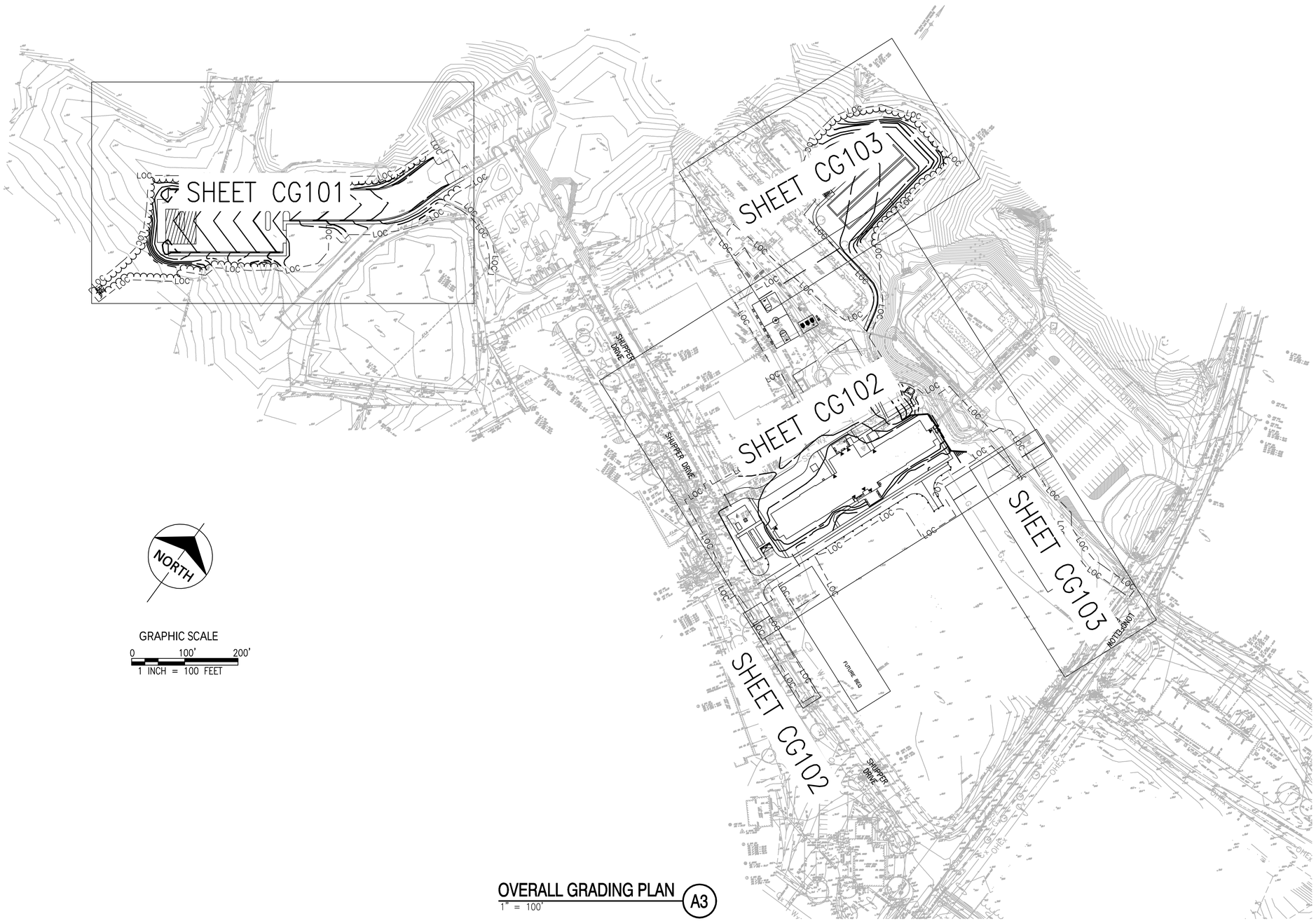

OVERALL GRADING PLAN (A3)

1" = 100'

NO.	DESCRIPTION	DATE	APPR.

NAVFAC

COMMONWEALTH OF VIRGINIA
JON-MICHAEL C. LEMON
Lic. No. 041993
05/23/2014
PROFESSIONAL ENGINEER
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23452
Phone: 757.466.1732
Fax: 757.466.1493
AE LOGO

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		

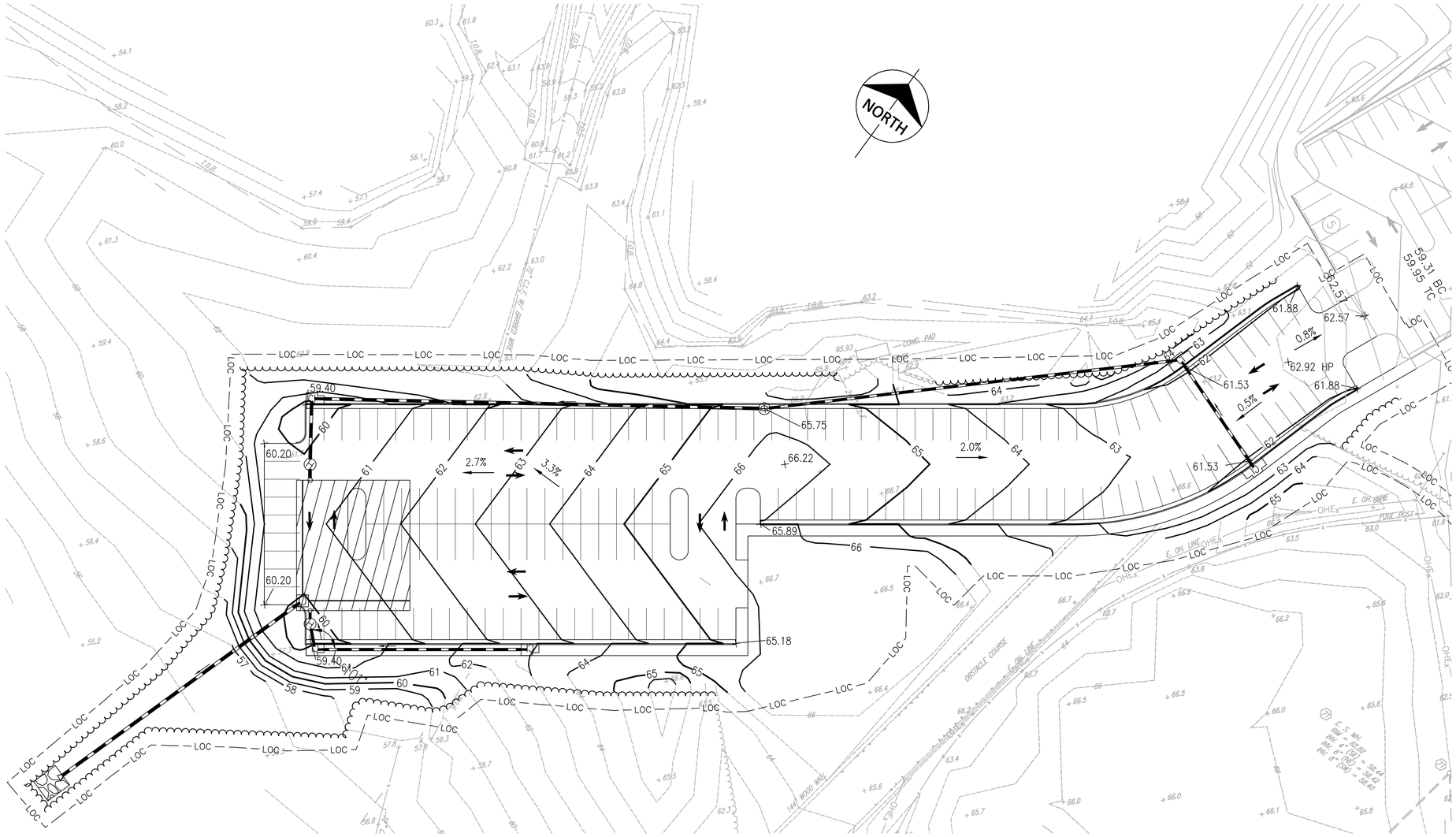
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

OVERALL GRADING PLAN

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664322
SHEET OF
CG100

DRAWFORM REVISION: 6 AUG 2007



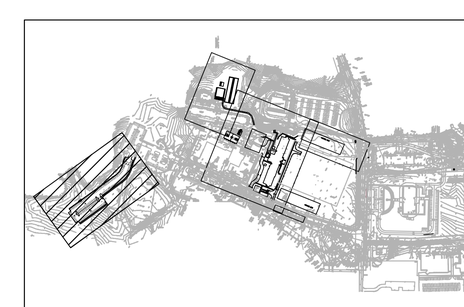
GRADING PLAN - PARKING (A3)

1" = 30'

GRAPHIC SCALE

0 30' 60'

1 INCH = 30 FEET



SYM	DESCRIPTION	DATE	APPR

NAVFAC

COMMONWEALTH OF VIRGINIA
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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
HAMPTON ROADS IPT

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

NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

GRADING PLAN – PARKING

SCALE: AS NOTED

EPROJECT NO. 1113911

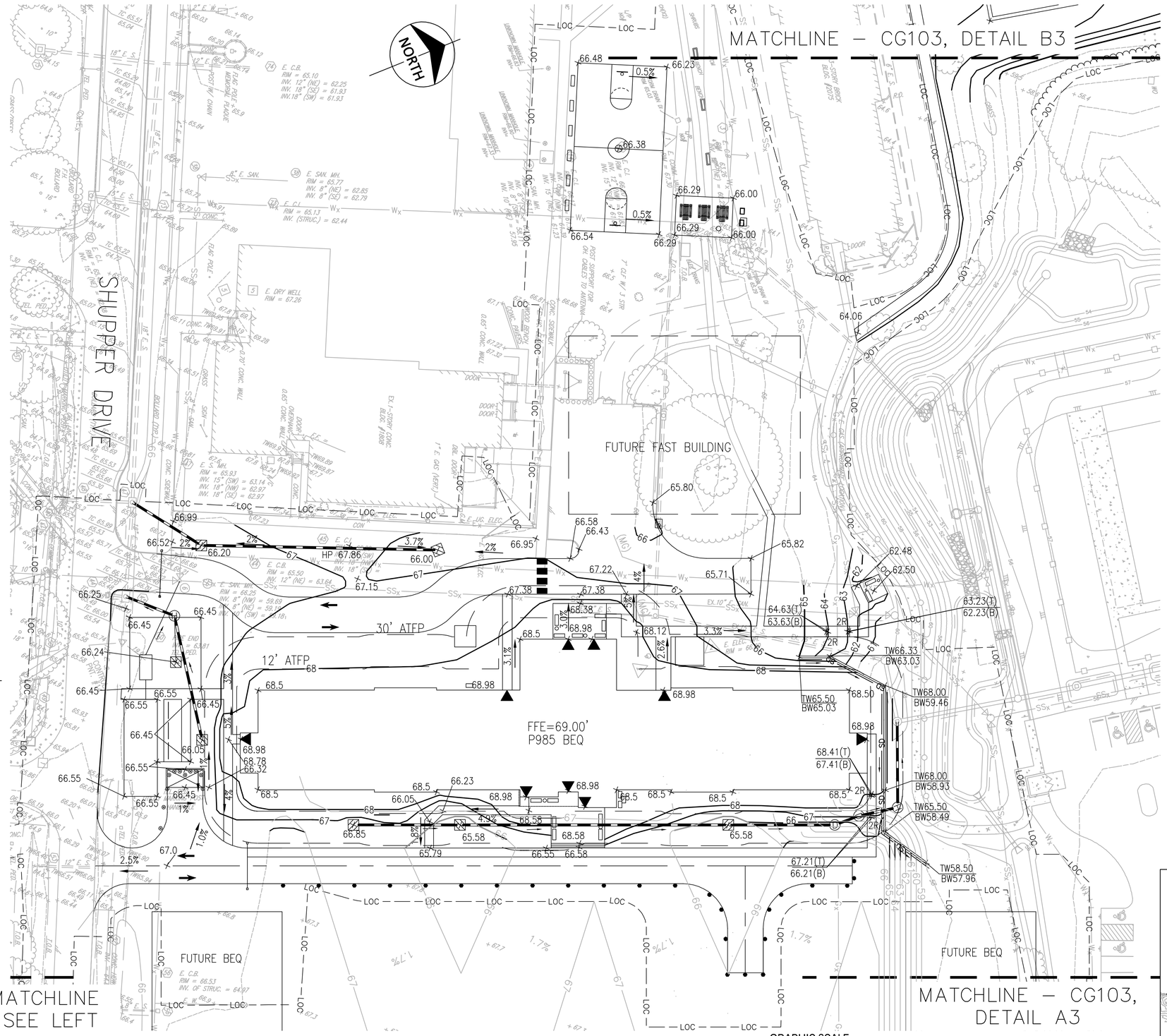
CONSTR. CONTR. NO. N40085-08-D-9739

NAVFAC DRAWING NO. 12664323

SHEET OF

CG101

DRAWFORM REVISION: 6 AUG 2007



GRADING LEGEND

61.60	SPOT GRADE
60	MAJOR PROPOSED CONTOUR
61	MINOR PROPOSED CONTOUR
60	EXISTING CONTOUR
TW61.00 / BW62.00	TOP OF WALL SPOT GRADE / BOTTOM OF WALL SPOT GRADE
61.53(T) / 61.03(B)	TOP OF STEP / BOTTOM OF STEP
1.0%	GRADE SLOPE

NOTES:

1. SPOT SHOTS AT CURB REPRESENT ELEVATIONS AT EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. FINAL RETAINING WALL AND FOOTER DESIGN WILL BE INCORPORATED IN THE STRUCTURAL PORTION OF THE BUILDING DESIGN PACKAGE

GRADING PLAN - BEQ (A3)

1" = 30'

GRAPHIC SCALE

0 30' 60'

1 INCH = 30 FEET

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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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
HAMPTON ROADS IPT

