SECTION 007300 — SUPPLEMENTARY CONDITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings, Contract Provisions, Special Provisions, and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. The articles and paragraphs of this Section represent supplements or additions to the Contract Provisions or the Special Provisions.

1.3 WORK UNDER OTHER CONTRACTS

A. During the period of this Project, the Authority anticipates that other construction contracts may be underway at or near the site of work of this Contract. A list of adjacent construction activities follows:

2. Runway 1-19 Overlay and Taxiways Rehabilitation Project

1.4 PERMITTING

A. Comply with all requirements set forth in the Authority’s “Building Codes Manual”. This manual describes Building Codes organization, Building Code inspection process, Certificate of Occupancy requirements, and information regarding elevators, escalators, and moving walks. The Authority will file for and provide the construction permit.

1.5 MAINTENANCE OF PEDESTRIAN AND VEHICULAR TRAFFIC

A. Maintain adequate pedestrian and vehicular traffic flow and safety along the service roads, sidewalks, parking lots and other roadways on Airport property. In addition, this requirement applies to crossroads, approaches, and entrances affected by or made necessary by the Work. Coordinate activities throughout the project in a manner that allows emergency access, without delays to emergency response vehicles, to all areas of the Project that are occupied by employees.

B. Comply with requirements indicated in the Traffic Maintenance Plan provided in the contract documents. Obtain COTR's written approval prior to implementing any deviations from the provided plan.
C. Provide and maintain temporary signage, "Jersey barriers," and such other traffic control devices or personnel as required complying with approved Traffic Maintenance Plan.

D. Maintain the construction operations affecting pedestrian, vehicular, or aircraft traffic movement from the beginning of construction operations until final acceptance of the project. The maintenance shall constitute continuous and effective work prosecuted day by day with adequate equipment and forces to the end of project to ensure that roadways and structures are maintained in satisfactory condition at all times, including barricades and warning signs as necessary for performance of the work.

E. Keep the portions of the project being used by public, pedestrian, aircraft, and vehicular traffic, whether it is through or local traffic, in such condition that traffic will be adequately accommodated. Remove snow and control all ice within the project boundaries. Removal of snow and ice for the benefit of the traveling public will be performed by the Authority. Bear all cost of maintenance work during construction and before the project receives a Certificate of Occupancy for constructing and maintaining approaches, crossings, intersections and other features as may be necessary.

F. Keep the portions of the road and aircraft pavement surfaces being used by the public free from irregularities, obstructions, mud, dirt, snow, ice, and any characteristic that might present a hazard or annoyance to traffic in such condition that traffic will be adequately accommodated. Maintain a vacuum/sweeper and flusher truck at the site at all times to clean roadway and aircraft surfaces affected by construction traffic at the request of Airport Operations or the COTR.

1.6 AIRFIELD AND TERMINAL BUILDING OPERATIONAL REQUIREMENTS

A. The Work, or a portion thereof, will be performed in proximity to the Air Operations Area (AOA), including, active runways, taxiways, and aprons. Normal airport operations will continue adjacent to the Work during all phases of the Project. These activities include:

1. Aircraft movement on runways, taxiways, aprons; aircraft landing and takeoff operations.
2. Aircraft parking, refueling and other aircraft servicing.
3. Apron maintenance, snow removal and ice control.

B. Phase construction activities as necessary to accommodate all airport operations without disruption. Adhere to all current Airport Orders and Instructions (O & Is), Airport Bulletins, and Airport Advisories. The Authority will provide relevant Orders and Instructions to Offerors in the Solicitation Package. Bulletins and Advisories will be provided to the offeror by the Authority as they are issued.

1.7 ENVIRONMENTAL PROTECTION

A. Comply with all Federal, state and local laws and regulations controlling pollution of the environment. Take necessary precautions to prevent pollution of streams, rivers, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.
B. Notify COTR immediately in the event that abnormalities, discolorations, odors, oil, or other signs of potential contamination by hazardous materials are encountered during excavation or other construction activities. Follow with written notice within 24 hours, indicating date, time, and location of potential contaminants encountered. The COTR will provide further direction to Contractor regarding disposition of materials encountered.

C. All painted surfaces are assumed to contain lead-based paint. The Contractor shall maintain the necessary health and safety requirements for all personnel in accordance with OSHA regulations to work in these conditions. The removal and disposal of lead-based paint is part of this contract.

D. Aircraft deicing fluids will be encountered in the water (including utility manholes) and in the soils. Concentrations of aircraft deicing fluids in water and soils will range from non-detect to saturation. Aircraft deicing fluids are propylene based Type I and Type IV fluids. The fluids emit an unpleasant odor when the breakdown (biodegradation) is occurring. Follow OSHA requirements while working in aircraft deicing impacted areas. Coordinate with the COTR for obtaining Material Safety Data Sheet (MSDS) for aircraft deicing fluids.

E. Contaminated soil and water will be encountered during this construction project. Contaminants may include low level metals, semi-volatiles, volatiles, PCBs, and dioxins/furans. A copy of the Authority’s Health and Safety Plan with all of the chemical constituents identified at the site will be provided to the contractor for reference. All Contractors performing work on this project shall be OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) trained in accordance with 29 CFR 1910.120. The Contractor shall comply with all the health and safety requirements in accordance with the OSHA HAZWOPER Standards, including but not limited to training and the preparation of a site specific Health and Safety Plan (HASP).

1.8 ARCHAEOLOGICAL AND HISTORICAL FINDINGS

A. Notify immediately, through the COTR, the PMC Archaeology/Historic Preservation Coordinator if subsurface structural features, concentrations of artifacts, rubble, bone/shell, or burnt material are uncovered or otherwise discovered. Prompt reporting will avoid potentially severe problems resulting from the destruction of significant resources and may limit the impact on construction operations and schedules.

1.9 DAMAGES AND PRE-EXISTING CONDITIONS

A. Be responsible for all damages caused by Contractor’s construction activities. Provide all labor, materials, etc. to return any damaged areas, systems or equipment to their original condition at no additional cost to the Authority.

B. Perform a survey of pre-existing conditions in the vicinity of Contractor’s construction activities, utilizing photographs and other means as necessary to document existing damage or conditions. Submit two copies of this survey to the Contracting Officer within 21 calendar days after Notice-to-Proceed. This survey will assist in resolving any damage claims against the Contractor during and after construction.

C. Preserve all roadways, pedestrian and directional signage. Deliver all signs removed and not required for reinstallation to the Authority as directed by the COTR.
D. Replace or repair lost or damaged signs at no cost to the Authority.

1.10 SECURITY DURING CONSTRUCTION

A. Maintain the integrity of the Airport Security fence. Maintain the integrity of doors and walls between public areas and Air Operations Area (AOA) at all times. Comply with Title 49 Code of Federal Regulations, Parts 1500, 1540, 1542 and 1544.

B. Possession of and display of a proper and current Airport Identification Badge, issued by Airport Operations is required for all Contractor personnel passing into the AOA. Refer to "Airport Orders and Instructions" attached as part of the Contract for specific requirements. Security requirements have increased significantly at Washington Dulles International Airport and Ronald Reagan Washington National Airport. Contractor can expect possible short delays clearing construction vehicles into the AOA. Offerors shall become intimately familiar with all TSA and Authority security requirements. No increase in contract price will be provided to the Contractor should the contractor not be aware of any security procedure in place at time of submitting their offer that leads to increased time and inconvenience to accomplish the work.

C. Pay all fines levied by the Transportation Security Administration for penalties resulting from security infractions perpetrated by or caused by Contractor’s personnel or work forces of Contractor’s subcontractors or suppliers.

D. Establish and maintain the security of Contractor’s staging areas, equipment and materials.

E. Provide escort for delivery vehicles transporting materials and supplies to or from the Contractor's staging or work areas into the AOA, in accordance with requirements stated in "Airport Orders and Instructions" attached as part of the Contract.

F. Do not park within 300 feet of a terminal building unless specifically authorized by Airport Operations.

G. All workers in the sterile areas, which are defined as areas accessible to ticketed passengers only, may utilize tools in their work provided that:

1. Tools are essential and necessary to the Work.
2. Keep tools controlled at all times.
3. Do not leave tools unattended.
4. Store tools in locked boxes.

H. No knives will be permitted in the sterile areas.

I. No firearms or weapons of any type are allowed on the airport.

J. No cartridge style nail guns, nor any tools that use a cartridge or any explosive charge, are allowed without prior written notification of COTR. Obtain written approval from the COTR before bringing such tools on the project.

K. Conform to all Orders and Instructions pertaining to vehicle inspection.
1.11 MATERIAL HAULING

A. Restrict deliveries and removal of bulk materials, supplies, waste soils and equipment to and from the Project site to the Authority-designated roads and haul routes indicated on the Drawings.

B. Access and egress to and from the Airport for hauling operations shall be through the entrances indicated. Conduct hauling operations as indicated on the drawings.

C. The designated haul routes for hauling operations will not require vehicles crossing and/or utilizing existing taxi lanes or taxiways. Under no conditions shall the Contractor plan use of taxiways and taxi lanes for hauling equipment. Haul routes for this project are as indicated on the drawings.

D. Schedule, phase, and sequence work operations to minimize the number and duration of taxiway closures. Submit a detailed Work Plan for Contractor’s entire operations to the COTR for approval prior to commencing work. Obtain written approval from the COTR of the Work Plan. Identify clearly on Work Plan each operation requiring coordination with Airport Operations.

1. For taxiway closures of short duration, provide flagmen, with radio contact with the FAA Airport Traffic Control Tower and the Authority Ramp Control Tower, at taxiway crossing intersections. COTR will determine the number of flagmen required.

2. For long-term taxiway closures, clearly mark, light, and barricade the taxiway closures and haul routes in accordance with FAA and Airport Operations requirements.

E. Notify the COTR at least 72 hours in advance of his requirement for scheduled taxiway, taxi lane or roadway closures. Obtain the written approval of the Authority prior to closing or crossing a taxiway, taxi lane or roadway.

F. Bear all costs associated with establishing, maintaining, signing, lighting and marking haul routes and taxiway crossings. These costs are considered incidental to the pay items of this Contract.

G. Use load covers on all dump trucks. Load dump trucks so that no spillage occurs during transit on the State, municipal, or Airport roadways, taxiways, and aprons. Clean wheels of trucks leaving the Project construction site of all soil and rocks. Provide a truck washing rack on the Project site to minimize the tracking of soil onto paved surfaces.

H. Be responsible for the cost of the immediate cleaning of earth tracking and spills on paved surfaces resulting from the Contractor's operations. Because of the potential for extreme damage to aircraft engines due to the ingestion of foreign objects, maintain on the project mechanical sweeper/vacuum (wet/dry) equipment with nylon brushes complete with operators. Maintain a water truck on site at all times in order to effectively control dust rising from construction activities.

I. Provide sweeper/vacuum equipment with a usable hopper capacity of 6 cubic yards and with a regenerative air capacity of 15,000 CFM. Provide equipment with gutter brooms of poly brush material so as not to damage airfield pavement markings; a dust control system that includes an external spray system with front mounted spray bar, nozzles located at each gutter broom; and
an internal spray system with nozzles in the internal air stream. Maintain the equipment in good working order throughout the project and replace the brooms and or spray systems, as necessary, to ensure proper sweeping and vacuuming of paved surfaces.

1.12 PORTABLE LIGHTING

A. Portable lighting: If used for Contractor operations, aim and shield portable lighting at all times to eliminate glare that could impair runway, taxiway, apron, ground operations, and Airport Traffic Control Tower operations. Equip portable lighting with reflectors and glare shields to prevent spillover of light into operational areas.

1.13 RADIO COMMUNICATIONS

A. Provide two-way radio communication between certain of the Contractor’s personnel on the job site. Provide radios with a minimum of 5 watts transmitting power. Select the frequency utilized for these transmissions. Submit proposed frequencies to COTR for approval in writing by the COTR. Frequencies shall not conflict with or overlay any of the Airports radio frequencies.

B. Provide, at a minimum, the following with radio equipment: The Project Superintendent, Foreman of all work groups physically separated from the general vicinity of the Project Superintendent, gate guards, and others who may be working in a separate and remote area. Provide two additional radios with the same frequencies to PMC for use by the COTR and the Lead Inspector.

