
INVITATION FOR BIDS

SOLICITATION NO.: RM-13-IFB-114-BY0-TH

Project: **SAINT ELIZABETHS PARKING LOT EXPANSION**
Bid Documents: Saint Elizabeths PARKING LOT EXPANSION
Location: 1100 Alabama Ave. SE, Washington, DC 20032
Owner: District of Columbia (District) Department of Mental Health

This Invitation for Bids is **designated for the Open Market and is not set aside for Certified Business Enterprises** under the provisions of the Small, Local, and Disadvantaged Business Enterprise Development and Assistance Act of 2005, as amended, D.C. Official Code § 2-218.01 *et seq.*

Any Prime Contractor Bidder responding to this solicitation must submit with his bid, his proposed Subcontracting Plan (on Subcontracting Plan Form, DCOC-1105) and the notarized statement detailing its subcontracting plan described on the Subcontracting Plan Form. Proposals responding to this IFB shall be deemed nonresponsive and shall be rejected if the Bidder fails to submit the subcontracting plan that is required by this solicitation. For construction contracts in excess of \$250,000, at least 35% of the dollar volume of the contract shall be subcontracted with District-certified business enterprises.

The duration is 162 calendar days.

The Project consists of Parking Lot Expansion and Bioretention Pond.

- a. Work includes the following:
- b. Construction of new parking lot and access road.
- c. Construction of bioretention pond and connect to existing storm sewer.
- d. Relocation and reuse of existing fence.
- e. Parking lot electrical lot work.
- f. Add alternates as elected by Owner.

All Bids submitted must be in accordance with requirements of the Bidding Documents. The Work included in these bid documents shall be awarded as a single Fixed Price construction contract.

Questions: Bidders are advised that questions must be submitted in writing. Questions must be received by **June 11, 2013, Noon, to tornia.harrison-samuels@dc.gov** in order to be considered. Bidder shall complete the Work within the completion time stated in Section 01100.

Bids are due at the Department of Mental Health (DMH), Office of Contracts and Procurement, 64 New York Avenue, NE, West Side 2nd Floor, Washington DC 20002 on **June 21, 2013 at Noon**. Bids shall be received by DMH Contract Specialist, Tornia Harrison, 202-671-3180. Bids received after this time shall not be accepted. Bidders should be aware that there is a fee to park at this address and that no pay phones are available. Bids shall be publicly opened and read aloud at DMH on the 2nd Floor Conference Room A immediately after the bid closing. Bidders shall be notified of the results after review by the Contracting Officer.

A **Mandatory Site Visit** shall be held for all bidders on **June 5, 2013 at 11:00 AM** at 1100 Alabama Avenue, SE Washington, DC 20032, Hospital Lobby.

Performance, Labor and Material Bonds must be provided prior to signing Contract.

Outline of Certified Business Enterprise (CBE, formerly LSDBE) Required for Bidder Submission for CBE Preferences:

Bidder Submission for Evaluation Preferences: Any bidder seeking to receive bid evaluation preferences on this solicitation must submit at the time of, and as part of, it's Bid, the documentation proving current certification points.

Any vendor seeking certification or provisional certification in order to receive preferences under this solicitation should contact the:

Department of Small and Local Business Development
ATTN: LSDBE Certification Program
441 Fourth Street, N.W., Suite 970N
Washington, DC 20001

Vendors are encouraged to contact the DSLBD at (202) 727-3900 if additional information is required on certification procedures and requirements.

Subcontracting Plan: Any prime contractor responding to this solicitation shall submit, with his bid, his proposed Subcontracting Plan (on Subcontracting Plan Form, DCOCP-1105) including a notarized statement detailing its subcontracting plan.

Enforcement and Penalties for Material and/or Willful Breach of Subcontracting Plan: Bidders should be aware that, for material and/or willful breach by a contractor of his CBE subcontracting plan or failures to submit required reports or deliberate submission of false reports, the Contracting Officer might terminate the contract for default or the DSLBD may impose monetary fines and/or penalties.

The District reserves the right to waive irregularities and to reject any or all Bids. The issuing of these Bidding Documents does not obligate the District to award a contract. The District shall not pay any costs incurred in the preparation and submission of bids.

No bidder may withdraw his Bid within 90 calendar days after the date of opening.

END OF INVITATION FOR BIDS

BID FORM

PROJECT: **SAINT ELIZABETHS — PARKING LOT EXPANSION**
Saint Elizabeth New Hospital Project
1100 Alabama Ave. SE
Washington, DC. 20032

SOLICITATION NO.: RM-13-IFB-114-BY0-TH

OPENING DATE: May 29, 2013
CLOSING DATE: June 21, 2013 NOON (Public Bid Opening – Address Below)
MANDATORY SITE VISIT: June 5, 2013 11:00 AM EST (Address Above)

TO: **District of Columbia**
Department of Mental Health 64
New York Avenue, NE (West
Side) Second Floor, Washington,
DC 20002
Attention: Tornia Harrison
Contracts and Procurement Specialist

In submitting this Bid, the undersigned agrees:

- That the District has the right to reject this Bid.
- To hold this Bid open for a period of 90 calendar days from date of Bid Opening.
- To accept the provisions of Document Project Manual Alpha Project #C034-690
- To enter into and execute a Fixed Price Contract, if awarded on the basis of this Bid and to furnish Performance , Labor and Material Bonds in accordance with the Bidding Documents.
- To accomplish the Work in accordance with the Contract Documents.
- To complete the Work in accordance with the milestone dates listed in Specification Section 01100.
- To accept the provisions of the Project Safety Plan.
- To accept the provisions of the Project Quality Plan.

The undersigned has received the following documents: Project Manual titled SAINT ELIZABETHS PARKING LOT EXPANSION, LIST OF DRAWINGS and REPORT OF GEPTechnical Exploration. In addition, the undersigned has received Addenda Nos. _____ and has included their provisions in this Bid. The undersigned has examined the Contract Documents, the Information Available to Bidders and the project site and hereby submits the following Bid:

SCHEDULE OF ALLOWANCES

Item (Furnish & Install)	Amount
No.1 — General Allowances	\$ 25,000
Total of Allowances	\$ 25,000

TOTAL BASE BID WITH ALLOWANCES - The undersigned will construct the Work specified under the

Bid Category noted above for a **Fixed Price** of: _____ Dollar

(\$ _____)

UNIT PRICES (from 01270)

BID FORM

1. Structural Fill (A)	\$	/cu. yd.
2. Unsuitable Soil Disposal Offsite (B.1 Non-Petroleum)	\$	/cu. yd.
3. Unsuitable Soil Disposal Offsite (13.2 Hazardous)	\$	/cu. yd.
4. Additional Topsoil (C)	\$	/sq. yd.
5. Asphalt Pavement Patch (D 4 inches)	\$	/ sq. yd.
6. Asphalt Pavement Surface Treatment (E - 3 inches)	\$	/ sq. yd.
7. Aggregate Sub Base (F — 4 inches)	\$	/ sq. yd.

BIDDER INFORMATION

Bid of _____

A _____ corporation/partnership/individual (strike out inapplicable terms)

_____ (State)

Doing business as _____

Date: _____

By: _____ (Signature)

_____ (Title)

(Contractors Registration Number)

(Seal - If a corporation)

Address:

END OF BID FORM

PROJECT MANUAL

District of Columbia
Department of Mental Health

SAINT ELIZABETHS PARKING LOT EXPANSION

WASHINGTON, DC

Opening Date: May 29, 2013

Closing Date: June 21, 2013

DMH Project# RM-13-IFB-114-BY0-TH

ALPHA Project # C043-690

Prepared By:

ALPHA CORPORATION

21351 Ridgetop Circle, Suite 200

Dulles, VA 20166

Phone 703 450-0800

EINHORN YAFFEE PRESCOTT

1000 Potomac Street NW /

Washington / DC 20007

Phone 202 471-5000

PARKING LOT EXPANSION

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PARKING LOT EXPANSION

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SECTION 01100 – SUMMARY

PART 1 – GENERAL

1.1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions along with other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. Type of the Contract.
 - 3. Use of premises.
 - 4. Owner's occupancy requirements.
 - 5. Work restrictions.
 - 6. Specification formats and conventions.
- B. Related Sections include the following:
 - 1. Division 1 Section "Special Requirements."
 - 2. Division 1 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Saint Elizabeths Hospital- Parking Lot Expansion
 - 1. Project Location: Saint Elizabeths Hospital, 1100 Alabama Ave SE, Washington DC 20032.
- B. Owner: Government of the District of Columbia, District of Columbia Department of Mental Health, 1100 Alabama Ave, SE, Washington DC 20032.
 - 1. Owner's Representative: Merrit Drucker.
- C. Architect: Einhorn Yaffee Prescott, 1000 Potomac Street NW, Washington DC, 20007.
- D. Construction Manager: Alpha Corporation, 21351 Ridgetop Circle, Suite 200 Dulles, VA, 20166.
- E. Contractor: The term "Contractor" is used in the Specifications, Drawings and other contract documentation to refer to "Contractor" and each requirement is the responsibility of the Contractor unless specifically noted as assigned to the Owner's other contractors.
- F. Briefly without force and effect upon the Contract Documents, the work of the contract can be summarized as follows: The Project consists of the construction of a new parking lot and bioretention pond.

1. Work includes the following:
 - a. Construction of new Parking Area and access road.
 - b. Construction of Bioretention Pond and connect to existing storm sewer
 - c. Relocation and reuse of existing fence
 - d. Parking Lot electrical lighting work.
 - e. Add alternates as elected by the Owner.
2. Provide all labor, materials, equipment, and supervision to complete the site work, abatement & demolition, architectural, mechanical, plumbing, electrical, and other building and system modifications associated with completing the scope of this project.
3. The Project site shall be fully occupied during the course of the work and the Contractor shall prepare a comprehensive phasing plan to minimize disruptions to the ongoing operations of the Hospital. Existing systems serving the Hospital shall not be taken out of service until new systems are fully operational. Outages for change-overs shall be minimized and approved in writing by the Owner. Provide temporary services as required to maintain the operation of the Hospital.

1.4 SUBMITTALS

A. Requests for Interpretation (RFI):

1. Submit a request for interpretation to Architect or Engineer, through the Construction Manager via e-mail.
2. RFI's shall reference the specific sheet and drawing number, along with the Specification Section and paragraph number, applicable to the question.
3. Allow five (5) business days for review of each RFI by the Architect. Review period begins on Date of Receipt of submittal by Architect and extends to mailing Date of Return to Construction Manager. Add two (2) business days for the Construction Manager to process the RFI before returning the Architect's response via Newforma, mail, or facsimile. When submittal is received by Architect before 2:00 PM, review period begins that day; when submittal is received by Architect after 2:00 PM, review period begins on the next Business Day.

1.5 TYPE OF CONTRACT

- A. This Project shall be constructed under a Single Lump Sum FIXED PRICE General Contract held by the Government of the District of Columbia, Department of Mental Health.

1.6 CONTRACT MILESTONES DATES

- A. The following are Contract Milestones to be established based on the number of Calendar Days after the Notice to Proceed (NTP):
 - 1. Substantial Completion: 120 calendar days from NTP
 - 2. Final Completion: 42 days from Substantial Completion
- B. Liquidated Damages in the amount of \$500.00 per Calendar Day take effect based on the provisions to achieve the Substantial Completion of the Contract milestone, respectively.
- C. Final Completion and Final Payment are based upon the Final Completion Milestone.

1.7 USE OF PREMISES

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated. For work associated with their scope, Contractor is responsible for all resources required to:
 - i. Maintain access to the New Hospital throughout the Project.
 - ii. Maintain Emergency access around the perimeter of all building throughout the project.
 - iii. Confine all Construction Operations to the area limits indicated in the solicitation.
 - iv. Contractor shall be cognizant that Hospital Patients frequent the campus grounds and that they shall make special provisions (e.g., securing work areas and laydown areas, not leaving tools or materials around that could get in the wrong hands, parking construction equipment in secure areas, alleviating personal exchanges, etc.) in order to avoid a potential accident or problem.
 - v. Keep existing driveways, loading areas, along with entrances clear and available to Owner, Owner's Employees and Emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. No use of Existing buildings is allowed.

1.8 OWNER'S OCCUPANCY REQUIREMENTS

- A. Minimal Owner Occupancy: Cooperate with Owner during Construction Operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.

1. Maintain access to existing walkways and other adjacent occupied or used facilities. Do not close or obstruct walkways or other occupied or used facilities without written permission from Construction Manager and authorities having jurisdiction.
2. Provide not less than 8 calendar days notice to Construction Manager of activities that shall affect Owner's operations.

1.9 WORK RESTRICTIONS

- A. On-Site Work Hours: See Section 01115 SPECIAL REQUIREMENTS, for work hours and limitations on noisy work.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Construction Manager not less than 8 calendar days in advance of proposed utility interruptions or outages.
 2. Do not proceed with utility interruptions or outages without Construction Manager's written permission.

1.10 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and *CSI/CSC's "MasterFormat"* numbering system.
 1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 1: Sections in Division 1 the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words and phrases when used in particular situations. These conventions are as follows:
 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated when used in this solicitation. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 2. Imperative mood and streamlined language are generally used in the specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

- a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 COORDINATION WITH OTHER CONTRACTORS

- A. The Contractor shall meet with the CM and coordinate with other contractors, as required, to coordinate work.

END OF SECTION 01100

SECTION 01115 - SPECIAL REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 PROJECT SPECIFIC REQUIREMENTS

A. SUPERVISION AND CONSTRUCTION PROCEDURES

1. The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures. Further, the Contractor is responsible to coordinate all portions of the Work for which he is responsible with all other Contractors. Such coordination shall be completed by each of the Contractors. The Construction Manager will be responsible for the overall coordination of the Work and will resolve coordination conflicts between the various Contractors as necessary. The Contractors shall abide by the coordination decisions by the Construction Manager and shall make all efforts to resolve coordination conflicts to avoid *added* cost to one another and/or the Owner.
2. The Construction Manager may reject means, methods, techniques, sequences or procedures proposed by the Contractor, which might constitute or create a hazard to the Work, or to persons or property, cost monies or other delays to other Contractors or which will not provide Work in accordance with the Contract Documents.
3. The Contractor shall be responsible to the Owner and the Construction Manager for the acts and omissions of his employees and all his Subcontractors and their agents and employees along with other persons performing Work for which he is responsible.
4. Observations, inspections, tests, or approvals, by persons other than the Contractor, shall not relieve the Contractor from his obligations to perform the Work in accordance with the Contract Documents.

B. USE OF SITE

1. The Contractor shall confine operations at the site to areas designated by the Construction Manager, permitted by law, ordinances, permits and by the Contract Documents, and shall not unreasonably encumber the site with materials or equipment. Use of the site for all aspects of the Work shall be at the discretion of the Construction Manager and the Contractor is responsible for abiding by the direction of the Construction Manager regarding site usage. Failure to attain Construction Manager approval of site use may result in a requirement that the Contractor move or remove from the site materials, equipment, and/or vehicles at no additional cost or impact to the Owner.

2. The Contractor shall not use the existing Owner's facilities, such as, toilets, cafeteria, parking areas, power hookup, etc., except with the Construction Manager's written approval.
3. The Contractor shall not, at any time, block or restrict access to the site.
4. The Contractor shall prepare a Site Utilization Plan and submit it to the Construction Manager for approval before mobilizing and delivery of materials and equipment on site.
5. The roads, sidings and other transportation facilities at the site, where work under the Contract is being performed, are for the general use and convenience of the Owner. If Contractors are permitted to use them, they shall conform to the regulations of the local authorities. If the work of a Contractor requires that such facilities be temporarily discontinued, after obtaining Construction Manager's approval, the work shall be done expeditiously and the Contractor shall provide and maintain proper warnings and detour signs at all pedestrian and vehicular closures, intersections, and along detours, directing traffic around closed portions of roadways. The Contractor shall, at his own expense, wherever necessary or required, provide and maintain fences, temporary roadways, temporary cross signs, watchmen, warning lights and take such other precautions as may be necessary to protect life and property.
6. All site excavations shall be properly backfilled or plated when work is not being performed per the approval of the Construction Manager.
7. All barricades and obstructions shall be illuminated at night, and all lights shall be kept on from one-half hour before sunset, until one-half hour after sunrise.
8. On-site storage space for Contractor's field office trailer, sheds, materials, tools, equipment, along with supplies is extremely limited and shall be coordinated with and approved by the Construction Manager in advance. Contractor's materials, equipment, tools and supplies shall be moved at no cost if their location obstructs or impedes the work of others.
9. The Contractor shall develop a plan, including schedule and routing, for materials/equipment deliveries. The Construction Manager shall review and approve the plan. The Contractor shall adhere to the approved plan and should he vary from it shall be responsible for costs associated with delay or impact to the Owner or other Contractors.
10. The Contractor is advised that due to site constraints, storage of construction materials and equipment staging areas shall be limited to only those approved by the Construction Manager.
11. It shall be the Contractor's responsibility to remove and dispose of, in an approved fashion, all surplus materials needed by the Owner or required to complete the work in this contract. All fees associated with the handling, hauling or the disposal of such materials shall be considered incidental to the contract.

C. OCCUPIED AREAS

1. During the Construction period contemplated for the work described herein, the Owner shall occupy the New Hospital adjacent to the project site. It is essential that full services and functions are maintained throughout the construction period.
2. Cooperate with Owner during Construction Operations to minimize conflicts and facilitate Owner usage.
 - a. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.

- b. Maintain access to existing walkways and other adjacent occupied or used facilities. Do not close or obstruct walkways or other occupied or used facilities without written permission from Construction Manager and authorities having jurisdiction.
 - c. Provide not less than 72 hours' notice to Construction Manager of activities that shall affect Owner's operations.
 3. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - a. Notify Construction Manager not less than 72 hours in advance of proposed utility interruptions.
 - b. Do not proceed with utility interruptions without Construction Manager's written permission.
 4. No harassment of the Owner's staff, residents, or public, including catcalls, whistles, lewd gestures, etc. shall be tolerated at any time. Offending individuals shall be immediately ejected from the site and shall not be permitted to return to work on this Project.

D. CONSTRUCTION TRAFFIC

1. During all partial street or total street closures, the Contractor shall furnish flagmen for the safety of pedestrian and vehicular traffic. The Contractor shall do so at no additional cost to the Owner.
2. Contractors working in public streets or pedestrian walkways shall be responsible for providing and maintaining all barricades and signage as required by the District of Columbia.
3. All construction traffic, including employee traffic, trucking, and delivery of materials and equipment shall be controlled by the Construction Manager and shall enter the site only by routes prescribed by the Construction Manager. Access to the site by other routes will be prohibited. The primary entrance to and exit from the site shall be from Alabama Avenue. Large loads may be required to access through one of the Martin Luther King Avenue entrances. Vehicles shall not stage along any of the thoroughfares or inside the Hospital Campus unless proper barricades and signage are installed and permission is granted by the Construction Manager and proper authorities.
4. The Contractor shall take all precautions to prevent tracking of mud and debris onto surrounding streets. The Construction Manager shall backcharge the responsible contractor for excessive street cleaning charges should the contractor fail to clean up after his own mud and debris. Should it be that the Contractor responsible for the mud and/or debris cannot be established, the costs associated with cleaning and/or removing debris shall be spread to all Contractors working on the site based on the contract percentage of the total cost of the Work underway at the time.

E. CONTRACTOR PARKING

1. Parking at Saint Elizabeth's Hospital must be maintained at a sufficient level to support adequate parking for all three shifts. Extensive development pending in the area shall result in the demolition of a large building formerly used by SEH staff for parking. The pending loss of the 127 parking slots when this building and the parking lot are demolished shall result in a severe shortage of parking. The new parking lot will off- set these losses. The contractor shall coordinate with the Owner to designate Contractor parking areas that shall not impend current staff parking spaces.
2. Special arrangements can be made with the Construction Manager for temporary off loading of material or equipment from a vehicle to specific areas of the project site.

F. WORKING HOURS

1. The normal working hours shall be 7:00 AM to 3:30 PM Monday through Friday except Federal holidays.
2. It is anticipated that the majority of the work can be accomplished during normal working hours. If the Contractor feels it is necessary to work extra hours (including a second shift, or weekends) for the purposes of catching up or improving their schedule, improving crew efficiency, or concentrating a large number of small noisy activities in a short period of time, he may do so, subject to the Construction Manager's approval. The utilization of this provision does not infer compensation for premium time. However, this may be a means to prevent incurring acceleration charges from other Contractors or liquidated damage charges.

G. SPECIAL PROJECT SAFETY REQUIREMENTS

1. Site Safety - The Contractor shall be familiar with and comply with the Project Safety Requirements. When performing cutting, removal, creating opening or holes, etc., the Contractor, by use of barricades, flagmen, or other means, shall provide protective measures to assure that other workmen and the public are not exposed to potential injury by the operation being conducted.
 - a. At no time remove, alter or render ineffective barricades, railings or cover on the project without written permission of the Construction Manager. where these safety devices are to be turned over to others, upon completion of the work, the devices shall be repaired or replaced so that they meet the required standards prior to turnover.
 - b. The Contractor shall provide and maintain proper warnings and detour signs at all pedestrian and vehicular closures, intersections, and along detours, directing traffic around closed portions of roadways. He shall, at his own expense, wherever necessary or required, provide and maintain fences, temporary roadways, temporary cross signs, watchmen, warning lights and take such other precautions as may be necessary to protect life and property, and shall be responsible for all damages occasioned in whole or in part by his act or negligence.
 - c. All barricades and obstructions shall be illuminated at night, and all lights

shall be kept on from one-half hour before sunset, until one-half hour after sunrise.

2. Safety Training

d. The Contractor shall implement their own Safety Orientation and program in accordance with the Contract requirements, OSHA, and other regulatory requirements.

3. No Smoking - smoking shall not be permitted on the Hospital grounds at any time.

H. SECURITY

1. The project is located on a controlled access site. All Contractor personnel shall show a photo identification card and sign-in at the Owner's security gate.

2. The Contractor shall issue photo identification cards to each of his employees working on site. The employee shall wear the photo ID in a visible manner so that the Owner's staff may readily determine that the individual is a member of the contractor's construction personnel. Photo IDs shall be required for the Contractor and the Contractor's staff. These shall be provided by the SEH Systems Specialist Mr. Keith Dyson, or by the Facility Operations Manager, Mr. Robert Holston.

I. NOISE GENERATING ACTIVITIES

1. Noise generated by Construction activity shall not exceed 90 db during the hours from 7:00 AM to 10:00 PM. Between 10:00 PM and 7:00 AM, noise levels shall not exceed 60db.

2. Radios, televisions and tape players shall not be permitted on the jobsite.

J. SITE SURVEY AND LAYOUT

1. The Owner shall provide site survey, selected baselines and bench marks.

2. The Contractor shall perform and be responsible for the correct laying out of the Work as per the Drawings and written instruction of the Construction Manager including all necessary leveling and checking. The Contractors shall check the established grades and bench marks and shall layout all partition lines and other significant reference lines or points which shall enable them to accurately place their boxes, openings, sleeves, conduits, pipe duct, controls, hangers, inserts and other devices. Contractors shall be responsible for laying out their Work from these reference points.

3. The Contractor shall not disturb existing monuments and markers at the site. Should monuments, markers, or both be disturbed by the Contractor, he shall bear the cost of a licensed surveyor engaged by the Construction Manager for the purpose of relocating such monuments or markers.

4. The Contractor shall layout his work and shall be responsible for the accuracy of all lines, elevations and measurements, grading, utilities and other work executed by him under his Contract. He shall exercise proper precaution to verify figures shown on the Drawings before laying out work and shall be responsible for errors resulting from his failure to exercise such precaution.

K. UNCOVERING OF WORK

1. If a portion of the Work should be covered contrary to the request of the Construction Manager or Architect, or to requirements specifically expressed in the Contract Documents, it shall, if required in writing by the Construction Manager, be uncovered for their observation and replaced, at the Contractor's expense.
2. If another portion of the Work has been covered which neither the Construction Manager nor the Architect has specifically requested to observe prior to being covered, the Architect or Construction Manager may request to see such Work; and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work is found to not be in accordance with the Contract Documents, the Contractor shall pay such costs, unless it is found that this condition was caused by a separate contractor employed by the Owner, and in that event the separate contractor shall be responsible for the payment of such costs.

L. ADDITIONAL FORMS AND REQUIREMENTS

The Government of the District of Columbia legislation mandates that prior to the Award of Contracts, certain documents are required. Using the forms at the end of this Section, Contractor shall complete all attached forms and submit with bid.

1. SubContracting Plan

For Contracts in excess of \$250,000, at least 35% of the dollar volume shall be subcontracted to certified small business enterprises; provided, however, that the costs of materials, goods and supplies shall not be counted towards the 35% subcontracting requirement unless such materials, goods and supplies are purchased from certified small business enterprises.

If the Prime Contractor is required by law to Subcontract under this Contract, it must subcontract at least 35% of the dollar volume of this Contract. The prime Contractor responding to this solicitation which is required to subcontract shall be required to submit with its bid, a notarized statement detailing its subcontracting plan. Bids shall be deemed nonresponsive and shall be rejected if the Contractor is required to subcontract, but fails to submit a subcontracting plan.

2. First Source Employment Agreement

Use existing information.

3. Equal Employment Opportunity Policy Statement

In accordance with the District of Columbia Administrative Issuance System, Mayor's Order 85-85 dated June 10, 1985, an award cannot be made to any bidder who has not satisfied the equal employment requirements.

4. Bidder/Offeror Certification Form

Section 302 of the PPRA requires, for all Contracts to exceed \$100,000, that the Bidder or Offeror submit with its Bid or offer a Certification to provide information to be used in determining whether a prospective contractor is responsible. The Certification must be signed under the penalty of perjury.

5. Tax Certification Affidavit

Tax Compliance - Office of Tax and Revenue (OTR)

Required for Contracts Exceeding \$100,000: Vendors must show proof that their taxes are current and that, if in arrears, an approved payment schedule exists.

6. Standard Contract Provisions (March 2007)

M. MISCELLANEOUS SPECIAL REQUIREMENTS

1. The Contractor shall furnish approved copies of all information (shop drawings, diagrams, templates, technical data, etc.) to other contractors, as designated by the Construction Manager, for the purpose of coordination of the Work.
2. Contractors shall furnish their own power for welding machines and other high consumption equipment.
3. Each Contractor requiring testing of materials by the Owner's testing inspection agency shall submit short interval schedules with requirements to the Construction Manager on a weekly basis.
4. Tie-ins shall be scheduled at least two weeks in advance and shall, for estimating purposes, be done on overtime hours with minimum down time (4 hours).
5. The Contractor shall provide drinking water for his workers.
6. No job crane is available for the Contractor's use. Each Contractor shall provide his own crane or lifting device if required.
7. Contractors shall not stockpile materials on the floors or on the premises without the written consent of the Construction Manager. Only two-weeks of stored materials shall be permitted on-site for each active subcontractor.
8. The Contractor shall be responsible for handling and transporting (including lifting) his material and equipment to the location of need in a timely manner.
9. Vertical lifting devices, whether stationary material hoist, mobile crane or other means, that a Contractor plans to use, shall be implemented only after prior coordination and approval of the Construction Manager.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01115

SUBCONTRACTING PLAN

PRIME CONTRACTOR INFORMATION:	
Company: _____ Street Address: _____ City & Zip Code: : _____ Phone Number: _____ Fax: _____ Email Address: _____	Solicitation Number: _____ Contractor's Tax ID Number: _____ Caption of Plan: _____ _____ Duration of the Plan: From _____ to _____ Total Prime Contract Value: \$ _____ Amount of Contract (excluding the cost of materials, goods, supplies and equipment) \$ _____ Amount of all Subcontracts: \$ _____ LSDBE Total: \$ _____ equals _____ % <div style="display: flex; justify-content: space-between; width: 100%;"> LSDBE Subcontract Value Percentage Set Aside </div>
Project Name: _____ Address: _____ _____ Project Descriptions: _____ _____ _____	

(List each subcontractor at any tier that will be awarded a subcontract to meet your total set aside goal.)

SUBCONTRACTOR INFORMATION: (use continuation sheet for additional subcontracts)										
Name	Address & Telephone No.	Type of Work	NIGP Code(s)	Description of Work						
Total Amount Set Aside: \$ _____ Percentage of Total Set Aside Amount : _____ % Tier: : _____ <div style="text-align: center; font-size: small;">1st, 2nd, 3rd</div> LSDBE Certification Number: _____ Certification Status: (check all that apply) <table border="1" style="display: inline-table; border-collapse: collapse; text-align: center; font-size: x-small;"> <tr> <td style="width: 20px;">SBE:</td> <td style="width: 20px;">LBE:</td> <td style="width: 20px;">DBE:</td> <td style="width: 20px;">DZE:</td> <td style="width: 20px;">ROB:</td> <td style="width: 20px;">LRB:</td> </tr> </table>			SBE:	LBE:	DBE:	DZE:	ROB:	LRB:	Point of Contact: _____ <div style="text-align: right; font-size: small;">Name (Print)</div> Contact Telephone Number: _____ Fax Number: _____ Email Address: _____	
SBE:	LBE:	DBE:	DZE:	ROB:	LRB:					

CERTIFICATIONS

The prime contractor shall attach a **notarized** statement including the following:

- a. A **description of the efforts** the prime contractor will make to ensure that LBEs, DBEs, ROB, SBEs, LRBs, or DZEs will have an equitable opportunity to compete for subcontracts;
- b. In all subcontracts that offer **further subcontracting opportunities**, assurances that the prime contractor will include a statement, approved by the contracting officer, that the subcontractor will adopt a subcontracting plan similar to the subcontracting plan required by the contract;
- c. **Assurances** that the prime contractor will cooperate in any studies or surveys that may be required by the contracting officer, and submit periodic reports, as requested by the contracting officer, to allow the District to determine the extent of compliance by the prime contractor with the subcontracting plan;
- d. Listing of the type of **records** the prime contractor will maintain to demonstrate procedures adopted to comply with the requirements set forth in the subcontracting plan, and include assurances that the prime contractor will make such records available for review upon the District's request; and
- e. A description of the prime contractor's recent efforts to locate LBEs, DBEs, SBEs, DZEs, LRBs, and ROB, and to award subcontracts to them.

PERSON PREPARING THE SUBCONTRACTING PLAN:	
Name: _____ <div style="text-align: right; font-size: small;">(Print)</div> Telephone Number: () _____ - _____ Fax Number: () _____ - _____ Email Address: _____	Signature: _____ Title: _____ Date: _____

FOR CONTRACTING OFFICER USE ONLY

Date Plan Received by Contracting Officer: _____		
Report: <input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	Contract Number: _____	
Name & Title of Contracting Officer	Signature	Date

(SUBCONTRACTORS LIST CONTINUED)

(List each subcontractor that will be awarded a subcontract to meet your total set aside goal.)

SUBCONTRACTOR INFORMATION: (use continuation sheet for additional subcontracts)

Name	Address & Telephone No.	Type of Work	NIGP Code(s)	Description of Work						
Total Amount Set Aside: \$ _____ Percentage of Total Set Aside Amount : _____ % Tier: : _____ <small>1st, 2nd, 3rd</small> LSDBE Certification Number: _____ Certification Status: (check all that apply) <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>SBE:</td> <td>LBE:</td> <td>DBE:</td> <td>DZE:</td> <td>ROB:</td> <td>LRB:</td> </tr> </table>			SBE:	LBE:	DBE:	DZE:	ROB:	LRB:	Point of Contact: _____ <small>Name (Print)</small> Contact Telephone Number: _____ Fax Number: _____ Email Address: _____	
SBE:	LBE:	DBE:	DZE:	ROB:	LRB:					

SUBCONTRACTOR INFORMATION:

Name	Address & Telephone No.	Type of Work	NIGP Code(s)	Description of Work						
Total Amount Set Aside: \$ _____ Percentage of Total Set Aside Amount : _____ % Tier: : _____ <small>1st, 2nd, 3rd</small> LSDBE Certification Number: _____ Certification Status: (check all that apply) <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>SBE:</td> <td>LBE:</td> <td>DBE:</td> <td>DZE:</td> <td>ROB:</td> <td>LRB:</td> </tr> </table>			SBE:	LBE:	DBE:	DZE:	ROB:	LRB:	Point of Contact: _____ <small>Name (Print)</small> Contact Telephone Number: _____ Fax Number: _____ Email Address: _____	
SBE:	LBE:	DBE:	DZE:	ROB:	LRB:					

SUBCONTRACTOR INFORMATION:

Name	Address & Telephone No.	Type of Work	NIGP Code(s)	Description of Work						
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SBE:	LBE:	DBE:	DZE:	ROB:	LRB:					

SUBCONTRACTOR INFORMATION:

Name	Address & Telephone No.	Type of Work	NIGP Code(s)	Description of Work						
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SBE:	LBE:	DBE:	DZE:	ROB:	LRB:					

SUBCONTRACTOR INFORMATION:

Name	Address & Telephone No.	Type of Work	NIGP Code(s)	Description of Work						
Total Amount Set Aside: \$ _____ Percentage of Total Set Aside Amount : _____ % Tier: : _____ <small>1st, 2nd, 3rd</small> LSDBE Certification Number: _____ Certification Status: (check all that apply) <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>SBE:</td> <td>LBE:</td> <td>DBE:</td> <td>DZE:</td> <td>ROB:</td> <td>LRB:</td> </tr> </table>			SBE:	LBE:	DBE:	DZE:	ROB:	LRB:	Point of Contact: _____ <small>Name (Print)</small> Contact Telephone Number: _____ Fax Number: _____ Email Address: _____	
SBE:	LBE:	DBE:	DZE:	ROB:	LRB:					



Government of the District of Columbia
FIRST SOURCE EMPLOYMENT AGREEMENT



Contract Number: _____

Employer Name: _____

Project Contract Amount: _____

Employer Contract Award: _____

Project Name: _____

Project Address: _____ Ward: _____

Nonprofit Organization with 50 Employees or Less: Yes No

This First Source Employment Agreement, in accordance with The First Source Employment Agreement Act of 1984 (codified in D.C. Official Code §§ 2-219.01 – 2.219.05), The Apprenticeship Requirements Amendment Act of 2004 (Codified in D.C. Official Code §§ 2-219.03 and 32-1431) for recruitment, referral, and placement of District of Columbia residents, is between the District of Columbia Department of Employment Services, hereinafter referred to as “DOES”, and _____, hereinafter, referred to as EMPLOYER. Under this Employment Agreement, the EMPLOYER will use DOES as its first source for recruitment, referral, and placement of new hires or employees for all new jobs created by the Project. The Employer will hire 51% District of Columbia residents for all new jobs created by the Project, and 35 % of all apprenticeship hours be worked by DC residents employed by EMPLOYER in connection with the Project shall be District residents registered in programs approved by the District of Columbia Apprenticeship Council.

I. GENERAL TERMS

- A. Subject to the terms and conditions set forth herein, the EMPLOYER will use DOES as its first source for the recruitment, referral and placement for jobs created by the Project.
- B. The EMPLOYER will require all Project contractors with contracts totaling \$100,000 or more, and Project subcontractors with subcontracts totaling \$100,000 or more, to enter into a First Source Employment Agreement with DOES.
- C. DOES will provide recruitment, referral and placement services to the EMPLOYER, which are subject to the limitations set out in this Agreement.
- D. The participation of DOES in this Agreement will be carried out by the Office of Employer Services, which is responsible for referral and placement of employees, or such other offices or divisions designated by the Office of the Director, of DOES.
- E. This Agreement will take effect when signed by the parties below and will be fully effective for the duration of the Project contract and any extensions or modification to the Project contract.

- F. This Agreement will not be construed as an approval of the EMPLOYER'S bid package, bond application, lease agreement, zoning application, loan, or contract/subcontract for the Project.
- G. DOES and the EMPLOYER agree that, for purposes of this Agreement, new hires and jobs created for the Project (both union and nonunion) include all EMPLOYER'S job openings and vacancies in the Washington Standard Metropolitan Statistical Area created for the Project as a result of internal promotions, terminations, and expansions of the EMPLOYER'S workforce, as a result of this project, including loans, lease agreements, zoning applications, bonds, bids, and contracts.
- H. This Agreement includes apprentices as defined and as amended, in D.C. Law 2-156. D.C. Official Code §§ 32-1401- 1431.
- I. The EMPLOYER, prime subcontractors and subcontractors who contract with the District of Columbia government to perform construction, renovation work, or information technology work with a single contract, or cumulative contracts, of at least \$500,000, let within a 12-month period will be required to register an apprenticeship program with the District of Columbia Apprenticeship Council; and this includes but is not limited to, any construction or renovation contract or subcontract signed as the result of, a loan, bond, grant, Exclusive Right Agreement, street or alley closing, or a leasing agreement of real property for one (1) year or more. In furtherance of the foregoing, the EMPLOYER shall enter into an agreement with its contractors, including the general contractor, that requires that such contractors and subcontractors for the Project participate, in apprenticeship programs for the Project that: (i) meet the standards set forth in Chapter 11 of Title 7 of the District of Columbia Municipal Regulations, and (ii) have an apprenticeship program registered with the District of Columbia's Apprenticeship Council.