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

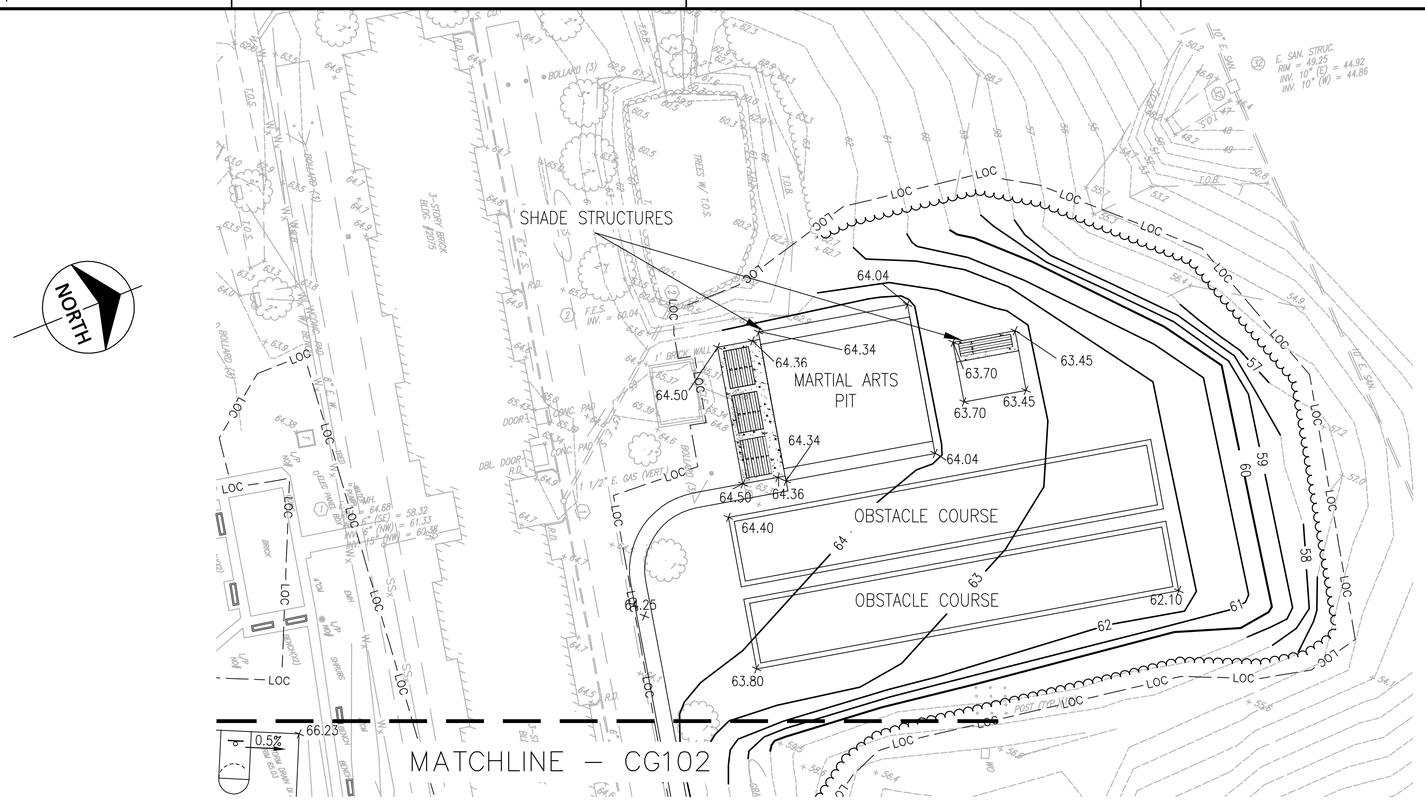
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

GRADING PLAN – BEQ

SCALE:	AS NOTED
EPROJECT NO.	1113911
CONSTR. CONTR. NO.	N40085-08-D-9739
NAVFAC DRAWING NO.	12664324
SHEET	OF
	CG102

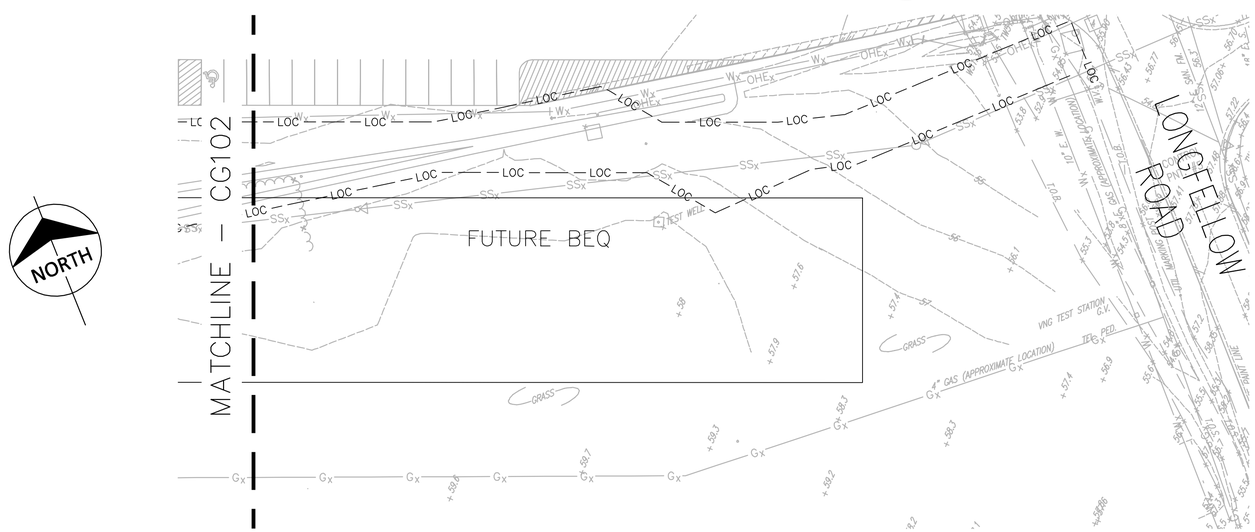
DRAWFORM REVISION: 6 AUG 2007



GRAPHIC SCALE
0 30' 60'
1 INCH = 30 FEET

GRADING PLAN - MARTIAL ARTS PIT (B3)

1" = 30'



GRAPHIC SCALE
0 30' 60'
1 INCH = 30 FEET

GRADING PLAN - GAS UTILITY (A3)

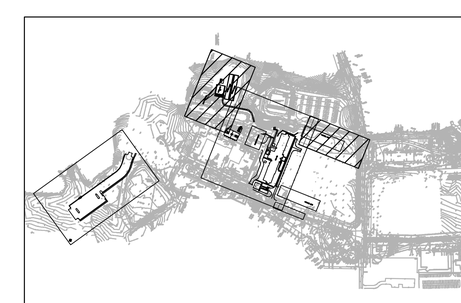
1" = 30'

GRADING LEGEND

61.60	SPOT GRADE
60	MAJOR PROPOSED CONTOUR
61	MINOR PROPOSED CONTOUR
60	EXISTING CONTOUR
TW61.00 / BW62.00	TOP OF WALL SPOT GRADE / BOTTOM OF WALL SPOT GRADE
61.53(T) / 61.03(B)	TOP OF STEP / BOTTOM OF STEP
1.0%	GRADE SLOPE

NOTES:

1. SPOT SHOTS AT CURB REPRESENT ELEVATIONS AT EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. FINAL RETAINING WALL AND FOOTER DESIGN WILL BE INCORPORATED IN THE STRUCTURAL PORTION OF THE BUILDING DESIGN PACKAGE



SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY
SATISFACTORY TO DATE

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

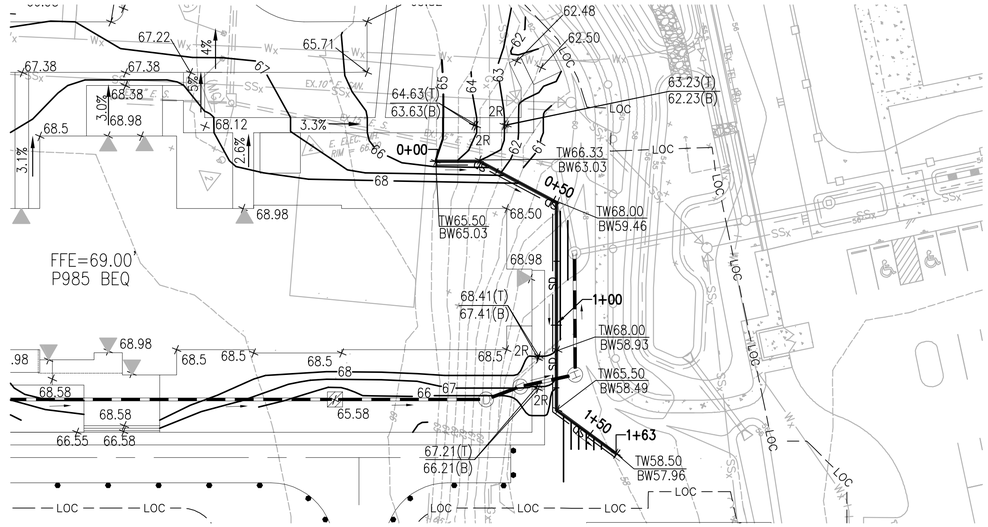
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL STATION – NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

GRADING PLAN – MARTIAL ARTS

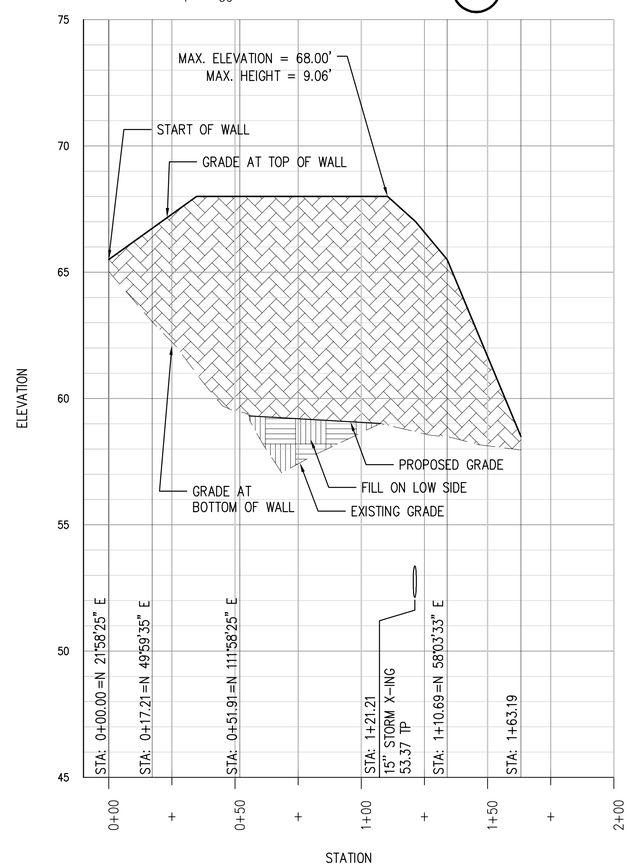
SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664325
SHEET OF
CG103

DRAWFORM REVISION: 6 AUG 2007



RETAINING WALL PLAN (C3)

1" = 30'



RETAINING WALL PROFILE (A3)

1" = 30'(H) 1"=3'(V)

GRAPHIC SCALE

0 30' 60'

1 INCH = 30 FEET

NORTH

GRADING LEGEND

61.60	SPOT GRADE
60	MAJOR PROPOSED CONTOUR
61	MINOR PROPOSED CONTOUR
60	EXISTING CONTOUR
TW61.00 / BW62.00	TOP OF WALL SPOT GRADE / BOTTOM OF WALL SPOT GRADE
61.53(T) / 61.03(B)	TOP OF STEP / BOTTOM OF STEP
1.0%	GRADE SLOPE

NOTES:

1. SPOT SHOTS AT CURB REPRESENT ELEVATIONS AT EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. FINAL RETAINING WALL AND FOOTER DESIGN WILL BE INCORPORATED IN THE STRUCTURAL PORTION OF THE BUILDING DESIGN PACKAGE

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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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 IPT
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

