Environmental Consultants

11260 Roger Bacon Drive
Reston, VA 20190-5282

703 471-6150
FAX 703 471-6676
www.scsengineers.com

SCS ENGINEERS

December 6, 2004

RECEIVED
D.C. OFFICE OF ZONING
2004 DEC -7 PM 12: 11

DC Office of Zoning
441 4th Street, N.W.
Suite 210
Washington DC 20001
Attn: Mr. Alberto Bastida

RE: Case No. 03-28 Fort Totten Solid Waste Transfer Facility PUD Application – **Addendum 3**

Dear Mr. Bastida,

Please find enclosed twenty (20) copies of the Addendum 3 to the PUD Application for the Fort Totten Solid Waste Transfer Facility (Case No. 03-28) on behalf of the District of Columbia Public Works Solid Waste Administration. This document addresses the requested information from the October 21st hearing.

Please do not hesitate to contact me if you have questions regarding the information contained within this Addendum.

Sincerely,

SHEILA M. SUAREZ

FOR Dana L. Murray, P.E.
Project Manager
SCS ENGINEERS

Paul A. Mandeville

Paul A. Mandeville, P.E.
Vice President
SCS ENGINEERS

Enclosures

cc: Thomas Henderson, Administrator Solid Waste Administration

ZONING COMMISSION
District of Columbia
CASE NO. 03-28
EXHIBIT NO. 28

ZONING COMMISSION
District of Columbia
CASE NO.03-28
EXHIBIT NO.28

SCS ENGINEERS

Addendum 3

APPLICATION FOR CONSOLIDATED APPROVAL OF A PLANNED UNIT DEVELOPMENT

Fort Totten
Solid Waste Transfer Facility
4900 Bates Road, N.E.

Prepared for:

Office of the Zoning Commission
441 4th Street, N.W.
Suite 210 South
Washington, D.C. 20001

Case No. 03-28

ZONING COMMISSION
District of Columbia
CASE NO. 03-28
EXHIBIT NO. 28

December 2004

APPLICATION FOR CONSOLIDATED APPROVAL OF A PLANNED UNIT DEVELOPMENT
Fort Totten Solid Waste Transfer Facility
Case N. 03-28
Addendum 3

The purpose of this addendum is to provide information requested by the Zoning Commissioners on October 21, 2004 concerning site lighting, hours of operation, citizens' drop off area bypass lane, moving the east fence line to accommodate Metropolitan Branch Trail, and landscaping specifications. Each of these is discussed below with necessary exhibits provided at the end of this document.

SITE LIGHTING PLAN

The site lighting plan shown in Exhibit A shows flood lights (400W) mounted on 30 foot steel poles to be located as follows around the site:

- One each near the entrance and exit to the citizens' area.
- One near the entrance to the transfer trailer entrance and 2 more to be located along the transfer vehicle drive.
- Three double lights to be mounted on the transfer vehicle ramp near the building entrance. These lights will illuminate the ramp and the parking lot on the north end of the property.
- Two to be located near the new entrance scales.
- Three to be located on the on the ramp for the collection vehicle entrance ramp.

In addition, the site light plan shows building mounted flood lights (250W) at a height of 25 feet on the building walls to be located as follows:

- Two at the transfer vehicle exits.
- Two on the East elevation of the building.

The third type of site lighting will be three power flood lights (1000W) mounted on one 45 foot steel pole on the east side of the Green and Bulk Waste Area to illuminate the Green and Bulk Waste Area.

CITIZENS' DROP-OFF AREA

Hours of Operation

Receiving time on weekdays and Saturdays and will be a minimum of 7 hours.

By-pass Lane Analysis

The Citizens' Drop-off Area is designed with two parallel rows of containers for disposal of municipal solid waste, recyclables, and household hazardous waste. Each row will have identical facilities. The area will have three marked lanes that are parallel and between the two rows of containers: the outside rows are used by parked vehicles to unload material into the containers and the middle row is used for entrance and egress of vehicles using the Citizens' Drop-off Area. The middle lane is called the by-pass lane and will be used by queued vehicles to drive to an empty parking spot; thereby, driving by vehicles that are parked and unloading.

The commissioners requested that SCS explore removing the by-pass lane. Without this center lane, a heavily loaded vehicle parked in either of the first spots could block traffic for all other users. In SCS experience at other citizens' areas, vehicles blocking access has caused for very unfriendly environment. DPW Solid Waste Administration plans to provide adequate staffing for this area and traffic will be managed with cones and personnel direction. Vehicles will only be allowed to enter the area when a parking space becomes available. If this bypass lane does present a safety hazard for vehicles parking or exiting the area, DPW will make adjustments and use traffic barriers to block this lane.

METROPOLITAN BRANCH TRAIL

The Metropolitan Branch Trail is planned to be located just east of the site on the other side of the subject property line. The trail will be immediately adjacent to the new entrance road and scales for the collection vehicles. The commissioners requested that SCS investigate the possibility of moving the road and scales ten feet to the west to provide a buffer between the planned trail and the new entrance road.

Currently, this area is used as an exit road for the collection vehicles leaving the Fort Totten Facility. The District of Columbia Department of Public Works Fleet Management owns and operates a fueling facility located just west of this exit road. The fueling facility is enclosed by a four foot high concrete wall with an additional four foot high chain link fence on top.

The proposed entrance road is designed to be two lanes to accommodate more collection vehicle queuing onsite and reduce or eliminate the queuing of collection vehicles onto Brookland Avenue. The minimum width for two lanes of traffic is 22 feet. The distance between the east property line and the fueling facility's concrete wall is 22 feet as seen in Photograph 1 in Exhibit B.

In order to provide for the ten foot buffer, the existing concrete wall would have to be removed and relocated ten feet west. Photograph 2 in Exhibit B shows the close proximity of the fuel pumps to the existing concrete wall. Moving the wall likely would negatively impact the maneuvering of DPW fleet vehicles within the fueling facility. During the investigation of this option, vehicle tire marks were found approximately five feet from the wall as shown in Photograph 3 of Exhibit B.

SCS also explored the possibility of maintaining the alignment of the proposed entrance road and only moving the scales ten feet west. Exhibit C shows the vehicle tracking for this alternate alignment. The collection vehicles would not be able to maneuver onto the scales.

As a result of this analysis, SCS does not recommend moving the proposed entrance road 10 feet west or relocating the scales 10 feet west. SCS has had several conversations with planners in the DDOT Bicycle Program for the Metropolitan Branch Trail and they have indicated that they are in support of the proposed modifications to the facility. A letter of support from this organization is shown in Exhibit D.

TRAFFIC STUDY

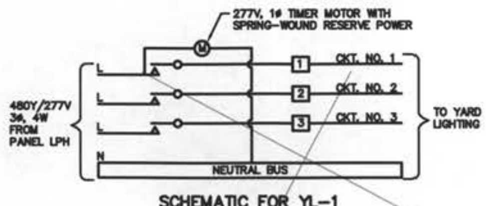
The traffic study can be found in Exhibit E. District Department of Transportation (DDOT) notified Department of Consumer and Regulatory Affairs (DCRA) on June 21, 2002 that from a transportation standpoint, they support the expansion of the Solid Waste Transfer Facility. In addition, they stated that the improvements to the site will significantly improve access to and from the facility. The letter of support from DDOT, Associate Director of Transportation Policy and Planning is shown in Exhibit F.