II. RECRUITMENT

- A. The EMPLOYER will complete the attached Employment Plan, which will indicate the number of new jobs projected to be created on the Project, salary range, hiring dates, residency status, ward information, new hire justification and union requirements.
- B. The Employer will post all job vacancies in the DOES' Virtual One-Stop (VOS) at www.jobs.dc.gov within five (5) days of executing the Agreement. Should you need assistance posting job vacancies, please contact Job Bank at (202) 698-6001.
- C. The EMPLOYER will notify DOES, by way of the First Source Office of its Specific Need for new employees for the Project, within at least five (5) business days (Monday - Friday) upon Employers identification of the Specific Need. This must be done before using any other referral source. Specific Needs shall include, at a minimum, the number of employees needed by job title, qualifications, hiring date, rate of pay, hours of work, duration of employment, and work to be performed.
- D. Job openings to be filled by internal promotion from the EMPLOYER'S current workforce do not need to be referred to DOES for placement and referral. However, EMPLOYER shall notify DOES of such promotions.

- E. The EMPLOYER will submit to DOES, prior to commencing work on the Project, the names, residency status and ward information of all current employees, including apprentices, trainees, and laid-off workers who will be employed on the Project.

III. REFERRAL

- A. DOES will screen applicants and provide the EMPLOYER with a list of applicants according to the Notification of Specific Needs supplied by the EMPLOYER as set forth in Section II (B).
- B. DOES will notify the EMPLOYER, prior to the anticipated hiring dates, of the number of applicants DOES will refer.

IV. PLACEMENT

- A. The EMPLOYER will make all decisions on hiring new employees but will, in good faith, use reasonable efforts to select its new hires or employees from among the qualified persons referred by DOES.
- B. In the event that DOES is unable to refer qualified personnel meeting the Employer's established qualifications, within five (5) business days (Monday - Friday) from the date of notification, from the EMPLOYER, the EMPLOYER will be free to directly fill remaining positions for which no qualified applicants have been referred. Notwithstanding, the EMPLOYER will still be required to hire 51% District residents for all new jobs created by the Project.
- C. After the EMPLOYER has selected its employees, DOES will not be responsible for the employees' actions and the EMPLOYER hereby releases DOES, and the Government of the District of Columbia, the District of Columbia Municipal Corporation, and the officers and employees of the District of Columbia from any liability for employees' actions.

V. TRAINING

- A. DOES and the EMPLOYER may agree to develop skills training and on-the-job training programs; the training specifications and cost for such training will be mutually agreed upon by the EMPLOYER and DOES and will be set forth in a separate Training Agreement.

VI. CONTROLLING REGULATIONS AND LAWS

- A. To the extent that this Agreement is in conflict with any federal labor laws or governmental regulations, the federal laws or regulations shall prevail.
- B. DOES will make every effort to work within the terms of all collective bargaining agreements to which the EMPLOYER is a party.
- C. The EMPLOYER will provide DOES with written documentation that the EMPLOYER has provided the representative of any collective bargaining unit involved

with this Project a copy of this Agreement and has requested comments or objections. If the representative has any comments or objections, the EMPLOYER will promptly provide them to DOES.

VII. EXEMPTIONS

- A. All contracts, subcontracts or other forms of government-assistance less than \$100,000.
- B. Employment openings the contractor will fill with individuals already employed by the company.
- C. Job openings to be filled by laid-off workers according to formally established recall procedures and rosters.
- D. Construction or renovation contracts or subcontracts in the District of Columbia totaling less than \$500,000 are exempt from the requirements of Section I(H) and I(I) of the General Terms hereof.
- E. Non-profit organization with 50 or less employees are exempt from the requirements.

VIII. AGREEMENT MODIFICATIONS, RENEWAL, MONITORING, AND PENALTIES

- A. If, during the term of this Agreement, the EMPLOYER should transfer possession of all or a portion of its business concerns affected by this Agreement to any other party by lease, sale, assignment, merger, or otherwise this First Source Agreement shall remain in full force and effect and transferee shall remain subject to all provisions herein. In addition, the EMPLOYER as a condition of transfer shall:
 - 1. Notify the party taking possession of the existence of this EMPLOYER'S First Source Employment Agreement.
 - 2. Notify DOES within seven (7) business days of the transfer. This advice will include the name of the party taking possession and the name and telephone of that party's representative.
- B. DOES will monitor EMPLOYER'S performance under this Agreement. The EMPLOYER will cooperate with the DOES monitoring and will submit a Contract Compliance Form to DOES monthly.
- C. To assist DOES in the conduct of the monitoring review, the EMPLOYER will make available to DOES, upon request, payroll and employment records for the review period indicated for the Project.
- D. The Employer will provide DOES additional information upon request.
- E. With the submission of the final request for payment from the District, the EMPLOYER shall:

1. Document in a report to DOES its compliance with the requirement that 51% of the new employees hired by the EMPLOYER for the Project be District residents; or
 2. Submit to DOES a request for a waiver of compliance of the requirement that 51% of the new employees hired by the EMPLOYER the Project be District residents which will include the following documentation:
 - a. Documentation supporting EMPLOYERS good faith effort to comply;
 - b. Referrals provided by DOES and other referral sources; and
 - c. Advertisement of job openings listed with DOES and other referral sources.
- F. The DOES may waive the requirement that 51% of the new employees hired by the EMPLOYER for the Project be District residents, if DOES finds that:
1. A good faith effort to comply is demonstrated by the EMPLOYER; or
 2. The EMPLOYER is located outside the Washington Standard Metropolitan Statistical Area and none of the contract work is performed inside the Washington Standard Metropolitan Statistical Area:

The Washington Standard Metropolitan Statistical Area includes the District of Columbia, the Virginia Cities of Alexandria, Falls Church, Manassas, Manassas Park, Fairfax, and Fredericksburg; the Virginia Counties of Fairfax, Arlington, Prince William, Loudoun, Stafford, Clarke, Warren, Fauquier, Culpeper, Spotsylvania, and King George; the Maryland Counties of Montgomery, Prince Georges, Charles, Frederick, and Calvert; and the West Virginia Counties of Berkeley and Jefferson.
 3. The EMPLOYER enters into a special workforce development training or placement arrangement with DOES; or
 4. DOES certifies that there are insufficient numbers of District residents in the labor market possessing the skills required by the EMPLOYER for the positions created as a result of the Project. No failure by Employer to request a waiver under any other provision hereunder shall be considered relevant to a requested waiver under this Subsection.
- G. Willful breach of the First Source Employment Agreement by the EMPLOYER, failure to submit the Contract Compliance Report, or deliberate submission of falsified data, may be enforced by the DOES through imposition of penalties, including monetary fines of 5% of the total amount of the direct and indirect labor costs of the contract for the positions created by EMPLOYER.
- H. The parties acknowledge that the provisions of E and F of Article VIII apply only to First Source hiring.
- I. Nonprofit organizations with 50 or less employees are exempt from the requirement that 51% of the new employees hired by the EMPLOYER on the Project be District residents.

- J. The EMPLOYER and DOES, or such other agent as DOES may designate, may mutually agree to modify this Agreement.
- K. The EMPLOYER's noncompliance with the provisions of this Agreement may result in termination.

IX. LOCAL, SMALL, DISADVANTAGES BUSINESS ENTERPRISE

- A. Is your firm a certified Local, Small, Disadvantaged Business Enterprise (LSDBE)?
 YES NO

If yes, certification number: _____

X. APPRENTICESHIP PROGRAM

- A. Do you have a registered Apprenticeship program with the D.C. Apprenticeship Council? YES NO

If yes, D.C. Apprenticeship Council Registration Number: _____

XI. SUBCONTRACTOR

- A. Is your firm a subcontractor on this project? YES NO
 If yes, name of prime contractor: _____

Dated this _____ day of _____ 20_____

 Signature Dept. of Employment Services

 Signature of Employer

 Name of Company

 Address

 Telephone

 E-mail

EMPLOYMENT PLAN

NAME OF EMPLOYER: _____

ADDRESS OF EMPLOYER: _____

TELEPHONE NUMBER: _____ FEDERAL IDENTIFICATION NO.: _____

CONTACT PERSON: _____ TITLE: _____

E-MAIL: _____ TYPE OF BUSINESS: _____

DISTRICT CONTRACTING AGENCY: _____

CONTRACTING OFFICER: _____ TELEPHONE NUMBER: _____

TYPE OF PROJECT: _____ CONTRACT AMOUNT: _____

EMPLOYER CONTRACT AMOUNT: _____

PROJECT START DATE: _____ PROJECT END DATE: _____

EMPLOYER START DATE: _____ EMPLOYER END DATE: _____

NEW JOB CREATION PROJECTIONS: Please indicate ALL new position(s) your firm will create as a result of the Project. If the firm WILL NOT be creating any new employment opportunities, please complete the attached justification sheet with an explanation. Attach additional sheets as needed.

JOB TITLE	# OF JOBS		SALARY RANGE	UNION MEMBERSHIP REQUIRED NAME LOCAL#	PROJECTED HIRE DATE
	F/T	P/T			
A					
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					

JUSTIFICATION SHEET: Please provide a detailed explanation of why the Employer will not have any new hires on the Project.

A large, empty rectangular box with a thin black border, occupying the central portion of the page. It is intended for the user to provide a detailed explanation as requested in the text above.

YOUR LETTERHEAD

EQUAL EMPLOYMENT OPPORTUNITY (EEO) POLICY STATEMENT

_____ SHALL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, SEX, AGE, MARITAL STATUS, PERSONAL APPEARANCE, SEXUAL ORIENTATION, FAMILY RESPONSIBILITIES, MATRICULATION, POLITICAL AFFILIATION, OR PHYSICAL HANDICAP.

_____ AGREES TO AFFIRMATIVE ACTION TO ENSURE THAT APPLICANTS ARE EMPLOYED, AND THAT EMPLOYEES ARE TREATED DURING EMPLOYMENT, WITHOUT REGARD TO THEIR RACE, COLOR, RELIGION, NATIONAL ORIGIN, SEX, AGE, MARITAL STATUS, PERSONAL APPEARANCE, SEXUAL ORIENTATION, FAMILY RESPONSIBILITIES, MATRICULATION, POLITICAL AFFILIATION, OR PHYSICAL HANDICAP. THE AFFIRMATIVE ACTION SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: (A) EMPLOYMENT, UPGRADING, OR TRANSFER; (B) RECRUITMENT OR RECRUITMENT ADVERTISING; (C) DEMOTION, LAYOFF, OR TERMINATION; (D) RATES OF PAY, OR OTHER FORMS OF COMPENSATION; AND (E) SELECTION FOR TRAINING AND APPRENTICESHIP.

_____ AGREES TO POST IN CONSPICUOUS PLACES THE PROVISIONS CONCERNING NON-DISCRIMINATION AND AFFIRMATIVE ACTION.

_____ SHALL STATE THAT ALL QUALIFIED APPLICANTS WILL RECEIVE CONSIDERATION FOR EMPLOYMENT PURSUANT TO SUBSECTION 1103.2 THROUGH 1103.10 OF MAYOR'S ORDER 85-85; "EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS IN CONTRACTS."

_____ AGREES TO PERMIT ACCESS TO ALL BOOKS PERTAINING TO ITS EMPLOYMENT PRACTICES, AND TO REQUIRE EACH SUBCONTRACTOR TO PERMIT ACCESS TO BOOKS AND RECORDS.

_____ AGREES TO COMPLY WITH ALL GUIDELINES FOR EQUAL EMPLOYMENT OPPORTUNITY APPLICABLE IN THE DISTRICT OF COLUMBIA.

_____ SHALL INCLUDE IN EVERY SUBCONTRACT THE EQUAL OPPORTUNITY CLAUSES, SUBSECTION 1103.2 THROUGH 1103.10 SO THAT SUCH PROVISIONS SHALL BE BINDING UPON EACH SUBCONTRACTOR OR VENDOR.

AUTHORIZED OFFICIAL AND TITLE

AUTHORIZED SIGNATURE

FIRM/ORGANIZATION NAME

DATE

YOUR LETTERHEAD

ASSURANCE OF COMPLIANCE WITH EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

MAYOR'S ORDER 85-85, EFFECTIVE JUNE 10, 1985, AND THE RULES IMPLEMENTING MAYORS ORDER 85-85, 33 DCR 4952, (PUBLISHED AUGUST 15, 1986), "ON COMPLIANCE WITH EQUAL OPPORTUNITY REQUIREMENTS IN DISTRICT GOVERNMENT CONTRACTS," ARE HEREBY INCLUDED AS PART OF THIS BID/PROPOSAL. THEREFORE, EACH BIDDER/OFFEROR SHALL INDICATE BELOW THEIR WRITTEN COMMITMENT TO ASSURE COMPLIANCE WITH MAYOR'S ORDER 85-85 AND THE IMPLEMENTING RULES. FAILURE TO COMPLY WITH THE SUBJECT MAYOR'S ORDER AND THE IMPLEMENTING RULES SHALL RESULT IN REJECTION OF THE RESPECTIVE BID/PROPOSAL.

I, _____, THE AUTHORIZED REPRESENTATIVE OF _____, HEREINAFTER REFERRED TO AS "THE CONTRACTOR," CERTIFY THT THE CONTRATOR IS FULLY AWARE OF ALL OF THE PROVISIONS OF MAYOR'S ORDER 85-85, EFFECTIVE JUNE 10, 1985, AND OF THE RULES IMPLEMENTING MAYOR'S ORDER 85-85, 33 DCR 4952. I FURTHER CERTIFY AND ASSURE THAT THE CONTRACTOR WILL FULLY COMPLY WITH ALL APPLICABLE PROVISIONS OF THE MAYOR'S ORDER AND IMPLEMENTING RULES IF AWARDED THE D.C. GOVERNMENT REFERENCED BY THE CONTRACT NUMBER ENTERED BELOW. FURTHER, THE CONTRACTOR ACKNOWLEDGES AND UNDERSTANDS THAT THE AWARD OF SAID CONTRACT AND ITS CONTINUATION ARE SPECIFICALLY CONDITIONED UPON THE CONTRACTOR'S COMPLIANCE WITH THE ABOVE-CITED ORDER AND RULES.

CONTRACTOR

NAME

SIGNATURE

TITLE

CONTRACT NUMBER

DATE

EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER INFORMATION REPORT

GOVERNMENT OF THE DISTRICT OF COLUMBIA DC Office of Contracting and Procurement Employer Information Report (EEO)	Reply to: Office of Contracting and Procurement 441 4 th Street, NW, Suite 700 South Washington, DC 20001				
Instructions: Two (2) copies of DAS 84-404 or Federal Form EEO-1 shall be submitted to the Office of Contracting and Procurement. One copy shall be retained by the Contractor.					
Section A – TYPE OF REPORT					
1. Indicate by marking in the appropriate box the type of reporting unit for which this copy of the form is submitted (MARK ONLY ONE BOX)					
Single Establishment Employer (1) <input type="checkbox"/> Single-establishment Employer Report	Multi-establishment Employer: (2) <input type="checkbox"/> Consolidated Report (3) <input type="checkbox"/> Headquarters Report (4) <input type="checkbox"/> Individual Establishment Report (submit one for each establishment with 25 or more employees) (5) <input type="checkbox"/> Special Report				
1. Total number of reports being filed by this Company. _____					
Section B – COMPANY IDENTIFICATION <i>(To be answered by all employers)</i>					OFFICIAL USE ONLY
1. Name of Company which owns or controls the establishment for which this report is filed					a.
Address (Number and street)		City or Town	Country	State	Zip Code
b. Employer Identification No.					
2. Establishment for which this report is filed.					OFFICIAL USE ONLY
a. Name of establishment					c.
Address (Number and street)		City or Town	Country	State	Zip Code
b. Employer Identification No.					
3. Parent of affiliated Company					
a. Name of parent or affiliated Company		b. Employer Identification No.			
Address (Number and Street)		City or Town	Country	State	Zip Code
Section C - ESTABLISHMENT INFORMATION					
1. Is the location of the establishment the same as that reported last year?		2. Is the major business activity at this establishment the same as that reported last year?			OFFICIAL USE ONLY
Yes	No	Did not report last year	Report on combined basis	No report last year	Reported on combined basis
2. What is the major activity of this establishment? (Be specific, i.e., manufacturing steel castings, retail grocer, wholesale plumbing supplies, title insurance, etc. Include the specific type of product or service provided, as well as the principal business or industrial activity.					e.
3. MINORITY GROUP MEMBERS: Indicate if you are a minority business enterprise (50% owned or 51% controlled by minority members).					
Yes No					

SECTION D – EMPLOYMENT DATA

Employment at this establishment – Report all permanent, temporary, or part-time employees including apprentices and on-the-job trainees unless specifically excluded as set forth in the instructions. Enter the appropriate figures on all lines and in all columns. Blank spaces will be considered as zero. *In columns 1, 2, and 3, include ALL employees in the establishment including those in minority groups*

JOB CATEGORIES	TOTAL EMPLOYEES IN ESTABLISHMENT			MINORITY GROUP EMPLOYEES								
	Total Employees Including Minorities (1)	Total Male Including Minorities (2)	Total Female Including Minorities (3)	MALE				FEMALE				
				Black (4)	Oriental (5)	American Indian (6)	Spanish Surname American (7)	Black (8)	Oriental (9)	American Indian (10)	Spanish Surname American (11)	
Officials and Managers												
Professionals												
Technicians												
Sales Workers												
Office and Clerical												
Craftsman (Skilled)												
Operative (Semi-Skilled)												
Laborers (Unskilled)												
Service Workers												
TOTAL												
Total employ reported in previous report												

(The trainee below should also be included in the figures for the appropriate occupation categories above)

Formal On-The-Job Trainee	White collar	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Production											

1. How was information as to race or ethnic group in Section D obtained?
 a. Visual Survey c. Other Specify _____
 b. Employment Record establishment _____
 2. Dates of payroll period used _____
 3. Pay period of last report submitted for this _____

Section E – REMARKS Use this Item to give any identification data appearing on last report which differs from that given above, explain major changes in composition or reporting units, and other pertinent information.

Section F - CERTIFICATION

Check 1. All reports are accurate and were prepared in accordance with the instructions (check on consolidated only)
 One 2. This report is accurate and was prepared in accordance with the instructions.

Name of Authorized Official	Title	Signature	Date
Name of person contact regarding This report (Type of print)	Address (Number and street)		
Title	City and State	Zip Code	Telephone Number Extension

INFORMATION CITED HEREIN SHALL BE HELD IN CONFIDENCE.

DEPARTMENT OF HUMAN RIGHTS AND LOCAL BUSINESS DEVELOPMENT
CONTRACT COMPLIANCE UNIT

SUBCONTRACT SUMMARY FORM

This SUMMARY form is to be completed by the PRIME contractor.

BID NO.:	CCB NUMBER: _____ of _____ pages
* NOTE: The standard for minority subcontracting is 25% of the TOTAL contract dollar amount to be subcontracted.	AMOUNT OF PRIME CONTRACT: \$ _____ AMOUNT OF ALL SUBCONTRACTS: \$ _____ equals _____% OF THE PRIME CONTRACT.
NAME OF PRIME CONTRACTOR:	ADDRESS:
TELEPHONE NO.:	
PROJECT NAME:	PROJECT DESCRIPTIONS:
ADDRESS:	
WARD NO.: _____	

SECTION II LIST ALL SUBCONTRACTORS THAT WILL BE UTILIZED ON THE ABOVE PROJECT

1. NAME OF SUBCONTRACTOR 2. ADDRESS 3. CONTACT PERSON 4. MBOC CERT. NO.	5. PHONE NO.	1. IS THIS A *MINORITY SUB? ____ YES ____ NO 2. TRADE OR BUSINESS PRODUCT THAT SUB WILL PROVIDE.	1. \$ AMOUNT OF SUBCONTRACT equals(=) 2. _____% (percent) OF TOTAL PRIME CONTRACT.
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%
1. _____ 2. _____ 3. _____ 4. _____	5. _____	1. MINORITY SUBCONTRACTOR ____ YES ____ NO 2. _____	1. \$ _____ equals(=) 2. _____%

TOTAL DOLLAR AMOUNT SUBCONTRACTED TO *MINORITY BUSINESS ENTERPRISES. \$ _____
PERCENT OF PRIME CONTRACT. _____%

*O.C. LAW 1-95, as amended, defines a MINORITY BUSINESS ENTERPRISE as a business of which more than 50% is owned by members of a minority, and of which more than 50% of the net profit or loss accrues to members of a minority.

SOLICITATION NO: _____

PROJECTED GOALS AND TIMETABLES FOR FUTURE HIRING

MINORITY GROUP EMPLOYES GOALS					TIMETABLES				
JOB CATEGORIES	<u>MALE</u>				<u>FEMALE</u>				
	AMERICAN				AMERICAN				
	BLACK	ASIAN	INDIAN	HISPANIC	BLACK	ASIAN	INDIAN	HISPANIC	
OFFICIALS & MANAGERS									
PROFESSIONALS									
TECHNICIANS									
SALES WORKERS									
OFFICE AND CLERICAL									
CRAFTSMANS (SKILLELD)									
OPERATIVE (SEMI-SKILLED)									
LABORERS (UNSKILLED)									
SERVICE WORKERS									
TOTALS									
NAME OF AUTHORIZED OFFICIAL:				TITLE:			SIGNATURE:		
FIRM NAME:					TELEPHONE NO:		DATE:		
INDICATE IF THE PRIME UTILIZES A " <u>MINORITY FINANCIAL INSTITUTION</u> " _____ Yes _____ No NAME: ADDRESS: TYPE OF ACCOUNT/S:									

**OFFICE OF CONTRACTING AND PROCUREMENT
 BIDDER/OFFEROR CERTIFICATION FORM**

COMPLETION			
The person(s) completing this form must be knowledgeable about the bidder's/offeror's business and operations.			
RESPONSES			
Every question must be answered. Each response must provide all relevant information that can be obtained within the limits of the law. Individuals and sole proprietors may use a Social Security number but are encouraged to obtain and use a federal Employer Identification Number (EIN). Provide any explanation at the end of the section or attach additional sheets with numbered responses. Include the bidder's/offeror's name at the top of each attached page.			
GENERAL INSTRUCTIONS			
This form contains four (4) sections. Section I concerns the bidder's/offeror's responsibility; Section II includes additional required certifications; Section III relates to the Buy American Act (if applicable); and Section IV requires the bidder's/offeror's signature.			
SECTION I. BIDDER/OFFEROR RESPONSIBILITY CERTIFICATION			
<i>Instructions for Section I: Section I contains eight (8) parts. Part 1 requests information concerning the bidder's/offeror's business entity. Part 2 inquires about current or former owners, partners, directors, officers or principals. Part 3 relates to the responsibility of the bidder's/offeror's business. Part 4 concerns the bidder's/offeror's business certificates and licenses. Part 5 inquires about legal proceedings. Part 6 relates to the bidder's/offeror's financial and organizational status. Part 7 requires the bidder/offeror to agree to update the information provided. Part 8 relates to disclosures under the District of Columbia Freedom of Information Act (FOIA).</i>			
PART 1: BIDDER/OFFEROR INFORMATION			
Legal Business Entity Name:		Solicitation #:	
Address of the Principal Place of Business (street, city, state, zip code)		Telephone # and ext.:	Fax #:
Email Address:		Website:	
Additional Legal Business Entity Identities: If applicable, list any other DBA, Trade Name, Former Name, Other Identity and EIN used in the last five (5) years and the status (active or inactive).			
Type:	Name:	EIN:	Status:
1.1 Business Type (Please check the appropriate box and provide additional information if necessary.):			
<input type="checkbox"/> Corporation (including PC)		Date of Incorporation:	
<input type="checkbox"/> Joint Venture		Date of Organization:	
<input type="checkbox"/> Limited Liability Company (LLC or PLLC)		Date of Organization:	
<input type="checkbox"/> Nonprofit Organization		Date of Organization:	
<input type="checkbox"/> Partnership (including LLP, LP or General)		Date of Registration or Establishment:	
<input type="checkbox"/> Sole Proprietor		How many years in business?:	
<input type="checkbox"/> Other		Date established?:	
If "Other," please explain:			
1.2 Was the bidder's/offeror's business formed or incorporated in the District of Columbia?			<input type="checkbox"/> Yes <input type="checkbox"/> No
If "No" to Subpart 1.2, provide the jurisdiction where the bidder's/offeror's business was formed or incorporated. Attach a Certificate or Letter of Good Standing from the applicable jurisdiction and a certified Application for Authority from the District, or provide an explanation if the documents are not available.			
State _____		Country _____	
1.3 Please provide a copy of each District of Columbia license, registration or certification that the bidder/offeror is required by law to obtain (other than those provided in Subpart 1.2). If the bidder/offeror is not providing a copy of its license, registration or certification to transact business in the District of Columbia, it shall either: (a) Certify its intent to obtain the necessary license, registration or certification prior to contract award; or (b) Explain its exemption from the requirement.			
PART 2: INDIVIDUAL RESPONSIBILITY			

Additional Instructions for Section 1, Parts 2 through 8: Provide an explanation of the issue(s), relevant dates, the government entity involved, any remedial or corrective action(s) taken and the current status of the issue(s).	
Within the past five (5) years, has any current or former owner, partner, director, officer, principal or any person in a position involved in the administration of funds, or currently or formerly having the authority to sign, execute or approve bids, proposals, contracts or supporting documentation on behalf of the bidder/offeror with any government entity:	
2.1 Been sanctioned or proposed for sanction relative to any business or professional permit or license?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.2 Been under suspension, debarment, voluntary exclusion or determined ineligible under any federal, District or state statutes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.3 Been proposed for suspension or debarment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.4 Been the subject of an investigation, whether open or closed, by any government entity for a civil or criminal violation for any business-related conduct?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.5 Been charged with a misdemeanor or felony, indicted, granted immunity, convicted of a crime, or subject to a judgment or a plea bargain for:	<input type="checkbox"/> Yes <input type="checkbox"/> No
(a) Any business-related activity; or	
(b) Any crime the underlying conduct of which was related to truthfulness?	
2.6 Been suspended, cancelled, terminated or found non-responsible on any government contract, or had a surety called upon to complete an awarded contract?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please provide an explanation for each "Yes" in Part 2.	
PART 3: BUSINESS RESPONSIBILITY	
Within the past five (5) years, has the bidder/offeror:	
3.1 Been under suspension, debarment, voluntary exclusion or determined ineligible under any federal, District or state statutes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.2 Been proposed for suspension or debarment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.3 Been the subject of an investigation, whether open or closed, by any government entity for a civil or criminal violation for any business-related conduct?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.4 Been charged with a misdemeanor or felony, indicted, granted immunity, convicted of a crime, or subject to a judgment or plea bargain for:	<input type="checkbox"/> Yes <input type="checkbox"/> No
(a) Any business-related activity; or	
(b) Any crime the underlying conduct of which was related to truthfulness?	
3.5 Been disqualified or proposed for disqualification on any government permit or license?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.6 Been denied a contract award or had a bid or proposal rejected based upon a non-responsibility finding by a government entity?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.7 Had a low bid or proposal rejected on a government contract for failing to make good faith efforts on any Certified Business Enterprise goal or statutory affirmative action requirements on a previously held contract?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.8 Been suspended, cancelled, terminated or found non-responsible on any government contract, or had a surety called upon to complete an awarded contract?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please provide an explanation for each "Yes" in Part 3.	
PART 4: CERTIFICATES AND LICENSES	
Within the past five (5) years, has the bidder/offeror:	
4.1 Had a denial, decertification, revocation or forfeiture of District of Columbia certification of any Certified Business Enterprise or federal certification of Disadvantaged Business Enterprise status for other than a change of ownership?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please provide an explanation for "Yes" in Subpart 4.1.	
4.2 Please provide a copy of the bidder's/offeror's District of Columbia Office of Tax and Revenue Tax Certification Affidavit.	
PART 5: LEGAL PROCEEDINGS	
Within the past five (5) years, has the bidder/offeror:	
5.1 Had any liens or judgments (not including UCC filings) over \$25,000 filed against it which remain undischarged?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 5.1, provide an explanation of the issue(s), relevant dates, the Lien Holder or Claimant's name, the amount of the lien(s) and the current status of the issue(s).	
5.2 Had a government entity find a willful violation of District of Columbia compensation or prevailing wage laws, the Service Contract Act or the Davis-Bacon Act?	<input type="checkbox"/> Yes <input type="checkbox"/> No

5.3 Received any OSHA citation and Notification of Penalty containing a violation classified as serious or willful?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please provide an explanation for each "Yes" in Part 5.	
PART 6: FINANCIAL AND ORGANIZATIONAL INFORMATION	
6.1 Within the past five (5) years, has the bidder/offeror received any formal unsatisfactory performance assessment(s) from any government entity on any contract?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 6.1, provide an explanation of the issue(s), relevant dates, the government entity involved, any remedial or corrective action(s) taken and the current status of the issue(s).	
6.2 Within the past five (5) years, has the bidder/offeror had any liquidated damages assessed by a government entity over \$25,000?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 6.2, provide an explanation of the issue(s), relevant dates, the government entity involved, the amount assessed and the current status of the issue(s).	
6.3 Within the last seven (7) years, has the bidder/offeror initiated or been the subject of any bankruptcy proceedings, whether or not closed, or is any bankruptcy proceeding pending?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 6.3, provide the bankruptcy chapter number, the court name and the docket number. Indicate the current status of the proceedings as "initiated," "pending" or "closed".	
6.4 During the past three (3) years, has the bidder/offeror failed to file a tax return or pay taxes required by federal, state, District of Columbia or local laws?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 6.4, provide the taxing jurisdiction, the type of tax, the liability year(s), the tax liability amount the bidder/offeror failed to file/pay and the current status of the tax liability.	
6.5 During the past three (3) years, has the bidder/offeror failed to file a District of Columbia unemployment insurance return or failed to pay District of Columbia unemployment insurance?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Other
If "Yes" to Subpart 6.5, provide the years the bidder/offeror failed to file the return or pay the insurance, explain the situation and any remedial or corrective action(s) taken and the current status of the issue(s).	
6.6 During the past three (3) years, has the bidder/offeror complied with any payment agreement with the Internal Revenue Service, the District of Columbia Office of Tax and Revenue and the Department of Employment Services	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 6.6, provide the years the bidder/offeror failed to comply with the payment agreement, explain the situation and any remedial or corrective action(s) taken and the current status of the issue(s).	
6.7 Indicate whether the bidder/offeror owes any outstanding debt to any state, federal or District of Columbia government.	<input type="checkbox"/> Yes <input type="checkbox"/> No
If "Yes" to Subpart 6.7, provide an explanation of the issue(s), relevant dates, the government entity involved, any remedial or corrective action(s) taken and the current status of the issue(s).	
6.8 During the past three (3) years, has the bidder/offeror been audited by any government entity?	<input type="checkbox"/> Yes <input type="checkbox"/> No
(a) If "Yes" to Subpart 6.8, did any audit of the bidder/offeror identify any significant deficiencies in internal controls, fraud or illegal acts; significant violations of provisions of contract or grant agreements; significant abuse; or any material disallowance?	<input type="checkbox"/> Yes <input type="checkbox"/> No
(b) If "Yes" to Subpart 6.8(a), provide an explanation of the issue(s), relevant dates, the government entity involved, any remedial or corrective action(s) taken and the current status of the issue(s).	
PART 7: RESPONSE UPDATE REQUIREMENT	
7.1 In accordance with the requirement of Section 302(c) of the Procurement Practices Reform Act of 2010 (D.C. Official Code § 2-353.02), the bidder/offeror shall update any response provided in Section I of this form during the term of this contract: (a) Within sixty (60) days of a material change to a response; and (b) Prior to the exercise of an option year contract.	
PART 8: FREEDOM OF INFORMATION ACT (FOIA)	
8.1 Indicate whether the bidder/offeror asserts that any information provided in response to a question in Section I is exempt from disclosure under the District of Columbia Freedom of Information Act (FOIA), effective March 25, 1977 (D.C. Law 1-96; D.C. Official Code §§ 2-531, et seq.). Include the question number(s) and explain the basis for the claim. (The District will determine whether such information is, in fact, exempt from FOIA at the time of request for disclosure under FOIA.)	<input type="checkbox"/> Yes <input type="checkbox"/> No

SECTION II. ADDITIONAL REQUIRED BIDDER/OFFEROR CERTIFICATIONS

Instructions for Section II: Section II contains three (3) parts. Part 1 requests information concerning District of Columbia employees. Part 2 applies to the bidder/offeror's pricing. Part 3 relates to equal employment opportunity requirements.

PART 1. DISTRICT EMPLOYEES NOT TO BENEFIT

The bidder/offeror certifies that:

1.2 No person listed in clause 13 of the Standard Contract Provisions, "District Employees Not To Benefit", will benefit from this contract.

1.3 The following person(s) listed in clause 13 of the Standard Contract Provisions may benefit from this contract. (For each person listed, attach the affidavit required by clause 13.)

(a) _____

(b) _____

PART 2: INDEPENDENT PRICE DETERMINATION REQUIREMENTS

The bidder/offeror certifies that:

2.1 The signature of the bidder/offeror is considered to be a certification by the signatory that:

(a) The contract prices have been arrived at independently without, for the purpose of restricting competition, any consultation, communication or agreement with any bidder/offeror or competitor related to:

- (i) Those prices;
- (ii) The intention to submit a bid/proposal; or
- (iii) The methods or factors used to calculate the prices in the contract.

(b) The prices in this contract have not been and will not be knowingly disclosed by the bidder/offeror, directly or indirectly, to any other bidder/offeror or competitor before bid/proposal opening unless otherwise required by law, and

(c) No attempt has been made or will be made by the bidder/offeror to induce any other concern to submit or not to submit a contract for the purpose of restricting competition.

2.2 The signature on the bid/proposal is considered to be a certification by the signatory that the signatory:

(a) Is the person in the bidder's/offeror's organization responsible for determining the prices being offered in this contract, and that the signatory has not participated and will not participate in any action contrary to subparagraphs 2.1(a)(i) through (a)(iii) above; or

(b) Has been authorized, in writing, to act as an agent for the following principal in certifying that the principal has not participated, and will not participate, in any action contrary to subparagraphs 2.1(a)(i) through (a)(iii) above:

[Insert full name of person(s) in the organization responsible for determining the prices offered in this contract and the title of his or her position in the bidder's/offeror's organization]

(i) As an authorized agent, certifies that the principals named in subparagraph 2.2(b) above have not participated, and will not participate, in any action contrary to subparagraphs 2.1(a)(i) through (a)(iii) above; and

(ii) As an agent, has not participated and will not participate in any action contrary to subparagraphs 2.1(a)(i) through (a)(iii) above.

2.3 If the bidder/offeror deletes or modifies subparagraph 2.1(b) above, the bidder/offeror must furnish with its bid a signed statement setting forth in detail the circumstances of the disclosure.

PART 3: EQUAL OPPORTUNITY OBLIGATIONS

3.1 I hereby certify that I am fully aware of the contents of Mayor's Order 85-85 and the Office of Human Rights' regulations in Chapter 11 of the DCMR, and agree to comply with them while performing this contract.

SECTION III. BUY AMERICAN ACT CERTIFICATION

Instructions for Section III: Section III contains one (1) part which should only be completed if goods are being provided that are subject to the requirements of the Buy American Act.

PART 1: BUY AMERICAN ACT COMPLIANCE

1.1 The bidder/offeror certifies that each end product, except the end products listed below, is a domestic end product (as defined in Paragraph 23 of the Standard Contract Provisions, "Buy American Act"), and that components of unknown origin are considered to have been mined, produced or manufactured outside the United States.

EXCLUDED END PRODUCTS

_____ COUNTRY OF ORIGIN

SECTION IV. CERTIFICATION

Instruction for Section IV: This section must be completed by all bidder/offerors.

I, [_____], as the person authorized to sign these certifications, hereby certify that the information provided in this form is true and accurate.

Name:	Telephone #:	Fax #:
-------	--------------	--------

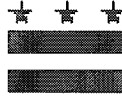
Title:	Email Address:
--------	----------------

The District of Columbia government is hereby authorized to verify the above information with appropriate government authorities. Penalty for making false statements is a fine of not more than \$1,000.00, imprisonment for not more than one year, or both, as prescribed in D.C. Official Code § 22-2514. Penalty for false swearing is a fine of not more than \$2,500.00, imprisonment for not more than three (3) years, or both, as prescribed in D.C. Official Code § 22-2513.

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Office of the Chief Financial Officer

Office of Tax and Revenue



TAX CERTIFICATION AFFIDAVIT

THIS AFFIDAVIT IS TO BE COMPLETED ONLY BY THOSE WHO ARE REGISTERED TO CONDUCT BUSINESS IN THE DISTRICT OF COLUMBIA.

Date

**Name of Organization/Entity
Business Address (include zip code)
Business Phone Number(s)**

**Principal Officer Name and Title
Square and Lot Information
Federal Identification Number
Contract Number
Unemployment Insurance Account No.**

"I hereby authorize the District of Columbia, Office of the Chief Financial Officer, Office of Tax and Revenue; consent to release my tax information to an authorized representative of the District of Columbia agency from which I am seeking to enter into a contractual relationship. I understand that the information released under this consent will be limited to whether or not I am in compliance with the District of Columbia tax laws and regulations as of the date found on the government request. I understand that this information is to be used solely for the purpose of determining my eligibility to enter into a contractual relationship with a District of Columbia agency. I further authorize that this consent be valid for one year from the date of this authorization."