C. Provide two-way radios capable of operating on both the "Ground" and "Ramp" frequencies for work adjacent to or affecting taxiways. Such radios shall be either a handheld programmable type capable of operating off of vehicle power and antenna or a vehicle-mounted type, which operates solely off of the vehicle’s power, and antenna. Provide radios that provide a minimum of 3 watts transmitting power. Provide radios of sufficient power to communicate with the appropriate controller.

D. Cellular telephones are an acceptable alternative at Ronald Reagan Washington National Airport. For information purposes the Authority currently uses the Nextel system.

1.14 SPECIAL AUTHORITY CONSULTANT

A. The Contractor is hereby advised of the involvement of Parsons Management Consultants (PMC) as Program Management Support Services Consultant to the Authority for the capital construction programs at Ronald Reagan Washington National Airport and Washington Dulles International Airport. PMC will have a continuing role in this project by assisting the Authority in specialized areas.

1. PMC will provide administrative support during design, solicitation, and construction.
2. PMC will coordinate Contractor requests for technical information and receive, review and manage all Contractor submittals.
3. PMC has reviewed technical submittals during design, including drawings, specifications, cost estimates, construction phasing plans, and technical reports.
4. PMC will be responsible for review of technical submittals during construction, including selected shop drawings, certifications, test reports, calculations and samples.

5. PMC will conduct field inspections of the Work in progress and inspect for Substantial Completion and Final Acceptance. PMC inspection does not relieve Contractor of responsibilities of performing Contract required inspections as required by contract documents.

B. All other contract management is the sole responsibility of the Authority.

1.15 SAFETY

A. Comply with all requirements set forth in the most current edition of the Authority Construction Safety Manual”. Offerors are provided with the most recent addition when obtaining contract documents prior to proposal. Requirements included in this Section are in addition to the Authority’s Construction Safety Manual. Comply with all local, State and Federal requirements. Where conflicts or discrepancies exist between requirements, the more stringent requirement shall govern. For additional information see Division 01 Section “Quality Requirements”.

B. Contractor Safety Organization:

1. Safety Manager.

2. Safety Engineer.

C. Submit the résumés of individuals proposed to serve in the role of Contractor’s Safety Manager, Contractor’s Safety Engineer to the COTR for approval in writing. In addition to indicating the qualifications in the Authority Construction Safety Manual résumés shall include but not be limited to such items as: work experience, education, safety and health training completed, memberships in professional associations, professional certifications, professional registrations and professional references confirming the qualifications and personal references of contacts for verification shall also be required.

D. Provide safe and healthy working conditions on each operation at all times during execution the work of this Contract. Conduct the various operations connected with the Work so that they will not be injurious to safety or health. Comply with all provisions, regulations and recommendations issued pursuant to the Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, as well as amendments to these laws. Comply with laws, rules and regulations of other authorities having jurisdiction, with regard to all matters relating to the safety and health of workers and the general public. Compliance with government requirements is mandated by law and considered only a minimum level of safety performance. Perform all work in accordance with best safe work practices recognized by the construction industry. Stop work whenever a work procedure or a condition at a work site is deemed unsafe by the either of the following individuals: COTR, Program Safety Manager (PSM), the
Contractor’s Project Manager, the Contractor’s Foreman, the Contractor’s Safety Manager, or the Contractor’s Safety Engineer(s).

E. Provide a full-time on-site Contractor Safety Manager for the duration of this Contract. The Safety Manager shall be responsible for all safety and health requirements as included herein and as required by the Authority’s Construction Safety Manual. Provide the services of at least one full-time on-site Contractor Safety Engineer per construction work shift with no other duties assigned who shall work under the direction of the Contractor Safety Manager.

F. Provide a full-time on-site Contractor Safety Engineer for the duration of this Contract with no other duties assigned. The Safety Engineer shall be responsible for all safety and health requirements as included herein and as required by the Authority’s Construction Safety Manual.

G. The Contractor shall submit the resumes of all proposed safety and health professionals who shall serve in the role of contractor’s Safety Manager and Contractor’s Safety Engineer(s) to the COTR for approval. The resumes shall include, but not be limited to such items as: work experience, education, safety and health training completed, memberships in professional associations, professional certifications, professional registrations, and professional references confirming the qualifications shall also be required. Documentation confirming the qualifications and personal references of contacts for verification shall also be required.

H. Comply with all requirements set forth in the Authority's "Construction Safety Manual." Provide during the Work the services of Safety Manager(s)/Safety Engineer(s) as outlined in the Authority’s “Construction Safety Manual” and in Division 01 Section “Quality Requirements”. The Safety Engineer shall undertake the duties and responsibilities as stated in the Authority's "Construction Safety Manual".

I. Prior to start of construction activities in the Air Operations Area (AOA), the Contractor's Safety Manager and Safety Engineer(s) shall tour the AOA with the Authority Safety Program Manager.

J. Flagmen Training: The Authority will sponsor Flagman training sessions. Contractor's personnel who will be assigned flagmen duties on the Airport for this project shall attend training sessions.

K. Fire Safety: Conform to the following requirements:

1. Obtain a permit to perform any welding, cutting, or hot work from the Office of the Authority Fire Marshal.
2. Ensure adequate access to all construction areas for emergency response.
3. Obtain a permit from the Office of the Authority Fire Marshal to store, handle, or use any hazardous material, including but not limited to fuels for equipment. Complete an application prior to issuance.
4. Remove combustible debris from the site daily.
5. Provide at least seven (7) days notice for any request for inspections, tests, permits, etc., required of personnel from the Office of the Authority Fire Marshal.
6. Provide to the Office of the Authority Fire Marshal a list of emergency contact numbers for the COTR and the Contractor prior to the commencement of Work.
L. Submit Site-Specific Safety and Health Plans to COTR within 15 calendar days of Notice to Proceed and prior to the start of any construction activities. Prepare this plan using the Authority’s Guidelines as defined in the Authority’s “Construction Safety Manual” and as supplemented by these specifications for each and every work zone as shown on the drawings or as anticipated by the Contractor. COTR must approve the Site-Specific Safety Plan prior to the start of any work.

M. Be responsible for the safe operation of all job site motor vehicles. Provide a “spotter” or flagman for all backing operations of construction vehicles with restricted rear vision.

N. All motorized equipment and vehicles working on or entering MWAA construction project work areas shall be equipped with functional audible backup alarms.

O. Crane Operators. On Airports Authority projects, Crane Operators shall be certified to operate the equipment by an approved independent certifying agency.

P. For all airside projects attach a Safety Plan to the Safety Program. Include in the Safety Plan, to the extent applicable, provisions for the following:

1. Scope of work performed by Contractor, including proposed duration of work.
2. Possible safety problems (job hazard analysis program).
3. Work control measures.
4. Limitations on equipment height.
5. Location of airport operational areas.
6. Location of and access to stockpiled construction materials and equipment.
7. Inspection requirements.
8. Trenches and excavations, and cover requirements.
9. Threshold marking and lighting.
10. Closed runway marking.
11. Vehicle operation and pedestrian access in airport movement areas.
12. Construction site access and haul roads, includes maintenance of and keeping open ARFF access routes.
13. Limitations on construction.
15. Foreign object debris (FOD) control provisions.
16. Hazardous materials (HAZMAT) management.
17. Wildlife abatement.
18. NOTAM issuance.
21. Use of temporary visual aids.
22. Obstacle-free zones (OFZ).
23. Approach clearance to runways.
24. Runway and taxiway safety areas.
25. Procedures and equipment, such as barricades (identify type) for closing portions of the movement area.
26. Required compliance of contractor personnel.
27. Procedures for notification of aircraft rescue firefighting (ARFF) if deactivating water lines or fire hydrants, or if emergency access routes are rerouted or blocked.
29. Coordination of plan with an FAA airport certification safety inspector.

1.16 HEIGHT LIMITATION

A. For all demolition and construction within the Airport, limit the height of Contractor's equipment as indicated on the Drawings.

B. Prior to beginning any work coordinate with the COTR the height of all cranes, boom trucks, scaffolds or similar vehicles of construction. Properly mark all construction equipment with safety flags and warning lights in accordance with current FAA and Airport Operations requirements. Submit FAA Form 7460, provided by COTR, for all variations on approved crane heights.

1.17 NOISE CONTROL

A. The Authority recognizes and can tolerate a normal level of noise created by a majority of construction activity. However, in the interest of the Authority's neighbors, the maximum acceptable noise level between the hours of 5:00 pm and 7:00 am the following morning is limited to 55 decibels. During daytime hours of 7:00 am through 5:00 pm, the maximum acceptable noise level for sustained or repetitive noises is 72 decibels. Measure the noise level using an "A" scale at a point 4'-0" above ground at property line nearest noise source.

B. Secure advance written approval from the COTR prior to scheduling any activity that is anticipated to produce a sustained or repetitive noise level higher than the decibel limits indicated above.

C. In and around terminal facilities and buildings whose normal occupancy is from 7 a.m. to 7 p.m., perform work that causes noise that is disruptive to the airport’s tenants or the traveling public between the hours of 11:00 pm and 5:00 am. Measure noise for this situation using an “A” scale at a point 4’-0” above ground at the closest point to airport tenants or the traveling public.

1.18 AIRPORT SECURITY/VEHICLE INSPECTION PROCEDURE

A. The number of vehicular access points into secure areas at Ronald Reagan Washington National Airport has been reduced to an operational minimum. Two gates available for all vehicular traffic. Gate A and A5.

B. Contractor shall coordinate the use of Gate A5 with the COTR 72 hours in advance. The contractor shall provide the COTR the work days and hours in which Gate A5 will be needed for their operations. The COTR will coordinate with the Airport to provide a security guard for Gate A5 during the Contactor’s operations.

C. The following procedures will be utilized for all escorted vehicles and AOA approved vehicles with non-badged passengers seeking entry to the AOA:

1. All vehicles are searched.
2. Coordinate all vehicle deliveries with the COTR in advance. Provide the vehicle license plate number and expected delivery time for all vehicle deliveries. Contractor may compile the expected daily delivery schedule on one sheet for submission to the COTR.

3. The vehicle operator shall have in his or her possession a commercial manifest, which identifies the contents of the vehicle and/or trailer.

4. An escort from the company for whom the shipment is intended shall respond to the vehicle access gate and remain with the vehicle until the vehicle exits the secured area.

5. A vehicle search will be conducted and once cleared; vehicles will be permitted escorted access to their delivery point.

6. Contractors should expect minor delays up at Gate A as a result of these security provisions.

7. Priority consideration may be offered to concrete trucks with resulting delays estimated to be 20 minutes. To receive priority consideration, schedule concrete deliveries with Airport Operations and COTR at time of batching.

D. Prior approval from the Manager of Airport Operations or his/her designated representative is required for any exceptions to the above procedures.

1.19 AIRPORT SAFETY AND TRAFFIC CONTROL PROCEDURE

A. Dump trucks will be allowed on the AOA only under official escort. Security Gate guards will ensure only escort vehicles are opening gates to allow trucks on/off the AOA for while escorting. Also, any construction vehicles that are staging or moving equipment on the AOA during non working construction hours must be pre-coordinated with Airport Operations.

B. One or two dump trucks or oversized loads will require one lead escort vehicles at all times. If three or more dump trucks are to be escorted, both a lead escort and follow-on vehicle will be required.

C. Contractor shall conduct nightly formal safety briefs as part of nightly kick-off meetings with work force drivers. At the nightly safety, coordination meeting, lead PMC Inspector will verbally discuss haul routes, off limit areas and escort procedures with all escorts.

D. Prior to any construction activity on the AOA a nightly face-to-face Operations and construction crew meeting on-site, PMC personnel will cover ground vehicle operations as part of the brief to include placement of lighted barriers on both east & west side of Rwy 1/19 on Rwy 15/33. During daylight hours, PMC & OPS will conduct formal in-person safety briefs with each shift change of PMC & Ops personnel on-site. Require contractor safety reps on-site nightly during AOA work periods. ‘On call’ status is not acceptable.

E. Contractor shall conduct pre-construction safety briefing with AOA work force to include escort drivers and hired drivers by Airport, PMC and contractor management personnel.

F. Contractor shall provide approved haul route maps to PMC and to all escort drivers to ensure safe compliance with routes and reduce likelihood of rogue driver.

G. Airport Operations and PMC personnel will utilize airport maps to ensure haul routes and closed work areas are clearly understood by all concerned. Haul maps will be
provided to Contractor, PMC, and Operations personnel and faxed nightly to FAA Tower prior to construction.