LANDSCAPING

The existing landscaping in front of the facility consists primarily of evergreen Leyland Cypress spaced approximately 8 feet on center. The new landscaping calls for a continuation of the Leyland Cypress to be planted 8 feet on center to match the existing tree line. This line of trees will serve to screen the facility fence. The proposed landscaping also includes planting beds on either side of each of the new driveways (i.e. transfer trailer/ citizen area entrance, the citizen area exit, and the transfer trailer exit). These planting beds will consist of shrubs, perennial flowers and grasses designed to provide for year round color.

The line of Leyland Cypress to be planted along the North fence will be planted 15 feet on center. The landscape plan and specifications are included in Exhibit G.

EXHIBIT A
SITE LIGHTING PLAN

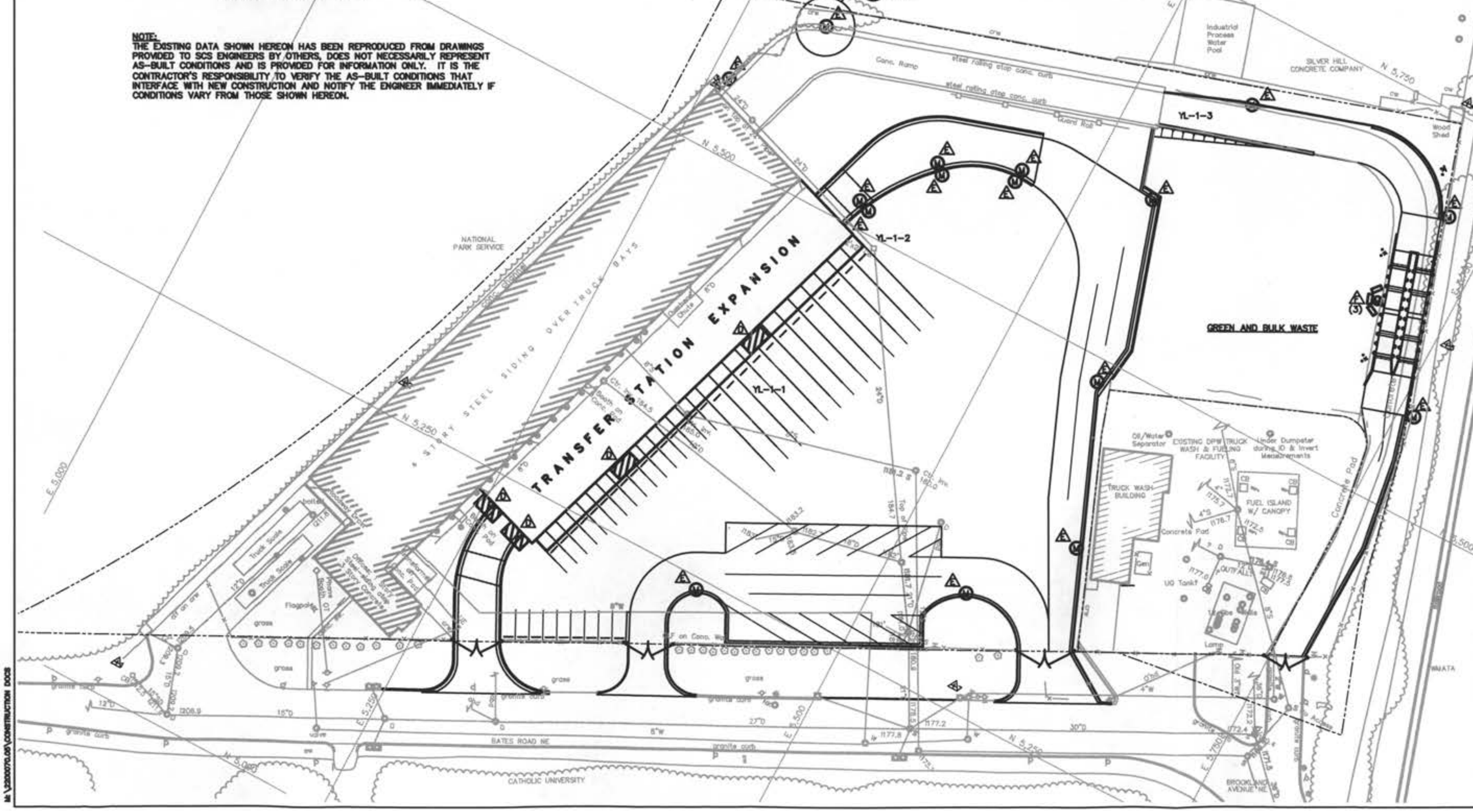


SCHEMATIC FOR YL-1

NOTE:
THE EXISTING DATA SHOWN HEREON HAS BEEN REPRODUCED FROM DRAWINGS PROVIDED TO SCS ENGINEERS BY OTHERS, DOES NOT NECESSARILY REPRESENT AS-BUILT CONDITIONS AND IS PROVIDED FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE AS-BUILT CONDITIONS THAT INTERFACE WITH NEW CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY IF CONDITIONS VARY FROM THOSE SHOWN HEREON.

NOTE:
SEE DRAWING E8 FOR LIGHTING FIXTURE SCHEDULE, SCHEDULE FOR CONDUIT AND WIRING AND ELECTRICAL SYMBOL LIST. SEE DRAWING E5 FOR PANEL LP-R SCHEDULE.

GRAPHIC SCALE
SCALE IN FEET
SCALE: 1"=30'-0"



NO.	REVISION	DATE

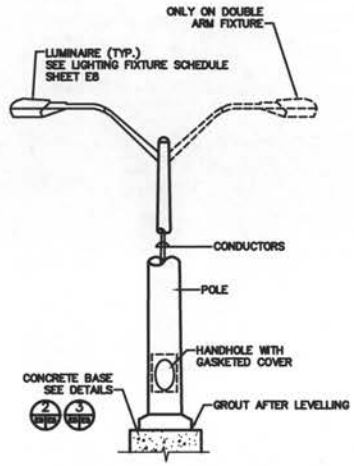
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
11260 ROGER BACON DRIVE - RESTON, VA 20190
PH. (703) 471-6150 FAX. (703) 471-6676

CLIENT
DISTRICT OF COLUMBIA GOVERNMENT
DEPARTMENT OF PUBLIC WORKS
SOLID WASTE MANAGEMENT ADMINISTRATION
2750 SOUTH CAPITOL ST. S.E.
WASHINGTON, D.C. 20032

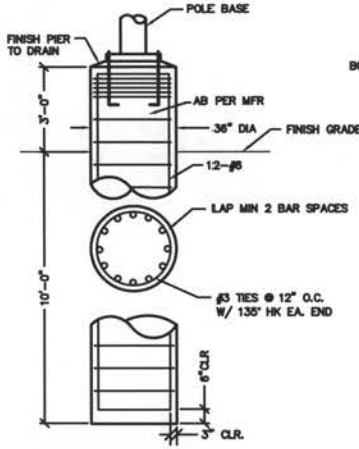
SHEET TITLE
SITE LIGHTING PLAN AND DETAILS

PROJECT TITLE
ALTERATIONS/REPAIRS:
FORT TOTTEN REFUSE TRANSFER FACILITY
4900 BATES ROAD, NE WASHINGTON, DC 20011

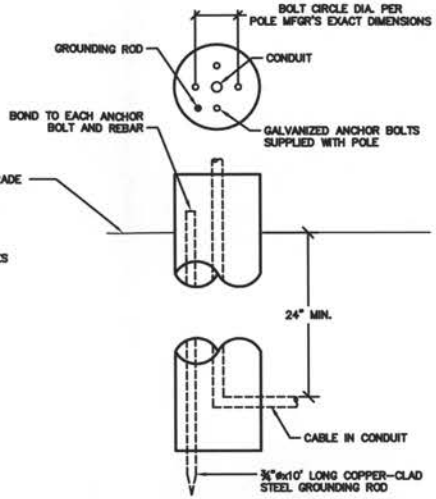
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DATE: NOV 2004
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E7 of