I hereby certify that I am in compliance with the applicable tax filing and payment requirements of the District of Columbia.

The Office of Tax and Revenue is hereby authorized to verify the above information with the appropriate government authorities. The penalty for making false statements is a fine not to exceed \$5,000.00, imprisonment for not more than 180 days, or both, as prescribed by D.C. Official Code § 47-4106.

Signature of Authorizing Agent

Title

GOVERNMENT OF THE DISTRICT OF COLUMBIA

STANDARD CONTRACT PROVISIONS

FOR USE WITH

**DISTRICT OF COLUMBIA GOVERNMENT
SUPPLIES AND SERVICES CONTRACTS**

March 2007

**OFFICE OF CONTRACTING AND PROCUREMENT
SUITE 700 SOUTH
441 4th STREET, NW
WASHINGTON, DC 20001**

STANDARD CONTRACT PROVISIONS

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March (2007)

1. **Covenant Against Contingent Fees:**

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the District will have the right to terminate the contract without liability or in its discretion to deduct from the contract price or consideration or otherwise recover, the full amount of the commission, percentage, brokerage, or contingent fee.

2. **Shipping Instructions – Consignment:**

Unless otherwise specified in this Invitation for Bids/Request for Proposals, each case, crate, barrel, package, etc., delivered under this contract must be plainly stencil marked or securely tagged, stating the Contractor's name, contract number and delivery address as noted in the contract. In case of carload lots, the Contractor shall tag the car, stating Contractor's name and contract number. Any failure to comply with these instructions will place the material at the Contractor's risk. Deliveries by rail, water, truck or otherwise, must be within the working hours and in ample time to allow for unloading and if necessary, the storing of the materials or supplies before closing time. Deliveries at any other time will not be accepted unless specific arrangements have been previously made with the contact person identified in the contract at the delivery point.

3. **Patents:**

The Contractor shall hold and save the District, its officers, agents, servants, and employees harmless from liability of any nature or kind, including costs, expenses, for or on account of any patented or unpatented invention, article, process, or appliance, manufactured or used in the performance of this contract, including their use by the District, unless otherwise specifically stipulated in the contract.

4. **Quality:**

Contractor's workmanship shall be of the highest grade, and all materials provided under this Contract shall be new, of the best quality and grade, and suitable in every respect for the purpose intended.

5. **Inspection Of Supplies:**

- (a) **Definition.** "Supplies," as used in this clause, includes, but is not limited to raw materials, components, intermediate assemblies, end products, and lots of supplies.
- (b) The Contractor shall be responsible for the materials or supplies covered by this contract until they are delivered at the designated point, but the Contractor shall bear all risk on rejected materials or supplies after notification of rejection. Upon the Contractor's failure to cure within ten (10) days after date of notification, the District may return the rejected materials or supplies to the Contractor at the Contractor's risk and expense.
- (c) The Contractor shall provide and maintain an inspection system acceptable to the District covering supplies under this contract and shall tender to the District for acceptance only supplies that have been inspected in accordance with the inspection system and have been found by the Contractor to be in conformity with contract requirements. As part of the

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system, the Contractor shall prepare records evidencing all inspections made under the system and the outcome. These records shall be kept complete and made available to the District during contract performance and for as long afterwards as the contract requires. The District may perform reviews and evaluations as reasonably necessary to ascertain compliance with this paragraph. These reviews and evaluations shall be conducted in a manner that will not unduly delay the contract work. The right of review, whether exercised or not, does not relieve the Contractor of the obligations under this contract.

- (d) The District has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The District will perform inspections and tests in a manner that will not unduly delay the work. The District assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in the contract.
- (e) If the District performs inspection or test on the premises of the Contractor or subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, without additional charge, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the District will bear the expense of District inspections or tests made at other than Contractor's or subcontractor's premises; provided, that in case of rejection, the District will not be liable for any reduction in the value of inspection or test samples.
 - (1) When supplies are not ready at the time specified by the Contractor for inspection or test, the Contracting Officer may charge to the Contractor the additional cost of inspection or test.
 - (2) Contracting Officer may also charge the Contractor for any additional cost of inspection or test when prior rejection makes re-inspection or retest
- (f) The District has the right either to reject or to require correction of nonconforming supplies. Supplies are nonconforming when they are defective in material or workmanship or otherwise not in conformity with contract requirements. The District may reject nonconforming supplies with or without disposition instructions.
- (g) The Contractor shall remove supplies rejected or required to be corrected. However, the Contracting Officer may require or permit correction in place, promptly after notice, by and at the expense of the Contractor. The Contractor shall not tender for acceptance corrected or rejected supplies without disclosing the former rejection or requirement for correction, and when required, shall disclose the corrective action taken.
- (h) If the Contractor fails to remove, replace, or correct rejected supplies that are required to be replaced or corrected within ten (10) days, the District may either (1) by contract or otherwise, remove, replace or correct the supplies and charge the cost to the Contractor or (2) terminate the contract for default. Unless the Contractor corrects or replaces the supplies within the delivery schedule, the Contracting Officer may require their delivery and make an equitable price reduction. Failure to agree to a price reduction shall be a dispute.

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- (i) If this contract provides for the performance of District quality assurance at source, and if requested by the District, the Contractor shall furnish advance notification of the time (i) when Contractor inspection or tests will be performed in accordance with the terms and conditions of the contract, and (ii) when the supplies will be ready for District inspection.
- (j) The District request shall specify the period and method of the advance notification and the District representative to whom it shall be furnished. Requests shall not require more than 2 business days of advance notification if the District representative is in residence in the Contractor's plant, nor more than 7 business days in other instances.
- (k) The District will accept or reject supplies as promptly as practicable after delivery, unless otherwise provided in the contract. District failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability upon the District, for non-conforming supplies.
- (l) Inspections and tests by the District do not relieve the Contractor of responsibility for defects or other failures to meet contract requirements discovered before acceptance. Acceptance shall be conclusive, except for latent defects, fraud, gross mistakes amounting to fraud, or as otherwise provided in the contract.
- (m) If acceptance is not conclusive for any of the reasons in subparagraph (l) hereof, the District, in addition to any other rights and remedies provided by law, or under provisions of this contract, shall have the right to require the Contractor (1) at no increase in contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or at the Contractor's plant at the Contracting Officer's election, and in accordance with a reasonable delivery schedule as may be agreed upon between the Contractor and the Contracting Officer; provided, that the Contracting Officer may require a reduction in contract price if the Contractor fails to meet such delivery schedule, or (2) within a reasonable time after receipt by the Contractor of notice of defects or noncompliance, to repay such portion of the contract as is equitable under the circumstances if the Contracting Officer elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the transportation cost from the original point of delivery to the Contractor's plant and return to the original point when that point is not the Contractor's plant. If the Contractor fails to perform or act as required in (1) or (2) above and does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure, the District will have the right to return the rejected materials at Contractor's risk and expense or contract or otherwise to replace or correct such supplies and charge to the Contractor the cost occasioned the District thereby.

6. Inspection Of Services:

- (a) Definition. "Services" as used in this clause includes services performed, workmanship, and material furnished or utilized in the performance of services.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the District covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the District during contract performance and for as long afterwards as the contract requires.

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- (c) The District has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The District will perform inspections and tests in a manner that will not unduly delay the work.
- (d) If the District performs inspections or tests on the premises of the Contractor or subcontractor, the Contractor shall furnish, without additional charge, all reasonable facilities and assistance for the safety and convenient performance of these duties.
- (e) If any of the services do not conform to the contract requirements, the District may require the Contractor to perform these services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by performance, the District may require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and reduce the contract price to reflect value of services performed.
- (f) If the Contractor fails to promptly perform the services again or take the necessary action to ensure future performance in conformity to contract requirements, the District may (1) by contract or otherwise, perform the services and charge the Contractor any cost incurred by the District that is directly related to the performance of such services, or (2) terminate the contract for default.

7. **Waiver:**

The waiver of any breach of the contract will not constitute a waiver of any subsequent breach thereof, or a waiver of the contract.

8. **Default:**

- (a) The District may, subject to the provisions of paragraph (c) below, by written notice of default to the Contractor, terminate the whole or any part of this contract in any one of the following circumstances:
 - (1) If the Contractor fails to make delivery of the supplies or to perform the services within the time specified herein or any extension thereof; or
 - (2) If the Contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of ten (10) days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure.
- (b) In the event the District terminates this contract in whole or in part as provided in paragraph (a) of this clause, the District may procure, upon such terms and in such manner as the Contracting Officer may deem appropriate, supplies or service similar to those so terminated, and the Contractor shall be liable to the District for any excess costs for similar supplies or services; provided, that the Contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

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- (c) Except with respect to defaults of subcontractors, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises out of causes beyond the control and without the fault or negligence of the Contractor. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the District or Federal Government in either their sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without fault or negligence of the Contractor. If the failure to perform is caused by the default of the subcontractor, and if such default arises out of causes beyond the control of both the Contractor and the subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for any excess cost for failure to perform, unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule.
- (d) If this contract is terminated as provided in paragraph (a) of this clause, the District, in addition to any other rights provided in this clause, may require the Contractor to transfer title and deliver to the District, in the manner and to the extent directed by the Contracting Officer, (i) completed supplies, and (ii) such partially completed supplies and materials, parts, tools, dies, jigs, fixtures plans, drawing information, and contract rights (hereinafter called "manufacturing materials") as the Contractor has specifically produced or specifically acquired for the performance of such part of this contract as has been terminated; and the Contractor shall, upon direction of the Contracting Officer, protect and preserve property in possession of the Contractor in which the District has an interest. Payment for completed supplies delivered to and accepted by the District will be at the contract price. Payment for manufacturing materials delivered to and accepted by the District will be at the contract price. Payment for manufacturing materials delivered to and accepted by the District and for the protection and preservation of property shall be in an amount agreed upon by the Contractor and Contracting Officer; failure to agree to such amount shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes". The District may withhold from amounts otherwise due the Contractor for such completed supplies or manufacturing materials such sum as the Contracting Officer determines to be necessary to protect the District against loss because of outstanding liens or claims of former lien holders.
- (e) If, after notice of termination of this contract under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination of convenience of the District, be the same as if the notice of termination had been issued pursuant to such clause. See Clause 20 for Termination for Convenience of the District.
- (f) The rights and remedies of the District provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.
- (g) As used in paragraph (c) of this clause, the terms "subcontractor(s) means subcontractor(s) at any tier.

9. Indemnification:

The Contractor agrees to defend, indemnify and hold harmless the District, its officers, agencies, departments, agents, and employees (collectively the "District") from and against any and all claims, losses, liabilities, penalties, fines, forfeitures, demands, causes of action, suits, costs and expenses incidental thereto (including cost of defense and attorneys' fees), resulting from, arising out of, or in any way connected to activities or work performed by the Contractor, Contractor's officers, employees, agents, servants, subcontractors, or any other person acting for or by permission of the Contractor in performance of this Contract. The Contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed in performance of this Contract. The Contractor shall also repair or replace any District property that is damaged by the Contractor, Contractor's officers, employees, agents, servants, subcontractors, or any other person acting for or by permission of the Contractor while performing work hereunder.

The indemnification obligation under this section shall not be limited by the existence of any insurance policy or by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any subcontractor, and shall survive the termination of this Contract. The District agrees to give Contractor written notice of any claim of indemnity under this section. Additionally, Contractor shall have the right and sole authority to control the defense or settlement of such claim, provided that no contribution or action by the District is required in connection with the settlement. Monies due or to become due the Contractor under the contract may be retained by the District as necessary to satisfy any outstanding claim which the District may have against the Contractor.

10. Transfer:

No contract or any interest therein shall be transferred by the parties to whom the award is made; such transfer will be null and void and will be cause to annul the contract.

11. Taxes:

- (a) The Government of the District of Columbia is exempt from and will not pay Federal Excise Tax, Transportation Tax, and the District of Columbia Sales and Use Taxes.
- (b) Tax exemption certificates are no longer issued by the District for Federal Excise Tax. The following statement may be used by the supplier when claiming tax deductions for Federal Excise Tax exempt items sold to the District.

"The District of Columbia Government is Exempt from Federal Excise Tax – Registration No. 52-73-0206-K, Internal Revenue Service, Baltimore, Maryland."

Exempt From Maryland Sales Tax, Registered With The Comptroller Of The Treasury As Follows:

- a) Deliveries to Glenn Dale Hospital – Exemption No. 4647
- b) Deliveries to Children's Center – Exemption No. 4648
- c) Deliveries to other District Departments or Agencies – Exemption No. 09339

"The District of Columbia Government is Exempt from Sales and Use Tax – Registration No. 53-600, The District of Columbia Office of Tax and Revenue."

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12. Appointment of Attorney:

- (a) The bidder/offeror or contractor (whichever the case may be) does hereby irrevocably designate and appoint the Clerk of the District of Columbia Superior Court and his successor in office as the true and lawful attorney of the Contractor for the purpose of receiving service of all notices and processes issued by any court in the District of Columbia, as well as service of all pleadings and other papers, in relation to any action or legal proceeding arising out of or pertaining to this contract or the work required or performed hereunder.
- (b) The bidder/offeror or contractor (whichever the case may be) expressly agrees that the validity of any service upon the said Clerk as herein authorized shall not be affected either by the fact that the contractor was personally within the District of Columbia and otherwise subject to personal service at the time of such service upon the said Clerk or by the fact that the contractor failed to receive a copy of such process, notice or other paper so served upon the said Clerk provided the said Clerk shall have deposited in the United States mail, registered and postage prepaid, a copy of such process, notice, pleading or other paper addressed to the bidder/offeror or contractor at the address stated in this contract.

13. District Employees Not To Benefit:

Unless a determination is made as provided herein, no officer or employee of the District will be admitted to any share or part of this contract or to any benefit that may arise therefrom, and any contract made by the Contracting Officer or any District employee authorized to execute contracts in which they or an employee of the District will be personally interested shall be void, and no payment shall be made thereon by the District or any officer thereof, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit. A District employee shall not be a party to a contract with the District and will not knowingly cause or allow a business concern or other organization owned or substantially owned or controlled by the employee to be a party to such a contract, unless a written determination has been made by the head of the procuring agency that there is a compelling reason for contracting with the employee, such as when the District's needs cannot reasonably otherwise be met. (DC Procurement Practices Act of 1985, D.C. Law 6-85, D.C. Official Code, section 2-310.01, and Chapter 18 of the DC Personnel Regulations)

The Contractor represents and covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants not to employ any person having such known interests in the performance of the contract.

14. Disputes:

- A. All disputes arising under or relating to this contract shall be resolved as provided herein.
- B. Claims by a Contractor against the District.

Claim, as used in Section B of this clause, means a written assertion by the Contractor seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that

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contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant.

- (a) All claims by a Contractor against the District arising under or relating to a contract shall be in writing and shall be submitted to the Contracting Officer for a decision. The contractor's claim shall contain at least the following:
 - (1) A description of the claim and the amount in dispute;
 - (2) Any data or other information in support of the claim;
 - (3) A brief description of the Contractor's efforts to resolve the dispute prior to filing the claim; and
 - (4) The Contractor's request for relief or other action by the Contracting Officer.
- (b) The Contracting Officer may meet with the Contractor in a further attempt to resolve the claim by agreement.
- (c) For any claim of \$50,000 or less, the Contracting Officer shall issue a decision within sixty (60) days from receipt of a written request from a Contractor that a decision be rendered within that period.
- (d) For any claim over \$50,000, the Contracting Officer shall issue a decision within ninety (90) days of receipt of the claim. Whenever possible, the Contracting Officer shall take into account factors such as the size and complexity of the claim and the adequacy of the information in support of the claim provided by the Contractor.
- (e) The Contracting Officer's written decision shall do the following:
 - (1) Provide a description of the claim or dispute;
 - (2) Refer to the pertinent contract terms;
 - (3) State the factual areas of agreement and disagreement;
 - (4) State the reasons for the decision, including any specific findings of fact, although specific findings of fact are not required and, if made, shall not be binding in any subsequent proceeding;
 - (5) If all or any part of the claim is determined to be valid, determine the amount of monetary settlement, the contract adjustment to be made, or other relief to be granted;
 - (6) Indicate that the written document is the contracting officer's final decision; and
 - (7) Inform the Contractor of the right to seek further redress by appealing the decision to the Contract Appeals Board.
- (f) Any failure by the Contracting Officer to issue a decision on a contract claim within the required time period will be deemed to be a denial of the claim, and will authorize the commencement of an appeal to the Contract Appeals Board as authorized by D.C. Official Code § 2-309.04.

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- (g) (1) If a Contractor is unable to support any part of his or her claim and it is determined that the inability is attributable to a material misrepresentation of fact or fraud on the part of the Contractor, the Contractor shall be liable to the District for an amount equal to the unsupported part of the claim in addition to all costs to the District attributable to the cost of reviewing that part of the Contractor's claim.
- (2) Liability under paragraph (g)(1) shall be determined within six (6) years of the commission of the misrepresentation of fact or fraud.
- (h) The decision of the Contracting Officer shall be final and not subject to review unless an administrative appeal or action for judicial review is timely commenced by the Contractor as authorized by D. C. Official Code § 2-309.04.
- (i) Pending final decision of an appeal, action, or final settlement, a Contractor shall proceed diligently with performance of the contract in accordance with the decision of the Contracting Officer.

C. Claims by the District against a Contractor

- (a) Claim as used in Section C of this clause, means a written demand or written assertion by the District seeking, as a matter of right, the payment of money in a sum certain, the adjustment of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant.
- (b) (1) All claims by the District against a Contractor arising under or relating to a contract shall be decided by the Contracting Officer.
- (2) The Contracting Officer shall send written notice of the claim to the Contractor. The Contracting Officer's written decision shall do the following:
 - (a) Provide a description of the claim or dispute;
 - (b) Refer to the pertinent contract terms;
 - (c) State the factual areas of agreement and disagreement;
 - (d) State the reasons for the decision, including any specific findings of fact, although specific findings of fact are not required and, if made, shall not be binding in any subsequent proceeding;
 - (e) If all or any part of the claim is determined to be valid, determine the amount of monetary settlement, the contract adjustment to be made, or other relief to be granted;
 - (f) Indicate that the written document is the Contracting Officer's final decision; and
 - (g) Inform the Contractor of the right to seek further redress by appealing the decision to the Contract Appeals Board.

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- (3) The decision shall be supported by reasons and shall inform the Contractor of its rights as provided herein.
- (4) The authority contained in this clause shall not apply to a claim or dispute for penalties or forfeitures prescribed by statute or regulation which another District agency is specifically authorized to administer, settle, or determine.
- (5) This clause shall not authorize the Contracting Officer to settle, compromise, pay, or otherwise adjust any claim involving fraud.
- (c) The decision of the Contracting Officer shall be final and not subject to review unless an administrative appeal or action for judicial review is timely commenced by the Contractor as authorized by D.C. Official Code §2-309.04.
- (d) Pending final decision of an appeal, action, or final settlement, the Contractor shall proceed diligently with performance of the contract in accordance with the decision of the Contracting Officer.

15. Changes:

The Contracting Officer may, at any time, by written order, and without notice to the surety, if any, make changes in the contract within the general scope hereof. If such change causes an increase or decrease in the cost of performance of this contract, or in the time required for performance, an equitable adjustment shall be made. Any claim for adjustment under this paragraph must be asserted within ten (10) days from the date the change is offered; provided, however, that the Contracting Officer, if he or she determines that the facts justify such action, may receive, consider and adjust any such claim asserted at any time prior to the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in the Disputes clause at Section 18. Nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

16. Termination For Convenience Of The District:

- (a) The District may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the District's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and effective date.
- (b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
 - (1) Stop work as specified in the notice.
 - (2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.
 - (3) Terminate all contracts to the extent they relate to the work terminated.

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- (4) Assign to the District, as directed by the Contracting Officer, all rights, title and interest of the Contractor under the subcontracts terminated, in which case the District will have the right to settle or pay any termination settlement proposal arising out of those terminations.
 - (5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts. The approval or ratification will be final for purposes of this clause.
 - (6) As directed by the Contracting Officer, transfer title and deliver to the District (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other materials produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract has been completed, would be required to be furnished to the District.
 - (7) Complete performance of the work not terminated.
 - (8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the District has or may acquire an interest.
 - (9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (6) above; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the District under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.
- (c) After the expiration of ninety (90) days (or such longer period as may be agreed to) after receipt by the Contracting Officer of acceptable inventory schedules, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality of termination inventory not previously disposed of excluding items authorized for disposition by the Contracting Officer. The Contractor may request the District to remove those items or enter into an agreement for their storage. Within fifteen (15) days, the District will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within forty five (45) days from submission of the list, and shall correct the list, as necessary, before final settlement.
- (d) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than one year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this one year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be

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received and acted on after one year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due to the Contractor because of the termination and shall pay the amount determined.

- (e) Subject to paragraph (d) above, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (e) or paragraph (f) below, exclusive of costs shown in subparagraph (f)(3) below, may not exceed the total contract price as reduced by (1) the amount of payment previously made and (2) the contract price of work not terminated. The contract shall be amended, and the Contractor paid the agreed amount. Paragraph (f) below shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.
- (f) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (e) above:
 - (1) The contract price for completed supplies or services accepted by the District (or sold or acquired under subparagraph (b)(9) above) not previously paid for, adjusted for any saving of freight and other charges.
 - (2) The total of :
 - (i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (f)(1) above;
 - (ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subparagraph (f)(1) above; and
 - (iii) A sum, as profit on subparagraph f(1) above, determined by the Contracting Officer to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subparagraph (iii) and shall reduce the settlement to reflect the indicated rate of loss.
 - (3) The reasonable cost of settlement of the work terminated, including-
 - (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - (ii) The termination and settlement of subcontractors (excluding the amounts of such settlements); and

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- (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (g) Except for normal spoilage, and except to the extent that the District expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (f) above, the fair value as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the District or to a buyer.
- (h) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraphs (d), (f) or (j), except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (d) or (j), and failed to request a time extension, there is no right of appeal. If the Contracting Officer has made a determination of the amount due under paragraph (d), (f) or (j), the District will pay the Contractor (1) the amount determined by the Contracting Officer if there is no right of appeal or if no timely appeal has been taken, or (2) the amount finally determined on an appeal.
- (i) In arriving at the amount due the Contractor under this clause, there shall be deducted:
 - (1) All unliquidated advances or other payments to the Contractor under the termination portion of the contract;
 - (2) Any claim which the District has against the Contractor under this contract; and
 - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the District.
- (j) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within ninety (90) days from the effective date of termination unless extended in writing by the Contracting Officer.
- (k) (1) The District may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor shall be entitled.
 - (2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the District upon demand together with interest computed at the rate of 10 percent (10%) per year. Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess payment is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or

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other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

- (l) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the District, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, micrographs, or other authentic reproductions may be maintained instead of original records and documents.

17. Recovery Of Debts Owed The District:

The Contractor hereby agrees that the District may use all or any portion of any consideration or refund due the Contractor under the present contract to satisfy, in whole or part, any debt due the District.

18. Retention and Examination Of Records:

The Contractor shall establish and maintain books, records, and documents (including electronic storage media) in accordance with generally accepted accounting principles and practices which sufficiently and properly reflect all revenues and expenditures of funds provided by the District under the contract that results from this solicitation.

The Contractor shall retain all records, financial records, supporting documents, statistical records, and any other documents (including electronic storage media) pertinent to the contract for a period of three (3) years after termination of the contract, or if an audit has been initiated and audit findings have not been resolved at the end of three (3) years, the records shall be retained until resolution of the audit findings or any litigation which may be based on the terms of the contract.

The Contractor shall assure that these records shall be subject at all reasonable times to inspection, review, or audit by Federal, District, or other personnel duly authorized by the Contracting Officer.

The Contracting Officer, the Inspector General and the District of Columbia Auditor, or any of their duly authorized representatives shall, until three years after final payment, have the right to examine any directly pertinent books, documents, papers and records of the Contractor involving transactions related to the contract.

19. Non-Discrimination Clause:

- (a) The Contractor shall not discriminate in any manner against any employee or applicant for employment that would constitute a violation of the District of Columbia Human Rights Act, approved December 13, 1977, as amended (D. C. Law 2-38; D. C. Official Code §2-1402.11) (2001 Ed.) ("Act" as used in this Section). The Contractor shall include a similar clause in all subcontracts, except subcontracts for standard commercial supplies or raw materials. In addition, Contractor agrees and any subcontractor shall agree to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this non-discrimination clause as provided in Section 251 of the Act.

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(b) Pursuant to rules of the Office of Human Rights, published on August 15, 1986 in the D. C. Register, Mayor's Order 2002-175 (10/23/02), 49 DCR 9883 and Mayor's Order 2006-151 (11/17/06), 52 DCR 9351, the following clauses apply to this contract:

(1) The Contractor shall not discriminate against any employee or applicant for employment because of actual or perceived: race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, gender identity or expression, familial status, family responsibilities, disability, matriculation, political affiliation, genetic information, source of income, or place of residence or business. Sexual harassment is a form of sex discrimination which is prohibited by the Act. In addition, harassment based on any of the above protected categories is prohibited by the Act.

(2) The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their actual or perceived: race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, gender identity or expression, familial status, family responsibilities, disability, matriculation, political affiliation, genetic information, source of income, or place of residence or business.

The affirmative action shall include, but not be limited to the following:

- (a) employment, upgrading or transfer;
- (b) recruitment, or recruitment advertising;
- (c) demotion, layoff, or termination;
- (d) rates of pay, or other forms of compensation; and
- (e) selection for training and apprenticeship.

(3) The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Agency, setting forth the provisions in subsections (b)(1) and (b)(2) concerning non-discrimination and affirmative action.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment pursuant to the non-discrimination requirements set forth in subsection (b)(2).

(5) The Contractor agrees to send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the contracting agency, advising the said labor union or workers' representative of that contractor's commitments under this nondiscrimination clause and the Act, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

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- (6) The Contractor agrees to permit access to his books, records and accounts pertaining to its employment practices, by the Chief Procurement Officer or designee, or the Director of Human Rights or designee, for purposes of investigation to ascertain compliance with this chapter, and to require under terms of any subcontractor agreement each subcontractor to permit access of such subcontractors' books, records, and accounts for such purposes.
- (7) The Contractor agrees to comply with the provisions of this chapter and with all guidelines for equal employment opportunity applicable in the District of Columbia adopted by the Director of the Office of Human Rights, or any authorized official.
- (8) The Contractor shall include in every subcontract the equal opportunity clauses, subsections (b)(1) through (b)(9) of this section, so that such provisions shall be binding upon each subcontractor or vendor.
- (9) The Contractor shall take such action with respect to any subcontract as the Contracting Officer may direct as a means of enforcing these provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the District to enter into such litigation to protect the interest of the District.

20. **Definitions:**

The terms Mayor, Chief Procurement Officer, Contract Appeals Board and District will mean the Mayor of the District of Columbia, the Chief Procurement Officer of the District of Columbia or his/her alternate, the Contract Appeals Board of the District of Columbia, and the Government of the District of Columbia respectively. If the Contractor is an individual, the term Contractor shall mean the Contractor, his heirs, his executor and his administrator. If the Contractor is a corporation, the term Contractor shall mean the Contractor and its successor.

21. **Health And Safety Standards:**

Items delivered under this contract shall conform to all requirements of the Occupational Safety and Health Act of 1970, as amended ("OSHA"), and Department of Labor Regulations under OSHA, and all Federal requirements in effect at time of bid opening/proposal submission.

22. **Appropriation Of Funds:**

The District's liability under this contract is contingent upon the future availability of appropriated monies with which to make payment for the contract purposes. The legal liability on the part of the District for the payment of any money shall not arise unless and until such appropriation shall have been provided.

23. **Buy American Act:**

- (a) The Buy American Act (41 U.S.C. §10a) provides that the District give preference to domestic end products.

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“Components,” as used in this clause, means those articles, materials, and supplies incorporated directly into the end products.

“Domestic end product,” as used in this clause, means, (1) an unmanufactured end product mined or produced in the United States, or (2) an end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States, exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as the products referred to in paragraphs (b)(2) or (3) of this clause shall be treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

“End products,” as used in this clause, means those articles, materials, and supplies to be acquired for public use under this contract.

- (b) The Contractor shall deliver only domestic end products, except those-
- (1) For use outside the United States;
 - (2) That the District determines are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality;
 - (3) For which the District determines that domestic preference would be inconsistent with the public interest; or
 - (4) For which the District determines the cost to be unreasonable.

24. Service Contract Act of 1965:

- (a) Definitions. “Act,” as used in this clause, means the Service Contract Act of 1965, as amended (41 U.S.C. §351, *et seq.*)
- (1) “Contractor,” as used in this clause, means the prime Contractor or any subcontractor at any tier.
 - (2) “Service employee,” as used in this clause, means any person (other than a person employed in a bona fide executive, administrative, or professional capacity as defined in 29 CFR 541) engaged in performing a District contract not exempted under 41 U.S.C. §356, the principal purpose of which is to furnish services in the United States, as defined in section 22.1001 of the Federal Acquisition Regulation. It includes all such persons regardless of the actual or alleged contractual relationship between them and a contractor.
- (b) Applicability. To the extent that the Act applies, this contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (20 CFR part 4). All interpretations of the Act in Subpart C of 29 CFR 4 are incorporated in this contract by reference. This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. §356, as interpreted in Subpart C of 29 CFR 4.
- (c) Compensation.

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- (1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor or the Secretary's authorized representative, as specified in any wage determination attached to this contract.
- (2) If a wage determination is attached to this contract, the Contractor shall classify any class of service employees not listed in it, but to be employed under this contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph. This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee.
 - (a) The Contractor shall submit Standard Form (SF) 1444, Request for Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration (ESA), Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary;
 - (b) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contracting Officer with a written copy of such determination or it shall be posted as a part of the wage determination;
 - (c) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General

Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed;

- (d) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds to a contract under which the classification in question was previously conformed pursuant to this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (*i.e.*, adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in this clause need not be followed;
 - (e) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended;
 - (f) The wage rate and fringe benefits finally determined under this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract;
 - (g) Upon discovery of failure to comply with this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.
- (3) If the term of this contract is more than 1 year, the minimum wages and fringe benefits required for service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations issued by ESA.
 - (4) The Contractor can discharge the obligation to furnish fringe benefits specified in the attachment or determined under paragraph (2) of this clause by furnishing any equivalent combinations of bona fide fringe

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benefits, or by making equivalent or differential cash payments, in accordance with Subpart B and C of 29 CFR 4.

- (d) Minimum wage: In the absence of a minimum wage attachment for this contract, the Contractor shall not pay any service or other employees performing this contract less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended (29 U.S.C. §206). Nothing in this clause shall relieve the Contractor of any other legal or contractual obligation to pay a higher wage to any employee.
- (e) Successor contracts: If this contract succeeds a contract subject to the Act under which substantially the same services were furnished and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, then, in the absence of a minimum wage attachment to this contract, the Contractor may not pay any service employee performing this contract less than the wages and benefits, including those accrued and any prospective increases, provided for under that agreement. No Contractor may be relieved of this obligation unless the limitations of 29 CFR 4.1c(b) apply or unless the Secretary of Labor or the Secretary's authorized representative:
 - (1) Determines that the agreement under the predecessor was not the result of arms-length negotiations; or
 - (2) Finds, after a hearing under 29 CFR 4.10, that the wages and benefits provided for by that agreement vary substantially from those prevailing for similar services in the locality or determines, as provided in 29 CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and 4.11 and parts 6 and 8 that some or all of the wages and fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.
- (f) Notification to employees: The Contractor shall notify each service employee commencing work on this contract of a minimum wage and any fringe benefits required to be paid, or shall post a notice of these wages and benefits in a prominent and accessible place at the worksite, using such poster as may be provided by the Department of Labor.

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- (g) Safe and sanitary working conditions: The Contractor shall not permit services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor that are unsanitary, hazardous, or dangerous to the health or safety of service employees. The Contractor shall comply with the health standards applied under 29 CFR Part 1925.
- (h) Records: The Contractor shall maintain for 3 years from the completion of work, and make available for inspection and transcription by authorized ESA representatives, a record of the following:
 - (1) For each employee subject to the Act:
 - (a) Name and address;
 - (b) Work classification or classifications, rate or rates of wages and fringe benefits provided, rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;
 - (c) Daily and weekly hours worked; and
 - (d) Any deductions, rebates, or refunds from total daily or weekly compensation.
 - (2) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by ESA under the terms of paragraph (c)(3) of this clause. A copy of the report required by paragraph (e) of this clause will fulfill this requirement.
 - (3) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by this clause. The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division. Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases. The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.
- (i) Pay periods: The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.
- (j) Withholding of payments and termination of contract: The Contracting Officer shall withhold from the prime Contractor under this or any other District contract

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with the prime contractor any sums the Contracting Officer, or an appropriate officer of the Labor Department, decides may be necessary to pay underpaid employees. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination for default. In such event, the District may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

- (k) Subcontracts: The Contractor agrees to insert this clause in all subcontracts.
- (l) Contractor's report:
 - (1) If there is a wage determination attachment to this contract and any classes of service employees not listed on it are to be employed under the contract, the Contractor shall report promptly to the Contracting Officer the wages to be paid and the fringe benefits to be provided each of these classes, when determined under paragraph (c) of this clause.
 - (2) If wages to be paid or fringe benefits to be furnished any service employees under the contract are covered in a collective bargaining agreement effective at any time when the contract is being performed, the Contractor shall provide to the Contracting Officer a copy of the agreement and full information on the application and accrual of wages and benefits (including any prospective increases) to service employees working on the contract. The Contractor shall report when contract performance begins, in the case of agreements then in effect, and shall report subsequently effective agreements, provisions, or amendments promptly after they are negotiated.
- (m) Contractor's Certification: By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Contractor's firm is a person or firm ineligible to be awarded District contracts by virtue of the sanctions imposed under section 5 of the Act. No part of this contract shall be subcontracted to any person or firm ineligible for award of a District contract under section 5 of the Act. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. §1001.
- (n) Variations, tolerances, and exemptions involving employment: Notwithstanding any of the provisions in paragraphs (c) through (l) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions authorized by the Secretary of Labor.
 - (1)(i) In accordance with regulations issued under Section 14 of the Fair Labor Standards Act of 1938 by the Administrator of the Wage and Hour Division, ESA (29 CFR 520, 521, 524, and 525), apprentices, student learners, and workers whose earning capacity is impaired by age or by physical or mental deficiency or injury, may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1)

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of the Service Contract Act, without diminishing any fringe benefits or payments in lieu of these benefits required under section 2(a)(2) of the Act.

- (ii) The Administrator will issue certificates under the Act for employing apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages, but without changing requirements concerning fringe benefits or supplementary cash payments in lieu of these benefits.
 - (iii) The Administrator may also withdraw, annul, or cancel such certificates under 29 CFR 525 and 528.
- (2) An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips shall be credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with regulations in 29 CFR 531. However, the amount of credit shall not exceed 40 percent of the minimum rate specified in section 6(a)(1) of the Fair Labor Standards Act of 1938 as amended.

25. Cost and Pricing Data:

- (a) This paragraph and paragraphs b through e below shall apply to contractors or offerors in regards to: (1) any procurement in excess of \$100,000, (2) any contract awarded through competitive sealed proposals, (3) any contract awarded through sole source procurement, or (4) any change order or contract modification. By entering into this contract or submitting this offer, the Contractor or offeror certifies that, to the best of the Contractor's or offeror's knowledge and belief, any cost and pricing data submitted was accurate, complete and current as of the date specified in the contract or offer.
- (b) Unless otherwise provided in the solicitation, the offeror or Contractor shall, before entering into any contract awarded through competitive sealed proposals or through sole source procurement or before negotiating any price adjustments pursuant to a change order or modification, submit cost or pricing data and certification that, to the best of the Contractor's knowledge and belief, the cost or pricing data submitted was accurate, complete, and current as of the date of award of this contract or as of the date of negotiation of the change order or modification.
- (c) If any price, including profit or fee, negotiated in connection with this contract, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified by the Contractor, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified by the Contractor, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction.

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- (d) Any reduction in the contract price under paragraph c above due to defective data from a prospective subcontractor that was not subsequently awarded, the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which (1) the actual subcontract or (2) the actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided that the actual subcontract price was not itself affected by defective cost or pricing data.
- (e) Cost or pricing data includes all facts as of the time of price agreement that prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental, and are therefore verifiable. While they do not indicate the accuracy of the prospective Contractor's judgment about estimated future costs or projections, cost or pricing data do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all the facts that can be reasonably expected to contribute to the soundness of estimates of future costs and to the validity of determinations of costs already incurred.
- (f) The following specific information should be included as cost or pricing data, as applicable:
 - (1) Vendor quotations;
 - (2) Nonrecurring costs;
 - (3) Information on changes in production methods or purchasing volume;
 - (4) Data supporting projections of business prospects and objectives and related operations costs;
 - (5) Unit – cost trends such as those associated with labor efficiency;
 - (6) Make or buy decisions;
 - (7) Estimated resources to attain business goals;
 - (8) Information on management decisions that could have a significant bearing on costs.
- (g) If the offeror or contractor is required by law to submit cost or pricing data in connection with pricing this contract or any change order or modification of this contract, the Contracting Officer or representatives of the Contracting Officer shall have the right to examine all books, records, documents and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the contract, change order or modification, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used. Contractor shall make available at its office at all reasonable times the materials described above for examination, audit, or reproduction until three years after the later of:
 - (1) final payment under the contract;

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- (2) final termination settlement; or
- (3) the final disposition of any appeals under the disputes clause or of litigation or the settlement of claims arising under or relating to the contract.

