Scanned By	Date	DOC ID	Permit
Backus	05/11/2011	5727	25-10T

UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
POSTAL SERVICE CODE BOX 8003
CHERRY POINT, NORTH CAROLINA 28533-0003

5090/11305
LN
April 5, 2007

Mr. Jim Barber
North Carolina Department of
Environment and Natural Resources
Division of Waste Management
1646 Mail Service Center
Raleigh, NC 27699-1617

Dear Mr. Barber:

Marine Corps Air Station, Cherry Point currently operates a Transfer Station under operating permit 025-10T. A permit to operate and a permit to construct upgrades of the existing transfer facility in compliance with North Carolina Solid Waste Regulations Section .0400 - Transfer Facilities were issued on September 23, 2004. The upgrades have been completed and per instructions of the permit, MCAS Cherry Point is requesting a new permit to operate the upgraded Transfer Facility.

As submitted in 2004, the Transfer Station site plan and the Marine Corps Air Station approval for the location of the Transfer Station are still in effect. Therefore this information is not being re-submitted. The Operational Plan for the Transfer Station has been slightly modified to more carefully describe waste operations. Three copies of this Operational Plan are enclosed for your review and approval.

Please find for your review enclosure (1), Transfer Station Operational Plan; enclosure (2), copies of the complete construction drawings; and enclosure (3), a certification letter from the design engineer certifying that the facility and related infrastructure were constructed in accordance with the approved site plan and construction plans for the upgrades, dated 22 April 2004.

For additional information, please contact Ms. Alicia Filzen of the Environmental Affairs Department at (252) 466-5391.

Sincerely,

J. C. CURLIN
Supervisory Environmental Engineer
By direction of the
Commanding Officer

Enclosures: 1. Operational Plan for the Transfer Station (3 copies)
2. Complete construction drawings (3 copies)
3. Design engineer certification letter

Transfer Station Operational Plan
Marine Corps Air Station Cherry Point

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 3-12-08 BY KCP

Effective Date: April 2007
Expiration Date: April 2012

Prepared by: Alicia Filzen
Solid Waste Manager

Marine Corps Air Station, Cherry Point
Transfer Station Operational Plan

Section 1.0 Waste Received

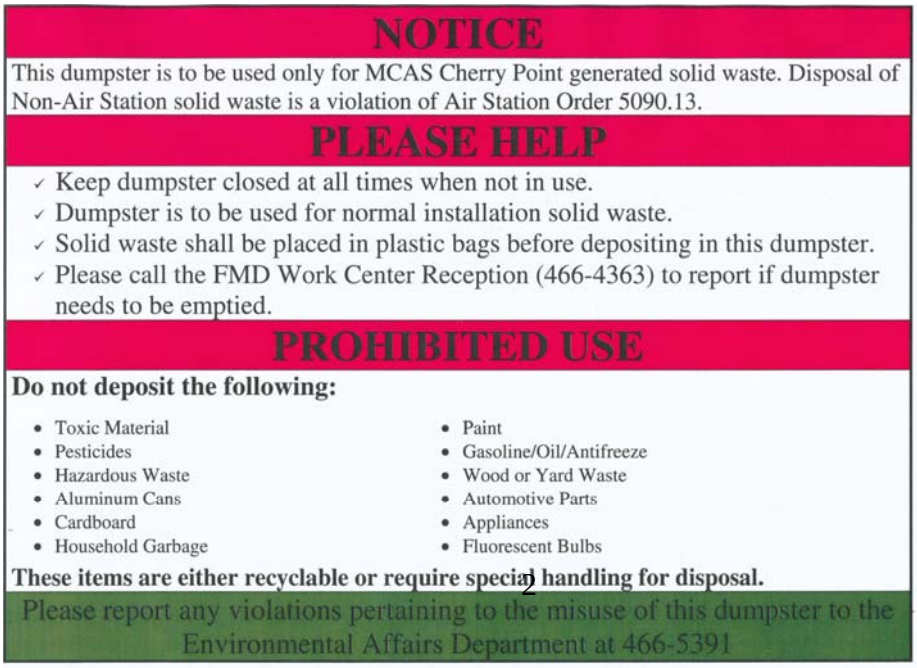
The Marine Corps Air Station (MCAS) Transfer Station receives a typical cross—section of Municipal Solid Waste (MSW), and also separately collects and transports "painted and/or treated wood". The following waste types are specifically excluded from acceptance at the Transfer Station:

1. Asbestos
2. Wastewater Treatment Plant Sludges
3. Hazardous Waste
4. Liquid Waste
5. Medical Waste
6. Animal Carcasses
7. Yard Debris
8. Tires
9. Scrap Metal
10. Land Clearing and Inert Debris Waste
11. Any other waste type excluded by the Division of Solid Waste Management

Approximately 8,000 tons of waste is received annually at the Transfer Station. The waste is then trucked to the Tuscarora Landfill for disposal.

Section 2.0 Excluded Wastes

Wastes that are excluded from acceptance at the Transfer Station are managed under other MCAS waste programs (e.g., the Qualified Recycling Program, the used of the MCAS Cherry Point Land Clearing and Inert Debris Landfill, and the Hazardous Waste Management Program). Each solid waste dumpster on base is labeled with the following information to prevent dumping of unacceptable materials and the dumpsters are inspected on a monthly basis to ensure that the dumpster do not contain prohibited items by the Unit's Environmental Coordinators.



Section 3.0 Service Area & Method of Transfer

The Transfer Facility utilizes a hopper system for the MSW. During filling, the transfer trailer is located on the 75' X 43' concrete pad directly under the hopper. The concrete containment pad is bermed on three sides, and is equipped with a drain. The MSW collection vehicles (front loaders, rear loaders, and roll—off type trucks) dump their waste into the hopper and the waste then falls into the transfer trailer (i.e., the waste is not dumped onto a tipping floor) . A separate container is used to collect and transfer the "painted and/or treated wood".

Water is routinely used at the Transfer Station for wetting down the MSW and for rinsing down surfaces that have come into contact with the MSW. The Transfer Station is also washed down at the end of each working day. A leachate collection system is installed at the transfer pad with an oil-water separator, a pump station and force main to the sanitary sewer outfall.

Once a transfer trailer becomes full and is fully compacted, the transfer trailer is transported to the Tuscarora Landfill. The driver provides the weight ticket to the Government for record keeping purposes. The transfer trailers are properly covered when transporting waste.

Generally, two to five transfer trailers of MSW are transported to the Tuscarora landfill each working day, and two to five containers of "painted and/or treated wood" are transported each week. The first MSW transfer trailer of the day generally leaves for Tuscarora landfill prior to mid—morning; and, to ensure that the last trailer reaches the Tuscarora landfill prior to closing, the last MSW transfer trailer of the day generally leaves for the Tuscarora landfill during the mid—afternoon.

Section 4.0 Hours of Operation

The transfer station is open Monday – Friday from 7:30 am to 4:00 pm. Due to the nature of operations at MCAS Cherry Point (e.g., sudden deployment, permanent change—of—stations, and after—hours military functions), a transfer trailer is staged under the hopper within the containment pad 24 hours/day, 7 days/week for emergency unexpected after hours operations use by the Facilities Maintenance Department. In the event that this transfer trailer is filled by the end of the working day, the transfer trailer remains staged under the hopper until the next morning.

Section 5.0 Access and Security Requirements

MCAS Cherry Point is a secure station and only authorized personnel are granted access. Therefore, the Transfer Station is not available for use by the general public. The Transfer Station is available to station personnel for MSW and "painted and/or treated wood" which has been generated on—station. A contractor occupies the Transfer Station during normal working hours. Because of the nature of operations at MCAS Cherry Point (e.g., sudden deployment, permanent change—of—stations, and after—hours military functions), the Transfer Station may be used after hours by station personnel and during weekends and holidays.

Section 6.0 Vector Control

The hopper is washed down routinely during the working day to control odors and to prevent flies and insects from using the surfaces of the hopper as a breeding ground. The hopper and the containment area are washed down at the end of every working day.

Full transfer trailers are tarped to prevent waste from becoming wind borne, to control odors, and to prevent flies and insects from using the MSW as a breeding ground. To ensure that waste deposited after—hours is properly contained, and is therefore not an available food source for rodents, a transfer trailer is staged under the hopper within the containment pad.

Section 7.0 Wind Control

To prevent waste from becoming wind borne, the MSW is wetted—down during the transfer of the waste from the waste collection vehicle, through the hopper, to the transfer trailer. Any scattered or blown waste is collected at the end of each working day and loaded into a transfer trailer.

Section 8.0 Compliance with Other Environmental Requirements

Transfer Station operations and maintenance activities comply with all applicable environmental requirements.

Section 9.0 Fire Control Policy

The Transfer Station is located at MCAS Cherry Point, and is therefore covered by three fire stations. Additionally, hose bibs, one of which is located at the top of the Transfer Station, can also be utilized on small fires.

Section 10.0 Equipment

The following equipment is available for use by the transfer facility;

1. Transfer trailers (with compaction rams)
2. Hose bibs with hoses
3. Telephone

Section 11.0 Signs

A sign is posted at the Transfer Station that states;
MCAS Transfer Station
Permit #25—lOT
No public dumping
No liquid waste
No hazardous waste
No asbestos

Section 11.0 Stormwater Treatment and Management

A leachate collection system is installed at the transfer pad with an oil-water separator, a pump station and force main to the sanitary sewer outfall.

Section 12 Proposed Life of Facility

It is anticipated that the Transfer Station, because it is a necessary component of the base infrastructure, will continue to operate for the life of MCAS Cherry Point.

Section 13.0 Points-of-Contact

Regulatory Point-of-Contact: MCAS, Cherry Point, Environmental Affairs Department (252-466-3631)
Operational Point –of-Contact: MCAS, Cherry Point, Facilities Support Contracts (252-466-4750)

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC

Received
APR 2007
Waste Management

IN REPLY REFER TO:
ROICC
PSC Box 8006
Cherry Point, NC 28533-006

11000/ML
N62470-04-C-1183
5 April 2007

State of North Carolina
Department of Environment
Health & Natural Resources
Post Office Box 29536
Raleigh, NC 27626-0536

Re: Contract No. N62470-04-C-1183, Construct Upgrades to Correct Transfer Station Deficiencies, MCAS Cherry Point, North Carolina

Gentlemen:

In accordance with Permit Number 25-10 dated 19 November 1997, modified 23 September 2004, Cherry Point Transfer Station Mockinbird Road Site, it is herein certified that all work was accomplished in accordance with the approved plans and specification.

For further information contact the undersigned at 252-466-4733.

Sincerely,

M. C. LYNCH, P.E.
Deputy Resident Officer
In Charge of Construction

Copy: Facilities Engineering
Facilities Maintenance Department
Environmental Affairs Department, Attn: Ms. Alicia Filzen

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 3-12-08 BY KP

Carmen Johnson
Doc/Perm/Co ID # 25-10T 8/28/08 Doc ID# DIN 5727

Permit No. 25-10T

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

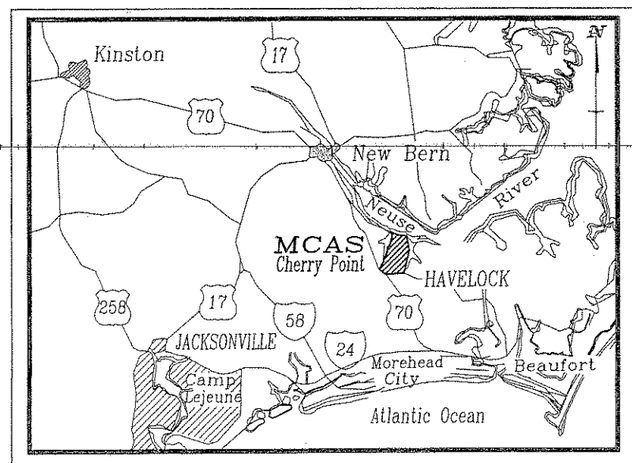
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA
PROJECT NO. CP05002R

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 3-12-08 BY K.P.

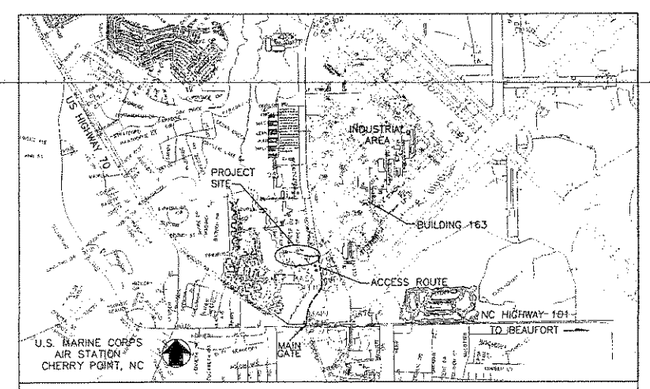
Received
APR 2007
Waste Management

DRAWING INDEX

NAVFAC DWG NO.	SHEET NO.	SHEET TITLE
4505688	G-1	TITLE SHEET
4505689	C-1	EXISTING CONDITIONS
4505690	C-2	DEMOLITION PLAN
4505691	C-3	SITE PLAN
4505692	C-4	SITE GRADING AND EROSION CONTROL PLAN
4505693	C-5	UTILITIES PLAN
4505694	C-6	ADDITIVE BID ITEM NO. 1 SITE PLAN
4505695	C-7	SITE DETAILS
4505696	C-8	SANITARY SEWER DETAILS
4505697	C-9	CIVIL DETAILS
4505698	C-10	CIVIL DETAILS
4505699	C-11	BORING LOGS
4505700	C-12	BORING LOGS
4505701	S-1	GENERAL STRUCTURAL NOTES AND DETAILS
4505702	S-2	STRUCTURAL SITE PLAN
4505703	S-3	HOPPER/SLAB PLAN
4505704	S-4	ADDITIVE BID ITEM NO. 1 PLAN
4505705	S-5	STRUCTURAL DETAILS
4505706	S-6	STRUCTURAL DETAILS
4505707	S-7	STRUCTURAL DETAILS
4505708	A-1	FLOOR PLAN AND WALL SECTIONS
4505709	A-2	BUILDING ELEVATIONS
4505710	E-1	SITE ELECTRICAL
4505711	E-2	ELECTRICAL DETAILS
4505712	E-3	ELECTRICAL ELEVATION AND ADDITIVE BID ITEM NO. 1
4505713	E-4	ELECTRICAL DETAILS
4505714	M-1	MECHANICAL PLAN ADDITIVE BID ITEM NO. 1



VICINITY MAP

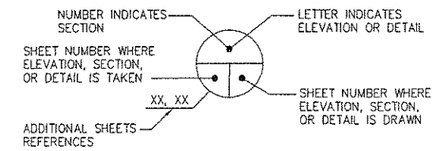


LOCATION MAP

0 1600 3900 5200 7800 13000
(IN FEET)
1 inch = 2600 ft.

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND INSTALLATION ACTIVITIES. COST TO REPAIR DAMAGED UTILITIES SHALL BE BORNE BY CONTRACTOR.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES IF REQUIRED DURING INSTALLATION OF NEW WORK.
3. WHEN WORKING ADJACENT TO EXISTING STRUCTURES, POLES, ETC., CONTRACTOR SHALL USE WHATEVER METHODS ARE NECESSARY TO PROTECT STRUCTURES FROM DAMAGE.
4. ALL EXISTING GRASS AREAS THAT ARE DISTURBED SHALL BE SODDED.



ELEVATION, SECTION, OR DETAIL SYMBOL

NO.	DESCRIPTION	DATE	APPR.

DESIGNED & ENGINEERED BY:
Dewberry
Dewberry & Davis, Inc.
8401 ARLINGTON DRIVE
SUITE 100
RALEIGH, NC 27615
PHONE: 919-881-9934
FAX: 919-881-9912

NORTH CAROLINA PROFESSIONAL SEAL 27382 ENGINEER FRANK BRENT THOMAS 4-23-14

APPROVED
ACTIVITY - SATISFACTORY TO
DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC
DATE

A/E	EFD	
SBT		DESIGN
RSM		DRAWN
CHB		REVIEW
CHB		QC
		CHIEF ARCH./ ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN SPECIFICATOR

NAVAL FACILITIES ENGINEERING COMMAND
DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

TITLE SHEET

CODE ID. NO. 80091 SIZE D
SCALE AS SHOWN
FYZ NO. 5846
STA. PROJ NO. CP05002R
SPEC. NO. 05041183
CONSTR. CONTR. NO. N62470-04-C-1183
NAVFAC DRAWING NO. 4505688
SHEET 1 OF 27

G-1

NOTES:

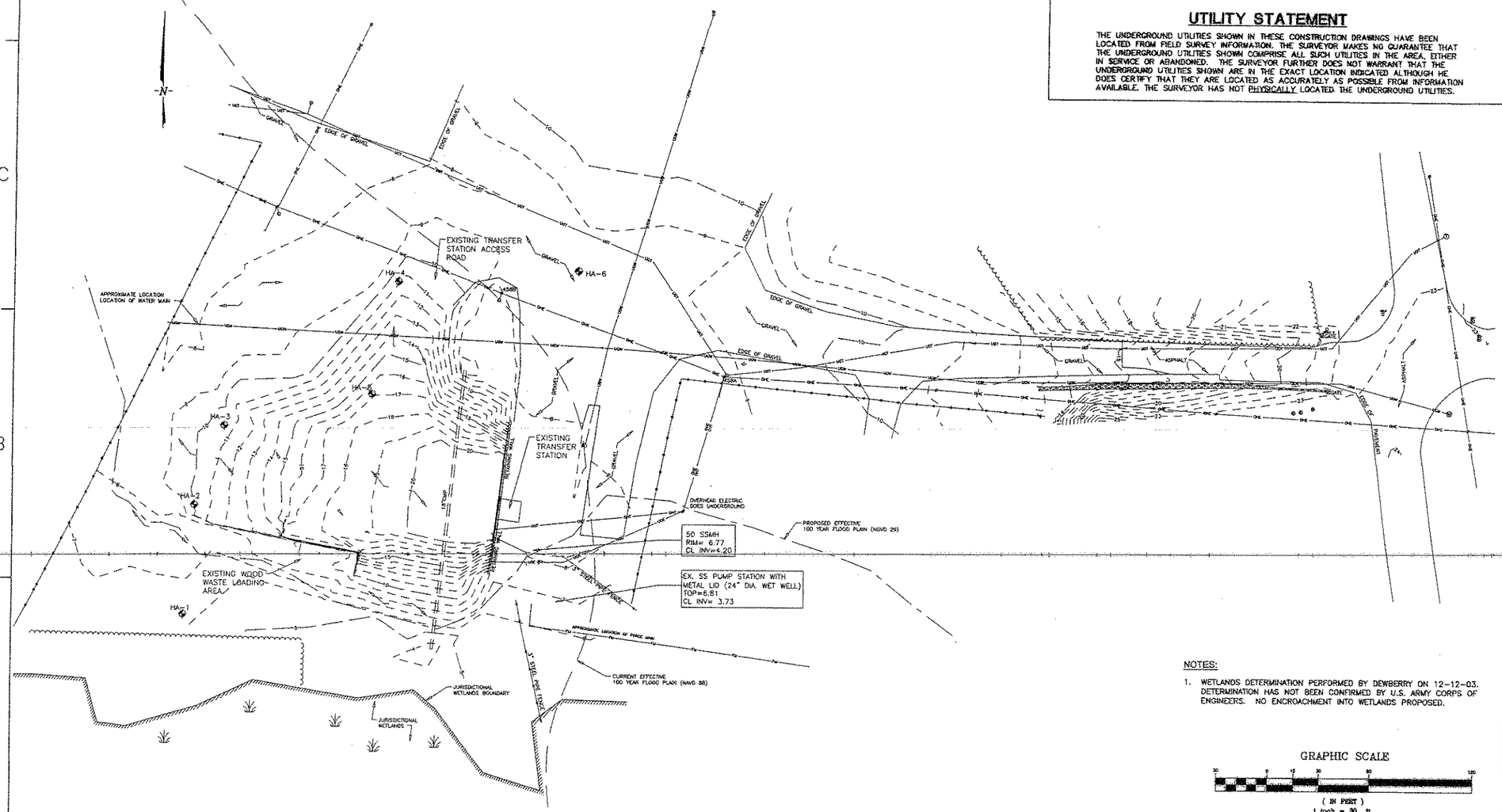
1. VERTICAL CONTROL IS RELATED TO STATION NUMBER "8-93 HOR", ELEVATION 22.63.
2. HORIZONTAL CONTROL IS RELATED TO STATION NUMBER "8-93 HOR" AND "9-93 HOR" AS SHOWN BELOW:
   8-93 HOR - N=421596.870, E=2628269.026
   9-93 HOR - N=422792.424, E=2628062.145

   8-93 HOR IS A CONCRETE MONUMENT WITH A BRASS DISK LOCATED AT THE INTERSECTION OF ROOSEVELT BOULEVARD AND "A" STREET.

   9-93 HOR IS A CONCRETE MONUMENT WITH A BRASS DISK LOCATED AT THE INTERSECTION OF ROOSEVELT BOULEVARD AND "C" STREET.
3. VALUES ARE PROVIDED BY CHERRY POINT MCAS FACILITIES ENGINEERING, BASED ON HORIZONTAL DATUM NAD 1983, AND VERTICAL NAVD 1988.
4. UNDERGROUND UTILITIES SHOWN HAVE BEEN FIELD LOCATED BASED ON DESIGNATION BY LOCATING CONTRACTORS.
5. BORINGS PERFORMED BY S&ME, INC. BORING DATA SHOWN IN REPORT OF SUBSURFACE EXPLORATION MCAS CHERRY POINT - TRANSFER STATION, CHERRY POINT, NORTH CAROLINA, S&ME PROJECT NO. 1051-04-034 DATED MARCH 18, 2004. SEE SPECIFICATIONS FOR REPORT.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN IN THESE CONSTRUCTION DRAWINGS HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



NOTES:

1. WETLANDS DETERMINATION PERFORMED BY DEWBERRY ON 12-12-03. DETERMINATION HAS NOT BEEN CONFIRMED BY U.S. ARMY CORPS OF ENGINEERS. NO ENCROACHMENT INTO WETLANDS PROPOSED.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

MARK	DATE	REVISIONS	TRIAL

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.
2401 WESTBOROUGH DRIVE
SUITE 102
RALEIGH, NC 27607
PHONE: 919-782-9000
FAX: 919-851-2000

NORTH CAROLINA PROFESSIONAL SEAL L-0285 ENGINEER

APPROVED

RELEASED - SUBSIDIARY TO

DATE

APPROVED

FOR BID FOR COMMANDER WHEAC

DATE

A/E		E/O
SRT	DESIGN	
RSM	DRAWN	
CHB	REVIEW	
CHB	QC	
	CHIEF ENGR./ ENGR.	

PROJECT MANAGER

CIVIL ENGINEERING

BRANCH MANAGER

BRANCH DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND

DEPARTMENT OF THE NAVY

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

EXISTING CONDITIONS

CODE ID. NO. 80091 | SIZE 0

SCALE: AS SHOWN

FED. NO. 5846

STL PROJ. NO. CP050022R

SPEC. NO. 05041183

CONTR. CONTR. NO.

N62470-04-C-1183

NAVFAC DRAWING NO.