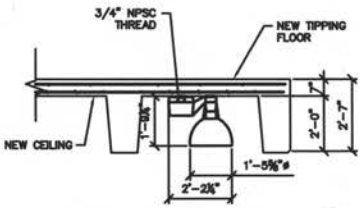
POLE MOUNTED LIGHTING FIXTURE (1 / E7 E8)
NO SCALE



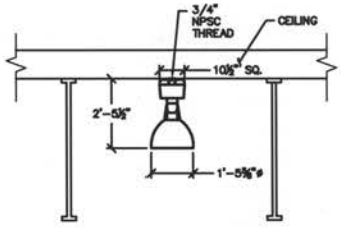
CONCRETE BASE (2 / E8 E8)
NO SCALE



CONCRETE BASE (3 / E8 E8)
NO SCALE



TUNNEL LIGHTING FIXTURE (5 / E1 E8)
NO SCALE



TIPPING FLOOR LIGHTING FIXTURE (4 / E3 E8)
NO SCALE

KEY	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMP TYPE	QUANTITY	REMARKS
A	GENERAL ELECTRIC	FGS40M	FILTERGLOW	400W MH	66	SMALL BALLAST HOUSING
B	CROUSE-HINDS	VDA 22009	V-SERIES FORM 200	200W INCAN.	13	ENCLOSED AND GASKETED WITH PLAIN GLOBE AND GUARD, VAPORTIGHT, WITH DOME REFLECTOR
C	GENERAL ELECTRIC	FGS25M	FILTERGLOW	250W MH	25	REMOTE BALLAST, GE CAT.#RB5G225MOA AND OPTICAL ASSEMBLY, GE CAT.#R90MB-FDG
D	GENERAL ELECTRIC	V2FN25M	POWR/DOOR LUM	250W MH	4	MOUNT AT HEIGHT 25' ON BUILDING WALL
E	GENERAL ELECTRIC	MDRL40M	VERSAFLOOD II	400W MH	16	MOUNT AT HEIGHT 30' ON NEW STEEL POLE
F	GENERAL ELECTRIC	PF1K01M	POWERFLOOD	1000W MH	3	MOUNT THREE ON NEW 45' STEEL POLE, AIM AT 0/+45/-45 DEGREES

LIGHTING FIXTURE SCHEDULE

SCHEDULE FOR CONDUIT AND WIRING				
I.D.	CONDUIT SIZE/TYPE		CONDUCTORS QUANTITY/DESCRIPTION	
A	4"	RGS	4	500MCM THWN
			1	#1 BARE GROUND
B	3"	RGS	3	300MCM THWN
			1	#3 BARE GROUND
C	1-1/2"	RGS	3	#3AWG THWN
			1	#6 BARE GROUND
D	1-1/2"	RGS	2	#4AWG THWN
			1	#6 BARE GROUND
E	1"	RGS	3	#8AWG THWN
			1	#10 BARE GROUND
F	1"	RGS	3	#10AWG THWN
			1	#12 BARE GROUND
G	1"	RGS	3	#12AWG THWN
			1	#12 BARE GROUND
H	1"	RGS	2	#12AWG THWN
			1	#12 BARE GROUND
I	2"	RGS	3	#1AWG THWN
			1	#2 BARE GROUND
J	1"	RGS	2	#8AWG THWN
			1	#10 BARE GROUND
K	3"	RGS	3	350 MCM THWN
			1	#2 BARE GROUND

SCHEDULE FOR CONDUIT AND WIRING

LIGHTING CONTROL SYMBOL LIST	
SYMBOL	DESCRIPTION
	NORMALLY OPEN CONTACTS
M	TIMER MOTOR
1	NUMBERED TERMINAL
RC	REMOTE CONTROL COIL
	SINGLE-POLE-DOUBLE THROW MOMENTARY HAND OPERATED SWITCH

ELECTRICAL SYMBOL LIST	
SYMBOL	DESCRIPTION
	DISCONNECT SWITCH
J	JUNCTION BOX
	SURFACE MOUNTED DUPLEX RECEPTACLE
	RECESSED DUPLEX RECEPTACLE
	RECESSED DUPLEX FLOOR RECEPTACLE
	EXISTING EXIT SIGN TO BE REMOVED, CUT BACK WIRING & CONDUIT TO ABOVE CEILING & PROVIDE JUNCTION BOX WITH BLANK COVER PLATE
	INCANDESCENT LIGHTING FIXTURE
	INCANDESCENT LIGHTING FIXTURE
	INCANDESCENT LIGHTING FIXTURE
	FLUORESCENT LIGHTING FIXTURE
	FLUORESCENT LIGHTING FIXTURE
	FLUORESCENT LIGHTING FIXTURE
	EXIT SIGN PER SPEC. SECT. 16530
	INTERRUPTABLE POWER PANEL
	COMBINATION MOTOR STARTER
	WEATHERPROOF CONVENIENCE OUTLET
	SPECIAL PURPOSE OUTLET (DES. IN SPEC.)
$	SINGLE POLE SWITCH
	FLUORESCENT LIGHTING FIXTURE
J	JUNCTION BOX
L	LAMP HOLDER
	LIGHTING PANEL
	POWER PANEL
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL
	BRANCH CIRCUIT: CONCEALED IN FLOOR
	BRANCH CIRCUIT: EXPOSED
	HOME RUN TO PANEL BOARD INDICATE NUMBER OF CIRCUITS BY NUMBER OF ARROWS. NOTE: ANY CIRCUIT WITHOUT FURTHER DESIGNATION INDICATES A TWO-WIRE CIRCUIT FOR A GREATER NUMBER OF WIRES INDICATE AS FOLLOWS:
	FEEDERS. NOTE: USE HEAVY LINES AND DESIGNATE BY NUMBER CORRESPONDING TO LISTING IN FEEDER SCHEDULE.
T	POWER TRANSFORMER
M	METAL HALIDE LIGHTING FIXTURE
M	MERCURY VAPOR LIGHTING FIXTURE
A	LIGHTING PER SCHEDULE
A	CONDUIT PER SCHEDULE

DISTRICT OF COLUMBIA RAYMOND T. TIMBY No. 900545 REGISTERED PROFESSIONAL ENGINEER

NO. | REVISION | DATE

SHEET TITLE: ELECTRICAL DETAILS

PROJECT TITLE: ALTERATIONS/REPAIRS: FORT TOTTEN REFUSE TRANSFER FACILITY 4900 BATES ROAD, NE WASHINGTON, DC 20011

CLIENT: DISTRICT OF COLUMBIA GOVERNMENT DEPARTMENT OF PUBLIC WORKS SOLID WASTE MANAGEMENT ADMINISTRATION 2750 SOUTH CAPITOL ST. S.E. WASHINGTON, D.C. 20032

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
11260 ROGER BACON DRIVE - RESTON, VA 20190
PH: (703) 471-6180 FAX: (703) 471-6478