H. In the event no signage will be placed on non-construction side of the runway, the Contractor will position a manned vehicle operator where the barriers would have been placed to act as a deterrent to stray vehicles. Once it is determined the barriers will be put into position, the driver and vehicle requirement will no longer be required.

I. All truck rally points shall be manned streetside where escorts will pick-up vehicles for escorts. Manned rally point(s) will have a contractor representative present to ensure all vehicle drivers stop and wait for escort vehicles. Contractor will provide an on-site vehicle rally coordinator.

J. Semi-annual driver IET safety training is required for all designated ‘DM’ drivers from active driving groups – Fire Department, Airport Maintenance, PMC, select tenants, FAA, PMC and contractors. Annual safety briefings conducted by an Airport Operations rep for the aforementioned groups will be designed to ensure movement area drivers know of the serious nature of runway incursions.

K. All barricades placed on DCA runways should extend across the runway(s) from pavement to pavement (200’) whenever feasible.

L. Do not use Levee Road to transit from South end of airfield to the North end of the airfield unless specifically approved by Airport Operations and with prior coordination.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 007300
SECTION P-150 - DEMOLITION AND REMOVAL

PART 1 - DESCRIPTION

1.1 This item shall consist of demolition and removal including the disposal of materials, for all areas within the limits designated on the plans or as required by the COTR. Refer to Item L-130 for electrical removals, and section for 06 13 33 for pier demolition and removal work.

Demolition and removal shall consist of the miscellaneous demolition and removal of bituminous and gravel pavements, structures, utilities, pipe culverts, slabs, sign posts, foundations, milling, and all other items shown to be removed on the plans or as directed by the COTR.

Items indicated to be salvaged shall be delivered to the Authority. Items indicated to be relocated shall be removed and salvaged, and reinstalled as shown on the plans. The Contractor shall be responsible for demolition and removal from the airport of all items not indicated to be relocated or salvaged to the COTR.

PART 2 - MATERIALS (Not Used)

PART 3 - CONSTRUCTION METHODS

3.1 GENERAL

A. The areas denoted on the plans to be demolished and removed under this item shall be as shown on the drawings and staked on the ground by the Contractor. The demolition and removal shall be done in advance of the grading operation for each work area or phase of construction. Voids created by removal operations shall be backfilled using excess material generated from grading operations. The Contractor shall backfill and grade such voids to maintain positive drainage of the site. The contractor shall be required to stake the limits of demolition and removal as shown on the plans prior to commencing operations. The materials to be salvaged to the Authority, if indicated, will be identified by the Authority and the FAA, or as shown on the plans, prior to demolition.

B. The Contractor shall prepare an inventory list of all items to be demolished and the sequence date for demolition. The inventory list shall include individual items indicated to be demolished on the contract for the particular phase of work involved and shall be submitted to the COTR two (2) weeks prior to beginning demolition operations. The COTR will review the list with airport operations personnel to determine scheduling of the removal with regard to airport operations and utilities operation.

3.2 DEMOLITION AND REMOVAL OF EXISTING PAVEMENTS

A. Pavement Removal. Pavement Removal shall include saw cutting, removal and disposal of various depths of bituminous concrete pavements within the project limits. Pavement Removal shall include aggregate and stabilized subbase materials and any soil materials located above the proposed subgrade elevation.
The existing pavement shall be removed to the depth specified on the plans and shall produce the specified cross slope. The Contractor shall use care to remove the existing pavements around all utility facilities within the work area. Utility facilities that are damaged by the pavement removal operation shall be repaired to the satisfaction of the COTR.

3.3 DEMOLITION AND REMOVAL OF EXISTING ITEMS OTHER THAN PAVEMENTS

A. Items designated to be demolished and removed shall be removed in their entirety leaving no foundations or other similar debris in the sub-grade. All concrete foundations shall be removed to their full depth.

B. All holes remaining after the demolition and removal operation in embankment area shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened and properly compacted in layers to the density required in Section P-152. Cost for backfill is to be included with the lump sum costs for the respective demolished items.

PART 4 – CONTRACTOR QUALITY CONTROL

4.1 Division 1 Section “Quality Requirements” specifies the general requirements for the Contractor’s Quality Control Program.

4.2 The following describes the minimum inspection and testing required in the Contractor’s Quality Control (CQC) Plan and Program for the work of this section and is for CQC only. The implementation of the Contractor Quality Control Program does not relieve the Contractor from the responsibility to provide the work in accordance with the Contract Documents, applicable codes, regulations, and governing authorities. The CQC Plan and Program shall include, but not be limited to, the following testing and inspection elements. These elements are provided only as a minimum starting point for the Contractor to use to generate his complete CQC Program.

A. Preparatory Inspection: (to be completed prior to commencing work)

1. Check items and locations of items to be demolished and removed as shown on the plans.
2. Check that disposal site or storage site has been approved.
3. Check that items to be salvaged have been identified.

B. Initial Inspection: (to be conducted after a representative sample of work is complete)

1. See that demolition operations are done to the required depth and that depressions are filled properly.
2. Check disposal of removals and storage of salvageable items.
3. See that demolished materials are disposed of properly.

C. Follow-Up Inspections: (to be conducted daily to assure compliance with results of initial inspection)

1. Check items mentioned in preparatory and initial inspections.
2. Check for damage or defects.
D. A copy of all records and results of corrective action taken shall be furnished as directed by the COTR.

PART 5 - METHOD OF MEASUREMENT

5.1 The quantity for bituminous pavement removal shown on the plans or as ordered by the COTR shall be measured per square yard.

5.2 The quantity for variable depth removal of aggregate base course as shown on the plans or as ordered by the COTR shall be measured per square yard.

5.3 The quantity for milling as shown on the plans or as ordered by the COTR shall be measured per square yard.

5.4 The quantity for miscellaneous demolition and removal of items as shown in the limits on the plans or as ordered by the COTR shall be measured per lump sum for all items identified to be demolished and removed.

PART 6 – BASIS OF PAYMENT

6.1 Payment shall be made at the contract unit price per square yard for all full depth demolishing and removing existing bituminous pavement including sawcutting and aggregate base course. The price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item including removal and disposal off airport property.

6.2 Payment shall be made at the contract unit price per square yard for variable depth removal of aggregate base course. The price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item including removal and disposal off airport property.

6.3 Payment shall be made at the contract unit price per square yard for milling of existing pavement. The price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item including removal and disposal off airport property.

6.4 Payment shall be made at the contract lump sum price for miscellaneous demolition and removal of designated items including but not limited to existing gravel pavements, structures, utilities, culverts, concrete, and foundations. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item including removal and disposal off airport property.

Payment will be made under:

Item P-150-6.1 Demolish and Remove Existing Bituminous Airfield Pavement - per square yard
Item P-150-6.2  Remove Variable Depth Aggregate Base Course, 0-4 inch thickness - per square yard
Item P-150-6.3  Milling, 2 inch thickness - per square yard
Item P-150-6.4  Miscellaneous Demolition and Removal - per lump sum

END OF SECTION P-150
SECTION P-152 - EXCAVATION AND EMBANKMENT

PART 1 - DESCRIPTION

1.1 This item covers excavation, disposal, placement, and compaction of all materials within the limits of work required to construct the safety areas, roadways as well as other areas for drainage, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the Plans.

1.2 CLASSIFICATION

A. Unclassified Excavation. Unclassified excavation shall consist of the excavation and placement as embankment and compaction of all material.

B. Unsuitable Material. Any material containing vegetable or organic matter, such as muck, peat, organic silt, or sod that is classified as OL, OH, or PT in accordance with the Unified Soil Classification System shall be considered unsuitable for use in embankment construction. Material, when approved by the COTR as suitable to support vegetation, may be used on the unsuitable embankment slope.

C. Suitable Material. Any material that is classified as GW, GP, GM, SW, SP, SM, CL, ML, in accordance with the Unified Soil Classification System that are maintained within ±20% of the optimum moisture content value shall be considered suitable for use in embankment construction. The material should have maximum LL of 35 and PI of 20.

PART 2 - MATERIAL

2.1 SELECT BACKFILL MATERIAL

A. Select Backfill Material for use in backfilling unsuitable excavation areas shall consist of an open-graded aggregate material conforming to Virginia Department of Transportation (VDOT) Size Number 3 open-graded coarse aggregate. Grading for the Select Backfill Material shall conform to the following requirements:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2½ inches</td>
<td>Minimum 100</td>
</tr>
<tr>
<td>2 inches</td>
<td>90-100</td>
</tr>
<tr>
<td>1½ inches</td>
<td>35-70</td>
</tr>
<tr>
<td>1 inches</td>
<td>0-15</td>
</tr>
<tr>
<td>½ inches</td>
<td>Maximum 5</td>
</tr>
</tbody>
</table>

2.2 TOPSOIL MATERIAL

A. Topsoil material for use in backfilling abandoned pavements to be removed shall conform to the requirements of Section T-905.

2.3 SUBMITTALS

A. The following submittals shall be required as part of this item:
1. Select Backfill Material.

2. Various items listed in the Field Quality Control Section.

3. Bracing, sheathing, or shoring as necessary to protect excavations.

PART 3 - CONSTRUCTION METHODS

3.1 GENERAL

A. Before beginning excavation, grading, and embankment operations in any area, the area shall be completely stripped of topsoil with the exception of those areas indicated on the plans. Topsoil shall be stockpiled and re-spread in accordance with Item T-905 of the technical specifications.

B. The suitability of material to be placed as backfill and embankment shall be subject to approval by the COTR. All unsuitable material shall be temporarily stockpiled and tested by the Authority’s Environmental Contractor as described in paragraph 3.2C.

C. When the Contractor’s excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued. At the direction of the COTR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

D. Those areas outside of the pavement areas in which the top layer of soil material has become compacted, by hauling or other activities of the Contractor shall be scarified and disked to a depth of 4 inches, in order to loosen and pulverize the soil.

E. If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the COTR, who shall arrange for their removal if necessary. The Contractor shall, at his/her own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures which may result from any of the Contractor’s operations during the period of the contract.

3.2 EXCAVATION

A. No excavation shall be started until the work has been staked out by the Contractor and the Contractor has obtained elevations and measurements of the ground surface.

B. Excavated materials shall be kept separate in accordance with the various grading limits and excavation areas shown on the plans. Suitable material and topsoil excavated from a particular excavation area shall be used in the formation of embankment within that area only. Movement of excavated materials throughout the site to different excavation areas will not be permitted.

C. When volume of the excavation exceeds that required to construct the embankments within a particular excavation area, the excess suitable material and unsuitable material shall be stockpiled as shown on the plans and sampled and tested by the
Authority’s Environmental Contractor. All excess material is assumed to be contaminated. The Authority will characterize the soil for disposal. The Contractor shall allow up to 3 weeks for the Authority to sample and characterize each soil stockpile prior to disposal by the Contractor. The Contractor shall be responsible for the stockpiling, hauling and proper recycling of all excess excavated contaminated soil. All contaminated soil shall be recycled. The recycling facility shall be approved by the Authority’s Environmental Department prior to commencing excavation activities. Disposing of contaminated soil in a landfill is prohibited. All waste disposal manifests/recycling certificates shall be provided to the COTR. The Contractor shall prepare a soil stockpile protection plan for approval by the COTR.

D. The grade shall be maintained so that the surface is well drained at all times. When necessary, temporary drains and drainage ditches shall be installed to intercept or divert surface water which may affect the work. No additional measurement or payment will be made for temporary drainage as costs associated with this effort shall be incidental to unclassified excavation.

E. Unsuitable Material. Muck, peat, matted roots, or other material classified as unsuitable material, or directed by the COTR as unsatisfactory for subgrade foundation, shall be removed to the depth encountered or as directed by the COTR. Unsuitable materials, not suitable for topsoil, shall be disposed of in the temporary stockpile area shown on the plans or as directed by the COTR.

F. Overbreak, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the COTR. The COTR shall determine if the displacement of such material was unavoidable. All overbreak shall be graded or removed by the Contractor and disposed of as directed by the COTR at no additional cost to the Authority.

G. The subgrade under areas to be paved shall be compacted to a depth of 6 inches and to a density of not less than 92% of the maximum density as determined by ASTM D 1557. The material to be compacted shall be within ±20% of the optimum moisture content value before being rolled to obtain the prescribed compaction. If deemed necessary by the COTR, overcut the subgrade and backfill with Select Backfill Material. The excavation equipment and methods shall minimize subgrade disturbance.