NAVAL FACILITIES ENGINEERING COMMAND

P-985 BACHELOR ENLISTED QUARTERS

RETAINING WALL PLAN & PROFILE

SCALE: AS NOTED

EPROJECT NO. 1113911

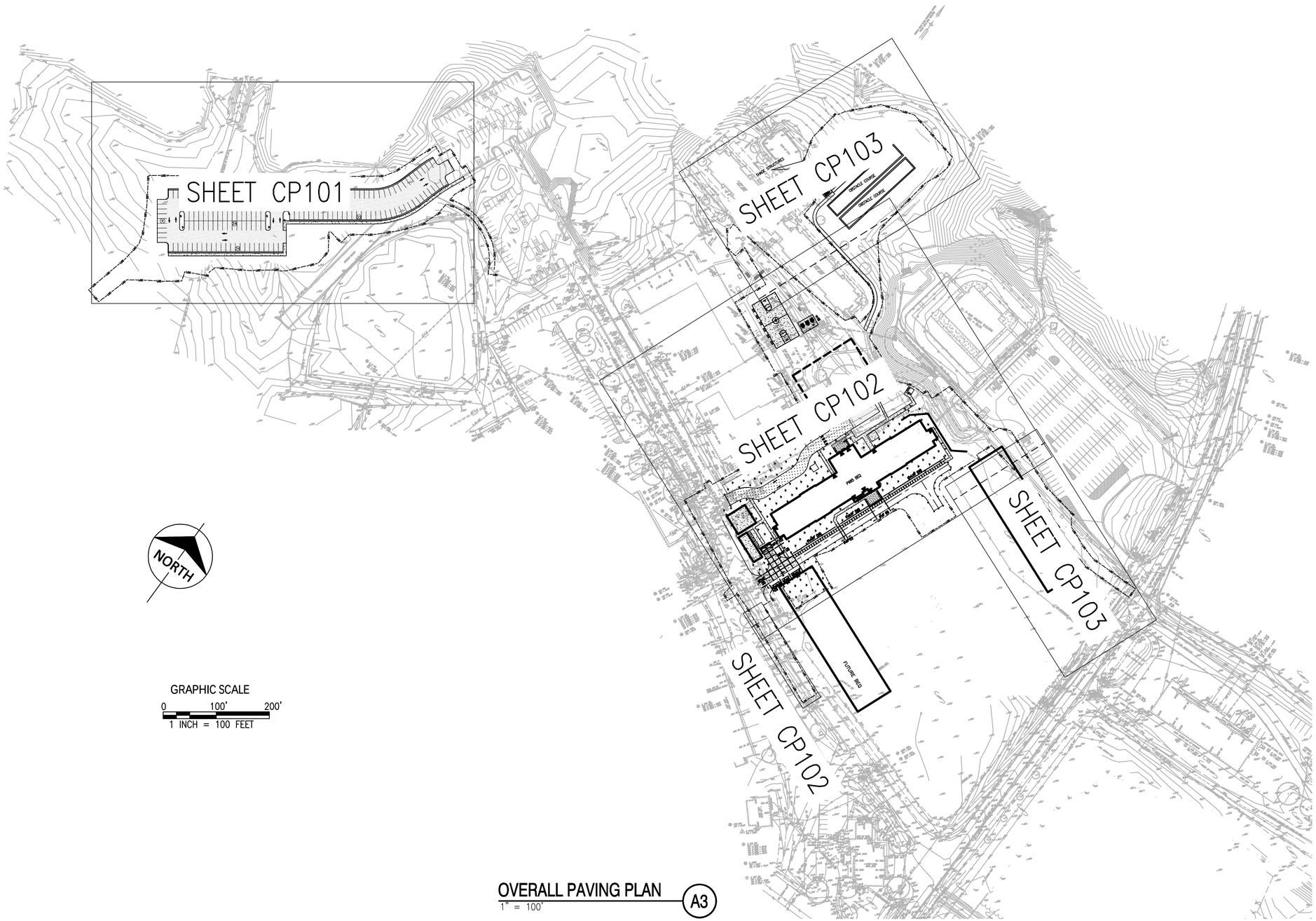
CONSTR. CONTR. NO. N40085-08-D-9739

NAVFAC DRAWING NO. 12664326

SHEET OF

CI201

DRAWFORM REVISION: 6 AUG 2007



GRAPHIC SCALE

0 100' 200'

1 INCH = 100 FEET

OVERALL PAVING PLAN

1" = 100'

A3

SYM	DESCRIPTION	DATE	APPR

NAVFAC

COMMONWEALTH OF VIRGINIA
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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	KC	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
HAMPTON ROADS IPT

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

NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

OVERALL PAVING PLAN

SCALE: AS NOTED

EPROJECT NO. 1113911

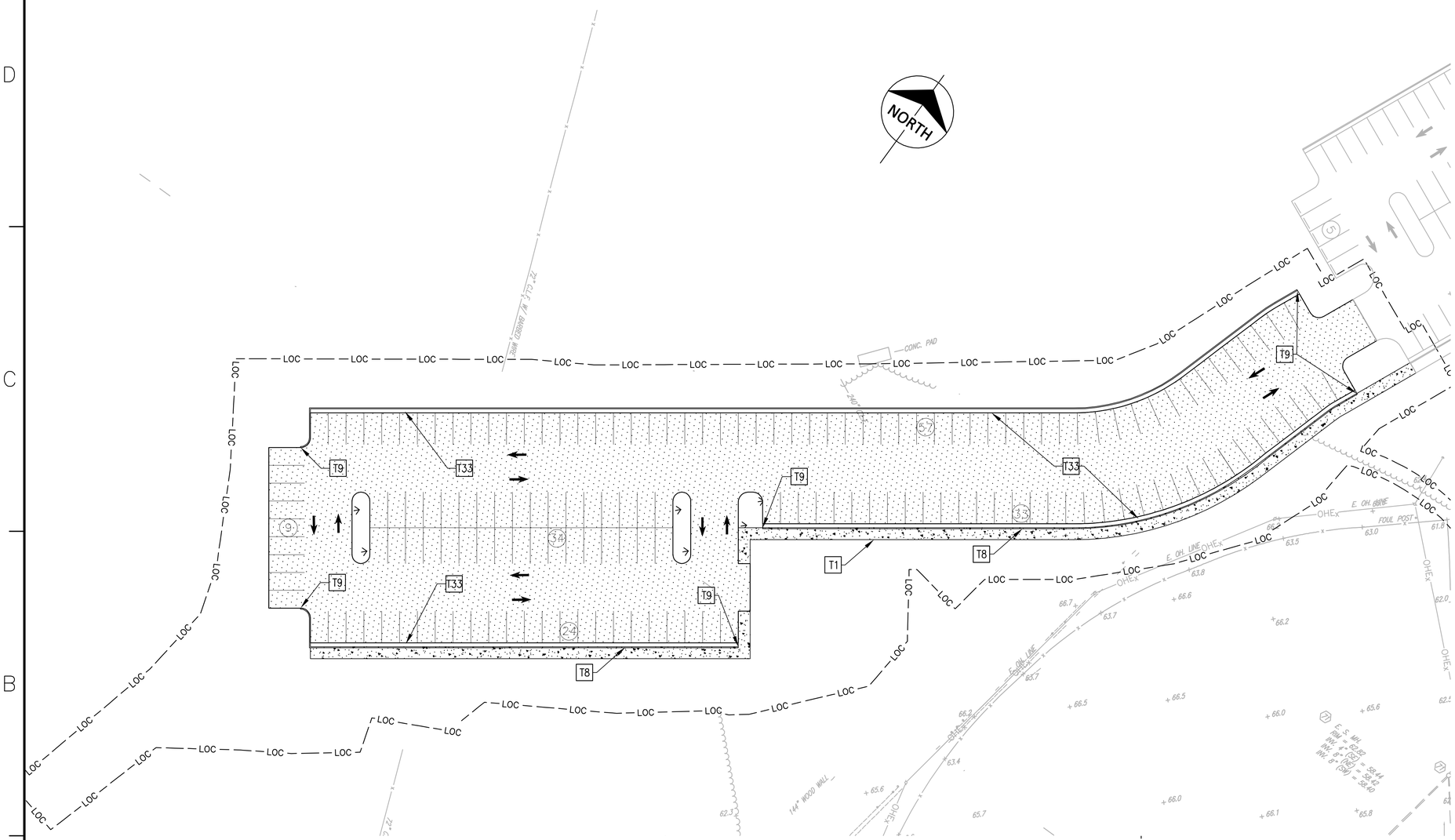
CONSTR. CONTR. NO. N40085-08-D-9739

NAVFAC DRAWING NO. 12664327

SHEET OF

CP100

DRAWFORM REVISION: 6 AUG 2007



PAVING PLAN - PARKING (A3)

1" = 30'

GRAPHIC SCALE

0 30' 60'

1 INCH = 30 FEET

LEGEND

- ASPHALT PAVEMENT MILL AND OVERLAY
- ASPHALT PAVEMENT (SEE DETAIL B2 ON SHEET CP501 FOR ASPHALT ROADWAYS)
- CONCRETE UNIT PAVERS
- CONCRETE
- PLANTING AREA (SEE PLANTING PLAN)
- GRASS PAVERS (SEE DETAIL A1 ON SHEET CP501)
- TRAFFIC ARROW (SEE DETAIL C2 ON SHEET CP511)
- CROSSWALK (SEE DETAIL D2 ON SHEET CP511)
- BOLLARD (SEE DETAIL B2 ON SHEET CP511)
- FLAG POLE

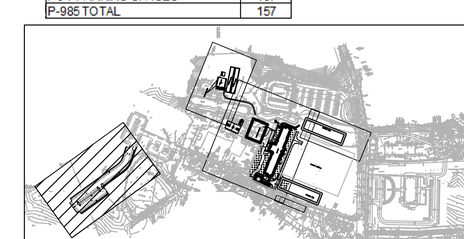
KEYNOTES

	SITE
T1	6' SIDEWALK (SEE DETAIL D3 ON SHEET CP501)
T2	8' SIDEWALK (SEE DETAIL D3 ON SHEET CP501)
T3	BIKE RACK PAD (SEE DETAIL D5 ON SHEET CP501)
T4	SMOKING GAZEBO
T5	MAIN ENTRY PLAZA WITH BENCHES AND RECEPTACLE
T6	DUMPSTER & DUMPSTER PAD (SEE SHEET CP501 DETAIL D5
T7	EDGE OF PAVEMENT
T8	6" CURB (SEE DETAIL C2 ON SHEET CP501)
T9	CURB TAPER (SEE DETAIL C4 ON SHEET CP501)
T10	CROSSWALK (SEE DETAIL D2 ON SHEET CP511)
T11	ABA ACCESSIBLE PATHWAY
T12	PAVILION AND PICNIC TABLES WITH GRILLS (GAS AND CHARCOAL)
T13	EXISTING SIDEWALK
T14	BASKETBALL COURT W/ 6 BENCHES ACCESSED BY EXISTING SIDEWALK. FOR CONCRETE PAD SEE SHEET CP501 DETAIL B3. FOR BASKETBALL POLE AND FOUNDATION SEE SHEET CP511 DETAIL B1.
T15	WASHING STATION (COVERED) PAD (SEE DETAIL D5 ON SHEET CP501)
T16	DRYING STATION PAD (SEE DETAIL D5 ON SHEET CP501)
T17	DROP ARM
T18	HAMMERHEAD END
T19	4' SIDEWALK
T20	5' SIDEWALK
T21	1624 SF RECREATION SHELTER
T22	FIRE ACCESS ROAD GRASS PAVER
T23	600 SF SECONDARY SHADE STRUCTURE
T24	3000 SF MARTIAL ARTS PIT
T25	3600 SF MAIN SHADE STRUCTURE
T26	24' X 170' OBSTACLE COURSE COVERED WITH GRASS
T27	RETAINING WALL
T28	6" CONCRETE PAD (EXPANSION JOINT WHERE IT ABUTS S/W
T29	6' ASPHALT SIDEWALK WITH 1 1/4" WEARING COARSE 4" DENSE GRAVEL BASE
T30	50 SEAT BLEACHER. FOR CONCRETE PAD SEE SHEET CP504 DETAIL B5
T31	COVERED 42 SEAT BLEACHER. FOR CONCRETE PAD SEE SHEET CP504 DETAIL B5
T32	BOLLARD (SEE DETAIL B2 ON SHEET CP511)
T33	GUTTER (SEE DETAIL A3 ON SHEET CP501)

PARKING LOT COUNT	
P-985 BACHELOR ENLISTED QUARTERS	
REMOTE PARKING:	
POV PARKING SPACES	157
P-985 TOTAL	157

NOTES

1. SEE LANDSCAPING PLANS FOR SODDING REQUIREMENTS



SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY

SATISFACTORY TO DATE

DES	KC	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
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL STATION - NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

PAVING PLAN – PARKING

SCALE: AS NOTED

EPROJECT NO. 1113911

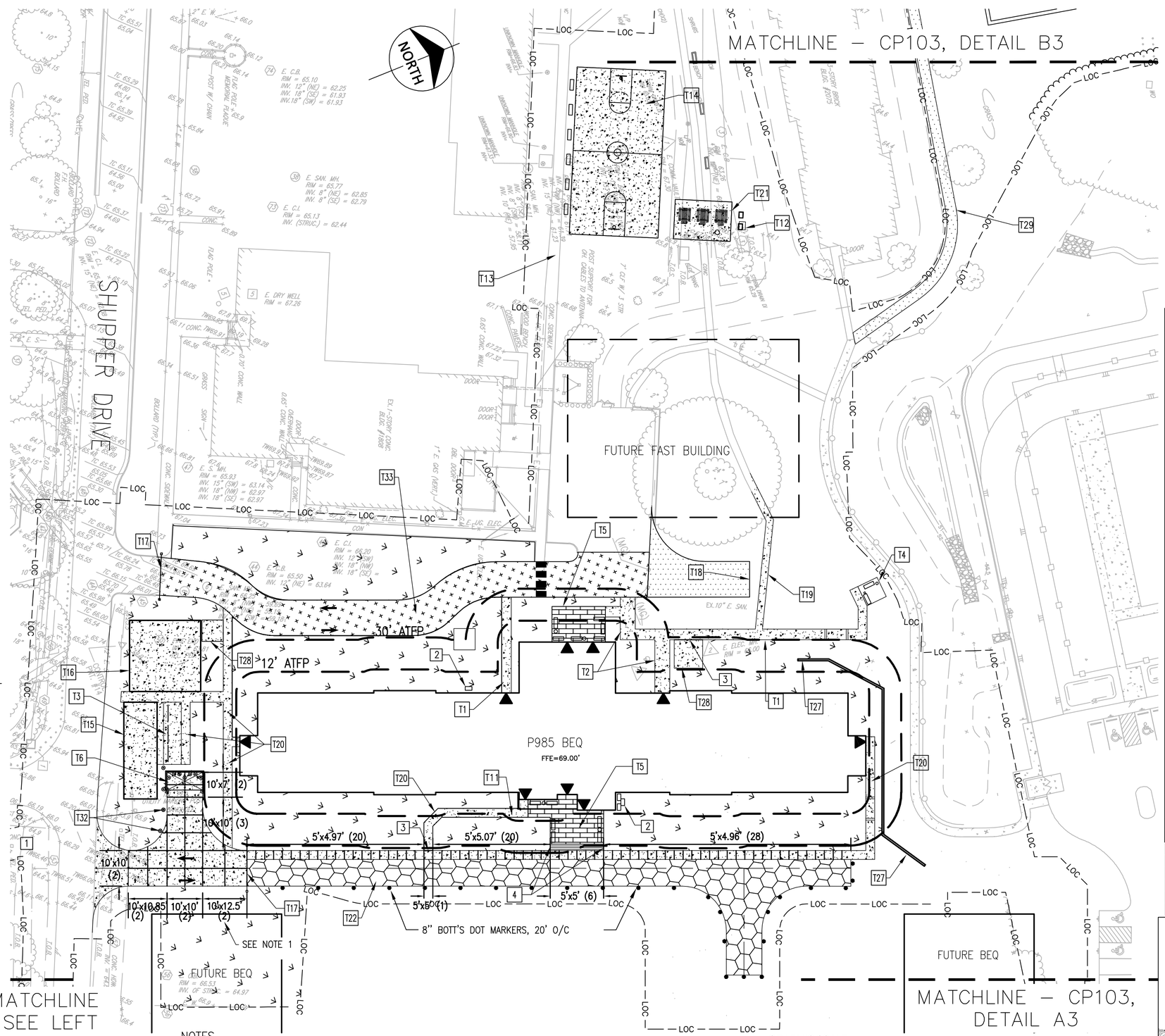
CONSTR. CONTR. NO. N40085-08-D-9739

NAVFAC DRAWING NO. 12664328

SHEET OF

CP101

DRAWFORM REVISION: 6 AUG 2007



LEGEND

- ASPHALT PAVEMENT MILL AND OVERLAY
- ASPHALT PAVEMENT (SEE DETAIL B2 ON SHEET CP501 FOR ASPHALT ROADWAYS)
- CONCRETE UNIT PAVERS
- CONCRETE
- PLANTING AREA (SEE PLANTING PLAN)
- GRASS PAVERS (SEE DETAIL A1 ON SHEET CP501)
- TRAFFIC ARROW (SEE DETAIL C2 ON SHEET CP511)
- CROSSWALK (SEE DETAIL D2 ON SHEET CP511)
- BOLLARD (SEE DETAIL B2 ON SHEET CP511)
- FLAG POLE
- 8" BOTT'S DOT (20' O/C) (SEE DETAIL A2 ON SHEET CP511)