PROJECT NO. 02200070.05 | DES. BY: MARK | DRN. BY: RPT | CHK. BY: RPT | QA/QC BY: RPT | APVD BY: PAM

CADD FILE: E-8

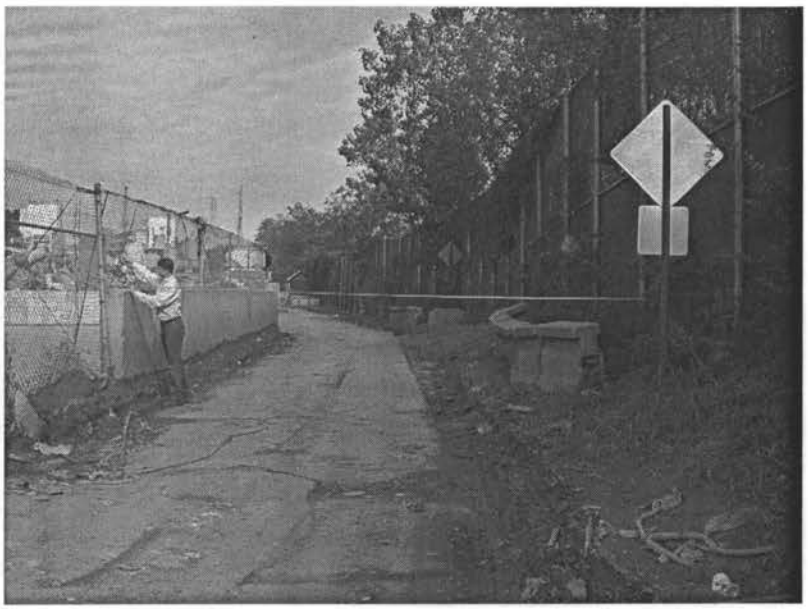
DATE: NOV 2004

SCALE: AS SHOWN

DRAWING NO. E8 of

I:\02200070.05\TS Expansion Construction Docs\Design Plans

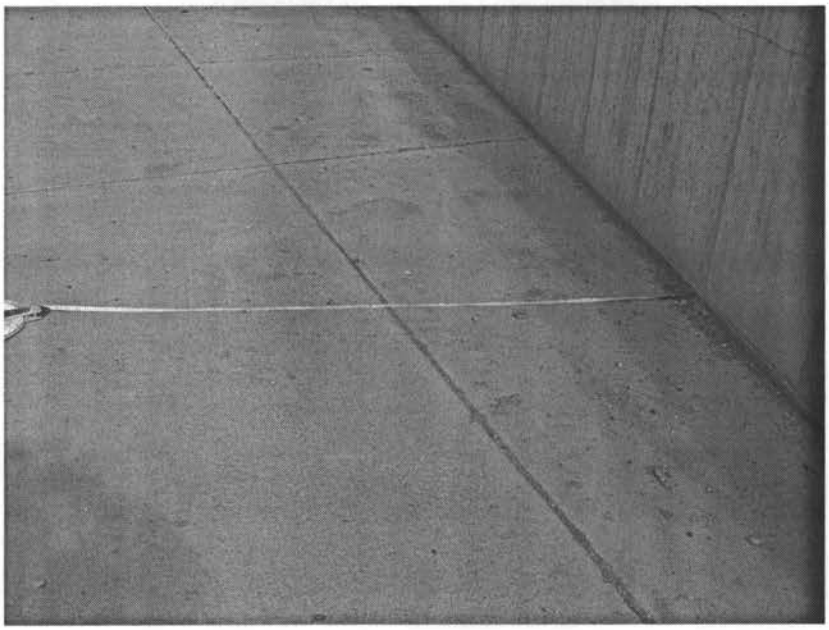
EXHIBIT B
ENTRANCE ROAD RE-ALIGNMENT
PHOTOGRAPHS



Photograph 1. Existing Entrance, Fence Line, and Concrete Wall

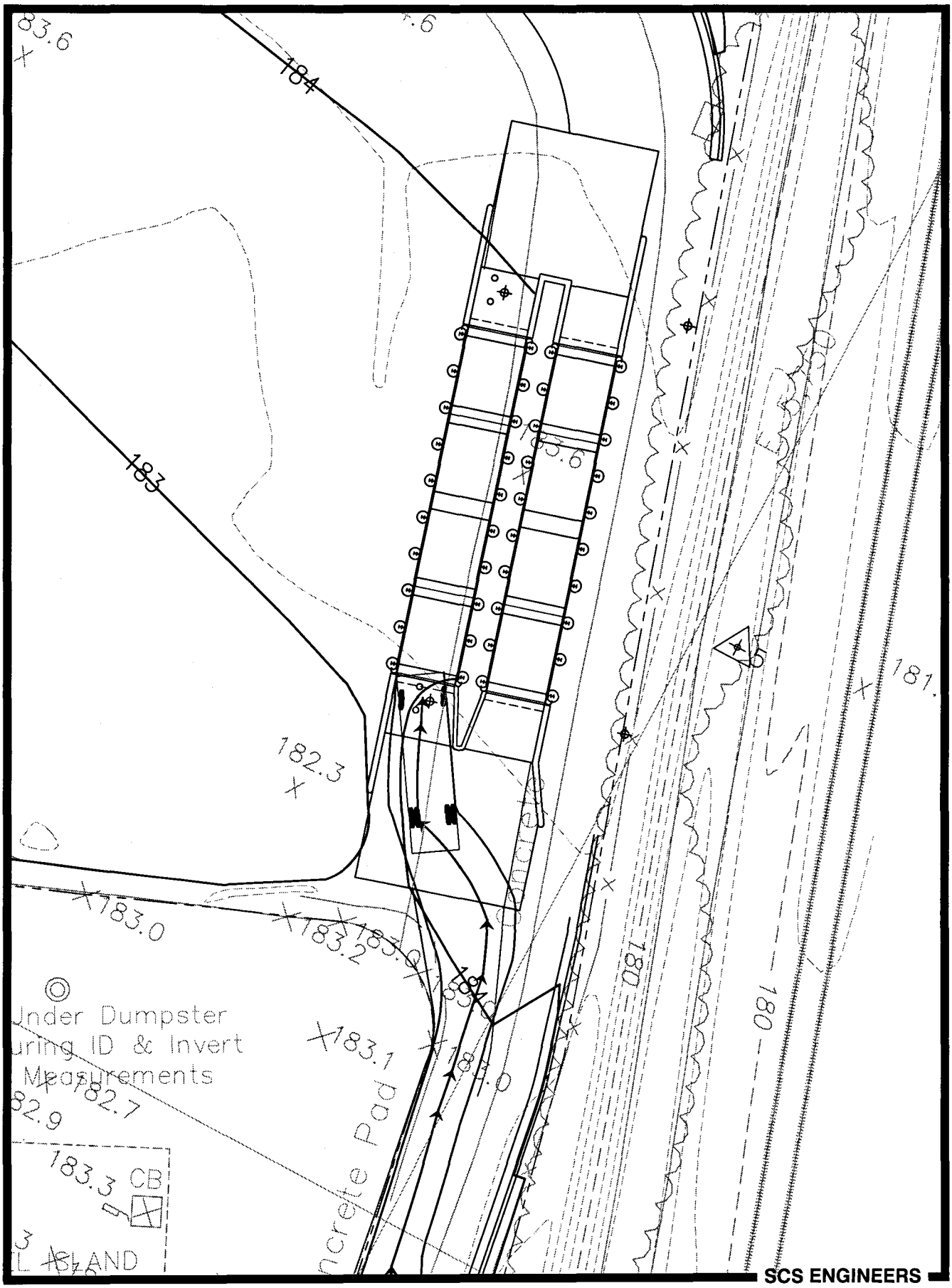


Photograph 2. Fuel Pump Proximity to Concrete Wall.



Photograph 3. Tire Marks Near Concrete Wall.

