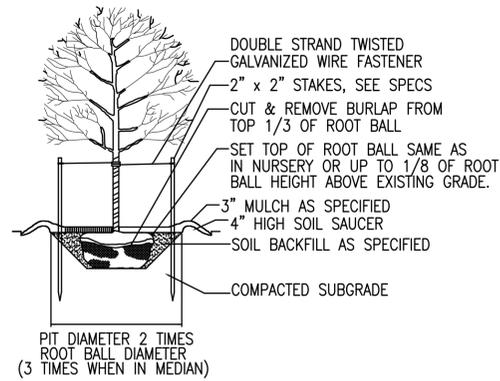


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ACTIVITY
SATISFACTORY TO DATE
DES: PB DRW: PB CHK: PB
PM: MMP
BRANCH MANAGER: BDB
CHEF ENG/ARCH: RLJ/CRB
FIRE PROTECTION: DAS

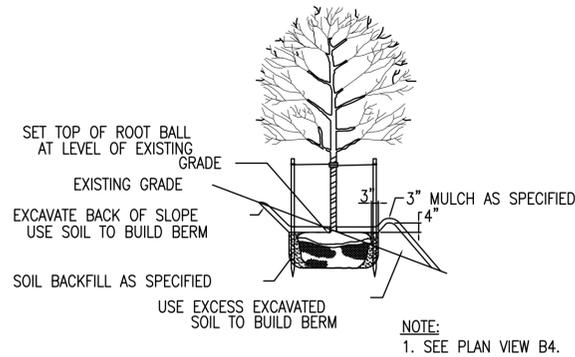
DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 NAVAL STATION - NORFOLK, VIRGINIA
 NAVAL WEAPONS STATION
 YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
 LANDSCAPE SCHEDULE AND NOTES

SCALE: AS NOTED
PROJECT NO: 1113911
CONSTR. CONTR. NO: N40085-08-D-9739
NAVFAC DRAWING NO: 12664369
SHEET 238 OF 573
L-501



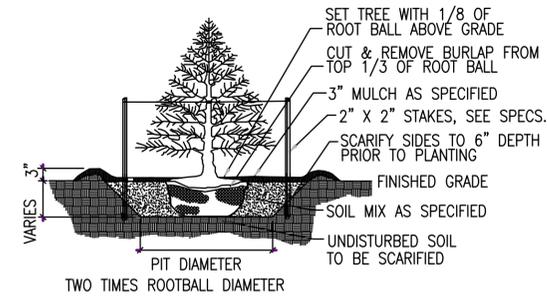
TYPICAL TREE PLANTING IN LAWN AREAS

SCALE: NTS GENERAL **D1**



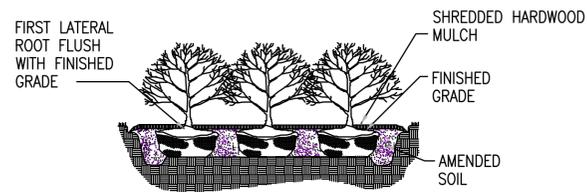
TYPICAL TREE PLANTING ON SLOPE

SCALE: NTS GENERAL **D3**



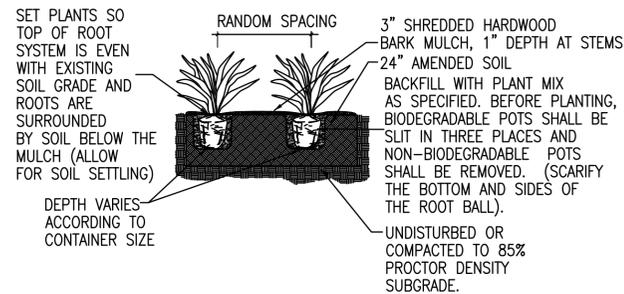
TYPICAL EVERGREEN TREE PLANTING

SCALE: NTS GENERAL **D4**



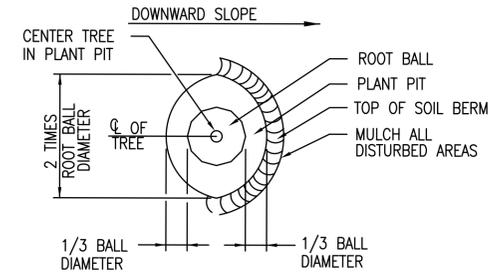
SHRUB PLANTING DETAIL

SCALE: NTS GENERAL **B1**



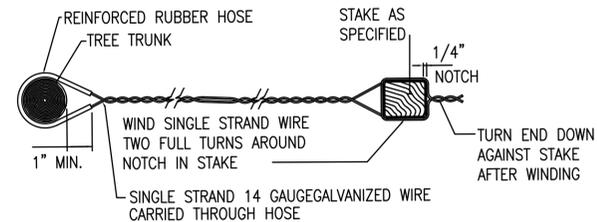
GROUNDCOVER/ORNAMENTAL GRASS PLANTING DETAIL

SCALE: NTS GENERAL **B3**



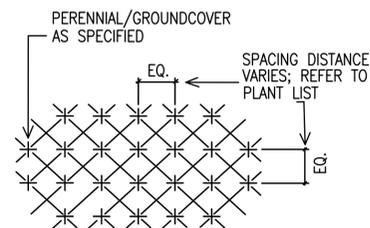
ELONGATED PLANT PIT FOR SLOPES - PLAN DETAIL