4505689

SHEET 2 OF 27

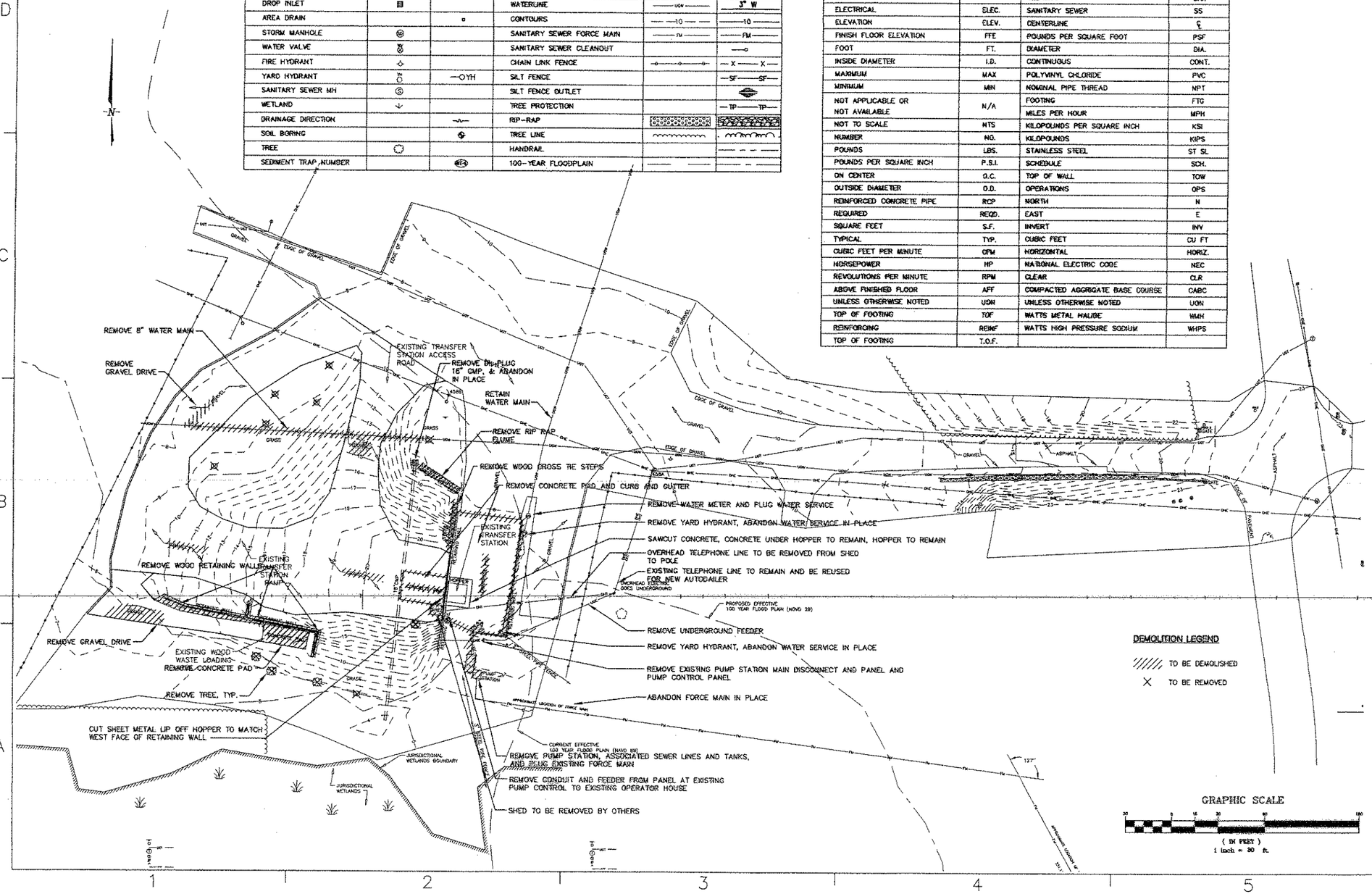
C-1

STANDARD LEGEND

DESCRIPTION	EXISTING	NEW	DESCRIPTION	EXISTING	NEW
LIGHT POLE			REINFORCED CONCRETE PIPE	EX. 18" CMP	
ELECTRIC BOX			OVERHEAD ELECTRIC LINE	OHE	
ELECTRIC MANHOLE			OVERHEAD TELEPHONE LINE	OHT	
POWER POLE			UNDERGROUND ELECTRIC LINE	UGE	UGE
TELEPHONE PEDISTAL			UNDERGROUND TELEPHONE LINE	UGT	UGT
DROP INLET			WATERLINE	UGW	3" W
AREA DRAIN			CONTOURS	10	10
STORM MANHOLE			SANITARY SEWER FORCE MAIN	FM	FM
WATER VALVE			SANITARY SEWER CLEANOUT		CO
FIRE HYDRANT			CHAIN LINK FENCE		X X
YARD HYDRANT		YH	SILT FENCE		SF SF
SANITARY SEWER MH			SILT FENCE OUTLET		
WETLAND			TREE PROTECTION		TP TP
DRAINAGE DIRECTION			RIP-RAP		
SOIL BORING			TREE LINE		
TREE			HANDRAIL		
SEDIMENT TRAP NUMBER			100-YEAR FLOODPLAIN		

STANDARD ABBREVIATIONS

DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION
EXISTING	EX.	DROP INLET	DI
		LONG SIDE VERTICAL	LSV
UNDERGROUND ELECTRICAL	UGE	OVERHEAD ELECTRICAL	OHE
REDUCED PRESSURE ZONE	RPZ	HOLLOW STRUCTURAL SHAPE	HSS
WATER	W	CLEANOUT	C.O.
ELECTRICAL	ELEC.	SANITARY SEWER	SS
ELEVATION	ELEV.	CENTERLINE	℄
FINISH FLOOR ELEVATION	FFE	POUNDS PER SQUARE FOOT	PSF
FOOT	FT.	DIAMETER	DIA.
INSIDE DIAMETER	I.D.	CONTINUOUS	CONT.
MAXIMUM	MAX	POLYVINYL CHLORIDE	PVC
MINIMUM	MIN	NOMINAL PIPE THREAD	NPT
NOT APPLICABLE OR NOT AVAILABLE	N/A	FOOTING	FTG
		MILES PER HOUR	MPH
NOT TO SCALE	NTS	KILOPOUNDS PER SQUARE INCH	KSI
NUMBER	NO.	KILOPOUNDS	KIPS
POUNDS	LBS.	STAINLESS STEEL	ST SL
POUNDS PER SQUARE INCH	P.S.I.	SCHEDULE	SCH.
ON CENTER	O.C.	TOP OF WALL	TOW
OUTSIDE DIAMETER	O.D.	OPERATIONS	OPS
REINFORCED CONCRETE PIPE	RCP	NORTH	N
REQUIRED	REQD.	EAST	E
SQUARE FEET	S.F.	INVERT	INV
TYPICAL	TYP.	CUBIC FEET	CU FT
CUBIC FEET PER MINUTE	CFM	HORIZONTAL	HORIZ.
HORSEPOWER	HP	NATIONAL ELECTRIC CODE	NEC
REVOLUTIONS PER MINUTE	RPM	CLEAR	CLR
ABOVE FINISHED FLOOR	AFF	COMPACTED AGGREGATE BASE COURSE	CABC
UNLESS OTHERWISE NOTED	UON	UNLESS OTHERWISE NOTED	UON
TOP OF FOOTING	TOF	WATTS METAL HALIDE	WMH
REINFORCING	REINF	WATTS HIGH PRESSURE SODIUM	WHPS
TOP OF FOOTING	T.O.F.		



DEMOLITION LEGEND

TO BE DEMOLISHED

X TO BE REMOVED

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO.	DATE	DESCRIPTION	APPR.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 15370 ENGINEER CHRISTOPHER HOWARD BROWN

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E		EFD
SBT	DESIGN	
RSM	DRAWN	
CHB	REVIEW	
CHB		
	CHIEF ARCH./ ENGR.	

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND

DEPARTMENT OF THE NAVY

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

DEMOLITION PLAN

CODE ID. NO. 80091 | SIZE D

SCALE: AS SHOWN

RED NO. 5846

STA. PROJ. NO. GP050082R

SPEC. NO. 05D41183

CONSTR. CONTR. NO.

N62470-04-C-1183

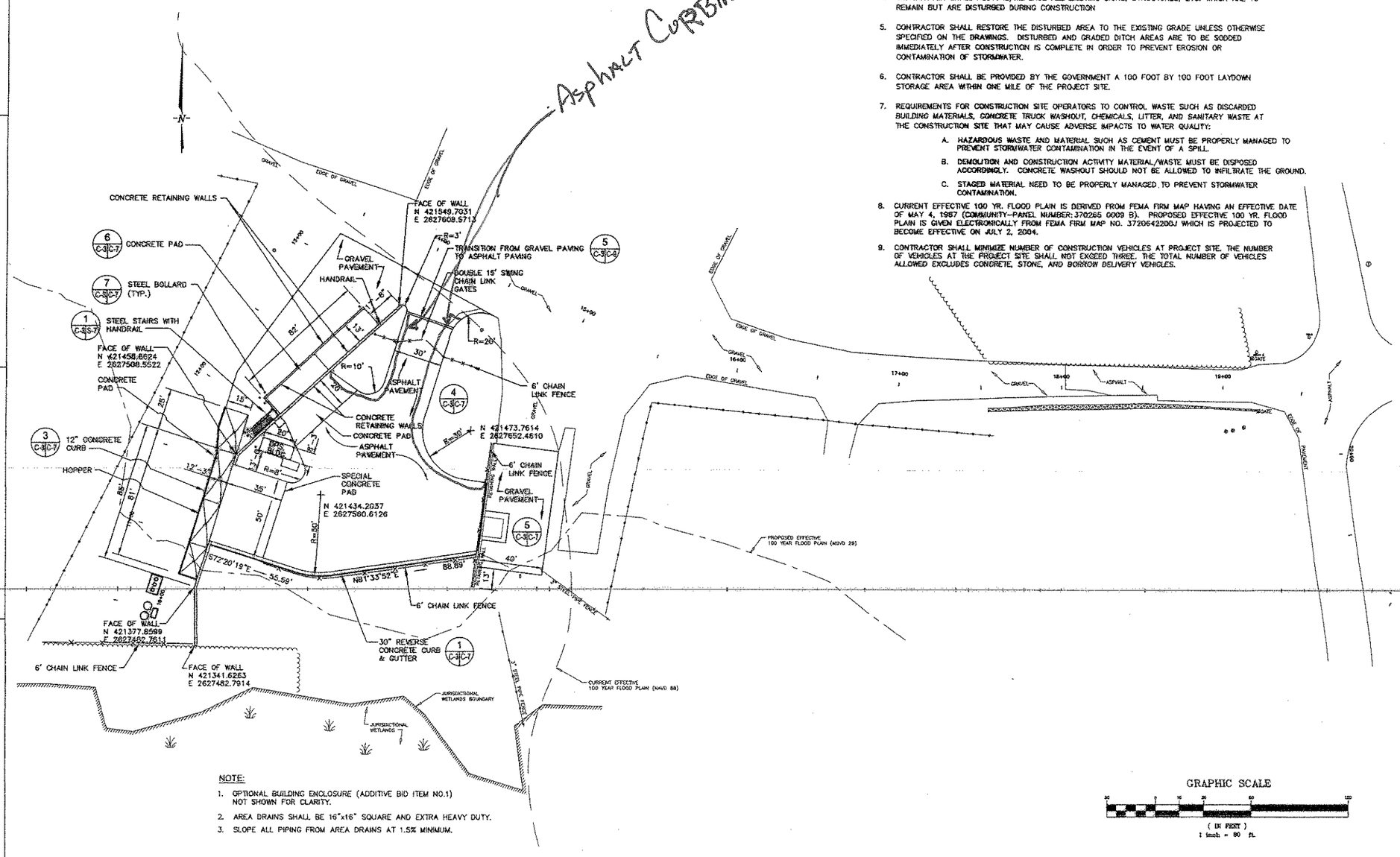
NAVFAC DRAWING NO.

4505690

SHEET 3 OF 27

C-2

Asphalt Curbing Added.



GENERAL NOTES:

1. ALL EXISTING UTILITIES HAVE BEEN LOCATED FROM THE INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY LOCATE, BOTH HORIZONTALLY AND VERTICALLY, ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. COST TO REPAIR DAMAGED UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
2. CONTRACTOR SHALL INSTALL MEASURES AS NECESSARY DURING CONSTRUCTION FOR SEDIMENTATION AND EROSION CONTROL.
3. SEE SHEET C-1 FOR HORIZONTAL AND VERTICAL CONTROL.
4. CONTRACTOR SHALL RESTORE/REPLACE ALL EXISTING SIGNS, STRUCTURES, ETC. WHICH ARE TO REMAIN BUT ARE DISTURBED DURING CONSTRUCTION
5. CONTRACTOR SHALL RESTORE THE DISTURBED AREA TO THE EXISTING GRADE UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. DISTURBED AND GRADED DITCH AREAS ARE TO BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE IN ORDER TO PREVENT EROSION OR CONTAMINATION OF STORMWATER.
6. CONTRACTOR SHALL BE PROVIDED BY THE GOVERNMENT A 100 FOOT BY 100 FOOT LAYDOWN STORAGE AREA WITHIN ONE MILE OF THE PROJECT SITE.
7. REQUIREMENTS FOR CONSTRUCTION SITE OPERATORS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER, AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY:
   - A. HAZARDOUS WASTE AND MATERIAL SUCH AS CEMENT MUST BE PROPERLY MANAGED TO PREVENT STORMWATER CONTAMINATION IN THE EVENT OF A SPILL.
   - B. DEMOLITION AND CONSTRUCTION ACTIVITY MATERIAL/WASTE MUST BE DISPOSED ACCORDINGLY. CONCRETE WASHOUT SHOULD NOT BE ALLOWED TO INFILTRATE THE GROUND.
   - C. STAGED MATERIAL NEED TO BE PROPERLY MANAGED TO PREVENT STORMWATER CONTAMINATION.
8. CURRENT EFFECTIVE 100 YR. FLOOD PLAIN IS DERIVED FROM FEMA FIRM MAP HAVING AN EFFECTIVE DATE OF MAY 4, 1987 (COMMUNITY-PANEL NUMBER: 370265 0009 B). PROPOSED EFFECTIVE 100 YR. FLOOD PLAIN IS GIVEN ELECTRONICALLY FROM FEMA FIRM MAP NO. 3720642200J WHICH IS PROJECTED TO BECOME EFFECTIVE ON JULY 2, 2004.
9. CONTRACTOR SHALL MINIMIZE NUMBER OF CONSTRUCTION VEHICLES AT PROJECT SITE. THE NUMBER OF VEHICLES AT THE PROJECT SITE SHALL NOT EXCEED THREE. THE TOTAL NUMBER OF VEHICLES ALLOWED EXCLUDES CONCRETE, STONE, AND BORROW DELIVERY VEHICLES.

NOTE:

1. OPTIONAL BUILDING ENCLOSURE (ADDITIVE BID ITEM NO.1) NOT SHOWN FOR CLARITY.
2. AREA DRAINS SHALL BE 16"x16" SQUARE AND EXTRA HEAVY DUTY.
3. SLOPE ALL PIPING FROM AREA DRAINS AT 1.5% MINIMUM.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 60 ft.

MARK	DATE	REVISION DESCRIPTION

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.
8401 McPHERSON DRIVE
SUITE 100
WILLIAMSBURG, VA 23188
PHONE: 757-565-1000
FAX: 757-565-1002

NORTH CAROLINA PROFESSIONAL SEAL 15370 ENGINEER CHRISTOPHER HOWARD BROWN

REVIEWED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR USE FOR COMMANDER NAVFAC

DATE

AVE	BY	
SBT		DESIGN
RSW		DRAWN
CHB		REVIEW
CHB		QC

CHIEF ARCH/ ENGR.

PROJECT MANAGER
FIRE PROTECTION
REVIEW MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

SITE PLAN

CODE ID. NO. 89261 | SIZE D

SCALE: AS SHOWN

YED NO. 5846

STA. PROJ. NO. CP050602R

SPEC. NO. 05041183

CONSTR. CONTR. NO.
N62470-04-C-1183

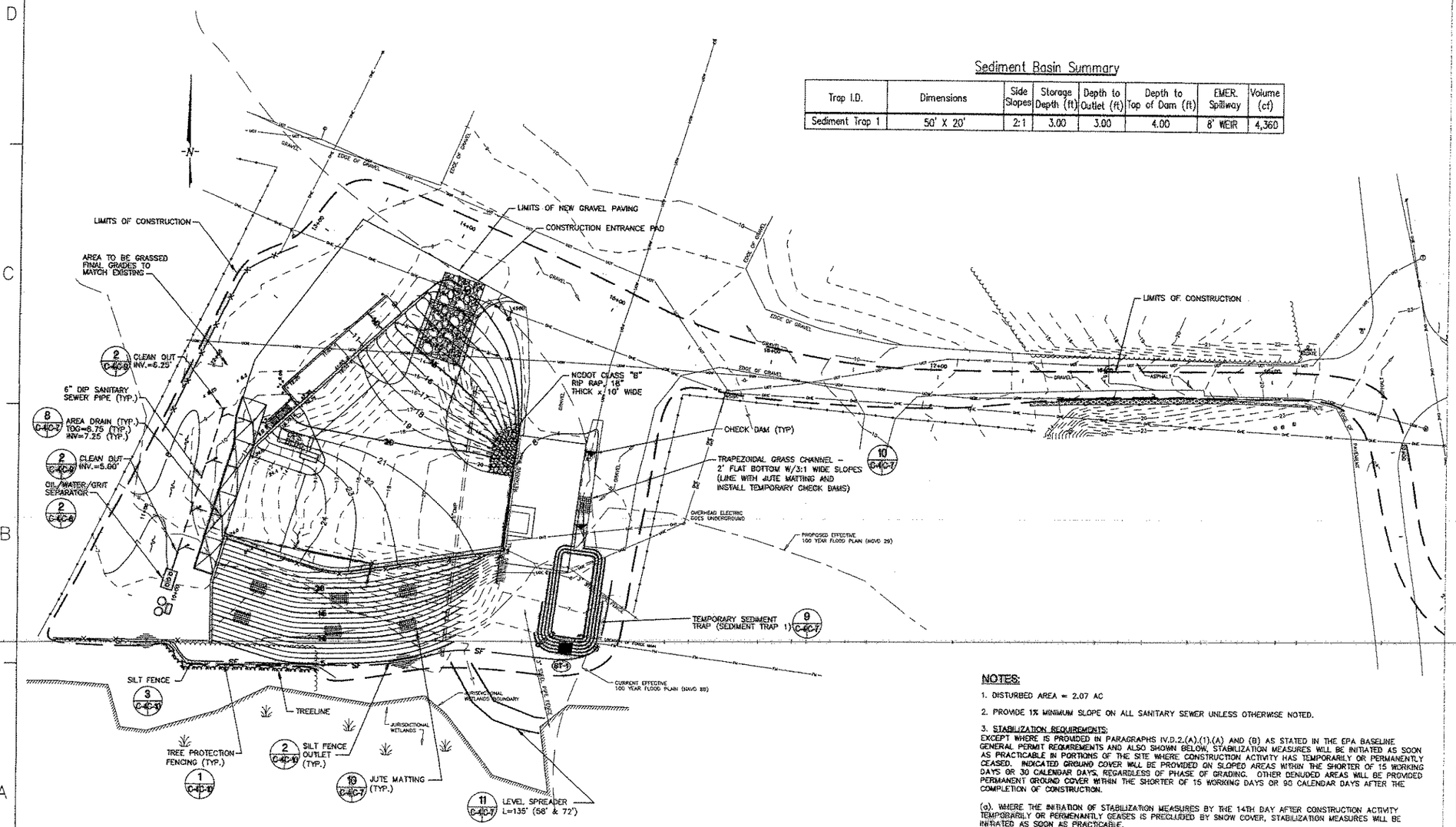
NAVFAC DRAWING NO.
4505691

SHEET 4 OF 27

C-3

Sediment Basin Summary

Trap I.D.	Dimensions	Side Slopes	Storage Depth (ft)	Depth to Outlet (ft)	Depth to Top of Dam (ft)	EMER. Spillway	Volume (cf)
Sediment Trap 1	50' X 20'	2:1	3.00	3.00	4.00	8' WEIR	4,360



NOTES:

1. DISTURBED AREA = 2.07 AC

2. PROVIDE 1% MINIMUM SLOPE ON ALL SANITARY SEWER UNLESS OTHERWISE NOTED.

3. STABILIZATION REQUIREMENTS:
EXCEPT WHERE IS PROVIDED IN PARAGRAPHS IV.D.2.(A).(1).(A) AND (B) AS STATED IN THE EPA BASELINE GENERAL PERMIT REQUIREMENTS AND ALSO SHOWN BELOW, STABILIZATION MEASURES WILL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. INDICATED GROUND COVER WILL BE PROVIDED ON SLOPED AREAS WITHIN THE SHORTER OF 15 WORKING DAYS OR 30 CALENDAR DAYS, REGARDLESS OF PHASE OF GRADING. OTHER DENUDED AREAS WILL BE PROVIDED PERMANENT GROUND COVER WITHIN THE SHORTER OF 15 WORKING DAYS OR 90 CALENDAR DAYS AFTER THE COMPLETION OF CONSTRUCTION.

(a). WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMENANTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES WILL BE INITIATED AS SOON AS PRACTICABLE.

(b). WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (e.g. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 21 DAYS) THEN STABILIZATION DO NOT HAVE TO HAVE BE INITIATED ON THAT PORTION OF SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.

4. THE CONTRACTOR WILL CONDUCT INSPECTION OF ALL EROSION CONTROL DEVICES AND STORMWATER OUTLETS WEEKLY AND WITHIN 24 HOURS OF A 0.5" RAIN EVENT. THE INSPECTION AND MAINTENANCE RECORDS WILL BE MAINTAINED ON THE ONSITE OFFICE. ADDITIONALLY, A RAIN GAUGE WILL BE INSTALLED TO MONITOR RAINFALL.

NO.	DATE	DESCRIPTION	BY

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 15370 CHRISTOPHER HOWARD SMITH ENGINEER

APPROVED

ACTIVITY - DATE/SIGNATURE

DATE

APPROVED

FOR CO FOR COMMANDER NAVFAC

DATE

A/E	E/D
SBT	DESIGN
RSM	DRAWN
CHB	REVIEW
CHB	QC
	CHIEF ARCH./ ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND

DEPARTMENT OF THE NAVY

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

SITE GRADING AND EROSION CONTROL PLAN

CODE ID. NO. 80091 | SIZE D

SCALE: AS SHOWN

FED. NO. 5846

ENG. PROJ. NO. CP050002R

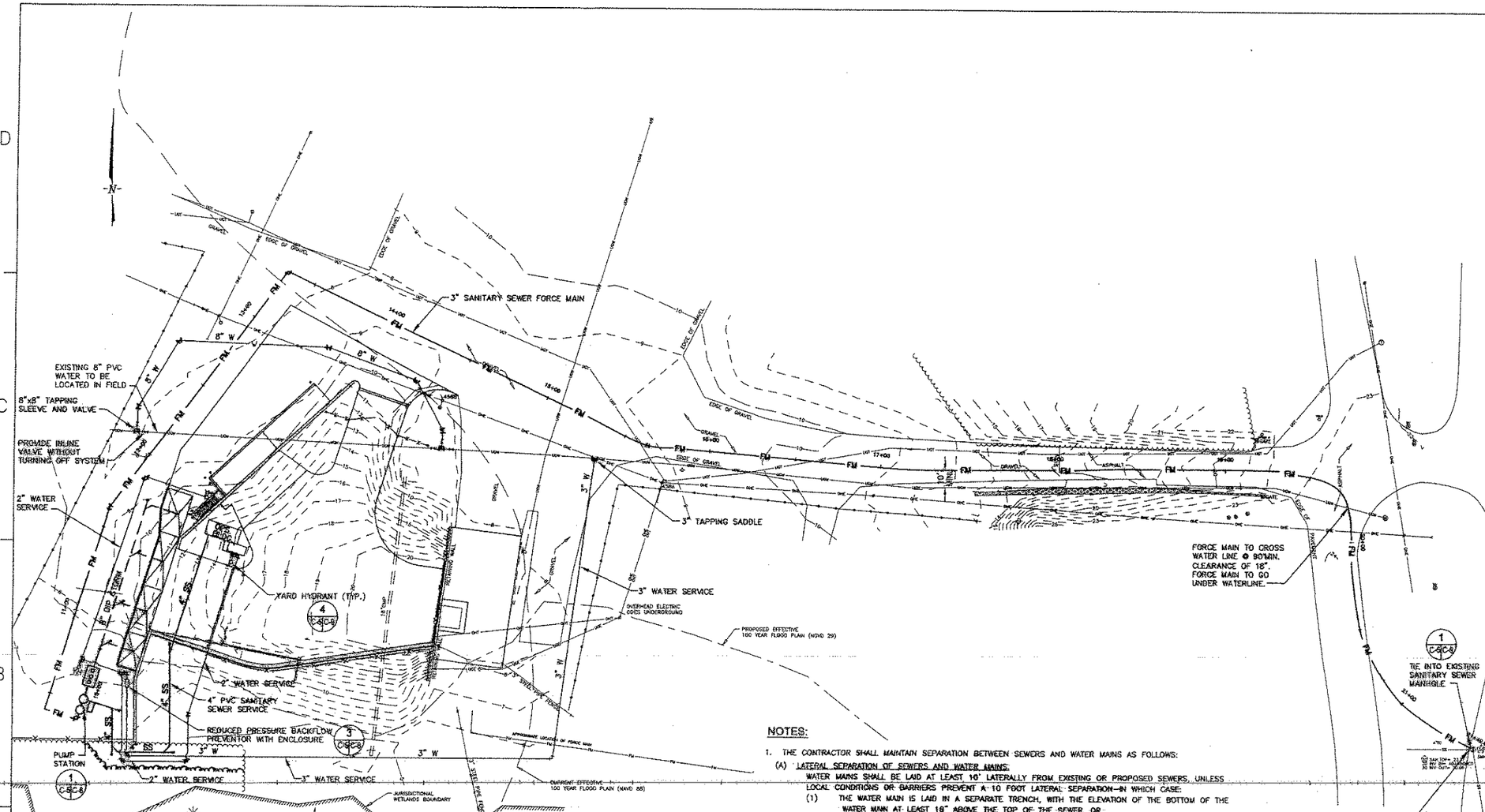
SPEC. NO. 05041183

CONTR. CONTR. NO. N62470-04-C-1183

NAVFAC DRAWING NO. 4505692

SHEET 5 OF 27

C-4



NOTES:

1. THE CONTRACTOR SHALL MAINTAIN SEPARATION BETWEEN SEWERS AND WATER MAINS AS FOLLOWS:
   (A) LATERAL SEPARATION OF SEWERS AND WATER MAINS.
   WATER MAINS SHALL BE LAID AT LEAST 10' LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION—IN WHICH CASE:
   (1) THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER, OR
   (2) THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER.
   (B) CROSSING A WATER MAIN OVER A SEWER
   WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS 18" ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18" VERTICAL SEPARATION—IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10' ON EACH SIDE OF THE POINT OF CROSSING.
   (C) CROSSING A WATER MAIN UNDER A SEWER.
   WHENEVER IT IS NECESSARY FOR A WATER MAIN TO BE CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
2. CONTRACTOR SHALL INSTALL NEW 8" WATER MAIN WITH TAPPING SLEEVE AND VALVE AND CUTTING INLINE VALVE WITHOUT DISTURBING SERVICE.