H. Under areas to be paved, there shall be no standing water and the groundwater shall be maintained a minimum 2 feet below the lowest point of the excavation. Any dewatering shall be continuous until the pavement has been constructed.

I. The in-place field density shall be determined in accordance with ASTM D 6938 (Nuclear Density Method) to verify the density, degree of compaction, and moisture content.

J. Do not route haul traffic on the subgrade or open graded aggregate base course.

K. Blasting shall not be permitted.

L. Contractor shall do all bracing, sheathing, or shoring necessary to implement and protect excavations as required for safety or conformance to governing laws. The cost for bracing, sheathing, or shoring shall be considered incidental to unclassified excavation.
3.3 DRAINAGE EXCAVATION

A. Drainage excavation shall consist of excavating for drainage ditches such as intercepting, inlet or outlet, or for any other type as designed or as shown on the plans. The work shall be performed in the proper sequence with the other construction. All satisfactory material shall be placed in fills; unsuitable material shall be placed in the temporary stockpile area or as directed by COTR. Intercepting ditches shall be constructed prior to starting adjacent excavation operations. All necessary work shall be performed to secure a finish true to line, elevation, and cross section. No separate measurement or payment will be made as this will be considered incidental to unclassified excavation.

B. The Contractor shall maintain drainage ditches constructed on the project to the required cross section and elevations, and shall keep them free of debris or obstructions until the project is accepted.

C. Contractor shall do all bracing, sheathing, or shoring necessary to implement and protect excavations as required for safety or conformance to governing laws. The cost for bracing, sheathing, or shoring shall be considered incidental to unclassified excavation.

3.4 PREPARATION OF EMBANKMENT AREA FOR NEW PAVEMENTS

A. Where an embankment is to be constructed to a height of 4 feet or less, all sod and vegetable matter shall be removed from the surface upon which the embankment is to be placed, and the cleared surface shall be completely broken up by plowing or scarifying to a minimum depth of 6 inches. This area shall then be compacted as indicated in Section 3.5. Where embankments are to be placed on natural slopes steeper than 3 to 1, horizontal benches shall be constructed.

3.5 FORMATION OF EMBANKMENTS

A. All excavated material with the exception of unsuitable material, is designated for reuse in the same excavation area from which it was removed.

B. Embankments shall be formed in successive horizontal layers of not more than 8 inches in loose depth of for the full width of the cross section, unless otherwise approved by the COTR.

C. The grading operations shall be conducted, and the various soil strata shall be placed, to produce a soil structure as shown on the typical cross section or as directed. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

D. Operations on earthwork shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing, or other unsatisfactory conditions of the field. The Contractor shall drag, blade, or slope the embankment to provide proper surface drainage.

E. The material in the layer shall be within ±2% of the optimum moisture content value before rolling to obtain the prescribed compaction. In order to achieve uniform moisture content throughout the layer, wetting or drying of the material and manipulation shall be required when necessary. Should the material be too wet to permit proper compaction or rolling, all work on all of the affected portions of the embankment shall be delayed until the material
has dried to the required moisture content or mechanical aeration of the subgrade adjusts the moisture content to that specified. Sprinkling of dry material to obtain the proper moisture content shall be done with approved equipment that will sufficiently distribute the water. Sufficient equipment to furnish the required water shall be available at all times. Samples of all embankment materials for testing, both before and after placement and compaction, will be taken for each 250 cubic yards. Based on these tests, the Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content in order to achieve the correct embankment density.

F. Rolling operations shall be continued until the embankment is compacted to a minimum of 92 percent of maximum dry density as determined by ASTM D 1557. Compaction shall be determined in accordance with ASTM D 6938 (Nuclear Density Method) to verify the density, degree of compaction, and moisture content.

G. Compaction areas shall be kept separate, and no layer shall be covered by another until the proper density and degree of compaction is obtained and written permission is given by the COTR.

H. During construction of the embankment, the Contractor shall route his/her equipment at all times, both when loaded and when empty, over the layers as they are placed and shall distribute the travel evenly over the entire width of the embankment. The equipment shall be operated in such a manner that hardpan, cemented gravel, clay, or other chunky soil material will be broken up into small particles and become incorporated with the other material in the layer.

I. In the construction of embankments, layer placement shall begin in the deepest portion of the fill; as placement progresses, layers shall be constructed approximately parallel to the finished pavement grade line.

J. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material.

3.6 FINISHING AND PROTECTION OF SUBGRADE

A. After the subgrade has been substantially completed the full width shall be conditioned by removing any soft or other unstable material which will not compact properly. The resulting areas and all other low areas, holes or depressions shall be brought to grade with suitable select material.Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the Plans.

B. Compact subgrade to a minimum of 92 percent of the maximum dry density as determined by ASTM D 1557.

C. Grading of the subgrade shall be performed so that it will drain readily. The Contractor shall take all precautions necessary to protect the subgrade from damage. He/she shall limit hauling over the finished subgrade to that which is essential for construction purposes.

D. All ruts or rough places that develop in a completed subgrade shall be smoothed and recompacted.
E. No soil stabilization, ground improvement, subbase, or base course shall be placed on the subgrade until the subgrade has been approved by the COTR.

F. No permanent seeding or sodding of the finished grade shall be allowed until the finished grading has been approved by the COTR.

3.7 Haul

A. All hauling will be considered a necessary and incidental part of the work. Its cost shall be considered by the Contractor and included in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work or for transport of the excess excavation to the stockpiling site shown on the drawings or from intermediate stockpiles to the project site.

3.8 Tolerances

A. The surface shall be of such smoothness that it will not vary more than 0.10 foot from true grade shown on the Plans as established by grade hubs. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

3.9 Topsoil

A. Topsoil shall be salvaged by stripping the existing site and stockpiling for each excavation area, and in accordance with Item T-905. If, at the time of excavation or stripping, the topsoil cannot be placed in its proper and final section of finished construction, the material shall be stockpiled at approved locations. If, in the judgment of the COTR, it is practical to place the salvaged topsoil at the time of excavation or stripping, the material shall be placed in its final position without stockpiling or further rehandling. Contractor shall obtain topsoil for grading areas where insufficient topsoil is salvaged from stripping operations. Upon completion of grading operations, stockpiled topsoil shall be handled and placed as directed or as required in Section T-905 to achieve final grade.

PART 4 - CONTRACTOR QUALITY CONTROL

4.1 Field Quality Control

A. Division 1 Section "Quality Requirements" specifies the general requirements for the Contractor's Quality Control Program.

B. The following describes the minimum inspection and testing required in the Contractor's Quality Control (CQC) Plan and Program for the work of this section and is for CQC only. The implementation of the Contractor Quality Control Program does not relieve the Contractor from the responsibility to provide the work in accordance with the Contract Documents, applicable codes, regulations, and governing authorities. The CQC Plan and Program shall include, but not be limited to, the following testing and inspection elements. These elements are provided only as a minimum starting point for the Contractor to use to generate his complete CQC Program.

C. Testing Agency: The Contractor shall engage the services of an independent testing agency qualified according to ASTM E329 and E699, to conduct soil materials and rock-defining
testing, as documented according to ASTM D3740 and ASTM E548, and approved by the COTR.

D. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.

E. Tests: Contractor's qualified independent testing agency will test compaction of soils in place according to ASTM D1556, ASTM D2167, ASTM D6938, as applicable. The testing agency shall conduct tests and interpret the test results; shall state in each report whether or not tested earthwork materials and operations comply with all requirements on the Contract Documents and shall specifically note any deviations there from. Testing results shall cover the results of all tests performed, and be both on and off site as required. Test results shall be certified as complete, signed by a qualified testing agency representative authorized to sign certified test reports, and delivered every week to the COTR. Test results shall cite the Contract Document requirements, the test or analytical procedures used, and the actual results. Conforming, non-conforming, and retesting shall be clearly indicated. Test results shall state specifically what is non-conforming, the date discovered, the date corrected, and the date retested. A summary report of all field tests containing both "required" and "actual" results plus "passed" or "failed" for conforming, non-conforming, and repeated test results shall be submitted to the COTR at the end of each month. Testing agency shall perform all tests herein specified and any additional soil tests and inspections required by the COTR during earthwork operations. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; re-compact and retest until specified compaction is obtained. Tests shall be performed at the following locations and frequencies:

1. Field Sampling and Testing:
   a. Samples: Submit one 50-pound composite sample taken at random three times per week of subgrade being compacted and material being place. Submit samples, in the number directed, whenever the source or character of the embankment material changes. Contain each sample in a clean container and fasten to prevent loss of material. Tag each sample for identification. The tag shall contain the following information:
      Contract No.
      Sample No.
      Date of Sample
      Sampler
      Source
      Intended Use

   b. Tests: Test fill and backfill in accordance with ASTM D 422, ASTM D2419, and ASTM D2487 gradation limits. Test fill and backfill for material finer than the No. 200 sieve in accordance with ASTM D1140. Test fill and backfill for liquid limit and plasticity index in accordance with ASTM D4318. Test fill and backfill materials for moisture density relations in accordance with ASTM D1557. Perform one of each of the required tests for each material used when directed by the COTR. Provide additional tests as specified above for each material source change. Perform density tests in randomly selected locations in accordance with ASTM D1556 or ASTM D6938. Determine moisture
content of soil material in place in accordance with ASTM D6938 at every location where in-place density is tested. Where ASTM D6938 is used to test field compaction densities, verify the results of the tests by performing one test using ASTM D1556 for every 20 tests performed using ASTM D6938.

2. Analysis of Existing Subgrade: Analysis of existing subgrade and fills within 3 feet of finished grades of exterior areas, to determine frost susceptibility, per ASTM D422.

3. Trench Backfill: On each compacted initial and final backfill layer, at least one test for each 150 feet or less of trench length, but no fewer than two tests.

4. Review of Quality Control Testing During Construction: If, in the opinion of the COTR, based on Testing Laboratory reports and inspection, subgrade or backfills that have been placed are below specified density, perform additional compaction and testing until specified density is obtained at no additional cost to the Authority.  
   a. Do not add to or build upon non-conforming work.

F. Inspection:

1. Inspect all utility trenches for conformance with contract requirements on a continuing basis. Ensure that backfill is not placed until lines are tested and approved.

2. Check all earthwork for conformance with profiles and contours shown, before subsequent operations proceed.

3. Where structural, drainage fill or pipe bedding material is required, inspect to ensure that proper depth and configuration is placed.

4. Inspect procedures for erosion control and ensure that methods used are performing properly.

5. Ensure that all-necessary mechanical protection of excavation faces have been installed to the extent required by the COTR.

6. Perform additional inspections as necessary to reconfirm any non-conformance of original work and to show conformance of corrected work.

7. Verify that defective work is corrected properly and approved by the COTR.

G. Special Inspections:

1. Perform all “Special Inspections” (as required by section 1704.6 of the International Building Code (IBC) 2006 for backfilling and fill under foundations and equipment pads) as required by the “Building Official” to secure approval of the work.

4.2 Surveys: The Contractor shall furnish a third party registered surveyor to conduct cross sections before and after earthwork operations to determine the quantity of unclassified excavation for the basis of payment.

PART 5 - METHOD OF MEASUREMENT

5.1 The quantity of unsuitable excavation and backfill shall be measured per cubic yard. Measurement of unsuitable excavation and backfill shall be made by the average end area method described below for those areas approved by the COTR. The COTR will direct the surface areas and the depth of unsuitable material to be removed. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.
5.2 The quantity of unclassified excavation shall be measured per cubic yard. Measurement of unclassified excavation shall be made by the average end area method described in Paragraph 5.5.

5.3 The quantity of embankment in place shall be measured per cubic yard. Measurement shall be made by the average end area method described in Paragraph 5.5.

5.4 The quantity of disposal of contaminated soil shall be measured per ton.

5.5 For payment specified by the cubic yard, measurement shall be computed by the average end area method. The end area is that bound by the original ground line established by field cross sections and the final theoretical pay line established by embankment cross sections shown on the plans, subject to verification by the COTR. Pay quantities shall be computed to the neat lines shown on the drawings by method of average end areas of materials acceptably placed as specified. No separate measurement shall be made for ditch excavation or contour grading. The Contractor shall provide field run cross-sections at fifty foot intervals for the computation of the average end area method of measurement. This work shall include plotting existing ground after clearing or pavement demolition operations but before any other work begins, including topsoil stripping, and plotting finished ground after earthwork operations are complete, including topsoil spreading, to establish the "average-end" volume of materials placed. The COTR may verify the survey results with his own independent survey. All cross-sections provided by the Contractor shall be plotted on standard 24"x36" (10x10) grid vellum sheets at vertical and horizontal scales as directed by the COTR. All survey work including the resulting plots shall be signed, sealed and certified by a professional land surveyor registered in the State of Virginia. The Contractor may perform his own computation of the "average-end" volumes; however, the COTR may perform an independent computation before establishing the final pay quantities.