KEYNOTES

SITE	
T1	6' SIDEWALK (SEE DETAIL D3 ON SHEET CP501)
T2	8' SIDEWALK (SEE DETAIL D3 ON SHEET CP501)
T3	BIKE RACK PAD (SEE DETAIL D5 ON SHEET CP501)
T4	SMOKING GAZEBO
T5	MAIN ENTRY PLAZA WITH BENCHES AND RECEPTACLE
T6	DUMPSTER & DUMPSTER PAD (SEE SHEET CP501 DETAIL D5
T7	EDGE OF PAVEMENT
T8	6" CURB (SEE DETAIL C2 ON SHEET CP501)
T9	CURB TAPER (SEE DETAIL C4 ON SHEET CP501)
T10	CROSSWALK (SEE DETAIL D2 ON SHEET CP511)
T11	ABA ACCESSIBLE PATHWAY
T12	PAVILION AND PICNIC TABLES WITH GRILLS (GAS AND CHARCOAL)
T13	EXISTING SIDEWALK
T14	BASKETBALL COURT W/ 6 BENCHES ACCESSED BY EXISTING SIDEWALK. FOR CONCRETE PAD SEE SHEET CP501 DETAIL B3. FOR BASKETBALL POLE AND FOUNDATION SEE SHEET CP511 DETAIL B1.
T15	WASHING STATION (COVERED) PAD (SEE DETAIL D5 ON SHEET CP501)
T16	DRYING STATION PAD (SEE DETAIL D5 ON SHEET CP501)
T17	DROP ARM
T18	HAMMERHEAD END
T19	4' SIDEWALK
T20	5' SIDEWALK
T21	1624 SF RECREATION SHELTER
T22	FIRE ACCESS ROAD GRASS PAVER
T23	600 SF SECONDARY SHADE STRUCTURE
T24	3000 SF MARTIAL ARTS PIT
T25	3600 SF MAIN SHADE STRUCTURE
T26	24' X 170' OBSTACLE COURSE COVERED WITH GRASS
T27	RETAINING WALL
T28	6" CONCRETE PAD (EXPANSION JOINT WHERE IT ABUTS S/W
T29	6' ASPHALT SIDEWALK WITH 1 1/4" WEARING COARSE 4" DENSE GRAVEL BASE
T30	50 SEAT BLEACHER. FOR CONCRETE PAD SEE SHEET CP504 DETAIL B5
T31	COVERED 42 SEAT BLEACHER. FOR CONCRETE PAD SEE SHEET CP504 DETAIL B6
T32	BOLLARD (SEE DETAIL B2 ON SHEET CP511)
T33	FIRE ACCESS ROAD

PARKING LOT COUNT	
P-985 BACHELOR ENLISTED QUARTERS	
REMOTE PARKING:	
POV PARKING SPACES	157
P-985 TOTAL	157

NOTES

1. SEE SITE ELECTRICAL PLANS FOR PROPOSED COMMUNICATION UTILITY WORK ON SOUTH SIDE OF SHUPPER DRIVE.
2. SEE MECHANICAL PLANS FOR DETAILS CONCERNING THE CONDENSER UNITS
3. EXPANSION JOINT
4. HANDRAILS

PAVING PLAN - BEQ

1" = 30'

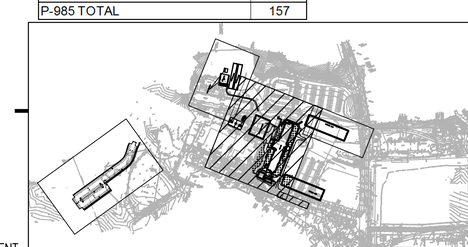
GRAPHIC SCALE

0 30' 60'

1 INCH = 30 FEET

NOTES:

1. SEE SHEET CP503 DETAIL A5 AND SHEET CP504 DETAIL A4 FOR CONCRETE JOINT DETAILS
2. SEE LANDSCAPING PLANS FOR SODDING REQUIREMENT



SYM	DESCRIPTION	DATE	APPR

NAVFAC

COMMONWEALTH OF VIRGINIA
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AE LOGO

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ACTIVITY

SATISFACTORY TO DATE

DES KC	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
HAMPTON ROADS PT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL STATION – NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

PAVING PLAN – BEQ

SCALE: AS NOTED

EPROJECT NO. 1113911

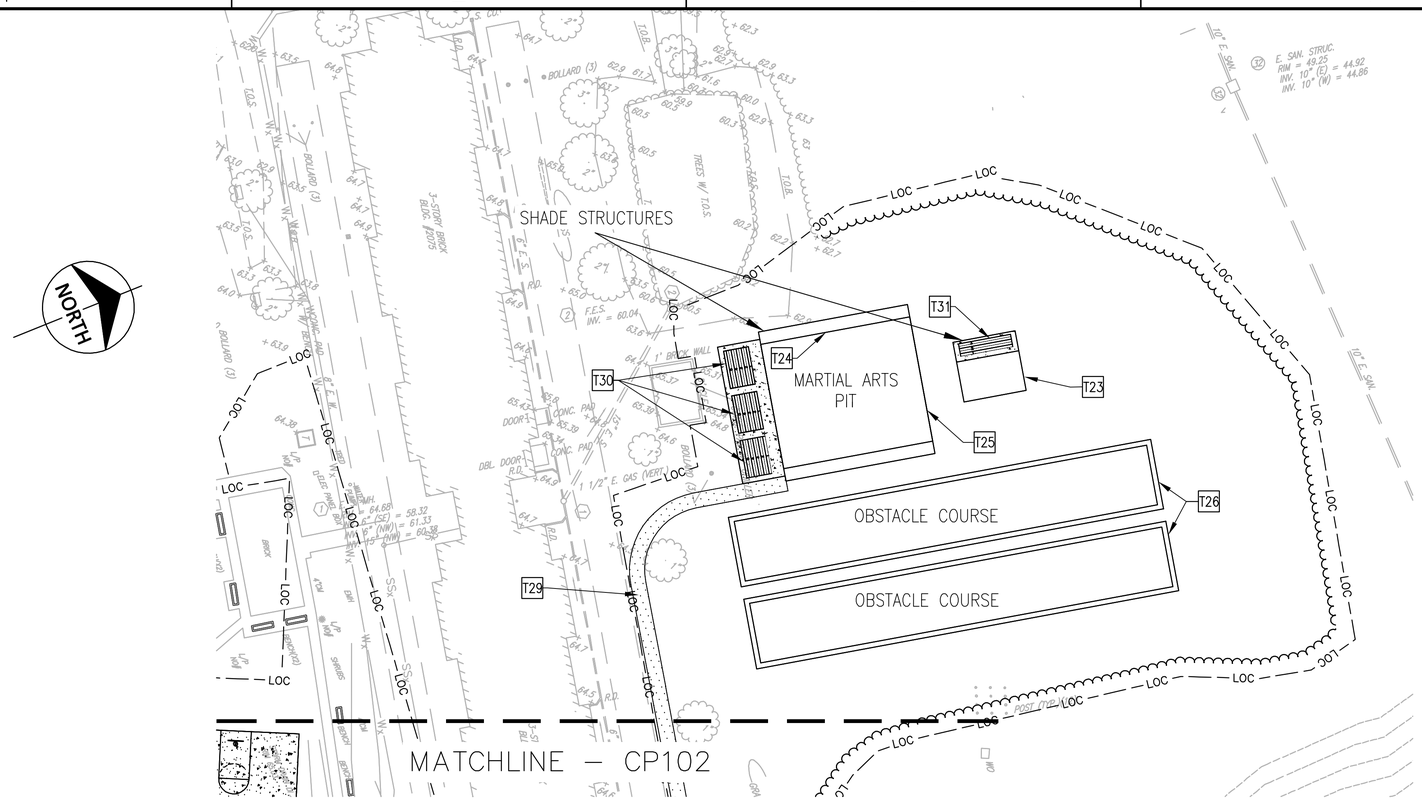
CONSTR. CONTR. NO. N40085-08-D-9739

NAVFAC DRAWING NO. 12664329

SHEET OF

CP102

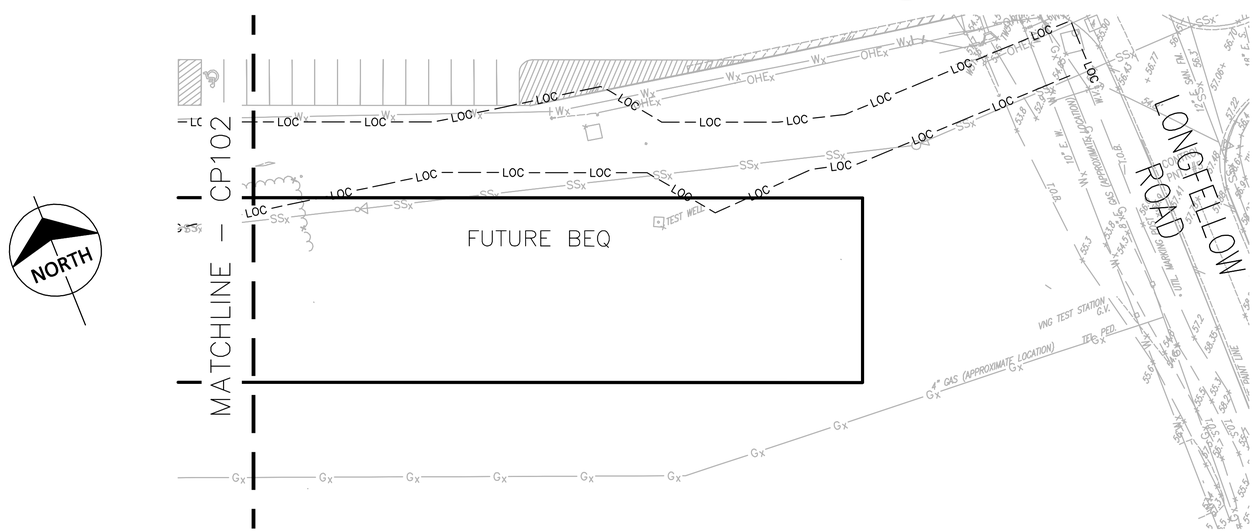
DRAWFORM REVISION: 6 AUG 2007



PAVING PLAN - MARTIAL ARTS PIT (B3)

1" = 30'

GRAPHIC SCALE
0 30' 60'
1 INCH = 30 FEET



PAVING PLAN - GAS UTILITY (A3)

1" = 30'

GRAPHIC SCALE
0 30' 60'
1 INCH = 30 FEET

NOTES

1. SEE LANDSCAPING PLANS FOR SODDING REQUIREMENTS

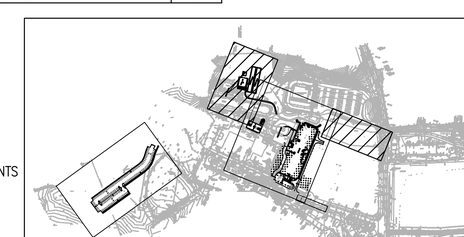
LEGEND

- ASPHALT PAVEMENT MILL AND OVERLAY
- ASPHALT PAVEMENT (SEE DETAIL B2 ON SHEET CP501 FOR ASPHALT ROADWAYS)
- CONCRETE UNIT PAVERS
- CONCRETE
- PLANTING AREA (SEE PLANTING PLAN)
- GRASS PAVERS (SEE DETAIL A1 ON SHEET CP501)
- TRAFFIC ARROW (SEE DETAIL C2 ON SHEET CP511)
- CROSSWALK (SEE DETAIL D2 ON SHEET CP511)
- BOLLARD (SEE DETAIL B2 ON SHEET CP511)
- FLAG POLE