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15370 CHRISTOPHER HOWARD BROWN

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

TOO LED FOR COMMANDER NAVFAC

DATE

A/E | EFO

SBT DESIGN
RSM DRAWN
CHB REVIEW
CHB QC
CHIEF ARCH./ ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
SECTION DIRECTOR

DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

NAVAL FACILITIES ENGINEERING COMMAND

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

UTILITIES PLAN

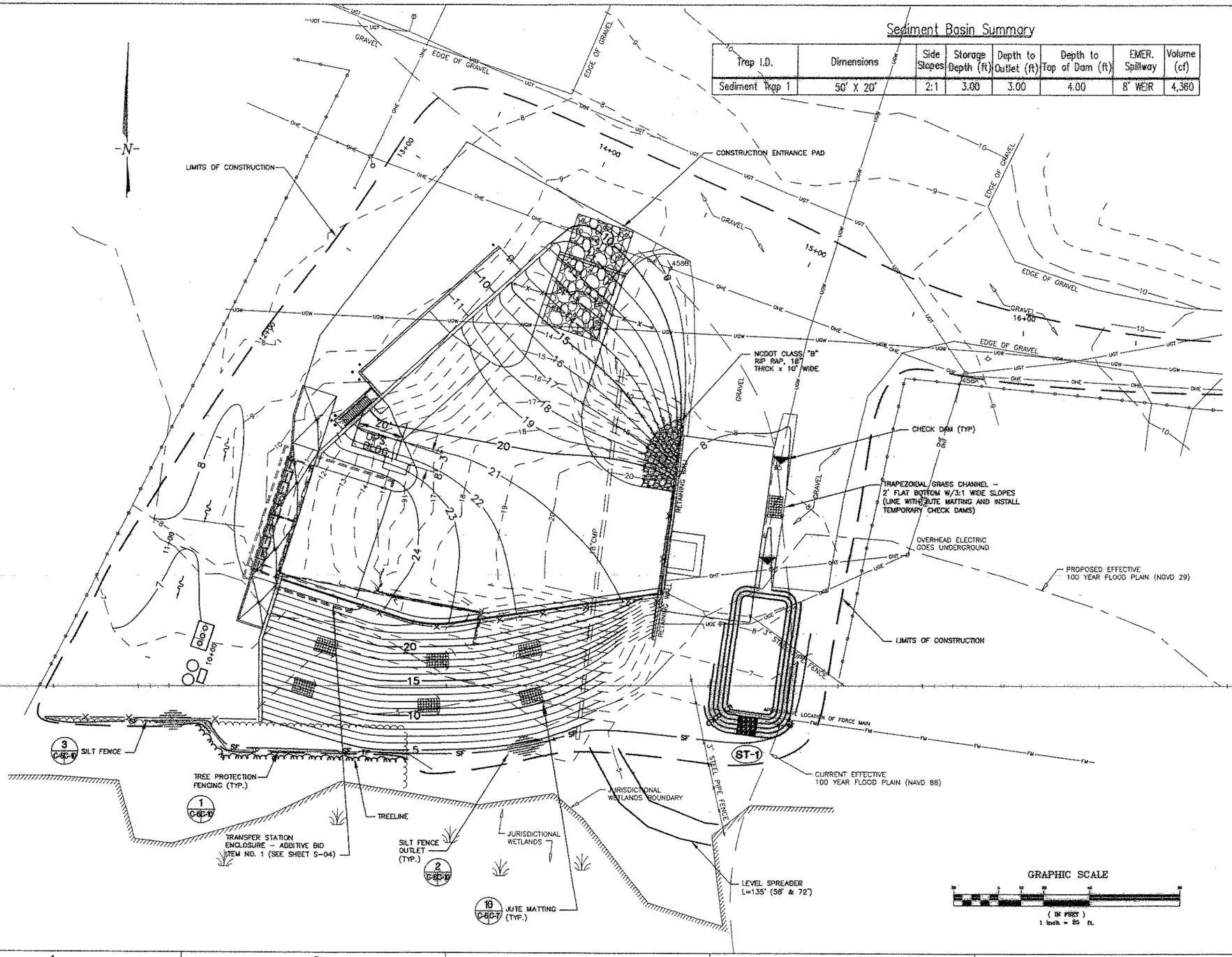
CODE IDENT. NO. 80007 SIZE D

SCALE AS SHOWN
VED NO. 5846
STA. PROJ. NO. CP05002R
SPEC. NO. 05041183
CONSTR. CONTR. NO. N62470-04-C-1183
NAVFAC DRAWING NO. 4505693
SHEET 6 OF 27

C-5

Sediment Basin Summary

Trap I.D.	Dimensions	Side Slopes	Storage Depth (ft)	Depth to Outlet (ft)	Depth to Top of Dam (ft)	EMER. Spillway	Volume (cf)
Sediment Trap 1	50' X 20'	2:1	3.00	3.00	4.00	8' WEIR	4,360



DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 15370 ENGINEER CHRISTOPHER HOWARD BROWN

APPROVED

ACTUARY - SATISFACTORY TO

DATE

APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E EFD

SBT DESIGN

RSM DRAWN

CHB REVIEW

CHB QC

SHEET ARCH./ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

ADDITIVE BID NO. 1 SITE PLAN

CODE ID. NO. 80091 SIZE 0

SCALE: AS SHOWN

FED. NO. 5846

STA. PROJ. NO. CP05002R

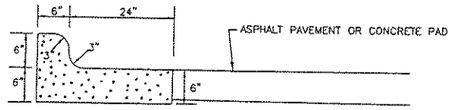
SPEC. NO. 05041183

CONSTR. CONTR. NO. N62470-04-C-1183

NAVFAC DRAWING NO. 4505694

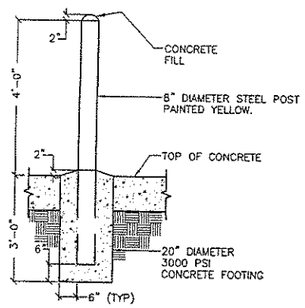
SHEET 7 OF 27

C-6

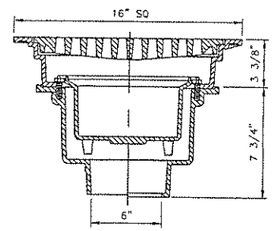


NOTES:
STD. CROWN -1/4"/1' FROM CONCRETE PAD
NOT TO EXCEED -5%

1 C-3|C-7 REVERSE CURB AND GUTTER
N.T.S.



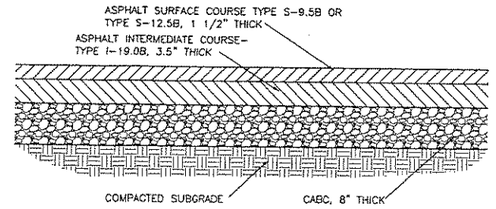
7 C-3|C-7 STEEL BOLLARD SECTION
N.T.S.



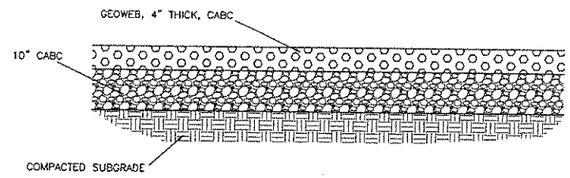
8 C-4|C-7 16" HEAVY DUTY DRAIN
N.T.S.

CONSTRUCTION SEQUENCE

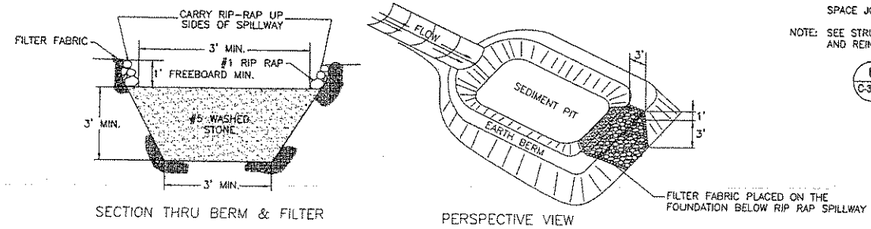
1. CONTRACTOR SHALL INVESTIGATE THE SITE AND DETERMINE THE BEST MEANS FOR A TIMELY WORK SCHEDULE (MCAS HAS REQUESTED A MINIMIZATION OF THE FACILITY DOWN TIME).
2. CONTRACTOR SHALL MAKE ALL REQUIRED SUBMITTALS AND HAVE APPROVAL PRIOR TO THE START OF CONSTRUCTION.
3. CONTRACTOR SHALL INSTALL SILT FENCING, INLET PROTECTION, CONSTRUCTION PAD AND OTHER MEASURES OF EROSION CONTROL AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. THESE DEVICES SHALL BE MAINTAINED ACCORDING TO THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
4. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN 15 DAYS OF COMPLETION OF THE WORK.
5. AFTER DISTURBED AREAS ARE STABILIZED, AS APPROVED BY THE CONTRACTING OFFICER, THE CONTRACTOR SHALL REMOVE THE TEMPORARY DEVICES AND PROPERLY DISPOSE OF THE TRAPPED SEDIMENT. THE CONTRACTOR SHALL STABILIZE THE AREAS DISTURBED DURING THE REMOVAL OPERATION BY APPLYING SOD ACCORDING TO THE SEEDING SCHEDULE.



4 C-3|C-7 ASPHALT PAVEMENT SECTION DETAIL
N.T.S.

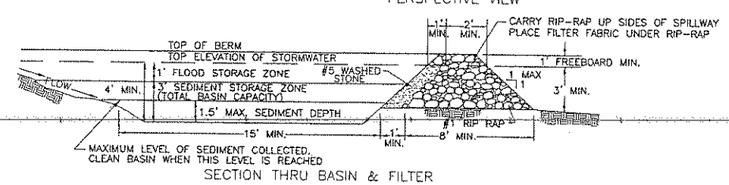


5 C-3|C-7 GRAVEL PAVEMENT SECTION DETAIL
N.T.S.



SECTION THRU BERM & FILTER

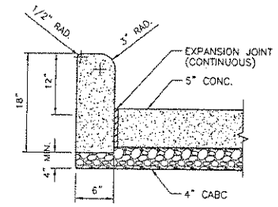
PERSPECTIVE VIEW



SECTION THRU BASIN & FILTER

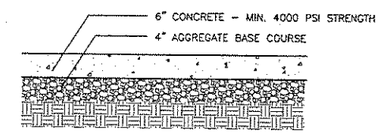
INSPECT TRAP AFTER EACH PERIOD OF SIGNIFICANT RAINFALL. REMOVE SEDIMENT AND RESTORE THE TRAP TO IT'S ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING. ANY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY.

9 C-4|C-7 GRAVEL AND RIP-RAP FILTER BASIN
N.T.S.



NOTES:
1. CONCRETE SHALL BE 4000 P.S.I.
2. CONTRACTION JOINTS SHALL BE SPACED TO 10' INTERVALS.
3. FINISH ALL CONCRETE WITH CURING COMPOUND.
4. THE MINIMUM LENGTH OF ANY SEGMENT SHALL BE 5 FEET.
5. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 30 FEET APART.

3 C-3|C-7 12" CONCRETE CURB
N.T.S.

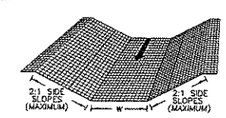


SUBGRADE COMPACTED TO A MINUTE 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698).

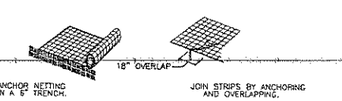
SPACE JOINTS AT 12 TO 15 FEET APART (TYP.)

NOTE: SEE STRUCTURAL DRAWINGS FOR SLAB THICKNESS AND REINFORCEMENT AT TIPPING SLAB.

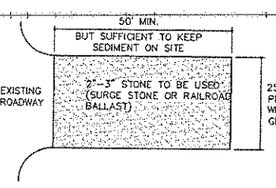
6 C-3|C-7 CONCRETE PAD
N.T.S.



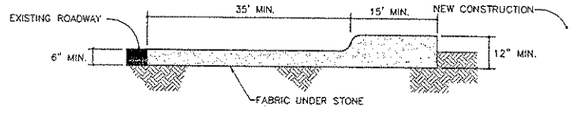
IN CHANNELS OR SLOPES, ROLL OUT STRIPS OF NETTING PARALLEL TO THE DIRECTION OF FLOW AND OVER THE PROTECTIVE MULCH.



10 C-4|C-7 TYPICAL JUTE MATTING DETAIL
C-6
N.T.S.



PLAN

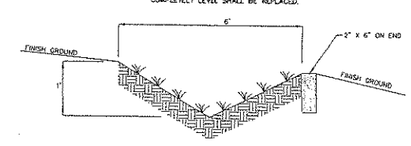


CROSS SECTION

NOTES:
1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
2. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.
3. IF A PROJECT CONTINUES TO PULL MUD AND DEBRIS ON TO THE PUBLIC ROAD, THE GOVERNING AUTHORITY WILL CLEAN THE AREA AND INVOICE THE FINANCIALLY RESPONSIBLE PERSON AS INDICATED ON THE FINANCIAL RESPONSIBILITY FORM.

TYPICAL CONSTRUCTION ENTRANCE PAD
N.T.S.

NOTE: 2" X 6" TO BE LAID AT TOP OF SPREADER FOR ENTIRE LENGTH. ANY PORTION OF BOARD FOUND NOT TO BE COMPLETELY LEVEL SHALL BE REPLACED.



11 C-4|C-7 LEVEL SPREADER TYPICAL CROSS-SECTION
SCALE: NTS

	DATE	APPR
	DESCRIPTION	
		DWG

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.
2001 ROSEWOOD DRIVE
SUITE 300
RALEIGH, NC 27608
PHONE: 919.881.9600
FAX: 919.881.9601

NORTH CAROLINA PROFESSIONAL SEAL 17382 ENGINEER BRENT HOWES 6/30/04

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR CTO FOR COMMANDER NAVFAC

DATE

A/E		CTO
SBT	DESIGN	
RSM	DRAWN	
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CHB	QC	
	CHIEF ARCH./ ENGR.	

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND
DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

SITE DETAILS

CODE ID. NO. 80091	SIZE D
SCALE:	AS SHOWN
FED NO.	5846
STA. PROJ. NO.	CP05002R
SPEC. NO.	05041183
CONSTR. CONTR. NO.	N62470-04-C-1183
NAVFAC DRAWING NO.	4505695
SHEET	8 OF 27

C-7

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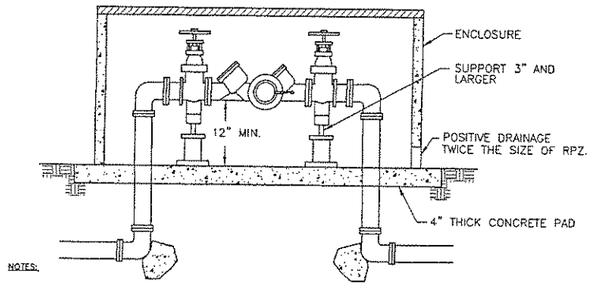
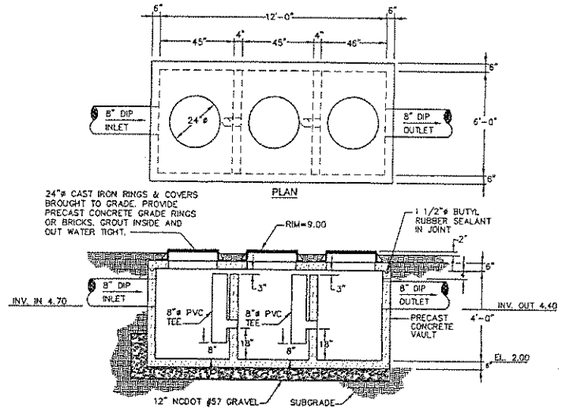


NOTES:

1. ABOVE GROUND VAULT SHALL HAVE ADEQUATE DRAINAGE (TWICE THE DIAMETER OF THE RPZ OR EQUIVALENT).
2. ABOVE GROUND INSULATED VAULT SHALL BE ASSE 106 APPROVED ABOVE GROUND ENCLOSURES.
3. ENCLOSURE SHALL BE SIZED FOR A 2" BACKFLOW PREVENTER. ENCLOSURE INSIDE DIMENSIONS SHALL BE APPROXIMATELY 39"x12"x28".
4. HEAT TAPE ON ABOVE GROUND WATER PIPE SHALL BE PROVIDED PER MANUFACTURER REQUIREMENTS.
5. ENCLOSURE SHALL INCLUDE GFE DUPLEX CONVENIENCE OUTLET.

3 C-5,C-8 E-1 REDUCED PRESSURE BACKFLOW PREVENTER DETAIL
NTS



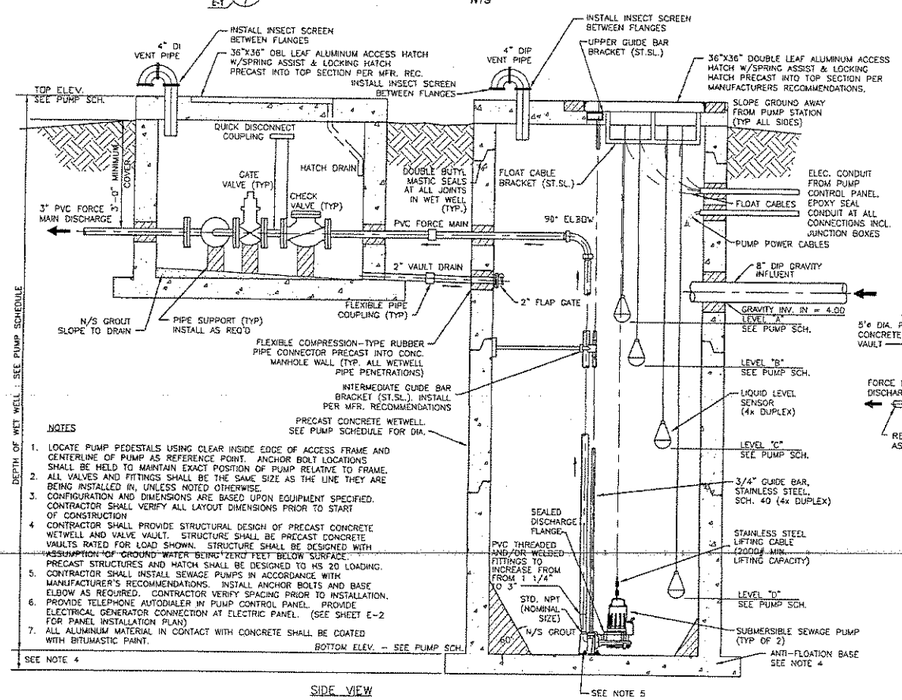
NOTES:

1. PRECAST CONCRETE VAULT SHALL BE 6'x4'x12' MIN. (INSIDE DIMENSION) SIMILAR VAULTS DIFFERING IN NON-ESSENTIAL DETAILS ARE ACCEPTABLE.
2. SEAL CONNECTION OF INLET AND OUTLET TO CONCRETE VAULT, SEAL ANNULAR VOIDS BETWEEN PIPE AND VAULT WALL WITH NON-SHRINK GROUT, INSIDE AND OUT.
3. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN OF PRECAST CONCRETE. STRUCTURE SHALL BE DESIGNED WITH ASSUMPTION OF GROUND WATER BEING ZERO BELOW SURFACE. DESIGN LOAD IS HS-20.

2 C-4,C-8 OIL/WATER/GRIT SEPARATOR DETAIL
N.T.S.

PUMP STATION SCHEDULE

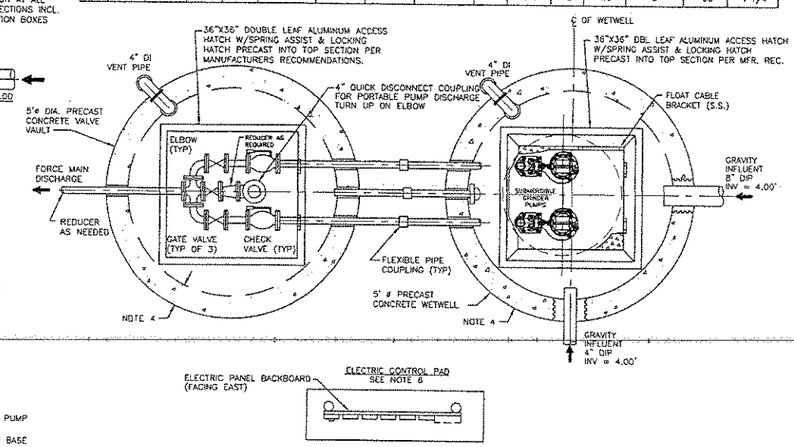
TOP ELEV. (FT)	BOTTOM ELEV. (FT)	WETWELL DEPTH (FT)	DESIGN FLOW (GPM)	DESIGN HEAD (FT)	LEVEL "A" HIGH ALARM (FT)	LEVEL "B" LAG ON (FT)	LEVEL "C" LOAD ON (FT)	LEVEL "D" PUMP OFF (FT)	MOTOR (HP)	VOLTAGE	PHASE	GRAVITY INV. IN (FT)	FORCE MAIN DIA. (IN)	WET WELL DIA. (IN.)	PUMP STA. OUTLET (IN)
9.0	-3.0	12.0	66	43	2.5	1.0	0	-2.0	4	208	3	4.0	3	60	1 1/4



NOTES

1. LOCATE PUMP PEDESTALS USING CLEAR INSIDE EDGE OF ACCESS FRAME AND CENTERLINE OF PUMP AS REFERENCE POINT. ANCHOR BOLT LOCATIONS SHALL BE HELD TO MAINTAIN EXACT POSITION OF PUMP RELATIVE TO FRAME.
2. ALL VALVES AND FITTINGS SHALL BE THE SAME SIZE AS THE LINE THEY ARE BEING INSTALLED IN, UNLESS NOTED OTHERWISE.
3. CONFIGURATION AND DIMENSIONS ARE BASED UPON EQUIPMENT SPECIFIED. CONTRACTOR SHALL VERIFY ALL LAYOUT DIMENSIONS PRIOR TO START OF CONSTRUCTION
4. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN OF PRECAST CONCRETE WETWELL AND VALVE VAULT. STRUCTURE SHALL BE PRECAST CONCRETE VAULTS RATED FOR LOAD SHOWN. STRUCTURE SHALL BE DESIGNED WITH ASSUMPTION OF GROUND WATER BEING ZERO FEET BELOW SURFACE. PRECAST STRUCTURES AND HATCH SHALL BE DESIGNED TO HS 20 LOADING.
5. CONTRACTOR SHALL INSTALL SEWAGE PUMPS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. INSTALL ANCHOR BOLTS AND BASE ELBOW AS REQUIRED. CONTRACTOR VERIFY SPACING PRIOR TO INSTALLATION.
6. PROVIDE TELEPHONE AUTODIALER IN PUMP CONTROL PANEL. PROVIDE ELECTRICAL GENERATOR CONNECTION AT ELECTRIC PANEL. (SEE SHEET E-2 FOR PANEL INSTALLATION PLAN)
7. ALL ALUMINUM MATERIAL IN CONTACT WITH CONCRETE SHALL BE COATED WITH BITUMASTIC PAINT.

1 C-5,C-8 PUMP STATION DETAIL
N.T.S.



DESIGNED & ENGINEERED BY:	Dewberry
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR CO FOR COMMANDER NAVFAC	
DATE	
A/E	CO
SAT	DESIGN
RSM	DRAWN
CHB	REVIEW
CHB	RC
	SHOP MOD/ CNSTR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

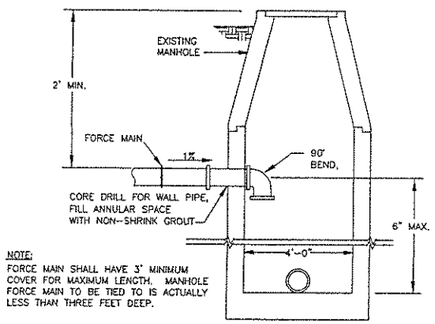
DEPARTMENT OF THE ARMY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

SANITARY SEWER DETAILS

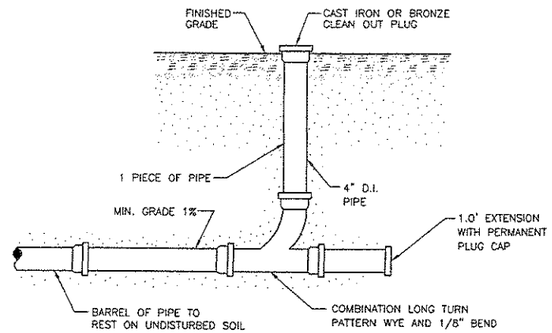
CODE ID. NO. (6001)	SIZE D
SCALE	AS SHOWN
FED. NO.	6846
SPA. PROJ. NO.	CP05002R
SPEC. NO.	05041183
CONTR. COMPL. NO.	N62470-04-C-1183
NAVFAC DRAWING NO.	4505696
SHEET 9 OF 27	C-8

REV	DATE	DESCRIPTION	APPR

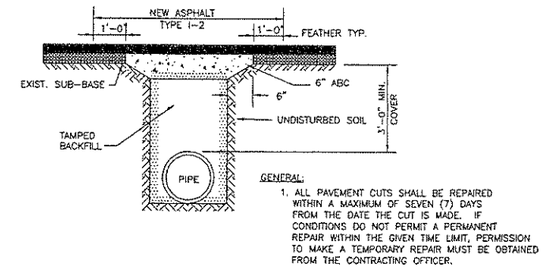


NOTE:
FORCE MAIN SHALL HAVE 3' MINIMUM COVER FOR MAXIMUM LENGTH. MANHOLE FORCE MAIN TO BE TIED TO IS ACTUALLY LESS THAN THREE FEET DEEP.

1 (C-5|C-9) FORCE MAIN CONNECTING TO EXISTING SANITARY MANHOLE DETAIL
N.T.S.

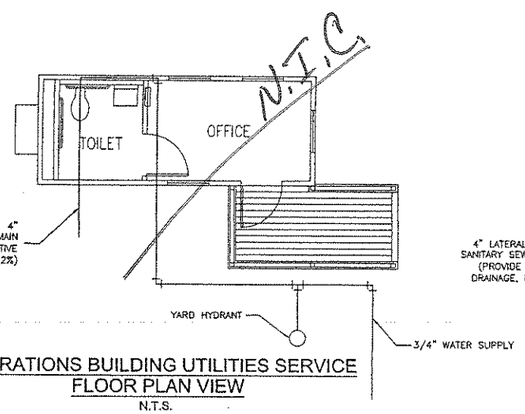


2 (C-4|C-9) CLEANOUT DETAIL
N.T.S.

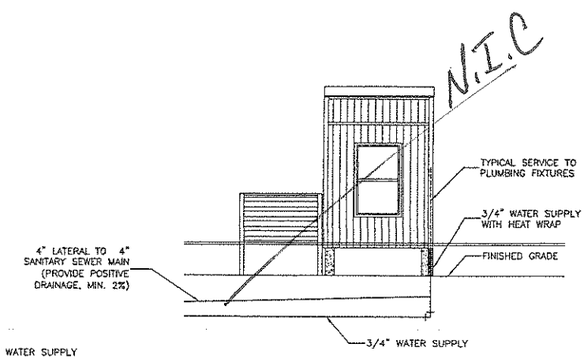


GENERAL:
1. ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN A MAXIMUM OF SEVEN (7) DAYS FROM THE DATE THE CUT IS MADE. IF CONDITIONS DO NOT PERMIT A PERMANENT REPAIR WITHIN THE GIVEN TIME LIMIT, PERMISSION TO MAKE A TEMPORARY REPAIR MUST BE OBTAINED FROM THE CONTRACTING OFFICER.

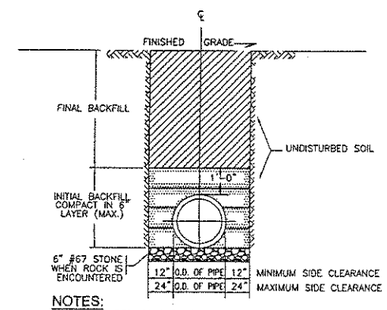
ASPHALT PAVEMENT PATCH DETAILS
N.T.S.