EXHIBIT C
ENTRANCE ROAD RE-ALIGNMENT DRAWING



DRAWN BY: MAK DATE: 12-3-04 FILE NAME: 02200070.05

SCS ENGINEERS

ENTRANCE ROAD RE-ALIGNMENT

EXHIBIT D
DEPARTMENT OF TRANSPORTATION
BICYCLE PROGRAM LETTER

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

Transportation Policy and Planning

NOV 23 2004

Letter of Support

This letter is to show that the District Department of Transportation (DDOT), Bicycle Program, has reviewed the plans submitted by SCS Engineers for the changes to the Ft. Totten Trash Transfer Station and supports the proposed alignment of the entrance way.

DDOT is currently planning, designing and constructing the Metropolitan Branch Trail that will run adjacent to the Red Line of the metro from Union Station to Silver Spring. The section adjacent to the trash transfer station is being planned and we are comfortable with the amount of space we will have to work with. The nature of the trail as it wends it way through the city is a mix of on street, off street, and constrained situations. This is another one of those spots here and just north of the site at the cement plant.

Please feel free to contact me with any questions concerning the trail or other bicycle issues in the District.

Sincerely,

Chris Holben
DDOT, Metropolitan Branch Trail Project Manager
2000 14 Street, 7th Floor
Washington, DC 20009
202-671-2638
chris.holben@dc.gov

EXHIBIT E
TRAFFIC STUDY

SCS ENGINEERS

TRAFFIC IMPACT STUDY
FOR
FORT TOTTEN SOLID WASTE TRANSFER FACILITY
WASHINGTON, D.C.

Prepared for:

DEPARTMENT OF PUBLIC WORKS
SOLID WASTE MANAGEMENT ADMINISTRATION
2750 South Capitol Street, S.E.
Washington, D.C. 20032
202-645-0744

Prepared by:

SCS ENGINEERS
11260 Roger Bacon Drive
Suite 300
Reston, Virginia 20190
703-471-6150

November 12, 2004
File No. 02200070.05

INTRODUCTION

The District's Department of Public Works is planning to make repairs and alterations to the existing Fort Totten Transfer Station to improve access, site circulation, and operations that will allow the transfer station to operate at the original design capacity of the facility. This traffic impact study focuses on the impact that the truck traffic generated from the increased waste handling at the site will have on the major arterial streets that will be used for access to the facility. The anticipated truck traffic that will be generated is approximately 800 truck trip ends per day. The peak hours of operation are the major concern when looking at the impact to the street network.

EXISTING CONDITIONS

Access to the Fort Totten Transfer Station will not change significantly after the repairs and alterations. Site circulation and operations will be improved to allow for the increase of waste receipts and shipments. The access to the site will remain at the existing location, with minor improvements, to promote better flow from the City street system to the facility, traffic circulation on the site, and reentry to the City street system. It is not anticipated that routes to and from the site will change significantly. Approach and departure routes are a factor of where the waste is originating and its final destination rather than being controlled by the volume of waste being handled.

The existing street network from the station to the major arterial (North Capitol Street) consists of relatively low-volume urban collectors that can easily accommodate the additional truck traffic generated by the transfer station. The trips to the urban arterial street only become an issue at the intersection of Fort Drive, N.E. and North Capitol Street. The existing intersection geometry does not provide ample storage length for the left turns from Fort Drive, N.E. to southbound North Capitol Street during the p.m. peak. The intersection capacity for this intersection could approach unacceptable levels of service with the addition of more p.m. peak traffic. Geometric improvements, however, are planned for this intersection as described below.

PROJECTED TRAFFIC VOLUMES

The morning peak hour for refuse trucks arriving and departing the Fort Totten Transfer Facility will be from 8:30 a.m. to 9:30 a.m. The average truck traffic generated by the facility during this peak hour will be approximately 25 vehicles arriving at the facility and those same 25 vehicles departing the facility, for an estimated total of 50 vehicle trip ends.

The afternoon peak hour for refuse trucks arriving and departing the Fort Totten Transfer Facility will be from 3:30 p.m. to 4:30 p.m. The average truck traffic generated by the facility during this peak hour will be approximately 12 vehicles arriving at the facility and those same 12 vehicles departing the facility, for an estimated total of 24 vehicle trip ends.

Based on current operations and the design of the improved facility, daily (i.e., Monday through Friday) average arrivals of refuse trucks are estimated at approximately 300. Average daily arrivals of transfer trailers are estimated at approximately 100. The refuse trucks will enter the facility, discharge their collected solid waste loads on the floor of the facility, and leave the site. Total refuse truck trip ends would be approximately 600 daily trips.

Transfer trailers will enter the facility and may be stored temporarily on-site until needed. The trailers will be loaded at some time during the operating hours of the facility and then exit the site. There is some flexibility for timing the departure of transfer trailers to off-peak times. Total transfer trailer trip ends would be approximately 200 daily trips. Total site-generated truck traffic is estimated at an average of 800 daily trip ends.

PROPOSED IMPROVEMENTS TO ARTERIAL STREETS

Significant roadway improvements are planned for North Capitol Street from Michigan Avenue to Buchanan Street. DDOT has provided SCS with a set of drawings for these improvements and the designs include additional lanes, signage, and a traffic signal for the Fort Drive, N.E. intersection with North Capitol Street.

The intersection is to be upgraded as part of the Rehabilitation of North Capitol Street from Michigan Avenue to Buchanan Street project. The proposed project plans show major improvement to the intersection to accommodate projected traffic volumes and mix. The impact of the truck traffic generated by the Ft. Totten Transfer Station will have very little impact on the overall operation of the improved intersection that will be constructed to accommodate 20-year hence traffic projections.

The proposed improvements provide separate turn lanes for northbound and southbound traffic destined for North Capitol Street. The turn lane storage length being proposed, coupled with the new traffic signals to be installed, will provide ample storage for the turn movements without impact on the operation of the remaining legs of the intersection.

Most of the transfer trailer traffic departing the proposed Fort Totten transfer station will use this intersection for southbound routes. Based on the information provided to SCS, the planned improvements for this intersection and North Capitol Street have taken truck-turning movements into account and used traffic projections for 20 years hence. These improvements should allow better flow through the intersection, including transfer trailers from the District's transfer facility.

The traffic generated by the Ft. Totten Transfer Station is a minor portion of the overall traffic using the intersection. Peak hour usage of the transfer station does not necessarily coincide with peak hour traffic at the intersection. Peak generation from the transfer station lags the morning peak hour by several hours and precedes the evening peak hour.

SUMMARY

The additional truck traffic generated by the Fort Totten Transfer Station after the repairs and alterations will represent a minor portion of the overall traffic volumes using the major intersections and arterial streets along the routes that would be used to manage the solid waste. The local collectors are capable of handling the additional loading projected for the transfer station. The improvements that are proposed at the major arterial street that would serve the facility for access to collection and distribution points throughout the City would adequately accommodate the additional truck traffic.

Based on the results of this study, SCS believes the impact from the increased truck traffic generated by the Fort Totten Transfer Station will be minor. The collector network and arterial streets (with improvements) can easily accommodate the additional traffic without approaching unacceptable levels of service.

EXHIBIT F
DEPARTMENT OF TRANSPORTATION
POLICY AND PLANNING LETTER

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF TRANSPORTATION

Transportation Policy and Planning Administration

Memorandum

TO: Denzil L. Noble
Deputy Administrator

FROM: Kenneth G. Laden
Associate Director
Transportation Policy and Planning

DATE: JUN 2 1 2002

SUBJECT: Fort Totten Solid Waste Transfer Facility – 4900 Bates Road, N.E.