SCALE: NTS GENERAL **B4**



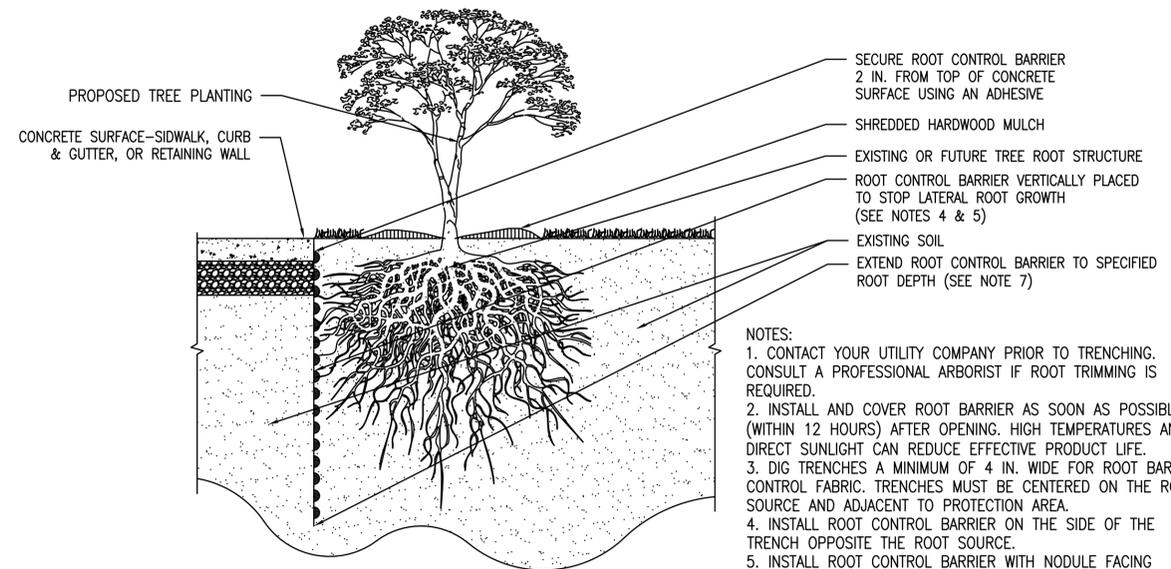
SINGLE STRAND GALVANIZED WIRE FASTENER

SCALE: NTS GENERAL **A1**



GROUNDCOVER/ORNAMENTAL GRASS SPACING

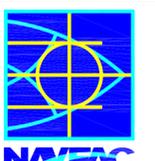
SCALE: NTS GENERAL **A3**



ROOT CONTROL BARRIER DETAIL

SCALE: NTS GENERAL **A4**

- NOTES:
- CONTACT YOUR UTILITY COMPANY PRIOR TO TRENCHING. CONSULT A PROFESSIONAL ARBORIST IF ROOT TRIMMING IS REQUIRED.
 - INSTALL AND COVER ROOT BARRIER AS SOON AS POSSIBLE (WITHIN 12 HOURS) AFTER OPENING. HIGH TEMPERATURES AND DIRECT SUNLIGHT CAN REDUCE EFFECTIVE PRODUCT LIFE.
 - DIG TRENCHES A MINIMUM OF 4 IN. WIDE FOR ROOT BARRIER CONTROL FABRIC. TRENCHES MUST BE CENTERED ON THE ROOT SOURCE AND ADJACENT TO PROTECTION AREA.
 - INSTALL ROOT CONTROL BARRIER ON THE SIDE OF THE TRENCH OPPOSITE THE ROOT SOURCE.
 - INSTALL ROOT CONTROL BARRIER WITH NODULE FACING TOWARD ROOT SOURCE.
 - FIXING PINS SHOULD PENETRATE BARRIER BETWEEN THE NODULES 1/4 IN. FROM TOP EDGE OF FABRIC AND AT A 45 DEGREE ANGLE TO THE TRENCH WALL.
 - ROOT CONTROL BARRIER SHALL BE 24 IN. DEPTH AT CURB & GUTTER, 39 IN. DEPTH AT RETAINING WALLS, AND 19.5 IN. DEPTH AT SIDEWALKS.



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FOR COMMANDER NAVFAC	
SATISFACTORY TO	DATE
DES: PB	DRW: PB
CHK: PB	
PM: MMP	
BRANCH MANAGER: BDB	
CHEF ENG/ARCH: RLJ/CRB	
FIRE PROTECTION: DAS	

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
 HAMPTON ROADS, VA
 NAVAL WEAPONS STATION
 YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
 LANDSCAPE PLANTING DETAILS