OPERATIONS BUILDING UTILITIES SERVICE FLOOR PLAN VIEW
N.T.S.

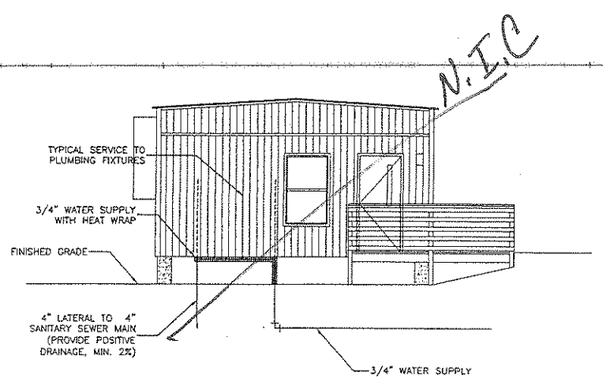


OPERATIONS BUILDING UTILITIES SERVICE EAST ELEVATION
N.T.S.

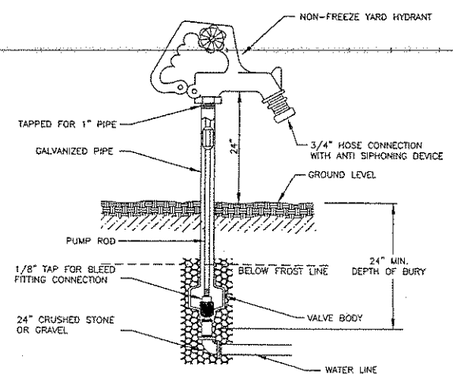


NOTES:
1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE MATERIAL.
4. FINAL BACKFILL SHALL BE TAMPED IN 6" LAYERS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS. IF IN LAWNS OR EASEMENT, 4" TOPSOIL AND 12" CLEAN SELECT FILL IS REQUIRED.

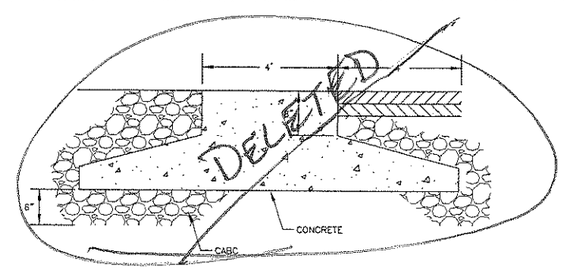
TRENCH BOTTOM DIMENSIONS & BACKFILLING REQUIREMENTS FOR DUCTILE IRON & REINFORCED CONCRETE PIPE.
N.T.S.



OPERATIONS BUILDING UTILITIES SERVICE SOUTH ELEVATION
N.T.S.



4 (C-5|C-9) YARD HYDRANT DETAIL
N.T.S.



5 (C-3|C-9) ASPHALT TO CONCRETE PAVEMENT TRANSITION
N.T.S.

DATE	DESCRIPTION	INIT.

DESIGNED & ENGINEERED BY:
Dewberry
Dewberry & Davis, Inc.
3900 NORWOOD DRIVE
SUITE 101
VIENNA, VIRGINIA 22180
PHONE: 703-847-3700
FAX: 703-847-3800

NORTH CAROLINA PROFESSIONAL SEAL 21303 ENGINEER BRENT THOMAS 6/3/04

APPROVED
ACTIVITY - SATISFACTORY TO
DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC
DATE

A/E	EFD
SBT	DESIGN
RSM	DRAWN
CHB	REVIEW
CHB	QC
	CHIEF BRCH./ ENGR.
	PROJECT MANAGER
	FIRE PROTECTION
	BRANCH MANAGER
	DESIGN DIRECTOR

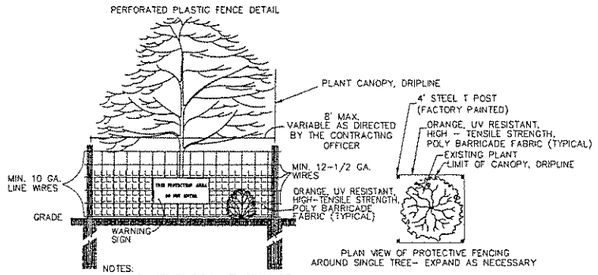
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

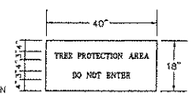
CIVIL DETAILS

COOC ID. NO. 80091 SIZE D
SCALE: AS SHOWN
FED NO. 5846
STA. PROJ. NO. CP05002R
SPEC. NO. 05041183
CONSTR. CONTR. NO. N62470-04-C-1183
NAVFAC DRAWING NO. 4505697
SHEET 10 OF 27
C-9

03/19/04



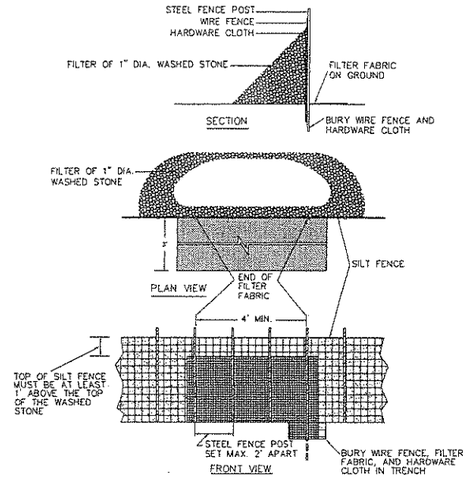
NOTES:
1. ALL PLANTS TO BE SAVED SHALL BE PROTECTED BY FENCING AS SHOWN IN IN THIS DETAIL.
2. CONTRACTOR SHALL INSTALL FENCING PRIOR TO BEGINNING ANY CONSTRUCTION OR GRADING ACTIVITY.
3. CONTRACTOR SHALL CALL FOR INSPECTION AND APPROVAL OF PROTECTIVE FENCING PRIOR TO BEGINNING ANY CONSTRUCTION OR GRADING.
4. PROTECTIVE FENCING SHALL BE LOCATED AT OR OUTSIDE DRIPLINE OF TREES AND 1' MINIMUM OUTSIDE SHRUBS OR OTHER PLANTS.



WARNING SIGN DETAIL

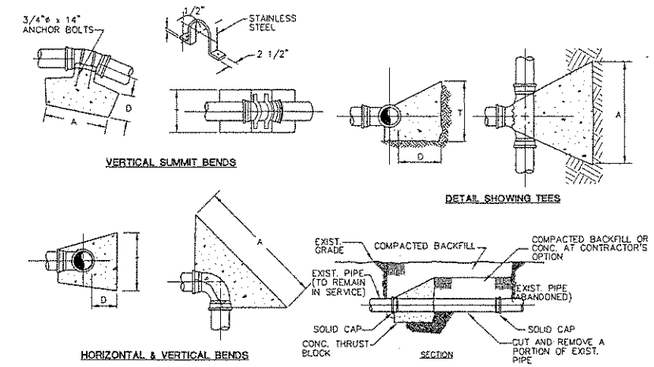
1 / C-4-10 (C-6) TEMPORARY TREE PROTECTION DETAIL

N.T.S.



2 / C-4-10 (C-6) TEMPORARY GRAVEL SILT FENCE OUTLET

N.T.S.



PIPELINE THRUST BLOCK DATA															
PIPE SIZE	TEES AND DEADENDS			90° BEND			45° BEND			22 1/2° BEND			11 1/4° BEND		
	A	T	D	A	T	D	A	T	D	A	T	D	A	T	D
2"-3"	12"	8"	6"	12"	8"	6"	8"	8"	6"	8"	8"	6"	6"	6"	6"
4"-6"	2'-8"	1'-8"	10"	2'-4"	1'-4"	8"	1'-8"	1'-6"	8"	1'-0"	1'-2"	6"	1'-0"	1'-2"	6"
8"	3'-8"	2'-0"	1'-3"	2'-8"	2'-0"	10"	2'-8"	1'-6"	10"	1'-8"	1'-4"	8"	1'-0"	1'-4"	8"
10"	4'-0"	2'-0"	1'-6"	3'-0"	2'-0"	10"	3'-0"	1'-8"	1'-0"	2'-0"	1'-6"	8"	1'-3"	1'-6"	8"
12"	7'-0"	5'-0"	3'-0"	7'-0"	5'-0"	3'-0"	6'-0"	3'-0"	2'-0"	6'-0"	2'-6"	2'-0"	4'-0"	2'-0"	1'-0"

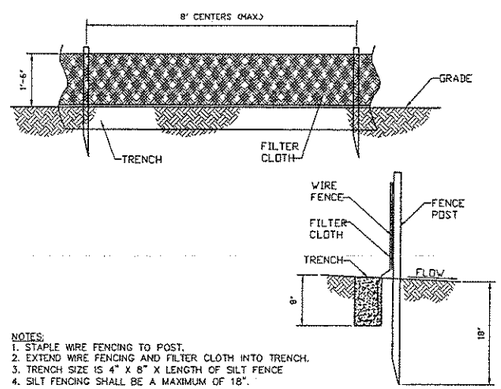
1. PIPE LINES SHALL NOT BE PUT UNDER PRESSURE UNTIL 7 DAYS AFTER THE THRUST BLOCKS HAVE BEEN PLACED OR UNTIL THE BLOCKS HAVE ATTAINED 2400 PSI STRENGTH.
2. THRUST BLOCKS AT REDUCING FITTING SHALL BE SAME SIZE AS REQUIRED FOR A DEAD END THRUST BLOCK FOR THE LARGER PIPE.

DESIGN DATA ALLOWABLE BEARING VALUE: 2000 PSF

3. WHERE UNDERGROUND CONDITIONS ARE WET & UNSTABLE TIE RODS SHALL BE ADDED AND/OR THE AMOUNT OF CONCRETE IN THE THRUST BLOCKS SHALL BE INCREASED AT THE DISCRETION OF THE CONTRACTING OFFICER.
4. ANY DEVIATION IN THE TYPE OR METHOD OF RESTRAINING JOINTS AT THE CUTOVER POINTS MUST BE APPROVED BY THE CONTRACTING OFFICER PRIOR TO PERFORMING WORK.

PIPELINE THRUST BLOCK DETAIL

N.T.S.

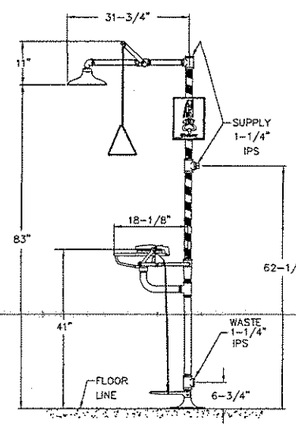


NOTES:
1. STAPLE WIRE FENCING TO POST.
2. EXTEND WIRE FENCING AND FILTER CLOTH INTO TRENCH.
3. TRENCH SIZE IS 4" X 8" X LENGTH OF SILT FENCE
4. SILT FENCING SHALL BE A MAXIMUM OF 18".

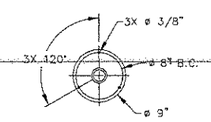
NTS

3 / C-4-10 (C-6) TEMPORARY SILT FENCE DETAIL

N.T.S.



DIMENSIONS MAY VARY ± 1/2"



MOUNTING DETAIL

4 / A-1-10 EYE WASH / SHOWER STATION

N.T.S.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.
8401 ARCO CORPORATE DRIVE
SUITE 100
RALEIGH, NC 27617
PHONE: 919.881.0900
FAX: 919.881.0950

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 27382 JOHN BRENT THOMAS 8/5/08

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E	EFD
SBT	DESIGN
RSM	DRAWN
CHB	REVIEW
CHB	DC CHIEF ARCH./ ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

CIVIL DETAILS

CODE ID. NO. 80091 | SIZE D

SCALE: AS SHOWN

FED. NO. 5846

STA. PROJ. NO. CP05002R

SPEC. NO. 05041183

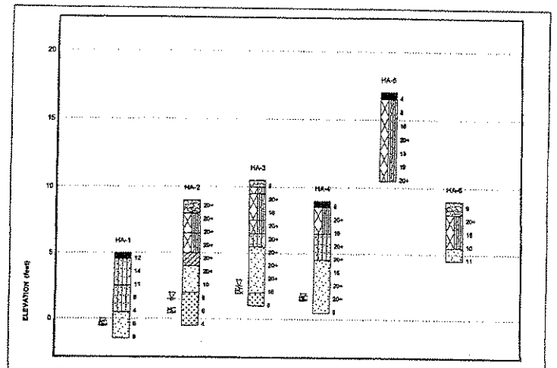
CONSTR. CONTR. NO. N62470-04-C-1183

NAVFAC DRAWING NO. 4505698

SHEET 11 OF 27

C-10

SYM.	DESCRIPTION	DATE	APPR.



SCALE: (V) 1" = 5'	S&ME ENGINEERING - TESTING ENVIRONMENTAL SERVICES	GENERALIZED SUBSURFACE CONDITIONS Cherry Point Transfer Station Cherry Point, North Carolina
CHECKED BY:		
DATE: 3/18/2004		
JOB NO: 1051-04-034		

FIGURE NO. 3

LEGEND TO SOIL CLASSIFICATION AND SYMBOLS

SOIL TYPES
(Shown in Graphic Log)

- Topsoil
- Gravel
- Sand
- Silt
- Clay
- Organic
- Sandy
- Silty
- Clayey
- Silty Sand
- Clayey Sand
- Sandy Silt
- Clayey Silt
- Sandy Clay
- Silty Clay
- Partially Weathered Rock
- Cored Rock

WATER LEVELS
(Shown in Water Level Column)

- = Water Level At Termination Of Boring
- = Water Level Taken After 24 Hours
- = Loss Of Drilling Water
- = Hole Cave

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	STD. PENETRATION RESISTANCE BLOWS/FOOT
Very Soft	0 to 2
Soft	3 to 4
Firm	5 to 8
Stiff	9 to 15
Very Stiff	16 to 30
Hard	31 to 50
Very Hard	Over 50

RELATIVE DENSITY OF COHESIONLESS SOILS

RELATIVE DENSITY	STD. PENETRATION RESISTANCE BLOWS/FOOT
Very Loose	0 to 4
Loose	5 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	Over 50

SAMPLER TYPES
(Shown in Samples Column)

- Shelby Tube
- Split Spoon
- Rock Core
- No Recovery

TERMS

Standard Penetration – The Number of Blows of 140 lb. Hammer Falling 30 in. Required to Drive 1.4 in. I.D. Split Spoon Sampler 1 ft. as Described in ASTM D-1586.

REC = Total Length of Rock Recovered in the Core Barrel Divided by the Total Length of the Core Run Times 100%.

RQD = Total Length of Sound Rock Segments Recovered that are Longer Than or Equal to 4" Mechanical Breaks Divided by the Total Length of the Core Run Times 100%.

S&ME
Geotechnical Services
Engineering • Testing

PROJECT: Cherry Point Transfer Station
Cherry Point, North Carolina
1051-04-034

Hand Auger Boring Log HA-1

DATE DRILLED: 2/25/04	ELEVATION: 5.0 ft	NOTES: Boring location and Elevation are approximate.
DRILLING METHOD: Hand Auger	BORING DEPTH: 6.5 ft	
LOGGED BY: A. NASH	WATER LEVEL: 5.5 @ TOB	
OPERATOR: K. Fain	DRILL RIG: N/A	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	SAMPLE NO/TYPE	ELEVATION (feet)	DYNAMIC CONE PENETRATION RESISTANCE (2 4 6 8 12 16)	Average DCP Value
		Topsoil					12
		Natural: Light Gray Silty Fine SAND (SM), Moist					14
		Brown Silty Fine SAND (SM), Moist					11
5		Tan-Gray Very Fine SAND (SP), Saturated		SP	0.0		6
		Hand auger boring terminated at 6.5 Feet Below Existing Ground Surface. Borehole Caved at 5.5 feet below existing ground surface. Groundwater was observed at a depth of 5.5 feet at termination of hand auger boring.					4
							6
							8

NOTES:
1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST ONLY BE USED TOGETHER WITH THAT REPORT.
2. PENETRATION (DCP VALUE) IS THE AVERAGE NUMBER OF BLOWS OF A 15 LB. HAMMER FALLING 20 IN. REQUIRED TO DRIVE A CONICAL SHAPED POINT INTO THE SOIL.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.

Page 1 of 1

S&ME
ENGINEERING - TESTING
ENVIRONMENTAL SERVICES
3109 Spring Forest Road
Raleigh, NC 27616

PROJECT: Cherry Point Transfer Station
Cherry Point, North Carolina
1051-04-034

Hand Auger Boring Log HA-2

DATE DRILLED: 2/25/04	ELEVATION: 9.0 ft	NOTES: Boring location and Elevation are approximate.
DRILLING METHOD: Hand Auger	BORING DEPTH: 9.5 ft	
LOGGED BY: A. NASH	WATER LEVEL: 7.5 @ TOB	
OPERATOR: K. Fain	DRILL RIG: N/A	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	SAMPLE NO/TYPE	ELEVATION (feet)	DYNAMIC CONE PENETRATION RESISTANCE (2 4 6 8 12 16)	Average DCP Value
		ABC Stone					20+
		Fill: Tan Silty SAND (SM), Moist					20+
		Fill: Gray Silty Coarse to Medium SAND (SM) with Gravel, Moist					20+
		Natural: Gray Clayey SAND (SC) with Clay Layers, Moist					20+
5		Light Gray Fine SAND (SP), Saturated			4.0		20+
		Tan Coarse to Fine SAND (SW), Saturated		SW HG			10
							8
							6
10		Hand auger boring terminated at 9.5 Feet Below Existing Ground Surface. Borehole Caved at 8.5 feet below existing ground surface. Groundwater was observed at a depth of 7.5 feet at termination of hand auger boring.			-1.0		4

NOTES:
1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST ONLY BE USED TOGETHER WITH THAT REPORT.
2. PENETRATION (DCP VALUE) IS THE AVERAGE NUMBER OF BLOWS OF A 15 LB. HAMMER FALLING 20 IN. REQUIRED TO DRIVE A CONICAL SHAPED POINT INTO THE SOIL.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.

Page 1 of 1

S&ME
ENGINEERING - TESTING
ENVIRONMENTAL SERVICES
3109 Spring Forest Road
Raleigh, NC 27616

MARK | DATE | REVISIONS

DESIGNED & ENGINEERED BY:

Dewberry
Dewberry & Davis, Inc.

APPROVED
ACCEPT – SATISFACTORY TO
DATE
APPROVED
FOR O/O FOR COMMANDER NAVFAC
DATE
A/E | CTO
DESIGN
DRAWN
REVIEW
SC
SHET ARCH./ ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

BORING LOGS

CODE ID. NO. 80091 | SIZE D
SCALE: AS SHOWN
FCS. NO. 5845
EFA. PROJ. NO. CP050028
SPEC. NO. 05041183
CONSTR. CONTR. NO.
N62470-04-C-1183
NAVFAC DRAWING NO.
4505699
SHEET 12 OF 27
C-11
DRAWING REVISION NUMBER 0000

PROJECT: Cherry Point Transfer Station
Cherry Point, North Carolina
1051-04-034

Hand Auger Boring Log — HA-3

DATE DRILLED: 2/25/04	ELEVATION: 10.5 ft
DRILLING METHOD: Hand Auger	BORING DEPTH: 9.5 ft
LOGGED BY: A. NASH	WATER LEVEL: 8.0 @ TOB
OPERATOR: K. Fain	DRILL RIG: N/A

NOTES: Boring location and Elevation are approximate.

DEPTH (feet)	MATERIAL DESCRIPTION	ELEVATION (feet)
	ABC Stone	
	FILL: Gray Silty Coarse SAND (SM), Moist	
	FILL: Tan and Light Gray Silty Fine SAND (SM), Moist	
	FILL: Gray Silty Coarse to Medium SAND (SM), Moist, with Gravel, (possibly old CABC layer)	
	NATURAL: Tan Silty SAND (SM), Moist	
5	Light Yellow Fine SAND (SP), Moist to Saturated	5.5
	Light Gray Fine SAND (SW), Saturated	
10	Hand auger boring terminated at 9.5 Feet Below Existing Ground Surface. Borehole Caved at 8.5 feet below existing ground surface. Groundwater was observed at a depth of 8 feet at termination of hand auger boring.	0.5

WATER LEVEL: HC

SAMPLE NO/TYPE

DYNAMIC CONE PENETRATION RESISTANCE (2, 4, 6, 8, 12, 16)

Average DCP Value: 9, 20+, 16, 20+, 20+, 20+, 20+, 20+, 16, 8

NOTES:
1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST ONLY BE USED TOGETHER WITH THAT REPORT.
2. PENETRATION (DCP VALUE) IS THE AVERAGE NUMBER OF BLOWS OF A 15 LB. HAMMER FALLING 20 IN. REQUIRED TO DRIVE A CONICAL SHAPED POINT INTO THE SOIL.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.

Page 1 of 1

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ENGINEERING • TESTING
ENVIRONMENTAL SERVICES
3109 Spring Forest Road
Raleigh, NC 27616

PROJECT: Cherry Point Transfer Station
Cherry Point, North Carolina
1051-04-034

Hand Auger Boring Log — HA-4

DATE DRILLED: 2/25/04	ELEVATION: 9.0 ft
DRILLING METHOD: Hand Auger	BORING DEPTH: 8.5 ft
LOGGED BY: A. NASH	WATER LEVEL: 7.5 @ TOB
OPERATOR: K. Fain	DRILL RIG: N/A

NOTES: Boring location and Elevation are approximate.

DEPTH (feet)	MATERIAL DESCRIPTION	ELEVATION (feet)
	TOPSOIL	
	FILL: Brown and Gray Silty Fine SAND (SM), Moist	
	NATURAL: Tan Silty Fine SAND (SM), Moist	
5	NATURAL: Light Yellow Fine SAND (SP), Moist to Saturated	4.0
10	Hand auger boring terminated at 8.5 Feet Below Existing Ground Surface. Borehole Caved at 7.5 feet below existing ground surface. Groundwater was observed at a depth of 8 feet at termination of hand auger boring.	-1.0

WATER LEVEL: HC

SAMPLE NO/TYPE

DYNAMIC CONE PENETRATION RESISTANCE (2, 4, 6, 8, 12, 16)

Average DCP Value: 9, 20+, 16, 20+, 20+, 16, 20+, 20+

NOTES:
1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST ONLY BE USED TOGETHER WITH THAT REPORT.
2. PENETRATION (DCP VALUE) IS THE AVERAGE NUMBER OF BLOWS OF A 15 LB. HAMMER FALLING 20 IN. REQUIRED TO DRIVE A CONICAL SHAPED POINT INTO THE SOIL.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.

Page 1 of 1

S&ME
ENGINEERING • TESTING
ENVIRONMENTAL SERVICES
3109 Spring Forest Road
Raleigh, NC 27616

PROJECT: Cherry Point Transfer Station
Cherry Point, North Carolina
1051-04-034

Hand Auger Boring Log — HA-5

DATE DRILLED: 2/25/04	ELEVATION: 17.0 ft
DRILLING METHOD: Hand Auger	BORING DEPTH: 6.5 ft
LOGGED BY: A. NASH	WATER LEVEL: N/M
OPERATOR: K. Fain	DRILL RIG: N/A

NOTES: Boring location and Elevation are approximate.

DEPTH (feet)	MATERIAL DESCRIPTION	ELEVATION (feet)
	TOPSOIL	
	FILL: Brown and Gray Silty Fine SAND (SM), Moist	
5	Hand auger boring terminated at 6.5 Feet Below Existing Ground Surface.	12.0

SAMPLE NO/TYPE

DYNAMIC CONE PENETRATION RESISTANCE (2, 4, 6, 8, 12, 16)

Average DCP Value: 4, 8, 16, 20+, 13, 19, 20+

NOTES:
1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST ONLY BE USED TOGETHER WITH THAT REPORT.
2. PENETRATION (DCP VALUE) IS THE AVERAGE NUMBER OF BLOWS OF A 15 LB. HAMMER FALLING 20 IN. REQUIRED TO DRIVE A CONICAL SHAPED POINT INTO THE SOIL.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.

Page 1 of 1

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ENVIRONMENTAL SERVICES
3109 Spring Forest Road
Raleigh, NC 27616

PROJECT: Cherry Point Transfer Station
Cherry Point, North Carolina
1051-04-034

Hand Auger Boring Log — HA-6

DATE DRILLED: 2/25/04	ELEVATION: 9.0 ft
DRILLING METHOD: Hand Auger	BORING DEPTH: 4.5 ft
LOGGED BY: A. NASH	WATER LEVEL: N/M
OPERATOR: K. Fain	DRILL RIG: N/A

NOTES: Boring location and Elevation are approximate.

DEPTH (feet)	MATERIAL DESCRIPTION	ELEVATION (feet)
	CABC STONE (geotextile fabric below stone)	
	FILL: Brown and Tan Silty Fine SAND (SM), Moist, with Trace Gravel	
	NATURAL: Light Yellow Fine SAND (SP), Moist	
5	Hand auger boring terminated at 4.5 Feet Below Existing Ground Surface.	4.0

SAMPLE NO/TYPE

DYNAMIC CONE PENETRATION RESISTANCE (2, 4, 6, 8, 12, 16)

Average DCP Value: 9, 20+, 16, 10, 11

NOTES:
1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST ONLY BE USED TOGETHER WITH THAT REPORT.
2. PENETRATION (DCP VALUE) IS THE AVERAGE NUMBER OF BLOWS OF A 15 LB. HAMMER FALLING 20 IN. REQUIRED TO DRIVE A CONICAL SHAPED POINT INTO THE SOIL.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.