KEYNOTES

	SITE
T1	6' SIDEWALK (SEE DETAIL D3 ON SHEET CP501)
T2	8' SIDEWALK (SEE DETAIL D3 ON SHEET CP501)
T3	BIKE RACK PAD (SEE DETAIL D5 ON SHEET CP501)
T4	SMOKING GAZEBO
T5	MAIN ENTRY PLAZA WITH BENCHES AND RECEPTACLE
T6	DUMPSTER & DUMPSTER PAD (SEE SHEET CP501 DETAIL D5
T7	EDGE OF PAVEMENT
T8	6" CURB (SEE DETAIL C2 ON SHEET CP501)
T9	CURB TAPER (SEE DETAIL C4 ON SHEET CP501)
T10	CROSSWALK (SEE DETAIL D2 ON SHEET CP511)
T11	ABA ACCESSIBLE PATHWAY
T12	PAVILION AND PICNIC TABLES WITH GRILLS (GAS AND CHARCOAL)
T13	EXISTING SIDEWALK
T14	BASKETBALL COURT W/ 6 BENCHES ACCESSED BY EXISTING SIDEWALK. FOR CONCRETE PAD SEE SHEET CP501 DETAIL B3. FOR BASKETBALL POLE AND FOUNDATION SEE SHEET CP511 DETAIL B1.
T15	WASHING STATION (COVERED) PAD (SEE DETAIL D5 ON SHEET CP501)
T16	DRYING STATION PAD (SEE DETAIL D5 ON SHEET CP501)
T17	DROP ARM
T18	HAMMERHEAD END
T19	4' SIDEWALK
T20	5' SIDEWALK
T21	1624 SF RECREATION SHELTER
T22	FIRE ACCESS ROAD GRASS PAVER
T23	600 SF SECONDARY SHADE STRUCTURE
T24	3000 SF MARTIAL ARTS PIT
T25	3600 SF MAIN SHADE STRUCTURE
T26	24' X 170' OBSTACLE COURSE COVERED WITH GRASS
T27	RETAINING WALL
T28	6" CONCRETE PAD (EXPANSION JOINT WHERE IT ABUTS S/W
T29	6' ASPHALT SIDEWALK WITH 1 1/4" WEARING COARSE 4" DENSE GRAVEL BASE
T30	50 SEAT BLEACHER. FOR CONCRETE PAD SEE SHEET CP504 DETAIL B5
T31	COVERED 42 SEAT BLEACHER. FOR CONCRETE PAD SEE SHEET CP504 DETAIL B5
T32	BOLLARD (SEE DETAIL B2 ON SHEET CP511)
T33	FIRE ACCESS ROAD

PARKING LOT COUNT	
P-985 BACHELOR ENLISTED QUARTERS	
REMOTE PARKING:	
POV PARKING SPACES	157
P-985 TOTAL	157



MIS	DESCRIPTION	DATE	APPR

NAVFAC

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

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

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

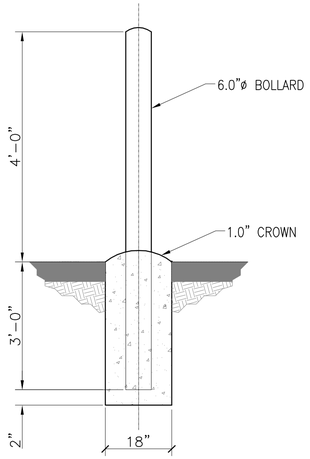
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL STATION – NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

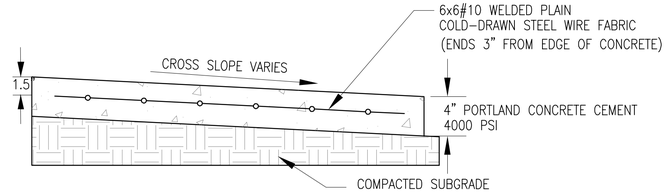
PAVING PLAN – MARTIAL ARTS

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664330
SHEET OF
CP103

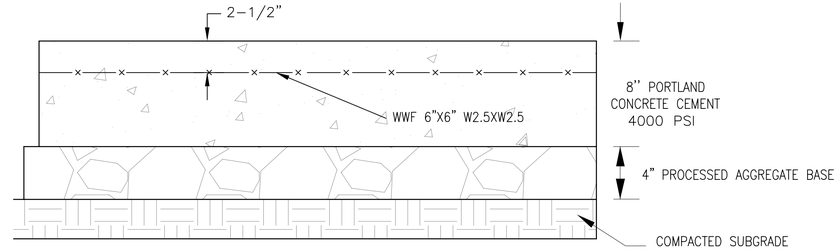
DRAWFORM REVISION: 6 AUG 2007



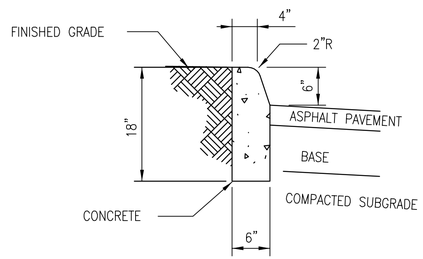
PERMANENT BOLLARD
NTS CP102 **C1**



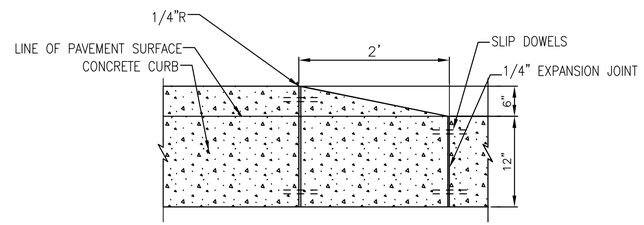
SIDEWALK
NTS CP101, CP102 **D3**



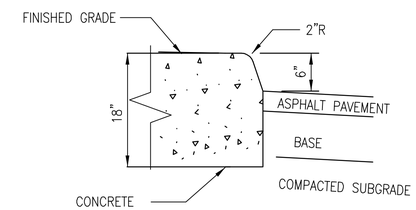
DUMPSTER/TRANSFORMER/MECHANICAL CONCRETE PAD
NTS CP102 **D5**



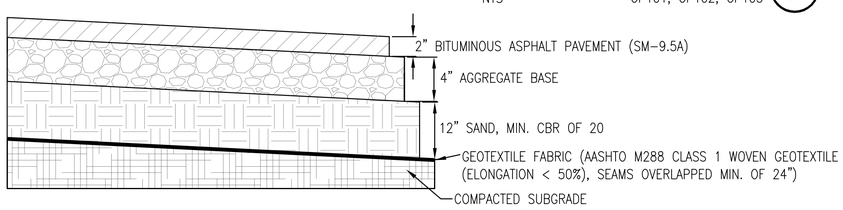
STANDARD 6" CURB
NTS CP101, CP102, CP103 **C2**



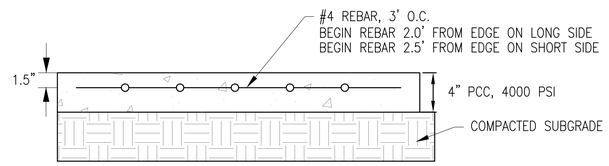
CURB TAPER
NTS **C4**



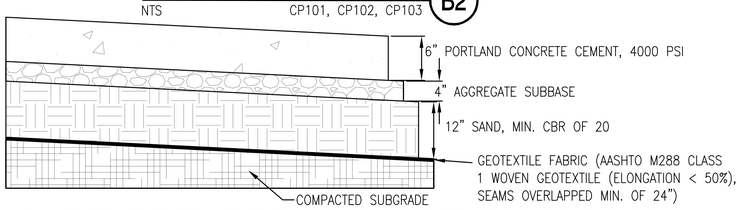
CURB END
NTS **C5**



ASPHALT PAVEMENT
NTS CP101, CP102, CP103 **B2**

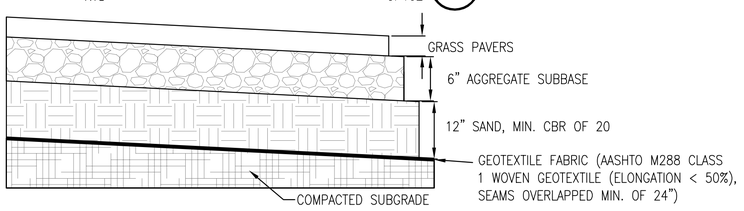


BASKETBALL COURT CONCRETE PAD
NTS CP102 **B3**



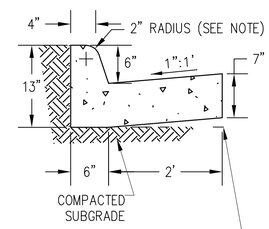
PAVEMENT SECTION FOR CONCRETE PORTION OF EASTERN FIRE ACCESS ROAD AND ROADWAY TO DUMPSTER PAD.

CONCRETE ROADWAY PAVEMENT
NTS CP102 **A2**



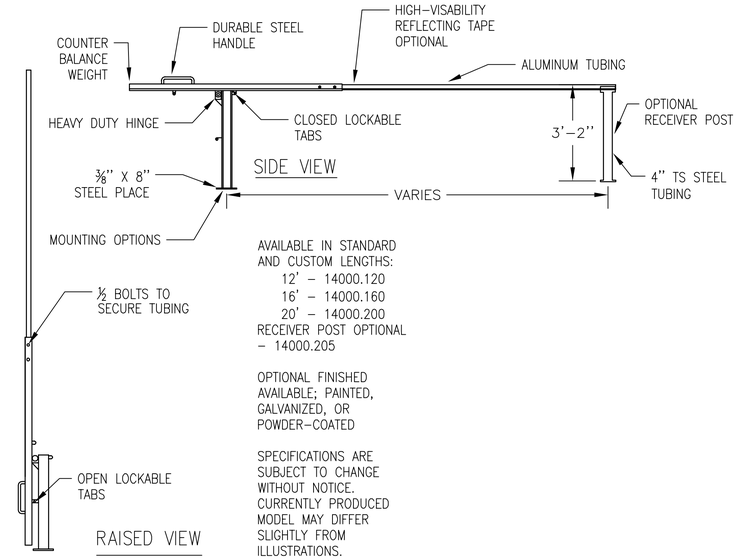
GRASS PAVERS
NTS CP102 **A1**

NOTE: STANDARD CURB SHAPE OF THE STATE IN WHICH THE PROJECT IS LOCATED MAY BE SUBSTITUTED.



THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBSURFACE COURSES PROVIDED A MINIMUM THICKNESS OF 7" IS MAINTAINED.

CURB AND GUTTER
NTS CP101 **A3**



AVAILABLE IN STANDARD AND CUSTOM LENGTHS:
12' – 14000.120
16' – 14000.160
20' – 14000.200
RECEIVER POST OPTIONAL – 14000.205

OPTIONAL FINISHED AVAILABLE; PAINTED, GALVANIZED, OR POWDER-COATED

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. CURRENTLY PRODUCED MODEL MAY DIFFER SLIGHTLY FROM ILLUSTRATIONS.

DROP ARM
NTS CP104 **A5**

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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SATISFACTORY TO DATE

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

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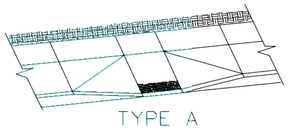
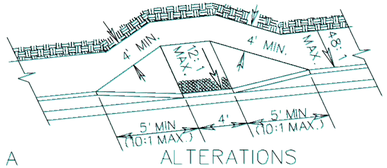
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
PAVING DETAILS

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664331
SHEET OF
CP501
DRAWFORM REVISION: 6 AUG 2007

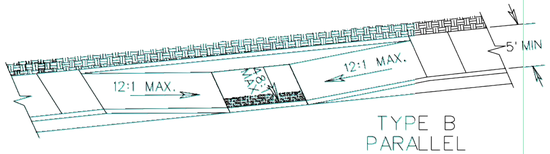
SURVEYED BY
SUPERVISED BY AAA
DESIGNED BY BBB



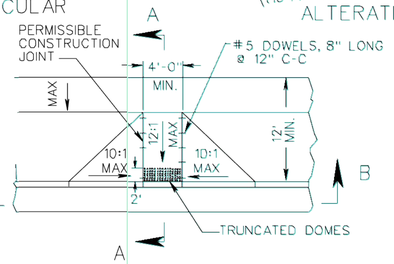
TYPE A
PERPENDICULAR

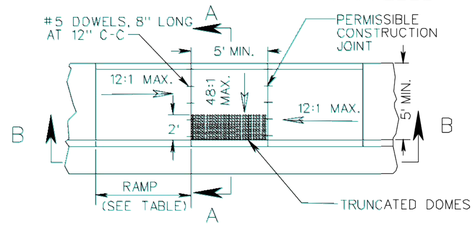


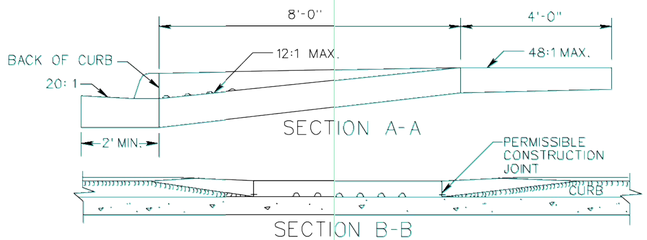
ALTERATIONS



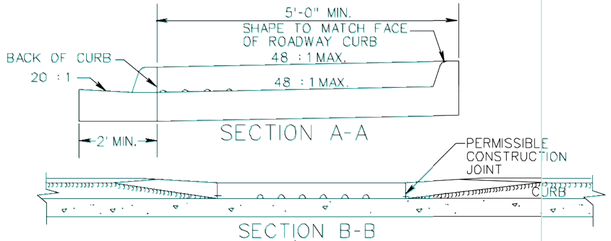
TYPE B
PARALLEL



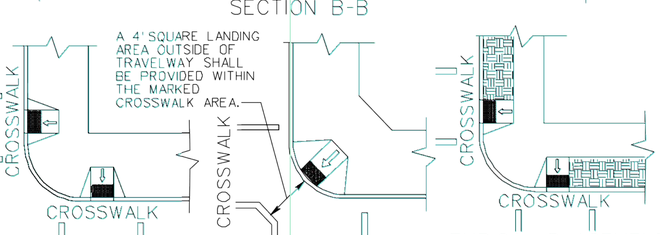




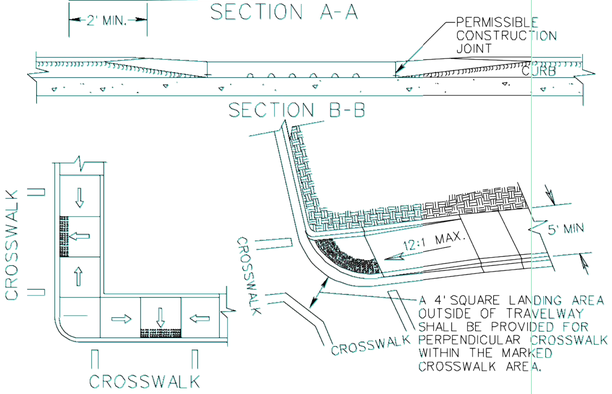
SECTION A-A



SECTION A-A



SECTION B-B



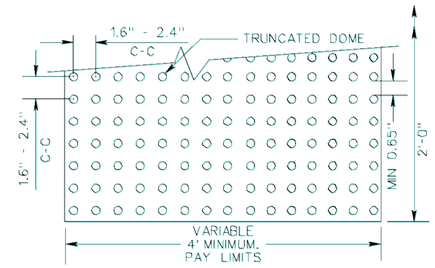
SECTION B-B

TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK

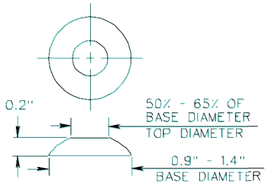
CROSSWALK DIAGONAL VARIATION

TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK (WITH BUFFER STRIP)

TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK



DETECTABLE WARNING DETAIL

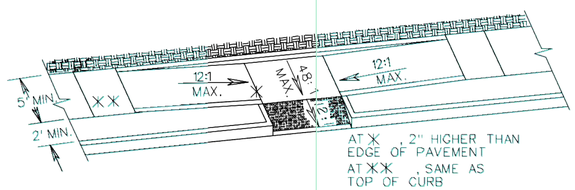


TRUNCATED DOME DETAIL

TYPE B PARALLEL APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

NOTE:
THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

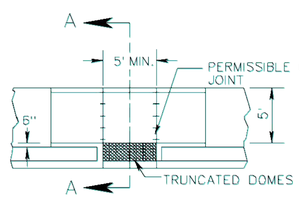
TYPE C PARALLEL & PERPENDICULAR APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	2	4
1	2	5
2	3	5
3	3	6
4	4	8
5	5	10
6	7	14
7	13	15
8	15	15



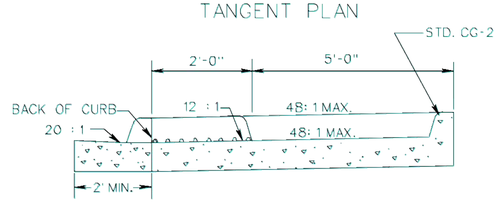
TYPE C
PARALLEL & PERPENDICULAR

THE SELECTION OF CURB TYPE AND THE CONFIGURATION OF THE UTILITY STRIP MAY VARY TO MEET EXISTING FIELD CONDITIONS AND ROADWAY GEOMETRICS PROVIDING THE DIMINSIONS AND SLOPES ARE AS NOTED.

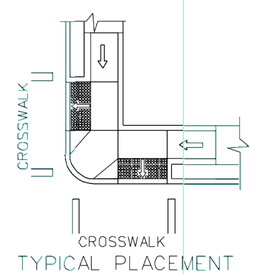
THIS COMBINED (PARALLEL & PERPENDICULAR) DESIGN FOR ALTERATIONS CAN BE USED WITH ADJOINING BUFFER STRIP. LANDING AT BOTTOM OF TWO SLOPING SIDES WITH 60" X 60" MIN. DIMENSIONS. THE SHORT PERPENDICULAR RUN TO THE STREET CAN BE PROTECTED BY A LANDSCAPED SETBACK OR CONNECTED TO THE SIDEWALK WITH A WARPED SURFACE.



TANGENT PLAN



SECTION A-A



TYPICAL PLACEMENT AT INTERSECTION WITH BUFFER STRIP

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO
	VA.				

NOTES:

1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2' IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1½".
6. CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.
7. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES. EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.
8. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC THE CONCRETE SIDEWALK DEPTH SHOULD BE INCREASED TO 7".
10. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.

REV. 7/05
SPECIAL DESIGN SECTION
DRAWING NO. A 59

PLAN NO.	PROJECT	FILE NO.	SHEET NO.

ABA ACCESS RAMP
NTS CP101, CP102, CP104 A3

SYM	DESCRIPTION	DATE	APPR

NAVFAC

COMMONWEALTH OF VIRGINIA
JON-MICHAEL C. LEMON
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05/23/2014
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AE LOGO

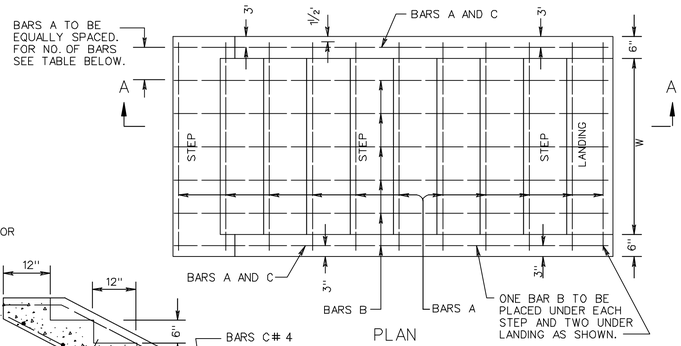
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

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

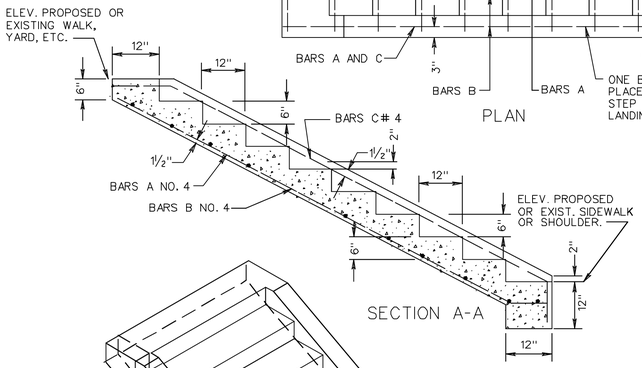
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL STATION – NORFOLK, VIRGINIA
HAMPTON ROADS IPT
NAVAL WEAPONS STATION YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
PAVING DETAILS

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664332
SHEET OF
CP502

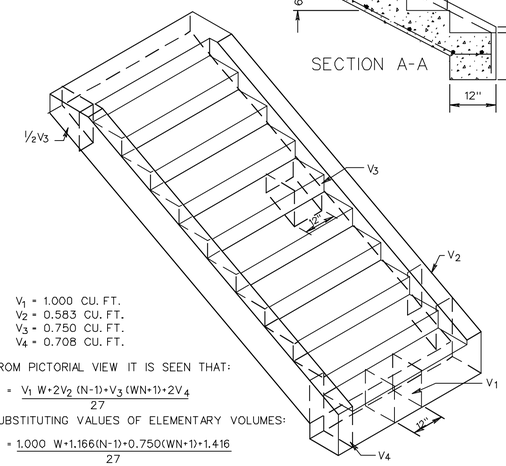
DRAWFORM REVISION: 6 AUG 2007



PLAN



SECTION A-A



V_1 = 1.000 CU. FT.
V_2 = 0.583 CU. FT.
V_3 = 0.750 CU. FT.
V_4 = 0.708 CU. FT.

FROM PICTORIAL VIEW IT IS SEEN THAT:

$$V = \frac{V_1 W + 2V_2 (N-1) + V_3 (WN+1) + 2V_4}{27}$$

SUBSTITUTING VALUES OF ELEMENTARY VOLUMES:

$$V = \frac{1.000\ W + 1.166(N-1) + 0.750(WN+1) + 1.416}{27}$$

V - INDICATES TOTAL VOLUME OF STEPS IN CUBIC YARDS.
V_1, V_2, V_3 & V_4 - INDICATE ELEMENTARY VOLUMES USED IN COMPUTING V.
W - INDICATES CLEAR WIDTH OF STEPS, IN FEET, BETWEEN SIDEWALLS.
N - INDICATES NUMBER OF STEPS IN INSTALLATION EXCLUSIVE OF LANDING.

L1 - INDICATES LENGTH OF BARS A, IN INCHES. L1 = 13.416N + 8"
L2 - INDICATES LENGTH OF BARS B, IN INCHES. L2 = 12W + 9"
L3 - INDICATES LENGTH OF BARS C, IN INCHES. L3 = 13.416N + 18"

A LANDING IS TO BE PROVIDED WHERE 12 OR MORE STEPS ARE REQUIRED. MINIMUM SIZE OF LANDING TO BE W + 1 FOOT X 4 FEET.

THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
FOR OTHER WIDTHS THE APPROXIMATE SPACING OF BARS A IN INCHES WILL BE EQUAL TO 80/N WITH A MINIMUM SPACING OF 6".
REINFORCING BARS TO BE USED IN INSTALLATIONS OF 6 OR MORE STEPS.
FOR TABULATION OF CONCRETE AND STEEL QUANTITIES SEE SHEET 2.

	NUMBER OF BARS A								
	N=1-5	N=6	N=7	N=8	N=9	N=10	N=11	N=12	N=13-25
W = 3'	NO STEEL	4	5	5	6	6	7	7	8
W = 4'		5	6	7	7	8	8	9	10
W = 5'		6	7	8	9	9	10	11	12

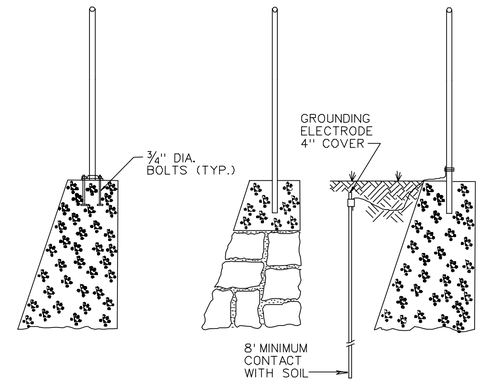
HANDRAIL IS TO BE PROVIDED FOR STEPS HAVING THREE OR MORE RISERS, AND WILL MEET THE FOLLOWING CONDITIONS:

1. ON STEPS LESS THAN 44 INCHES WIDE HAVING BOTH SIDES ENCLOSED, AT LEAST ONE HANDRAIL, PREFERABLY ON THE RIGHT SIDE DESCENDING.
2. ON STEPS LESS THAN 44 INCHES WIDE HAVING ONE SIDE OPEN, ONE HANDRAIL ON EACH SIDE.
3. ON STEPS LESS THAN 44 INCHES WIDE HAVING BOTH SIDES OPEN, ONE HANDRAIL ON EACH SIDE.
4. ON STEPS MORE THAN 44 INCHES WIDE BUT LESS THAN 88 INCHES WIDE, ONE HANDRAIL ON EACH SIDE.
5. ON STEPS 88 OR MORE INCHES WIDE, ONE HANDRAIL ON EACH SIDE, AND ONE INTERMEDIATE HANDRAIL LOCATFD APPROXIMATFLY MIDWAY OF THF WIDTH.

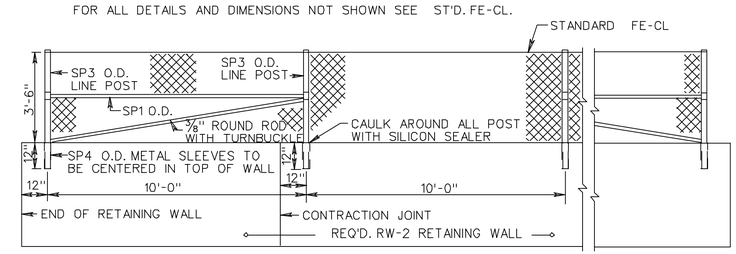
N	W - 3'		W - 4'		W - 5'		INCREMENTS *		N
	CONCRETE	REINF. STEEL	CONCRETE	REINF. STEEL	CONCRETE	REINF. STEEL	CONCRETE	REINF. STEEL	
	Cu. Yards	Lbs.	Cu. Yards	Lbs.	Cu. Yards	Lbs.	Cu. Yards	Lbs.	
1	0.275		0.34		0.405		0.065		1
2	0.401		0.494		0.587		0.093		2
3	0.528		0.648		0.768		0.12		3
4	0.654		0.802		0.95		0.148		4
5	0.781		0.957		1.133		0.176		5
6	0.907	51	1.111	61	1.315	71	0.204	10	6

STANDARD CONCRETE STEPS

NTS CP102 A2



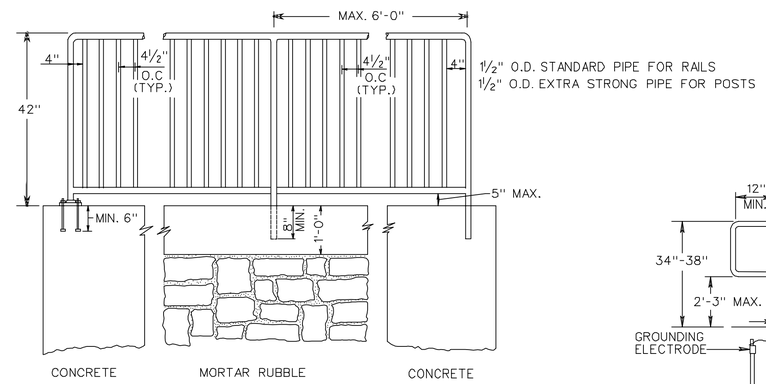
FOR ALL DETAILS AND DIMENSIONS NOT SHOWN SEE ST'D. FE-CL.