SCALE: AS NOTED
PROJECT NO: 1113911
CONSTR. CONTR. NO: N440085-08-D-9739
NAVFAC DRAWING NO: 12664370
SHEET 239 OF 573

L-502

1

2

3

4

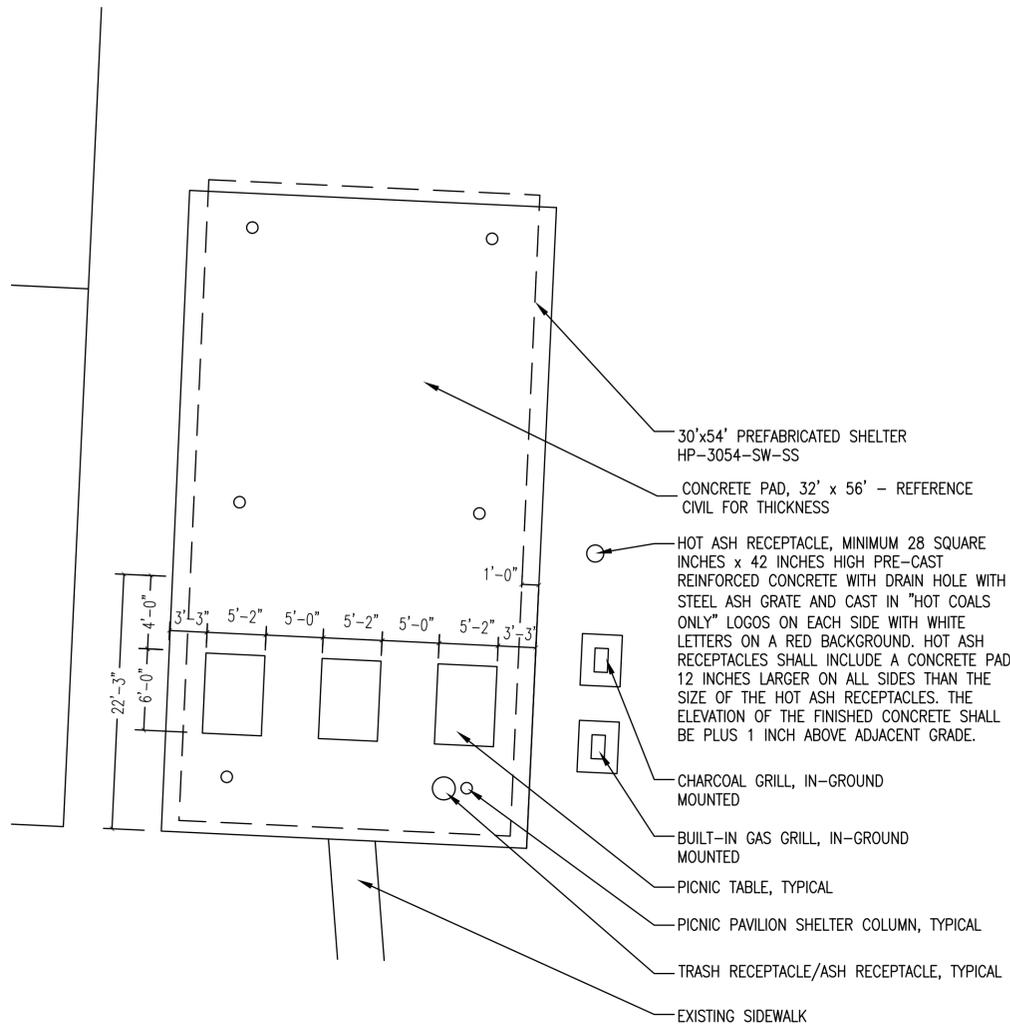
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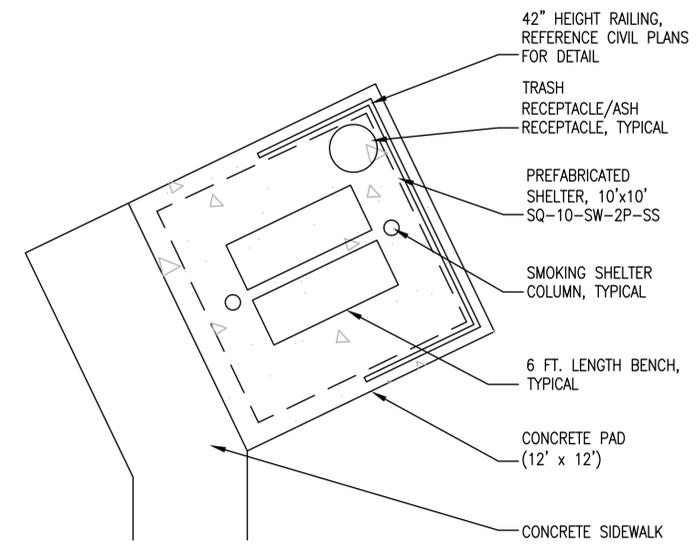
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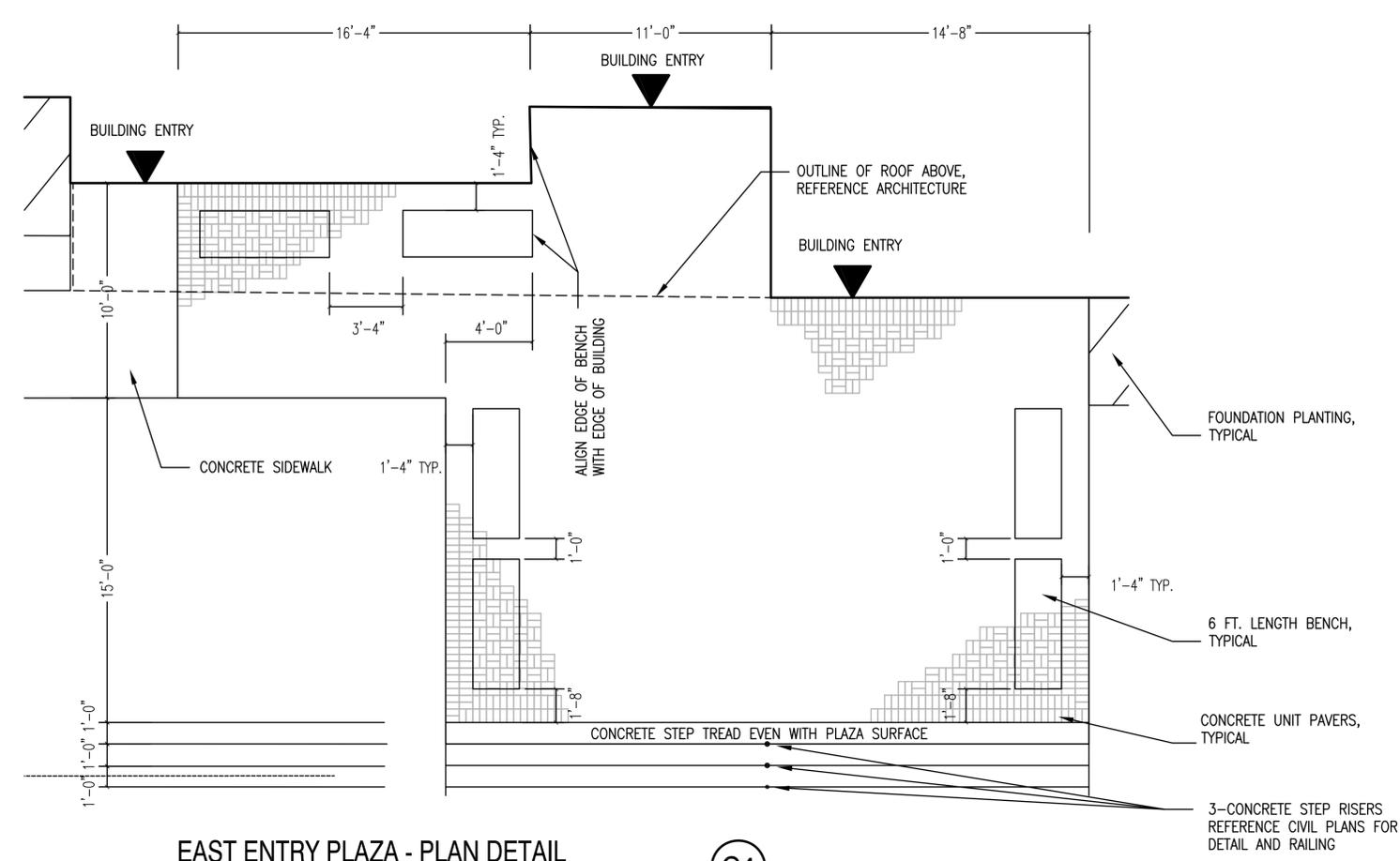
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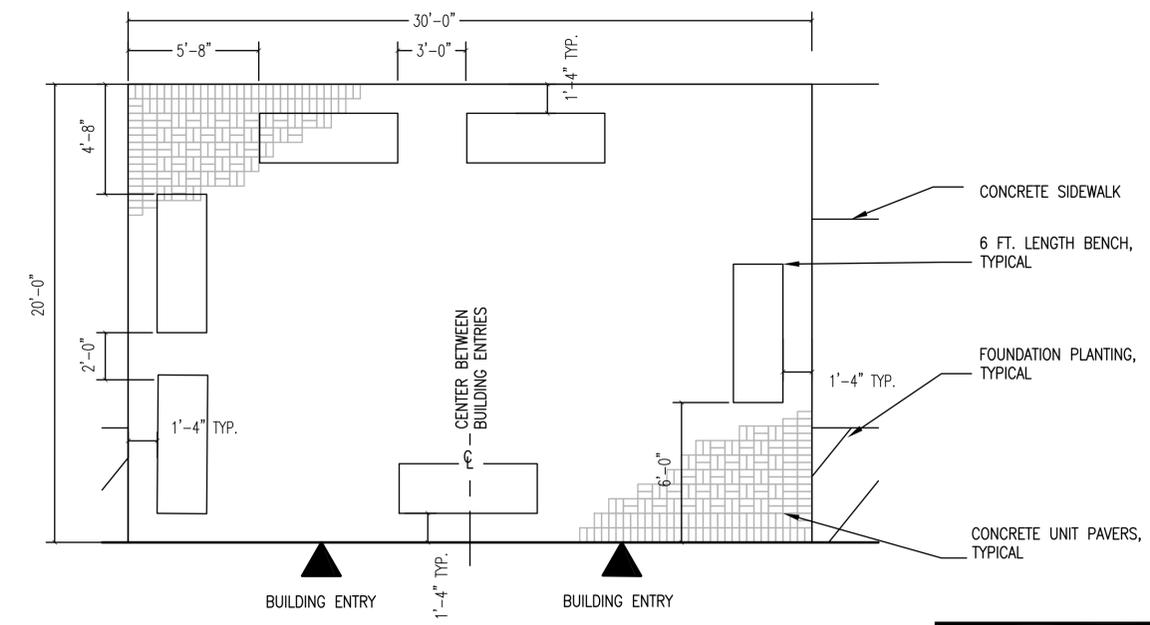
PICNIC PAVILION - PLAN DETAIL
SCALE: 1/8" = 1'-0"
L-102 (C1)



SMOKING SHELTER - PLAN DETAIL
SCALE: 1/4" = 1'-0"
L-102 (A1)



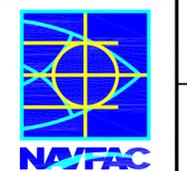
EAST ENTRY PLAZA - PLAN DETAIL
SCALE: 1/4" = 1'-0"
L-102 (C4)



WEST ENTRY PLAZA - PLAN DETAIL
SCALE: 1/4" = 1'-0"
L-102 (A4)

GRAPHIC SCALE	
SCALE: 1/8" = 1'-0"	0 4' 8' 16'
SCALE: 1/4" = 1'-0"	0 2' 4' 8'