26. Multivear Contract:

If this contract is a multivear contract, then the following provision is made part of this contract:

If funds are not appropriated or otherwise made available for the continued performance in a subsequent year of a multivear contract, the contract for the subsequent year shall be terminated, either automatically or in accordance with the termination clause of the contract. Unless otherwise provided for in the contract, the effect of termination is to discharge both the District and the Contractor from future performance of the contract, but not from the existing obligations. The Contractor shall be reimbursed for the reasonable value of any non-recurring costs incurred but not amortized in the price of the supplies or services delivered under the contract.

27. Termination Of Contracts For Certain Crimes And Violations:

- (a) The District may terminate without liability any contract and may deduct from the contract price or otherwise recover the full amount of any fee, commission, percentage, gift, or consideration paid in violation of this title if:
 - (1) The Contractor has been convicted of a crime arising out of or in connection with the procurement of any work to be done or any payment to be made under the contract; or
 - (2) There has been any breach or violation of:
 - (A) Any provision of the Procurement Practices Act of 1985, as amended, or
 - (B) The contract provision against contingent fees.
- (b) If a contract is terminated pursuant to this section, the Contractor:
 - (1) May be paid only the actual costs of the work performed to the date of termination, plus termination costs, if any; and
 - (2) Shall refund all profits or fixed fees realized under the Contract.
- (c) The rights and remedies contained in this are in addition to any other right or remedy provided by law, and the exercise of any of them is not a waiver of any other right or remedy provided by law.

GOVERNMENT OF THE DISTRICT OF COLUMBIA

STANDARD CONTRACT PROVISIONS

FOR USE WITH

DISTRICT OF COLUMBIA GOVERNMENT
SUPPLIES AND SERVICES CONTRACTS

March 2007

OFFICE OF CONTRACTING AND PROCUREMENT
SUITE 700 SOUTH
441 4th STREET, NW
WASHINGTON, DC 20001

STANDARD CONTRACT PROVISIONS

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1. **Covenant Against Contingent Fees:**

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the District will have the right to terminate the contract without liability or in its discretion to deduct from the contract price or consideration or otherwise recover, the full amount of the commission, percentage, brokerage, or contingent fee.

2. **Shipping Instructions – Consignment:**

Unless otherwise specified in this Invitation for Bids/Request for Proposals, each case, crate, barrel, package, etc., delivered under this contract must be plainly stencil marked or securely tagged, stating the Contractor's name, contract number and delivery address as noted in the contract. In case of carload lots, the Contractor shall tag the car, stating Contractor's name and contract number. Any failure to comply with these instructions will place the material at the Contractor's risk. Deliveries by rail, water, truck or otherwise, must be within the working hours and in ample time to allow for unloading and if necessary, the storing of the materials or supplies before closing time. Deliveries at any other time will not be accepted unless specific arrangements have been previously made with the contact person identified in the contract at the delivery point.

3. **Patents:**

The Contractor shall hold and save the District, its officers, agents, servants, and employees harmless from liability of any nature or kind, including costs, expenses, for or on account of any patented or unpatented invention, article, process, or appliance, manufactured or used in the performance of this contract, including their use by the District, unless otherwise specifically stipulated in the contract.

4. **Quality:**

Contractor's workmanship shall be of the highest grade, and all materials provided under this Contract shall be new, of the best quality and grade, and suitable in every respect for the purpose intended.

5. **Inspection Of Supplies:**

- (a) **Definition.** "Supplies," as used in this clause, includes, but is not limited to raw materials, components, intermediate assemblies, end products, and lots of supplies.
- (b) The Contractor shall be responsible for the materials or supplies covered by this contract until they are delivered at the designated point, but the Contractor shall bear all risk on rejected materials or supplies after notification of rejection. Upon the Contractor's failure to cure within ten (10) days after date of notification, the District may return the rejected materials or supplies to the Contractor at the Contractor's risk and expense.
- (c) The Contractor shall provide and maintain an inspection system acceptable to the District covering supplies under this contract and shall tender to the District for acceptance only supplies that have been inspected in accordance with the inspection system and have been found by the Contractor to be in conformity with contract requirements. As part of the

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system, the Contractor shall prepare records evidencing all inspections made under the system and the outcome. These records shall be kept complete and made available to the District during contract performance and for as long afterwards as the contract requires. The District may perform reviews and evaluations as reasonably necessary to ascertain compliance with this paragraph. These reviews and evaluations shall be conducted in a manner that will not unduly delay the contract work. The right of review, whether exercised or not, does not relieve the Contractor of the obligations under this contract.

- (d) The District has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The District will perform inspections and tests in a manner that will not unduly delay the work. The District assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in the contract.
- (e) If the District performs inspection or test on the premises of the Contractor or subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, without additional charge, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the District will bear the expense of District inspections or tests made at other than Contractor's or subcontractor's premises; provided, that in case of rejection, the District will not be liable for any reduction in the value of inspection or test samples.
 - (1) When supplies are not ready at the time specified by the Contractor for inspection or test, the Contracting Officer may charge to the Contractor the additional cost of inspection or test.
 - (2) Contracting Officer may also charge the Contractor for any additional cost of inspection or test when prior rejection makes re-inspection or retest
- (f) The District has the right either to reject or to require correction of nonconforming supplies. Supplies are nonconforming when they are defective in material or workmanship or otherwise not in conformity with contract requirements. The District may reject nonconforming supplies with or without disposition instructions.
- (g) The Contractor shall remove supplies rejected or required to be corrected. However, the Contracting Officer may require or permit correction in place, promptly after notice, by and at the expense of the Contractor. The Contractor shall not tender for acceptance corrected or rejected supplies without disclosing the former rejection or requirement for correction, and when required, shall disclose the corrective action taken.
- (h) If the Contractor fails to remove, replace, or correct rejected supplies that are required to be replaced or corrected within ten (10) days, the District may either (1) by contract or otherwise, remove, replace or correct the supplies and charge the cost to the Contractor or (2) terminate the contract for default. Unless the Contractor corrects or replaces the supplies within the delivery schedule, the Contracting Officer may require their delivery and make an equitable price reduction. Failure to agree to a price reduction shall be a dispute.

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- (i) If this contract provides for the performance of District quality assurance at source, and if requested by the District, the Contractor shall furnish advance notification of the time (i) when Contractor inspection or tests will be performed in accordance with the terms and conditions of the contract, and (ii) when the supplies will be ready for District inspection.
- (j) The District request shall specify the period and method of the advance notification and the District representative to whom it shall be furnished. Requests shall not require more than 2 business days of advance notification if the District representative is in residence in the Contractor's plant, nor more than 7 business days in other instances.
- (k) The District will accept or reject supplies as promptly as practicable after delivery, unless otherwise provided in the contract. District failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability upon the District, for non-conforming supplies.
- (l) Inspections and tests by the District do not relieve the Contractor of responsibility for defects or other failures to meet contract requirements discovered before acceptance. Acceptance shall be conclusive, except for latent defects, fraud, gross mistakes amounting to fraud, or as otherwise provided in the contract.
- (m) If acceptance is not conclusive for any of the reasons in subparagraph (l) hereof, the District, in addition to any other rights and remedies provided by law, or under provisions of this contract, shall have the right to require the Contractor (1) at no increase in contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or at the Contractor's plant at the Contracting Officer's election, and in accordance with a reasonable delivery schedule as may be agreed upon between the Contractor and the Contracting Officer; provided, that the Contracting Officer may require a reduction in contract price if the Contractor fails to meet such delivery schedule, or (2) within a reasonable time after receipt by the Contractor of notice of defects or noncompliance, to repay such portion of the contract as is equitable under the circumstances if the Contracting Officer elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the transportation cost from the original point of delivery to the Contractor's plant and return to the original point when that point is not the Contractor's plant. If the Contractor fails to perform or act as required in (1) or (2) above and does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure, the District will have the right to return the rejected materials at Contractor's risk and expense or contract or otherwise to replace or correct such supplies and charge to the Contractor the cost occasioned the District thereby.

6. Inspection Of Services:

- (a) Definition. "Services" as used in this clause includes services performed, workmanship, and material furnished or utilized in the performance of services.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the District covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the District during contract performance and for as long afterwards as the contract requires.

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- (c) The District has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The District will perform inspections and tests in a manner that will not unduly delay the work.
- (d) If the District performs inspections or tests on the premises of the Contractor or subcontractor, the Contractor shall furnish, without additional charge, all reasonable facilities and assistance for the safety and convenient performance of these duties.
- (e) If any of the services do not conform to the contract requirements, the District may require the Contractor to perform these services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by performance, the District may require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and reduce the contract price to reflect value of services performed.
- (f) If the Contractor fails to promptly perform the services again or take the necessary action to ensure future performance in conformity to contract requirements, the District may (1) by contract or otherwise, perform the services and charge the Contractor any cost incurred by the District that is directly related to the performance of such services, or (2) terminate the contract for default.

7. **Waiver:**

The waiver of any breach of the contract will not constitute a waiver of any subsequent breach thereof, or a waiver of the contract.

8. **Default:**

- (a) The District may, subject to the provisions of paragraph (c) below, by written notice of default to the Contractor, terminate the whole or any part of this contract in any one of the following circumstances:
 - (1) If the Contractor fails to make delivery of the supplies or to perform the services within the time specified herein or any extension thereof; or
 - (2) If the Contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of ten (10) days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure.
- (b) In the event the District terminates this contract in whole or in part as provided in paragraph (a) of this clause, the District may procure, upon such terms and in such manner as the Contracting Officer may deem appropriate, supplies or service similar to those so terminated, and the Contractor shall be liable to the District for any excess costs for similar supplies or services; provided, that the Contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

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- (c) Except with respect to defaults of subcontractors, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises out of causes beyond the control and without the fault or negligence of the Contractor. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the District or Federal Government in either their sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without fault or negligence of the Contractor. If the failure to perform is caused by the default of the subcontractor, and if such default arises out of causes beyond the control of both the Contractor and the subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for any excess cost for failure to perform, unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule.
- (d) If this contract is terminated as provided in paragraph (a) of this clause, the District, in addition to any other rights provided in this clause, may require the Contractor to transfer title and deliver to the District, in the manner and to the extent directed by the Contracting Officer, (i) completed supplies, and (ii) such partially completed supplies and materials, parts, tools, dies, jigs, fixtures plans, drawing information, and contract rights (hereinafter called "manufacturing materials") as the Contractor has specifically produced or specifically acquired for the performance of such part of this contract as has been terminated; and the Contractor shall, upon direction of the Contracting Officer, protect and preserve property in possession of the Contractor in which the District has an interest. Payment for completed supplies delivered to and accepted by the District will be at the contract price. Payment for manufacturing materials delivered to and accepted by the District will be at the contract price. Payment for manufacturing materials delivered to and accepted by the District and for the protection and preservation of property shall be in an amount agreed upon by the Contractor and Contracting Officer; failure to agree to such amount shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes". The District may withhold from amounts otherwise due the Contractor for such completed supplies or manufacturing materials such sum as the Contracting Officer determines to be necessary to protect the District against loss because of outstanding liens or claims of former lien holders.
- (e) If, after notice of termination of this contract under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination of convenience of the District, be the same as if the notice of termination had been issued pursuant to such clause. See Clause 20 for Termination for Convenience of the District.
- (f) The rights and remedies of the District provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.
- (g) As used in paragraph (c) of this clause, the terms "subcontractor(s) means subcontractor(s) at any tier.

9. Indemnification:

The Contractor agrees to defend, indemnify and hold harmless the District, its officers, agencies, departments, agents, and employees (collectively the "District") from and against any and all claims, losses, liabilities, penalties, fines, forfeitures, demands, causes of action, suits, costs and expenses incidental thereto (including cost of defense and attorneys' fees), resulting from, arising out of, or in any way connected to activities or work performed by the Contractor, Contractor's officers, employees, agents, servants, subcontractors, or any other person acting for or by permission of the Contractor in performance of this Contract. The Contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed in performance of this Contract. The Contractor shall also repair or replace any District property that is damaged by the Contractor, Contractor's officers, employees, agents, servants, subcontractors, or any other person acting for or by permission of the Contractor while performing work hereunder.

The indemnification obligation under this section shall not be limited by the existence of any insurance policy or by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any subcontractor, and shall survive the termination of this Contract. The District agrees to give Contractor written notice of any claim of indemnity under this section. Additionally, Contractor shall have the right and sole authority to control the defense or settlement of such claim, provided that no contribution or action by the District is required in connection with the settlement. Monies due or to become due the Contractor under the contract may be retained by the District as necessary to satisfy any outstanding claim which the District may have against the Contractor.

10. Transfer:

No contract or any interest therein shall be transferred by the parties to whom the award is made; such transfer will be null and void and will be cause to annul the contract.

11. Taxes:

- (a) The Government of the District of Columbia is exempt from and will not pay Federal Excise Tax, Transportation Tax, and the District of Columbia Sales and Use Taxes.
- (b) Tax exemption certificates are no longer issued by the District for Federal Excise Tax. The following statement may be used by the supplier when claiming tax deductions for Federal Excise Tax exempt items sold to the District.

"The District of Columbia Government is Exempt from Federal Excise Tax – Registration No. 52-73-0206-K, Internal Revenue Service, Baltimore, Maryland."

Exempt From Maryland Sales Tax, Registered With The Comptroller Of The Treasury As Follows:

- a) Deliveries to Glenn Dale Hospital – Exemption No. 4647
- b) Deliveries to Children's Center – Exemption No. 4648
- c) Deliveries to other District Departments or Agencies – Exemption No. 09339

"The District of Columbia Government is Exempt from Sales and Use Tax – Registration No. 53-600, The District of Columbia Office of Tax and Revenue."

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12. Appointment of Attorney:

- (a) The bidder/offeror or contractor (whichever the case may be) does hereby irrevocably designate and appoint the Clerk of the District of Columbia Superior Court and his successor in office as the true and lawful attorney of the Contractor for the purpose of receiving service of all notices and processes issued by any court in the District of Columbia, as well as service of all pleadings and other papers, in relation to any action or legal proceeding arising out of or pertaining to this contract or the work required or performed hereunder.
- (b) The bidder/offeror or contractor (whichever the case may be) expressly agrees that the validity of any service upon the said Clerk as herein authorized shall not be affected either by the fact that the contractor was personally within the District of Columbia and otherwise subject to personal service at the time of such service upon the said Clerk or by the fact that the contractor failed to receive a copy of such process, notice or other paper so served upon the said Clerk provided the said Clerk shall have deposited in the United States mail, registered and postage prepaid, a copy of such process, notice, pleading or other paper addressed to the bidder/offeror or contractor at the address stated in this contract.

13. District Employees Not To Benefit:

Unless a determination is made as provided herein, no officer or employee of the District will be admitted to any share or part of this contract or to any benefit that may arise therefrom, and any contract made by the Contracting Officer or any District employee authorized to execute contracts in which they or an employee of the District will be personally interested shall be void, and no payment shall be made thereon by the District or any officer thereof, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit. A District employee shall not be a party to a contract with the District and will not knowingly cause or allow a business concern or other organization owned or substantially owned or controlled by the employee to be a party to such a contract, unless a written determination has been made by the head of the procuring agency that there is a compelling reason for contracting with the employee, such as when the District's needs cannot reasonably otherwise be met. (DC Procurement Practices Act of 1985, D.C. Law 6-85, D.C. Official Code, section 2-310.01, and Chapter 18 of the DC Personnel Regulations)

The Contractor represents and covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants not to employ any person having such known interests in the performance of the contract.

14. Disputes:

- A. All disputes arising under or relating to this contract shall be resolved as provided herein.
- B. Claims by a Contractor against the District.

Claim, as used in Section B of this clause, means a written assertion by the Contractor seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that

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contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant.

- (a) All claims by a Contractor against the District arising under or relating to a contract shall be in writing and shall be submitted to the Contracting Officer for a decision. The contractor's claim shall contain at least the following:
 - (1) A description of the claim and the amount in dispute;
 - (2) Any data or other information in support of the claim;
 - (3) A brief description of the Contractor's efforts to resolve the dispute prior to filing the claim; and
 - (4) The Contractor's request for relief or other action by the Contracting Officer.
- (b) The Contracting Officer may meet with the Contractor in a further attempt to resolve the claim by agreement.
- (c) For any claim of \$50,000 or less, the Contracting Officer shall issue a decision within sixty (60) days from receipt of a written request from a Contractor that a decision be rendered within that period.
- (d) For any claim over \$50,000, the Contracting Officer shall issue a decision within ninety (90) days of receipt of the claim. Whenever possible, the Contracting Officer shall take into account factors such as the size and complexity of the claim and the adequacy of the information in support of the claim provided by the Contractor.
- (e) The Contracting Officer's written decision shall do the following:
 - (1) Provide a description of the claim or dispute;
 - (2) Refer to the pertinent contract terms;
 - (3) State the factual areas of agreement and disagreement;
 - (4) State the reasons for the decision, including any specific findings of fact, although specific findings of fact are not required and, if made, shall not be binding in any subsequent proceeding;
 - (5) If all or any part of the claim is determined to be valid, determine the amount of monetary settlement, the contract adjustment to be made, or other relief to be granted;
 - (6) Indicate that the written document is the contracting officer's final decision; and
 - (7) Inform the Contractor of the right to seek further redress by appealing the decision to the Contract Appeals Board.
- (f) Any failure by the Contracting Officer to issue a decision on a contract claim within the required time period will be deemed to be a denial of the claim, and will authorize the commencement of an appeal to the Contract Appeals Board as authorized by D.C. Official Code § 2-309.04.

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- (g) (1) If a Contractor is unable to support any part of his or her claim and it is determined that the inability is attributable to a material misrepresentation of fact or fraud on the part of the Contractor, the Contractor shall be liable to the District for an amount equal to the unsupported part of the claim in addition to all costs to the District attributable to the cost of reviewing that part of the Contractor's claim.
- (2) Liability under paragraph (g)(1) shall be determined within six (6) years of the commission of the misrepresentation of fact or fraud.
- (h) The decision of the Contracting Officer shall be final and not subject to review unless an administrative appeal or action for judicial review is timely commenced by the Contractor as authorized by D. C. Official Code § 2-309.04.
- (i) Pending final decision of an appeal, action, or final settlement, a Contractor shall proceed diligently with performance of the contract in accordance with the decision of the Contracting Officer.

C. Claims by the District against a Contractor

- (a) Claim as used in Section C of this clause, means a written demand or written assertion by the District seeking, as a matter of right, the payment of money in a sum certain, the adjustment of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant.
- (b) (1) All claims by the District against a Contractor arising under or relating to a contract shall be decided by the Contracting Officer.
- (2) The Contracting Officer shall send written notice of the claim to the Contractor. The Contracting Officer's written decision shall do the following:
 - (a) Provide a description of the claim or dispute;
 - (b) Refer to the pertinent contract terms;
 - (c) State the factual areas of agreement and disagreement;
 - (d) State the reasons for the decision, including any specific findings of fact, although specific findings of fact are not required and, if made, shall not be binding in any subsequent proceeding;
 - (e) If all or any part of the claim is determined to be valid, determine the amount of monetary settlement, the contract adjustment to be made, or other relief to be granted;
 - (f) Indicate that the written document is the Contracting Officer's final decision; and
 - (g) Inform the Contractor of the right to seek further redress by appealing the decision to the Contract Appeals Board.

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- (3) The decision shall be supported by reasons and shall inform the Contractor of its rights as provided herein.
- (4) The authority contained in this clause shall not apply to a claim or dispute for penalties or forfeitures prescribed by statute or regulation which another District agency is specifically authorized to administer, settle, or determine.
- (5) This clause shall not authorize the Contracting Officer to settle, compromise, pay, or otherwise adjust any claim involving fraud.
- (c) The decision of the Contracting Officer shall be final and not subject to review unless an administrative appeal or action for judicial review is timely commenced by the Contractor as authorized by D.C. Official Code §2-309.04.
- (d) Pending final decision of an appeal, action, or final settlement, the Contractor shall proceed diligently with performance of the contract in accordance with the decision of the Contracting Officer.

15. Changes:

The Contracting Officer may, at any time, by written order, and without notice to the surety, if any, make changes in the contract within the general scope hereof. If such change causes an increase or decrease in the cost of performance of this contract, or in the time required for performance, an equitable adjustment shall be made. Any claim for adjustment under this paragraph must be asserted within ten (10) days from the date the change is offered; provided, however, that the Contracting Officer, if he or she determines that the facts justify such action, may receive, consider and adjust any such claim asserted at any time prior to the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in the Disputes clause at Section 18. Nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

16. Termination For Convenience Of The District:

- (a) The District may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the District's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and effective date.
- (b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
 - (1) Stop work as specified in the notice.
 - (2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.
 - (3) Terminate all contracts to the extent they relate to the work terminated.

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- (4) Assign to the District, as directed by the Contracting Officer, all rights, title and interest of the Contractor under the subcontracts terminated, in which case the District will have the right to settle or pay any termination settlement proposal arising out of those terminations.
 - (5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts. The approval or ratification will be final for purposes of this clause.
 - (6) As directed by the Contracting Officer, transfer title and deliver to the District (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other materials produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract has been completed, would be required to be furnished to the District.
 - (7) Complete performance of the work not terminated.
 - (8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the District has or may acquire an interest.
 - (9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (6) above; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the District under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.
- (c) After the expiration of ninety (90) days (or such longer period as may be agreed to) after receipt by the Contracting Officer of acceptable inventory schedules, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality of termination inventory not previously disposed of excluding items authorized for disposition by the Contracting Officer. The Contractor may request the District to remove those items or enter into an agreement for their storage. Within fifteen (15) days, the District will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within forty five (45) days from submission of the list, and shall correct the list, as necessary, before final settlement.
- (d) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than one year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this one year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be

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received and acted on after one year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due to the Contractor because of the termination and shall pay the amount determined.

- (e) Subject to paragraph (d) above, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (e) or paragraph (f) below, exclusive of costs shown in subparagraph (f)(3) below, may not exceed the total contract price as reduced by (1) the amount of payment previously made and (2) the contract price of work not terminated. The contract shall be amended, and the Contractor paid the agreed amount. Paragraph (f) below shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.
- (f) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (e) above:
 - (1) The contract price for completed supplies or services accepted by the District (or sold or acquired under subparagraph (b)(9) above) not previously paid for, adjusted for any saving of freight and other charges.
 - (2) The total of :
 - (i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (f)(1) above;
 - (ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subparagraph (f)(1) above; and
 - (iii) A sum, as profit on subparagraph f(1) above, determined by the Contracting Officer to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subparagraph (iii) and shall reduce the settlement to reflect the indicated rate of loss.
 - (3) The reasonable cost of settlement of the work terminated, including-
 - (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - (ii) The termination and settlement of subcontractors (excluding the amounts of such settlements); and

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- (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (g) Except for normal spoilage, and except to the extent that the District expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (f) above, the fair value as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the District or to a buyer.
- (h) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraphs (d), (f) or (j), except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (d) or (j), and failed to request a time extension, there is no right of appeal. If the Contracting Officer has made a determination of the amount due under paragraph (d), (f) or (j), the District will pay the Contractor (1) the amount determined by the Contracting Officer if there is no right of appeal or if no timely appeal has been taken, or (2) the amount finally determined on an appeal.
- (i) In arriving at the amount due the Contractor under this clause, there shall be deducted:
 - (1) All unliquidated advances or other payments to the Contractor under the termination portion of the contract;
 - (2) Any claim which the District has against the Contractor under this contract; and
 - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the District.
- (j) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within ninety (90) days from the effective date of termination unless extended in writing by the Contracting Officer.
- (k) (1) The District may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor shall be entitled.
 - (2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the District upon demand together with interest computed at the rate of 10 percent (10%) per year. Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess payment is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or

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other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

- (l) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the District, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, micrographs, or other authentic reproductions may be maintained instead of original records and documents.

17. Recovery Of Debts Owed The District:

The Contractor hereby agrees that the District may use all or any portion of any consideration or refund due the Contractor under the present contract to satisfy, in whole or part, any debt due the District.

18. Retention and Examination Of Records:

The Contractor shall establish and maintain books, records, and documents (including electronic storage media) in accordance with generally accepted accounting principles and practices which sufficiently and properly reflect all revenues and expenditures of funds provided by the District under the contract that results from this solicitation.

The Contractor shall retain all records, financial records, supporting documents, statistical records, and any other documents (including electronic storage media) pertinent to the contract for a period of three (3) years after termination of the contract, or if an audit has been initiated and audit findings have not been resolved at the end of three (3) years, the records shall be retained until resolution of the audit findings or any litigation which may be based on the terms of the contract.

The Contractor shall assure that these records shall be subject at all reasonable times to inspection, review, or audit by Federal, District, or other personnel duly authorized by the Contracting Officer.

The Contracting Officer, the Inspector General and the District of Columbia Auditor, or any of their duly authorized representatives shall, until three years after final payment, have the right to examine any directly pertinent books, documents, papers and records of the Contractor involving transactions related to the contract.

19. Non-Discrimination Clause:

- (a) The Contractor shall not discriminate in any manner against any employee or applicant for employment that would constitute a violation of the District of Columbia Human Rights Act, approved December 13, 1977, as amended (D. C. Law 2-38; D. C. Official Code §2-1402.11) (2001 Ed.) ("Act" as used in this Section). The Contractor shall include a similar clause in all subcontracts, except subcontracts for standard commercial supplies or raw materials. In addition, Contractor agrees and any subcontractor shall agree to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this non-discrimination clause as provided in Section 251 of the Act.

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(b) Pursuant to rules of the Office of Human Rights, published on August 15, 1986 in the D. C. Register, Mayor's Order 2002-175 (10/23/02), 49 DCR 9883 and Mayor's Order 2006-151 (11/17/06), 52 DCR 9351, the following clauses apply to this contract:

(1) The Contractor shall not discriminate against any employee or applicant for employment because of actual or perceived: race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, gender identity or expression, familial status, family responsibilities, disability, matriculation, political affiliation, genetic information, source of income, or place of residence or business. Sexual harassment is a form of sex discrimination which is prohibited by the Act. In addition, harassment based on any of the above protected categories is prohibited by the Act.

(2) The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their actual or perceived: race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, gender identity or expression, familial status, family responsibilities, disability, matriculation, political affiliation, genetic information, source of income, or place of residence or business.

The affirmative action shall include, but not be limited to the following:

(a) employment, upgrading or transfer;

(b) recruitment, or recruitment advertising;

(c) demotion, layoff, or termination;

(d) rates of pay, or other forms of compensation; and

(e) selection for training and apprenticeship.

(3) The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Agency, setting forth the provisions in subsections (b)(1) and (b)(2) concerning non-discrimination and affirmative action.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment pursuant to the non-discrimination requirements set forth in subsection (b)(2).

(5) The Contractor agrees to send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the contracting agency, advising the said labor union or workers' representative of that contractor's commitments under this nondiscrimination clause and the Act, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

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- (6) The Contractor agrees to permit access to his books, records and accounts pertaining to its employment practices, by the Chief Procurement Officer or designee, or the Director of Human Rights or designee, for purposes of investigation to ascertain compliance with this chapter, and to require under terms of any subcontractor agreement each subcontractor to permit access of such subcontractors' books, records, and accounts for such purposes.
- (7) The Contractor agrees to comply with the provisions of this chapter and with all guidelines for equal employment opportunity applicable in the District of Columbia adopted by the Director of the Office of Human Rights, or any authorized official.
- (8) The Contractor shall include in every subcontract the equal opportunity clauses, subsections (b)(1) through (b)(9) of this section, so that such provisions shall be binding upon each subcontractor or vendor.
- (9) The Contractor shall take such action with respect to any subcontract as the Contracting Officer may direct as a means of enforcing these provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the District to enter into such litigation to protect the interest of the District.

20. Definitions:

The terms Mayor, Chief Procurement Officer, Contract Appeals Board and District will mean the Mayor of the District of Columbia, the Chief Procurement Officer of the District of Columbia or his/her alternate, the Contract Appeals Board of the District of Columbia, and the Government of the District of Columbia respectively. If the Contractor is an individual, the term Contractor shall mean the Contractor, his heirs, his executor and his administrator. If the Contractor is a corporation, the term Contractor shall mean the Contractor and its successor.

21. Health And Safety Standards:

Items delivered under this contract shall conform to all requirements of the Occupational Safety and Health Act of 1970, as amended ("OSHA"), and Department of Labor Regulations under OSHA, and all Federal requirements in effect at time of bid opening/proposal submission.

22. Appropriation Of Funds:

The District's liability under this contract is contingent upon the future availability of appropriated monies with which to make payment for the contract purposes. The legal liability on the part of the District for the payment of any money shall not arise unless and until such appropriation shall have been provided.

23. Buy American Act:

- (a) The Buy American Act (41 U.S.C. §10a) provides that the District give preference to domestic end products.

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“Components,” as used in this clause, means those articles, materials, and supplies incorporated directly into the end products.

“Domestic end product,” as used in this clause, means, (1) an unmanufactured end product mined or produced in the United States, or (2) an end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States, exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as the products referred to in paragraphs (b)(2) or (3) of this clause shall be treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

“End products,” as used in this clause, means those articles, materials, and supplies to be acquired for public use under this contract.

- (b) The Contractor shall deliver only domestic end products, except those-
- (1) For use outside the United States;
 - (2) That the District determines are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality;
 - (3) For which the District determines that domestic preference would be inconsistent with the public interest; or
 - (4) For which the District determines the cost to be unreasonable.

24. Service Contract Act of 1965:

- (a) Definitions. “Act,” as used in this clause, means the Service Contract Act of 1965, as amended (41 U.S.C. §351, *et seq.*).
- (1) “Contractor,” as used in this clause, means the prime Contractor or any subcontractor at any tier.
 - (2) “Service employee,” as used in this clause, means any person (other than a person employed in a bona fide executive, administrative, or professional capacity as defined in 29 CFR 541) engaged in performing a District contract not exempted under 41 U.S.C. §356, the principal purpose of which is to furnish services in the United States, as defined in section 22.1001 of the Federal Acquisition Regulation. It includes all such persons regardless of the actual or alleged contractual relationship between them and a contractor.
- (b) Applicability. To the extent that the Act applies, this contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (20 CFR part 4). All interpretations of the Act in Subpart C of 29 CFR 4 are incorporated in this contract by reference. This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. §356, as interpreted in Subpart C of 29 CFR 4.
- (c) Compensation

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- (1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor or the Secretary's authorized representative, as specified in any wage determination attached to this contract.
- (2) If a wage determination is attached to this contract, the Contractor shall classify any class of service employees not listed in it, but to be employed under this contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph. This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee.
 - (a) The Contractor shall submit Standard Form (SF) 1444, Request for Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration (ESA), Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary;
 - (b) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contracting Officer with a written copy of such determination or it shall be posted as a part of the wage determination;
 - (c) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General

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Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed;

- (d) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds to a contract under which the classification in question was previously conformed pursuant to this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (*i.e.*, adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in this clause need not be followed;
 - (e) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended;
 - (f) The wage rate and fringe benefits finally determined under this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract;
 - (g) Upon discovery of failure to comply with this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.
- (3) If the term of this contract is more than 1 year, the minimum wages and fringe benefits required for service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations issued by ESA.
 - (4) The Contractor can discharge the obligation to furnish fringe benefits specified in the attachment or determined under paragraph (2) of this clause by furnishing any equivalent combinations of bona fide fringe

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benefits, or by making equivalent or differential cash payments, in accordance with Subpart B and C of 29 CFR 4.

- (d) Minimum wage: In the absence of a minimum wage attachment for this contract, the Contractor shall not pay any service or other employees performing this contract less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended (29 U.S.C. §206). Nothing in this clause shall relieve the Contractor of any other legal or contractual obligation to pay a higher wage to any employee.
- (e) Successor contracts: If this contract succeeds a contract subject to the Act under which substantially the same services were furnished and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, then, in the absence of a minimum wage attachment to this contract, the Contractor may not pay any service employee performing this contract less than the wages and benefits, including those accrued and any prospective increases, provided for under that agreement. No Contractor may be relieved of this obligation unless the limitations of 29 CFR 4.1c(b) apply or unless the Secretary of Labor or the Secretary's authorized representative:
 - (1) Determines that the agreement under the predecessor was not the result of arms-length negotiations; or
 - (2) Finds, after a hearing under 29 CFR 4.10, that the wages and benefits provided for by that agreement vary substantially from those prevailing for similar services in the locality or determines, as provided in 29 CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and 4.11 and parts 6 and 8 that some or all of the wages and fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.
- (f) Notification to employees: The Contractor shall notify each service employee commencing work on this contract of a minimum wage and any fringe benefits required to be paid, or shall post a notice of these wages and benefits in a prominent and accessible place at the worksite, using such poster as may be provided by the Department of Labor.

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- (g) Safe and sanitary working conditions: The Contractor shall not permit services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor that are unsanitary, hazardous, or dangerous to the health or safety of service employees. The Contractor shall comply with the health standards applied under 29 CFR Part 1925.
- (h) Records: The Contractor shall maintain for 3 years from the completion of work, and make available for inspection and transcription by authorized ESA representatives, a record of the following:
 - (1) For each employee subject to the Act:
 - (a) Name and address;
 - (b) Work classification or classifications, rate or rates of wages and fringe benefits provided, rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;
 - (c) Daily and weekly hours worked; and
 - (d) Any deductions, rebates, or refunds from total daily or weekly compensation.
 - (2) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by ESA under the terms of paragraph (c)(3) of this clause. A copy of the report required by paragraph (e) of this clause will fulfill this requirement.
 - (3) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by this clause. The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division. Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases. The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.
- (i) Pay periods: The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.
- (j) Withholding of payments and termination of contract: The Contracting Officer shall withhold from the prime Contractor under this or any other District contract

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with the prime contractor any sums the Contracting Officer, or an appropriate officer of the Labor Department, decides may be necessary to pay underpaid employees. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination for default. In such event, the District may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

- (k) Subcontracts: The Contractor agrees to insert this clause in all subcontracts.
- (l) Contractor's report:
 - (1) If there is a wage determination attachment to this contract and any classes of service employees not listed on it are to be employed under the contract, the Contractor shall report promptly to the Contracting Officer the wages to be paid and the fringe benefits to be provided each of these classes, when determined under paragraph (c) of this clause.
 - (2) If wages to be paid or fringe benefits to be furnished any service employees under the contract are covered in a collective bargaining agreement effective at any time when the contract is being performed, the Contractor shall provide to the Contracting Officer a copy of the agreement and full information on the application and accrual of wages and benefits (including any prospective increases) to service employees working on the contract. The Contractor shall report when contract performance begins, in the case of agreements then in effect, and shall report subsequently effective agreements, provisions, or amendments promptly after they are negotiated.
- (m) Contractor's Certification: By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Contractor's firm is a person or firm ineligible to be awarded District contracts by virtue of the sanctions imposed under section 5 of the Act. No part of this contract shall be subcontracted to any person or firm ineligible for award of a District contract under section 5 of the Act. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. §1001.
- (n) Variations, tolerances, and exemptions involving employment: Notwithstanding any of the provisions in paragraphs (c) through (l) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions authorized by the Secretary of Labor.
 - (1)(i) In accordance with regulations issued under Section 14 of the Fair Labor Standards Act of 1938 by the Administrator of the Wage and Hour Division, ESA (29 CFR 520, 521, 524, and 525), apprentices, student learners, and workers whose earning capacity is impaired by age or by physical or mental deficiency or injury, may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1)

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of the Service Contract Act, without diminishing any fringe benefits or payments in lieu of these benefits required under section 2(a)(2) of the Act.

- (ii) The Administrator will issue certificates under the Act for employing apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages, but without changing requirements concerning fringe benefits or supplementary cash payments in lieu of these benefits.
 - (iii) The Administrator may also withdraw, annul, or cancel such certificates under 29 CFR 525 and 528.
- (2) An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips shall be credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with regulations in 29 CFR 531. However, the amount of credit shall not exceed 40 percent of the minimum rate specified in section 6(a)(1) of the Fair Labor Standards Act of 1938 as amended.