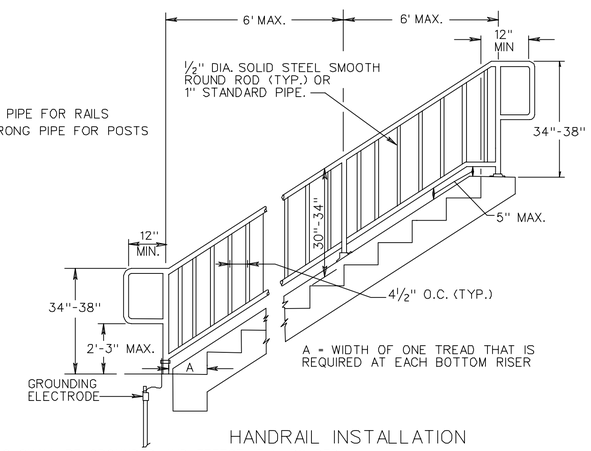
ALTERNATE INSTALLATION ON WALLS

NOTES:
THIS HANDRAIL IS TO BE USED ONLY AS A PROTECTION FOR PEDESTRIANS AND SHOULD NOT BE PLACED IN ANY LOCATION WHERE IT MIGHT BE SUBJECT TO ANY VEHICULAR IMPACT FOR VEHICULAR PROTECTION STANDARD GUARDRAIL SHOULD BE USED.

HANDRAIL TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE.



HANDRAIL (GUARD) INSTALLATION ON WALLS

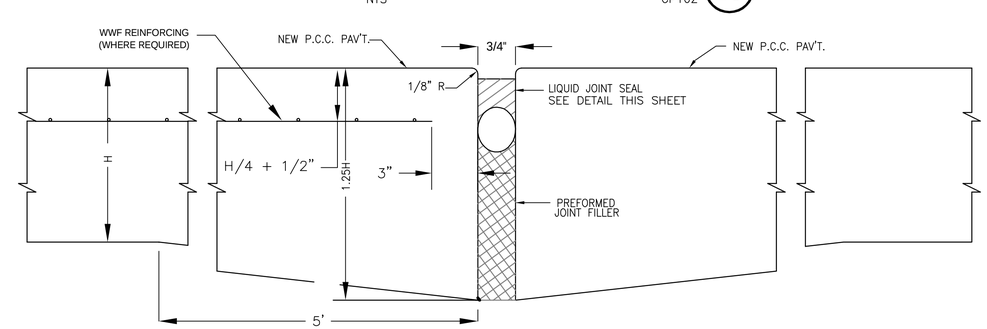


HANDRAIL INSTALLATION

HANDRAILS SHALL BE GROUNDED AND EFFECTIVELY BONDED.
GROUNDING MATERIALS INSTALLATION TO BE IN ACCORDANCE WITH ST'D. FE-6.

STANDARD HAND RAILS

NTS CP102 B5



NOTE:

FOR THICKENED EDGE BUTT JOINT – DELETE JOINT FILLER AND APPLY BOND BREAKER TO FACE OF EXISTING SLAB PRIOR TO POURING ADJOINING CONCRETE.

THICKENED EDGE EXPANSION/BUTT JOINT

NTS

CONCRETE JOINT DETAILS

NTS CP102 A5

SYM	DESCRIPTION	DATE	APPR

NAVFAC

COMMONWEALTH OF VIRGINIA
JON-MICHAEL C. LEMON
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05/23/2014
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AE LOGO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES	KC	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 ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT
NAVAL STATION ~ NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

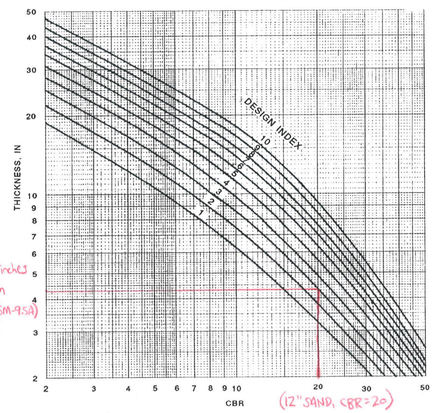
PAVING DETAILS

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664333
SHEET OF
CP503

DRAWFORM REVISION: 6 AUG 2007

BEQ - ASPHALT - ROADWAY & PROFILE

fore the reduction Will be affected in the subbase course immediately above the subgrade. when only limited rainfall records are available, or the annual precipitation is close to the 15-inch criterion, careful consideration will be given to the sensitivity of the subgrade to small increases in moisture content before any reduction in thickness is made.



Total Thickness ≈ 4.5 inches
Design to Minimum
2" Asphalt Surface (SM-9.5A)
4" Aggregate Base

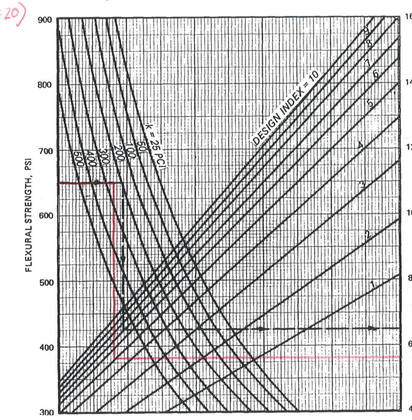
Figure 8-1. Flexible Pavement Design Curve for Roads and Streets.

NOTES:

1. FIGURE 8–1. FLEXIBLE PAVEMENT DESIGN CURVE FOR ROADS AND STREETS FROM UFC 3–250–01FA PAVEMENT DESIGN FOR ROADS, STREETS, WALKS, AND OPEN STORAGE AREAS.
2. TRAFFIC CATEGORY (II) FOR CALCULATIONS CAME FROM RFP VOLUME I, PART 3A–CHAPTER 6/ESR G20, G2010 ROADWAYS.
3. PAVEMENT DESIGN INDEX (A) FOR CALCULATIONS CAME FROM RFP VOLUME I, PART 3A–CHAPTER 6/ESR G20, G2010 ROADWAYS.
4. DESIGN INDEX 3 = 5½" TOTAL THICKNESS
5. MINIMUM THICKNESS = 6" TOTAL THICKNESS
6. 12" SAND WITH CBR MINIMUM 20 IS REQUIRED PER RFP VOLUME I, PART 3A–CHAPTER 6/ESR G20, G2010 ROADWAYS AND G2020 PARKING LOTS.

BEQ - CONCRETE - ROADWAY

Assume 650 psi Flexural Strength Concrete
CBR=20 yields a K value equal to 250 pci
(12" SAND, CBR=20)



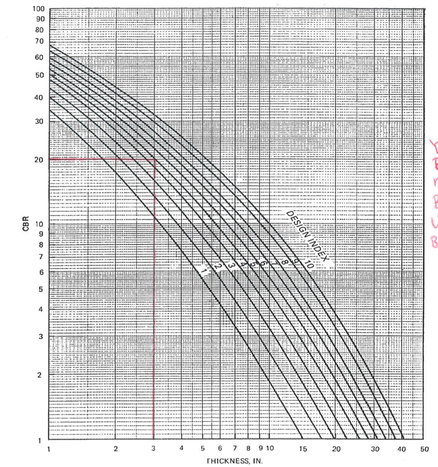
Provide 6" P.C.C. in accordance with the minimum in UFC 3-250-01FA Chapter 12.
Provide 4" Aggregate Base in accordance with minimum in UFC 3-250-01FA Chapter 10

Figure 12-2. Design Curve for Plain Concrete Parking and Open Storage Areas.

NOTES:

1. FIGURE 12–2. DESIGN CURVE FOR PLAIN CONCRETE PARKING AND OPEN STORAGE AREAS FROM UFC 3–250–01FA PAVEMENT DESIGN FOR ROADS, STREETS, WALKS, AND OPEN STORAGE AREAS.
2. TRAFFIC CATEGORY FOR CALCULATIONS ASSUMED 60,000 LBS. TRACKED VEHICLES AND 15,000 LBS. FORKLIFT TRUCKS YIELDING A TRAFFIC CATEGORY OF CLASS V.
3. PAVEMENT DESIGN INDEX (A) FOR CALCULATIONS CAME FROM RFP VOLUME I, PART 3A–CHAPTER 6/ESR G20, G2010 ROADWAYS. ASSUMING A ONCE PER DAY FREQUENCY YIELDS A DESIGN INDEX OF 5.
4. DESIGN INDEX 5 = 5.6" P.C.C.
5. MINIMUM THICKNESS = 6" P.C.C.
6. 12" SAND WITH CBR MINIMUM 20 IS REQUIRED PER RFP VOLUME I, PART 3A–CHAPTER 6/ESR G20, G2010 ROADWAYS.

BEQ - GRASS PAVERS



Yields 3" Aggregate Base. Manufacturer requires 6" Aggregate Base Minimum. Use 6" Aggregate Base.

DESIGN CURVES FOR
GRAVEL SURFACED ROADS

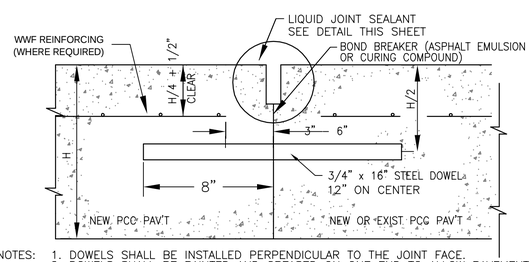
Figure 1. Thickness design curves for aggregate surfaced roads.

NOTES:

1. FIGURE 1. THICKNESS DESIGN CURVES FOR AGGREGATE SURFACED ROADS FROM UFC 3–250–09FA AGGREGATE SURFACED ROADS AND AIRFIELDS AREAS.
2. TRAFFIC CATEGORY FOR CALCULATIONS ASSUMED 60,000 LBS. TRACKED VEHICLES AND 15,000 LBS. FORKLIFT TRUCKS TRAVEL ON THE ROADWAY ONCE PER DAY YIELDING A TRAFFIC CATEGORY OF CLASS V.
3. ASSUMING A ONCE PER DAY FREQUENCY YIELDS A DESIGN INDEX OF 5.
4. DESIGN INDEX 5 = 3" AGGREGATE BASE
5. MINIMUM THICKNESS = 6" AGGREGATE BASE
6. 12" SAND WITH CBR MINIMUM 20 IS REQUIRED PER RFP VOLUME I, PART 3A–CHAPTER 6/ESR G20, G2010 ROADWAYS.

PAVEMENT CALCULATIONS

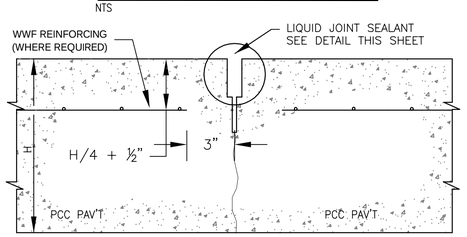
NTS



NOTES:
1. DOWELS SHALL BE INSTALLED PERPENDICULAR TO THE JOINT FACE.
2. DOWELS SHALL BE PAINTED AND GREASED ON ONE END TO ALLOW PAVEMENT MOVEMENT. THE DOWEL END TO BE GREASED AND PAINTED SHALL ALTERNATE FROM DOWEL TO DOWEL.
3. IN EXIST/NEW PAVEMENT, HOLES SHALL BE DRILLED AND DOWELS FIXED IN PLACE UTILIZING NON–SHRINK EXPOXY GROUT. METHODS AND MATERIALS SHALL BE APPROVED BY THE CONTRACTING OFFICER PRIOR TO BEGINNING WORK.
4. DOWELS SHALL NOT BE INSTALLED WITHIN 6" OF A CONTRACTION JOINT (BOTH SIDES).

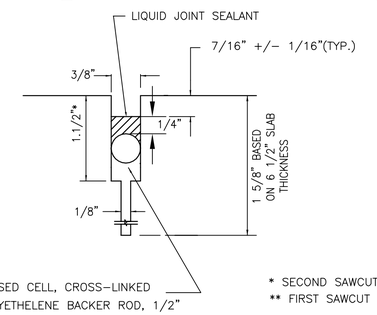
DOWELLED CONSTRUCTION JOINT

NTS



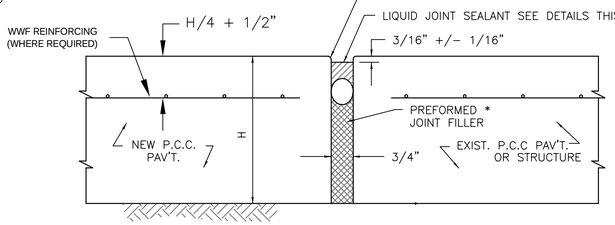
CONTRACTION JOINT

NTS



* SECOND SAWCUT
** FIRST SAWCUT

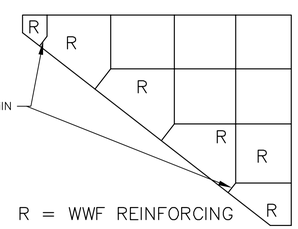
SAWED CONTRACTION JOINT DETAILS



* DEPTH OF PREFORMED JOINT FILLER SHALL EQUAL DEPTH OF EXIST. P.C.C. TO REMAIN

EXPANSION JOINT

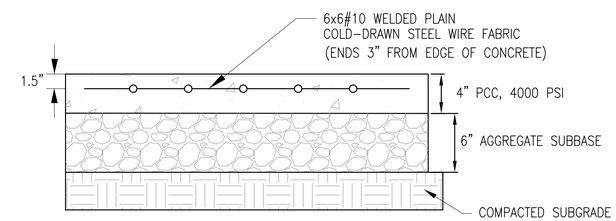
NTS



ODD SHAPED SLAB WITH STRAIGHT EDGE

ANGLED JOINT LINE DETAIL

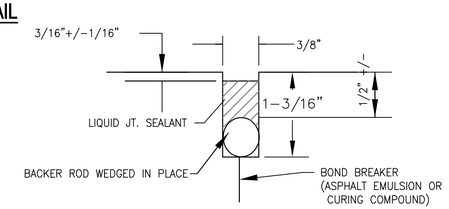
NTS



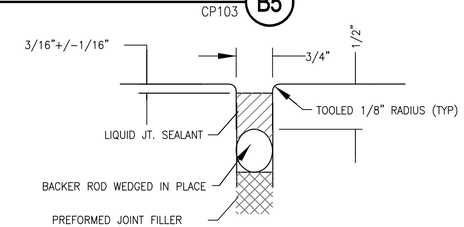
BLEACHER CONCRETE PAD

NTS

CP103 B5



SEALED GROOVE



EXPANSION JOINTS

NOTES:

1. ABOVE THE BACKER ROD, SILICONE SEALANT SHOULD BE A MINIMUM OF 1/4" THICK AND A MAXIMUM OF 1/2" THICK. SAWED GROOVE SHALL BE SAWED TO A DEPTH THAT WILL ALLOW PLACEMENT OF BACKER ROD AND INSTALLATION OF SILICONE SEALANT SO THAT THESE THICKNESSES, AS WELL AS THE RECESS THICKNESS, IS MAINTAINED.
2. BOND BREAKER IS ONLY REQUIRED WHEN ADJACENT TO EXISTING CONCRETE PAVEMENT.