SYMBOL	DESCRIPTION	DATE	APPROVED



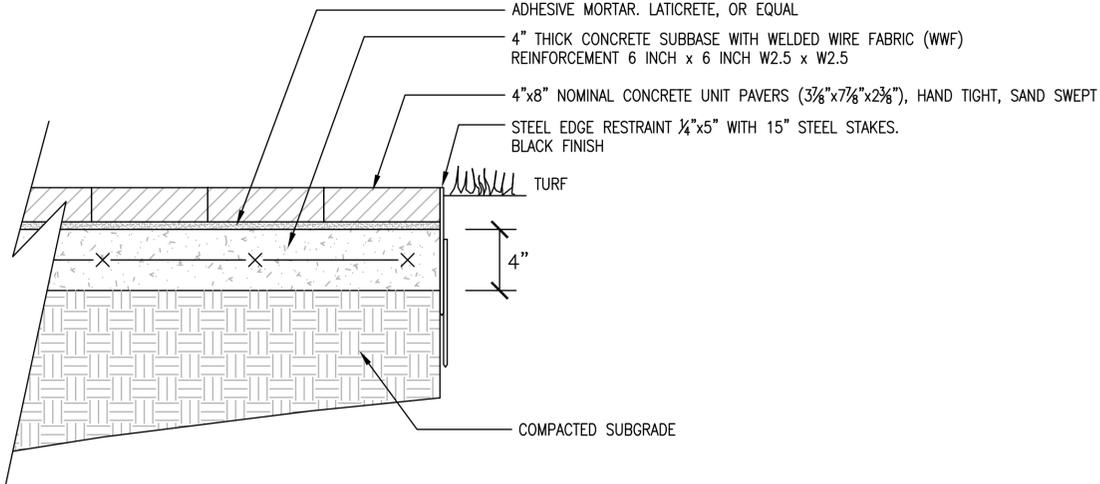
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FOR COMMANDER NAVFAC	ACTIVITY
SATISFACTORY TO	DATE
DES: PB	DRW: PB
CHK: PB	CHK: PB
PM: MMP	
BRANCH MANAGER: BDB	
CHIEF ENG/ARCH: RLJ/CRB	
FIRE PROTECTION: DAS	

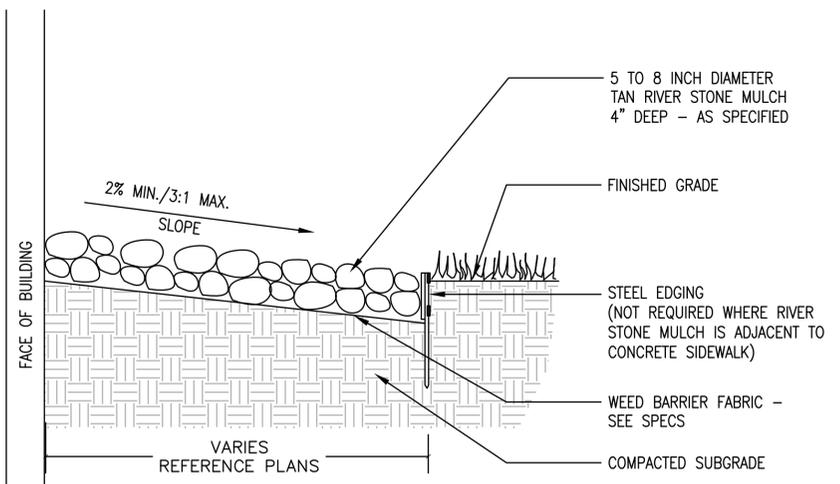
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
HAMPTON ROADS PFT
NAVAL STATION - NORFOLK, VIRGINIA
YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
LANDSCAPE DETAILS - BEQ

SCALE: AS NOTED	PROJECT NO: 1113911
CONSTR. CONTR. NO: N40085-08-D-9739	NAVFAC DRAWING NO: 12664371
SHEET 240 OF 573	L-503

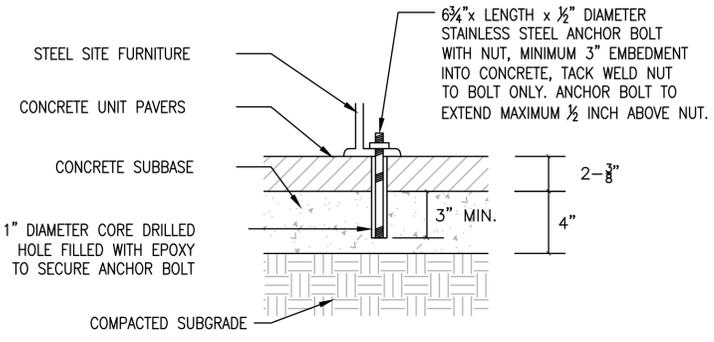
1 2 3 4 5



TYPICAL PLAZA PAVING SECTION
SCALE: NTS GENERAL **(D2)**

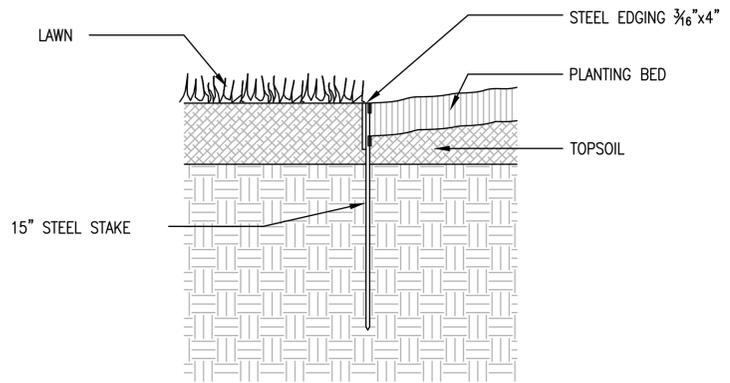


RIVER STONE MULCH
SCALE: NTS GENERAL **(D4)**

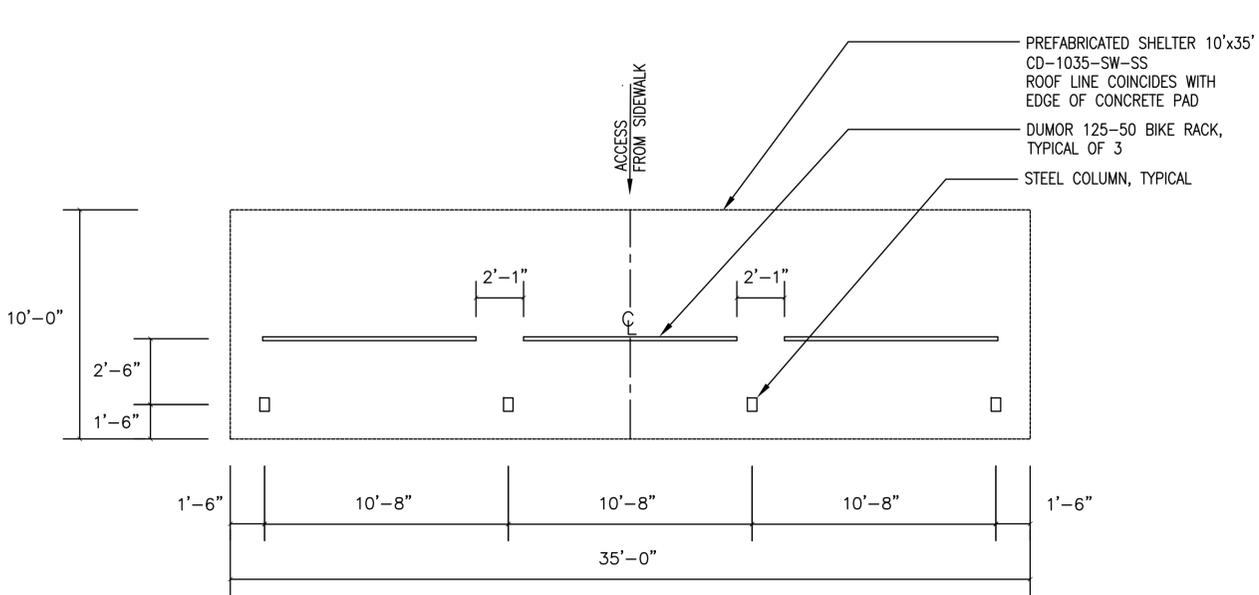


NOTES:
1. ANCHOR BOLTS SHALL NOT BE LOCATED AND INSTALLED UNTIL SITE FURNITURE IS IN PLACE. ANCHOR BOLT EMBEDMENT INTO CONCRETE SHALL BE MINIMUM 3".
2. PROVIDE A SHOP DRAWING FOR EACH SPECIFIED SITE FURNITURE ITEM INCLUDING ANCHORING DETAIL FOR REVIEW AND APPROVAL BY THE CONTRACTING OFFICER.