Attached for your information is a completed environmental screening form for traffic impact. This existing transfer facility is processing approximately 450 tons of solid waste per day. The District is planning to make certain alterations and repairs to bring it up to the original design capacity of approximately 2,500 tons per day. According to the applicant, up to 800 trucks will be generated by the new facility on a typical weekday (Monday through Friday).

When the facility is fully operational, approximately 25 trucks will enter the site and those same 25 vehicles will exit the site for a total of 50 vehicle trips during the morning peak hour. During the evening peak operation of the facility between 3:30 p.m. and 4:30 p.m., approximately 12 trucks will enter the site and those same 12 vehicles will exit the site for a total of 24 vehicle trips.

The District Department of Transportation will undertake significant roadway improvements for North Capitol Street from Michigan Avenue to Buchanan Street. The project is in its final design phase. This project when implemented will greatly enhanced truck traffic access and circulation to the Fort Totten Solid Waste transfer facility. The improvement includes additional lanes, signage and a traffic signal for Fort Drive intersection with North Capitol Street.

From a transportation standpoint, we support the expansion of the Solid Waste Transfer Facility. The improvements as stated above will significantly improve access to and from the facility.

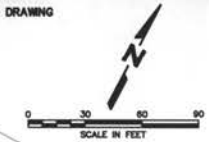
EXHIBIT G
LANDSCAPING PLAN AND SPECIFICATIONS

PLANTING LIST

	QTY.	SIZE	COMMON NAME	BOTANICAL NAME	ROOT	SPACING	COMMENTS
A	57	6–8'	LEYLAND CYPRESS	CUPRESSOCYPARIS LEYLANDI	B & B	S.A.S.	SINGLE STAKE
B	7	3 GAL.	CRIMSON PYGMY BARBERRY	BERBERIST A. "CRIMSON PYGMY"	CONT.	S.A.S.	SEE NOTES
C	219	1 GAL.	MOONBEAM COREOPSIS	C. VERTICILLATA "MOONBEAM"	CONT.	24" O.C.	WATER
D	50	1 GAL.	ROBERT BLOOM PURPLE CONEFLOWER	ECHINACEA PURPUREA ROBERT BLOOM	CONT.	24" O.C.	WATER
E	183	1 GAL.	MARS SUNFLOWER	HELIOPSIS HELIANTHOIDES "MARS"	CONT.	24" O.C.	WATER
F	298	1 GAL.	GLORIOSA DOUBLE DAISY	RUDBECKIA HIRTA "GLORIOSA DOUBLE DAISY"	CONT.	24" O.C.	WATER
G	164	1 GAL.	SEDUM AUTUMN JOY	SEDUM SPECTABILE "AUTUMN JOY"	CONT.	24" O.C.	WATER
H	4	3 GAL.	MAIDEN GRASS	MISCANTHUS SINENSIS GRACILLIMUS	CONT.	3'–5" O.C.	WATER
I	8	3 GAL.	GRAZIELLA GRASS	MISCANTHUS SINENSIS "GRAZIELLA"	CONT.	3'–5" O.C.	WATER
J	46	2 GAL.	HAMELN GRASS	PENNESETUM A. "HAMELN"	CONT.	30" O.C.	WATER
K	13	5–6'	EMERAL GREEN ARBORVITAE	THUJA OCCIDENTALIS	B&B	**	WATER

** EMERALD GREEN ARBORVITAE IS TO BE SPACED BETWEEN TRANSLUSCENT PANELS ON FACE OF BUILDING.

S.A.S. = SPACED AS SHOWN ON DRAWING



TREE, SHRUB, AND PERENNIAL SPECIFICATIONS

1. FINAL LAYOUT OF ALL GARDEN BEDS TO BE APPROVED PRIOR TO CONSTRUCTION BY LANDSCAPE ARCHITECT.

2. ALL PLANT MATERIAL TO BE APPROVED ON–SITE BY LANDSCAPE ARCHITECT OR ENGINEER PRIOR TO PLANTING. ALL SUBSTITUTIONS OF PLANT MATERIALS OR VARIETIES MUST BE APPROVED BY LANDSCAPE ARCHITECT.

3. SOIL PROFILE TO CONSIST OF 2" PEA GRAVEL WITH FILTER FABRIC SEPARATION 4" SILICA SAND BASE, AND SPECIAL PLANTING MEDIA CONSISTING OF ⅓ PART TOPSOIL, ⅓ PART PEAT, ⅓ PART VERMICULITE, AND ⅓ PART SILICA SAND THOROUGHLY MIXED AND CONSISTENT THROUGHOUT 8" SOIL PLANTING MEDIA PROFILE.

TREE, SHRUB, AND PERENNIAL SPECIFICATIONS (CONT)

4. ALL PERENNIALS AND GRASSES SIZED AS NOTED, PLANTED ON 24" CENTERS OR AS NOTED ON PLAN WITH FINAL LAYOUT OF PLANT MATERIAL TO BE APPROVED BY LANDSCAPE ARCHITECT.

5. ALL PLANT MATERIAL TO BE TRUE TO NAME AND IN ACCORDANCE WITH DC STANDARD SPECIFICATIONS.

6. PERENNIAL PLANTING MEDIA TO BE USED AS SUBSTITUTE SOIL MEDIA FOR PLANTING OF TREES AND SHRUBS OR AS OTHERWISE SPECIFIED PER DC STANDARD SPECIFICATIONS.

7. ALL BEDS TO HAVE 3" SPADED EDGE AND TO RECEIVE 3" DOUBLE SHREDDED HARDWOOD MULCH.

LAWN SPECIFICATIONS

1. GRASS AREAS TO BE CORE AERATED WITH 2" PLUGS OF SOIL REMOVAL. AREA TO BE OVER SEEDED WITH FESCUE BLEND, FERTILIZER, AND ¼" SOIL PLANTING MEDIA FOR SEED PER DC STANDARD SPECIFICATIONS.

2. LAWN AREAS TO RECEIVE 2 SEPARATE APPLICATIONS OF ORTHO WEED–B–GONE PER MANUFACTURERS SPEC'S. PRIOR TO COMMENCEMENT OF CORE AERATION, TOPSOIL PLACEMENT AND OVERSEEDING.

3. CONSULT ENGINEER AS TO DATE WHEN LAWN REMEDIATION IS TO COMMENCE.

GENERAL NOTES

1. CONTRACTOR TO MEET WITH CITY AND ENGINEER AND LANDSCAPE ARCHITECT TO FINALIZE AND ADJUST FINAL TAKE–OFFS ON–SITE PRIOR TO COMMENCEMENT OF WORK.

2. SEE DC STANDARD DETAILS FOR LAYOUT AND DIMENSIONING OF GARDEN BED LINES AND CONSTRUCTION PROFILE OF AMENDED SOILS FOR PERENNIALS, TREES, AND SHRUBS.