CONCRETE JOINT DETAILS

NTS

CP102 A4

CONSTRUCTION/EXPANSION JOINT SEALANT

NTS

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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

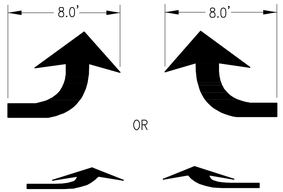
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

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

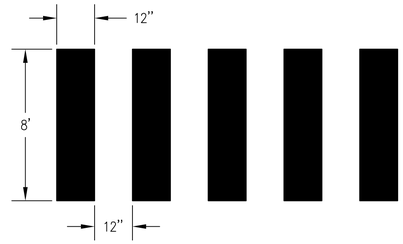
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HAMPTON ROADS IPT
NAVAL STATION - NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
PAVING DETAILS

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664334
SHEET OF
CP504

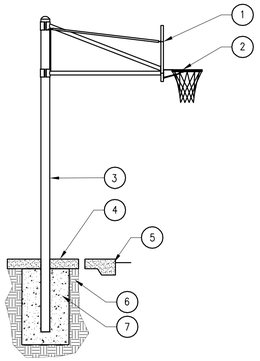
DRAWFORM REVISION: 8 AUG 2007



TURN ARROWS
NTS — CG102, CG103 — D1



CROSSWALK
NTS — CG102, CG103 — D2



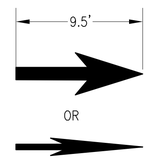
SECTION VIEW

LEGEND

1. BACKSTOP, TO BE STEEL, FIBERGLASS, OR POLYCARBONATE
2. GOAL, DOUBLE-RIMMED AND DOUBLE-BRACED WITH CHAIN NET
3. 5 9/16" O.D. STEM, 16'-6" LONG
4. INTEGRAL COLOR 'FOREST GREEN' ASPHALT PLAY SURFACE WITH WHITE STRIPING
5. FINISH GRADE ½" BELOW PAVING AREA WHERE CONDITION OCCURS
6. COMPACTED SUBGRADE TO 90%
7. CONCRETE FOOTING, COORDINATE FOOTING SIZE, REINFORCING AND SLEEVING W/ MANUFACTURER

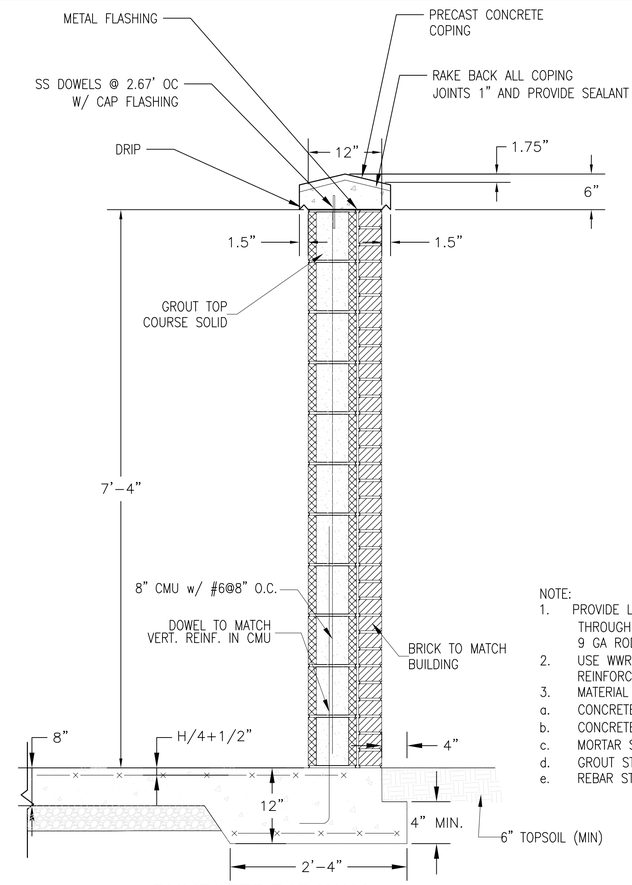
NOTE: SECTION DETAIL FOR REFERENCE ONLY. VERIFY ACTUAL MATERIALS AND DIMENSIONS WITH EQUIPMENT MANUFACTURER.

BASKETBALL POLE AND FOUNDATION DETAIL
NTS — CP102 — B1



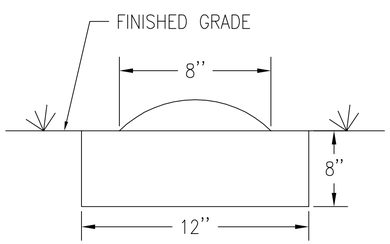
TRAFFIC ARROWS
NTS — CG102, CG103 — C2

WRONG WAY SIGN
NTS — CP104 — B2

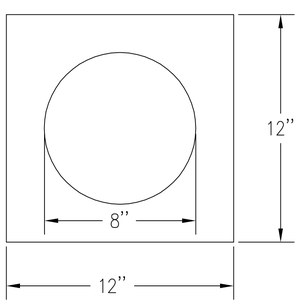


NOTE:
1. PROVIDE LADDER REINFORCING EXTENDING THROUGH CMU AND BRICK @ 16" USING 9 GA RODS.
2. USE WWR 6"X6" W2.5XW2.5 FOR SLAB REINFORCEMENT
3. MATERIAL STRENGTHS
   a. CONCRETE FOR SLAB ON GRADE: f'c = 5,000 psi
   b. CONCRETE FOR FOOTING: f'c = 3,000 psi
   c. MORTAR STRENGTH: f'm = 1,500 psi
   d. GROUT STRENGTH: f'c = 2,000 psi
   e. REBAR STRENGTH: fy = 60,000 psi

DUMPSTER PAD WALL
NTS — CP102 — B4

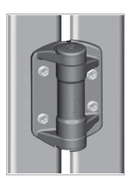


PROFILE VIEW

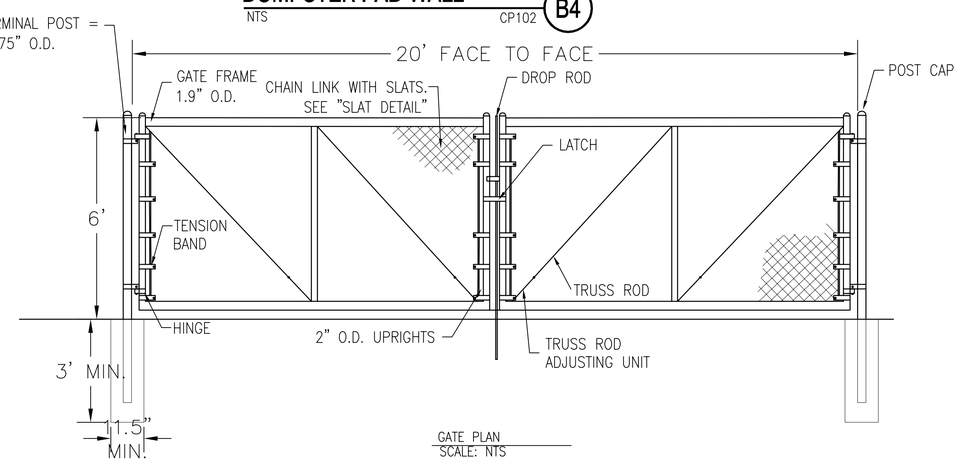


PLAN VIEW

8" BOTT'S DOT MARKERS
NTS — CP102 — A2



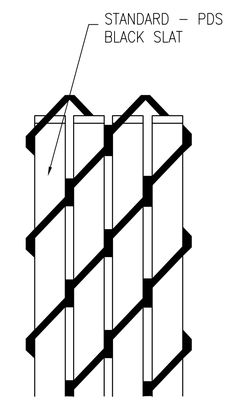
GATE HINGE DETAIL
SCALE: NTS



GATE PLAN
SCALE: NTS

NOTES:
1. THE POSTS, GATES, CHAIN LINK, AND HARDWARE SHALL BE BLACK VINYL COATED.
2. USE MERCHANT METALS TYPICAL DOUBLE SWING GATE OR AN APPROVED EQUAL.

DUMPSTER ACCESS GATE
SCALE: NTS — CP102 — A5



SLAT DETAIL
SCALE: NTS

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES KC	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 IPT
NAVAL STATION ~ NORFOLK, VIRGINIA
NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA
P-985 BACHELOR ENLISTED QUARTERS
SIGNAGE & STRIPING DETAILS

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664335
SHEET OF
CP511
DRAWFORM REVISION: 8 AUG 2007

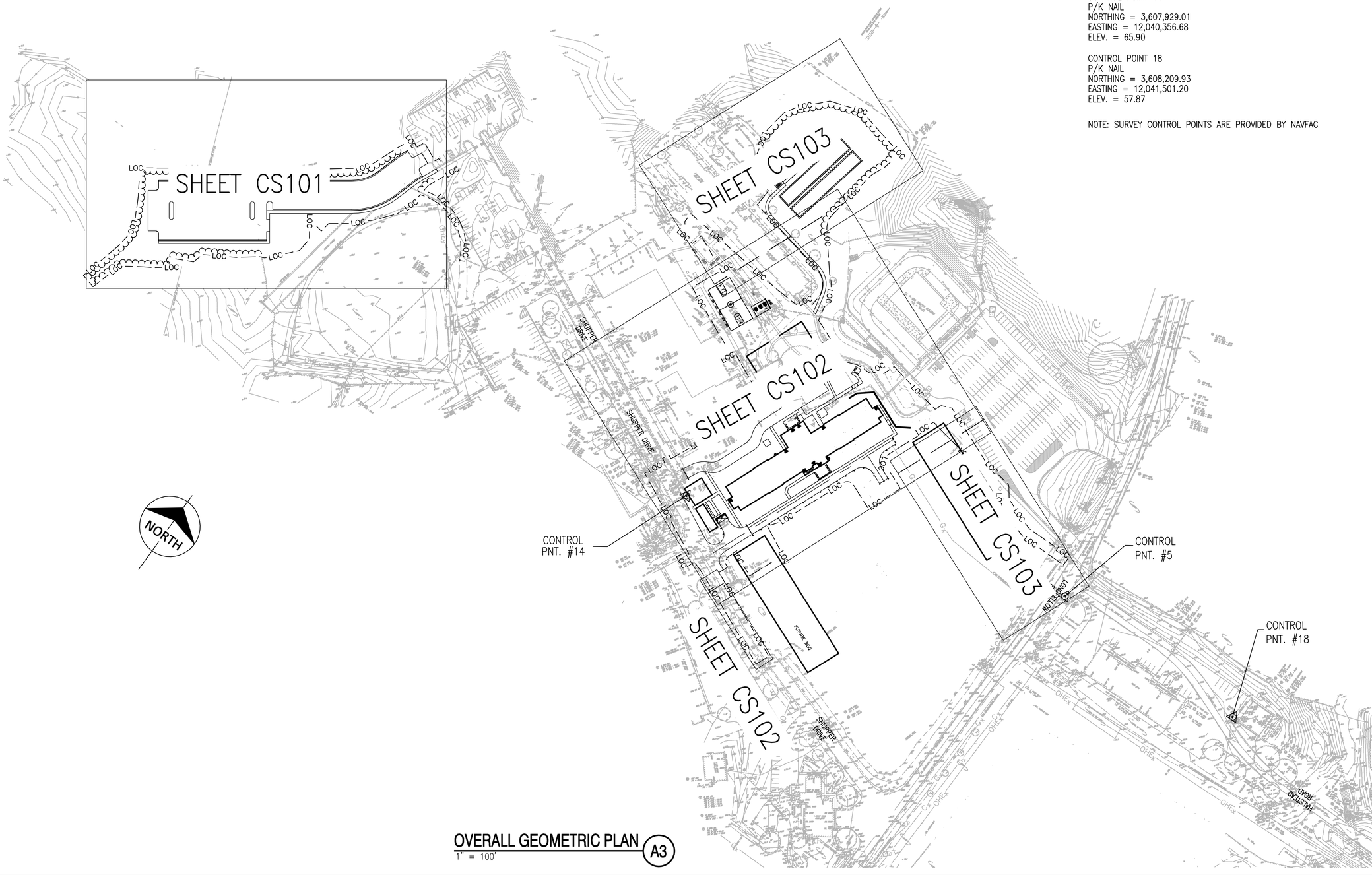
SURVEY CONTROL POINT:

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

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

CONTROL POINT 18
P/K NAIL
NORTHING = 3,608,209.93
EASTING = 12,041,501.20
ELEV. = 57.87

NOTE: SURVEY CONTROL POINTS ARE PROVIDED BY NAVFAC



OVERALL GEOMETRIC PLAN (A3)

1" = 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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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
HAMPTON ROADS IPT

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

NAVAL WEAPONS STATION
YORKTOWN, VIRGINIA

P-985 BACHELOR ENLISTED QUARTERS

OVERALL GEOMETRIC PLAN

SCALE: AS NOTED
EPROJECT NO. 1113911
CONSTR. CONTR. NO. N40085-08-D-9739
NAVFAC DRAWING NO. 12664336
SHEET OF
CS100

DRAWFORM REVISION: 6 AUG 2007