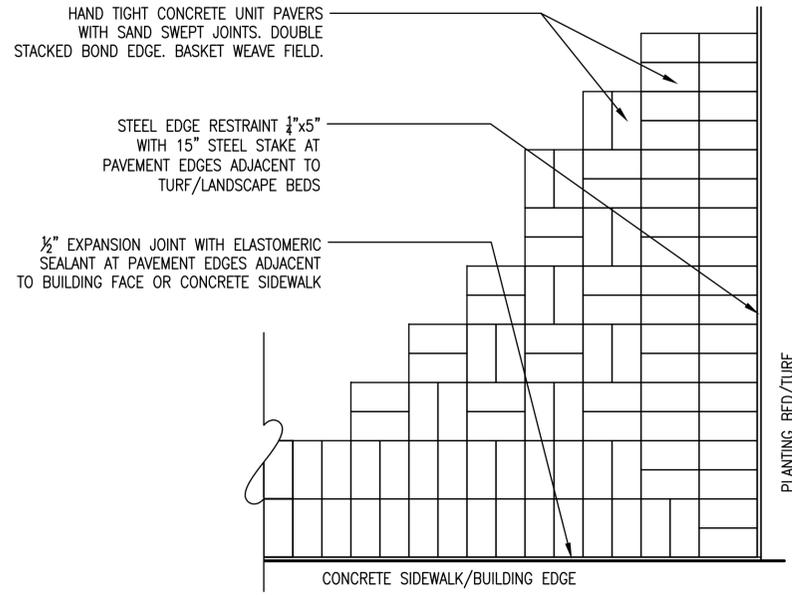
TYPICAL STEEL SITE FURNITURE DETAIL ON PAVER SURFACE
SCALE: 1/4" = 1'-0" GENERAL **(C2)**



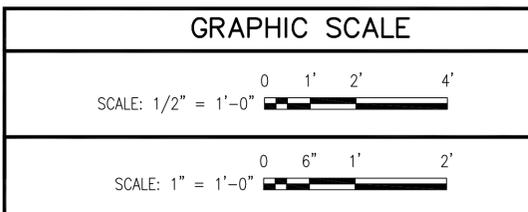
STEEL EDGING DETAIL FOR PLANTING BED
SCALE: NTS GENERAL **(C4)**

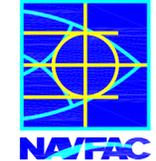


COVERED BICYCLE RACK - PLAN DETAIL
SCALE: NTS L-102 **(A2)**



TYPICAL PAVING PATTERN - PLAN DETAIL
SCALE: NTS GENERAL **(A4)**



APPR						
DATE						
DESCRIPTION						
SYM						
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ACTIVITY						
SATISFACTORY TO	DATE					
DES	PB	DRW	PB	CHK	PB	
PM					MMP	
BRANCH MANAGER					BDB	
CHIEF ENG/ARCH					RLJ/CRB	
FIRE PROTECTION					DAS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC NAVAL STATION - NORFOLK, VIRGINIA YORKTOWN, VIRGINIA P-985 BACHELOR ENLISTED QUARTERS NAVAL WEAPONS STATION LANDSCAPE DETAILS - BEQ						
SCALE	AS NOTED					
PROJECT NO.	1113911					
CONSTR. CONTR. NO.	N440085-08-D-9739					
NAVFAC DRAWING NO.	12664372					
SHEET	241	OF	573			
L-504						
DRAWING REVISION: 6 AUG 2007						

6/25/2014 2:27 pm

EXISTING CONDITIONS LEGEND

TOP OF CURB OR CONCRETE (TC) ELEVATION	$\frac{TC\ 66.26}{65.77}$
ELEVATION OF GUTTER, PAVEMENT OR GROUND	+66.43
SPOT ELEVATION	+TW66.77
TOP OF WALL (TW) ELEVATION	
BITUMINOUS PAVEMENT	
BOLLARD	
BUILDING (BLDG.)	
BUSH	
CENTERLINE DITCH/SWALE	
CONCRETE (CONC.)	CONC.
CONCRETE (CONC.) PAD W/ AIR CONDITIONING UNIT	A/C
CONCRETE (CONC.) PAD W/TRANSFORMER	T
CONTOUR	
CURB	
CURB AND GUTTER	
EDGE OF WOODS	
GRAVEL	GRAVEL
SIGN	
TOE OF SLOPE (T.O.S.)	T.O.S.
TOP OF BANK (T.O.B.)	T.O.B.
TREE	
GAS MAIN	2" E. GAS
OVERHEAD (OH.) LINE	E. OH. LINE
SANITARY (SAN.) SEWER	8" E. SAN.
STORM (S.) SEWER	12" E. S.
UNDERGROUND (UG.) ELECTRIC (ELEC.)	E. UG. ELEC.
UNDERGROUND (UG.) FIBER OPTIC (F.O.)	E. UG. F.O.
WATER (W.) MAIN	8" E. W.
CATCH BASIN (C.B.)	E. C.B.
CLEAN OUT (C.O.)	C.O.
CONDUIT (COND.)	COND.
FIRE HYDRANT (F.H.)	
FLARED END SECTION (F.E.S.)	
GUY WIRE	
HEADWALL (HDWL.)	
LIGHT POLE IN CONCRETE	
MANHOLE (MH.)	E. MH.
METAL LIGHT POLE	
TELEPHONE (TEL.) PEDESTAL (PED.)	TEL. PED.
UTILITY POLE	

UTILITY POLE W/ LIGHT	
WATER METER (W.M.)	W.M.
WATER VALVE (W.V.)	W.V.
INVERT	INV.
METAL	MTL.
STRUCTURE	STRUC.
TYPICAL	TYP.
WITH	W/

NEW WORK LEGEND

HEAVY DUTY ASPHALT		TREE LINE	
CONCRETE		CATCH BASIN	T-DI-1
POROUS PAVEMENT			DI-1
BMP		STORM SEWER	
AGGREGATE		SANITARY MANHOLE	S
ISLAND STRIPING		CLEANOUT	CO
SECURITY FENCE		SANITARY SEWER	SAN
SPOT ELEVATION	12.00	WATER LINE	W
CONTOUR	12	FIRE HYDRANT	FH
MATCH GRADE	MG	WATER VALVE	
UNDERDRAIN		WATER METER	
		AREA OF DEMOLITION	
		INDIVIDUAL ITEMS TO BE DEMOLISHED/REMOVED	X
		WOOD FENCE	