Final field cross sections shall be employed if the following changes have been made:

1. Plan width of embankments or excavations are changed by more than plus or minus 1.0 foot; or
2. Plan elevations of embankments or excavations are changed by more than plus or minus 0.5 foot.

PART 6 - BASIS OF PAYMENT

6.1 For "Unsuitable Excavation and Backfill", payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for excavating, backfilling with select backfill material, and furnishing all materials, labor, equipment, tools, quality control testing and incidentals necessary to complete the item.

6.2 For “Unclassified Excavation”, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for excavating, selective and rough grading, embankment formation, stockpiling of excess material, and topsoil stripping, stockpiling, and placement of topsoil within excavation areas 2, 3, 4, and 5, and furnishing all materials, labor, equipment, tools, quality control testing and incidentals necessary to complete the item.
6.3 For “Embankment in Place”, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for excavating, selective and rough grading and embankment formation, and topsoil stripping, stockpiling, and placement of topsoil within excavation area 1, and furnishing all materials, labor, equipment, tools, quality control testing and incidentals necessary to complete the item.

6.4 For “Disposal of Contaminated Soil”, payment shall be made at the contract unit price per ton. This price shall be full compensation for loading, hauling, disposal, and furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

6.5 Payment for the “Original and Final Surveys” shall be made as a lump sum and shall be full compensation for providing the original and final surveys as detailed in Paragraphs 152-5.5.

Payment will be made under:

- Item P-152-6.1 Unsuitable Excavation and Backfill - per cubic yard
- Item P-152-6.2 Unclassified Excavation - per cubic yard
- Item P-152-6.3 Embankment in Place - per cubic yard
- Item P-152-6.4 Disposal of Contaminated Soil - per ton
- Item P-152-6.5 Original and Final Surveys - per lump sum

TESTING REQUIREMENTS

- ASTM D 422 Standard Test Method for Particle-Size Analysis of Soils
- ASTM D 1140 Standard Test Method for Amount of Material in Soils Finer than No. 200 (75-μm) Sieve
- ASTM D 1557 Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))
- ASTM D 1883 CBR (California Bearing Ratio) of Laboratory-Compacted Soils
- ASTM D 2167 Density and Unit Weight of Soil in Place by the Rubber Balloon Method
- ASTM D 2419 Sand Equivalent Value of Soils and Fine Aggregate
- ASTM D 2487 Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- ASTM D 4318 Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D 6938 In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
MATERIAL REQUIREMENTS

ASTM C 51 Standard Terminology Relating to Lime and Limestone (as Used by the Industry)

ASTM D 2487 Soils for Engineering Purposes (Unified Soil Classification System)

END OF SECTION P-152
SECTION P-620 - RUNWAY AND TAXIWAY PAINTING

PART 1 - DESCRIPTION

1.1 GENERAL

A. This item shall consist of the painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the COTR.

PART 2 - MATERIALS

2.1 MATERIALS ACCEPTANCE

A. The Contractor shall furnish manufacturer’s certified test reports for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. The reports can be used for material acceptance or the COTR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the COTR upon arrival of a shipment of materials to the site.

2.2 PAINT

A. Paint type shall be as specified on the plans. Paint shall be furnished in White – 37925, Yellow – 33538 or 33655, Red – 31136, and Black - 37038 in accordance with Federal Standard No. 595.

B. WATERBORNE. Paint shall meet the requirements of Federal Specification TT-P-1952E, Type I.

2.3 REFLECTIVE MEDIA

A. Glass beads shall meet the requirements for Federal Specification TT-B-1325D, Type I, gradation A. Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

PART 3 - CONSTRUCTION METHODS

3.1 WEATHER LIMITATIONS

A. The painting shall be performed only when the surface is dry and when the surface temperature is at least 45 degrees F and rising and the pavement surface temperature is at least 5 degrees F.
above the dew point. Painting operations shall be discontinued when the surface temperature exceeds 100 degrees F.

3.2 EQUIPMENT

A. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

B. The mechanical marker shall be an atomizing spray-type or airless type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall apply markings of uniform cross sections and clear-cut edges without running or spattering and without over spray.

3.3 PREPARATION OF SURFACE

A. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign material that would reduce the bond between the paint and the pavement. The area to be painted shall be cleaned by sweeping and blowing or by other methods as required to remove all dirt, laitance, and loose materials without damage to the pavement surface. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the COTR. Paint shall not be applied to Portland cement concrete pavement until the areas to be painted are clean of curing material. High-pressure water shall be used to remove curing materials.

3.4 LAYOUT OF MARKINGS

A. The proposed markings shall be laid out in advance of the paint application. The locations of markings to receive glass beads shall be shown on the plans.

3.5 APPLICATION

A. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the COTR.

B. The edges of the markings shall not vary from a straight line more than 1/2 inch in 50 feet and marking dimensions and spacings shall be within the following tolerances:

<table>
<thead>
<tr>
<th>Dimension and Spacing</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 inches or less</td>
<td>±1/2 inch</td>
</tr>
<tr>
<td>greater than 36 inches to 6 feet</td>
<td>±1 inch</td>
</tr>
<tr>
<td>greater than 6 feet to 60 feet</td>
<td>±2 inches</td>
</tr>
<tr>
<td>greater than 60 feet</td>
<td>±3 inches</td>
</tr>
</tbody>
</table>
C. The paint shall be mixed in accordance with the manufacturer’s instructions and applied to the pavement with a marking machine at the rate(s) shown in Table 1. The addition of thinner will not be permitted. A period of 30 days shall elapse between placement of a bituminous surface course or seal coat and application of the paint.

Table 1
Application Rates for Paint and Glass Beads

<table>
<thead>
<tr>
<th>Paint Type</th>
<th>Paint, Square Feet Per Gallon, ft²/gal</th>
<th>Glass Beads, Type I, Gradation A Pounds Per Gallon of Paint, lb./gal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterborne (Permanent)</td>
<td>115 ft²/gal. max</td>
<td>7 lb./gal. minimum</td>
</tr>
<tr>
<td>Waterborne (Temporary)</td>
<td>115 ft²/gal. max</td>
<td>None</td>
</tr>
</tbody>
</table>

D. Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished which is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate(s) shown in Table 1. Glass beads shall not be applied to black paint. Glass beads shall adhere to the cured paint, to the satisfaction of the COTR, or all marking operations shall cease until corrections are made.

E. All emptied containers shall be returned to the paint storage area for checking by the COTR. The containers shall not be removed from the airport or destroyed until authorized by the COTR.

3.6 PROTECTION AND CLEANUP

A. After application of the paint, all markings shall be protected from damage until the paint is dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings of paint. The Contractor shall remove from the site all debris, waste, loose or unadhered reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the COTR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and Federal environmental statutes and regulations.

3.7 TEMPORARY MARKINGS

A. Temporary markings shall be placed and removed as indicated on the plans. Glass beads are not required for temporary markings.

3.8 RUNWAY AND TAXIWAY MARKING REMOVAL

A. The Contractor shall be required to remove temporary markings placed through the course of the project and any existing runway and taxiway markings designated to be
removed on the plans, or as directed by the COTR. Method of marking removal shall include water blasting. Pressures for water blasting shall not exceed 15,000 psi. Multiple passes may be required to completely remove the markings. Obliteration by use of sandblasting, emulsion, or painting is prohibited.

B. Removal of markings shall be as complete as possible, without damage to the pavement surface. Aggregate shall not be exposed by the removal process. After the markings are removed, the pavement surface shall be prepared in accordance with Paragraph 3.3 of this specification.

PART 4 - CONTRACTOR QUALITY CONTROL

4.1 FIELD QUALITY CONTROL

A. Division 1 Section “Quality Requirements” specifies the general requirements for the Contractor’s Quality Control Program.

B. The following describes the minimum inspection and testing required in the Contractor’s Quality Control (CQC) Plan and Program for the work of this section and is for CQC only. The implementation of the Contractor Quality Control Program does not relieve the Contractor from the responsibility to provide the work in accordance with the Contract Documents, applicable codes, regulations, and governing authorities. The CQC Plan and Program shall include, but not be limited to, the following testing and inspection elements. These elements are provided only as a minimum starting point for the Contractor to use to generate his complete CQC Program.

PART 5 - METHOD OF MEASUREMENT

5.1 The quantity of runway and taxiway markings to be paid for shall be the number of square feet of painting placed or removed in accordance with the specifications and accepted by the COTR. Glass beads will not be measured separately and will be incidental to marking placement.

PART 6 - BASIS OF PAYMENT

6.1 Payment shall be made at the respective contract price per square foot for runway and taxiway painting including reflective media as applicable. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

- Item P-620-5.1 Waterborne Marking, Yellow w/ Glass Beads - per square foot
- Item P-620-5.2 Waterborne Marking, White w/ Glass Beads - per square foot
- Item P-620-5.3 Waterborne Marking, Black w/o Glass Beads - per square foot
Item P-620-5.4  Waterborne Marking, Red w/ Glass Beads - per square foot
Item P-620-5.5  Temporary Marking – per square foot
Item P-620-5.6  Pavement Marking Removal – per square foot

TESTING REQUIREMENTS

ASTM C 136  Sieve Analysis of Fine and Coarse Aggregates
ASTM C 146  Chemical Analysis of Glass Sand
ASTM C 371  Wire-Cloth Sieve Analysis of Nonplastic Ceramic Powders
ASTM D 92   Test Method for Flash and Fire Points by Cleveland Open Cup
ASTM D 711  No-Pick-Up Time of Traffic Paint
ASTM D 2074  Test Method for Total Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D 2240  Test Method for Rubber Products-Durometer Hardness
ASTM G 15453 Operating Light and Water-Exposure Apparatus (Fluorescent Light Apparatus UV-Condensation Type) for Exposure of Nonmetallic Materials.
Federal Test Method Standard No. 141D/GEN Paint, Varnish, Lacquer and Related Materials;
Methods of Inspection, Sampling and Testing

MATERIAL REQUIREMENTS

ASTM D 476  Specifications for Dry Pigmentary Titanium Dioxide Pigments Products
Code of Federal Regulations 40 CFR Part 60, Appendix A – Definition of Traverse Point Number and Location
FED SPEC TT-B-1325D Beads (Glass Spheres) Retroreflective
AASHTO M 247 Glass Beads Used in Traffic Paints
FED SPEC TT-P-1952E
Paint, Traffic and Airfield Marking, Waterborne

Commercial Item
Paint, Traffic, Solvent Based
Description (CID)
A-A-2886B

FED STD 595
Colors used in Government Procurement

END OF SECTION P-620
SECTION D-701 - PIPE FOR STORM DRAINS AND CULVERTS

PART 1 - DESCRIPTION

1.1 This item shall consist of the construction of pipe culverts and storm drains in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans.

PART 2 - MATERIALS

2.1 Materials shall meet the requirements shown on the plans and specified below.

2.2 PIPE

The pipe shall be of the type called for on the plans or in the proposal and shall be in accordance with the following appropriate requirements.

Reinforced Concrete Pipe ASTM C 76

2.3 RUBBER GASKETS

Rubber gaskets for rigid pipe shall conform to the requirements of ASTM C 443. Rubber gaskets for ductile iron pipe shall conform to the requirements AWWA C111.

2.4 JOINT MORTAR

Pipe joint mortar shall consist of one part portland cement and two parts sand. The portland cement shall conform to the requirements of ASTM C 150, Type I. The sand shall conform to the requirements of ASTM C 144.

2.5 JOINT FILLERS

Poured filler for joints shall conform to the requirements of ASTM D 1190.

PART 3 - CONSTRUCTION METHODS

3.1 EXCAVATION

The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe, but it shall not be less than the trench width as shown on the plans. The trench walls shall be approximately vertical.

Where rock, hardpan, or other unyielding material is encountered, the Contractor shall remove it from below the foundation grade for a depth of at least 12 inches or one-half inch for each foot of fill over the top of the pipe (whichever is greater) but for no more than three-quarters of the nominal diameter of the pipe. The width of the excavation shall be at
least 1 foot greater than the horizontal outside diameter of the pipe. The excavation below grade shall be backfilled with approved select material and compacted in layers not over 6 inches in uncompacted depth to form a uniform but yielding foundation.

Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, the unstable soil shall be removed and replaced with approved granular material for the full trench width. The COTR shall determine the depth of removal necessary. The granular material shall be compacted to provide adequate support for the pipe.

The excavation for pipes that are placed in embankment fill and in the subbase course shall not be made until the embankment and subbase course has been completed to a height above the top of the pipe as shown on the Plans.

3.2 BEDDING

The pipe bedding shall be as shown and detailed on the plans. The cost for bedding material shall be incidental to the individual pipe items.

3.3 LAYING PIPE

The pipe laying shall begin at the lowest point of the trench and proceed upgrade. The lower segment of the pipe shall be in contact with the bedding throughout its full length. Bell or groove ends of rigid pipes and outside circumferential laps of flexible pipes shall be placed facing upgrade.

3.4 JOINING PIPE

Unless otherwise stated in the plans, joints shall be made with (1) portland cement mortar, (2) portland cement grout, (3) rubber gaskets, or (4) coupling bands.

Mortar joints shall be made with an excess of mortar to form a continuous bead around the outside of the pipe and shall be finished smooth on the inside. Molds or runners shall be used for grouted joints in order to retain the poured grout. Rubber ring gaskets shall be installed to form a flexible watertight seal.

Concrete pipe may be either bell and spigot or tongue and groove. The method of joining pipe sections shall be such that the ends are fully entered and the inner surfaces are reasonably flush and even. Joints shall be thoroughly wetted before mortar or grout is applied.

3.5 BACKFILLING

Pipes shall be inspected before any backfill is placed; any pipes found to be out of alignment, unduly settled, or damaged shall be removed and relaid or replaced at the Contractor's expense.

Material for backfill shall be as shown and detailed on the plans. The cost for backfilling material shall be incidental to the individual pipe items.

When the top of the pipe is even with or below the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches on both sides of the pipe and shall be brought up one foot above the top of the pipe or to natural ground level, whichever is greater. Care shall
be exercised to thoroughly compact the backfill material under the haunches of the pipe. Material shall be brought up evenly on both sides of the pipe.

When the top of the pipe is above the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches and shall be brought up evenly on both sides of the pipe to 1 foot above the top of the pipe. The remaining embankment over top of the pipe shall be constructed as detailed on the plans.

PART 4 – CONTRACTOR QUALITY CONTROL

4.1 Field Quality Control

Division 1 Section “Quality Requirements” specifies the general requirements for the Contractor’s Quality Control Program.

The following describes the minimum inspection and testing required in the Contractor’s Quality Control (CQC) Plan and Program for the work of this section and is for CQC only. The implementation of the Contractor Quality Control Program does not relieve the Contractor from the responsibility to provide the work in accordance with the Contract Documents, applicable codes, regulations, and governing authorities. The CQC Plan and Program shall include, but not be limited to, the following testing and inspection elements. These elements are provided only as a minimum starting point for the Contractor to use to generate his complete CQC Program.

PART 5 - METHOD OF MEASUREMENT

5.1 The length of pipe shall be measured in linear feet of pipe in place, completed, and approved. It shall be measured along the centerline of the pipe from end or inside face of structure to the end of pipe or inside face of structure, whichever is applicable. The several classes, types and sizes shall be measured separately. All fittings and bedding shall be included in the lineal footage of the pipe being measured.
PART 6 - BASIS OF PAYMENT

6.1 Payment will be made at the contract unit price per linear foot for each kind of pipe of the type and size designated. These prices shall be full compensation for furnishing all materials and for all preparation, excavation, bedding, pipe fittings, joint materials, backfilling and placing of the materials; and for all labor equipment, tools and incidentals necessary to complete the item.

Payment will be made under:

- Item D-701-6.1 18” Reinforced Concrete Pipe - Class IV - per linear foot
- Item D-701-6.2 36” Reinforced Concrete Pipe - Class IV - per linear foot

MATERIAL REQUIREMENTS

- ASTM A 761 Galvanized Steel Corrugated Structural Plates and Fasteners for Pipe, Pipe-Arches, and Arches
- ASTM C 76 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- ASTM C 94 Ready Mixed Concrete
- ASTM C 144 Aggregate for Masonry Mortar
- ASTM C 150 Portland Cement
- ASTM C 443 Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
- ASTM D 1056 Flexible Cellular Materials-Sponge or Expanded Rubber
- ASTM D 1190 Concrete Joint Sealer, Hot Poured Elastic Type

END SECTION D-701
SECTION L-229 –APPROACH LIGHT SYSTEM REMOVAL AND FOUNDATIONS

PART 1 - GENERAL

1.1 DESCRIPTION

The scope of non-Federal FAA ALSF-2/SSALR foundation work at Ronald Reagan Washington National Airport (DCA) under this item includes: Removal of the existing ALSF-2 System, and fabrications of foundations for three light bar stations. The system shall pass a FAA Joint Acceptance Inspection (JAI) before acceptance by the Contracting Officer Technical Representative (COTR).

Airport lighting equipment and materials covered by FAA specifications shall have prior approval of the Federal Aviation Administration, Airports Service, Washington, D.C. 20591, and shall be listed in AC 150/5345-53, latest edition, Airport Lighting Equipment Certification Program. All items that are FAA/Engineering Test Laboratories approved at the time of bidding, which otherwise meet the project specifications are acceptable.

1.2 RELATED DOCUMENTS

All electrical work shall be installed in accordance with the current edition of FAA-SO-STD-71, Specification for Installation and Splicing of Underground Cable; the National Electric Code (NFPA-70) and State and local regulations. Additionally, all electrical work shall be installed in accordance with specification FAA-C-2722, Construction of a High Intensity Approach Lighting System with Sequenced Flashing Lights; and FAA-STD-019e, Lightning and Surge Protection, Grounding, Bonding and Shielding Requirements for Facilities and Electronic Equipment.

The requirements of all other L-series specifications apply where necessary. If one reference document specifies a more stringent standard than other references, the more stringent standard applies.

1.4 SURVEYING

Utilize a registered land surveyor licensed in the Commonwealth of Virginia to provide the construction layout and record drawing survey as detailed on the drawings. Survey the geographic reference points of each ALSF-2 light system. The geographic reference points are the centerlines of the threshold bar and the center of the mast of the first approach light in the system. Provide the longitude, latitude and elevation of each point. Provide the information on a document sealed by a registered land surveyor in the Commonwealth of Virginia.

PART 2 - PRODUCTS

2.1 BASE CANS AND COVERPLATES
Base cans shall be FAA Type L-867, Class I, Size D, with grommet openings and depth as shown on the Plans. Heavy cover plates shall be 1.25” thick galvanized steel, with a 2” threaded hub. Use Dow Corning 111 Silicone Compound, non-curing sealant to seal between sections of base cans, spacer rings, adapter rings or fixtures.

2.2 WIRE

Bare Copper Wire (Counterpoise) shall be #6 or as referenced in the Plans, bare copper wire for counterpoise installations shall be solid wire conforming to ASTM Specifications B 3 and B 8.

2.3 CONCRETE

Concrete shall conform to the requirements of specification P-610, Structural Portland Cement Concrete using 1-inch maximum size course aggregate.

2.3 REINFORCING STEEL

All reinforcing steel shall be ASTM A-615, Grade 60.

PART 3 - CONSTRUCTION METHODS

3.1 DEMOLITION AND REMOVAL OF EXISTING ALSF-2 SYSTEM

The areas denoted on the plans to be demolished and removed under this item shall be as shown on the drawings and staked on the ground by the Contractor. The demolition and removal shall be done in advance of the grading operation for each work area or phase of construction. The contractor shall be required to stake the limits of demolition and removal as shown on the plans prior to commencing operations. The materials to be salvaged to the Authority will be identified by the Authority and the FAA, or as shown on the plans.

Items designated to be demolished and removed shall be removed in their entirety leaving no foundations or other similar debris in the subgrade. All concrete foundations and housekeeping pads shall be removed to their full depth. These items are to be removed from the site and disposed of off airport property. Items indicated to be salvaged shall be delivered to the Authority. Items indicated to be relocated shall be removed and salvaged, and reinstalled as shown on the plans. The Contractor shall be responsible for demolition and removal from the airport of all items not indicated to be relocated or salvaged.

The Contractor shall prepare an inventory list of all items to be demolished and the sequence date for demolition. The inventory list shall include individual items indicated to be demolished on the contract for the particular phase of work involved and shall be submitted to the COTR two (2) weeks prior to beginning demolition operations. The COTR will review the list with airport operations personnel to determine scheduling of the removal with regard to airport operations and utilities operation.

All holes remaining after the demolition and removal operation shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened, and properly
compacted in layers to the density required in Section P-152. Cost for backfill is incidental to ALSF-2 Demolition and Removal.

3.2 ALSF-2/SSALR FOUNDATIONS

Survey instruments shall be used to position all items to insure precise location and orientation. Tolerances given in the Plans shall not be exceeded. Where no tolerance is given, no deviation is permitted. Items not installed in accordance with the Plans shall be replaced by and at the expense of the Contractor.

All concrete used for this item shall be completely consolidated and contain no voids. Any exposed concrete shall be finished smooth with a steel trowel. The finished pavement surface shall be protected from foreign substances which could cause staining, i.e., oil, etc. The Contractor shall immediately clean all spills and correct/clean any stained surfaces at the Contractor's expense.

Base can installation in paved areas shall be as shown on the Drawings. The jigs shall establish the elevation, level and azimuth of the base cans and maintain this position until the concrete anchor is placed. Care must be taken while placing the concrete anchor that neither the jig nor the light base alignment is disturbed until the concrete has set. Before paving may proceed the Contractor shall demonstrate to the COTR that the base cans are at the correct elevation, azimuth and rotation. Install spacer rings to bring the base cans and coverplates up to the correct elevation after asphalt paving is completed. The spacer rings and any remedial action required to adjust the base can will be at the Contractor's expense. Seal between sections with non-curing sealant material. Use a metal spacer ring and the plywood lid on the base to provide the necessary recess for the light fixture. All threaded connections shall be coated with Ideal “Noalox” compound or approved equal before being assembled. This is required for all bolts and frangible couplings. The surface of the pavement around the light base must conform to the surface of the surrounding pavement; dished and mounded areas are not acceptable. Where asphalt pavement is placed, the asphalt around the light shall be compacted to the same requirements as all other portions of the asphalt paving.

PART 4 - METHOD OF MEASUREMENT

4.1 METHOD OF MEASUREMENT

New threshold bar foundation in paved overrun with new base cans, conduits, concrete with reinforcement, and baseplates shall be measured for payment on a lump sum basis, measured in place, completed and upon passing the FAA Joint Acceptance Testing (JAI) and accepted by the COTR.

New 5-light foundation in paved overrun with new base cans, conduits, concrete with reinforcement and baseplates shall be measured for payment by the number of units installed, measured in place, completed and upon passing the FAA Joint Acceptance Testing (JAI), accepted by the COTR.
New 3-light foundation in paved overrun with new base cans, conduits, concrete with reinforcement and baseplates shall be measured for payment by the number of units installed, measured in place, completed and upon passing the FAA Joint Acceptance Testing (JAI), accepted by the COTR.

ALSF-2 ductbank and conduit work shall be measured for payment on a lump sum basis for new conduit and ductbank as shown on the plans for the installation of the new ALSF-2, completed and upon passing the FAA Joint Acceptance Testing (JAI), accepted by the COTR.

ALSF-2 demolition work shall be measured for payment on a lump sum basis for all items to be demolished and removed and salvaged as shown on the plans, completed and upon passing the FAA Joint Acceptance Testing (JAI), accepted by the COTR.

Survey services will not be measured for payment but included in the installation of the foundations.

No separate measurement will be made for counterpoise wire but included in the installation of the foundations.

PART 5 - BASIS OF PAYMENT

5.1 Payment will be made at the contract lump sum price for new threshold bar foundation in paved overrun with new base cans and baseplates, installed, completed and passing a FAA Joint Acceptance Testing (JAI) and accepted by the COTR. This price shall be full compensation for furnishing all labor, materials, tools, equipment, software, transportation and incidentals, and for all preparation, installation, and surveying necessary to complete this item.