25. Cost and Pricing Data:

- (a) This paragraph and paragraphs b through e below shall apply to contractors or offerors in regards to: (1) any procurement in excess of \$100,000, (2) any contract awarded through competitive sealed proposals, (3) any contract awarded through sole source procurement, or (4) any change order or contract modification. By entering into this contract or submitting this offer, the Contractor or offeror certifies that, to the best of the Contractor's or offeror's knowledge and belief, any cost and pricing data submitted was accurate, complete and current as of the date specified in the contract or offer.
- (b) Unless otherwise provided in the solicitation, the offeror or Contractor shall, before entering into any contract awarded through competitive sealed proposals or through sole source procurement or before negotiating any price adjustments pursuant to a change order or modification, submit cost or pricing data and certification that, to the best of the Contractor's knowledge and belief, the cost or pricing data submitted was accurate, complete, and current as of the date of award of this contract or as of the date of negotiation of the change order or modification.
- (c) If any price, including profit or fee, negotiated in connection with this contract, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified by the Contractor, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified by the Contractor, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction.

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- (d) Any reduction in the contract price under paragraph c above due to defective data from a prospective subcontractor that was not subsequently awarded, the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which (1) the actual subcontract or (2) the actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided that the actual subcontract price was not itself affected by defective cost or pricing data.
- (e) Cost or pricing data includes all facts as of the time of price agreement that prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental, and are therefore verifiable. While they do not indicate the accuracy of the prospective Contractor's judgment about estimated future costs or projections, cost or pricing data do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all the facts that can be reasonably expected to contribute to the soundness of estimates of future costs and to the validity of determinations of costs already incurred.
- (f) The following specific information should be included as cost or pricing data, as applicable:
 - (1) Vendor quotations;
 - (2) Nonrecurring costs;
 - (3) Information on changes in production methods or purchasing volume;
 - (4) Data supporting projections of business prospects and objectives and related operations costs;
 - (5) Unit – cost trends such as those associated with labor efficiency;
 - (6) Make or buy decisions;
 - (7) Estimated resources to attain business goals;
 - (8) Information on management decisions that could have a significant bearing on costs.
- (g) If the offeror or contractor is required by law to submit cost or pricing data in connection with pricing this contract or any change order or modification of this contract, the Contracting Officer or representatives of the Contracting Officer shall have the right to examine all books, records, documents and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the contract, change order or modification, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used. Contractor shall make available at its office at all reasonable times the materials described above for examination, audit, or reproduction until three years after the later of:
 - (1) final payment under the contract;

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- (2) final termination settlement; or
- (3) the final disposition of any appeals under the disputes clause or of litigation or the settlement of claims arising under or relating to the contract.

26. Multiyear Contract:

If this contract is a multiyear contract, then the following provision is made part of this contract:

If funds are not appropriated or otherwise made available for the continued performance in a subsequent year of a multiyear contract, the contract for the subsequent year shall be terminated, either automatically or in accordance with the termination clause of the contract. Unless otherwise provided for in the contract, the effect of termination is to discharge both the District and the Contractor from future performance of the contract, but not from the existing obligations. The Contractor shall be reimbursed for the reasonable value of any non-recurring costs incurred but not amortized in the price of the supplies or services delivered under the contract.

27. Termination Of Contracts For Certain Crimes And Violations:

- (a) The District may terminate without liability any contract and may deduct from the contract price or otherwise recover the full amount of any fee, commission, percentage, gift, or consideration paid in violation of this title if:
 - (1) The Contractor has been convicted of a crime arising out of or in connection with the procurement of any work to be done or any payment to be made under the contract; or
 - (2) There has been any breach or violation of:
 - (A) Any provision of the Procurement Practices Act of 1985, as amended, or
 - (B) The contract provision against contingent fees.
- (b) If a contract is terminated pursuant to this section, the Contractor:
 - (1) May be paid only the actual costs of the work performed to the date of termination, plus termination costs, if any; and
 - (2) Shall refund all profits or fixed fees realized under the Contract.
- (c) The rights and remedies contained in this are in addition to any other right or remedy provided by law, and the exercise of any of them is not a waiver of any other right or remedy provided by law.

SECTION 01250 - CONTRACT MODIFICATION PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 1 Section "Alternates" for administrative procedures for incorporating alternates after Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Architect may issue through the Construction Manager, Bulletins authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: The Construction Manager shall issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description shall include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by the Construction Manager are for pricing information only. Do not consider them instructions either to Stop Work in Progress or to execute the Proposed Change.
 - 2. Within 10 days after receipt of Proposal Request, submit a Quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change

d. In the event that the change shall impact the critical path of the schedule at the time and state of progress of the project when the change is issued for pricing, include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship and the change in the critical path. Use available total float before requesting an extension of the Contract Time.

3. Owner-initiated proposal requests will be issued on the form included at the end of this Section, or on Construction Manager's forms.

B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Construction Manager.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. In the event that the change will impact the critical path of the schedule at the time and state of progress of the project when the change is issued for pricing, include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times and activity relationship and the associated change in the critical path. Use available Total Float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
7. Submit Contractor-initiated proposals on Contractor's letterhead.

1.5 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, the Construction Manager shall issue a Change Order for signatures of Owner and Contractor.

1.6 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue through the Construction Manager, Construction Change Directive on the Bulletin form included at end of this Section. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. In addition it designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. All time and material (T&M) work shall be documented separately for work on each authorized T&M Construction Change Directive using a form provided by the CM called "Contractor T&M Work Daily Report." This report is due to the CM Superintendent at the close of business each day that T&M work is conducted. The Contractor shall prepare two copies of the report. One copy the CM Superintendent will sign and keep for the CM's records. The second copy shall also be signed by the CM Superintendent and returned to the Contractor for use as supporting documentation for the Change Proposal covering this T&M work.
2. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.7 MARK-UPS ON CHANGES

A. The Total Maximum (for all tiers of subcontracting) allowable mark-up for combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

1. For materials, 10 percent (10%).
2. For the Contractor, for labor performed by the Contractor's own forces, 10 percent (10%) of the cost.
3. For the Contractor, for labor performed by the Contractor's Subcontractors, five percent (5%) of the amount due the Subcontractors.
4. For each first tier Subcontractor involved, for labor performed by that Subcontractor's own forces, ten percent (10%) of the cost. No further mark-up shall be permitted for tiers of subcontractors, vendors, or suppliers below the first tier subcontractor to the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01250

Bulletin No. _____
 Date: _____

Distribution:
 Owner
 Architect
 Contractor
 Field

EYP Project No. 2001022-76

Owner: Department of Mental Health
 64 New York Avenue, NE
 Washington, DC 20002

From: Einhorn Yaffee Prescott
 Architecture & Engineering, P.C.
 Flour Mill Building (L-1)
 1000 Potomac Street, NW
 Washington, DC 20007
 (202) 471-5000

Via: Construction Manager
 ALPHA CORPORATION
 21351 RIDGETOP CIRCLE, SUITE 200
 DULLES, VA 20166
 (703) 450-0800

THIS BULLETIN IS ISSUED TO AMEND THE CONTRACT DOCUMENTS IN RESPONSE TO ISSUES THAT HAVE ARISEN IN CONNECTION WITH THE REFERENCED PROJECT.

PROPOSAL REQUEST (replaces AIA Document G709)

Please submit an itemized quotation for changes in the Contract Sum and/or Time incidental to proposed modifications to the Contract Documents described herein.

THIS IS NOT A CHANGE ORDER NOR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED HEREIN.

ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS (replaces AIA Document G710)

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgment that there will be no change in the Contract Sum or Contract Time.

CONSTRUCTION CHANGE DIRECTIVE (replaces AIA Document G714)

Proceed with Work described in this Directive immediately and submit itemized documentation of costs incurred in Work when Work is completed or as soon a final cost/time is determined. This CCD, and its description of particular Work, is without prejudice to final agreement or determination whether directed Work is a change in the Work or of any contract time or sum adjustment due.

DESCRIPTION:

ATTACHMENTS: (0) 8-1/2" x 11" pages (excluding cover sheet); (0) 30" x 42" sheets

Sketches: None

Drawings:

Other: None

Reference:

WHEN SIGNED BY THE ARCHITECT, AND RECEIVED BY THE CONTRACTOR, THIS DOCUMENT BECOMES EFFECTIVE IMMEDIATELY AND THE CONTRACTOR SHALL PROCEED AS DESCRIBED ABOVE. A CCD MUST ALSO BE SIGNED BY THE OWNER.

CONTRACTOR:	CONSTRUCTION MGR. ALPHA CORPORATION	ARCHITECT:	EINHORN YAFFEE PRESCOTT
ADDRESS:	ADDRESS: ALPHA CORPORATION 21351 RIDGETOP CIRCLE, SUITE 200 DULLES, VA 20166	ADDRESS:	Flour Mill, L-1, 1000 Potomac St., N.W. Washington, DC 20007
BY:	BY:	BY:	BY:
DATE:	DATE:	DATE:	DATE:

PARKING LOT EXPANSION

SECTION 01270 - UNIT PRICES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices.
- B. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 2. Division 2 Section "Earthwork."
 - 3. Division 2 Section "PLANTS." (includes planting soil)
 - 4. Division 2 Section "Standard Chain-Link Fences and Gates"

1.3 DEFINITION

- A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a Price per unit of measurement for materials or services added to or deducted from the Contract sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead and profit.
- B. Measurement and Payment Refer to individual specification sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PARKING LOT EXPANSION

PART 3 – EXECUTION

3.1 LIST OF UNIT PRICES

A. Unit Price No.1 - Structural Fill:

1. Description:

- a. Actual installed amount of structural fill as defined in Division 2 and accepted and confirmed by Owner's independent testing and inspection agency in accordance with Division 2 specifications.
- b. Unit price shall include all labor and materials associated with additional amount of fill, including but not limited to hauling, handling, spreading and compaction.

2. Unit of Measurement: Cubic yard.

B. Unit Price NO.2 - Unsuitable Soil Disposal Offsite:

1. Non-Petroleum, Noncompactable:

- a. Description: As described in Section 31200, 2.2.C.
- b. Unit of Measurement: Per cubic yard.

2. Hazardous Waste:

- a. Description: Not Defined,
- b. Unit of Measurement: Per cubic yard.

C. Unit Price No.3-Additional Top Soil (4 inches):

1. Description:

- a. Actual installed amount of topsoil spread to a depth of 4 inches.
- b. Unit price shall include all labor and materials associated with additional amount of top soil, including but not limited to hauling, handling and spreading to a minimum 4 inches depth.

2. Unit of Measurement: Square yard.

D. Unit Price NO.4 - Asphalt Pavement Patch (4 inches):

1. Description:

- a. Actual installed amount of asphalt *pavement* placed and compacted to a depth of 4 inches.
- b. Unit price shall include all labor and materials associated with additional amount of asphalt, including but not limited to hauling, handling and spreading to a minimum 4 inches depth.

2. Unit of Measurement: Square yard.

E. Unit Price No.5 - Asphalt *Pavement* Surface Treatment (3 inches):

1. Description:

- a. Actual installed amount of asphalt *pavement* placed and compacted to a depth of 3 inches.
- b. Unit price shall include all labor and materials associated with additional amount of asphalt, including but not limited to hauling, handling and spreading to a minimum 3 inches depth.
- c. The activity shall be scheduled and completed in order to make the necessary provisions for staff parking prior to construction activities starting in the vicinity of construction area.

PARKING LOT EXPANSION

2, Unit of Measurement: Square yard,

F. Unit Price No.6 - Aggregate subbase (4 inches):

1. Description:

- a. Actual installed amount of asphalt pavement placed and compacted to a depth of 4 inches.
- b. Unit price shall include all labor and materials associated with additional amount of asphalt, including but not limited to hauling, handling and spreading to a minimum 4 inches depth.
- c. Intended use is the paving of the Parking Lot

2. Unit of Measurement: Square yard.

END OF SECTION 01270

SECTION 01290 - PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to Prepare and process Applications for Payment. In addition, this section contains the Quick Payment Clause that implements the D.C. Quick Payment Act, D.C. Code §§ 2-221.01 et seq.

B. Related Sections include the following:

1. Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
2. Division 1 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction schedule and Submittals schedule.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.

1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - c. Contractor's Construction Schedule.
 - d. List of Subcontractors with special designation and totals
 - e. List of CBE, LBE, DBE and RBO subcontractors and their percentage of Contract
 - f. Alternates
 - g. Allowances
 - h. List of products
 - i. List of principal suppliers and fabricators
 - j. Submittal register

2. Submit the Schedule of Values to the Construction Manager within (15) days of Contract Award or written Notice to Proceed, but in no case later than fifteen (15) days before the date scheduled for submittal of the initial Application for Payment. If the Schedule of Values is submitted later than fifteen (15) days before the date for submittal of the initial Application for Payment, processing of the Application shall be delayed accordingly without added cost or impact to the Owner. The Construction Manager shall review the Schedule of Values and approve or reject as appropriate.

3. Subschedules: Where the Work is separated into Phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.

B. Format and Content: Submit in a format as prescribed by and to the level of detail specified by the Construction Manager. Use the Project Construction Schedule and the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the Schedule of Values:

- a. Project name and location.
- b. Name of Architect.
- c. Architect's project number.
- d. Name of Construction Manager
- e. Contractor's name and address.
- f. Date of submittal.

2. Submit draft of the Schedule of Values on AIA Document G703 Continuation Sheets. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:

- a. Related Specification Section or Division.
- b. Description of the Work.
- c. Name of subcontractor.
- d. Name of manufacturer or fabricator.
- e. Name of supplier.
- f. Change Orders (numbers) that affect value.
- g. Dollar value.
 - 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

3. Provide a breakdown of the Contract Sum in detail, as reviewed and approved by the Construction Manager, to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate. In addition to the sections assigned to the Contractor, Contractors shall include the following line items on their Schedule of Values;

- a. Bonds: Performance, Labor and Material
- b. Mobilization.
- c. Demobilization.

- d. Insurance/Safety.
 - e. Submittals (in the amount of 2 percent of the Contract).
 - f. Schedule maintenance and submittal (in the amount of 1 percent of the total contract amount).
 - g. Final cleaning
 - h. Daily cleanup (in the amount of 1 percent of the total contract amount).
 - i. Punchlist (in an amount equal to 1 percent of the Contract amount).
 - j. Operation and Maintenance Manuals (in an amount equal to 1 percent of the Contract amount).
 - k. Project Record Drawings (in an amount equal to 1 percent of the Contract amount).
4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each Subsequent stage of completion and for total installed value of that part of the Work.
 7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values.
 8. Schedule Updating:
 - a. Provision of a fully updated progress schedule is a pre-requisite to the processing of a request for payment. Failure to provide a properly formatted and updated progress schedule along with a request for payment will result in the payment request being returned to the Contractor without being processed for payment.
 - b. Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.
 - c. The Construction Manager shall have the right to require the Contractor to alter the value or add/delete categories listed on the Schedule of Values at any time for the following reasons:
 - 1) the Schedule of Values appears to be incorrect or unbalanced
 - 2) a revision of the segregation of values is required due to the Contractor revising the sequence of construction or assembly of building components which in turn invalidates the Schedule of Values
 - 3) Change Orders or Construction Change Directives that result in a change in the Contract Sum.
 - d. Should the Schedule of Values be rejected, a resubmittal is due within 5 days of receipt of rejected schedule.

9. Stored Materials: The Contractor is required to correlate the documentation for payment of stored materials requested in the Application for Payment against the agreed upon breakdown of the Schedule of Values. The Construction Manager reserves the right to not process the Application for Payment if the correlation has not been submitted in conjunction with the Application. Invoices are required for all stored materials, both on-site and off-site. No mark-up is allowed on invoice amounts.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect, approved by Construction Manager and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Each progress payment date and the period of work covered for each Application for Payment is as indicated in the General Conditions. The Owner will make partial payments to the Contractor on the basis of a duly certified and approved estimate of the Work completed through the 25th day of each calendar month, as certified by the Architect and approved by the Construction Manager, provided the estimate was submitted in accordance with the following requirements:
 1. The Applications for Payment shall be itemized as directed by the Construction Manager. Applications for Payment are to serve as certification of status of the Work.
 2. Prior to the 20th day of each month, the Contractor shall prepare and review with the Construction Manager a preliminary (pencil copy), itemized application for payment, supported by such data substantiating the Contractor's right to payment as the Owner, Construction Manager and Architect may require and an updated progress schedule in the format approved by the Construction Manager. This includes, but is not limited to all sworn statements, waivers and releases of liens and claims, including those required of subcontractors or subcontractors of any tier as may be requested by the Construction Manager, reflecting all retained sums, previous applications for payment, payment for labor and material, payment for materials stored and other documentation and requirements related to work performed as provided elsewhere in the Contract Documents or required by the Construction Manager.
 3. Subject to the acceptance of the preliminary application for payment noted above, on or before the 25th day of each month the Contractor shall submit to the Construction Manager an itemized notarized application for Payment for Work completed during the current month (from the end date of the prior application until the 25th day of the current month) and an updated progress schedule in the format approved by the Construction Manager.

C. Payment Application Forms: Use AIA Document G702ICMa and AIA Document G703 Continuation Sheets for Applications for Payment.

D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Construction Manager shall return incomplete applications without action.

1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

E. Application for Stored Materials:

1. The Contractor must notify the Construction Manager in writing at least fifteen (15) days prior to the submission of the payment request that specific items shall be stored off the site. Payments made for materials or equipment stored on or off the site (in a bonded warehouse) shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the Construction Manager to establish the Owner's title to such materials or equipment or otherwise protect the Owner's interest, including but not limited to, applicable insurance and transportation provided by the Contractor to the site for those materials and equipment stored off the site
2. The Contractor shall indicate in the notification, and in the payment request, that he agrees that loss of materials stored off the site shall not relieve him of the obligation to furnish these types and quantities of materials for the Work and on a schedule to meet the progress and completion requirements referenced in specification Section 01310 and elsewhere in the Contract Documents.
3. The notification and payment request shall indicate that the Surety on the Performance Bond and the Labor and Material Payment Bond has been notified of the request for payment of materials stored off the site, and written consent of Surety shall be provided to the Construction Manager if requested.
4. The Construction Manager shall be notified by the Contractor when the materials are to be transferred to the site and when the materials are received at the site.

F. Transmittal: Submit three signed and notarized original copies of each Application for Payment and the updated progress schedule to Construction Manager by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments as required by the Construction Manager.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retained sums, on each item.
2. When an application shows completion of an item, submit final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors, emergency numbers and complete contact information.
2. List of CBE, DBE, LBE, ROB and SBE subcontractors and suppliers by percentage of total contract
3. Schedule of Values.
4. Contractor's Construction Schedule.
5. Products list.
6. Submittals Schedule.
7. List of Contractor's staff assignments.
8. After hours Emergency Contact Names and Phone Numbers for the Contractor.
9. List of Contractor's principal consultants.
10. Copies of required permits.
11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
12. Initial progress report.
13. Certificates of insurance and insurance policies (required prior to starting work onsite).
14. Performance and payment bonds.
15. Data needed to acquire Owner's insurance.
16. Initial settlement survey and damage report if required.

I. 3rd Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of 3rd Application for Payment include the following:

1. List of subcontractors, emergency numbers, and complete contact information.
2. List of CBE, DBE, LBE, ROB and SBE subcontractors and suppliers by percentage of total contract
3. Schedule of Values.
4. Contractor's Construction Schedule.
5. Products list.
6. Submittals Schedule.
7. List of Contractor's staff assignments.
8. After hours Emergency Contact Names and Phone Numbers for the Contractor.
9. List of Contractor's principal consultants.
10. Copies of required permits.

11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
12. Initial progress report.
13. Certificates of insurance and insurance policies (required prior to starting work onsite).
14. Performance and payment bonds.
15. Data needed to acquire Owner's insurance.
16. Initial settlement survey and damage report if required.
17. Coordinated drawings

J. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation from the Construction Manager supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
3. Administrative actions and submittals that shall precede or coincide with this application include:
 - a. Occupancy permits and similar approvals
 - b. Warranties (guarantees) and maintenance agreements
 - c. Maintenance instructions
 - d. Change-over information related to Owner's occupancy, use, operations and maintenance
 - e. Final cleaning
 - f. Application for reduction of retained sums, and consent of surety
 - g. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion

K. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements (to include a letter stating that all punchlist items have been completed with a copy of the punchlist attached).
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

9. Final, liquidated damages settlement statement.

1.6 QUICK PAYMENT CLAUSE

A. Interest Penalties to Contractors

1. The District will pay interest penalties on amounts due to the Contractor under the Quick Payment Act, D.C. Official Code §2-221.01 et seq., for the period beginning on the day after the required payment date and ending on the date on which payment of the amount is made. Interest shall be calculated at the rate of 1% per month. No interest penalty shall be paid if payment for the completed delivery of the item of property or service is made on or before:
 - a. the 3^d day after the required payment date for meat or a meat product;
 - b. the 5th day after the required payment date for an agricultural commodity;
 - or
 - c. the 15th day after the required payment due for any other item.
2. Any amount of an interest penalty which remains unpaid at the end of any 3D-day period shall be added to the principal amount of the debt and thereafter interest penalties shall accrue on the added amount.

B. Payments to Subcontractors

1. The Contractor shall take one of the following actions within 7 days of receipt of any amount paid to the Contractor by the District for work performed by any subcontractor under a contract:
 - a. Pay the subcontractor for the proportionate share of the total payment received from the District that is attributable to the subcontractor for work performed under the contract; or
 - b. Notify the District and the subcontractor, in writing, of the Contractor's intention to withhold all or part of the subcontractor's payment and state the reason for the nonpayment.
2. The Contractor shall pay any subcontractor or supplier interest penalties on amounts due to the subcontractor or supplier beginning on the day after the payment is due and ending on the date on which the payment is made. Interest shall be calculated at the rate of 1% per month. The District shall not pay any interest penalty on the following if payment for the completed delivery of the item of property or service is made on or before:
 - a. the 3^d day after the required payment date for meat or a meat product.
 - b. the 5th day after the required payment date for an agricultural commodity;
 - or
 - c. the 15th day after the required payment due for any other item.
3. Any amount of an interest penalty which remains unpaid by the Contractor at the end of any 3D-day period shall be added to the principal amount of the debt to the subcontractor and thereafter interest penalties shall accrue on the added amount.
4. A dispute between the Contractor and subcontractor relating to the amounts or entitlement of a subcontractor to a payment or a late payment interest penalty

under the Quick Payment Act does not constitute a dispute to which the District of Columbia is a party. The District of Columbia may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

C. Flow Down Requirements for Subcontractors

1. The Contractor shall include in each subcontract a provision that requires the subcontractor to include in its contracts with any lower-tier subcontractors or suppliers the payment and interest clauses required under paragraphs (1) and (2) of DC Official Code § 2-221.02 (d).

1.7 Living Wage Act (reference next page)

“THE LIVING WAGE ACT OF 2006”

Title I, D.C. Law No. 16-118, (D.C. Official Code §§ 2-220.01-.11)

Effective June 9, 2006, recipients of new contracts or government assistance shall pay affiliated employees and subcontractors who perform services under the contracts no less than the current living wage. Effective January 1, 2010, the living wage rate is \$12.50.

The requirement to pay a living wage applies to:

- All recipients of contracts in the amount of \$100,000 or more; and, all subcontractors of these recipients receiving \$15,000 or more from the funds received by the recipient from the District of Columbia, and,
- All recipients of government assistance in the amount of \$100,000 or more; and, all subcontractors of these recipients of government assistance receiving \$50,000 or more in funds from government assistance received from the District of Columbia.

“Contract” means a written agreement between a recipient and the District government.

“Government assistance” means a grant, loan or tax increment financing that result in a financial benefit from an agency, commission, instrumentality, or other entity of the District government.

“Affiliated employee” means any individual employed by a recipient who received compensation directly from government assistance or a contract with the District of Columbia government, including any employee of a contractor or subcontractor of a recipient who performs services pursuant to government assistance or contract. The term “affiliated employee” does not include those individuals who perform only intermittent or incidental services with respect to the contract or government assistance or who are otherwise employed by the contractor, recipient or subcontractor.

Certain exceptions may apply where contracts or agreements are subject to wage determinations required by federal law which are higher than the wage required by this Act; contracts for electricity, telephone, water, sewer other services delivered by regulated utility; contracts for services needed immediately to prevent or respond to a disaster or eminent threat to the public health or safety declared by the Mayor; contracts awarded to recipients that provide trainees with additional services provided the trainee does not replace employees; tenants or retail establishments that occupy property constructed or improved by government assistance, provided there is no receipt of direct District government assistance; Medicaid provider agreements for direct care services to Medicaid recipients, provided that the direct care service is not provided through a home care agency, a community residential facility or a group home for mentally retarded persons; and contracts or other agreements between managed care organizations and the Health Care Safety Net Administration or the Medicaid Assistance Administration to provide health services.

Exemptions are provided for employees under 22 years of age employed during a school vacation period, or enrolled as a full-time student who works less than 25 hours per week, provided that other employees are not replaced, and for employees of nonprofit organizations that employ not more than 50 individuals.

Each recipient and subcontractor of a recipient shall provide this notice to each affiliate employee covered by this notice, and shall also post this notice concerning these requirements in a conspicuous site in the place of business.

All recipients and subcontractors shall retain payroll records created and maintained in the regular course of business under District of Columbia law for a period of at least 3 years.

This is a summary of the “Living Wage Act of 2006”. For the complete text go to:

www.does.dc.gov or www.ocp.dc.gov

To file a complaint contact: Department of Employment Services

Office of Wage-Hour

64 New York Avenue, N.E., Room 3105, Washington, D.C. 20002

(202) 671-1880



“LIVING WAGE ACT OF 2006”

Title I of the Way to Work Amendment Act of 2006, effective June 8, 2006 (D.C. Law 16-118, D.C. Official Code §2-220.01 *et seq.*), as amended, (“Living Wage Act of 2006”) applies to all contracts for services in the amount of \$100,000 or more in a 12-month period.

The Living Wage Act of 2006 requires a contractor to:

1. pay its employees and subcontractors who perform services under the contract no less than the current living wage rate;
2. include in any subcontract for \$15,000 or more a provision requiring the subcontractor to pay its employees who perform services under the contract no less than the current living wage rate;
3. provide a copy of the Living Wage Act Fact Sheet to each employee and subcontractor who performs services under the contract;
4. post the Living Wage Act Notice in a conspicuous place in its place of business;
5. include in any subcontract for \$15,000 or more a provision requiring the subcontractor to post the Living Wage Act Notice in a conspicuous place in its place of business;
6. maintain its payroll records under the contract in the regular course of business for a period of at least three (3) years from the payroll date; and
7. require its subcontractors with subcontracts for \$15,000 or more under the contract to maintain its payroll records under the contract in the regular course of business for a period of at least three (3) years from the payroll date.

EFFECTIVE JANUARY 1, 2008, THE CURRENT LIVING WAGE RATE IS \$12.10.

Starting in 2008, the Department of Employment Services may adjust the living wage annually. The OCP will publish the current living wage rate on its website at www.ocp.dc.gov.

The payment of wages required under the Living Wage Act of 2006 shall be consistent with and subject to the provisions of D.C. Official Code §32-1301 *et seq.*

The requirements of the Living Wage Act of 2006 **do not apply** to:

1. Contracts or other agreements that are subject to higher wage level determinations required by federal law (i.e., if a contract is subject to the Service Contract Act and certain wage rates are lower than the District's current living wage, the contractor must pay the higher of the two rates);
2. Existing and future collective bargaining agreements, provided, that the future collective bargaining agreement results in the employee being paid no less than the established living wage;
3. Contracts for electricity, telephone, water, sewer or other services provided by a regulated utility;
4. Contracts for services needed immediately to prevent or respond to a disaster or eminent threat to public health or safety declared by the Mayor;
5. Contracts or other agreements that provide trainees with additional services including, but not limited to, case management and job readiness services; provided that the trainees do not replace employees subject to the Living Wage Act of 2006;
6. An employee under 22 years of age employed during a school vacation period, or enrolled as a full-time student, as defined by the respective institution, who is in high school or at an accredited institution of higher education and who works less than 25 hours per week; provided that he or she does not replace employees subject to the Living Wage Act of 2006;
7. Tenants or retail establishments that occupy property constructed or improved by receipt of government assistance from the District of Columbia; provided, that the tenant or retail establishment did not receive direct government assistance from the District;
8. Employees of nonprofit organizations that employ not more than 50 individuals and qualify for taxation exemption pursuant to section 501(c)(3) of the Internal Revenue Code of 1954, approved August 16, 1954 (68A Stat. 163; 26 U.S.C. § 501(c)(3));
9. Medicaid provider agreements for direct care services to Medicaid recipients, provided, that the direct care service is not provided through a home care agency, a community residence facility, or a group home for mentally retarded persons as those terms are defined in section 2 of the Health-Care and Community Residence Facility, Hospice, and Home Care Licensure Act of 1983, effective February 24, 1984 (D.C. Law 5-48; D.C. Official Code § 44-501); and
- (10) Contracts or other agreements between managed care organizations and the Health Care Safety Net Administration or the Medicaid Assistance Administration to provide health services.

The Mayor may exempt a contractor from the requirements of the Living Wage Act of 2006, subject to the approval of Council, in accordance with the provisions of Section 109 of the Act.

PARKING LOT EXPANSION

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01290

SECTION 01310 - PROJECT MANAGEMENT AND COORDINATION
PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating Construction Operations on Project including, but not limited to, the following:

1. General Coordination Requirements
2. Coordination Drawings.
3. Administrative and supervisory personnel.
4. Communications
5. Project meetings.

- B. The Contractor and its Subcontractors are responsible for coordination requirements. Certain areas of responsibility shall be assigned to specific subcontractors by the Contractor.

- C. Related Sections include the following:

1. Division 1 Section "Construction Progress Documentation" for preparing and Submitting Contractor's Construction Schedule.
2. Division 1 Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
3. Division 1 Section "Closeout Procedures" for coordinating Contract closeout.

1.3 GENERAL COORDINATION

- A. Coordination: The Contractor shall coordinate its Construction Operations with those of his Subcontractors to ensure efficient and orderly installation of each part of the Work. The Contractor shall coordinate its subcontractors' operations included in different areas, which depend on each other for proper installation, connection, and operation.

1. Schedule Construction Operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate Subcontractors' installation of different components to ensure maximum accessibility for required maintenance, service and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.
4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service and repair of all components, including mechanical and electrical.

5. The Contractor shall recognize the complex nature of the Project, the Bid Categories, the sequential nature of construction contracts and the concurrent operations of other Contractors with the Work under this Project. The Work of the Contractor shall depend upon interface with the Work of other Contractors; and changes in the scheduling, procedures, work or job conditions of other Contractors may affect the scheduling, procedures, work or job conditions of the Contractor.
 6. The Contractor shall become thoroughly familiar with the requirements of Division 1, the Construction Schedule, Project Milestones and Scope of Work of the other Contractors and make any adjustments necessary to maintain the Project Master Schedule, as well as the schedules of other Contractors.
 7. Close coordination shall be required of the Contractor with the Construction Manager, other Contractors, the Owner and others having an interest in the Project to assure that work on the site, access to and from the site and the general conduct of operations is maintained in a safe and efficient manner and that disruption and inconvenience to existing streets and property is minimized. Fire hydrants must remain accessible at all times. Contractors shall give the Construction Manager and the local fire department at least forty-eight (48) hours notice of any such changes of routes.
 8. The completion of the Work within the prescribed time is dependent upon the close and active cooperation and open discussions of all those involved.
 9. Observation of the work by others shall not be interpreted as relieving the Contractor from his responsibility for coordination, superintendency, or scheduling and direction of the work.
 10. As various areas or parts of the site and building are complete, or otherwise suitable for the subsequent Contractors to commence work, those Contractors shall be allowed to deliver materials and start work. Such phased commencement shall be in accordance with the Project Master Schedule. Prior to commencing work at any area or part, certain contract requirements shall be met for that area or part. Verification of conditions as specified by the subsequent Contractor of the preceding Contractor's work is the responsibility of the subsequent Contractor.
 11. The Contractor is advised that the Contract Drawings are diagrammatic in nature and coordination with adjacent equipment and building features is required. All costs shall be included for offsets, transitions and fittings to make the Work complete and operable.
 12. The Contractor shall coordinate their Work with the work of other Contractors through the Construction Manager for proper function and sequence to avoid construction delays.
- B. Administrative Procedures: The Contractor shall coordinate scheduling and timing of required administrative procedures with other construction activities and activities of his Subcontractors and other Contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Pre-installation conferences.

7. Project closeout activities.
8. Startup and adjustment of systems.
9. Project closeout activities.

C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.4 SUBMITTALS

A. Key Personnel Names: Prior to starting Construction Operations, submit a list of key personnel assignments, including Project Manager, Superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Post copies of list in temporary field office and by each temporary telephone. Keep list current at all times.
2. Indicate the notification order for off-hours emergency notification of assigned staff.
3. The Contractor shall submit the resumes of his proposed Project Manager and superintendent to the Construction Manager and the Construction Manager shall have the option of interviewing the proposed individuals and checking references if deemed necessary. The Director/ACCO retains the right to accept and/or remove these key Contractor personnel in accordance with paragraph 1.6.A, below.

1.5 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. The Contractor shall identify the key personnel they intend to assign to the project, to the Construction Manager within 48 hours after the Contractor has been notified to proceed. The Owner, acting through the Construction Manager, reserves the right to approve the Contractor's proposed personnel and anyone not so approved shall be immediately replaced by someone acceptable to the Owner.

B. Superintendent:

1. The Contractor shall employ a competent Superintendent and necessary assistants who shall be in attendance at the Project site during the progress of the Work.
2. The Superintendent shall be satisfactory to the Construction Manager and shall not be changed except with the consent of the Construction Manager, unless the superintendent *proves* to be unsatisfactory to the Construction Manager and/or Contractor or ceases to be in his employ.
3. The Superintendent shall represent the Contractor and all communications given to the Project Manager and/or superintendent shall be as binding as if given to

- the Contractor. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case.
4. A duly authorized representative of the Contractor shall be available for emergency telephone communication from the Owner, Architect, or Construction Manager on a 24-hour basis, *seven* days a week during the performance of the work.
- C. Project Manager. In addition to the Contractors full-time, on-site Superintendent(s) and assistants, the Contractor shall provide a designated Project Manager:
1. The following Subcontractors shall provide a designated Project Manager and on-site Superintendent for the duration of the Contract, or as approved by the Construction Manager:
 - a. Electrical Subcontractor
 2. The duties of the Contractor's and Subcontractor's Project Manager shall include:
 - a. Be assigned with adequate time allocated and an onsite office until the Subcontractor's work is substantially complete, unless specifically excused by the Construction Manager.
 - b. Coordination and liaison with the Contractor and other Subcontractors, the Architect and the Construction Manager.
 - c. Planning of all the Contractors and Subcontractors operations.
 - d. Direction of all administrative and management requirements for the control of time and cost. The Contractor's Project Manager and Subcontractor's Project Managers shall be vested with the authority, experience, and confidence needed to make all decisions.
 - e. The Contractor's Project Manager and Superintendent shall remain assigned to the project until the work is substantially complete or until such time as the Construction Manager shall approve their reassignment.
- D. Other Staff: In addition to Contractor's Project Manager and Superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work. Include special personnel required for coordination of operations with Subcontractors.
- E. Contractor Responsibility: Observation of Work by others shall not be interpreted as relieving the Contractor from his responsibility for coordination of all Work, superintendence of the Work, or scheduling and direction of the Work.

1.6 COMMUNICATIONS

- A. Mobile Communications: Contractors shall provide appropriate means of communicating with key personnel on the site by the use of cell phones.
- B. Written Communications:
1. The Contractor shall forward all communications to the Owner and Architect/Engineer through the Construction Manager.
 2. The Contractor shall promptly return telephone calls or respond to any other form of communication initiated by the Construction Manager. Failure to promptly do so shall be considered lack of performance on the part of the Contractor.

3. All written correspondence to the Construction Manager shall be dated and signed by the Contractor or his authorized representative.
4. Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who *gives* the notice.
5. Document control:
 - a. Meeting Minutes: Email by the Construction Manager with copies to be distributed to all attendees.
 - b. Requests for Interpretation: Submit all RFI's.
 - c. Submittal Register: Track and process all items being submitted by each subcontractor for approval.

1.7 PROJECT MEETINGS

A. General: The Construction Manager shall schedule and conduct meetings and conferences at Project site, unless otherwise indicated. The meetings include the Preconstruction Conference, Pre-installation Meetings, Job Progress Meetings and any specifically called meetings throughout the progress of the Work.

1. Attendees: The Construction Manager shall inform participants and others involved and individuals whose presence is required, of date and time of each meeting and notify Owner and Architect of scheduled meeting dates and times. Representatives of the Contractor(s), Subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents. The Construction Manager shall determine attendees at meetings.
2. Minutes: The designated party shall record significant discussions and agreements achieved and distribute the meeting minutes to everyone concerned, including Owner and Architect. If the attendees do not object in writing to any part of the meeting within five (5) days of receipt of the minutes for non-periodic meetings, or at the following meeting for periodic meetings, the minutes shall be accepted as written.

B. Preconstruction Conference: The Contractor shall schedule a Preconstruction Conference before starting construction, at a time convenient to Owner, Construction Manager and Architect, approximately fifteen (15) days after execution of the Agreement; hold the conference at Project site or another convenient location; and conduct the meeting to review responsibilities and personnel assignments.

1. Attendees: Authorized representatives of Owner, Construction Manager, Architect and their consultants; Contractor and its project manager and superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the Conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. *Tentative* construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.