NEW WORK ABBREVIATIONS

BMP	BEST MANAGEMENT PRACTICE	MIN	MINIMUM
DI	DRAINAGE INLET	MG	MATCH GRADE
DIA	DIAMETER	N	NORTHING
DR	DRIVE	PAM	POROUS ASPHALT MIX
E	EASTING	PNT	POINT
ECP	ELLIPTICAL CONCRETE PIPE	R	RADIUS
EL	ELEVATION	RCP	REINFORCED CONCRETE PIPE
FFE	FINISH FLOOR ELEVATION	RD	ROAD
FT	FEET	S	SLOPE
INV	INVERT	SWM	STORM WATER MANAGEMENT
LF	LINEAR FEET	TBM	TEMPORARY BENCH MARK
MECH	MECHANICAL	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
MH	MANHOLE	XFMR	TRANSFORMER

GENERAL NOTES

- LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON PLANS ARE BASED ON EXISTING ABOVE GROUND UTILITY STRUCTURES (I.E. VALVES, MANHOLES, ETC.) AND AVAILABLE BASE MAPS AND PLANS.
- PRIOR TO CONSTRUCTION CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES.
- UNLESS OTHERWISE INDICATED, EXISTING STRUCTURES AND FACILITIES WILL REMAIN.
- ALL DIMENSION ARE TO FACE OF BUILDING AND FACE CURB UNLESS OTHERWISE INDICATED.
- PROVIDE TOPSOIL, SEED AND FERTILIZER TO DISTURBED NON-PAVED AREAS WITHIN THE LIMITS OF CONSTRUCTION, COORDINATE WITH LANDSCAPE PLAN.
- NO EARTHWORK SHALL BE PERFORMED UNTIL SOIL EROSION AND TREE PROTECTION DEVICES ARE IN-PLACE.
- GRADE TRANSITIONS BETWEEN NEW AND EXISTING SHALL BE SMOOTH AND GRADUAL WITH NO SHARP OR ABRUPT CHANGES.
- COORDINATE WORK OF TRADES - VERIFY FIELD CONDITIONS, QUANTITIES AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. DISCREPANCIES SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
- EXECUTE WORK WITH CARE TO PROTECT FROM DAMAGE ADJACENT EXISTING FEATURES TO REMAIN. SUCH DAMAGE SHALL BE REPAIRED OR REPLACED TO MATCH THE ORIGINAL CONDITION AS APPROVED BY THE CONTRACTING OFFICER AT NO ADDITIONAL COST TO THE GOVERNMENT.
- UNLESS REFERRED TO AS "EXISTING", WORK SHOWN ON THESE DRAWINGS SHALL BE CONSIDERED AS NEW AND PROVIDED UNDER THIS CONTRACT.
- FINISHED GRADE OF TOP SOIL (AFTER COMPACTION) SHALL BE 1/2" TO 1" (MAXIMUM) BELOW TOP OF ABUTTING PAVEMENTS, SIDEWALKS AND CURBING.

SEQUENCE OF CONSTRUCTION

- CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE AND ESTABLISH PERIMETER PROTECTION & MAINTAIN THROUGHOUT CONSTRUCTION. ANY AND ALL MATERIAL OR DEBRIS TRACKED ONTO PUBLIC OR PRIVATE ROAD WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING & BE TRANSPORTED TO A SEDIMENT CONTROLLED DISPOSAL AREA.
- INSTALL INLET PROTECTION AROUND EXISTING DRAINAGE STRUCTURES, AND MAINTAIN THROUGHOUT CONSTRUCTION. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY DEMOLITION.
- DEMOLITION AND EXCAVATION MAY TAKE PLACE AT WHICH TIME ALL WORK DESCRIBED IN NOTES 1 THRU 3 IS COMPLETE. ALL ITEMS NOTED TO BE DEMOLISHED ON THE PLANS AS WELL AS ROUGH GRADING MAY BEGIN.
- EXCAVATE AND INSTALL BUILDING FOOTINGS.
- INSTALL UNDERGROUND UTILITIES AND STORM DRAINAGE AND PROVIDE SEDIMENT TRAPS OR OTHER APPROVED PROTECTION AT NEW DRAINAGE STRUCTURES.
- INSTALL CURB & GUTTER. ALL PAVING OPERATIONS MAY BEGIN AT THIS TIME.
- DRESS & OVER SEED ALL DISTURBED AREAS AND IMMEDIATELY ESTABLISH PERMANENT VEGETATIVE COVER. MAINTAIN VEGETATIVE COVER THROUGHOUT DURATION OF PROJECT.
- MAINTAIN INLET AND OUTLET PROTECTION AT STORM WATER STRUCTURES.
- INSTALLATION OF INFILTRATION BASINS TO DESIGN ELEVATIONS SHALL BE COMPLETED.
- REPAIR ANY INADVERTENT EROSION AND REMOVE ANY INADVERTENT SEDIMENTATION.
- REMOVE ALL REMAINING TEMPORARY SEDIMENT & EROSION CONTROL MEASURES WITHIN THIRTY DAYS AFTER FINAL SITE IS STABILIZED WITH VEGETATIVE CROPS
- REMOVE ALL TEMPORARY EQUIPMENT, CONSTRUCTION MATERIALS AND DEBRIS FROM THE SITE.

EROSION AND SEDIMENT CONTROL NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA EROSION CONTROL REGULATIONS (4VAC50-30).
- THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION. THE NAME OF THE RESPONSIBLE LAND DISTURBER MUST BE PROVIDED TO THE PLAN APPROVING AUTHORITY PRIOR TO ACTUAL ENGAGEMENT IN LAND DISTURBING ACTIVITY SHOWN ON THE APPROVED SITE PLAN. IF THE NAME IS NOT PROVIDED PRIOR TO ENGAGING IN THE LAND DISTURBING ACTIVITY, THE PLAN'S APPROVAL WILL BE REVOKED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STAGE OF CONSTRUCTION.
- STABILIZATION MEASURES MUST BE APPLIED TO ALL EARTHEN STRUCTURES (TEMPORARY DIVERSION DIKES, TEMPORARY SEDIMENT TRAPS AND TEMPORARY SEDIMENT BASINS) IMMEDIATELY AFTER INSTALLATION.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE MAINTAINED ON SITE AT ALL TIMES.
- PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE DCR STORMWATER COMPLIANCE SPECIALIST FOR REVIEW AND APPROVAL.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED, AFTER WHICH, UPON DCR APPROVAL, THE CONTROLS SHALL BE REMOVED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST EVERY 2 WEEKS AND IMMEDIATELY AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. THE RESPONSIBLE LAND DISTURBER ASSOCIATED WITH THIS PROJECT SHALL MAINTAIN WRITTEN MONITORING REPORTS ON-SITE AND PROVIDE TO THE DCR STORMWATER COMPLIANCE SPECIALIST UPON REQUEST.
- A VIRGINIA STORMWATER MANAGEMENT PERMIT (VSMP) FOR THE DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES IS REQUIRED FOR THE PROPOSED PROJECT AS THE DISTURBANCE IS GREATER THAN 1 ACRE. A VSMP IS ALSO REQUIRED FOR PROJECTS DISTURBING 2,500 SQUARE FEET OR GREATER IN A DESIGNATED CHESAPEAKE BAY PRESERVATION AREA. VISIT THE VIRGINIA STORMWATER MANAGEMENT <http://www.dcr.virginia.gov/soil_water/vsmp.shtml> FOR MORE PROGRAM PERMITTING WEB PAGE AT INFORMATION.