5.2 Payment will be made at the contract unit price for each new 5-light foundation in paved overrun with new base cans, and baseplates, installed, completed and passing a FAA Joint Acceptance Testing (JAI) and accepted by the COTR. This price shall be full compensation for furnishing all labor, materials, tools, equipment, transportation and incidentals, and for all preparation, installation, and surveying necessary to complete this item.

5.3 Payment will be made at the contract unit price for each new 3-light foundation in paved overrun with new base cans, and baseplates, installed, completed and passing a FAA Joint Acceptance Testing (JAI) and accepted by the COTR. This price shall be full compensation for furnishing all labor, materials, tools, equipment, transportation and incidentals, and for all preparation, and surveying necessary to complete this item.

5.4 Payment shall be made at the contract lump sum price for ALSF-2 demolition and removal of designated items including items and equipment to be salvaged. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item including removal and disposal off airport property and transport of salvaged items.
5.5 Payment shall be made at the contract lump sum price for ALSF-2 ductbank work including new conduits within and adjacent to paved overrun, installed, completed and passing a FAA Joint Acceptance Testing (JAI) and accepted by the COTR. This price shall be full compensation for furnishing all labor, materials, tools, equipment, transportation and incidentals, and for all preparation, and surveying necessary to complete this item.

Payment will be made under:

- Item L-129-5.1 New Threshold Bar Foundation in Paved Overrun with New Base Cans and and Baseplates (STA 0+10) - per lump sum
- Item L-129-5.2 New 5-light Foundation in Paved Overrun with New Base Cans and Baseplates (STA 1+00, 1+92) - per each
- Item L-129-5.3 New 3-light Foundation in Paved Overrun with New Base Cans and Baseplates (STA 1+00, 1+92) - per each
- Item L-129-5.4 ALSF-2 Demolition Work - per lump sum
- Item L-129-5.5 ALSF-2 Ductbank Work - per lump sum

END OF SPECIFICATION SECTION L-229
SECTION 312514 - STORM WATER POLLUTION PREVENTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings, Contract and Special Provisions, Supplementary Conditions, latest version of Virginia Erosion and Sediment Control Handbook and other Division-01 Specifications apply to this Section.

1.2 SUMMARY

A. This Section includes preparation for and submitting for approval for a Storm Water Pollution Prevention Plan (SPPP).

1. Provisions for furnishing, installing and removal of silt fence, filter boxes, storm drain inlet protection, straw bale barriers, construction entrances, diversion berm, dust control and other erosion control measures during construction, and temporary and permanent soil stabilization measures, as noted on the contract plans and in the approved SPPP. All measures and practices shall be in accordance with the latest version of the Virginia Erosion and Sediment Control Handbook and for preventing contamination of storm water from construction activities in accordance with the Commonwealth Of Virginia Regulation 9VAC 25-180 (i.e., temporary fuel storage, fueling operations, equipment maintenance, hazardous material and waste handling, good housekeeping practices, etc.).

B. Related Sections

1. Division 01 Section “Quality Requirements” for quality issues.

1.3 DEFINITIONS

A. CWA- Clean Water Act means the law passed by the Congress of the United States in 1972 controlling the Discharge of Pollutants into the Nation's waterways.

B. BMP- Best Management Practices are defined as any one or group of management practices, activities, policies, equipment, and structures that will: prevent pollutants from entering the environment, minimize pollutants from entering the environment, and mitigate, reduce, and treat prior to the pollutant entering the environment.

C. NPDES- National Pollutant Discharge Elimination System is the national program for issuing, modifying, revoking, reissuing, terminating, monitoring and enforcing permits pursuant to sections 402, 318, and 405 of the CWA.

D. VDEQ- Virginia Department of Environmental Quality is the agency of the Commonwealth of Virginia that manages the Commonwealth of Virginia's environmental regulations.
E. VPDES- Virginia Pollutant Discharge Elimination System is the Commonwealth of Virginia program and regulations that describe the proper management of discharges of pollutants into the waters of the Commonwealth

F. DCR- The Commonwealth of Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, regulates land disturbing activities and erosion and sedimentation compliance.

1.4 Submittals

A. Storm water Pollution Prevention Plan (SPPP) - Prepare and submit for written approval by the Authority in accordance with the information provided below. Do not initiate ground-disturbing activities until the Authority has approved the SPPP. In addition, the SPPP will serve as the Soil Erosion and Sediment Control Plan required as a condition of the Authority's issuance of a Construction Permit by the Authority's Building Codes Department. Issuance of this Construction Permit is required prior to initiation of any project construction.

B. The SPPP may utilize plans, details, notes and other information provided in the construction documents, however, such information shall not, in itself, be construed to meet the requirements of this Section. Provide additional details to ensure that the SPPP accurately reflects means and methods for construction.

C. Prepare the SPPP on regular 8 ½ X 11 inch paper. Include attachments of the plans showing locations of erosion and sediment control devices and BMPs. Submit four bound copies to the COTR for review and approval.

D. Once the SPPP has been approved by the COTR, submit a Virginia Storm Water Management Program (VSMP) permit application to the Virginia Department of Conservation and Recreation (DCR) to obtain the VSMP permit. Submit payment of $500 with the permit application. The Contractor shall include the cost of the VSMP in his proposal.

E. Be responsible for submitting the Notice of Project Termination (NPT) shown in Appendix II for all construction activities within this particular construction project. Contractor shall notify the Authority and provide a copy to the COTR upon completion of this construction project.

F. The Contractor shall apply for permit coverage under the Construction General Permit (CGP) prior to starting land disturbing activities. Complete and submit to the appropriate EPA NPDES permitting Authority a Notice of Intent (NOI) Form. To discontinue permit coverage, complete and submit to the appropriate EPA NPDES permitting Authority a Notice of Termination (NOT) Form upon satisfying the appropriate permit conditions described in the CGP.

G. Submit the name, and a copy of the certificate of competence issued by the Department of Conservation and Recreation for the person in charge of and responsible for carrying out the land-disturbing activity prior to conducting any land-disturbing activities.

H. Prepare the SPPP narrative and associated drawings in accordance with the following outline:

1. Site Description: A detailed description of the construction activities, physical features of the site, and other pertinent information shall be included in this Section.
a. A description of the nature of the construction activities;
b. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g. grubbing, excavation, grading);
c. Estimate of the total area of land disturbing activities. Land disturbing areas greater than 2,500 square feet require the implementation and enforcement of a SPPP.
d. Describe the quality of any discharge water from the site;
e. A description of the existing vegetative cover at the site, include an estimate of the total buffer area that is covered by the vegetation before construction activities commence.
f. The name of the receiving water(s), their tributaries, and the ultimate receiving water(s). A description of the aerial extent of wetlands present at the site and other sensitive habitats present on site describe measures that will be used to protect wetlands.
g. Include in the plan a schedule of the planned start and completion of construction activities, major grading activities, and other activities that may require stabilization measures to be initiated at the site.

2. Potential Pollution Sources:

a. Describe potential pollution sources. Description should include, but not be limited to, the following:

1) Vehicle Fueling: A description of the location and number of all above ground storage tanks (ASTs) and any storage containers that will be used for the purpose of fueling vehicles or storing any materials used during construction activities (indicate location on the site map).

2) Storage Tanks: ASTs storing regulated substances and greater than 660 gallons shall be registered with the Department of Environmental Quality. All ASTs shall be properly equipped and follow the AST requirements. For example, requirements include that ASTs be double walled or have 110% secondary containment devices that will not collect rainwater. Tanks shall have spill containment buckets and be properly labeled, etc. Earthen berms shall not be permitted.

3) Materials Storage: A description of the storage location and a minimum quantity of all hazardous and non-hazardous materials that might pollute storm water. Pollutants such as, but not limited to, paints, solvents, hydraulic fluids, engine oil, form oil, etc. that will be used during the course of construction activities. All containers of materials of any size that are used on site and their associated secondary containment shall be covered to prevent rainwater from coming in contact with the containers. Earthen berms shall not be permitted. All drums and containers shall be removed from the site as they become empty.

4) Sanitary Waste Facility: A description of the location and the number of sanitary waste facilities (e.g. portable chemical toilets) and method of disposal for the subject waste during the course of construction activities on site.

5) Equipment Maintenance: A detailed description of how and where equipment will be maintained. This shall include fluid changes, servicing, breakdowns, etc. The plan shall provide a standard operating procedure that
shall be used for the protection of the environment while maintaining the equipment.

6) Concrete Batch Plants: Provide a maintenance plan for the concrete washout area. The plan shall include inspection and pumping procedures, as well as water, solid disposal, and recycling procedures. All batch plants shall have a valid VDEQ air permit. Obtain a General Virginia Pollutant Discharge Elimination System Permit (GVPDES) in accordance with 9 VAC 25-193-10 for the batch plant. Submit both the GVPDES and the VDEQ air permits with the Storm Water Pollution Prevention Plan (SPPP).

7) The SPPP shall include a drum and container management plan. The plan shall describe the methods and location for the containment, protection, and storage of all solvents, chemicals, petroleum products, and all toxic material as defined by the EPA brought on site. All drums and containers shall be stored within a secondary containment system and shall be covered to prevent rainwater from entering the secondary containment.

3. Best Management Practices (BMPs) And Control Measures. The purpose of this Section is to identify all appropriate BMPs and control measures that shall be implemented at the construction site. This Section of the plan shall clearly describe the construction activities in sequence and their associated BMPS, control measures, and Erosion and Sediment (E&S) controls that are applicable. This Section shall indicate the timing to achieve the above-referenced sequencing relative to the installation of BMPs, E&S, and the control measures.

a. The components of this Section of the plan shall, at a minimum, include but not be limited to the following:

1) Stabilization Practices: All stabilization practices, including interim and permanent stabilization measures as well as specific scheduling of the Implementation of the practices, shall be included in this Section. Where possible, this portion of the plan shall describe all existing vegetation that is preserved for the purpose of site stabilization. Stabilization measures include, but are not limited to the following:

   a) Vegetative buffer strips
   b) Sod stabilization
   c) Geotextile
   d) Mulching
   e) Temporary Seeding
   f) Permanent Seeding
   g) Protection of trees
   h) Preservation of mature vegetation
   i) Other measures/stabilization practices

2) Structural BMPS: This Section shall adequately describe the structural BMPs and practices that will divert and mitigate storm water runoff from soils, sediments, exposed materials, ASTs, and containers of hazardous/non-hazardous materials. Structural BMPs include, but are not limited to the following list:
a) Silt fences
b) Earth dikes
c) Drainage swales
d) Sediment traps
e) Subsurface drains
f) Secondary containment for ASTs and containers
g) Pipe slope drains
h) Coverage for ASTs and containers
i) Level spreaders
j) Storm drain inlet protection
k) Reinforced soil retaining systems
l) Rock outlet protection/wheel washers
m) Gabions
n) Construction rock entrance
o) Temporary or permanent sediment basins
p) Other BMPs and structural controls.

3) The installation of these structural BMPs may be subject to the CWA Section 404 "Permitting Requirements". Be responsible for determination whether the above-permitting requirements apply to any of the structural BMPs.

4) Provide wheel washers and construction rock entrances for all projects where constructions traffic enters or exits paved surfaces. Be responsible for ensuring that all wheel washers and construction rock entrances are designed and constructed to adequately meet the expected construction traffic demand.

5) Temporary or Permanent Sediment Basins

a) If the project site involves common drainage areas that serve 3 acres or more of disturbed area(s), a temporary or permanent sediment basin is required. Such a basin shall provide 134 cubic feet of storage per acre drained. Where 134 cubic feet of storage per acre drained or equivalent is not attainable due to site constraints, smaller sediment basins and sediment traps shall be used as approved by the COTR on a case-by-case basis.
b) To prevent the movement and erosion of soils, structural measures should be placed on all upland areas.

4. Operational Practices (Good Housekeeping Practices). This Section shall include measures and BMPs including good housekeeping practices that address the following sources of pollution:

a. The plan shall contain measures that prevent trash, innocuous solid materials, building materials, garbage, and debris from entering the Authority's storm sewer system or directly into a stream or waterway.
b. Provide a daily program of vacuum or hand sweeping or other acceptable means of cleaning sediments that are tracked or transported onto the public roads from the
construction sites shall be implemented. The roads may be washed only after the sediments have been removed.