Page 1 of 1

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ENGINEERING • TESTING
ENVIRONMENTAL SERVICES
3109 Spring Forest Road
Raleigh, NC 27616

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

APPROVED

ACCEPT - SATISFACTORY TO

DATE

APPROVED

FOR CO FOR COMMANDER NAVFAC

DATE

A/E D/O

DESIGN
DRAWN
REVIEW
RC
CHIEF ENGR. / ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

BORING LOGS

COMP. ID. NO. 80001 | SIZE D
SCALE: AS SHOWN
FED NO. 5846
STA. PROJ. NO. CP05002R
SPEC. NO. 05041183
CONTR. CONTR. NO. N62470-04-C-1183
NAVFAC DRAWING NO. 4505700
SHEET 13 OF 27

C-12

DRAWING REVISION AUGUST 2002

GENERAL STRUCTURAL NOTES

DESIGN:

1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS EXIST BETWEEN THE DRAWINGS, SPECIFICATIONS, AND GENERAL STRUCTURAL NOTES, THE STRICTEST PROVISION SHALL GOVERN.
2. STRUCTURAL DESIGN CONFORMS TO THE REQUIREMENTS OF THE 2002 NORTH CAROLINA STATE BUILDING CODE (IBC 2000 CODE).
3. DESIGN LOADS AND DESIGN DATA ARE AS FOLLOWS:

   A. PAVEMENT LOAD: HS-20

   B. MINIMUM ROOF LIVE LOAD: 20 PSF

   C. ROOF SNOW LOAD:

GROUND SNOW LOAD (P_g)	10 PSF
SNOW EXPOSURE FACTOR (C_e)	1.0
SNOW LOAD IMPORTANCE FACTOR (I)	1.2
THERMAL FACTOR (C_t)	1.2
FLAT ROOF SNOW LOAD (P_f)	10.1 PSF

   D. WIND LOAD - MODIFIED PER UNIFIED FACILITIES CRITERIA (UFC 3-310-01):

BASIC WIND SPEED (3 SECOND GUST)	140 MPH
BUILDING CATEGORY	4
WIND LOAD IMPORTANCE FACTOR (I)	1.0
WIND EXPOSURE CATEGORY	C

   E. SEISMIC DESIGN DATA:

SEISMIC USE GROUP	3
SPECTRAL RESPONSE COEFF. S_{ds}	0.300
SPECTRAL RESPONSE COEFF. S_{d1}	0.199
SITE CLASS	F
(FOR DESIGN, USE SITE CLASS "E" PER S&ME GEOTECHNICAL REPORT)	
SEISMIC-FORCE-RESISTING SYSTEM	ORDINARY STEEL MOMENT FRAMES
ANALYSIS PROCEDURE	NC CODE SECTION 1617.4

FOUNDATIONS:

1. FOUNDATION DESIGN IS BASED ON A REPORT OF SUBSURFACE EXPLORATION BY S&ME INC. DATED MARCH 18, 2004 (S&ME PROJECT NUMBER 1051-04-034). MINIMUM ALLOWABLE FOUNDATION BEARING PRESSURE SHALL BE AS FOLLOWS:
   WALL FOOTINGS . . . . . 3,000 PSF
   SPREAD FOOTINGS . . . . 2,500 PSF
2. ALL COMPACTED FILL, EXCAVATIONS, AND SUBGRADE BEARING SURFACES SHALL BE OBSERVED AND TESTED BY A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA (OR A QUALIFIED GEOTECHNICAL TECHNICIAN WORKING UNDER THE DIRECT SUPERVISION OF A REGISTERED ENGINEER) TO VERIFY SPECIFIED GEOTECHNICAL CONFORMANCE REQUIREMENTS.

CONCRETE:

1. UNLESS NOTED OTHERWISE, ALL CONCRETE WORK, DETAILING, FABRICATION, AND PLACING OF REINFORCING AND CONCRETE SHALL BE GOVERNED BY THE LATEST REVISIONS OF:

   A. ACI 301, ACI 315, AND ACI 318.
   B. CRSI RECOMMENDED PRACTICE OF PLACING REINFORCING BARS.
   C. ACI 306 AND ACI 305 FOR COLD AND HOT WEATHER CONCRETING RESPECTIVELY.
2. ALL CONCRETE SHALL BE NORMAL WEIGHT WITH A MAXIMUM UNIT WEIGHT OF 150 POUNDS PER CUBIC FOOT AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS

SPECIAL 8" JOINTLESS CONCRETE SLAB	5,000 PSI
ALL OTHER CONCRETE	4,000 PSI
3. PLACE 1/2" EXPANSION JOINT MATERIAL BETWEEN EDGES OF SLABS AND VERTICAL SURFACES UNLESS NOTED OTHERWISE.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, AND SHALL BE GRADE 60 UNLESS NOTED OTHERWISE.
5. REINFORCING BAR LAP SPLICES AND HOOK DIMENSIONS SHALL BE AS REQUIRED PER THE SCHEDULE ON SHEET S-1 UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL:

1. UNLESS NOTED OTHERWISE, DESIGN, DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION", NINTH EDITION AND THE AISC CODE OF STANDARD PRACTICE.
2. ALL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A-992 (Fy=50 KSI MINIMUM). ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36, UNLESS NOTED OTHERWISE.
3. ALL WELDING SHALL BE DONE BY WELDERS CURRENTLY CERTIFIED BY THE AMERICAN WELDING SOCIETY (AWS) AS HAVING PASSED AWS QUALIFICATION TESTS FOR THE TYPE OF WELDING THEY ARE TO PERFORM. ALL WELDERS SHALL USE E70XX ELECTRODES AND SHALL CONFORM TO AWS STANDARDS.
4. ALL COPES, BLOCKS, CUTS, CUT-OUTS, AND OTHER CUTTING OF STRUCTURAL MEMBERS SHALL HAVE ALL RE-ENTRANT CORNERS SHAPED, NOTCH-FREE, TO A RADIUS OF A LEAST 1/2" INCH.
5. ALL STRUCTURAL STEEL CONNECTIONS SHALL BE BEARING TYPE "N" USING 3/4" DIAMETER ASTM A 325 HIGH STRENGTH BOLTS (MINIMUM OF 2 PER CONNECTION), UNLESS INDICATED OTHERWISE ON THE DRAWINGS. UNLESS NOTED ON THE DRAWINGS, ALL SHEAR CONNECTIONS SHALL BE BOLTED FRAMED BEAM CONNECTIONS DESIGNED TO DEVELOP THE GREATER OF EITHER THE DESIGN REACTION GIVEN ON THE PLANS OR AN END REACTION OF 0.5(W_u), WHERE "W_u" IS THE ALLOWABLE UNIFORM LOAD CONSTANT IN KIPS FOR A BEAM WITH SPAN "L" IN FEET. VALUES OF W_u ARE FOUND IN PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION, NINTH EDITION, BEFORE STARTING WORK.
6. ALL HOPPER STEEL SHALL BE HOT-DIPPED GALVANIZED. COAT ALL SURFACES DAMAGED BY WELDING OR OTHER CONSTRUCTION METHODS WITH TWO (2) COATS OF GALVANIZING REPAIR PAINT.

WOOD FRAMING:

1. LOAD-BEARING WOOD FRAMING SHALL BE SOUTHERN YELLOW PINE MINIMUM GRADE NUMBER 2, U.N.O.
2. EXPOSED WOOD FRAMING OR WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED. RETENTION ASSAY SHALL BE 0.60 LB/CF CHROMATED COPPER ARSENATE (C.C.A.) FOR WOOD POSTS EMBEDDED IN GROUND AND 0.40 LB/CF C.C.A. FOR ALL OTHER WOOD FRAMING.

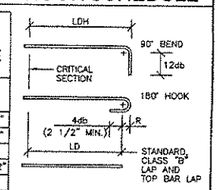
MASONRY:

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530-95/ASCE 5-95/TMS 402/95) AND "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1-95/ASCE 6-95/TMS 602-95).
2. CONCRETE MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 90.
3. MINIMUM REQUIRED COMPRESSIVE STRENGTH OF MASONRY ASSEMBLAGE, F'm, AT 28 DAYS SHALL BE 1500 PSI.
4. MORTAR SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 270 FOR JOB-MIXED MORTAR AND ASTM C 1142 FOR READY MIXED MORTAR AND SHALL BE TYPE S.
5. GROUT FOR HOLLOW MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 476 AND SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI. JOB SITE MIXING OF GROUT IS NOT ALLOWED. ALL CMU FOUNDATION PIERS SHALL BE GROUTED SOLID.

REBAR SPLICE AND HOOK SCHEDULE

REBAR SPLICE AND HOOK DIMENSIONS IN REINF. CONCRETE
F'c = 4000 PSI & 5000 PSI

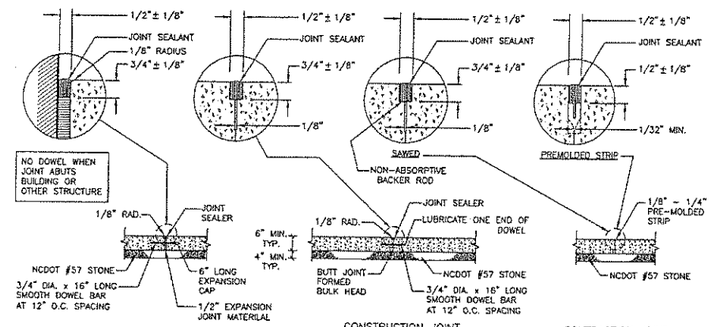
ASTM BAR SIZE	LD	CLASS B LAP	TOP BAR LAP	LDH
3	12"	12"	16"	7 1/2"
4	12"	15"	20"	9 1/2"
5	15"	19"	24"	12"
6	17"	23"	29"	14 1/2"
7	25"	33"	43"	17"
8	29"	37"	49"	19"



TOP BAR - DEFINED AS A BAR LOCATED SUCH THAT 12 IN. OR MORE OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE.

MINIMUM OUTSIDE RADIUS OF BEND, R, SHALL BE 4db.

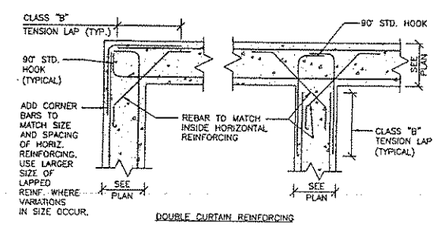
LD - STANDARD DEVELOPMENT LENGTH OF BAR
LDH - STANDARD DEVELOPMENT LENGTH OF HOOK
F'c - SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE
db - BAR DIAMETER PER ASTM



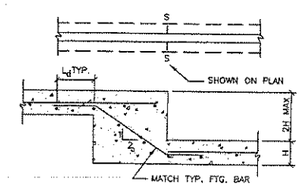
NOTES:

1. ALL JOINTS SHALL BE 2" DEEP.
2. PLACE VAPOR BARRIER BETWEEN SLAB AND STONE BASE AT INTERIOR SLAB-ON-GRADE LOCATIONS.

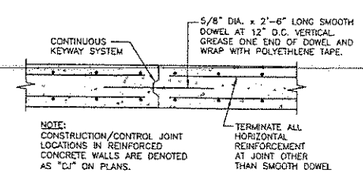
3 S-5 S-1 S-6, S-7 PAVEMENT CONTROL JOINT DETAIL
NOT TO SCALE



5 S-1 S-1 WALL CORNER REINFORCING DETAIL
NOT TO SCALE

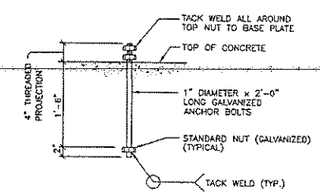


2 S-2 S-1 FOOTING STEP DETAIL
NOT TO SCALE



NOTE:
CONSTRUCTION/CONTROL JOINT LOCATIONS IN REINFORCED CONCRETE WALLS ARE DENOTED AS "CJ" ON PLANS.

4 S-2 S-1 WALL CONSTRUCTION/CONTROL JOINT DETAIL
NOT TO SCALE



1 S-6 S-1 ANCHOR BOLT DETAIL
NOT TO SCALE

DESIGNED & ENGINEERED BY:
Dewberry
Dewberry & Davis, Inc.

SEAL 17384 14-12-04 JOSEPH A. MONTINI

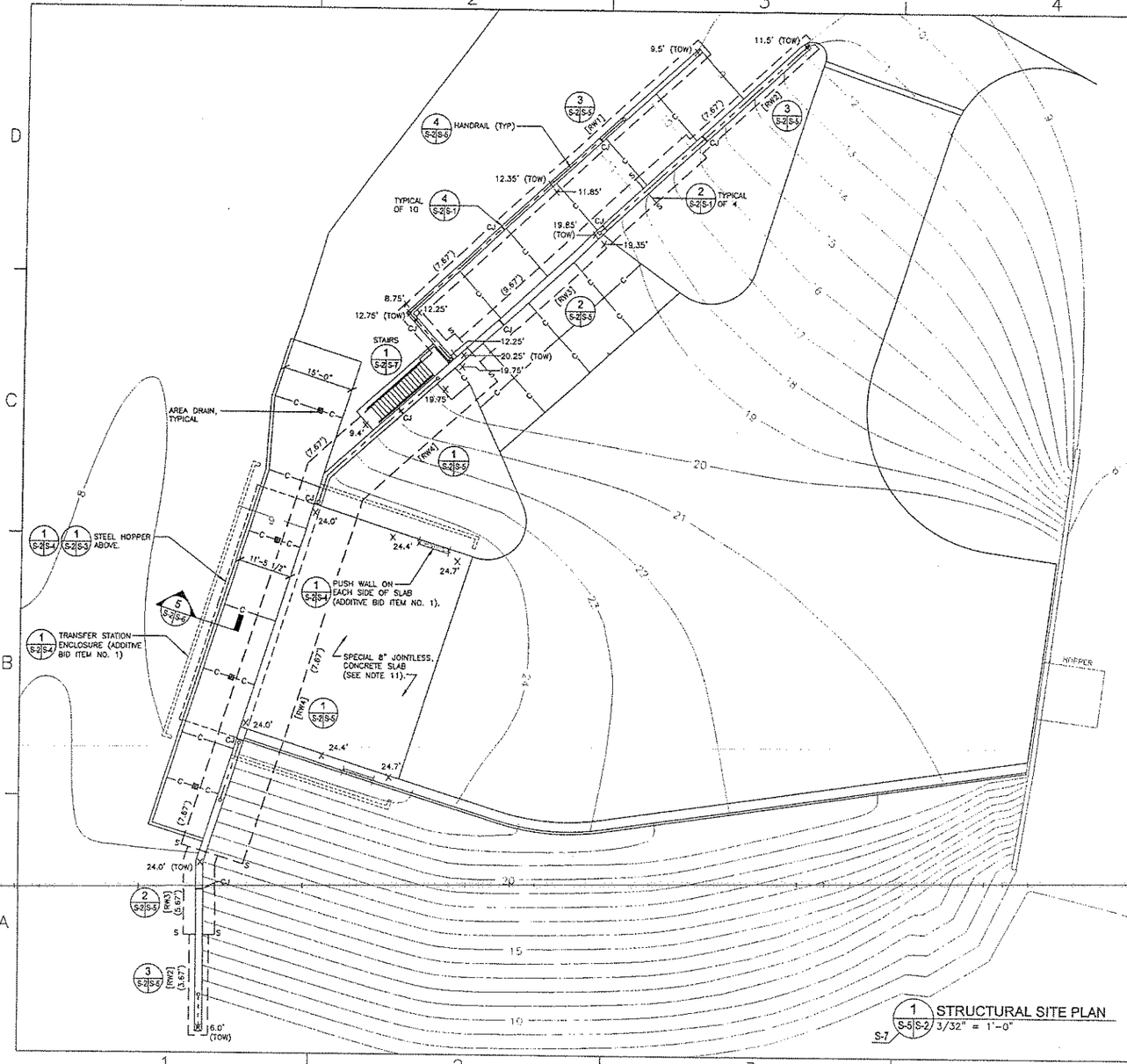
APPROVED
ACMT - SUBMITTED TO
DATE
APPROVED
FOR LTD FOR COMMANDER, NAVFAC
DATE
A/E CTD
FAS DESIGN
FAS DRAWN
JAW REVIEW
CHB QC
CHIEF ENGR./ ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

GENERAL STRUCTURAL NOTES AND DETAILS

CODE ID. NO. 80091 | SIZE 0
SCALE: AS SHOWN
FED NO. 5846
STA. PROJ. NO. CP05002R
SPEC. NO. 05041183
CONTR. CONTR. NO.
N62470-04-C-1183
NAVFAC DRAWING NO.
4505701
SHEET 14 OF 27
S-1
DRAWING REVISED: AUGUST 2005



1 S-5 S-2 STRUCTURAL SITE PLAN
S-7 3/32" = 1'-0"

GRAPHIC SCALE
12 0 6 12 24 40
(IN FEET)
3/32 inch = 1 foot

STRUCTURAL SITE PLAN NOTES:

1. SEE SHEET S-1 FOR GENERAL STRUCTURAL NOTES
2. (XX.XX') DENOTES TOP OF FOOTING ELEVATION.
3. DENOTES STEP IN FOOTING SEE DETAIL 2/S-1
4. "CJ" DENOTES REQUIRED CONTROL JOINT LOCATION IN CONCRETE WALLS (ALSO CONSTRUCTION JOINT). SEE DETAIL 4/S-1.
5. SEE CIVIL DRAWINGS FOR LOCATION OF RETAINING WALL ON THE PROJECT SITE.
6. SEE DETAIL 5/S-1 FOR ADDITIONAL REINFORCING REQUIREMENTS AT CORNERS OF CONCRETE WALLS.
7. SEE SHEET S-1 FOR REINFORCING SPLICE AND HOOK SCHEDULE.
8. [RWX] DENOTES RETAINING WALL SIZE. SEE DETAILS 1/S-5, 2/S-5 AND 3/S-5 FOR DETAILS.
9. GRADING SHOWN FOR GENERAL INFORMATION ONLY. SEE CIVIL SHEETS C-4 AND C-6 FOR FINAL GRADING INFORMATION.
10. TYPICAL CONCRETE PAVEMENT IS 6", 4000-PSI CONCRETE OVER 4" #57 STONE BASE U.N.O.
11. SPECIAL 8" JOINTLESS CONCRETE SLAB IS 8", 5000-PSI CONCRETE OVER 4" #57 STONE BASE. REINFORCE WITH #4 BARS AT 12" O.C. EACH WAY, TOP AND BOTTOM (2" CLEAR COVER).
12. —C— DENOTES CONTRACTION JOINT (SEE 3/S-1).
13. OPS BUILDING NOT SHOWN FOR CLARITY, SEE ARCH DRAWINGS FOR LOCATION AND ORIENTATION.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

SEAL 17384 4-22-04 ENGINEER JOSEPH A. WOLHAR

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E EFD

EAS DESIGN

EAS DRAWN

JAW REVIEW

CHB QC

CHIEF ARCH./ ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

STRUCTURAL SITE PLAN

CODE ID. NO. 80091 SIZE D

SCALE: AS SHOWN

FED. NO. 5846

STA. PROJ. NO. CP05002R

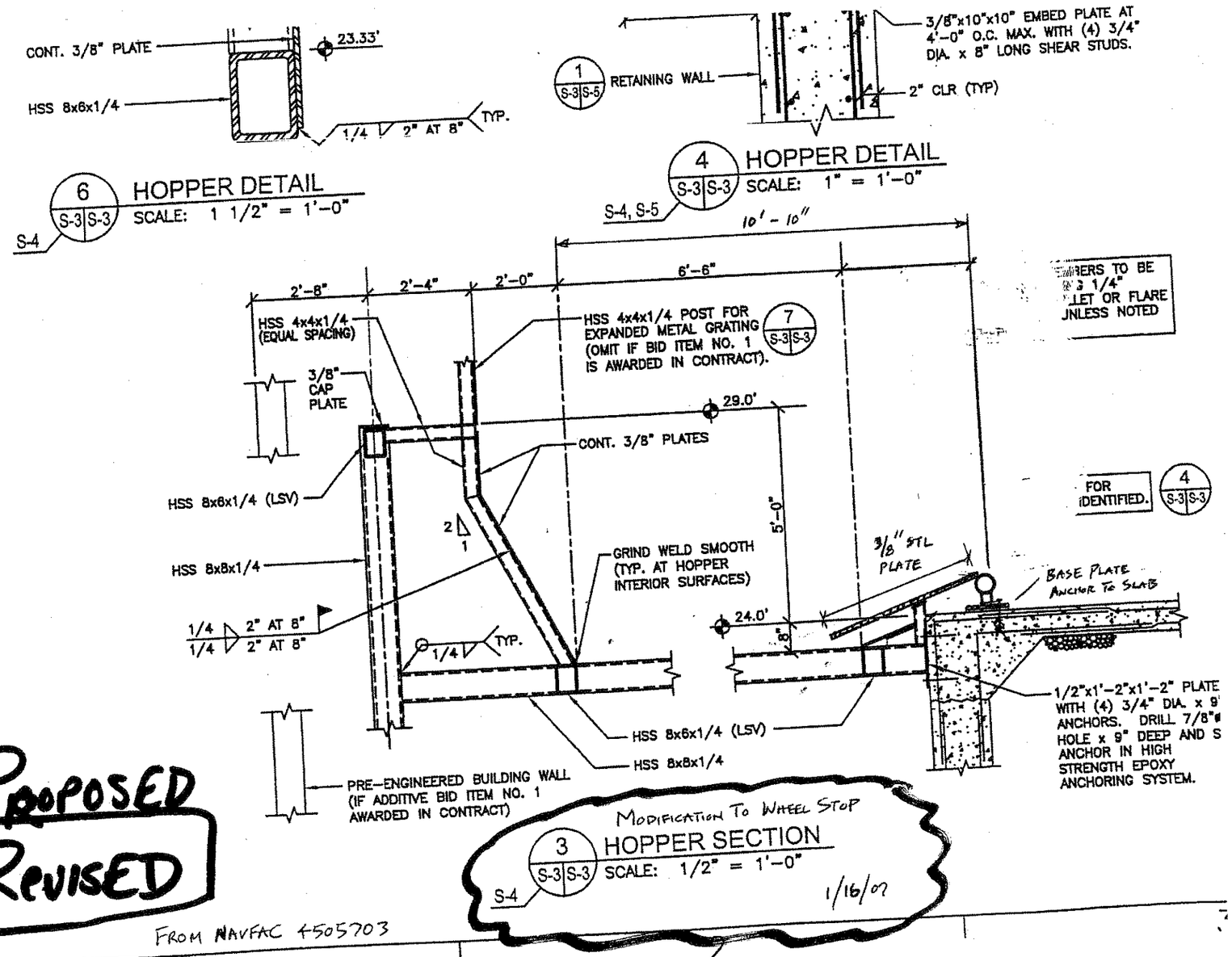
SPEC. NO. 05041183

CONSTR. CONTR. NO. N62470-04-C-1183

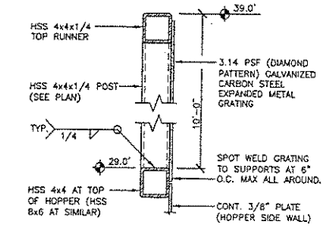
NAVFAC DRAWING NO. 4505702

SHEET 15 OF 27

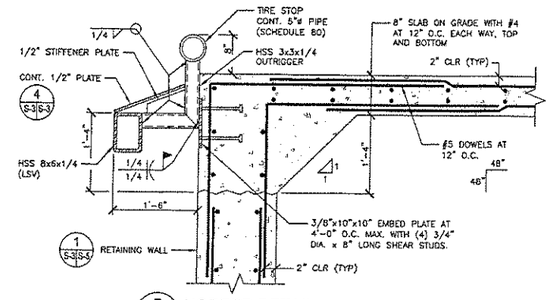
S-2


CONT. 3/8" PLATE
23.33'
HSS 8x6x1/4
1/4 2" AT 8" TYP.
6 S-3 S-3
HOPPER DETAIL
SCALE: 1 1/2" = 1'-0"
S-4
1 S-3 S-5
RETAINING WALL
3/8"x10"x10" EMBED PLATE AT 4'-0" O.C. MAX. WITH (4) 3/4" DIA. x 8" LONG SHEAR STUDS.
2" CLR (TYP)
4 S-3 S-3
HOPPER DETAIL
SCALE: 1" = 1'-0"
S-4, S-5
10'-10"
6'-6"
2'-8"
2'-4"
2'-0"
HSS 4x4x1/4 (EQUAL SPACING)
3/8" CAP PLATE
HSS 4x4x1/4 POST FOR EXPANDED METAL GRATING (OMIT IF BID ITEM NO. 1 IS AWARDED IN CONTRACT).
7 S-3 S-3
29.0'
CONT. 3/8" PLATES
HSS 8x6x1/4 (LSV)
2
1
5'-0"
GRIND WELD SMOOTH (TYP. AT HOPPER INTERIOR SURFACES)
3/8" STL PLATE
BASE PLATE ANCHOR TO SLAB
HSS 8x8x1/4
1/4 2" AT 8"
1/4 2" AT 8"
1/4 TYP.
24.0'
8"
1/2"x1'-2"x1'-2" PLATE WITH (4) 3/4" DIA. x 9' ANCHORS. DRILL 7/8" HOLE x 9" DEEP AND S ANCHOR IN HIGH STRENGTH EPOXY ANCHORING SYSTEM.
HSS 8x6x1/4 (LSV)
HSS 8x8x1/4
PRE-ENGINEERED BUILDING WALL (IF ADDITIVE BID ITEM NO. 1 AWARDED IN CONTRACT)
MODIFICATION TO WHEEL STOP
3 S-3 S-3
HOPPER SECTION
SCALE: 1/2" = 1'-0"
S-4
1/16/07
BERS TO BE 3 1/4" LET OR FLARE UNLESS NOTED
FOR IDENTIFIED.
4 S-3 S-3
PROPOSED REVISED
FROM NAVFAC 4505703

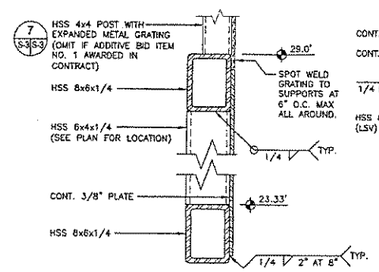
1



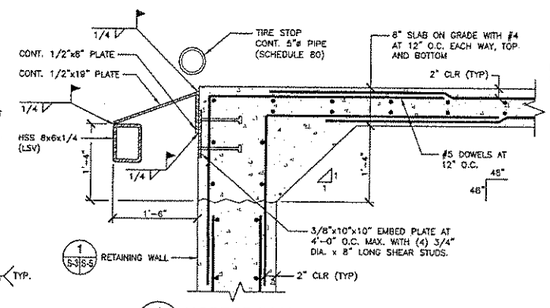
7 S-3|S-3 HOPPER FENCE DETAIL
SCALE: 1 1/2" = 1'-0"



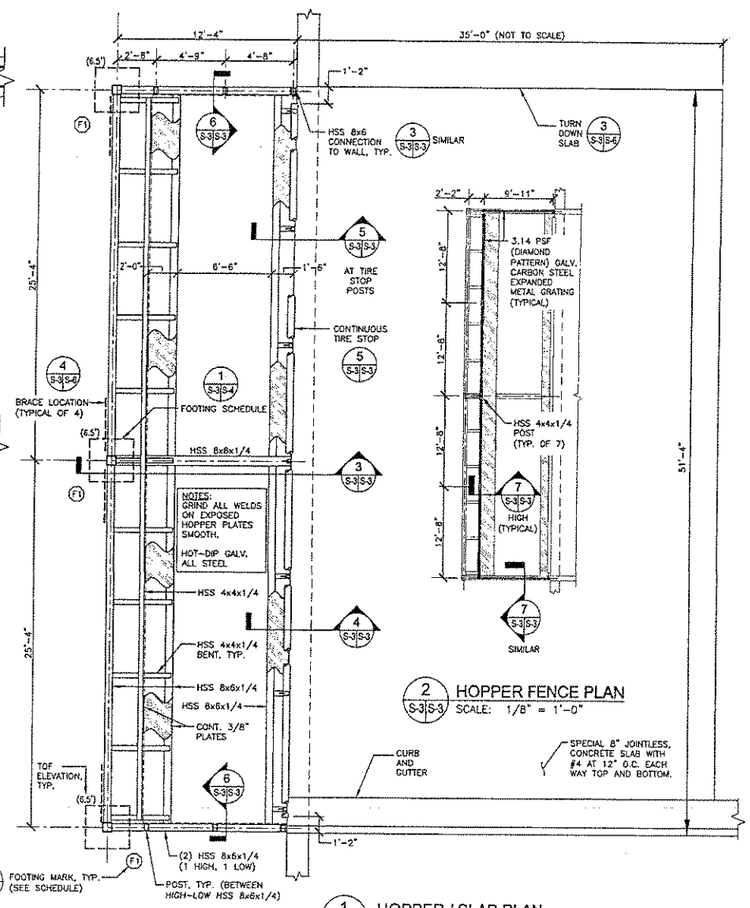
5 S-3|S-3 HOPPER DETAIL
S-4
SCALE: 1" = 1'-0"



6 S-3|S-3 HOPPER DETAIL
S-4
SCALE: 1 1/2" = 1'-0"

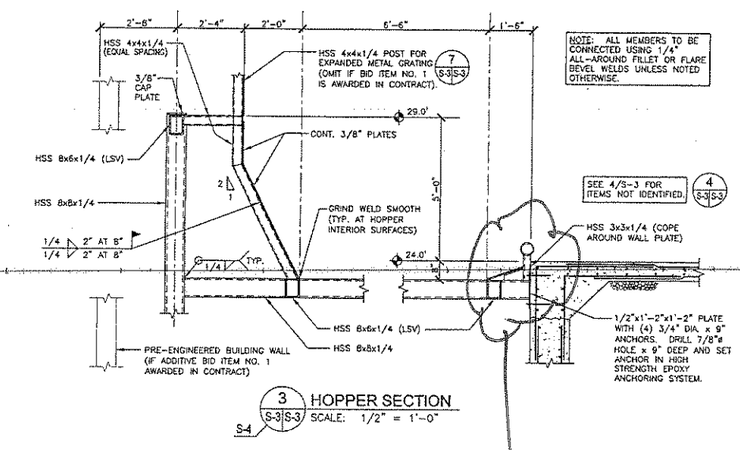


4 S-3|S-3 HOPPER DETAIL
S-4, S-5
SCALE: 1" = 1'-0"



1 S-6 HOPPER / SLAB PLAN
SCALE: 1/4" = 1'-0"

2 S-3|S-3 HOPPER FENCE PLAN
SCALE: 1/8" = 1'-0"



NOTE: ALL MEMBERS TO BE CONNECTED USING 1/4" ALL-AROUND FILLET OR FLARE BEVEL WELDS UNLESS NOTED OTHERWISE.