3. FINAL REPLACEMENT COUNT TO BE APPROVED BY LANDSCAPE ARCHITECT.

DISTRICT OF COLUMBIA REG. No. 900488 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	DATE

SHEET TITLE: LANDSCAPE PLAN

PROJECT TITLE: ALTERATIONS/REPAIRS:
FORT TOTTEN REFUSE TRANSFER FACILITY
4000 BATES ROAD, NE WASHINGTON, DC 20011

CLIENT: DISTRICT OF COLUMBIA GOVERNMENT
DEPARTMENT OF PUBLIC WORKS
SOLID WASTE MANAGEMENT ADMINISTRATION
2750 SOUTH CAPITOL ST. S.E.
WASHINGTON, D.C. 20032

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
11260 ROGER BACON DRIVE, RESTON, VA. 20190
PH: (703) 471-6190 FAX: (703) 471-6979

PROJ. NO. 02200070.05 | DES. BY: SLD | CAD WORK: SLD
DATE: 10/04 | CHK'D: DM | APP'D: PAM

CADD FILE: LS–1

DATE: OCT 2004

SCALE: AS SHOWN

DRAWING NO.: LS1 of

M:\02200070.05\CONSTRUCTION DOCS

SECTION 02930

EXTERIOR PLANTS

PART 1- GENERAL

1.1 SUMMARY

Work consists of furnishing, delivery, planting and/or transplanting trees, shrubs, vines and ground cover, plants of types and sizes indicated on the plans and as directed, including all excavation and planting operations, plant establishment operations, disposal of waste and other incidentals needed to complete planting work.

This work shall be provided by a qualified landscape CONTRACTOR who shall be approved by the ENGINEER prior to start of work under this item.

All work done under this item shall be inspected by the ENGINEER.

A. Section Includes: Preparations, setting and care of new exterior plants

B. Related Sections

1. Section 02923 - Landscape Grading
2. Section 02924 - Seeding and Soil Supplements
3. Section 02925 - Sodding

1.2 REFERENCES

District of Columbia Department of Public Works (DCDPW): Standard Specification for Highway and Structures, 1996

1.3 SUBMITTALS

MANUFACTURER'S CERTIFICATE: Certify products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

Perform Work in accordance with DCDPW Standards.

PART 2- PRODUCTS

2.1 MATERIALS. The following apply:

A. Plants - Plants are defined as trees, shrubs, vines, and plants of all descriptions.

1. Quality

a. All plants hall be first-class representatives of their normal species or varieties unless otherwise specified. Unless otherwise specified,

all plants shall be nursery grown stock that have been transplanted or rootrimmed 2 or more times, according to the kind and size of plants. Furnished plant material shall be certified by State or Federal Department of Agriculture to be free from disease or infestation.

b. The branch system shall be normal development and free from disfiguring knots, sun-scald, injuries, abrasions of the bark, dead or dry wood, broken terminal growth, insect eggs and infestations, or other objectionable disfigurements.

c. Trees shall have reasonably straight stems and shall be well branched and symmetrical per their natural habits of growth.

d. Specimen shall mean an exceptionally heavy, symmetrical tightly knit plant, so trained and favored in its development and appearance, as to be unquestionably superior in form, number of branches, compactness and symmetry.

2. Plant Names

a. All scientific and common plant names shall be per "Standardized Plant Names", as adopted by the American Joint Committee on Horticultural Nomenclature.

b. All plants delivered shall be true to name and legibly tagged with the names and sizes of materials.

3. Grading Standards: Grading of plants, including Balled and Burlapped Specifications, Bare Root Specifications, Nursery, Collected, Container Grown and Seedling Stock shall be per "USA Standard for Nursery Stock", as approved by the American Association of Nurserymen, Inc., latest edition (ANSI Z60.1).

4. Balled, Burlapped and Container Plants

a. Balled and burlapped (B&B) plants shall be dug so as to retain as many fibrous roots as practicable, and shall come from soil which will form a firm ball. The soil in the ball shall be the original and undisturbed soil in which the plant has been grown. The plant shall be dug, unwrapped, transported, and handled in such manner that the soil in the ball will not be loosened to cause stripping of the small and fine feeding roots, or cause the soil to drop away from such roots.

b. Container grown stock shall be true to name, vigorous, and free of broken branches or disease.

5. Planting Soil Mix. 822.01: Mix shall be 5 parts topsoil per 822.01 by volume thoroughly mixed with 1 part peat moss or stable manure by volume plus 5 pounds of granular 5-10-10 fertilizer with trade elements such as iron, manganese, boron, zinc, molybdenum, and copper added per cubic yard of mix. Ingredients shall be delivered separately and

thoroughly mixed before use. Do not add granular fertilizer with trace elements.

6. Stakes. 821.14D: Malleable iron, arrowshaped anchors, as approved by the ENGINEER, may be used for guy wire supports per schedule shown on the plans.

7. Guying and Staking Wire: Wire shall be new, soft annealed galvanized steel wire, free from bends and kinks. No. 10 wire shall be used in guying and No. 12 wire shall be used for staking. Turnbuckles used in guying shall be galvanized steel or zinc coated, as per 811.07.

8. Hose: Hose used with wire for guying and staking shall be 5/8 inch I.D. new garden or steam hose.

9. Tanbark, Hardwood and Rootbark Mulch: Mulch shall be double shredded, medium grade and free of matter injurious to plant growth and uniform in texture without large unshredded pieces of hardwood, roots, or foreign substances.

PART 3- EXECUTION

3.1 PLANTING SEASONS

A. Unless otherwise directed in writing, planting shall be done during the following seasons:

1. Deciduous Plants - October 15 to May 1.

2. Evergreen Plants - March 15 to June 1 and September 15 to December 1.

3. Planting and plant establishment periods for Spring Planting Season and Fall Planting Season are shown on Schedules 611.02-1 and 611.03-2 respectively.

3.2 DELIVERY AND INSPECTION

A. The CONTRACTOR shall notify the ENGINEER not less than 2 days in advance of plant delivery. All plants shall be available fro inspection before being dug. The CONTRACTOR shall furnish the ENGINEER complete information concerning plant source of supply. At the option of the ENGINEER a Landscape Architect will accompany the inspector.

B. All trees and a representative sample of shrubs shall be sealed. Transportation for inspection and sealing shall be furnished by the CONTRACTOR as part of work. All plants shall comply with state and federal laws controlling inspection for plant diseases and insect infestations, and the CONTRACTOR shall deliver to the ENGINEER all required inspection certificates. All shipments shall include a plant list giving detailed descriptions of the plants and the date of shipment.

3.3 SUBSTITUTIONS

When specified plants are not available at time of planting, the CONTRACTOR shall submit written evidence from at least 3 competent sources that specified plants are unavailable. If substitution is approved, plant items in the contract which are similar in size and type and which will perform the intended function shall be used at the respective contract price. If existing plant items are not appropriate and if the ENGINEER and CONTRACTOR can mutually agree on a suitable substitution at the same contract unit price or less, the substitution will be approved.

3.4 PROTECTION AND TEMPORARY STORAGE

The CONTRACTOR shall keep all plants moist and protected from drying out. Protection shall include the time when plants are in transit, in temporary storage or on the project awaiting planting. Plants will be inspected by the ENGINEER at the project site and approved prior to planting.

A. Plants failing to meet specifications, showing signs of improper handling or arriving with broken seals, broken or loose balls, inadequate protection for tops or roots, shriveled, dry or with damaged roots will be rejected. Rejected plants shall be immediately removed for the site and replaced.

B. Care shall be taken in handling plants to prevent injury to branches or roots. The solidity of balled and burlapped plants shall be carefully preserved.

C. Plants delivered but not scheduled for immediate planting shall be protected as follows:

1. Bare root plants shall be separated, roots properly spread and puddled in with moist topsoil into a heeling-in trench.
2. Balled and Burlapped (B&B) plants shall have the earth balls covered with sawdust, wood ships or other suitable material and kept in a moist condition.
3. Plants budding into leaf or with new soft leaf growth shall be sprayed with antidesiccant at the nursery or collecting field before being dug.