5. Inspection And Maintenance of BMPs
   a. Provide a schedule of inspection of all structural BMPs, the necessary maintenance and corrective action to correct all discrepancies found on site. Designate qualified personnel that have adequate knowledge of E&S requirements and storm water management and pollution prevention requirements, to inspect all structural control measures and BMPs at "least every seven calendar days and within 24 hours of the end of a storm event that is .5 inches or greater."
   b. At a minimum develop a checklist for these inspections that conforms to the inspection checklist of Appendix I. Areas where final stabilization has been established need only be inspected once every month. Provide the completed inspection checklist and a report summarizing the corrective actions taken by the contractor to the COTR according to the following schedule of frequencies:
      c. Every seven calendar days: Under the normal circumstances.
      d. Every 24 hours: After a rainfall of 0.5 inches or greater, of intensity.
      e. Every 30 days: for the areas where final stabilization has been accomplished.
      f. Correct any and all discrepancies immediately upon discovery. The SPPP shall be revised as necessary to reflect any modifications to strengthen the BMPs and other structural controls in order to address the discrepancies. The above inspections and findings shall be subject to Authority field verification. Be responsible for responding to all regulatory inquiries from the Virginia Department of Environmental Quality-Water Division (VDEQ-Water), Virginia Department of Conservation and Recreation (DCR), and the Environmental Protection Agency (EPA) Region III. Be responsible for addressing the outcome of all compliance monitoring inspections conducted by the above regulatory agencies. Take all corrective actions as required by VDEQ-Water, DCR or EPA Region III.

6. Non-Storm water Discharge. This SPPP is for the sole purpose of preventing pollution associated with storm water runoff (Act of God: rain, snow, etc.). Plan shall identify all non-storm water components, process waste water discharges, and any other non-storm water influent that may exist in this particular construction site. Plan shall ensure that all of the above non-storm water discharges are appropriately eliminated, permitted or addressed through other acceptable regulatory permitting mechanisms.

7. Detailed Composite SPPP Map. Prepare the following:
   a. Drainage pattern and approximate slopes anticipated after completing major grading activities on site
   b. Soil disturbance areas
   c. Location of all Best Management Practices (BMPs), structural controls, non-structural controls, good housekeeping practices (GHP) and other erosion and sediment (E&S) control measures to be used during the course of construction activities
   d. Locations where stabilization is expected to be used, including the types of vegetative cover which will be employed on site
   e. Location of all receiving waters, including their tributaries and the ultimate receiving waters (including wetlands/sensitive habitats)
f. Location of all points of discharge to existing storm sewers and outfalls

g. Existing and planned paved areas, impervious surfaces, and buildings

h. Location of all post-construction BMPs and Storm water management practices that will address the long-term water quality improvement needs for the site, if applicable.

i. Location of any fuel storage, materials storage and sanitary waste and other potential pollution sources and their associated BMPs. shall be reflected on the site map.

j. Two site maps shall be developed, one indicating pre-construction and during construction site conditions and the second indicating final site conditions. Maps shall be to the same scale.

1.5 Quality Assurance

A. Prepare and submit the SPPP with input from each subcontractor.

PART 2 - PRODUCTS

2.1 General

A. Provide erosion and sediment control devices and products as indicated, in accordance with the SPPP and in accordance with the latest updated version of the Virginia Erosion and Sediment Control Handbook.

PART 3 - EXECUTION

3.1 Implementation

A. Implement and maintain the approved SPPP throughout the life of the contract in accordance with provisions of the Virginia Erosion and Sediment Control Handbook and applicable contract documents.

B. Exercise every reasonable precaution, including temporary and permanent measures, throughout the duration of the project to control erosion and prevent or minimize pollution of rivers, streams, lakes and other receiving waters. Apply siltation and stabilization control measures to material, subject to erosion, exposed by any activity associated with construction including but not limited to local material sources, stockpiles, disposal areas, and haul roads.

C. Initiate stabilization measures as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased but no later than 14 days after the construction activities have temporarily or permanently ceased. Except as provided in the following paragraphs:

1. If snow cover and or severe weather conditions preclude initiation of the stabilization measures by the 14th day after construction activities have ceased, either temporarily or permanently, the stabilization practices shall be initiated as soon as practicable.
D. Be solely responsible for complying with the soil erosion, sedimentation control and good housekeeping requirements of this Contract, and for otherwise preventing contamination of storm water from construction activities. Be solely responsible for any and all fines, penalties or damage that result from the Contractor’s failure to comply.

3.2 Erosion and Siltation Control:

A. Control erosion and siltation through the use of the devices and measures specified herein, in the approved SPPP or as is otherwise necessary. The Authority reserves the right to require other temporary measures not specifically described herein to correct an erosion or siltation condition.

B. Maintenance: Maintain erosion and siltation control devices and measures in a functional condition at all times. Inspect temporary and permanent erosion and sedimentation control measures after each rainfall and at least daily during periods of prolonged rainfall. Correct deficiencies immediately. Make a daily review of the location of erosion and sediment control devices to ensure that they are properly located for effectiveness. Where deficiencies exist, make corrections immediately as approved or directed by the COTR.

PART 4 - CONTRACTOR’S QUALITY CONTROL

4.1 Field Quality Control

A. Conform to all applicable provisions of Division 01 Section “Quality Requirements”. Be responsible for periodic inspections for conformance with the approved SPPP. The results of the periodic inspections shall be submitted to the COTR upon completion.

PART 5 - METHOD OF MEASUREMENT

A. Storm Water Pollution Prevention and VSMP Permit Application will be paid on a lump sum basis, therefore no separate measurement will be made for this work.

PART 6 - BASIS OF PAYMENT

A. Payment for Storm Water Pollution Prevention and VSMP Permit Application shall be full compensation for preparation, submission, and maintenance of a storm water pollution prevention plan, furnishing, installing, and removal of silt fence, construction entrances, inlet protection, dewatering devices, and permitting, labor, tools, equipment, and incidentals necessary to complete the work, including required maintenance as specified, indicated, or directed by the COTR.

B. All maintenance activities related to erosion control devices, including stabilization/restabilization or repairs are the responsibility of the contractor. The Authority will not consider any additional payment for any maintenance activities or repairs for any erosion control measure during the life of the contract.
C. Payment of any fines resulting from damages to protected streams and wetlands whether onsite or offsite is the responsibility of the contractor. Any necessary repairs to streams or wetlands are also the responsibility of the contractor. The cost of restoring temporary wetland and stream impacts will be incidental to the SPPP.

Payment will be made under:

- Item 312514-6.1 Stormwater Pollution Prevention - per lump sum
- Item 312514-6.2 VSMP Permit Application - per lump sum
APPENDIX I
<table>
<thead>
<tr>
<th>BMP</th>
<th>Proper Installation</th>
<th>Proper Operation</th>
<th>Housekeeping Practices</th>
<th>Potential Hazard</th>
<th>Discharge: Storm water Non-storm water</th>
<th>Effectiveness of BMP</th>
<th>Observations</th>
<th>Comments</th>
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## SPPP Inspection Checklist

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<th>BMP</th>
<th>Proper Installation Yes, No, or NA</th>
<th>Proper Operation Yes or No</th>
<th>Housekeeping Practices Good-Poor</th>
<th>Potential Hazard Yes or No</th>
<th>Discharge: Storm water Non-storm water</th>
<th>Effectiveness of BMP</th>
<th>Observations</th>
<th>Comments</th>
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<td>14. Temporary or Permanent Sediment Basins</td>
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Please list any discrepancies or items that are not in compliance in the space provided below.

__________________________________________________________________________
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Please list the corrective actions necessary to abate the above-listed discrepancies.

__________________________________________________________________________
__________________________________________________________________________
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**Note:** All corrective actions must take place within 7 days of the discovery of the above discrepancies and non-compliance item(s).

Inspector: ___________________________  Date: ________________  
Signature: ___________________________
APPENDIX II
Metropolitan Washington Airports Authority  
Notice of Project Termination  
For  
Storm water Discharges from Construction Activities  

Note: The EPA and VDCR Notice of Project Terminations shall be completed by the Contractor upon final stabilization of the site, upon elimination of all storm water, or when the construction contractor has changed within the same construction project. The contractor shall submit completed copies of these forms to VDCR and the EPA and provide copies of these forms to the Authority, at the address provided below and a copy to PMC's Resident Engineer within 30 days after final stabilization has been achieved or when it is no longer the construction contractor for this project. (An officer of the company shall sign these forms)

Completed form shall be submitted to:  
Manager, Building Codes/Environmental Branch  
Engineering Division  
Ronald Reagan Washington National Airport  
Washington, D.C. 20001  
Copy to: Parsons Management Consultants

For DCA Projects  
Hangar 6 Construction Management Program  
Ronald Reagan Washington National Airport  
Washington, D.C. 20001  
Attn: Project's Resident Engineer

For IAD Projects  
Parsons Management Consultants  
23835 Wind Sock Drive  
Chantilly, VA 20166  
Attn: Project’s Resident Engineer
### VSMP General Permit Notice Of Termination - Construction Activity Stormwater Discharges (DCR01)

(Please Type or Print All Information)

1. **Construction Activity Operator**
   
   Name: ________________________________
   
   Mailing Address: ____________________________
   
   City: ______________ State: _______ Zip: ______ Phone: ______________

2. **Location of Construction Activity**
   
   Name: ________________________________
   
   Address: ________________________________
   
   City: ______________ State: _______ Zip: ______
   
   If street address unavailable: Latitude ______________ Longitude ______________

3. **VSMP Stormwater General Permit Number:** ______________

4. **The Reason for Terminating Coverage Under the General Permit** (Note: The construction activity operator may only submit a Notice of Termination after one or more of the conditions below have been met):
   
   - [ ] Final stabilization has been achieved on all portions of the site for which the operator is responsible;
   - [ ] Another operator has assumed control over all areas of the site that have not been finally stabilized;
   - [ ] Coverage under an alternative VPDES or VSMP permit has been obtained; or
   - [ ] For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

**NOTE:** The Notice of Termination must be submitted within 30 days of one of the above conditions being met. Authorization to discharge terminates seven (7) days after the Notice of Termination is submitted. For the purposes of this permit, a Notice of Termination that is mailed is considered to be submitted once it is postmarked.

5. **Certification:**
   
   I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

   Print Name: ________________________________
   
   Title: ________________________________
   
   Signature: ________________________________ Date: ______________

   (Please sign in INK. The person signing this form must be associated with the operator identified in Item #1 above.)

For Department of Conservation and Recreation Use Only

Accepted/Not Accepted by: ________________________________ Date: ______________
APPENDIX III

STORM WATER POLLUTION PREVENTION

312514 - 17
Note: This checklist shall be completed by all tenants of Ronald Reagan Washington National Airport (DCA) in the event of a hazardous material spill (under CERCLA, CWA, CAA, TSCA and/or a release of hazardous waste under RCRA). It is the responsibility of the tenants to notify all pertinent regulatory agencies within the time frame prescribed under the respective statutes and regulations.

1. Tenant Name:
2. Facility location within DCA where spill occurred:
3. Facility Environmental Manager, Foreman, or person in charge:
4. Time and date of release:
5. Amount of release material:
6. Description of how the release occurred and whether material reached a floor drain (if the situation occurred, describe amount of material that entered drain):
7. Type of material released (include common and chemical name; attach MSDS and/or Waste Manifest):
   a. In the event of a release, verbal notification to DCA Fire Department and DCA
   b. Environmental Coordinator must be made immediately as follows:
      Fire Department:
      (703) 417-8250
      DCA Operations:
      (703) 417-8050
      Government Programs Engineer
      (703) 417-8071
      (703) 417-8099 (fax)
      Manager, Resource Support Division
      (703) 417-8072
      (703) 417-8099 (fax)
8. Provide details of immediate actions taken to stop spill/release and subsequent clean-up:
9. The checklist and written copies of all notifications to the regulatory agencies shall be submitted to the following person within six (6) hours of the incident (on weekends, note time of submittal):
   Government Programs Engineer
   Engineering and Maintenance Division
   East Building
   Washington, DC 20001
   Fax: (703) 417-8099

   Submitted
   Not submitted
10. A report describing how the incident occurred, if it entered storm or sanitary drain, emergency response me covered from the clean-up actions, and follow up activities shall be submitted to the person in question assures taken, post-emergency clean up actions, the storage and disposition of any materials re 9 within 48 hours of the emergency.

Submitted
Not submitted

Any questions regarding the use, completion, and scope of this checklist should be directed to the Authority’s Building Codes/Environmental Department.

FOR DCA USE ONLY

Please explain below the follow-up actions required with respect to this incident.

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END OF SECTION 312514