SEE 4/S-3 FOR ITEMS NOT IDENTIFIED.

3 S-3|S-3 HOPPER SECTION
S-4
SCALE: 1/2" = 1'-0"

GRAPHIC SCALES
(IN FEET) 1/4 inch = 1 foot
(IN INCHES) 1 inch = 1 foot
(IN FEET) 1/2 inch = 1 foot
(IN INCHES) 1 1/2 inches = 1 foot

DESIGNED & ENGINEERED BY:
Dewberry
Dewberry & Davis, Inc.
NORTH CAROLINA SEAL 17384 4-22-04 JOSEPH A. WOLNER
APPROVED
ACCEPT - SATISFACTORY TO
DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC
DATE
A/E FAS DESIGN
FAS DRAWN
JAW REVIEW
CHB QC
CHIEF ARCH./ ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES
HOPPER / SLAB PLAN

CODE ID. NO. 80091 | SIZE D
SCALE AS SHOWN
FED NO. 5846
STA. PROJ NO. CP05002R
SPEC. NO. 05041183
CONTR. DOCUMENT NO. N62470-04-C-1183
NAVFAC DRAWING NO. 4505703
SHEET 16 OF 27
S-3

See attached sketch, Parking RAIL (Bumper) has been moved out 2' 10" from original location.

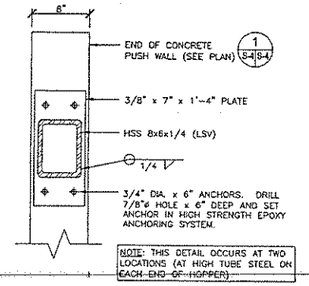
ADDITIVE BID ITEM NO. 1 TRANSFER STATION ENCLOSURE (PRE-ENGINEERED METAL) BUILDING SYSTEM:

1. PRE-ENGINEERED METAL BUILDING SYSTEM MANUFACTURER SHALL DESIGN PRIMARY AND SECONDARY STRUCTURAL FRAMING MEMBERS AND EXTERIOR COVER MATERIALS IN ACCORDANCE WITH THE CURRENT METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA) "DESIGN PRACTICES MANUAL" AND IN ACCORDANCE WITH THE 2002 NORTH CAROLINA STATE BUILDING CODE (IBC 2000 CODE).
2. THE PRIMARY FRAMING SYSTEM FOR THE PRE-ENGINEERED METAL BUILDING SHALL BE "CLEAR SPAN - RIGID FRAME" WITH TAPERED COLUMNS AND PARTIALLY EXTERIOR MOUNTED WALL GIRTS. ROOF SHALL HAVE A CENTER RIDGE LINE AND 1:12 ROOF SLOPE ON EACH SIDE OF RIDGE LINE.
3. PRE-ENGINEERED METAL BUILDING SYSTEM CALCULATIONS AND SHOP DRAWINGS, USING THE LOADS STATED IN THE "DESIGN" SECTION OF THE GENERAL STRUCTURAL NOTES ALONG WITH A COLLATERAL ROOF DEAD LOAD OF 5 PSF, SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW, PRIOR TO THE FABRICATION OF THE METAL BUILDING AND PRIOR TO THE PLACING OF COLUMN FOOTINGS. PRE-ENGINEERED METAL BUILDING CALCULATIONS AND SHOP DRAWINGS SHALL BEAR THE SEAL OF A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF NORTH CAROLINA. DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL INCLUDE COLUMN ANCHOR BOLT LOADS AND LAYOUT. DESIGN LOADS SHALL BE CALCULATED AND COMBINED IN ACCORDANCE WITH REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE (IBC 2000 CODE).
4. PRE-ENGINEERED METAL BUILDING FOOTINGS HAVE BEEN DESIGNED FOR THE ESTIMATED LOADS LISTED BELOW. CONTRACTOR SHALL VERIFY THAT ACTUAL LOADS DO NOT EXCEED ESTIMATED LOADS. IF ACTUAL LOADS EXCEED ESTIMATED LOADS, CONTRACTOR SHALL HAVE FOOTINGS RE-SIZED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. SEE DESIGN LOADS ON 1/S-6.
5. THE MAXIMUM TOTAL DEFLECTION OF MAIN FRAMING MEMBERS SHALL NOT EXCEED 1/240th OF THEIR RESPECTIVE SPANS. THE MAXIMUM DEFLECTION DUE TO LIVE LOAD IN ROOF PANELS AND PURLINS SHALL NOT EXCEED 1/240th OF THEIR RESPECTIVE SPANS.
6. THE MAXIMUM DEFLECTION DUE TO WIND LOADS ON WALL PANELS AND GIRTS SUPPORTING METAL WALL PANELS SHALL NOT EXCEED 1/240TH OF THEIR RESPECTIVE SPANS.
7. THE MAXIMUM BUILDING FRAME SIDESWAY (DRIFT) DUE TO WIND AND GRAVITY LOADS SHALL NOT EXCEED 1/120th OF THE BUILDING HEIGHT.
8. WALL GIRT DEPTH SHALL NOT EXCEED 8-1/2".
9. METAL BUILDING MANUFACTURER SHALL PROVIDE ALL NECESSARY FRAMING REQUIRED AT ALL WALL AND ROOF OPENINGS AND AT ALL ROOF MOUNTED OR HUNG EQUIPMENT.
10. UNLESS NOTED OTHERWISE, DESIGN, DETAILING, FABRICATION, AND ERECTION OF PRE-ENGINEERED METAL BUILDING STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION", NINTH EDITION AND THE AISC CODE OF STANDARD PRACTICE. ALL STEEL SHALL CONFORM TO ASTM A 36, OR STRONGER GRADE.
11. ANCHOR BOLTS FOR PRE-ENGINEERED METAL BUILDING COLUMNS SHALL CONFORM TO ASTM A307 (GRADE 36) OR STRONGER MATERIAL GRADE.
12. ALL STEEL ELEMENTS SHALL BE HOT-DIPPED GALVANIZED.

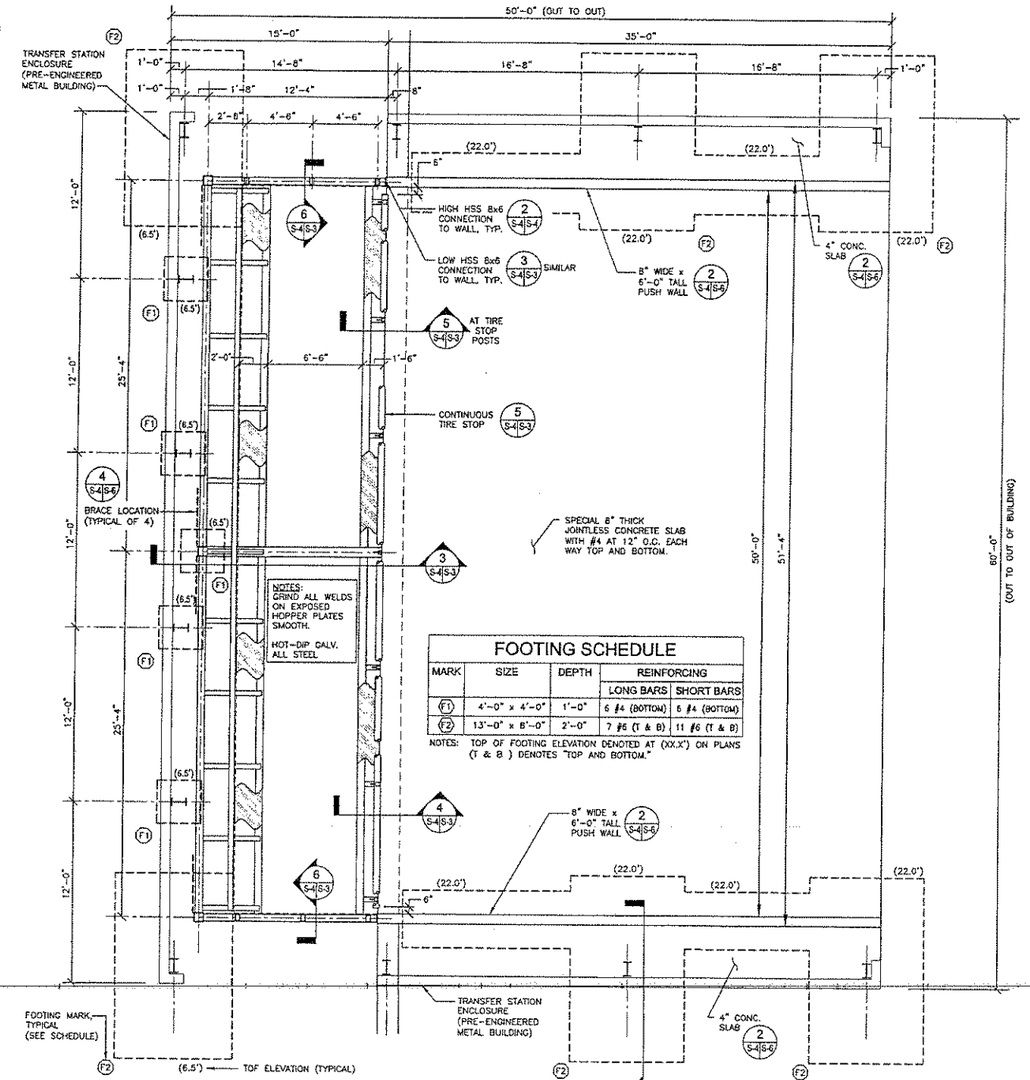
GRAPHIC SCALE

8 0 4 8 16 32

(IN INCHES)
1 1/2 inches = 1 Foot



2 S-4 S-4 ADDITIVE BID ITEM NO. 1 - CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



FOOTING SCHEDULE

MARK	SIZE	DEPTH	REINFORCING	
			LONG BARS	SHORT BARS
F1	4'-0" x 4'-0"	1'-0"	6 #4 (BOTTOM)	6 #4 (BOTTOM)
F2	13'-0" x 8'-0"	2'-0"	7 #6 (T & B)	11 #6 (T & B)

NOTES: TOP OF FOOTING ELEVATION DENOTED AT (XX.X') ON PLANS
(T & B) DENOTES "TOP AND BOTTOM."

1 S-2 S-4 ADDITIVE BID ITEM NO. 1 - PLAN
S-3, S-4, S-6
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1/4 inch = 1 foot

MARK	DATE	DESCRIPTION	INIT.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 17384 10-22-08 ENGINEER JOSEPH A. WOMINS

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR BID FOR COMMENTS WAIVE

DATE

N/A BID

FAS DESIGN

FAS DRAWN

JAW REVIEW

CHR QC

CHIEF ARCH/ ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND

DEPARTMENT OF THE NAVY

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

ADDITIVE BID ITEM NO. 1 PLAN

CODE ID. NO. 80091 | SIZE D

SCALE: AS SHOWN

FED NO. 5846

STA. PROJ. NO. CP05602R

SPEC. NO. 05041183

CONTRC. CONTR. NO.

N62470-04-C-1183

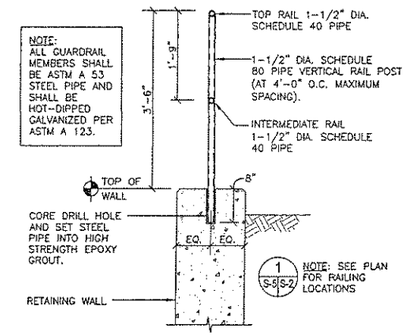
NAVFAC DRAWING NO.

4505704

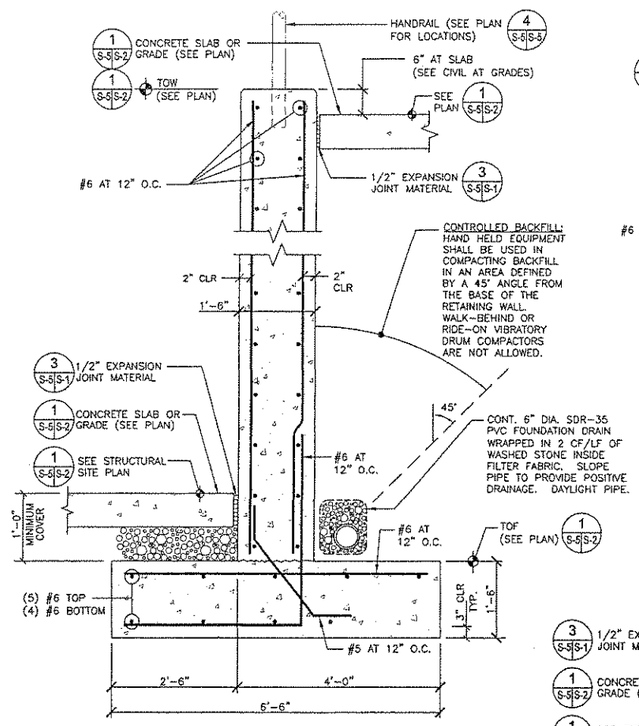
SHEET 17 OF 27

S-4

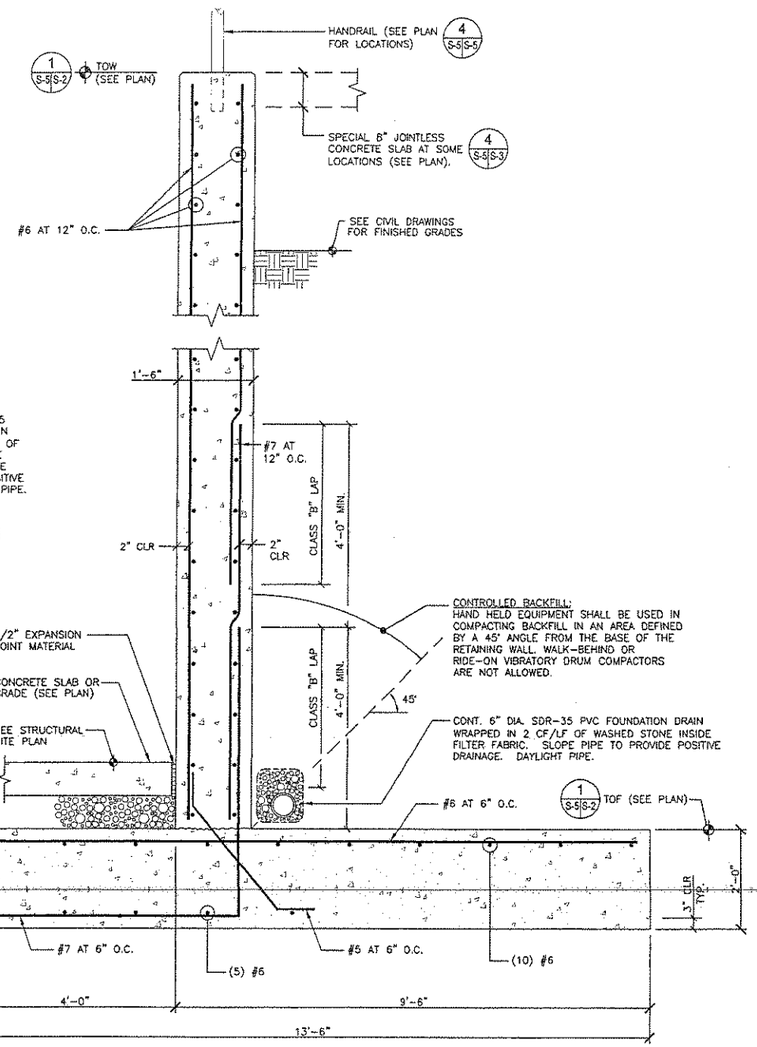
DRAWING REVISION AUGUST 2002



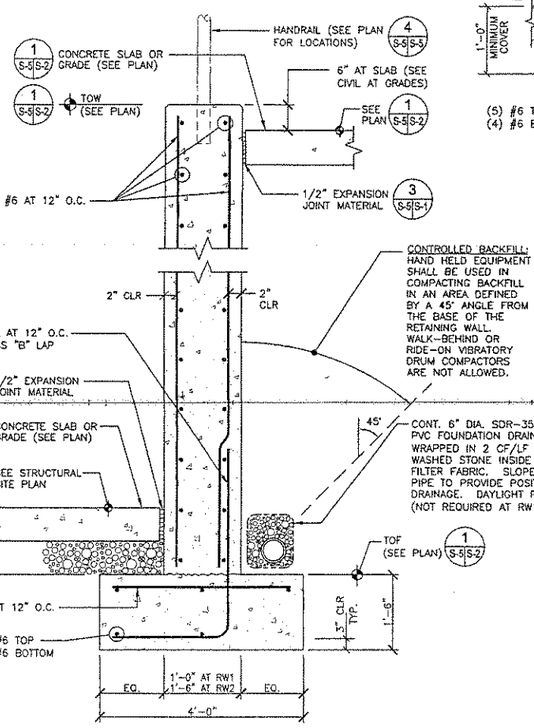
4 HANDRAIL DETAIL
S-2 S-5 NOT TO SCALE



2 RETAINING WALL DETAIL - RW3
S-2 S-5 SCALE: 3/4" = 1'-0"



1 RETAINING WALL DETAIL - RW4
S-2 S-5 SCALE: 3/4" = 1'-0"
S-3, S-7



3 RETAINING WALL DETAIL - RW1, RW2
S-2 S-5 SCALE: 3/4" = 1'-0"

GRAPHIC SCALE
16 0 8 16 32 64
(IN INCHES)
3/4 inch = 1 Foot

		DESCRIPTION	APP
			DATE
			DWG

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.
2001 RESEARCH DRIVE
SUITE 201
WALDORF, MD 20601
PHONE: 301-861-3000
FAX: 301-861-3027

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 17384 JOSEPH A. WOLNIK

SEAL

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR CFD FOR COMMANDER NAVFAC

DATE

A/E	CFD	
FAS		DESIGN
FAS		DRAWN
JAW		REVIEW
CHR		QC
		CHIEF ARCH./ ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

STRUCTURAL DETAILS

CODE ID. NO. 80091 | SIZE D

SCALE: AS SHOWN

FED. NO. 5846

STA. PROJ. NO. CP05002R

SPEC. NO. 05041183

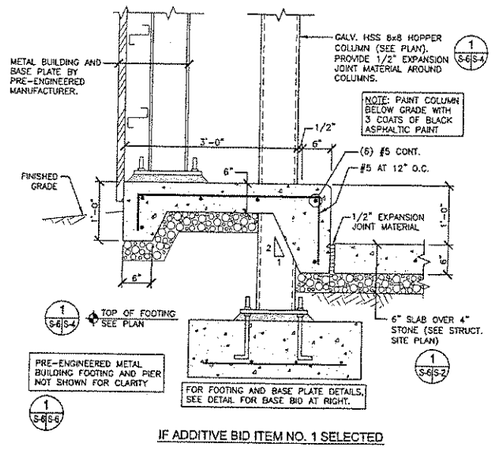
CONSTR. CONTR. NO.
N62470-04-C-1183

NAVFAC DRAWING NO.
4505705

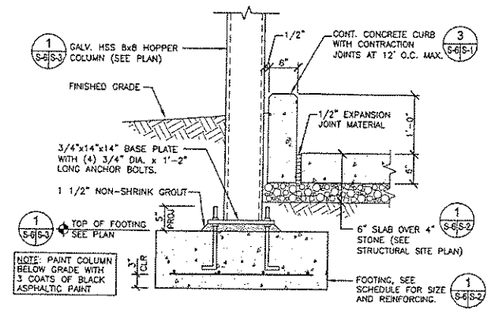
SHEET 18 OF 27

S-5

DRAWING REVISION AUGUST 2002

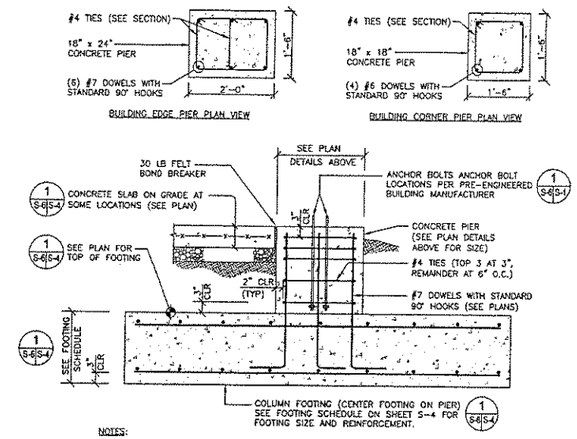


IF ADDITIVE BID ITEM NO. 1 SELECTED



IF BASE BID SELECTED

5 BASE CURB DETAILS
S-2|S-6 SCALE: 1" = 1'-0"



NOTES:

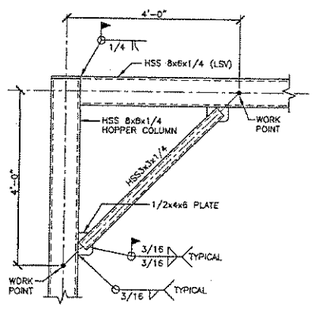
1. PRE-ENGINEERED METAL BUILDING FOOTINGS HAVE BEEN DESIGNED FOR LOADS ESTIMATED THROUGH ANALYSIS. CONTRACTOR SHALL VERIFY THAT NO ACTUAL LOAD COMBINATIONS EXCEED THE ALLOWABLE COMBINATIONS LISTED BELOW. IF ANY ACTUAL LOAD COMBINATIONS EXCEED ALLOWABLE LOAD COMBINATIONS, CONTRACTOR SHALL HAVE FOOTINGS RE-SIZED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. IF ACTUAL LOAD COMBINATIONS ARE SIGNIFICANTLY LOWER THAN THE ALLOWABLE LOAD COMBINATIONS, CONTRACTOR MAY CONSTRUCT THE FOOTINGS AS SHOWN OR CHOOSE TO HAVE FOOTINGS RE-SIZED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.

2. ESTIMATED ALLOWABLE LOAD COMBINATIONS USED IN DESIGN ARE AS FOLLOWS:

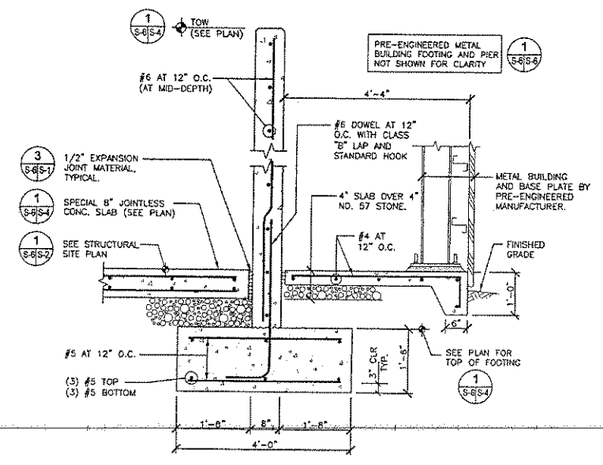
	AXIAL UPLIFT	AXIAL GRAVITY	SHEAR
LC#1	25.0 KIPS	–	4.0 KIPS
*LC#2	15.0 KIPS	–	13.0 KIPS
LC#3	–	40.0 KIPS	25.0 KIPS

* LC#2 CONTROLED DESIGN OF FOOTINGS. LOADS SHOWN IN LC#1 AND LC#3 WERE INCREASED FROM ESTIMATED TO ESTABLISH A MAX ALLOWABLE LOADING.