PERMANENT STABILIZATION NOTE

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDED. THE PERMANENT SEED SHALL BE IN ACCORDANCE WITH SPECIFICATIONS. THOROUGHLY TILL THE SOIL TO A DEPTH OF AT LEAST 4 INCHES BY SCARIFYING, DISKING, HARROWING, OR OTHER APPROVED METHODS. THIS IS PARTICULARLY IMPORTANT IN AREAS WHERE HEAVY EQUIPMENT HAS BEEN USED, AND ESPECIALLY UNDER WET SOIL CONDITIONS. REMOVE ALL DEBRIS AND STONES LARGER THAN ONE INCH REMAINING ON THE SURFACE AFTER TILLAGE IN PREPARATION FOR FINISH GRADING. TO MINIMIZE EROSION, DO NOT TILL AREAS OF 3:1 SLOPE RATIO OR GREATER. SCARIFY THESE AREAS TO A ONE INCH DEPTH AND REMOVE DEBRIS AND STONES.

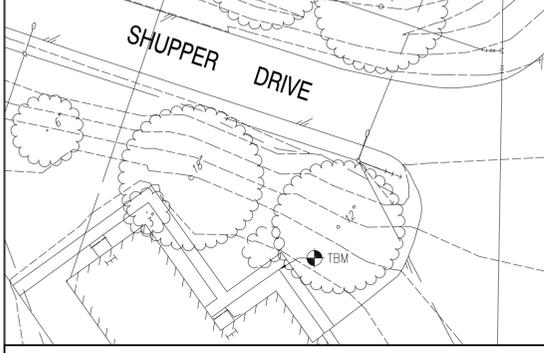
TEMPORARY /PERMANENT SEED MUCHLING

MULCH SHALL BE FREE FROM DELETERIOUS MATERIALS AND SHALL BE STORED AS TO PREVENT INCLUSION OF FOREIGN MATERIAL. ORGANIC MULCH MATERIALS SHALL BE WOOD CHIPS GROUND OR SHREDDED BARK SHREDDED HARDWOOD PINE NEEDLES. STRAW FOR LAWN SEED BED MULCH SHALL BE STALKS FROM OATS, WHEAT, RYE, BARLEY, OR RICE THAT ARE FREE FROM NOXIOUS WEEDS, MOLD OR OTHER OBJECTIONABLE MATERIAL. STRAW SHALL BE IN AN AIR-DRY CONDITION AND SUITABLE FOR PLACING WITH BLOWER EQUIPMENT. WHEN HYDRAULICALLY SPRAYED ON THE GROUND, THE MATERIAL WILL FORM A BLOTTER LIKE COVER IMPREGNATED UNIFORMLY WITH GRASS SEED. THE COVER WILL ALLOW THE ABSORPTION OF MOISTURE AND ALLOW RAINFALL OR APPLIED WATER TO PERCOLATE TO THE UNDERLYING SOIL.

SURVEY NOTES

- TOPOGRAPHIC SURVEY PREPARED BY C. ALLAN BAMFORTH, JR., ENGINEER-SURVEYOR LTD., DATED AUGUST 2012.
- THE EXISTENCE, SIZE AND/OR LOCATION OF UTILITIES ARE NOT GUARANTEED BY THIS SURVEY. UTILITIES SHOWN ARE BASED ON ABOVE GROUND STRUCTURES AND AVAILABLE UTILITY PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES.
- ELEVATIONS ARE IN FEET AND REFER TO NORTH AMERICAN VERTICAL DATUM (NAVD) 1988 AND ARE BASED ON NGS CONTROL STATION T454.
- COORDINATES SHOWN REFER TO VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD 1983/93) AND WERE ESTABLISHED FROM NGS CONTROL UTILIZING GPS. VALUES ARE IN US SURVEY FEET.
- TEMPORARY BENCHMARK (TBM) IS A "□" CUT IN CONCRETE SIDEWALK, AS INDICATED ON THIS SHEET. ELEV. = 71.19.

TBM



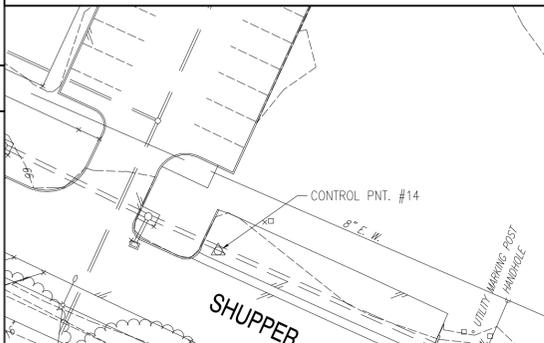
SURVEY CONTROL POINT:

CONTROL POINT 5
P/K NAIL
NORTHING = 3,608,209.50
EASTING = 12,041,088.20
ELEV. = 57.41



SURVEY CONTROL POINT:

CONTROL POINT 14
P/K NAIL
NORTHING = 3,607,929.01
EASTING = 12,040,356.68
ELEV. = 65.90



APPROVED	DATE	APPR
FOR COMMANDER NAVFAC		
ACTIVITY		
LT. TREVOR BINGHAM		
SATISFACTORY TO DATE	4/19/13	
DCS	RWP	DRW
DM	RWP	CHK
BRANCH MANAGER		BUL
CHIEF ENG/ARCH		CWR
FIRE PROTECTION		
NAVAL FACILITIES ENGINEERING COMMAND		
NAVAL FACILITIES ENGINEERING COMMAND MID-ATLANTIC		
NAVAL STATION NORFOLK, NORFOLK, VIRGINIA		
YORKTOWN, VIRGINIA		
U.S. NAVAL WEAPONS STATION YORKTOWN		
MCSFR CONSOLIDATION		
P-989 ARMORY		
NOTES AND LEGEND		
SCALE	AS NOTED	
PROJECT NO.	1113914	
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO.	12646145	
SHEET	14	OF 114
C-001		
DRAWING REVISION: 10 MARCH 2009		

DEMOLITION NOTES

- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL COMPLY WITH ALL CITY, STATE AND FEDERAL REGULATIONS. UNLESS OTHERWISE INDICATED ON THESE PLANS, DEMOLISHED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR AND MAY NOT BE REUSED UNLESS APPROVED BY THE CONTRACTING OFFICER.
- THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITIES. UTILITIES SHOWN ARE BASED UPON AVAILABLE RECORDS. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC AND PRIVATE) THAT MAY EXIST OR CROSS THE AREA OF DEMOLITION AND ARE NOT SHOWN ON THESE PLANS.
- WHERE PAVEMENT, SIDEWALK OR CURB AND GUTTER ARE INDICATED TO BE REMOVED, CONTRACTOR SHALL REMOVE BASE MATERIAL DOWN TO THE SUBGRADE.
- ANY REMOVAL OF EXISTING FENCE SHALL INCLUDE REMOVAL OF CONCRETE FENCE POST FOOTINGS.
- ALL PAVEMENT, SIDEWALK, CURB AND GUTTER DESIGNATED TO BE REMOVED SHALL BE SAW CUT NEATLY OR REMOVED TO THE NEAREST JOINT.
- LIMITS OF DEMOLITION SHOWN ARE FOR INTENT ONLY. ADDITIONAL DEMOLITION REQUIRED BEYOND WHAT IS SHOWN SHALL BE THE CONTRACTORS RESPONSIBILITY.
- SEE ELECTRICAL PLANS FOR DEMOLITION OF ELECTRICAL AND TELECOMMUNICATION ITEMS.