- e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for Requests for Interpretation (RFIs).
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. Preparation of Record Documents.
 - l. Use of the premises and existing buildings.
 - m. Work restrictions.
 - n. Owner's occupancy requirements.
 - o. Responsibility for temporary facilities and controls.
 - p. Construction waste management and recycling.
 - q. Parking *availability* and traffic routes
 - r. Office, work and storage areas.
 - s. Equipment deliveries and priorities.
 - t. First aid and safety.
 - u. Security
 - v. Progress cleaning.
 - w. Working hours.
3. Minutes: The Construction Manager shall record and distribute meeting minutes.

C. Pre-installation Conferences: The Construction Manager shall schedule and conduct with the Contractor responsible for the specific installation a Pre-Installation Conference at Project site before each construction activity that requires coordination with other construction.

- 1. Attendees: Installer and representatives of manufacturers and fabricators *involved* in or affected by the installation and its coordination or integration with other materials and installations that *have* preceded or shall follow, shall attend the meeting. The Construction Manager shall *advise* Architect and the testing agency, if appropriate, of scheduled meeting dates.
- 2. Agenda: The Construction Manager shall *review* progress of other construction activities and preparations for the particular *activity* under consideration, including requirements for the following:
 - a. The Contract Documents.
 - b. Options and Alternates
 - c. Related Requests for Interpretation (RFIs).
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries of key materials
 - g. Submittals to include shop drawings, product data and quality control samples
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Record keeping requirements
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.

- p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
3. The Construction Manager shall record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: The Construction Manager shall distribute minutes of the meeting to each party present and to parties who should have been present.
 5. The Contractor shall not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Owner Progress Meetings: The Construction Manager shall conduct Owner progress meetings at bi-weekly intervals and may coordinate dates of meetings with reviews of preliminary payment requests.
1. Attendees: In addition to representatives of Owner, Construction Manager, and Architect, the Contractor, with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - a. The representative of the Contractor shall be the Project Manager and Field Superintendent, unless a substitute has been approved by the Construction Manager.
 - b. Each Contractor shall begin attending the Owner Progress Meeting at least four (4) weeks prior to mobilization on site and shall continue until the Contractor has fulfilled the obligations of his contract.
 2. Agenda:
 - a. The Construction Manager shall establish the agenda, day, time and location for the Owner Progress Meeting. In addition, prior to the meeting, the Contractor shall provide the Construction Manager a short interval schedule as specified in Division 1 Section "Construction Progress Documentation".
 - b. At a minimum, the Contractor shall be prepared to discuss the following:
 - 1) Actual versus scheduled progress since the previous progress meeting.
 - 2) Planned construction activities for the next three weeks
 - 3) Interface requirements.
 - 4) Sequence of operations.
 - 5) Status of submittals.
 - 6) Status of deliveries of key materials.
 - 7) Status of off-site fabrication.
 - 8) Status of proposal requests
 - 9) Status of correction of deficient items.

- c. The Construction Manager shall address the following topics:
 - 1) Access.
 - 2) Site utilization.
 - 3) Temporary facilities, utilities and controls.
 - 4) Work hours.
 - 5) Safety, hazards and risks.
 - 6) Security
 - 7) Progress cleaning (housekeeping).
 - 8) Sequencing revisions
 - 9) Quality and work standards.
 - 10) Documentation of information for payment requests.
 - 11) Status of Contractor proposal reviews and change orders
 - d. The Architect, and as appropriate his consultants, shall address the following:
 - 1) Field observations and quality issues
 - 2) Status of submittal reviews of critical items
 - 3) Status of answers to Requests for Interpretation (RFIs).
 - 4) Anticipated design changes.
 - 3. Minutes: The Construction Manager shall record and distribute the meeting minutes.
 - 4. Schedule Updating: The Contractor shall revise Contractor's Short Interval Schedule after each progress meeting where revisions to the schedule have been made or recognized. When major sequencing changes occur the Contractor shall issue a revised Construction Schedule prior to the next meeting.
- E. Weekly Construction Job Progress Meetings: The Contractor shall conduct Construction Job progress meetings at weekly intervals and may coordinate dates of meetings with reviews of preliminary payment requests. One meeting each month shall be the Owner Progress Meeting described above.
- 1. Attendees: In addition to representatives of the Construction Manager, the Contractor, each Subcontractor, with current progress or involved in planning, coordination, or performance of future activities, shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - a. The Representative of the Contractor shall be the Project Manager and Field Superintendent, unless a substitute has been approved by the Construction Manager.
 - b. Each Subcontractor shall begin attending the Construction Job Progress Meeting at least four (4) weeks prior to mobilization on site and shall continue until the Subcontractor has fulfilled the obligations of his contract.
 - 2. Agenda:
 - a. The Construction Manager shall establish the agenda, day, time, and location for the Job Progress Meeting. In addition, prior to the meeting, the Contractor shall provide the Construction Manager a short interval schedule as specified in Division 1 Section "Construction Progress Documentation".
 - b. At a minimum, the Contractor and his Subcontractors shall be prepared to discuss the following:
 - 1) Actual versus scheduled progress for the past one week

- 2) Planned construction activities for the next three weeks
 - 3) Interface requirements.
 - 4) Sequence of operations.
 - 5) Status of submittals.
 - 6) Status of deliveries of key materials.
 - 7) Status of off-site fabrication.
 - 8) Status of proposal requests
 - 9) Status of correction of deficient items.
- c. The Construction Manager shall address the following topics: (
- 1) Access.
 - 2) Site utilization.
 - 3) Temporary facilities, utilities and controls.
 - 4) Work hours.
 - 5) Safety, hazards and risks.
 - 6) Security
 - 7) Progress cleaning (housekeeping).
 - 8) Sequencing revisions
 - 9) Quality and work standards.
 - 10) Documentation of information for payment requests.
 - 11) Status of Contractor proposal reviews and change orders
3. Schedule Updating: The Contractor shall revise Contractor's Short Interval Schedule after each progress meeting where revisions to the schedule have been made or recognized. When major sequencing changes occur the Contractor shall issue a revised Construction Schedule prior to the next meeting.
- F. Coordination Meetings: The Contractor shall conduct Project Coordination Meetings at appropriate intervals as required by the status of the Work. Project Coordination Meetings are focused on specific topics and are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.
1. Attendees: The Contractor shall request the parties required to resolve the issue for which the meeting is being held. Other attendees may be, but are not limited to, the Architect, the Owner, the Construction Manager, the Contractor, the Contractor's Subcontractors and/or suppliers, building inspectors and representatives of utility companies.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01310

SECTION 01320 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Preliminary Construction Schedule.
2. Contractor's Construction Schedule.
3. Submittals Schedule.
4. Daily construction reports.
5. Daily Time and Material Extra Work Report
6. Material location reports.
7. Field condition reports.
8. Special reports.

- B. Related Sections include the following:

1. Division 1 Section "Payment Procedures" for submitting the Schedule of Values.
2. Division 1 Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
3. Division 1 Section "Submittal Procedures" for submitting schedules and reports.
4. Division 1 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring and controlling the Construction Project. Activities included in a Construction Schedule consume time and resources.

1. The Contractor shall submit a biweekly bar graph schedule using MS. Excel.
2. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times. Multiple critical paths are possible. The critical path as used in these documents represents the path through the network that has the least total float.
3. Predecessor Activity: An activity that precedes another activity in the network.
4. Successor Activity: An activity that follows another activity in the network.

- B. Event: The starting or ending point of an activity.

1.4 SUBMITTALS

A. Submittals Schedule:

1. The Contractor shall prepare a complete submittal schedule that identifies all the submittals required by the Contract Documents and the dates for their submission. Submit the schedule within fourteen (14) days of Contract Award or written Notice to Proceed whichever date is earliest.
2. The submittal schedule shall, as a minimum, list the following items to be submitted both in hard copy and electronically in Excel software in the format provided by the CM:
 - a. Listing of subcontractors.
 - b. Insurance certificate.
 - c. Performance and payment bonds.
 - d. Permits.
 - e. Certifications.
 - f. Schedule of Values.
 - g. List of products.
 - h. Project closeout submittals.
3. Coordinate the Submittal Schedule with the Construction Schedule.
4. Submit three (3) hard copies and one (1) electronic copy of the schedule. Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category (action or informational).
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
5. Submittals shall be numbered by the Contractor as directed by the Construction Manager after Contract award.
6. Review of Submittal Schedule: Prior to distribution, submit the initial submittal schedule to the Construction Manager for review. The form and level of detail of the submittal schedule shall be as prescribed by the Construction Manager. The Construction Manager has the right to require additions and/or deletions from the submittal schedule at any time.
7. Distribution of Submittal Schedule: Following the Construction Manager's final review and approval, distribute copies of the approved submittal schedule to subcontractors, suppliers and other parties required to comply with submittal dates indicated. Post copies in the field offices. The Construction Manager shall distribute approved copies to the Architect.
8. Submittal Schedule Updating: Revise the submittal schedule at least monthly, or whenever significant revisions are identified. Submittal of an updated submittal schedule is a pre-requisite to processing of the Contractor's payment request. The payment request shall not be processed unless the submittal schedule has been updated and submitted. Submit the revised submittal schedule to the Construction Manager for review and approval. Reissue and repost the updated submittal schedule following the Construction Manager's review and approval.

- C. Preliminary Construction Schedule: Submit an electronic copy of the schedule within fifteen (15) calendar days after the Contract is awarded.
- D. Contractor's Construction Schedule: Submit an electronic copy of within fifteen (15) Calendar Days after the Contract is awarded or within 10 Calendar Days after receipt of the Construction Manager's comments on the preliminary Construction Schedule (incorporate the comments during the 10 day timeframe). With the exception of the first payment request, a payment request shall not be processed unless a properly updated copy of the Contractor schedule has been submitted. The Contractor shall update and submit an Excel bar graph schedule bi-weekly.
 - 1. Submit an electronic copy of schedule by email.
- E. Daily Construction Reports: Submit by email to the Construction Manager a short description of the days activities by 9:00 AM the next business day. Payment requests shall not be processed unless the Contractor's daily reports are up to date.

1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of subcontractors and Owner's other contractors.
- B. Coordinate Contractor's Construction Schedule with the Contractor's Schedule of Values, list of Subcontracts, Submittals Schedule, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 – PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Software: Prepare the information required for the Submittal Schedule in the latest version of Excel.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Software: Microsoft Excel
- B. Time Frame: Extend schedule from date of the Notice to Proceed to date of Substantial Completion based on the Calendar Day time specified in the Contract Agreement.
- D. Activities: Treat each segment of work or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:

1. Inclement Weather: The following listing of working days lost due to inclement weather is to be included and considered in the Contractor's schedule. The definition of a lost day due to inclement weather is:
 - a. An inclement weather day is established when the Contractor and the Construction Manager mutually agree that conditions on the site prevent productive progress on critical path activities. This agreement is to be reached on site and documented on the daily report with be initials of the Construction Manager's senior on-site Superintendent and Contractor's senior on-site Superintendent. Absence of such mutual agreement shall be indication that the critical path was not impacted by the weather on that date. If the number of days of weather impact exceeds the cumulative number of anticipated days listed below, the Contract completion date may be adjusted by Change Order. Inclement weather on a weekend or Holiday is not considered to be an impact to the schedule.
 - 1) Anticipated lost days due to inclement weather: The Contractor shall anticipate and include the following number of lost days due to weather in their planning/scheduling:
 - a) January 7 working days
 - b) February 8 working days
 - c) March 6 working days
 - d) April 6 working days
 - e) May 5 working days
 - f) June 5 working days
 - g) July 5 working days
 - h) August 5 working days
 - i) September 6 working days
 - j) October 6 working days
 - k) November 7 working days
 - l) December 7 working days
2. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow 10 working days for Architect, Owner, and Construction Manager inspections. Indicate another 20 working days for punchlist item corrections and administrative procedures necessary for certification of Substantial Completion.

E. Milestones: Include milestones indicated in Section 01100 in Contractor's Construction Schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.

F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change, if any, on the overall project schedule.

2.3 PRELIMINARY CONSTRUCTION SCHEDULE

A. Preliminary CPM Schedule: Submit the schedule in preliminary format within fifteen (15) days of the Contract Award. The Construction Manager shall *review* and comment on the submittal within 10 working days after receipt.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. General: The Project Schedule shall be maintained by the Contractor. The Contractor shall develop and update the Construction Schedule with input from his Subcontractors. The Contractor shall develop his schedule using an iterative process as follows:
1. Develop and submit bar graph in excel for the Preliminary schedule.
 2. Construction Manager reviews and returns comments until such time as schedule is acceptable.
 3. Pre-scheduled review meeting with the Construction Manager and Contractor to review comments and required revisions
 4. Incorporate Construction Manager comments and required adjustments to the schedule
 5. Resubmit the revised schedule.
 6. Continue to work through processes 3 through 5 until such time as the CPM Schedule is acceptable to the Construction Manager
- B. Schedule Updating: The Contractor shall update and submit the Construction Schedule for each bi-weekly meeting. Submittal of updated files is a pre-requisite to processing of the Contractor's payment request

2.5 REPORTS

A. Contractor Daily Reports: As described per Sec. 1.4.E

1. The Contractor shall prepare and submit a Daily Report to the Construction Manager This report shall be submitted daily for the length of the Contract.
2. The Daily Report shall be submitted to the Construction Manager by 9:00 AM the next business day.
3. Failure to comply with the requirements of submitting Daily Reports is cause for the Construction Manager to retain additional monies due the Contractor from the monthly Application for Payment until the reports have been brought up to date by the Contractor.
4. The Contractor Daily Report shall include the following information:
 - a. List of visitors
 - b. Work being performed using Project Schedule Activity nomenclature and including location (schedule zone)
 - c. Meetings and significant decisions.
 - d. Unusual events (refer to special reports).
 - e. Stoppages, delays, shortages, and losses.
 - f. Emergency procedures.
 - g. Orders and requests of authorities having jurisdiction.
 - h. Services connected and disconnected.
5. The Contractor shall take the specific and direct action to alert the Construction Manager to items which could result in claims and/or delays.

- D. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit via the internet a request for information in the form provided in the Construction Manager's electronic project management system (NEWFORMA). Include a detailed

description of the differing conditions, together with recommendations for changing the Contract Documents.

- F. Weekly CBE Reports: The Contractor shall submit through the Construction Manager all CBE weekly compliance reports in a format required by the Owner. Submittal of the updated CBE reports is a pre-requisite to the processing of the Contractor's monthly Payment request.

2.6 SPECIAL REPORTS

- A. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Construction Manager in advance when these events are known or predictable.

PART 3 – EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: For each bi-weekly meeting update schedule to reflect actual construction progress and activities and submit the updated Excel file to the Construction Manager.

1. As the Work progresses, indicate Actual Completion percentage for each activity.

- B. Distribution: Distribute copies of approved schedule to Construction Manager, Subcontractors, testing and inspecting agencies, commissioning agency, Owner's separate contractors and other parties identified by Construction Manager with a need-to-know schedule responsibility.

END OF SECTION 01320

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples and other submittals.
- B. Related Sections include the following:
 - 1. Section 01290 PAYMENT PROCEDURES for submitting Applications for Payment and the Schedule of Values.
 - 2. Section 01310 PROJECT MANAGEMENT AND COORDINATION for submitting and distributing meeting, conference minutes and for submitting Coordination Drawings.
 - 3. Section 01320 CONSTRUCTION PROGRESS DOCUMENTATION for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule.
 - 4. Section 01400 QUALITY REQUIREMENTS for submitting test and inspection reports.
 - 5. Section 01770 CLOSEOUT PROCEDURES for submitting warranties.
 - 6. Section 01781 PROJECT RECORD DOCUMENTS for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 7. Divisions 2 through 16 Sections for specific requirements for submittals in those Sections.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's and/or Construction Manager's responsive action.
- B. Informational Submittals: Written information that does not require Architect's and/or Construction Manager's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

A. Submittal Procedures:

1. The Contractor shall send submittals by email to EYP and ALPHA CORPORATION

B. Electronic copies of CAD Drawings of the Contract Drawings can be provided by Architect for Contractor's use in preparing submittals for this Contract.

1. Contractor shall fill out the "Electronic Document Order Form" and submit completed form to Architect. A sample copy of Order Form is at the end of this Section
2. After receipt of Order Form, Architect shall send Contractor "Electronic Data File Agreement Between Architect and Contractor". Contractor shall sign Agreement and pay Architect the applicable fees, prior to release of CAD files by Architect. A sample copy of "Electronic Data File Agreement Between Architect and Contractor". Electronica data request forms can be obtained from construction manager upon request once bid is accepted.

C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related parts of the Work so processing shall not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect and Construction Manager reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

D. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.

E. Processing Time: Schedule submittals to allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Construction Manager's receipt of submittal. No extension of the Contract Time shall be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow TEN (10) Working Days for initial review of each submittal of which TWO (2) Working Days are for the Construction Manager review, TWO (2) Working Days are for mailing time to and from the Architect and SIX (6) Working Days are for the Architect and his consultant's review. The review durations above start at receipt of the submittal by the Construction Manager, if before 2:00 pm and end the date that the Construction Manager transmits the submittal back to the Contractor; when receipt submittal is after 2:00 pm, review duration starts on the next Business Day. Allow additional time if coordination with subsequent submittals is required. Architect through the Construction Manager shall advise Contractor when a submittal being processed must be delayed for coordination.

2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow TEN (10) Working Days for review of each resubmittal.

F. Identification: Place a permanent label or title block on each submittal for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect and Construction Manager.
3. All submittals shall be submitted in electronic format along with three (3) "hard" copies. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect and Construction Manager.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01.A).
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.

G. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.

H. Additional Copies: Unless additional copies are required for final submittal, and unless Architect or Construction Manager observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

1. Submit one copy (electronic as well as "hard" copy) of submittal to concurrent reviewer in addition to specified number of copies to Architect and Construction Manager.
2. Additional copies (electronic as well as "hard" copy) submitted for maintenance manuals shall be marked with action taken and shall be returned.

I. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect and Construction Manager shall return submittals, without review, when received from sources other than Contractor.

1. Transmittal Form: Use Contractor's standard Submittal Transmittal form or such

form provided by the Construction Manager at the pre-construction conference. Each transmittal form shall contain list submittal items from only one specification section (i.e. submittal items from different specification sections require separate transmittal forms) Provide locations on form for the following information:

- a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Specification Section number and title.
 - i. Drawing number and detail references, as appropriate.
 - j. Contractor's transmittal number.
 - k. Submittal and transmittal distribution record.
 - l. Remarks.
 - m. Signature of transmitter.
2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect and Construction Manager on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.
- J. Resubmittals: Make resubmittals in same form and number of copies (electronic as well "hard" copy) as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked "No Exceptions Taken" or "Make Corrections Noted."
- K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- L. Use for Construction: Use only final submittals marked by the Architect indicating "No Exceptions Taken" or "Make Corrections Noted."

1.5 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files shall be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:
1. See the Electronic Data Order Form at the end of this section for applicable fees. Each contractor shall sign the "Electronic Data File Agreement Between Architect and Contractor" prior to receiving the CADD files. Files are not to be transferred between Contractors.

PART 2 – PRODUCTS

2.1 GENERAL

- A. Submit all action submittals and all informational submittals in electronic format to Construction Manager:
1. All submittals: Submit in Acrobat .pdf format.
 2. In addition, as may be directed by Construction Manager, submit electronic submittals in Autocad .dwf format or other software acceptable to Construction Manager (for drawing files) or in Microsoft Word (for text files), as applicable to the submittal.
- B. In addition to electronic submittals, submit to Construction Manager two paper copies of all action submittals and all informational submittals which are larger than 8-1/2 inches x 11 inches.
- C. Reviewed submittals shall be returned only by posting to the Electronic Project Management System. Paper submittals shall not be returned.

2.2 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operation and maintenance manuals.
 - k. Compliance with specified referenced standards.
 - l. Testing by recognized testing agency.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
 4. Submit Product Data before or concurrent with Samples.
 5. Number of Copies: Submit six (6) copies of Product Data, unless otherwise indicated. Architect, through Construction Manager, shall return two (2) copies. Mark up and retain one returned copy as a Project Record Document. The allocation of the six copies are as follows:

- a. Construction Manager pending file - 1 copy
- b. Architect and his consultants - 2 copies
- c. Construction Manager submittal file - 1 copy
- d. Contractor - 2 copies

C. Application for Payment: Comply with requirements specified in Section 01290 PAYMENT PROCEDURES.

D. Schedule of Values: Comply with requirements specified in Section 01290 PAYMENT PROCEDURES.

E. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.
4. Number of Copies: Submit three (3) copies of subcontractor list, unless otherwise indicated. Architect, through Construction Manager, shall return one (1) copy.
 - a. Mark up and retain one returned copy as a Project Record Document.

2.3 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Number of Copies: Submit two (2) copies of each submittal, unless otherwise indicated. Architect and Construction Manager shall not return copies.
2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
3. Test and Inspection Reports: Comply with requirements specified in Section 01400 QUALITY REQUIREMENTS.

B. Contractor's Construction Schedule: Comply with requirements specified in Section 01320 CONSTRUCTION PROGRESS DOCUMENTATION.

C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners and other information specified.

D. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

- E. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- F. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- I. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- J. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- K. Schedule of Tests and Inspections: Comply with requirements specified in Section 01400 QUALITY REQUIREMENTS.
- L. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- M. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with manufacturer warranties and accordance with DC and DDOE regulations.
- N. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
 - 1. Preparation of substrates.
 - 2. Required substrate tolerances.
 - 3. Sequence of installation or erection.

4. Required installation tolerances.
5. Required adjustments.
6. Recommendations for cleaning and protection.

O. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

P. Material Safety Data Sheets (MSDSs): Submit information directly to Construction Manager; do not submit to Architect.

PART 3 – EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect through Construction Manager.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

- A. General: Architect and Construction Manager shall not review submittals that do not bear Contractor's approval stamp and shall return them without action.
- B. Action Submittals: Architect and Construction Manager shall review each submittal, make marks to indicate corrections or modifications required and return it. Architect shall stamp each submittal with an action stamp and shall mark stamp appropriately to indicate action taken, as follows:
 1. "No Exception Taken" or "Make Corrections Noted": Proceed with fabrication, purchase, or both, of items included in submittal, subject to revisions, if any, included in Architect's review comments.
 2. "Revise and Resubmit":
 - a. A portion of submittal is unacceptable.
 - b. Correct and resubmit the part of submittal in question.
 - c. Work cannot proceed when the Revise and Resubmit stamp has been used unless approved by the Construction Manager.
 3. "Rejected": Fabrication of Work indicated cannot proceed. Correct submittal and resubmit.
 4. "Reviewed Only. No Action Taken".
- C. Informational Submittals: Architect and Construction Manager shall review each submittal and shall not return it, or shall return it if it does not comply with requirements. Construction Manager shall forward each submittal to appropriate party.

D. Partial submittals are not acceptable, shall be considered non-responsive and shall be returned without review.

E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 01330

SECTION 01400 - QUALITY REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. This Section is complementary to DC Government, DMH, Project Quality Program found in Volume 5. Should the Contractor discover conflicting requirements between this Section and the Project Quality Program, the most stringent requirement shall apply.
- C. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for each of the Contractors to provide quality-assurance and control services required by Architect, Owner, Construction Manager or authorities having jurisdiction are not limited by provisions of this Section.
- D. Related Sections include the following:
 - 1. Division 1 Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
 - 2. Division 1 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
 - 3. Divisions 2 through 16 Sections for specific test and inspection requirements.
 - 4. Appendix, DC Government, DMH, Project Quality Program.

1.3 DEFINITIONS

- A. **Quality-Assurance Services:** Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction shall comply with requirements.
- B. **Quality-Control Services:** Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect and/or Construction Manager.

- H. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- I. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- J. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- K. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." In addition, it also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- I. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five (5) previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: The Contractor shall prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Description of test and inspection.
 - 3. Identification of applicable standards.
 - 4. Identification of test and inspection methods.
 - 5. Number of tests and inspections required.

6. Time schedule or time span for tests and inspections.
7. Entity responsible for performing tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

C. Reports: The Testing Agency shall prepare and submit certified written reports that include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

D. Permits, Licenses, and Certificates: For Owner's records, the Contractor shall submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.

F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirement for specialists shall not supersede building codes and regulations governing the Work.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.

1.7 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner shall engage a qualified testing agency to perform these services.

1. Owner shall furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Payment for these services shall be made directly to the Testing Agency by the Construction Manager
3. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents shall be charged to Contractor, and the Contract Sum shall be adjusted by Change Order.

B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section "Submittal Procedures."

C. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

D. Testing Agency Responsibilities: Cooperate with Architect, Construction Manager and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Construction Manager and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples shall be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in electronic format of each test, inspection, and

similar quality-control service through Construction Manager.

5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

E. Associated Services: Contractor shall cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agency's collection location on-site.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

F. Coordination: Contractor shall coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples and similar activities with the Testing Agency through the Construction Manager.

G. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within thirty (30) days of date established for the Notice to Proceed, concurrently with Contractor's Construction Schedule.

1. Distribution: Distribute schedule to Owner, Architect, Construction Manager, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.8 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner shall engage a qualified special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as indicated in individual Specification Sections:

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.

2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's and Construction Manager's reference during normal working hours.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

3.3 Enumerated Work

A. The enumerated work is the responsibility of the Contractor.

END OF SECTION 01400

PARKING LOT EXPANSION

SECTION 01420 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by the Construction Manager or Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

PARKING LOT EXPANSION

- B. **Publication Dates:** Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
- C. **Copies of Standards:** Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.
- D. **Abbreviations and Acronyms for Standards and Regulations:** Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities Available from Access Board www.access-board.gov	(800) 872-2253 (202) 272-0080
CFR	Code of Federal Regulations Available from Government Printing Office www.access.gpo.gov/nara/cfr	(888) 293-6498 (202) 512-1530
CRD	Handbook for Concrete and Cement Available from Army Corps of Engineers Waterways Experiment Station www.wes.army.mil	(601) 634-2355
DOD	Department of Defense Military Specifications and Standards Available from Department of Defense Single Stock Point www.dodssp.daps.mil	(215) 697-6257
DSCC	Defense Supply Center Columbus (See FS)	
FED-STD	Federal Standard (See FS)	

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FS	Federal Specification	(215) 697-6257
	Available from Department of Defense Single Stock Point www.dodssp.daps.mil	
	Available from General Services Administration	(202) 501-1021
	www.fss.gsa.gov	
	Available from National Institute of Building Sciences	(202) 289-7800
	www.nibs.org	
FTMS	Federal Test Method Standard (See FS)	
MIL	See MILSPEC	
MS MIL	See MILSPEC	
MILSPEC	Military Specification and Standards	(215) 697-6257
	Available from Department of Defense Single Stock Point www.dodssp.daps.mil	
UFAS	Uniform Federal Accessibility Standards	(800) 872-2253
	Available from Access Board	(202) 272-0080
	www.access-board.gov	

1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The) www.aluminum.org	(202) 862-5100
AAADM	American Association of Automatic Door Manufacturers www.aadm.com	(216) 241-7333
AABC	Associated Air Balance Council www.aabchq.com	(202) 737-0202

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AAMA	American Architectural Manufacturers Association www.aamanet.org	(847) 303-5664
AASHTO	American Association of State Highway and Transportation Officials www.transportation.org	(202) 624-5800
AATCC	American Association of Textile Chemists and Colorists (The) www.aatcc.org	(919) 549-8141
ABMA	American Bearing Manufacturers Association www.abma-dc.org	(202) 367-1155
ACI	ACI International (American Concrete Institute) www.aci-int.org	(248) 848-3700
ACPA	American Concrete Pipe Association www.concrete-pipe.org	(972) 506-7216
AEIC	Association of Edison Illuminating Companies, Inc. (The) www.aeic.org	(205) 257-2530
AFPA	American Forest & Paper Association (See AF&PA)	
AF&PA	American Forest & Paper Association www.afandpa.org	(800) 878-8878 (202) 463-2700
AGA	American Gas Association www.aga.org	(202) 824-7000
AGC	Associated General Contractors of America (The) www.agc.org	(703) 548-3118
AHA	American Hardboard Association (Now part of CPA)	
AHAM	Association of Home Appliance Manufacturers www.aham.org	(202) 872-5955
AI	Asphalt Institute www.asphaltinstitute.org	(859) 288-4960
AIA	American Institute of Architects (The) www.aia.org	(800) 242-3837 (202) 626-7300
AISC	American Institute of Steel Construction www.aisc.org	(800) 644-2400 (312) 670-2400

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AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100
AITC	American Institute of Timber Construction www.aitc-glulam.org	(303) 792-9559
ALCA	Associated Landscape Contractors of America www.alca.org	(800) 395-2522 (703) 736-9666
ALSC	American Lumber Standard Committee, Incorporated www.alsc.org	(301) 972-1700
AMCA	Air Movement and Control Association International, Inc. www.amca.org	(847) 394-0150
ANSI	American National Standards Institute www.ansi.org	(202) 293-8020
AOSA	Association of Official Seed Analysts www.aosaseed.com	(505) 522-1437
APA	APA - The Engineered Wood Association www.apawood.org	(253) 565-6600
APA	Architectural Precast Association www.archprecast.org	(239) 454-6989
API	American Petroleum Institute www.api.org	(202) 682-8000
ARI	Air-Conditioning & Refrigeration Institute www.ari.org	(703) 524-8800
ARMA	Asphalt Roofing Manufacturers Association www.asphaltroofing.org	(202) 207-0917
ASCE	American Society of Civil Engineers www.asce.org	(800) 548-2723 (703) 295-6300
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers www.ashrae.org	(800) 527-4723 (404) 636-8400
ASME	ASME International (The American Society of Mechanical Engineers International) www.asme.org	(800) 843-2763 (212) 591-7722

PARKING LOT EXPANSION

ASSE	American Society of Sanitary Engineering www.asse-plumbing.org	(440) 835-3040
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832-9585
AWCI	AWCI International (Association of the Wall and Ceiling Industries International) www.awci.org	(703) 534-8300
AWCMA	American Window Covering Manufacturers Association (See WCSC)	
AWI	Architectural Woodwork Institute www.awinet.org	(800) 449-8811 (703) 733-0600
AWPA	American Wood-Preservers' Association www.awpa.com	(334) 874-9800
AWS	American Welding Society www.aws.org	(800) 443-9353 (305) 443-9353
AWWA	American Water Works Association www.awwa.org	(800) 926-7337 (303) 794-7711
BHMA	Builders Hardware Manufacturers Association www.buildershardware.com	(212) 297-2122
BIA	Brick Industry Association (The) www.bia.org	(703) 620-0010
BICSI	BICSI www.bicsi.org	(813) 979-1991
BIFMA	BIFMA International (Business and Institutional Furniture Manufacturer's Association International) www.bifma.com	(616) 285-3963
CCC	Carpet Cushion Council www.carpetcushion.org	(203) 637-1312
CCFSS	Center for Cold-Formed Steel Structures www.umn.edu/~ccfss	(573) 341-4471
CDA	Copper Development Association Inc. www.copper.org	(800) 232-3282 (212) 251-7200

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CEA	Canadian Electricity Association www.canelect.ca	(613) 230-9263
CFFA	Chemical Fabrics & Film Association, Inc. www.chemicalfabricsandfilm.com	(216) 241-7333
CGA	Compressed Gas Association www.cganet.com	(703) 788-2700
CGSB	Canadian General Standards Board www.pwgsc.gc.ca/cgsb	(800) 665-2472 (819) 956-0425
CIMA	Cellulose Insulation Manufacturers Association www.cellulose.org	(888) 881-2462 (937) 222-2462
CISCA	Ceilings & Interior Systems Construction Association www.cisca.org	(630) 584-1919
CISPI	Cast Iron Soil Pipe Institute www.cispi.org	(423) 892-0137
CLFMI	Chain Link Fence Manufacturers Institute www.chainlinkinfo.org	(301) 596-2583
CPA	Composite Panel Association www.pbmdf.com	(301) 670-0604
CPPA	Corrugated Polyethylene Pipe Association www.cppa-info.org	(800) 510-2772 (202) 462-9607
CRI	Carpet & Rug Institute (The) www.carpet-rug.com	(800) 882-8846 (706) 278-3176
CRSI	Concrete Reinforcing Steel Institute www.crsi.org	(847) 517-1200
CSA	CSA International (Formerly: IAS - International Approval Services) www.csa-international.org	(800) 463-6727 (416) 747-4000
CSI	Construction Specifications Institute (The) www.csinet.org	(800) 689-2900 (703) 684-0300
CSSB	Cedar Shake & Shingle Bureau www.cedarbureau.org	(604) 820-7700

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CTI	Cooling Technology Institute (Formerly: Cooling Tower Institute) www.cti.org	(281) 583-4087
DHI	Door and Hardware Institute www.dhi.org	(703) 222-2010
EIA	Electronic Industries Alliance www.eia.org	(703) 907-7500
EIMA	EIFS Industry Members Association www.eima.com	(800) 294-3462 (770) 968-7945
EJCDC	Engineers Joint Contract Documents Committee www.asce.org	(800) 548-2723 (703) 295-6300
EJMA	Expansion Joint Manufacturers Association, Inc. www.ejma.org	(914) 332-0040
ESD	ESD Association	(315) 339-6937
FCI	Fluid Controls Institute www.fluidcontrolsintstitute.org	(216) 241-7333
FIBA	Federation Internationale de Basketball Amateur (The International Basketball Federation) www.fiba.com	41 22 545 00 00
FIVB	Federation Internationale de Volleyball (The International Volleyball Federation) www.fivb.ch	41 21 345 35 35
FM	Factory Mutual System (See FMG)	
FMG	FM Global (Formerly: FM - Factory Mutual System) www.fmglobal.com	(401) 275-3000
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc. www.floridarroof.com	(407) 671-3772
FSA	Fluid Sealing Association www.fluidsealing.com	(610) 971-4850
FSC	Forest Stewardship Council www.fscoax.org	52 951 5146905

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GA	Gypsum Association www.gypsum.org	(202) 289-5440
GANNA	Glass Association of North America www.glasswebsite.com	(785) 271-0208
GRI	Geosynthetic Research Institute (See GSI)	
GS	Green Seal www.greenseal.org	(202) 872-6400
GSI	Geosynthetic Institute www.geosynthetic-institute.org	(610) 522-8440
HI	Hydraulic Institute www.pumps.org	(888) 786-7744 (973) 267-9700
HI	Hydronics Institute www.gamanet.org	(908) 464-8200
HMMA	Hollow Metal Manufacturers Association (See NAAMM)	
HPVA	Hardwood Plywood & Veneer Association www.hpva.org	(703) 435-2900
HPW	H. P. White Laboratory, Inc. www.hpwhite.com	(410) 838-6550
IAS	International Approval Services (See CSA)	
IBF	International Badminton Federation www.intbadfed.org	(441-24) 223-4904
ICEA	Insulated Cable Engineers Association, Inc. www.icea.net	(770) 830-0369
ICRI	International Concrete Repair Institute, Inc. www.icri.org	(847) 827-0830
IEC	International Electrotechnical Commission www.iec.ch	41 22 919 02 11
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) www.ieee.org	(212) 419-7900

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IESNA	Illuminating Engineering Society of North America www.iesna.org	(212) 248-5000
IGCC	Insulating Glass Certification Council www.igcc.org	(315) 646-2234
IGMA	Insulating Glass Manufacturers Alliance (The) www.igmaonline.org	(613) 233-1510
ILI	Indiana Limestone Institute of America, Inc. www.iliai.com	(812) 275-4426
ISO	International Organization for Standardization www.iso.ch	41 22 749 01 11
ISSFA	International Solid Surface Fabricators Association www.issfa.net	(702) 567-8150
ITS	Intertek www.intertek.com	(800) 345-3851 (607) 753-6711
ITU	International Telecommunication Union www.itu.int/home	41 22 730 51 11
KCMA	Kitchen Cabinet Manufacturers Association www.kcma.org	(703) 264-1690
LMA	Laminating Materials Association www.lma.org	(201) 664-2700
LPI	Lightning Protection Institute www.lightning.org	(800) 488-6864 (847) 577-7200
MBMA	Metal Building Manufacturers Association www.mbma.com	(216) 241-7333
MFMA	Maple Flooring Manufacturers Association www.maplefloor.org	(847) 480-9138
MFMA	Metal Framing Manufacturers Association www.metalframingmfg.org	(312) 644-6610
MH	Material Handling Industry of America (See MHIA)	
MHIA	Material Handling Industry of America www.mhia.org	(800) 345-1815 (704) 676-1190