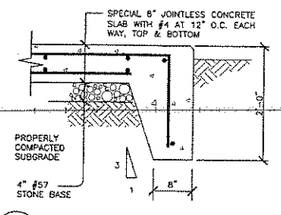
1 COLUMN FOOTING AND PIER - ADDITIVE BID ITEM NO. 1
S-6 S-4|S-6 SCALE: 3/4" = 1'-0"



4 BRACE DETAIL
S-4 S-3|S-6 SCALE: 3/4" = 1'-0"



2 PUSH WALL DETAIL - ADDITIVE BID ITEM NO. 1
S-4 S-6 SCALE: 3/4" = 1'-0"



3 SLAB TURN DOWN DETAIL
S-3 S-6 SCALE: 1" = 1'-0"

GRAPHIC SCALES

(IN INCHES)
3/4 inch = 1 Foot

(IN INCHES)
1 inch = 1 foot

DESIGNED & ENGINEERED BY: Dewberry

APPROVED

ACCEPT - SATISFACTORY TO

DATE

APPROVED

FOR DFD FOR COMMANDER NAVFAC

DATE

A/E	DFD
FAS	DESIGN
FAS	DRAWN
JAW	REVIEW
CHR	QC

DWG ASSN./ CHCK.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

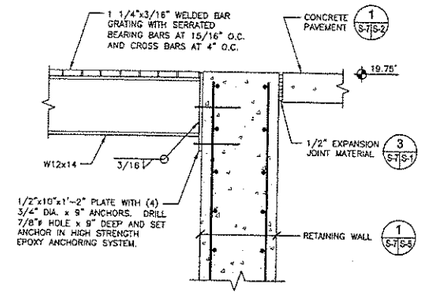
CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

STRUCTURAL DETAILS

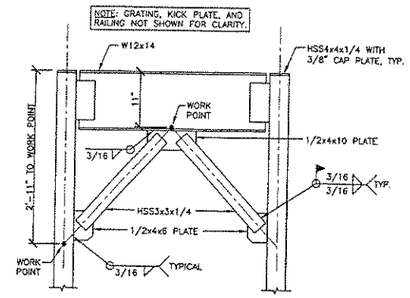
DOCK ID. NO. 00001	SIZE D
SCALE AS SHOWN	
FED NO. 3846	
SSA PROJ. NO. CP05002R	
SPEC. NO. 0504118.3	
CONTR. CONTL. NO. N62470-04-C-1183	
NAVFAC DRAWING NO. 4505706	
SHEET 19 OF 27	

S-6

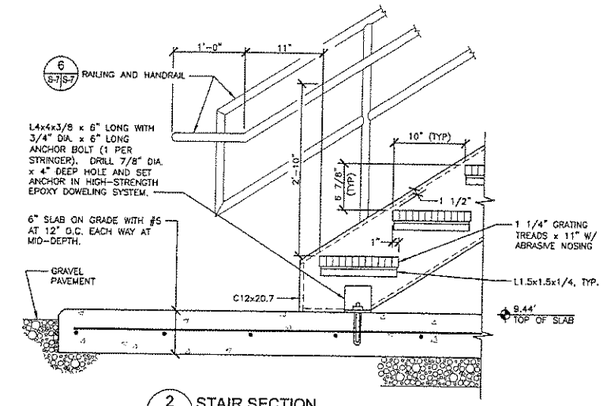
DRAWING REVISION AUGUST 1992



7 S-7/S-7 WALL CONNECTION DETAIL
SCALE: 1" = 1'-0"



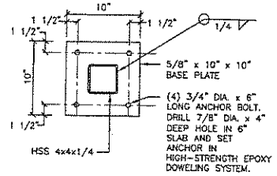
5 S-7/S-7 BRACING ELEVATION
SCALE: 1" = 1'-0"



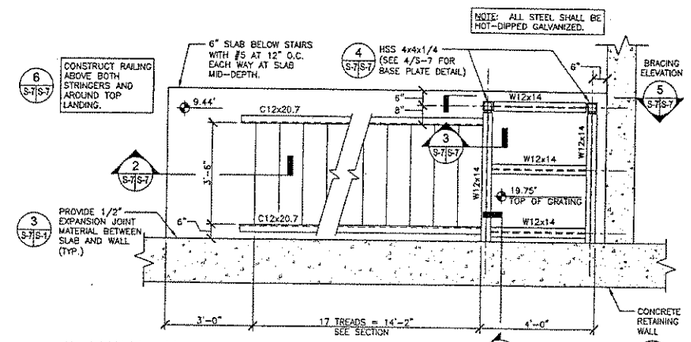
2 S-7/S-7 STAIR SECTION
SCALE: 1-1/2" = 1'-0"

NOTES:

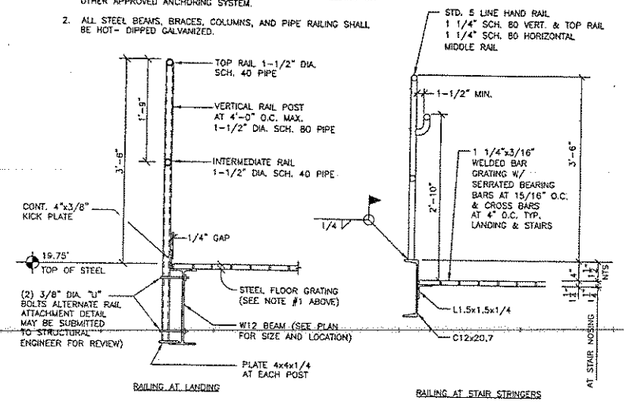
1. GALVANIZED STEEL PRESSURE-LOCKED BANDED GRATING CONFORMING TO ATSM A-569 WITH 1" x 3/16" BEARING BARS AT 1-3/16" ON CENTER SPACING AND WITH CROSS BARS AT 4" ON CENTER. ATTACH GRATING TO SUPPORT BEAMS WITH "SADDLE CLIPS" (MINIMUM 2 PER SIDE PER GRATING PANEL) OR BY APPROVED WELDING OR OTHER APPROVED ANCHORING SYSTEM.
2. ALL STEEL BEAMS, BRACES, COLUMNS, AND PIPE RAILING SHALL BE HOT- DIPPED GALVANIZED.



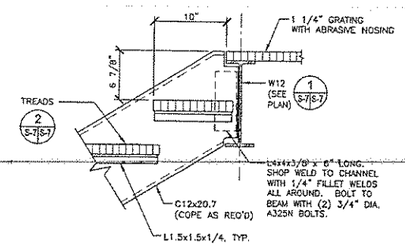
4 S-7/S-7 BASE PLATE DETAIL
SCALE: 1 1/2" = 1'-0"



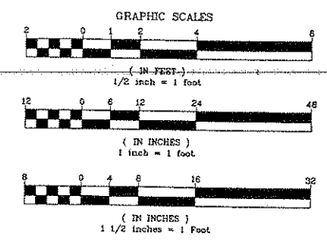
1 S-2/S-7 ENLARGED STAIR PLAN
C-3
SCALE: 1/2" = 1'-0"



6 S-7/S-7 STAIR RAILING DETAILS
SCALE: 1" = 1'-0"



3 S-7/S-7 STAIR SECTION
SCALE: 1-1/2" = 1'-0"



REV	DATE	DESCRIPTION

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 17384 04-21-04 ENGINEER JOSEPH A. WOLFARD

APPROVED

ACMPT - SATISFACTORY TO

DATE

APPROVED

FOR BID FOR COMMANDER NAVFAC

DATE

NAME	DATE
EAS	DESIGN
EAS	DRAWN
JAW	REVIEW
CHR	QC
	SHEET INCHLY ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

WAVAL FACILITIES ENGINEERING COMMAND

DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

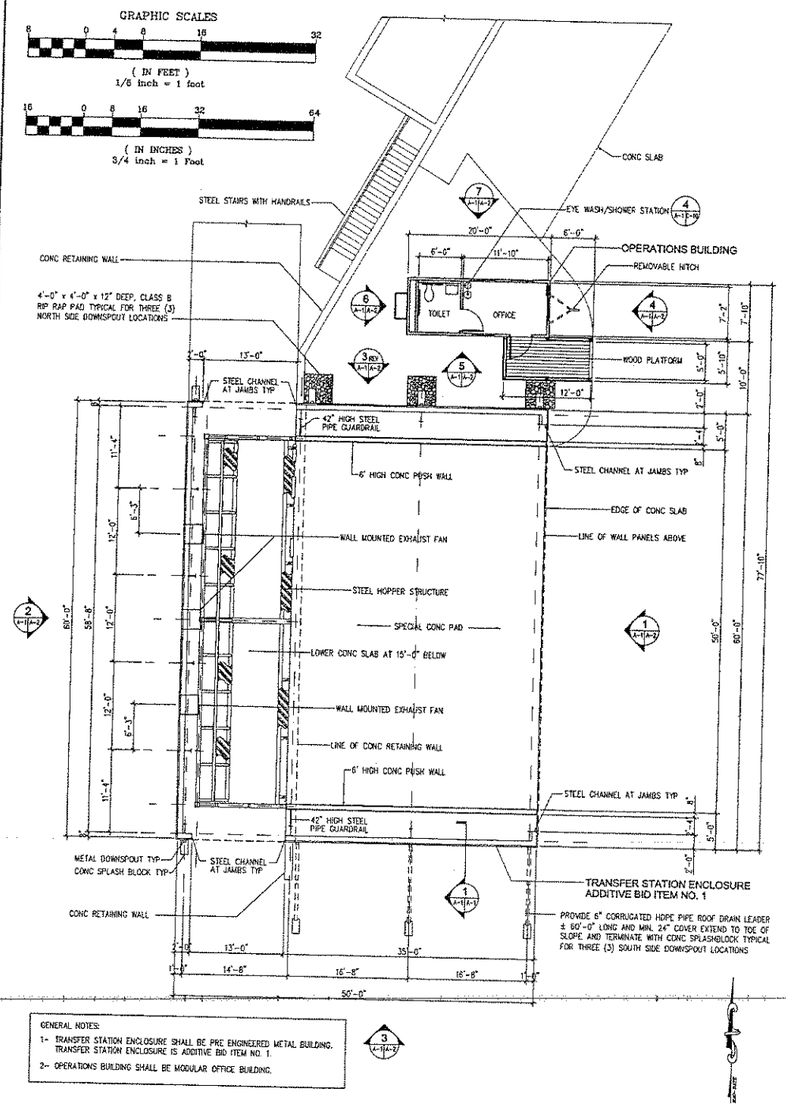
CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

STRUCTURAL DETAILS

CODE ID. NO.	SIZE D
SCALE:	AS SHOWN
FEIS NO.	5846
EFA PROJ. NO.	CP050028
SPEC. NO.	05041183
CONTR. CONTR. NO.	N62470-04-C-1183
NAVFAC DRAWING NO.	4505707
SHEET	20 of 27

S-7

DRAWING NUMBER SHEET 20S



GENERAL NOTES:

1- TRANSFER STATION ENCLOSURE SHALL BE PRE ENGINEERED METAL BUILDING. TRANSFER STATION ENCLOSURE IS ADDITIVE BID ITEM NO. 1.

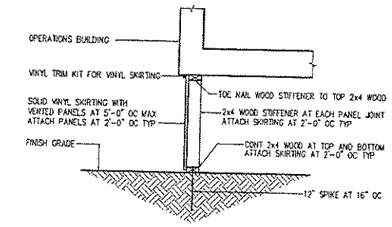
2- OPERATIONS BUILDING SHALL BE MODULAR OFFICE BUILDING.

TRANSFER STATION ENCLOSURE ADDITIVE BID ITEM NO. 1 AND OPERATIONS BUILDING FLOOR PLANS

SCALE: 1/8"=1'-0"

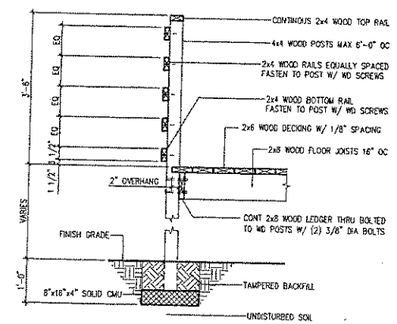
SKIRTING NOTES:

1- ALL WOOD MEMBERS SHALL BE PRESSURE TREATED WOOD RATED FOR GROUND CONTACT.
2- PROVIDE TOP AND BOTTOM "J" CLOSURE TRIM (VINYL TRIM KIT) AT VINYL SKIRTING.
3- VINYL SKIRTING COLOR SHALL MATCH TRIM COLOR.
4- PROVIDE VINYL VENT PANELS AT 5'-0" OC. VENT PANEL SIZING SHALL COMPLY WITH NC BUILDING CODE REQUIREMENTS FOR CRAWL SPACE VENTING.



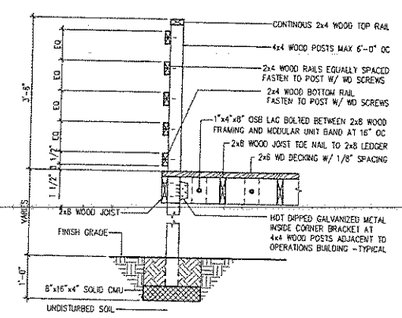
2 OPERATIONS BLDG. SKIRTING

SCALE: 3/4"=1'-0"



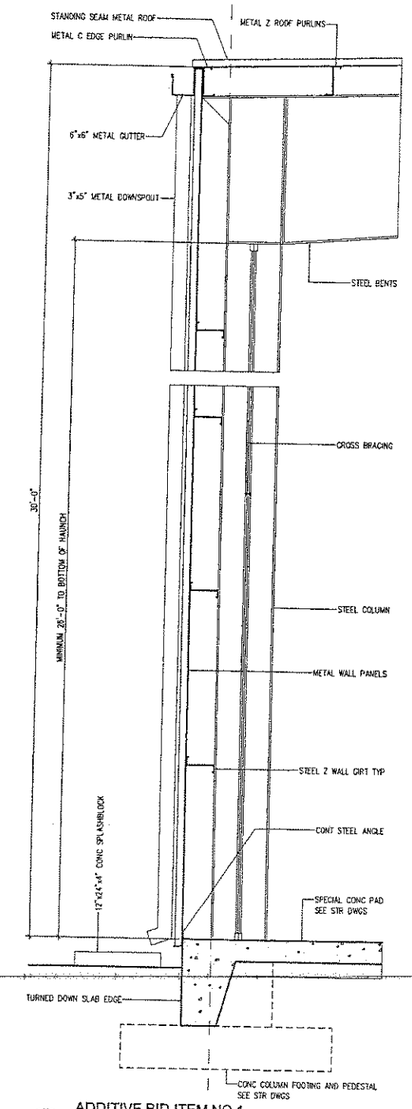
3 WOOD PLATFORM SECTION

SCALE: 3/4"=1'-0"



4 WOOD PLATFORM SECTION

SCALE: 3/4"=1'-0"



1 ADDITIVE BID ITEM NO.1 TRANSFER STATION ENCLOSURE SECTION

SCALE: 3/4"=1'-0"

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

GÜREL ARCHITECTURE

SALIH METE GÜREL

CARY, NC

APPROVED

ACTIVITY - SUBSTANTIOR TO

DATE

APPROVED

FOR BID FOR COMMENCE NOTICE

DATE	A/E	EFD
	SMG	DESIGN
	SMG	DRAWN
	SMG	REVIEW
	CHB	QC
	CHB	SHEET ARCH / ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND

DEPARTMENT OF THE NAVY

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

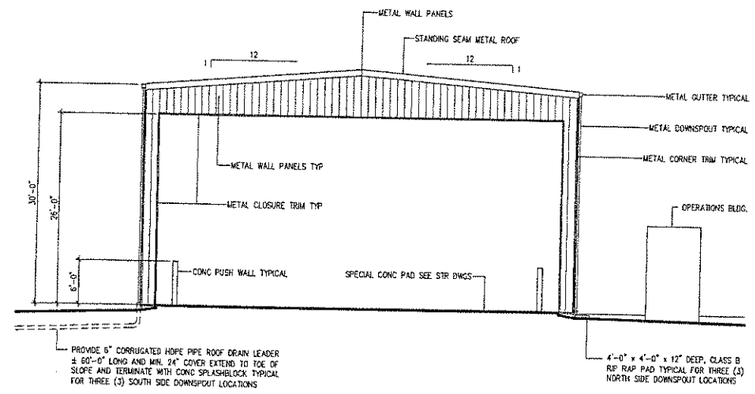
CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

FLOOR PLANS AND WALL SECTIONS

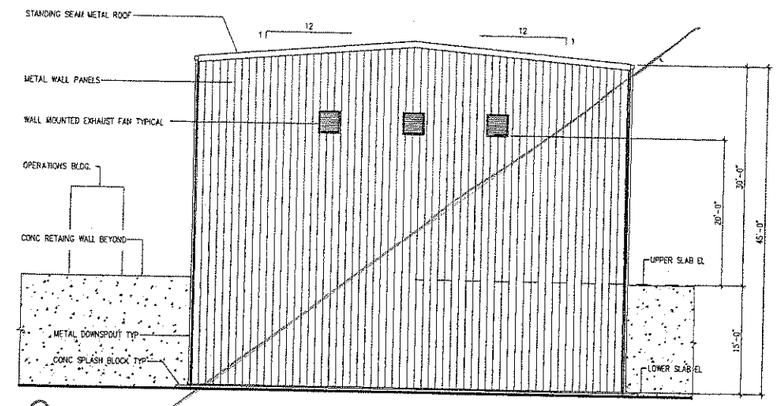
CODE ID. NO. 80091	SIZE D
SCALE:	AS SHOWN
FED. NO.	5846
STA. PROJ. NO.	CP05002R
SPEC. NO.	05041183
CONTR. DRAWING NO.	N62470-04-C-1183
NAVFAC DRAWING NO.	4505708
SHEET	21 OF 27

A-1

DRAWING REVISION AUGUST 2003



1 A-1 | A-2 ADDITIVE BID ITEM NO.1
TRANSFER STATION ENCLOSURE EAST ELEVATION
SCALE: 1/8"=1'-0"

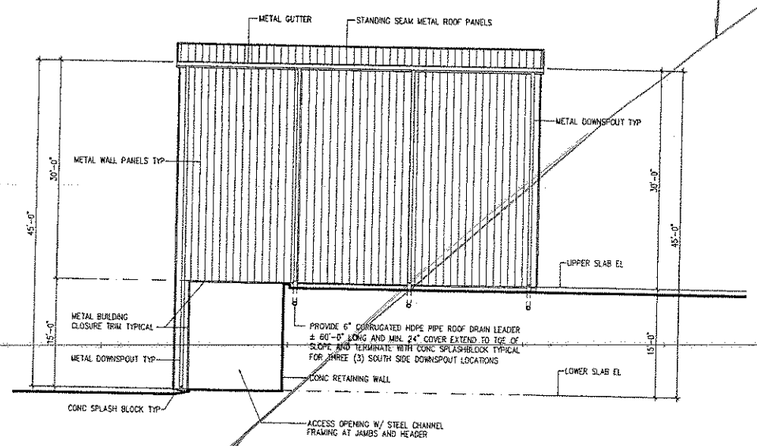


2 A-1 | A-2 ADDITIVE BID ITEM NO.1
TRANSFER STATION ENCLOSURE WEST ELEVATION
SCALE: 1/8"=1'-0"

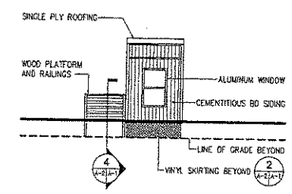
GRAPHIC SCALE
8 0 4 8 16 32
(IN FEET)
1/8 inch = 1 foot

GENERAL NOTES:
1- TRANSFER STATION ENCLOSURE SHALL BE PRE ENGINEERED METAL BUILDING. TRANSFER STATION ENCLOSURE IS ADDITIVE BID ITEM NO. 1.
2- OPERATIONS BUILDING SHALL BE MODULAR OFFICE BUILDING.

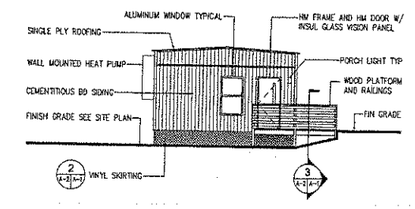
N.I.C



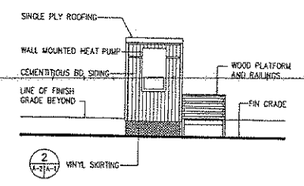
3 A-1 | A-2 ADDITIVE BID ITEM NO.1
TRANSFER STATION ENCLOSURE SOUTH ELEVATION
SCALE: 1/8"=1'-0"



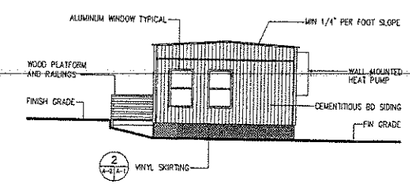
4 A-1 | A-2 OPERATIONS BLDG. EAST ELEVATION
SCALE: 1/8"=1'-0"



5 A-1 | A-2 OPERATIONS BLDG. SOUTH ELEVATION
SCALE: 1/8"=1'-0"



6 A-1 | A-2 OPERATIONS BLDG. WEST ELEVATION
SCALE: 1/8"=1'-0"



7 A-1 | A-2 OPERATIONS BLDG. NORTH ELEVATION
SCALE: 1/8"=1'-0"

MARK	DATE	REVISIONS/DESCRIPTION	INITIAL

DESIGNED & ENGINEERED BY:
Dewberry
Dewberry & Davis, Inc.
GÜREL ARCHITECTURE

SALIH METE GÜREL REGISTERED ARCHITECT 5430 CARY, NC

APPROVED
ACTIVITY - SUBSTANTIATE TO
DATE
APPROVED
FOR DTO TOR COMMANDER NAVFAC
DATE

A/E	DTO
SMG	DESIGN
SMG	DRAWN
SMG	REVIEW
CHB	QC
CHB	CHIEF ARCH./ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

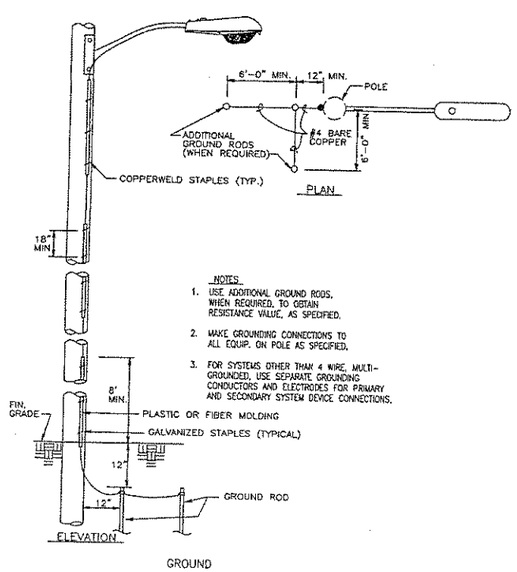
CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

BUILDING ELEVATIONS

CODE IDENT. NO. 80091 | SIZE B
SCALE: AS SHOWN
FED. NO. 5846
STA. FACIL. NO. CPO5002R
SPEC. NO. 0504118J
CONTR. CONTR. NO.
N62470-04-C-1183
NAVFAC DRAWING NO.
4505709
SHEET 22 OF 27
A-2
DRAWING REVISION NOVEMBER 2002

ELECTRICAL LEGEND

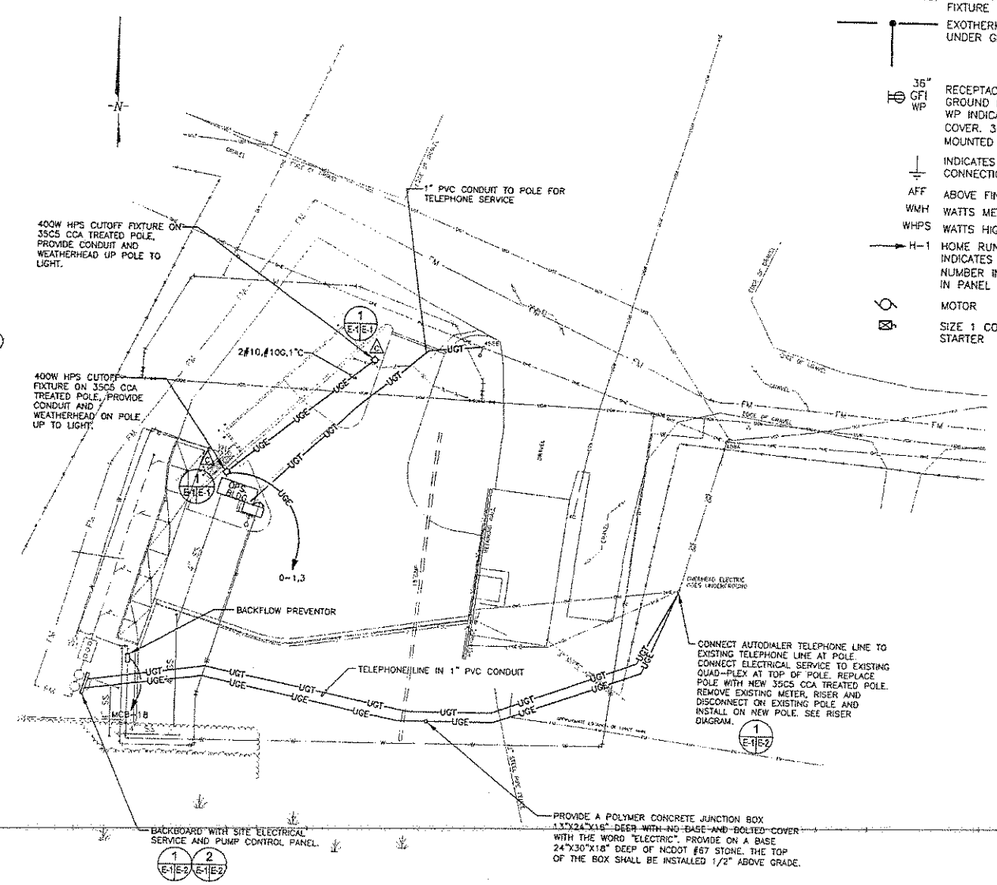
—UGE—	UNDERGROUND ELECTRIC
—UGT—	UNDERGROUND TELEPHONE
—OHE—	OVERHEAD ELECTRIC
—OHT—	OVERHEAD TELEPHONE
	LIGHT FIXTURE. SEE SCHEDULE FOR FIXTURE TYPE
	WALL MOUNTED LIGHT FIXTURE
	EXOTHERMIC CONNECTION UNDER GRADE
36" GFI WP	RECEPTACLE. GFI INDICATES GROUND FAULT RECEPTACLE. WP INDICATES WEATHERPROOF COVER. 36" INDICATES MOUNTED 36" AFF
	INDICATES GROUND CONNECTION
AFF	ABOVE FINISHED FLOOR
WMH	WATTS METAL HALIDE
WHPS	WATTS HIGH PRESSURE SODIUM
—H-1	HOME RUN TO PANEL. LETTER INDICATES PANEL NAME. NUMBER INDICATES CIRCUIT # IN PANEL
	MOTOR
	SIZE 1 COMBINATION MOTOR STARTER



NOTES

1. USE ADDITIONAL GROUND RODS, WHEN REQUIRED, TO OBTAIN RESISTANCE VALUE, AS SPECIFIED.
2. MAKE GROUNDING CONNECTIONS TO ALL EQUIP. ON POLE AS SPECIFIED.
3. FOR SYSTEMS OTHER THAN 4 WIRE, MULTI-GROUNDED, USE SEPARATE GROUNDING CONDUCTORS AND ELECTRODES FOR PRIMARY AND SECONDARY SYSTEM DEVICE CONNECTIONS.