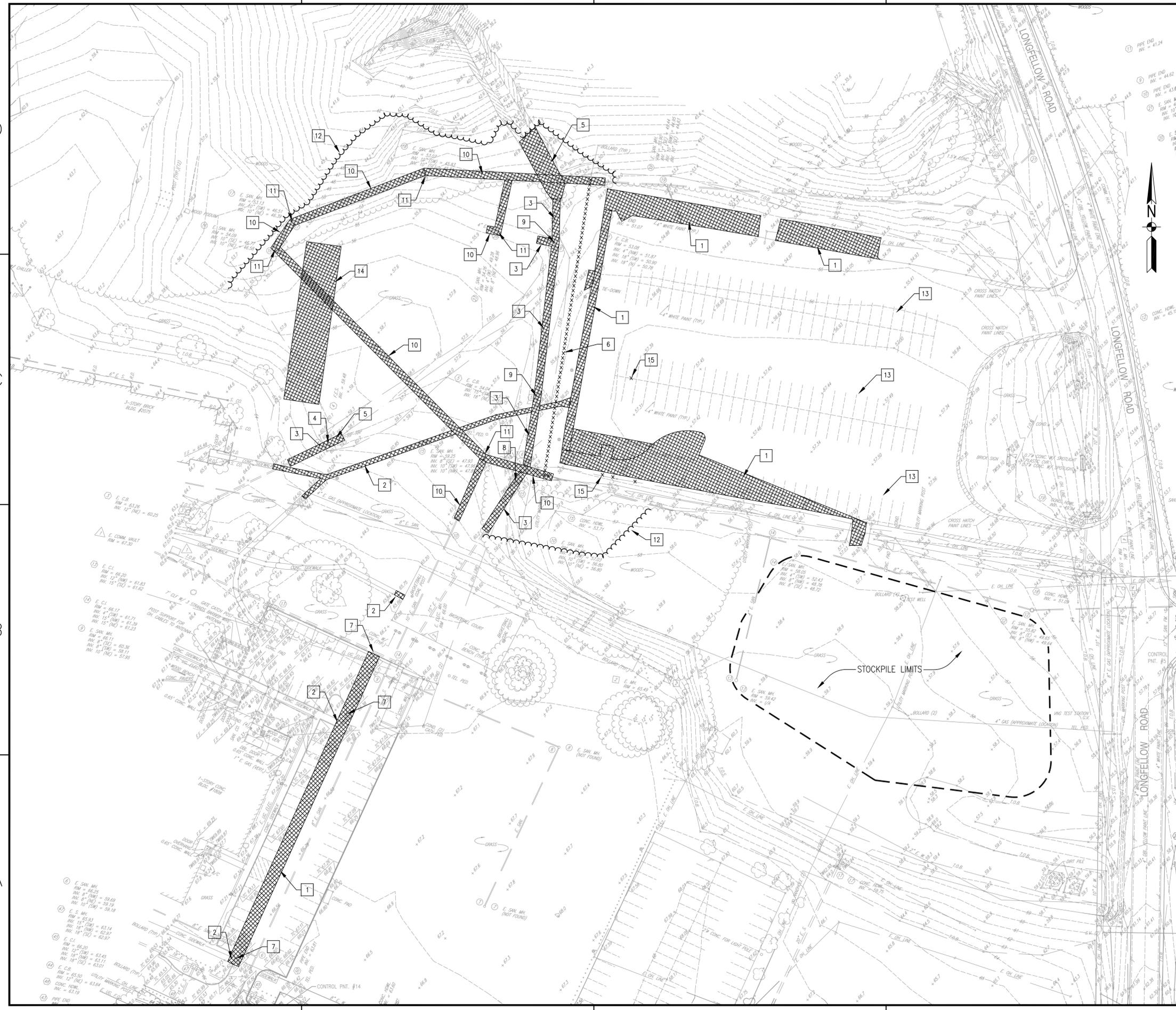
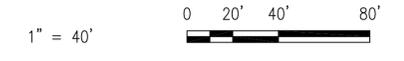
STOCKPILE NOTES

- THE CONTRACTOR MAY PLACE EXCESS SOIL EXCAVATED FROM THE P-986, P-987, AND P-989 PROJECTS WITHIN THE STOCKPILE LIMITS SHOWN ON THIS SHEET. SAID EXCESS SOIL SHALL NOT EXCEED 10,000 CUBIC YARDS TOTAL FROM THE P-986, P-987, AND P-989 PROJECTS COMBINED. SAID EXCESS SOIL SHALL MEET CERTAIN SPECIFICATIONS. THE CONTRACTOR SHALL COMPLETE ALL CONTRIBUTIONS TO THE STOCKPILE NO LATER THAN JUNE 30, 2014.
- CERTAIN SERVICES WITH REGARD TO THE STOCKPILE WILL BE PROVIDED BY OTHERS (THE P-984 CONTRACTOR) AS DESCRIBED HEREIN. THE P-984 CONTRACTOR SHALL PROVIDE THE FOLLOWING SERVICES WITH REGARD TO SAID STOCKPILE.
 - DESIGN AND INSTALL ALL NECESSARY EROSION AND SEDIMENT CONTROL FOR THE STOCKPILE AREA AND ENTRANCE THERETO.
 - MAINTAIN EROSION AND SEDIMENT CONTROL FOR THE DURATION OF CONSTRUCTION.
 - INCORPORATE THE STOCKPILED SOIL INTO THE GRADING OF THE AREA BOUNDED BY SHUPPER DRIVE, LONGFELLOW ROAD, THE P-985 BEQ SITE, AND THE EXISTING PARKING

DEMOLITION KEY NOTES

- | | |
|-------------------------------|----------------------------------------------------------------------------------------------------------------|
| 1 SAWCUT AND REMOVE PAVEMENT | 9 REMOVE STORM INLET |
| 2 REMOVE SIDEWALK | 10 REMOVE SANITARY SEWER LINE |
| 3 REMOVE STORM PIPE | 11 REMOVE SANITARY MANHOLE |
| 4 REMOVE CONCRETE END SECTION | 12 CLEARING LIMITS |
| 5 REMOVE RIP-RAP | 13 PAINT ALL OF THE EXISTING PARKING STRIPES AND MARKINGS WITH BLACK PAINT WITHIN PARKING LOT TO BE RESTRIPTED |
| 6 REMOVE BOLLARDS | 14 REMOVE TENNIS COURT ASPHALT BELOW EXISTING GRADE |
| 7 REMOVE CONCRETE CURB | 15 REMOVE SIGNS |
| 8 REMOVE CONCRETE HEADWALL | |

GRAPHIC SCALE



APPR	
DATE	
DESCRIPTION	
SYMBOL	
SCALE	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	LT. TREVOR BINGHAM
SATISFACTORY TO DATE	4/19/13
DRAWN BY	RWP
CHECKED BY	RWP
IN CHARGE	BUL
BRANCH MANAGER	CWR
CHIEF ENGINEER/ARCHITECT	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND MID-ATLANTIC	NAVAL STATION NORFOLK, NORFOLK, VIRGINIA
U.S. NAVAL WEAPONS STATION YORKTOWN	YORKTOWN, VIRGINIA
MCSFR CONSOLIDATION P-989 ARMORY	
EXISTING CONDITIONS AND DEMOLITION PLAN	
SCALE	AS NOTED
PROJECT NO.	1113914
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12646146
SHEET	15 OF 114
CD101	
DRAWING REVISION: 10 MARCH 2009	

FILE NAME: D:\Documents and Settings\valent.w.pricer\Desktop\P-989 ARMORY P989_111391_CD_101.dwg LAYOUT NAME: CD-101 PLOTTED: Wednesday, May 01, 2013 - 2:50pm USER: robert.w.pricer