3.5 LAYOUT

Plant locations and beds shall be staked on the project site by the CONTRACTOR. Stakes shall be provided by the CONTRACTOR, driven at least 6 inches into the ground and shall remain until all work in the area is complete. The ENGINEER may adjust plant locations to meet field conditions.

3.6 PLANT PIT AND BED EXCAVATION

A. Prior to excavating for plant pits and beds, locations shall be approved. Each plant shall be placed in an individual pit unless otherwise shown on the plans.

B. Plant beds on slopes 3 to 1 and flatter shall be prepared by removing all soil, weeds, roots and other objectionable material unsuitable for backfill.

C. The bed shall then be cultivated by either rototilling, backhoeing or picking to a depth of 6 inches for ground covers, or to the proper depth for shrubs, as shown on the plans.

D. Ground cover planting holes shall be dug through the mulch with one of the following; hand trowel, shovel, bulb planter or hoe. Before planting, non-biodegradable pots shall be removed. Root systems of all potted plants shall be split or crumbled.

E. The ground cover (either potted or bare root) shall be planted so that the roots are surrounded by soil below the mulch. Potted plants shall be set so that the top of the pot is even with the existing grade. Bare root plants shall be covered up to the crown of the plant or the soil level.

F. Vine plantings adjacent to a wall or fence shall be planted in individual plant pits 12 inches in depth, and shall utilize a wooden trellis to aid in establishment as shown on the plans.

G. On slopes steeper that 3 to 1, plants shall be planted in individual pits within the bed area. Existing grass or other soil stabilizing growth between pits shall be cut to a height of 2 inches and the entire bed area mulched to a depth of 4 inches.

H. Pits shall be excavated to sizes shown on plans with vertical sides and horizontal bottom surfaces. Excavated material shall be removed from the site.

I. Where trees are to be installed contiguous to underground utility lines, the CONTRACTOR shall have a representative from each applicable utility company stake-out in the field the exact locations of the utility conduits and appurtenances before the pits are dug.

J. The CONTRACTOR shall not excavate any closer than 8 inches to the backface of curbs. Excess PCC foundation or stone curb or PCC sidewalk which protrudes into planting pit shall be carefully chipped and removed by the CONTRACTOR to allow proper placement of tree ball. No additional compensation will be allowed.

K. Plant pits directed to be abandoned after excavation is started, due to unsuitable conditions, shall be backfilled with borrow embankment fill and compacted to specifications of AASHTO T-180, Method D, in 6 inch layers to subgrade.

L. The area shall then be seeded or sodded as directed. Payment for this fill and seed or sod will be made under respective pay items.

3.7 SETTING PLANTS

A. All plants shall be set plumb. The tree and shrub pits shall be deep enough to allow 1/8 of the ball to be above the existing grade. The top of ball shall not be covered with soil. Facing and/or orientation of plants shall be as directed.

B. Plant pits shall be promptly backfilled and tamped. Under no condition shall any pit remain open at night unless it is properly barricaded.

C. Planting of trees and shrubs may be done with approved mechanical equipment. When this method is used the planting pit may be the same size and shape as the earth ball on the plant to be moved; planting soil mix backfill will not be required.

D. Micropore fertilizer packets shall be placed next to the root zone of the plant ball, 6-8 inches deep, before the plant pit is backfilled with the planting soil mix.

1. The following schedule shall be followed unless other specified in the manufacturer's instructions:

   a. Trees - 1 packet per 1 inch of caliber

   b. Shrubs - 1 packet for shrubs 12 to 18 inches in height and 2 packets for shrubs 19 inches to 4 feet in height

2. Planting soil mix shall then be carefully worked around and over the roots and thoroughly and properly settled by firming or tamping. Thorough watering or puddling shall accompany backfill around bare-rooted plants. Earth saucers or water basins at least 4 inches deep for trees, and 3 inches deep for shrubs, shall be formed about individual plants with a diameter equal to that of the plant pit.

E. Balled and burlapped (B&B) plants shall be carefully placed in the prepared pits so as to rest in a firm, upright position. Plants shall be handled and moved only by the ball. Planting soil mix shall then be filled in around the plant ball to half the depth of the ball, then tamped and thoroughly watered. The burlap shall be either cut away and removed from the upper half of the ball or loosened and folded back, after which the remainder of the planting soil mix shall be placed. Earth saucers or water basins shall then be provided and the plant thoroughly watered.

F. Container grown stock shall be removed from the container before planting. Roots shall be cut and spread at 90° angles to prevent plant from becoming pot bound.

G. Seedling pines shall be planted in 6 inch x 6 inch x 8 inch deep pits.

H. Plant beds shall be neatly edged. Plant beds on slopes steeper than 3 to 1 shall be constructed with a 3 inch shoulder around the lower edge.

I. Groundcover plants may be planted after the mulch has been placed.

3.8 FERTILIZING

During the next planting season following spring or fall planting, all plants shall be fertilized once with ureaform fertilizer at the rate specified by the manufacturer for the size of the plant.

3.9 WATERING

All plants shall be thoroughly watered during and immediately after planting and at such intervals during the plant establishment period as needed. Water shall not contain elements toxic to plant life. At each watering the soil around the plants shall be thoroughly saturated.

3.10 GUYING AND STAKING

All trees shall be guyed and staked per plans as soon as the plant is in place.

3.11 PRUNING

A. Pruning shall be done before or immediately after planting in such a manner as to preserve the natural character of each plant.

B. All pruning shall be done by experienced personnel with properly conditioned equipment and in keeping with accepted horticultural practice. Cuts over 3/4 inch in diameter shall be painted with approved tree wound dressing. Trees with pruned terminal leaders will be rejected.

3.12 MULCHING

Mulch shall be 2" cover, placed over all pit and saucer areas of individual tree, shrubs and over the entire area of plant beds to the depth shown on the plans within 3 days after planting.

3.13 RESTORATION AND CLEAN-UP

Excess and waste material shall be removed daily. When planting in an area has been completed, the area shall be thoroughly cleaned up. Where existing grass areas have been damaged or scarred during planting operations, the CONTRACTOR shall restore disturbed areas to their original condition as direct as part of work. The CONTRACTOR shall clean-up all debris and leave the project in an acceptable condition.

3.14 GUARANTEE PERIOD AND REPLACEMENTS

A. The acceptability of plants furnished and planted will be determined at the end of a one (1) year guarantee period during which the CONTRACTOR shall employ all practicable means to preserve the plants in a healthy growing condition. Care during this period shall include watering, cultivating, pruning, repair and adjustment of guys and stakes, and other standard proper care as directed. Plants,

saucers, and beds shall be kept weed free. Re-mulch as necessary to maintain mulch depth as shown.

B. Dead and unsatisfactory plants as directed shall be promptly removed from the project. An inspection by the CONTRACTOR and the ENGINEER will be held 30- days before the start of the planting season to determine plant acceptability and number of replacements. During the next planting season following completion of actual spring or fall planting, all dead and unsatisfactory plants shall be replace in kind and size with live healthy plants installed per specifications at the CONTRACTOR'S expense.

C. Alternate or substituted varieties of plants shall be used only if approved. A final inspection of all plants will be held after the replacement planting has been completed.

D. If the CONTRACTOR fails with 10 days to satisfactorily care for and replace plants as needed or ordered, the District may proceed with labor, equipment, and materials to perform the work, with the cost of such work charged to the CONTRACTOR.

E. The CONTRACTOR will not be responsible for theft or damage to plants by vehicles or vandalism following completion and approval of the construction portion of planting.

END OF SECTION