1/E-1|E-1 STREET LIGHT DETAIL
N.T.S.



GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

NO.	DATE	DESCRIPTION	APPR.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.
8401 ARLINGTON BLVD
SUITE 101
FAIRFAX, VIRGINIA 22031-4666
PHONE: 703-207-0500
FAX: 703-207-3600

NORTH CAROLINA PROFESSIONAL SEAL 023851 ENGINEER JOHN E. DAVIDSON

APPROVED

ACCEPT - SATISFACTORY TO:

DATE

APPROVED

FOR GTO FOR COMMENTS NAVFAC

DATE

A/E	GTO
CSI	DESIGN
GPR	DRAWN
CFD	REVIEW
CHR	IC
	CHIEF ARCH./ ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND
DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

SITE ELECTRICAL

CODE ID. NO. BOOK:	SIZE D
SCALE:	AS SHOWN
FED. NO.	5846
SPA. PROJ. NO.	CP05002R
SPEC. NO.	05041163
CONTR. CONTR. NO.	N62470-04-C-1163
NAVFAC DRAWING NO.	4505710
SHEET	23 OF 27

E-1

LOAD SERVED	VA/PHASE A	VA/PHASE B	VA/PHASE C	CB	P	CKT	CKT	P	CB	VA/PHASE A	VA/PHASE B	VA/PHASE C	LOAD SERVED
Site Lighting	415			20	2	1	2			5760			
2#10,#10G,1"C		415				3	4				5760		Estimated Load
						5	6					5760	
						7	8						
						9	10						
						11	12						
						13	14						
						15	16						
						17	18						
						19	20						
						21	22						
						23	24						
						25	26						
						27	28						
						29	30						
						31	32						
						33	34						
						35	36						
						37	38						
						39	40						
						41	42						

VOLTAGE RATING	120/208	MAIN BREAKER?	YES	TOTAL LOAD (VA)	6175	6175	5760	PANEL DESIGNATION	O
# OF PHASES	3	BREAKER RATING	100	DEMAND FACTOR			1.00	NOTES:THIS PANEL FURNISHED WITH OPERATOR BUILDING	
# OF WIRES	4	BUS RATING	100	DEMAND LOAD (VA)	6175	6175	5760		
MOUNTING?	SURFACE	NEUTRAL RATING	100%	DEMAND AMPS	51	51	48		
SE RATED?	YES	MINIMUM KAIC	18						

LOAD SERVED	VA/PHASE A	VA/PHASE B	VA/PHASE C	CB	P	CKT	CKT	P	CB	VA/PHASE A	VA/PHASE B	VA/PHASE C	LOAD SERVED
	3864					1	2			6175			Panel O
Pump control panel 2@4HP		3864		60	3	3	4	3	100		6175		Operator building
3#6,#10G,1-1/4"C			3864			5	6					5760	
						7	8			3500			
Surge Protection Device				60	3	9	10	3	60		2900		Panel "H"
4#6,#8G,1-1/4"C						11	12					3145	
Space						13	14	1	20	1200			Receptacle on panel rack
Space						15	16	1	20				Spare
Space						17	18	1	20			1200	Backflow Preventer
Space						19	20	1	20				Spare
Space						21	22	1	20				Spare
Space						23	24	1	20				Spare
Space						25	26						Space
Space						27	28						Space
Space						29	30						Space

VOLTAGE RATING	120/208	MAIN BREAKER?	no	TOTAL LOAD (VA)	14739	12939	13969	PANEL DESIGNATION	"MCB"
# OF PHASES	3	BREAKER RATING	n/a	DEMAND FACTOR			1.00	NOTES:NEMA 4X STAINLESS STEEL	
# OF WIRES	4	BUS RATING	225	DEMAND LOAD (VA)	14739	12939	13969		
MOUNTING?	SURFACE	NEUTRAL RATING	100%	DEMAND AMPS	123	108	116		
SE RATED?	NO	MINIMUM KAIC	22						

LOAD SERVED	VA/PHASE A	VA/PHASE B	VA/PHASE C	CB	P	CKT	CKT	P	CB	VA/PHASE A	VA/PHASE B	VA/PHASE C	LOAD SERVED
Spare				20	1	1	2	1	20	1000			
Spare				20	1	3	4	1	20		1000		Receptacle
Lighting circuit			645	20	1	5	6	1	20			1000	Receptacle
Spare				20	1	7	8	1	20	1000			Receptacle *
Spare				20	1	9	10	1	20		1000		Receptacle *
Lighting circuit			600	20	2	11	12	1	20				Spare
(ALTERNATE)	600					13	14	3	15	300			Fan Motor 1/2HP *
Space						15	16				300		4#10,10G,3/4"C.
Space						17	18					300	
Space						19	20	3	15	300			Fan Motor 1/2HP *
Space						21	22				300		4#10,10G,3/4"C.
Space						23	24					300	
Space						25	26	3	15	300			Fan Motor 1/2HP *
Space						27	28				300		4#10,10G,3/4"C
Space						29	30					300	

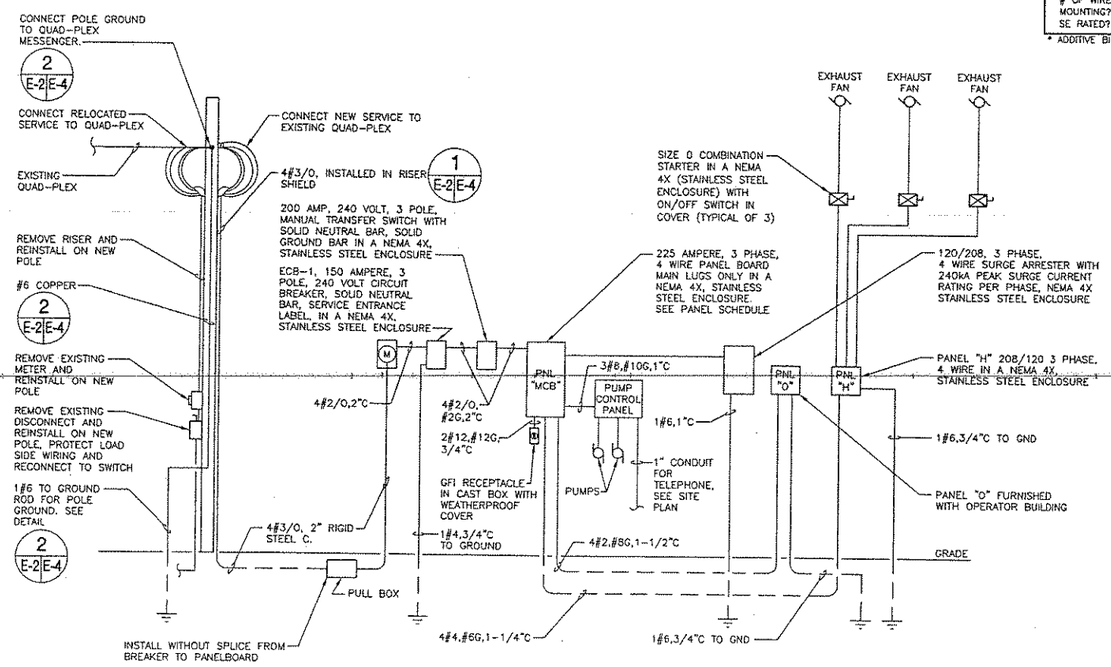
VOLTAGE RATING	120/208	MAIN BREAKER?	YES	TOTAL LOAD (VA)	3500	2900	3145	PANEL DESIGNATION	H
# OF PHASES	3	BREAKER RATING	60	DEMAND FACTOR			1.00	NOTES:NEMA 4X STAINLESS STEEL	
# OF WIRES	4	BUS RATING	60	DEMAND LOAD (VA)	3500	2900	3145		
MOUNTING?	SURFACE	NEUTRAL RATING	100%	DEMAND AMPS	29	24	26		
SE RATED?	YES	MINIMUM KAIC	18						

* ADDITIVE BID ITEM NO. 1

LIGHTING FIXTURE SCHEDULE

FIXTURE SYMBOL	STYLE NO. & TYPE	NUMBER AND TYPE OF LAMPS	VOLTAGE	MOUNTING	NOTES
A	NL-23, TYPE D	1-250WMH	208	HOOK & RECEPTACLE	DAMP LABEL
B	NL-25, TYPE D	1-175WMH	120	WALL MOUNTED	1
C	XL-4	1-400WHPS	208	POLE MOUNTED	TYPE 3 DISTRIBUTION

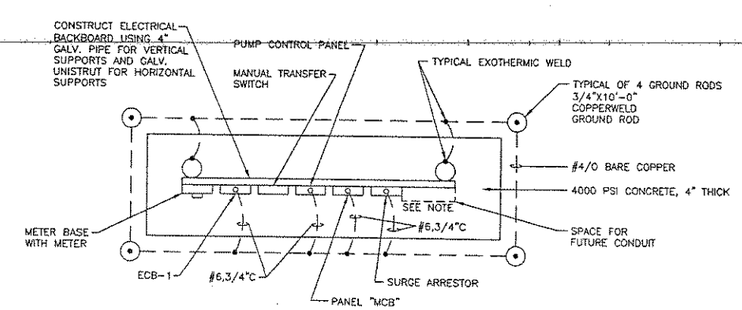
1 PROVIDE ONE PHOTOCELL FOR TYPE B FIXTURES. MOUNT ON SCREEN WALL AS HIGH AS POSSIBLE POINTED NORTH.



1 E-1 E-2 NEW ELECTRICAL RISER DIAGRAM

N.T.S.

NOTE: 1. ALL CONDUIT SHALL BE RIGID STEEL
2. DASHED LINES INDICATE CONDUIT UNDER GRADE FOR RISER ONLY.



2 E-1 E-2 PANEL INSTALLATION PLAN

N.T.S.

NOTE: ALLOW 48" OF SPACE FOR FUTURE EQUIPMENT INSTALLATION. DIRECTLY UNDER SPARE SPACE LEAVE OPEN WINDOW IN CONCRETE PAD 48"X12" AND FILL WITH WASHED STONE TO ALLOW FUTURE CONDUIT INSTALLATION.

REV	DESCRIPTION	DATE	APPR

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 023851 ENGINEER CASALE, DAVIDSON

SEAL

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E EFD

CSL DESIGN
GPB DRAWN
CFD REVIEW
CHB QC
CHIEF ARCH./ ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

ELECTRICAL DETAILS

CODE ID. NO. 80091 SIZE D

SCALE: AS SHOWN

FED. NO. 5846

STA. PROJ. NO. CP050002R

SPEC. NO. 05041183

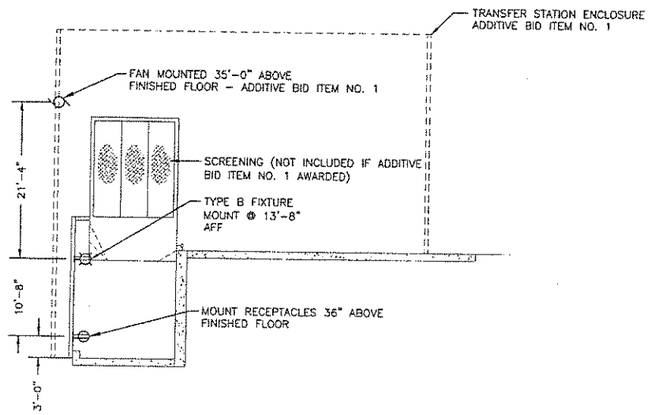
CONSTR. CONTR. NO. N62470-04-C-1183

NAVFAC DRAWING NO. 4505711

SHEET 24 OF 27

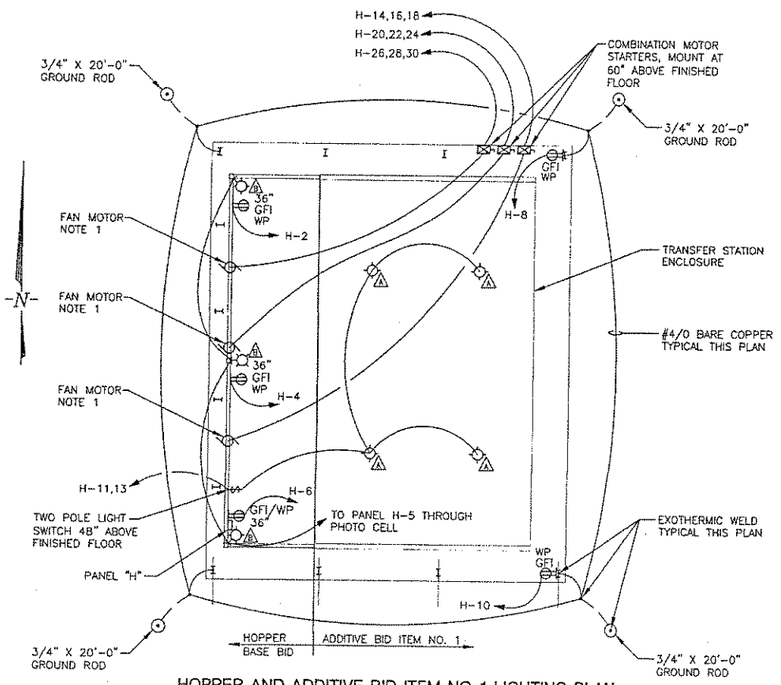
E-2

02/07/06



FIXTURE LOCATION ELEVATION - BASE BID AND ADDITIVE BID ITEM NO. 1

SCALE: 1/8" = 1'-0"



HOPPER AND ADDITIVE BID ITEM NO. 1 LIGHTING PLAN

SCALE: 1/8" = 1'-0"

NOTES:
1. SEE DRAWING M-1 FOR EXACT LOCATION OF FANS. FANS IN ADDITIVE BID ITEM NO. 1 NOT BASE BID.
2. SOLID LINES INDICATE ABOVE GRADE CONDUIT, THIS PLAN ONLY.
3. ALL CONDUITS SHALL BE RIGID STEEL.

GRAPHIC SCALE

(IN FEET)
1/8 inch = 1 ft.

DESIGNED & ENGINEERED BY:

Dewberry

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8401 ARLINGTON BLVD
FAIRFAX, VIRGINIA 22031-4666
PH: 703-916-1000
FAX: 703-916-1999

REGISTERED PROFESSIONAL ENGINEER
SEAL 023651
CHARLES E. DAVIDSON
VIRGINIA

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR CTO FOR CONTRACTOR INSERT:

DATE	A/E	CTO
	CSL DESIGN	
	GPB DRAWN	
	CED REVIEW	
	CHB SO	
	CHIEF ARCH / ENGR.	

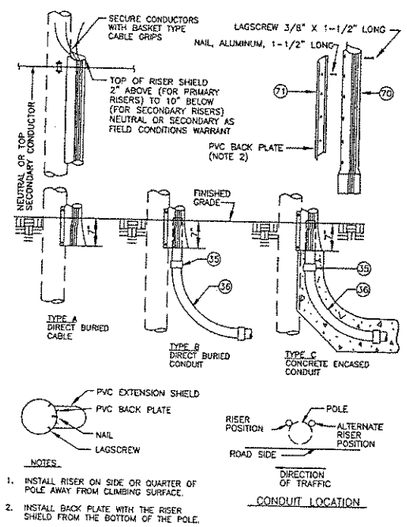
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

ELECTRICAL ELEVATION AND ADDITIVE BID ITEM NO. 1

CODE ID. NO. 80091 | SIZE D
SCALE: AS SHOWN
FCI NO. 5846
SEA PROJ. NO. CP05002R
SPEC. NO. 05041183
CONTR. CONTR. NO.
N62470-04-C-1183
NAVFAC DRAWING NO.
4505712
SHEET 25 OF 27
E-3



NOTES

1. INSTALL RISER ON SIDE OR QUARTER OF POLE AWAY FROM CLIMBING SURFACE.
2. INSTALL BACK PLATE WITH THE RISER SHIELD FROM THE BOTTOM OF THE POLE.

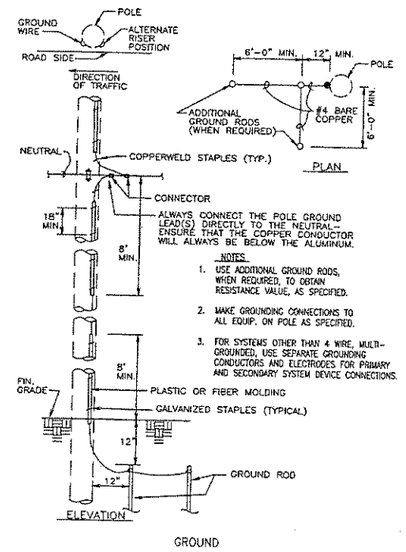
(SIZE & TYPE AS INDICATED)

1 E-2 E-4 PVC RISER SHIELD - DETAIL OH-34

N.T.S.

CALL OUT LEGEND

35 RIGID PIPE COUPLING
36 RIGID PIPE
70 RISER SHIELD
71 GROUND WIRE SHIELD



NOTES

1. USE ADDITIONAL GROUND RODS, WHEN REQUIRED, TO OBTAIN RESISTANCE VALUE, AS SPECIFIED.
2. MAKE GROUNDING CONNECTIONS TO ALL EQUIP. ON POLE AS SPECIFIED.
3. FOR SYSTEMS OTHER THAN 4 WIRE, MULTI-GROUNDED, USE SEPARATE GROUNDING CONDUCTORS AND ELECTRODES FOR PRIMARY AND SECONDARY SYSTEM DEVICE CONNECTIONS.

2 E-2 E-4 GROUND - DETAIL OH-41

N.T.S.

DESIGNED & ENGINEERED BY:

Dewberry

Dewberry & Davis, Inc.

NORTH CAROLINA SEAL 023851 ENGINEER CASH E. DAVIDSON

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR CO'S FOR COMMANDER NAVFAC

DATE

A/E CSI GPB CED CHB

EFD DESIGN DRAWN REVIEW BC CHIEF ARCH/ ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

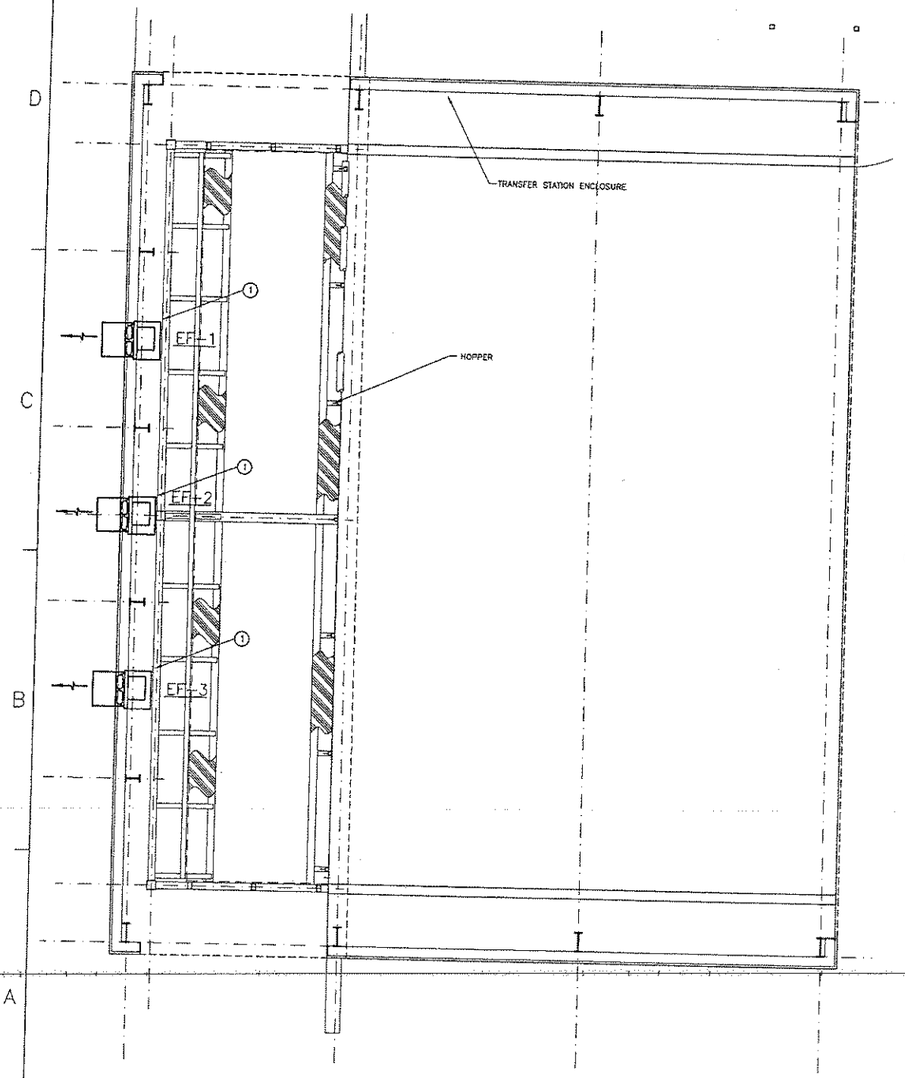
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

ELECTRICAL DETAILS

CODE ID. NO. 80081 SIZE D
SCALE: AS SHOWN
FED. NO. 5846
STA. PROJ. NO. CP05002R
SPEC. NO. 05041183
CONSTR. CONTR. NO. N62470-04-C-1183
NAVFAC DRAWING NO. 4505713
SHEET 26 OF 27

E-4



ADDITIVE BID ITEM NO.1 MECHANICAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

EXHAUST FAN SCHEDULE

MARK	LOCATION	CFM	ESP IN.	MANUFACTURER / MODEL	TYPE	DRIVE	BHP	MOTOR HP	RPM	VOLTS/ PHASE	WEIGHT	NOTES
EF-1	WEST WALL	6000	0.15	GREENHECK / SBE	WALL	BELT	0.33	1/2	638	208/3	95	1,2,3
EF-2	WEST WALL	6000	0.15	GREENHECK / SBE	WALL	BELT	0.33	1/2	638	208/3	95	1,2,3
EF-3	WEST WALL	6000	0.15	GREENHECK / SBE	WALL	BELT	0.33	1/2	638	208/3	95	1,2,3

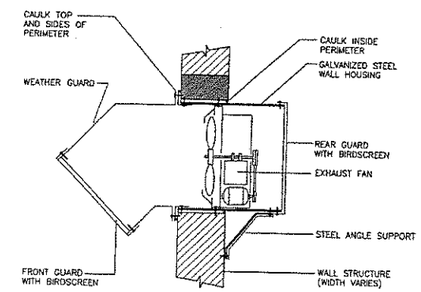
NOTES:
1. PROVIDE DISCONNECT SWITCH BY UNIT MANUFACTURER
2. PROVIDE WITH WALL HOUSING WITH GUARD AND WEATHER HOOD BY UNIT MANUFACTURER
3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL SUPPORTS AND ANGLE IRONS.

SYSTEM NOMENCLATURE

EF-2
- # : NUMBER OF UNIT
- EF = EXHAUST FAN

NOTES KEYED TO PLAN

(1) MOUNT EXHAUST FAN 35' ABOVE FLOOR BELOW HOPPER TO BOTTOM OF FAN.



EXHAUST FAN DETAIL

N.T.S.

GENERAL MECHANICAL NOTES

1. SEE SHEET E-3 FOR FAN CONTROLS AND WIRING.

NO.	DATE	DESCRIPTION	APP.

DESIGNED & ENGINEERED BY:

Dewberry

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NORFOLK, VA 23137-1000
PHONE: 757.627.5900
FAX: 757.627.9860

NORTH CAROLINA PROFESSIONAL SEAL 026110 ARCHITECT RICHARD L. HAUTECLER

SEAL

APPROVED

ACTION - SATISFACTORY TO

DATE

APPROVED

FOR CO FOR COMMANDER NAVFAC

DATE

A/E	CTO
MJS	DESIGN
MJS	DRAWN
RLH	REVIEW
CFD	QC
RLH	CHIEF DESIGN / ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE ARMY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

CONSTRUCT UPGRADES TO CORRECT TRANSFER STATION DEFICIENCIES

MECHANICAL PLAN ADDITIVE BID ITEM NO. 1

CODE ID. NO. 80091 | SIZE D

SCALE: AS SHOWN

FED NO. 5645

STA. PROJ. NO. CP05002R

SPEC. NO. 05041183

CONTR. CONTROL NO.
N62470-04-C-1183

NAVFAC DRAWING NO.
4505714

SHEET 27 OF 27

M-1