PARKING LOT EXPANSION

MIA	Marble Institute of America www.marble-institute.com	(440) 250-9222
MPI	Master Painters Institute www.paintinfo.com	(888) 674-8937
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com	(703) 281-6613
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org	(312) 332-0405
NACE	NACE International (National Association of Corrosion Engineers International) www.nace.org	(281) 228-6200
NADCA	National Air Duct Cleaners Association www.nadca.com	(202) 737-2926
NAGWS	National Association for Girls and Women in Sport www.aahperd.org/nagws/	(800) 213-7193, ext. 453
NAIMA	North American Insulation Manufacturers Association (The) www.naima.org	(703) 684-0084
NBGQA	National Building Granite Quarries Association, Inc. www.nbgqa.com	(800) 557-2848
NCAA	National Collegiate Athletic Association (The) www.ncaa.org	(317) 917-6222
NCMA	National Concrete Masonry Association www.ncma.org	(703) 713-1900
NCPI	National Clay Pipe Institute www.ncpi.org	(262) 248-9094
NCTA	National Cable & Telecommunications Association www.ncta.com	(202) 775-3550
NEBB	National Environmental Balancing Bureau www.nebb.org	(301) 977-3698
NECA	National Electrical Contractors Association www.necanet.org	(301) 657-3110

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NeLMA	Northeastern Lumber Manufacturers' Association www.nelma.org	(207) 829-6901
NEMA	National Electrical Manufacturers Association www.nema.org	(703) 841-3200
NETA	InterNational Electrical Testing Association www.netaworld.org	(303) 697-8441
NFHS	National Federation of State High School Associations www.nfhs.org	(317) 972-6900
NFPA	NFPA www.nfpa.org	(800) 344-3555 (617) 770-3000
NFRC	National Fenestration Rating Council www.nfrc.org	(301) 589-1776
NGA	National Glass Association www.glass.org	(703) 442-4890
NHLA	National Hardwood Lumber Association www.natlhardwood.org	(800) 933-0318 (901) 377-1818
NLGA	National Lumber Grades Authority www.nlga.org	(604) 524-2393
NOFMA	National Oak Flooring Manufacturers Association www.nofma.org	(901) 526-5016
NRCA	National Roofing Contractors Association www.nrca.net	(800) 323-9545 (847) 299-9070
NRMCA	National Ready Mixed Concrete Association www.nrmca.org	(888) 846-7622 (301) 587-1400
NSF	NSF International (National Sanitation Foundation International) www.nsf.org	(800) 673-6275 (734) 769-8010
NSSGA	National Stone, Sand & Gravel Association www.nssga.org	(800) 342-1415 (703) 525-8788
NTMA	National Terrazzo & Mosaic Association, Inc. www.ntma.com	(800) 323-9736 (540) 751-0930
NTRMA	National Tile Roofing Manufacturers Association (See RTI)	

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NWWDA	National Wood Window and Door Association (See WDMA)	
OPL	Omega Point Laboratories, Inc. www.opl.com	(800) 966-5253 (210) 635-8100
PCI	Precast/Prestressed Concrete Institute www.pci.org	(312) 786-0300
PDCA	Painting & Decorating Contractors of America www.pdca.com	(800) 332-7322 (314) 514-7322
PDI	Plumbing & Drainage Institute www.pdionline.org	(800) 589-8956 (978) 557-0720
PGI	PVC Geomembrane Institute www.pgi-tp.ce.uiuc.edu	(217) 333-3929
PTI	Post-Tensioning Institute www.post-tensioning.org	(602) 870-7540
RCSC	Research Council on Structural Connections www.boltcouncil.org	(800) 644-2400 (312) 670-2400
RFCI	Resilient Floor Covering Institute www.rfci.com	(301) 340-8580
RIS	Redwood Inspection Service www.calredwood.org	(888) 225-7339 (415) 382-0662
SAE	SAE International www.sae.org	(724) 776-4841
SDI	Steel Deck Institute www.sdi.org	(847) 462-1930
SDI	Steel Door Institute www.steeldoor.org	(440) 899-0010
SEFA	Scientific Equipment and Furniture Association www.sefalabs.com	(516) 294-5424
SGCC	Safety Glazing Certification Council www.sgcc.org	(315) 646-2234
SIA	Security Industry Association www.siaonline.org	(703) 683-2075

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SIGMA	Sealed Insulating Glass Manufacturers Association (See IGMA)	
SJI	Steel Joist Institute www.steeljoist.org	(843) 626-1995
SMA	Screen Manufacturers Association www.smacentral.org	(561) 533-0991
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association www.smacna.org	(703) 803-2980
SMPTE	Society of Motion Picture and Television Engineers www.smppte.org	(914) 761-1100
SPFA	Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division) www.sprayfoam.org	(800) 523-6154
SPIB	Southern Pine Inspection Bureau (The) www.spib.org	(850) 434-2611
SPI/SPFD	Society of the Plastics Industry, Inc. (The) Spray Polyurethane Foam Division (See SPFA)	
SPRI	SPRI (Single Ply Roofing Institute) www.spri.org	(781) 647-7026
SSINA	Specialty Steel Industry of North America www.ssina.com	(800) 982-0355 (202) 342-8630
SSPC	SSPC: The Society for Protective Coatings www.sspc.org	(877) 281-7772 (412) 281-2331
STI	Steel Tank Institute www.steeltank.com	(847) 438-8265
SWI	Steel Window Institute www.steelwindows.com	(216) 241-7333
SWRI	Sealant, Waterproofing, & Restoration Institute www.swrionline.org	(816) 472-7974
TCA	Tile Council of America, Inc. www.tileusa.com	(864) 646-8453

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TIA/EIA	Telecommunications Industry Association/Electronic Industries Alliance www.tiaonline.org	(703) 907-7700
TMS	The Masonry Society www.masonrysociety.org	(303) 939-9700
TPI	Truss Plate Institute, Inc. www.tpinst.org	(608) 833-5900
TPI	Turfgrass Producers International www.turfgrassod.org	(800) 405-8873 (847) 705-9898
UL	Underwriters Laboratories Inc. www.ul.com	(800) 285-4476 (847) 272-8800
UNI	Uni-Bell PVC Pipe Association www.uni-bell.org	(972) 243-3902
USAV	USA Volleyball www.usavolleyball.org	(888) 786-5539 (719) 228-6800
USGBC	U.S. Green Building Council www.usgbc.org	(202) 828-7422
USITT	United States Institute for Theatre Technology, Inc. www.usitt.org	(800) 938-7488 (315) 463-6463
WASTEC	Waste Equipment Technology Association www.wastec.org	(800) 424-2869 (202) 244-4700
WCLIB	West Coast Lumber Inspection Bureau www.wclib.org	(800) 283-1486 (503) 639-0651
WCMA	Window Covering Manufacturers Association (See WCSC)	
WCSC	Window Covering Safety Council (Formerly: WCMA - Window Covering Manufacturers Association) www.windowcoverings.org	(800) 506-4636 (212) 661-4261
WDMA	Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association) www.wdma.com	(800) 223-2301 (847) 299-5200
WI	Woodwork Institute (Formerly: WIC - Woodwork Institute of California) www.wicnet.org	(916) 372-9943

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WIC	Woodwork Institute of California (See WI)	
WMMPA	Wood Moulding & Millwork Producers Association www.wmmpa.com	(800) 550-7889 (530) 661-9591
WSRCA	Western States Roofing Contractors Association www.wsrca.com	(800) 725-0333 (650) 548-0112
WWPA	Western Wood Products Association www.wwpa.org	(503) 224-3930

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

BOCA	BOCA International, Inc. (See ICC)	
CABO	Council of American Building Officials (See ICC)	
IAPMO	International Association of Plumbing and Mechanical Officials www.iapmo.org	(909) 472-4100
ICBO	International Conference of Building Officials (See ICC)	
ICBO ES	ICBO Evaluation Service, Inc. (See ICC-ES)	
ICC	International Code Council (Formerly: CABO - Council of American Building Officials) www.iccsafe.org	(703) 931-4533
ICC-ES	ICC Evaluation Service, Inc. www.icc-es.org	(800) 423-6587 (562) 699-0543
SBCCI	Southern Building Code Congress International, Inc. (See ICC)	

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- C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE	Army Corps of Engineers www.usace.army.mil	
CPSC	Consumer Product Safety Commission www.cpsc.gov	(800) 638-2772 (301) 504-6816
DOC	Department of Commerce www.commerce.gov	(202) 482-2000
DOE	Department of Energy www.eren.doe.gov	(202) 586-9220
EPA	Environmental Protection Agency www.epa.gov	(202) 272-0167
FAA	Federal Aviation Administration www.faa.gov	(202) 366-4000
FDA	Food and Drug Administration www.fda.gov	(888) 463-6332
GSA	General Services Administration www.gsa.gov	(800) 488-3111 (202) 501-1888
HUD	Department of Housing and Urban Development www.hud.gov	(202) 708-1112
LBL	Lawrence Berkeley Laboratory www.lbl.gov	(510) 486-4000
NCHRP	National Cooperative Highway Research Program (See TRB)	
NIST	National Institute of Standards and Technology www.nist.gov	(301) 975-6478
OSHA	Occupational Safety & Health Administration www.osha.gov	(800) 321-6742 (202) 693-1999
PBS	Public Building Service (See GSA)	

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PHS	Office of Public Health and Science //phs.os.dhhs.gov	(202) 690-7694
RUS	Rural Utilities Service (See USDA)	(202) 720-9540
SD	State Department www.state.gov	(202) 647-4000
TRB	Transportation Research Board www.nas.edu/trb	(202) 334-2934
USDA	Department of Agriculture www.usda.gov	(202) 720-2791
USPS	Postal Service www.usps.com	(202) 268-2000

- D. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CBHF	State of California, Department of Consumer Affairs Bureau of Home Furnishings and Thermal Insulation www.dca.ca.gov/bhfti	(800) 952-5210 (916) 574-2041
MDOT	Maryland Department of Transportation www.mdot.state.md.us	(888)-713-1414
DDOT	District (of Columbia) Department of Transportation www.ddot.dc.gov	(202)-673-6813

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01420

SECTION 01500 • TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
1. All provisions of this section apply to the Contractors, unless noted otherwise.
 2. Temporary construction and support facilities required include but are not limited to:
 - a. Sanitary facilities, including drinking water.
 - b. Temporary Project identification signs and bulletin boards.
 - c. Construction aids and miscellaneous services and facilities.
 - d. Temporary portable toilets.
 - e. Waste disposal services.
 - f. Temporary fire extinguishers.
 - g. Portable toilets.
 3. Security and protection facilities required include but are not limited to:
 - a. Barricades, warning signs, lights.
 - b. Security.
 - c. Protection of underground facilities.
 - d. Temporary fire protection.
 - e. Enclosure fence for the site.
 4. Temporary utilities required include but are not limited to:
 - a. Temporary electric and lighting.
 - b. Temporary construction water.
 - c. Temporary fire protection system.
 - d. Temporary heating and cooling systems.
- B. Related Sections include the following:
1. Division 1 Section "Special Requirements" for limitations on utility interruptions and other work restrictions.
 2. Division 1 Section "Submittal Procedures" for procedures for submitting copies of implementation and termination schedule and utility reports.
 3. Division 1 Section "Execution Requirements" for progress cleaning requirements.
 4. Divisions 2 through 17 Sections for temporary heat, ventilation, and humidity requirements for products in those Sections.
 5. Division 2 sections for disposal of ground water at Project site.
 6. Division 2 Section "Hot-Mix Asphalt Paving" for construction and maintenance of asphalt paving for temporary roads and paved areas.
 7. Division 2 Section "Cement Concrete Pavement" for construction and maintenance of cement concrete pavement for temporary roads and paved areas.

1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weather tight; exterior walls are insulated and weather tight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES

- A. General: Cost to install temporary facilities for the Contractor's and his Subcontractors' trailers shall be included in the Contract Sum. The cost to install the temporary utility system for the upgrades to the existing buildings shall be included in the contract sum of the Contractor assigned to provide that temporary system as defined in this specification section. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Subcontractors, the occupants of Project, testing agencies and authorities having jurisdiction.
- B. Water Service: The Owner shall pay for water at the existing buildings during construction. The Contractor is to provide connections and extensions of services as required for construction operations.
- C. Electric Power Service: The Owner shall pay for temporary power at the existing building during construction. The Contractor is to provide connections and extensions of services as required for construction operations. Reference 01115.N.2 for Contractor supplied power.

1.5 SUBMITTALS

- A. Site Plan: Based on the Contractor's Site Utilization Plan approved by the Construction Manager, the Contractor shall provide a marked up drawing indicating his proposed temporary facilities, utility hookups, staging areas and parking areas for construction personnel and submit it to the Construction Manager for approval before mobilizing on site.

1.6 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including but not limited to:
1. Building Codes requirements
 2. Health and safety regulations
 3. Utility company regulations
 4. Police, Fire Department and Rescue Squad rules
 5. Environmental protection regulations
 6. Project Safety Plan
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities."

1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", as prepared jointly by AGC and ASC, for industry recommendations.
2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with current NFPA requirements.
3. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.7 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities. Do not overload facilities. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on site.
- B. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. Do not overload services.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Pavement: Comply with Specification Sections 02741 and 02751.
- B. Chain-Link Fencing: Minimum 2-inch , 0.148-inch-thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8-inch-OD top rails, with galvanized barbed-wire top strand.
- C. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: NONE
- B. Toilets: The Contractor shall provide temporary toilets for its own personnel. Use of the Owner's existing toilet facilities in the existing buildings shall not be permitted.
- C. Drinking Water: The Contractor shall provide drinking water for his personnel. Each Subcontractor shall furnish same.
- D. Collection and Disposal of Waste: The Contractor shall collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of

material in a lawful manner. The Contractor shall provide dumpsters. Each Subcontractor shall place his debris into the dumpsters. Materials unsuitable for disposal by the dumpster service (i.e. masonry, concrete materials, crates, combustible items, etc.) shall be hauled from the site by the Contractor using those materials.

E. Eating Areas: The Contractor shall, subject to the approval of the Construction Manager, designate areas for eating, provide adequate receptacles, and maintain the area in a sanitary condition free of rodents and pests.

1. No coffee/food wagons are permitted within the construction site without the expressed consent of the Construction Manager.

F. Dewatering: The Contractor shall be responsible for dewatering his work area, daily, to allow the progress of construction to continue as scheduled.

G. Temporary Access: Except as otherwise provided, the Contractor shall provide and maintain all necessary temporary stairs, ladders, ramps and runways to facilitate conveyance of men, materials, tools and equipment for proper execution of the Work.

H. Snow Removal: The Contractor shall remove snow and ice, daily, for the protection and execution of his work.

2.3 EQUIPMENT

A. Fire Extinguishers: The Contractor shall provide portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures for the general building construction. The Contractor is to provide fire extinguishers for his own trailers and for use, as required when cutting, welding and burning.

B. Water Hoses: The Contractor shall provide 3/4" heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than the maximum pressure of the water distribution system; provide adjustable shut-off nozzles at hose discharge.

C. Electrical Power Cords: When connecting to either the temporary or permanent power system, the Contractor shall provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths shall not reach areas where construction activities are in progress. All electrical power cords shall be suspended a minimum of seven (7) feet from the ground or floor inside of the building.

D. Lamps and Light Fixtures: The Contractor shall provide, replace, and maintain general service incandescent lamps of wattage required for adequate illumination; shall provide guard cages or tempered glass enclosure, where exposed to breakage; and provide exterior fixtures where exposed to moisture.

E. Heating Equipment: Unless the Construction Manager authorizes use of permanent heating system, the Contractor shall provide, fuel and maintain vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.

2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities as shown on the Contractor's Site Utilization Plan or as directed by the Construction Manager so as to result in minimum interference with performance of the Work. Relocate and modify facilities as directed by Construction Manager to facilitate the progress of the Work. Relocation shall be at no additional cost to the Owner.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or authorized by Construction Manager to remove.

3.2 TEMPORARY ELECTRIC POWER AND LIGHTING SYSTEM

A. System Description and Provisions:

1. Temporary electric and lighting shall be provided by the Contractor through Substantial Completion.
2. Miscellaneous Requirements:
 - a. All temporary electrical installations shall be in compliance with the latest National Electrical Code (N.E.C.) or OSHA, whichever is more stringent. Temporary wiring shall adhere to Section 305 of the latest edition of N.E.C. or OSHA, whichever is more stringent.
 - b. All electrical equipment shall have an ampere interrupting capacity (A.I.C.) rating which exceeds the maximum fault current available from the electric company.
 - c. The Contractor shall comply with the Project safety plan requirements for electrical systems.

3.6 SUPPORT FACILITIES INSTALLATION

A. General: The Contractor shall comply with the following:

1. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet of building lines. Comply with NFPA 241.
2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion shall be permitted to use permanent facilities, under conditions acceptable to Owner.

- ##### B. Temporary Roads and Paved Areas: In coordination with the Construction Manager, the Contractor shall construct and maintain temporary roads and paved areas adequate for construction operations; locate temporary roads and paved areas in same location as permanent roads and paved areas; and extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations. The Contractor shall also:

1. Coordinate elevations of temporary roads and paved areas with permanent roads

and paved areas.

2. Prepare sub grade and install sub base and base for temporary roads and paved areas according to Division 2 Section "Earthwork."
3. Recondition base after temporary use, including removing contaminated material, regarding, proof rolling, compacting, and testing.
4. Repair hot-mix asphalt base-course pavement before installation of final course according to Division 2 Section "Hot-Mix Asphalt Paving."
5. Construct and maintain a wheel wash for all construction vehicles exiting the site until such time as the excavation and earthwork activities are complete and the Construction Manager authorizes the wheel wash operation to be discontinued.

C. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants at all times. Contractor shall give the Construction Manager and the local fire department at least forty-eight (48) hours notice of proposed changes of routes that may affect access for fire-fighting equipment.

D. Vehicle Cleaning – Trucking

1. The Construction Manager shall designate the wash-down area to be utilized by the Contractor. The "wheel wash station" shall be equipped with a hose connection and drainage area. The Contractor shall provide manpower, hose and other supplemental scrapers, brushes, etc., which may be required to satisfactorily clean his vehicles leaving the site.
2. The Contractor shall be responsible for the construction and maintenance of this facility and shall that responsibility immediately once the Notice to Proceed is issued for that contract. The Contractor shall be responsible for providing water, plumbing, and piping.
3. All vehicles shall be cleaned of all mud and debris before leaving the site. The Contractor shall be responsible for providing whatever personnel may be required to perform the required vehicle cleaning throughout the progress of his work. The wash-down area shall not be used for cleaning out of concrete mix trucks. Cleaning of concrete equipment shall be performed at locations designated by the Construction Manager. Cleaning shall be conducted in such a manner as to prevent spillage of fluid or concrete to the ground or penetration of existing ground soil. The Contractor shall remove from the site all residues accumulated from the cleaning operations of concrete equipment.
4. All trucks leaving the site with earthen materials or loose debris shall be loaded in a manner that shall prevent dropping of materials on streets, and when necessary, shall have suitable coverings fastened over the load before they enter surrounding paved streets. Trucks bringing earthen materials over paved streets to the site shall be similarly loaded and covered. The Contractor shall conform to all local regulations regarding load limits and be responsible for costs due to failure to comply with the above.

E. Parking: The Contractor shall utilize temporary parking areas for construction personnel as designated by the Construction Manager.

F. Dewatering Facilities and Drains: The Contractor shall comply with requirements of authorities having jurisdiction and maintain Project site, excavations, and construction free of water. The Contractor shall:

1. Dispose of rainwater in a lawful manner that shall not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
2. Remove snow and ice, daily, as required to minimize accumulations.

G. Waste Disposal Facilities: The Contractor shall provide waste-collection containers in sizes adequate to handle waste from construction operations; comply with requirements of authorities having jurisdiction and comply with Division 1 Section "Execution Requirements" for progress cleaning requirements.

H. Lifts and Hoists: The Contractor shall provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.7 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: The Contractor shall provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Division 1 Section "Special Requirements."

B. Temporary Erosion and Sedimentation Control: The Contractor shall provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.

1. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

C. Storm Water Control: The Contractor shall comply with authorities having jurisdiction. Provide barriers in and around excavations and sub-grade construction to prevent flooding by runoff of storm water from heavy rains.

D. Tree and Plant Protection:

1. The Contractor shall comply with requirements specified in section 02231.
2. The Contractor shall install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

E. Pest Control: The Contractor shall engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project shall be free of pests and their residues at Substantial Completion. Obtain extended warranty

for Owner. Perform control operations lawfully, using environmentally safe materials

F. Excavation Enclosure Fence: The Contractor shall furnish and install a construction/temporary fence around all excavations. in a manner that shall prevent people and animals from easily entering the work area except by entrance gates. All temporary fencing shall be movable. Anywhere movable security fencing is installed, it must be secured to fence posts, periodically spaced, that are secured in the ground. This can be accomplished by creating concrete sleeves, or other approved means, which shall allow the posts to be inserted or removed as required to keep the fencing stable. All fence sections and posts must be securely fastened together. The Contractor shall remove and dispose of the fencing at the direction of the Construction Manager.

1. Extent of Fence: The fence shall enclose portions of the site sufficient to accommodate construction operations of the existing buildings to keep public and existing facility occupants out of the construction area.
2. The Contractor shall maintain security by limiting number of keys and restricting distribution to authorized personnel. Provide Construction Manager with one set of keys.
3. The Contractor shall repair or replace fencing damaged as a result of their operation. Contractors shall remove and replace fencing and gates required to provide access for oversized items.
4. All temporary security fencing must be equipped with three (3) barbed wire extension.

G. Security Enclosure and Lockup: The Contractor shall install substantial temporary enclosure around partially completed areas of construction as directed by the Construction Manager. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.

H. Barricades, Warning Signs, and Lights: The Contractor shall comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

L. Protection of Underground Facilities:

1. The Contractor shall provide and maintain proper shoring and bracing for existing underground utilities, sewers, and building foundations, encountered during their excavation work, to protect them from collapse or movement, or other type of damage until such time as they are to be removed, incorporated into the new work or can be properly backfilled upon completion of new work. All such disruptions of services shall be limited to a maximum of four (4) hours. Prior to beginning excavation, the Contractor shall contact Miss Utility and utility companies for the location of all existing underground services and provide, if requested, documentation to Construction Manager of such contact.
2. Utilities and/or other services which are shown, or not shown but encountered, shall be protected by the Contractor from damage caused as a result of work and operations, unless or until they are abandoned. If the utilities or services are damaged by their work or operations the Contractor shall immediately repair damage and restore the utilities and services to an equal or better condition than that which existed prior to the damage. The Contractor shall be responsible for

all liabilities or claims resulting from such damage and shall defend and hold harmless and indemnify the Owner, Architect, and Construction Manager from claims or law suits.

3. The Contractor shall be responsible for all damage to the project including the existing building and grounds due to their operations under this contract. Repair or replacement of damaged items shall be to the satisfaction of the Construction Manager.

3.8 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: The Construction Manager shall enforce strict discipline in use of temporary facilities to minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: The Contractor shall maintain facilities in good operating condition until removal. The Contractor shall:

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Termination and Removal: The Contractor shall remove his temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or as directed by the Construction Manager. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. The Contractor shall remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION 01500

SECTION 01600 - PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
 - 1. Section 01230 ALTERNATES for products selected under an alternate.
 - 2. Section 01420 REFERENCES for applicable industry standards for products specified.
 - 3. Section 01770 CLOSEOUT PROCEDURES for submitting warranties for Contract closeout.
 - 4. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.

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3. **Comparable Product:** Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. **Substitutions:** Approved changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - C. **Basis-of-Design Product Specification:** Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.
 1. Notwithstanding any reference in the specifications to any article, device, product, material, fixture, form or type of construction by name, make or catalog number such references shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition; and the Contractor, in such cases, may at his option, submit as a proposed substitution using the Substitution Request Form at the end of this Section, any article, device, product material, fixture, form or type of construction which in the judgment of the Architect expressed in writing is equal to that specified.

1.4 SUBMITTALS

- A. **Product List:** Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
 1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
 2. **Form:** Tabulate information for each product under the following column headings:
 - a. Specification Section number and title.
 - b. Generic name used in the Contract Documents.
 - c. Proprietary name, model number, and similar designations.
 - d. Manufacturer's name and address.
 - e. Supplier's name and address.
 - f. Installer's name and address.
 - g. Projected delivery date or time span of delivery period.
 - h. Identification of items that require early submittal approval for scheduled delivery date.
 3. **Initial Submittal:** Within thirty (30) days after date of issuance of the Notice to Proceed, submit three (3) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.

- a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
4. Completed List: Within sixty (60) days after issuance of the Notice to Proceed, submit three (3) copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
5. Architect's Action: Architect shall respond in writing to Contractor within eighteen (18) days of receipt of completed product list. Architect's response shall include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.

B. Substitution Requests: Substitution requests shall be considered within (60) days after Notice To Proceed. Substitution request shall not be reviewed after this date. Submit three (3) copies of each request for consideration and one (1) electronic copy. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use facsimile of form provided at end of Section or forward the form electronically.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and/or separate Contractors that shall be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery. If the substitution cannot be provided without impacting the schedule, it must be demonstrated that there is no other product, etc. that is available within the schedule constraints that can meet the requirements of the Work. The Contractor is responsible to make substitution requests with sufficient lead time to attain review/approval

- without impacting the schedule. No change in cost or schedule shall be approved if the Contractor fails to submit the substitution in a timely manner.
- j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect shall request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect shall notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Form of Acceptance: Change Order.
 - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Comparable Product Requests: Submit three copies, in addition to the electronic copy, of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
- 1. Architect's Action: If necessary, Architect shall request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect shall notify Contractor through Construction Manager of approval or rejection of proposed comparable product request within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Form of Approval: As specified in Section 01330 SUBMITTAL PROCEDURES.
 - b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.
- D. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01330 SUBMITTAL PROCEDURES. Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
- 1. The Contractor shall be responsible for providing products and construction methods compatible with products and construction methods of other Contractors.

2. If a dispute arises between Contractors over concurrently selectable but incompatible products, Architect shall determine which products shall be used.

B. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Construction Manager for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible. The Contractor shall provide the selected product at no added cost (time or money) to the Owner

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that shall prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that shall not endanger Project structure.

3. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
3. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for Submitting special warranties.

C. Submittal Time: Comply with requirements in Section 01770 CLOSEOUT PROCEDURES.

PART 2 – PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect shall make selection.
5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.

7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision shall be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect shall select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect shall select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

A. Timing: Architect shall consider requests for substitution if received within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect and/or the Construction Manager.

B. Conditions: Architect shall consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect shall return requests without action, except to record noncompliance with these requirements:

1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
2. Requested substitution does not require extensive revisions to the Contract Documents.

3. Requested substitution is consistent with the Contract Documents and shall produce indicated results.
4. Substitution request is fully documented and properly submitted.
5. Requested substitution shall not adversely affect Contractor's Construction Schedule.
6. Requested substitution has received necessary approvals of authorities having jurisdiction.
7. Requested substitution is compatible with other portions of the Work.
8. Requested substitution has been coordinated with other portions of the Work.
9. Requested substitution provides specified warranty.
10. If requested substitution involves more than one Subcontractor, requested substitution has been coordinated by the Contractor, is uniform and consistent, and is compatible with other product submissions.

2.3 COMPARABLE PRODUCTS

A. Conditions: Architect shall consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect shall return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and shall produce the indicated results and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 – EXECUTION

3.1 SUBSTITUTION REQUEST FORM

A. The attached form must be filled out in its entirety and submitted in addition to the information and data required under Section 01330 SUBMITTAL PROCEDURES.

B. Submit separate requests and provide support for each substitution with complete data substantiating compliance of proposed substitution with requirements stated in the Contract Documents.

PARKING LOT EXPANSION

SUBSTITUTION REQUEST FORM

CONTRACT AWARD DATE: _____ CONTRACT NO.: _____

CONTRACT FOR: _____ CONTRACTOR: _____

TO: _____

PROJECT: _____

We hereby submit for your consideration the following product instead of the specified item for the above project:

DRAWING	SPEC. SECT.NO.	PARAGRAPH	SPECIFIED ITEM

Proposed Substitution:

Attached complete information on changes to Drawings and/or Specifications which proposed substitution shall require for its proper installation.

Submit with request all necessary samples and substantiating data to provide equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance.

Fill in Blanks Below:

A. Does the substitution affect dimensions shown on Drawings?

Yes _____ No _____

If yes, clearly indicate changes.

B. Will the undersigned pay for changes to the building design, including engineering and detailing cost caused by the requested substitution?

Yes _____ No _____

PARKING LOT EXPANSION

If no, fully explain:

C. What is the quality level of the substitution versus the specified product?

D. What effect does substitution have on other Contracts or other trades?

E. What effect does substitution have on construction schedule?

F. Manufacturer's warranties of the proposed and specified items are:

- Same
- Different (Explain on Attachment)

G. Reason For Request:

H. Itemized comparison of specified item(s) with the proposed substitution; list significant variations:

I. Accurate cost data comparing proposed substitution with product specified:

J. Destination of maintenance services and sources:

(Attach additional sheets if required.)

PARKING LOT EXPANSION

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTIONS OF LIABILITY FOR EQUAL PERFORMANCE

The undersigned states that the function, function appearance and quality are equivalent or superior to the specified item. The undersigned waives all rights to additional payment or time, that may subsequently become necessary, because of the failure of the substitution to perform adequately.

Signature _____ Contractor _____

Title _____ Address _____

Date _____

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

For Use by Construction Manager:

_____ Recommend Acceptance
_____ Not Recommend for Acceptance

By: _____ Date: _____

Remarks

For Use by Architect:

_____ Accepted _____ Accepted as Noted
_____ Not Accepted _____ Received Too Late

By: _____ Date: _____

Remarks

END OF SECTION 01600

SECTION 01700 - EXECUTION REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
1. Construction layout.
 2. Field engineering and surveying.
 3. General installation of products.
 4. Progress cleaning.
 5. Starting and adjusting.
 6. Protection of installed construction.
 7. Correction of the Work.
- B. Related Sections include the following:
1. Division 1 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
 2. Division 1 Section "Submittal Procedures" for submitting surveys.
 3. Division 1 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
 4. Division 1 Section "Closeout Procedures" for Submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.3 SUBMITTALS

- A. Qualification Data: For land surveyor as stated in 1.4 below.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- D. Certified Surveys: Submit two (2) copies signed by land surveyor.

1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Responsibilities: In accordance with direction from the Construction Manager, the Contractor is responsible for providing and maintaining the project base lines and benchmarks, and for the layout of the work from the baselines and benchmarks
- B. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning building upgrade work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
1. Before construction, verify the location and points of connection of utility services.
 2. Before construction, photograph and notify the Construction Manager in writing of any damaged conditions to the existing building systems.
- C. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site to the Construction Manager.
- D. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 2. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Construction Manager that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for interpretation to Architect, through the Construction Manager, in accordance with Division 1 Section "Project Management and Coordination". Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to layout the Work, verify layout information shown on Drawings, in relation to the properly survey and existing benchmarks. If discrepancies are discovered, notify Architect, through the Construction Manager, promptly.
- B. General: Engage a land surveyor to layout the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of the Work.
 - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 3. Inform installers of lines and levels to which they must comply.
 - 4. Check the location, level and plumb, of every major element as the Work progresses.
 - 5. Notify Architect, through the Construction Manager when deviations from required lines and levels exceed allowable tolerances.
 - 6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and layout site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Building Lines and Levels: Contractor is responsible to provide his own layout for all Work associated with his Work. Locate and layout control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

3.4 FIELD ENGINEERING

- A. Identification: Identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Construction Manager before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two (2) permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of site improvements, and other work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and site work.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that shall ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of use.

- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect, through the Construction Manager.
 - 2. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
 - 1. Construction Schedule: Inform Owner through the Construction Manager of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner through the Construction Manager if changes to schedule are required due to differences in actual construction progress.
 - 2. Pre-installation Conferences: Include Owner's construction forces at Pre-installation conferences covering portions of the Work that are to receive Owner's work. Attend pre-installation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

3.7 PROGRESS CLEANING

- A. Contractor Responsibilities:
 - 1. Contractor shall be responsible for daily and final cleanup and continuous removal of all rubbish and debris from the building and site.
 - 2. Provide and maintain a rubbish collection dumpster system at a location designated by the Construction Manager.

3. Deposit daily rubbish into dumpsters.
4. The job-site shall be maintained in a neat orderly condition and kept free from accumulations of waste materials and rubbish during the entire construction period. Remove all crates, cartons and other flammable waste materials or trash from the work areas at the end of each working day.
5. Elevator shafts, electrical closets, pipe and duct shafts, chases, furred spaces and similar spaces which are generally unfinished, shall be cleaned and left free from rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt and dust before substantial completion inspection.
6. Clean all surfaces as necessary to make them free of spatters or other deposits of paint, plaster, mortar, concrete, adhesives, roofing, dirt, soil, oil, or any other material foreign to the surface involved.
7. To insure proper cleanup, notwithstanding the Contractor's obligations to cleanup debris resulting from his own operations, and following proper notices, the Construction Manager shall undertake the cleanup and disposal of litter and other debris. The cost of this special cleanup detail shall be assessed weekly against Contractor and back charged monthly.
8. Contractor and Subcontractors shall be responsible to maintain their own trailer, storage and work areas in a sanitary condition to minimize the hazard of attracting vermin and breeding mosquitoes. If the Contractor and its Subcontractors fail to comply, the Construction Manager may do so, and the cost thereof shall be charged to the Contractor. Rodent extermination materials shall be those approved by the local health department or other agency having jurisdiction.
9. Assure that affected employees are provided with and required to use, all needed personal protective devices in connection with cleaning.
10. At completion of work, remove tools, equipment, machinery and surplus materials from the project site and perform whatever additional cleaning is specified in the Summary of Work.

B. Progress Cleaning Requirements

1. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - a. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - b. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F
 - c. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
2. Site: Maintain Project site free of waste materials and debris.
3. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - a. Remove liquid spills promptly.
 - b. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
 - c. Use only cleaning materials and methods recommended by manufacturer of surface to be cleaned. Use cleaning materials only on surfaces

- recommended by cleaning material manufacturer.
4. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that shall not damage exposed surfaces.
 5. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
 6. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
 7. Waste Disposal: Burying or burning waste materials on-site shall not be permitted. Washing waste materials down sewers or into waterways shall not be permitted.
 8. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
 9. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
 10. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.10 CORRECTION OF THE WORK

A. Contractor Responsibility:

1. Promptly correct all Work rejected by the Architect or the Construction Manager as defective or as failing to conform to the Contract Documents whether

observed before or after Substantial Completion and whether or not fabricated, installed complete.

2. Bear all costs of correcting such rejected Work, including compensation for the Architect's and/or Construction Manager's additional services made necessary thereby.

B. Correction Requirements:

1. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
 - a. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
2. Restore permanent facilities used during construction to their specified condition.
3. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
4. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
5. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01700

SECTION 01731 - CUTTING AND PATCHING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Divisions 2 through 17 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operating elements include the following:
 - 1. Fire-suppression systems.
 - 2. Electrical wiring systems.
- C. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- D. Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, shall match the visual and functional performance of in-place materials.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
5. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work, Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that shall eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.

D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01731

SECTION 01770 - CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Inspection procedures.
2. Warranties.
3. Final cleaning.

- B. Related Sections include the following:

1. Section 01290 PAYMENT PROCEDURES for requirements for Applications for Payment for Substantial and Final Completion.
2. Section 01700 EXECUTION REQUIREMENTS for progress cleaning of Project site.
3. Section 01781 PROJECT RECORD DOCUMENTS for submitting Record Drawings, Record Specifications, and Record Product Data.
4. Divisions 2 through 16 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.

1. Prepare a list of items to be completed and corrected (punch list), the *value* of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
5. Complete startup testing of systems.
6. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
8. Complete final cleaning requirements, including touchup painting.

9. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect and Construction Manager shall either proceed with inspection or notify Contractor of unfulfilled requirements. Architect shall prepare the Certificate of Substantial Completion after inspection or shall notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate shall be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection shall form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report and warranty.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
6. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect and Construction Manager shall either proceed with inspection or notify Contractor of unfulfilled requirements. Architect shall prepare a final Certificate for Payment after inspection or shall notify Contractor of construction that must be completed or corrected before certificate shall be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order, starting with exterior areas first and

- proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Page number.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 1. Warranties and Bonds: include copies of warranties and bonds and list circumstances and conditions that would affect the validity of warranty claims.
 2. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 3. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 4. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 – EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to

comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - k. Remove labels that are not permanent.
 - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UI" and similar labels, including mechanical and electrical nameplates.
 - r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - s. leave Project clean and ready for occupancy.
- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01770

SECTION 01781 - PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:

- 1. Record Drawings.
- 2. Record Product Data.

- B. Related Sections include the following:

- 1. Division 1 Section "Closeout Procedures" for general closeout procedures.
- 2. Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- 3. Divisions 2 through 16 Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:

- 1. Number of Copies: Submit copies of Record Drawings as follows:

- a. Initial Submittal: Submit one (1) set of corrected redline markup for Alpha Corporation to adjust in CAD and produce Record Prints. Marked up prints should include contractor mark-ups directly on the AE's construction drawings, sketches from all RFI responses. All sheets in the set to be submitted. ALPHA will organize into sets, print, bind, and complete final submittal, submit record copies to DMH

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- C. Record Product Data: Submit one (1) of each Product Data submittal.
 - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 - 1. Maintenance of Drawings: Maintain the drawings in a clean, dry, legible condition. Keep drawings available during normal working hours for inspection by the Architect and the Construction Manager.
 - 2. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique. Make notes legible and understandable; limit use of abbreviations to those on the drawing abbreviation legend for each applicable discipline.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 3. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 - 4. Mark the Contract Drawings, completely and accurately. If Shop Drawings are also marked, show cross-reference on the Contract Drawings.

5. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
6. Mark important additional information that was either shown schematically or omitted from original Drawings.
7. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Record Transparencies: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect and Construction Manager. When authorized, prepare a full set of corrected transparencies of the Contract Drawings and Shop Drawings.

1. Incorporate changes and additional information previously marked on Record Prints. Erase, redraw, and add details and notations where applicable.
2. Refer instances of uncertainty to Architect through Construction Manager for resolution.
3. Print the Contract Drawings and Shop Drawings for use as Record Transparencies. Architect shall make the Contract Drawings available to Contractor's print shop.

C. Record CAD Drawings: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect and Construction Manager. When authorized, prepare a full set of corrected CAD Drawings of the Contract Drawings, as follows:

1. Format: As defined by the Architect, Version as defined by the Architect and, operating in Microsoft Windows operating system.
2. Incorporate changes and additional information previously marked on Record Prints. Delete, redraw, and add details and notations where applicable.
3. Refer instances of uncertainty to Architect through Construction Manager for resolution.
4. Architect will furnish Contractor one set of CAD Drawings of the Contract Drawings for use in recording information.
 - a. Architect makes no representations as to the accuracy or completeness of CAD Drawings as they relate to the Contract Drawings.

D. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.

1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
2. Consult Architect and Construction Manager for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.

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- E. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Record Transparencies: Organize into unbound sets matching Record Prints. Place transparencies in durable tube-type drawing containers with end caps. Mark end cap of each container with identification. If container does not include a complete set, identify Drawings included.
 3. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect and Construction Manager.
 - e. Name of Contractor.
- F. The Contractor shall provide the final record site survey (sealed and certified by a registered land surveyor).
- G. In addition to the requirements specified above in this Article, Record Drawings shall comply with the following:
1. All Drawings shall be marked "Project Record Drawings" and show the date they were completed. They shall also indicate the name of the contractor responsible for the mark-ups along with the initials of the person that incorporated the changes. When there are multiple copies of the same sheet with different mark-ups on each copy, the Contractor is responsible for consolidating all mark-ups onto a single copy of each individual sheet.
 2. The information from all RFI's, Change Notices, Design Clarifications, field adjustments, or any other changes, shall be noted on the appropriate drawing. These mark-ups shall include enough information to clearly show the actual constructed conditions resulting from the change. The information may be drawn onto the drawing, copied onto the drawing or copied onto a new full size sheet. Every change in construction must have RFI's, Change Orders or similar supplementary documents; therefore they must be copied in its original size and attached at the end of the drawing set, as an appendix, in a full size sheet, same in size as the drawing set. Multiple supplementary documents can be copied in each single sheet.
 3. All changes made on the drawings shall reference the appropriate RFI, Change Notices, Design Clarification, or details from the contractor-prepared shop drawings. If the mark-up is due to a field adjustment, it shall be indicated as such.
 4. Additional sheets such as shop drawings and sheets showing copies of applicable change documentation shall be inserted into the set as necessary.

5. Handwritten notes and sketches are acceptable but must be neat, legible, and reproducible. Hand lettering shall be at 3/8 inch high minimum.
6. All shop drawings showing information not on the construction drawings, with the exception of concrete embedded steel reinforcement bending drawings and steel reaction and fabrication drawings, shall be marked up and included in the record drawing set. They should be the same size (changes in scale noted) as all other drawings. include a title block, and clearly indicate that they are record shop drawings. When the shop drawings more accurately show locations and conditions, they may be marked in lieu of referenced on the original drawings. This does not relieve the contractor from the shop drawing inclusion requirements in the Operation and Maintenance Manuals that are a separate item
7. Contract required coordination drawings shall be included in the record drawing set. The requirements are project specific and are contained in Section 01310.
8. If the contractor desires to record changes in a CADD file, this is acceptable and may prove easier for the contractor. The contractor shall then be responsible for printing the CADD drawings to meet review and submission requirements. For the final submittal, if the contractor decides to make the changes in CADD, the contractor shall provide on CD-ROM, CADD compatible electronic files of all contractor-generated or modified electronic drawings to include drawings produced or modified by subcontractors. These are typically shop drawings and coordination drawings. An index to the files provided shall be included on each CD-ROM. Provide two copies of each CD-ROM

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

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2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION**3.1 RECORDING AND MAINTENANCE**

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's and Construction Manager's reference during normal working hours.

END OF SECTION 01781

SECTION 024119 – SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents:

1. Drawing "Demolition and Erosion Control Plan" and general provisions of the Subcontract apply to this Section.
2. Review these documents for coordination with additional requirements and information that apply to work under this Section.

B. Section Includes: Selective demolition as follows:

1. Remove and salvage chain link fence
2. Remove asphalt pavement and concrete curbs as indicated on drawings
3. Remove materials to be discarded from site, and dispose of legally.

C. Related Sections:

1. Division 01 Section "General Requirements."
2. Division 01 Section "Special Procedures."
3. Division 01 Section "Construction Waste Management".

1.2 SUBMITTALS NOT USED

1.3 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Comply with requirements of applicable codes, rules and regulations referenced in District of Columbia Erosion & Sediment Control Handbook.
2. Obtain required permits from DCRA and DDOE
3. Do not close or obstruct roadways or sidewalks without permits.
4. Utility Shutdowns: Comply with requirements of Division 01 Section "Special Procedures" Article 1.7.
5. Maintain current access road at all times. Do not reduce required lane width from exits curbs.
6. Minimize interference with corridors, exits, sidewalks, roadways and public thoroughfares.
7. Comply with applicable procedures if hazardous or contaminated materials are discovered or suspected.

B. Hazardous Materials Remediation Work:

1. Perform lead and asbestos work in accordance with requirements of local, state, and Federal regulations for lead and asbestos in construction, including but not limited to Title 8 CCR 1529 and Title 8 CCR 1532.1, and 29 CFR 1926.1101 and 29 CFR 1926.62 if any unknown utilities are discovered that contain these hazardous materials.

1.4 MATERIALS OWNERSHIP

- A. In accordance with Division 01 Section "Special Procedures", Article 1.03, all materials remain the property of DMH. No materials may be removed from the site except Subcontractor's demolition materials and materials specifically scheduled in Article 3.06 "Schedules".

1.5 PROJECT CONDITIONS

- A. Protect adjacent work to remain, and items to be turned over DMH, from damage.
- B. Existing Conditions:
 - 1. If lead, asbestos or other hazardous materials are found or suspected, immediately stop work in the suspected area and advise the Project Manager. Do not recommence work in the area until advised by the Project Manager that the area has been cleared for work.

1.6 SEQUENCING

- A. Submit schedule indicating proposed sequence of operations for selective demolition work to Project Manager for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services, and details for dust and noise control.
 - 1. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of St. Elizabeth Hospital operations.
 - 2. Coordinate the scheduling of work of Section with the work of other sections.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspect and verify the existing conditions and become familiar with the extent of the Work.
- B. Examine the site to determine proper access within the limitations of the Subcontract. Conduct operations so as not to interfere with adjacent roads, driveways, walks, buildings, corridors, means of access and egress, and work areas.

3.2 PREPARATION

- A. Interfaces With Other Work: Coordinate extent of selective demolition work with limits of new work and existing work to remain, and with demolition and modification requirements shown on the Drawings.
- B. Protection:

1. Protect existing materials, appurtenances and equipment which are not to be demolished. Existing materials, appurtenances and equipment, building exterior and interior, and landscaping altered or damaged during demolition work shall be repaired or replaced by the Subcontractor to match existing undisturbed conditions at no additional cost to DMH.
 2. Prevent movement of structure; provide bracing and shoring as required.
 3. Provide proper and permanent support to adjacent structure for all piping, conduits and cables to remain.
 4. Provide and maintain temporary traffic barriers and security devices at project limits
 5. Use periodic light water mist, temporary enclosures, and other suitable methods to limit dust and dirt. Comply with applicable environmental protection regulations. Use water only if approved by Project Manager.
 6. Provide and maintain temporary partitions to prevent spread of dust, odors and noise to permit continued occupancy of adjacent facilities.
 7. Maintain path of travel for debris removal dust free and clean at all times.
 8. Cover and protect windows and walls that are adjacent to areas to be demolished.
 9. Maintain parking areas, driveways, exterior walkways, exit paths, and landscaping in a clean, undisturbed condition. Any debris caused by selective demolition work shall be removed each day.
 10. Closure of fire protection road around the existing facility shall be minimized and the road shall be reopened at the end of every work day.
- C. Field verify the exact location of existing concealed utilities. Use caution if working in or about concealed or exposed utilities.
- D. Disconnect, remove, and cap designated utility lines within demolition areas. Mark locations of disconnected utilities. Identify utilities and indicate capping locations on Project Record Documents.

3.3 EXECUTION

- A. Minimize interference with adjacent occupied building areas and facilities, materials and equipment.
- B. Remove items in an orderly and careful manner.
1. Remove only as much material as is required for new construction work to be conveniently performed.
 2. Cut surfaces so as to minimize the amount of new surfaces required to match existing. Make cuts plumb, true, level and straight, or as otherwise required to provide proper surfaces to receive new work and repairs.
 3. Cut asphalt and concrete by power saw in neat, sharp straight lines. Repair broken edges or as directed by Project Manager.
- C. Remove miscellaneous abandoned appurtenances that will be exposed to view, unless indicated otherwise.

- D. Investigate and measure the nature and extent of unanticipated items that conflict with intended function or design. Submit written report with accurate detailed information to Project Manager. While awaiting instructions from Project Manager, rearrange selective demolition schedule as necessary to continue overall job progress without delay.
- E. Eliminate dust allowing none into the existing facilities as required to keep dust out of corridors and adjacent areas. Use walk off mats designed to remove dust at the corridor side of doors to rooms where demolition work is being done.
 - 1. Activities which generate silica dust, such as concrete saw cutting, jackhammering, chipping, or abrasive blasting, shall incorporate engineering controls to eliminate visible emissions.
 - 2. Do not use silica sand or other substances containing more than 1 per cent crystalline silica as abrasive blasting material
 - 3. Use concrete and masonry saws that provide water to the blade.
- F. Stop work and notify Project Manager immediately if structure or other items to remain appear to be endangered. Do not resume work until directed by Project Manager.
- G. Remove, store and protect materials to be re-installed or retained so as to prevent damage.
- H. Remove and promptly dispose of vermin infested materials.
- I. Comply with the requirements of Division 01 Section "Construction Waste Management."

3.4 DISPOSAL AND CLEANUP

- A. Material removed under this Subcontract which is not to be salvaged or reused in the Project shall become the property of the Subcontractor and shall be promptly removed. Do not store or permit debris to accumulate at the site.
- B. Unless indicated otherwise, immediately remove demolished material from site. Dispose of materials legally off site. Do not burn or bury materials on site.
- C. Upon completion, clean the entire area of demolition residue satisfactory for the continuation of the Work. Remove temporary work.

3.5 SCHEDULES

- A. Remove, store and protect the following materials and equipment.
 - 1. Remove Chain Link Fencing and gate store for reinstallation.
- B. Protect the following materials and equipment to remain in place during construction.
 - 1. Existing asphalt pavement and concrete curbs to remain.
 - 2. Existing watermain and hydrant located onsite
- C. Remove the following materials from the site and dispose of legally.
 - 1. Demolition materials

END OF SECTION 024119

SECTION 033000 - CAST-IN-PLACE CONCRETE (LIMITED APPLICATIONS)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies cast-in-place concrete, including reinforcement, concrete materials, mixture design, placement procedures, and finishes, for noncritical applications of concrete and for projects using small quantities of concrete.
- B. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving" for drainage fill under slabs-on-grade.
 - 2. Division 32 Section "Concrete Pavement" for Concrete curbs and Scuppers.

1.3 SUBMITTALS

- A. General: In addition to the following, comply with submittal requirements in ACI 301.
- B. Product Data: For each type of product indicated.
- C. Design Mixtures: For each concrete mixture.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. Source Limitations: Obtain each type of cement of the same brand from the same manufacturer's plant, obtain aggregate from one source, and obtain admixtures through one source from a single manufacturer.
- C. Comply with ACI 301, "Specification for Structural Concrete," including the following sections, unless modified by requirements in the Contract Documents:
 - 1. "General Requirements."
 - 2. "Formwork and Formwork Accessories."
 - 3. "Reinforcement and Reinforcement Supports."
 - 4. "Concrete Mixtures."

5. "Handling, Placing, and Constructing."
- D. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

PART 2 - PRODUCTS

2.1 FORMWORK

- A. Furnish formwork and formwork accessories according to ACI 301.

2.2 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:
 1. Portland Cement: ASTM C 150, Type I/II
- B. Normal-Weight Aggregate: ASTM C 33, graded, 1-1/2-inch nominal maximum aggregate size.
- C. Water: ASTM C 94/C 94M; potable.

2.4 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 3. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.

2.5 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

2.6 CONCRETE MIXTURES

- A. Comply with ACI 301 requirements for concrete mixtures.
- B. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301, as follows:
 - 1. Minimum Compressive Strength 4000 psi at 28 days for the cooling tower concrete pad and fuel tank concrete pad.
 - 2. Maximum Water-Cementitious Materials Ratio: 0.40
 - 3. Slump Limit: 5 inches for concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.
 - 4. Air Content: Maintain within range permitted by ACI 301. Do not allow air content of floor slabs to receive troweled finishes to exceed 3 percent.

2.7 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, construct, erect, brace, and maintain formwork according to ACI 301.

3.2 STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.3 CONCRETE PLACEMENT

- A. Comply with ACI 301 for measuring, batching, mixing, transporting, and placing concrete.
- B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.
- C. Do not add water to concrete during delivery, at Project site, or during placement.
- D. Consolidate concrete with mechanical vibrating equipment.

3.4 FINISHING UNFORMED SURFACES

- A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess moisture or bleedwater appears on surface.
 - 1. Do not further disturb surfaces before starting finishing operations.
- C. Float Finish: Apply float finish to surfaces indicated, to surfaces to receive trowel finish, and to floor and slab surfaces to be covered with fluid-applied or sheet waterproofing, fluid-applied or direct-to-deck-applied membrane roofing, or sand-bed terrazzo.
- D. Trowel Finish: Apply a hard trowel finish to surfaces indicated and to floor and slab surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin film-finish coating system.
- E. Trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.

3.5 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with ACI 301 for hot-weather protection during curing.

- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure formed and unformed concrete for at least seven days by one or a combination of the following methods:
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 - 3. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Owner shall engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Article.
- B. Tests: Perform according to ACI 301.
 - 1. Testing Frequency: One composite sample shall be obtained for each day's pour of each concrete mix exceeding 5 cu. yd. but less than 25 cu. yd. plus one set for each additional 50 cu. yd. or fraction thereof.
 - 2. Testing Frequency: One composite sample shall be obtained for each 100 cu. yd. or fraction thereof of each concrete mix placed each day.

3.7 REPAIRS

- A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION 033000

SECTION 16521 - EXTERIOR LIGHTING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Exterior luminaires with lamps and ballasts.
2. Poles.

B. Related Sections include the following:

1. Division 3 Section for concrete, reinforcement, and formwork.

1.2 DEFINITIONS

A. CRI: Color-rendering index.

B. HID: High-intensity discharge.

C. Luminaire: Complete lighting fixture, including ballast housing if provided.

D. Pole: Luminaire support structure, including tower used for large area illumination.

E. Standard: Same definition as "Pole" above.

1.3 SUBMITTALS

A. Product Data: For each luminaire, pole, and support component, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:

1. Physical description of luminaire, including materials, dimensions, effective projected area, and verification of indicated parameters.
2. Details of attaching luminaires and accessories.
3. Details of installation and construction.
4. Luminaire materials.
5. Photometric data based on laboratory tests of each luminaire type, complete with indicated lamps, ballasts, and accessories.

a. Photometric data shall be certified by manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products.

6. Ballasts, including energy-efficiency data.
7. Lamps, including life, output, and energy-efficiency data.
8. Materials, dimensions, and finishes of poles.

9. Means of attaching luminaires to supports, and indication that attachment is suitable for components involved.
 10. Anchor bolts for poles.
- B. Shop Drawings:
1. Anchor-bolt templates keyed to specific poles and certified by manufacturer.
- C. Qualification Data: For agencies providing photometric data for lighting fixtures.
- D. Field quality-control test reports.
- E. Warranty: Special warranty specified in this Section.
- 1.4 QUALITY ASSURANCE
- A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with IEEE C2, "National Electrical Safety Code."
- D. Comply with NFPA 70.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Package aluminum poles for shipping according to ASTM B 660.
- B. Store poles on decay-resistant-treated skids at least 12-inches (300-mm) above grade and vegetation. Support poles to prevent distortion and arrange to provide free air circulation.
- C. Retain factory-applied pole wrappings on metal poles until right before pole installation. For poles with nonmetallic finishes, handle with web fabric straps.
- 1.6 WARRANTY
- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs or alterations from special warranty coverage.
1. Warranty Period for Luminaires: 5-years from date of Substantial Completion.
 2. Warranty Period for Metal Corrosion: 5-years from date of Substantial Completion.
 3. Warranty Period for Color Retention: 5-years from date of Substantial Completion.

4. Warranty Period for Lamps: Replace lamps and fuses that fail within 12-months from date of Substantial Completion; furnish replacement lamps and fuses that fail within the second 12-months from date of Substantial Completion.
5. Warranty Period for Poles: Repair or replace lighting poles and standards that fail in finish, materials, and workmanship within manufacturer's standard warranty period, but not less than 3-years from date of Substantial Completion.

1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Lamps: Furnish one of each type.
 2. Glass and Plastic Lenses, Covers, and Other Optical Parts: Furnish one of each type.
 3. Ballasts: 10 for every 100 of each type and rating installed. Furnish one of each type.
 4. Globes and Guards: 10 for every 20 of each type and rating installed. Furnish at least one of each type.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In Exterior Lighting Device Schedule where titles below are column or row headings that introduce lists, the following requirements apply to product selection:
 1. Available Manufacturers: Catalog number in fixture schedule is provided for informational purpose. The new poles and fixture shall match existing.

2.2 LUMINAIRES, GENERAL REQUIREMENTS

- A. Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.
- B. Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Metal Parts: Free of burrs and sharp corners and edges.
- D. Sheet Metal Components: Corrosion-resistant aluminum, unless otherwise indicated. Form and support to prevent warping and sagging.
- E. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- F. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally.

during relamping and when secured in operating position. Doors shall be removable for cleaning or replacing lenses. Designed to disconnect ballast when door opens.

- G. Exposed Hardware Material: Stainless steel.
- H. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- I. Reflecting surfaces shall have minimum reflectance as follows, unless otherwise indicated:
 - 1. White Surfaces: 85-percent.
 - 2. Specular Surfaces: 83-percent.
 - 3. Diffusing Specular Surfaces: 75-percent.
- J. Lenses and Refractors Gaskets: Use heat and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- K. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.
- L. Factory-Applied Finish for Steel luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Surface Preparation: Clean surfaces to comply with SSPC-SP 1, "Solvent Cleaning," to remove dirt, oil, grease, and other contaminants that could impair paint bond. Grind welds and polish surfaces to a smooth, even finish. Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning," or SSPC-SP 8, "Pickling."
 - 2. Exterior Surfaces: Manufacturer's standard finish consisting of one or more coats of primer and two finish coats of high-gloss, high-build polyurethane enamel.
 - a. Color: As selected from manufacturer's standard catalog of colors.
- M. Factory-Applied Finish for Aluminum luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

2.3 BALLASTS FOR HID LAMPS

- A. Comply with ANSI C82.4 and UL 1029 and capable of open-circuit operation without reduction of average lamp life. Include the following features, unless otherwise indicated:
 - 1. Ballast Circuit: Constant-wattage autotransformer or regulating high-power-factor type.
 - 2. Minimum Starting Temperature: Minus 22 degF (Minus 30 degC).

3. Normal Ambient Operating Temperature: 104 degF (40 degC).
4. Ballast Fuses: One in each ungrounded power supply conductor. Voltage and current ratings as recommended by ballast manufacturer.

2.4 HID LAMPS

- A. Metal-Halide Lamps: ANSI C78.1372, with a minimum CRI 65, and color temperature 4000 K.
- B. Pulse-Start, Metal-Halide Lamps: Minimum CRI 65, and color temperature 4000 K.

2.5 POLES AND SUPPORT COMPONENTS, GENERAL REQUIREMENTS

- A. Structural Characteristics: Comply with AASHTO LTS-4.
- B. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements. Use stainless-steel fasteners and mounting bolts, unless otherwise indicated.
- C. Mountings, Fasteners, and Appurtenances: Corrosion-resistant items compatible with support components.
 1. Materials: Shall not cause galvanic action at contact points.
 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication, unless stainless-steel items are indicated.
 3. Anchor-Bolt Template: Plywood or steel.
- D. Concrete Pole Foundations: Cast in place, with anchor bolts to match pole-base flange. Concrete, reinforcement, and formwork are specified in Division 3.

2.6 ALUMINUM POLES

- A. Poles: Seamless, extruded structural tube complying with ASTM B 429, Alloy 6063-T6 with access handhole in pole wall.
- B. Pole-Top Tenons: Fabricated to support luminaire or luminaires and brackets indicated, and securely fastened to pole top.
- C. Grounding and Bonding Lugs: Welded 1/2-inch (13-mm) threaded lug, complying with requirements in Division 16 Section "Grounding and Bonding," listed for attaching grounding and bonding conductors of type and size listed in that Section, and accessible through handhole.
- D. Brackets for Luminaires: Detachable, with pole and adapter fittings of cast aluminum. Adapter fitting welded to pole and bracket, then bolted together with stainless-steel bolts.
 1. Tapered oval cross section, with straight tubular end section to accommodate luminaire.
 2. Finish: Same as luminaire.

- E. Aluminum Finish: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

PART 3 - EXECUTION

3.1 LUMINAIRE INSTALLATION

- A. Install lamps in each luminaire.

3.2 POLE INSTALLATION

- A. Align pole foundations and poles for optimum directional alignment of luminaires and their mounting provisions on the pole.
 - B. Clearances: Maintain the following minimum horizontal distances of poles from surface and underground features, unless otherwise indicated on Drawings:
 - 1. Fire Hydrants and Storm Drainage Piping: 60-inches (1520-mm).
 - 2. Water, Gas, Electric, Communication, and Sewer Lines: 10-feet (3-m).
 - 3. Trees: 15-feet (5-m).
 - C. Concrete Pole Foundations: Set anchor bolts according to anchor-bolt templates furnished by pole manufacturer. Concrete materials, installation, and finishing requirements are specified in Division 3.
 - D. Foundation-Mounted Poles: Mount pole with leveling nuts, and tighten top nuts to torque level recommended by pole manufacturer.
 - 1. Grout void between pole base and foundation. Use nonshrink or expanding concrete grout firmly packed to fill space.
 - 2. Install base covers, unless otherwise indicated.
 - 3. Use a short piece of 1/2-inch (13-mm) diameter pipe to make a drain hole through grout. Arrange to drain condensation from interior of pole.
 - E. Poles and Pole Foundations Set in Concrete Paved Areas: Install poles with minimum of 6-inch (150-mm) wide, unpaved gap between the pole or pole foundation and the edge of adjacent concrete slab. Fill unpaved ring with pea gravel to a level 1-inch (25-mm) below top of concrete slab.
 - F. Raise and set poles using web fabric slings (not chain or cable).
- #### 3.3 INSTALLATION OF INDIVIDUAL GROUND-MOUNTING LUMINAIRES
- A. Install on concrete base with top 4-inches (100-mm) above finished grade or surface at luminaire location. Cast conduit into base, and finish by troweling and rubbing smooth. Concrete materials, installation, and finishing are specified in Division 3.

3.4 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.

3.5 GROUNDING

- A. Ground metal poles and support structures:
 - 1. Install grounding electrode for each pole, unless otherwise indicated.
 - 2. Install grounding conductor pigtail in the base for connecting luminaire to grounding system.

3.6 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
- B. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.

END OF SECTION 16521

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
1. Removing existing trees, shrubs, groundcovers, plants, and grass.
 2. Clearing and grubbing.
 3. Stripping and stockpiling topsoil.
 4. Removing above- and below-grade site improvements.
 5. Disconnecting, capping or sealing, and removing site utilities.
 6. Temporary erosion and sedimentation control measures.
- B. Related Sections include the following:
1. Division 1 Section "Temporary Facilities and Controls" for temporary utilities, temporary construction and support facilities, temporary security and protection facilities, and temporary erosion and sedimentation control procedures.
 2. Division 1 Section "Execution Requirements" for verifying utility locations and for recording field measurements.
 3. Division 02 Section "Selective Demolition" for partial demolition of pavement curbs and site features.
 4. Division 31 Section "Earth Moving" for soil materials, excavating, backfilling, and site grading.
 5. Division 32 Section "Lawns and Grasses" for finish grading including preparing and placing planting soil mixes and testing of topsoil material.

1.3 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

1.4 MATERIAL OWNERSHIP

- A. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

PARKING LOT EXPANSION

1.5 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Division 1 Section "Project Record Documents," identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
 - 1. Do not proceed with work on adjoining property until directed by Construction Manager.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- D. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

PARKING LOT EXPANSION

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to sediment and erosion control Drawings.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Arrange with utility companies to shut off indicated utilities.
 - 2. Owner will arrange to shut off indicated utilities when requested by Contractor.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Construction Manager not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Construction Manager's written permission.
- C. Excavate for and remove underground utilities indicated to be removed.
- D. Removal of underground utilities is included in Division 2 Sections covering site utilities.

3.4 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 - 3. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.
 - 4. Use only hand methods for grubbing within tree protection zone.
 - 5. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

PARKING LOT EXPANSION

1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

3.5 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
 1. Remove subsoil and nonsoil materials from topsoil, including trash, debris, weeds, roots, and other waste materials.
- C. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Limit height of topsoil stockpiles to 72 inches.
 2. Do not stockpile topsoil within tree protection zones.
 3. Dispose of excess topsoil as specified for waste material disposal.
 4. Stockpile surplus topsoil to allow for respreading deeper topsoil.
 5. No stockpile will be permitted outside of the limits of construction.

3.6 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.7 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
 1. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 311000

SECTION 312000 – EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:

1. Preparing subgrades for walks, pavements, lawns and grasses.
2. Excavating and backfilling for buildings and structures.
3. Subbase course for concrete walks pavements.
4. Subbase and base course for asphalt paving.
5. Subsurface drainage backfill for walls and trenches.
6. Excavating and backfilling for utility trenches.
7. Excavating and backfilling trenches for buried mechanical and electrical utilities and pits for buried utility structures.

- B. Related Sections include the following:

1. Division 1 Section "Construction Progress Documentation for recording preexcavation and earthwork progress.
2. Division 1 Section "Temporary Facilities and Controls" for temporary controls, utilities, and support facilities.
3. Division 31 Section "Site Clearing" for temporary erosion and sedimentation control measures, site stripping, grubbing, stripping and stockpiling topsoil, and removal of above- and below-grade improvements and utilities.
4. Division 32 Section "Lawns and Grasses" for finish grading, including preparing and placing topsoil and planting soil for lawns.
5. Division 3 Section "Cast-in-Place Concrete" for granular course if placed over vapor retarder and beneath the slab-on-grade.

1.3 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

- B. Base Course: Course placed between the subbase course and hot-mix asphalt paving.

- C. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Construction Manager. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - 2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Construction Manager. Unauthorized excavation, as well as remedial work directed by Construction Manager, shall be without additional compensation.
- F. Fill: Soil materials used to raise existing grades.
- G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- H. Subbase Course: Course placed between the subgrade and base course for hot-mix asphalt pavement, or course placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- I. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- J. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 SUBMITTALS

- A. Product Data: For the following:
 - 1. Each type of plastic warning tape.
 - 2. Geotextile.
 - 3. Controlled low-strength material, including design mixture.
- B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
 - 1. Classification according to ASTM D 2487 of each on-site and borrow soil material proposed for fill and backfill.
 - 2. Laboratory compaction curve according to ASTM D 698 for each on-site and borrow soil material proposed for fill and backfill.

- C. Preexcavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins.

1.5 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock-definition testing, as documented according to ASTM D 3740 and ASTM E 548.

1.6 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Construction Manager and then only after arranging to provide temporary utility services according to requirements indicated.
 - 1. Notify Construction Manager not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Construction Manager's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
- H. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No. 4 sieve.
- I. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.
- J. Pea Gravel Aggregate: shall consist of well rounded pebbles with 80-100% passing a 3/8 inch sieve and 0-4% passing No 4 sieve.

2.2 GEOTEXTILES

- A. Subsurface Drainage Geotextile: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:
 - 1. Survivability: Class 2; AASHTO M 288.
 - 2. Grab Tensile Strength: 157 lbf ; ASTM D 4632.
 - 3. Sewn Seam Strength: 142 lbf ; ASTM D 4632.
 - 4. Tear Strength: 56 lbf ; ASTM D 4533.
 - 5. Puncture Strength: 56 lbf ; ASTM D 4833.
 - 6. Apparent Opening Size: [No. 40] [No. 60] [No. 70] sieve, maximum; ASTM D 4751.
 - 7. Permittivity: [0.5] [0.2] [0.1] per second, minimum; ASTM D 4491.
 - 8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

2.3 CONTROLLED LOW-STRENGTH MATERIAL

- A. Produce low-density, controlled low-strength material with the following physical properties:
 - 1. As-Cast Unit Weight: 30 to 36 lb/cu. ft. at point of placement, when tested according to ASTM C 138/C 138M.
 - 2. Compressive Strength: 80 psi, when tested according to ASTM C 495.
- B. Produce conventional-weight, controlled low-strength material with 80-psi compressive strength when tested according to ASTM C 495.

2.4 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
1. Red: Electric.
 2. Yellow: Gas, oil, steam, and dangerous materials.
 3. Orange: Telephone and other communications.
 4. Blue: Water systems.
 5. Green: Sewer systems.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Division 31 Section "Site Clearing."
- C. Protect and maintain erosion and sedimentation controls, which are specified in Division 31 Section "Site Clearing," during earthwork operations.
- D. Provide protective insulating materials to protect subgrades and foundation soils against freezing temperatures or frost.

3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 2. Install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.

3.3 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
 2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches outside of concrete forms other than at footings.
 - b. 12 inches outside of concrete forms at footings.
 - c. 6 inches outside of minimum required dimensions of concrete cast against grade.
 - d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
 - e. 6 inches beneath pipe in trenches, and the greater of 24 inches wider than pipe or 42 inches wide.

3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch . If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 2. Pile Foundations: Stop excavations 6 to 12 inches above bottom of pile cap before piles are placed. After piles have been driven, remove loose and displaced material. Excavate to final grade, leaving solid base to receive concrete pile caps.
 3. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch . Do not disturb bottom of excavations intended as bearing surfaces.

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 - 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: As indicated and not less than 12 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate trenches 4 inches deeper than bottom of pipe elevation to allow for bedding course. Hand excavate for bell of pipe.
 - 1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.8 SUBGRADE INSPECTION

- A. Notify Construction Manager when excavations have reached required subgrade.
- B. If Construction Manager determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
 - 3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Construction Manager, and replace with compacted backfill or fill as directed.
- D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
- E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Construction Manager, without additional compensation.

3.9 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Construction Manager.

1. Fill unauthorized excavations under other construction or utility pipe as directed by Construction Manager.

3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Construction below finish grade including, where applicable, subdrainage, damproofing, waterproofing, and perimeter insulation.
 2. Surveying locations of underground utilities for Record Documents.
 3. Testing and inspecting underground utilities.
 4. Removing concrete formwork.
 5. Removing trash and debris.
 6. Removing temporary shoring and bracing, and sheeting.
 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.12 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Division 3 Section "Cast-in-Place Concrete."
- D. Provide 4-inch-thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase.
- E. Place and compact initial backfill of subbase material, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the utility pipe or conduit.

1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

F. Backfill voids with satisfactory soil while installing and removing shoring and bracing.

G. Controlled Low-Strength Material: Place final backfill of controlled low-strength material to final subgrade elevation.

H. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.13 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:

1. Under grass and planted areas, use satisfactory soil material.
2. Under walks and pavements, use satisfactory soil material.
3. Under steps and ramps, use engineered fill.
4. Under building slabs, use engineered fill.
5. Under footings and foundations, use engineered fill.

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.14 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:

1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

3.16 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 1. Lawn or Unpaved Areas: Plus or minus 1 inch.
 2. Walks: Plus or minus 1 inch.
 3. Pavements: Plus or minus 1/2 inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.17 SUBSURFACE DRAINAGE

- A. Subdrainage Pipe: Specified in Division 33 Section "Subdrainage."
- B. Subsurface Drain: Place subsurface drainage geotextile around perimeter of subdrainage trench. Place a 6-inch course of filter material on subsurface drainage geotextile to support subdrainage pipe. Encase subdrainage pipe in a minimum of 12 inches of filter material, placed in compacted layers 6 inches thick, and wrap in subsurface drainage geotextile, overlapping sides and ends at least 6 inches.
 1. Compact each filter material layer to 85 percent of maximum dry unit weight according to ASTM D 698.
- C. Drainage Backfill: Place and compact filter material over subsurface drain, in width indicated, to within 12 inches of final subgrade, in compacted layers 6 inches thick. Overlay drainage backfill with 1 layer of subsurface drainage geotextile, overlapping sides and ends at least 6 inches.
 1. Compact each filter material layer to 85 percent of maximum dry unit weight according to ASTM D 698.

2. Place and compact impervious fill over drainage backfill in 6-inch- thick compacted layers to final subgrade.

3.18 SUBBASE AND BASE COURSES

- A. Place subbase and base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase and base course under pavements and walks as follows:
 1. Place base course material over subbase course under hot-mix asphalt pavement.
 2. Shape subbase and base course to required crown elevations and cross-slope grades.
 3. Place subbase and base course 6 inches or less in compacted thickness in a single layer.
 4. Place subbase and base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 5. Compact subbase and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 698.
- C. Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders, at least 12 inches wide, of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

3.19 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. 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.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Construction Manager.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 1. Paved Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft. or less of paved area, but in no case fewer than 3 tests.

2. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 150 feet or less of trench length, but no fewer than 2 tests.

- E. 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; recompact and retest until specified compaction is obtained.

3.20 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

1. Scarify or remove and replace soil material to depth as directed by Construction Manager; reshape and recompact.

- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Transport surplus satisfactory soil to designated storage areas on Owner's property. Stockpile or spread soil as directed by Construction Manager.

1. Remove waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION 312000

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hot-mix asphalt paving.
 - 2. Hot-mix asphalt patching.
 - 3. Hot-mix asphalt paving overlay.
 - 4. Asphalt surface treatments.
 - 5. Pavement marking paint.
 - 6. Cold milling of existing hot-mix asphalt pavement.
- B. Related Sections include the following:
 - 1. Division 2 Section "Earthwork" for aggregate subbase and base courses and for aggregate pavement shoulders.

1.3 DEFINITIONS

- A. Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.
- B. MD SHA: Maryland state Highway Administration.

1.4 SYSTEM DESCRIPTION

- A. Provide hot-mix asphalt paving according to materials, workmanship, and other applicable requirements of standard specifications of MD SHA.
 - 1. Standard Specification: MD SHA Standard Specifications for Construction and Materials latest version.
 - 2. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.

- B. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
- C. Job-Mix Designs: For each job mix proposed for the Work.
- D. Qualification Data: For manufacturer.
- E. Material Test Reports: For each paving material.
- F. Material Certificates: For each paving material, signed by manufacturers.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer.
 - 1. Manufacturer shall be a paving-mix manufacturer registered with and approved by authorities having jurisdiction or the MD SHA of the state in which Project is located.
- B. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated, as documented according to ASTM E 548.
- C. Regulatory Requirements: Comply with MD SHA for asphalt paving work.
- D. Asphalt-Paving Publication: Comply with AI MS-22, "Construction of Hot Mix Asphalt Pavements," unless more stringent requirements are indicated.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp or if the following conditions are not met:
 - 1. Prime and Tack Coats: Minimum surface temperature of 60 deg F.
 - 2. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
 - 3. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Aggregate Base Course: materials for construction of the subbase shall be in accordance with Category 900, Section 901.01, Type Graded Aggregate Sub-base or as directed by CCI.

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO MP 1.
- B. Asphalt Cement: Viscosity-Graded Original Asphalt AC-20: ASTM D 3381.
- C. Prime Coat: Asphalt emulsion prime complying with MD SHA requirements.
- D. Tack Coat: Materials for the Bituminous Tack Coat shall be in accordance with MD SHA Category 900, Section 904.03.
- E. Water: Potable.

2.3 Base Course

- A. MD SHA, materials for construction of the base course shall be in accordance with Category 900, Section 904.04.01 and Section 504, Type Hot Mix Asphalt Superpave 25.0 MM PG 70-22, High ESAL.

2.4 Surface Course

- A. MD SHA, materials for construction of the surface course shall be in accordance with Category 900, Section 904.04.01 and Section 504, Type Hot Mix Asphalt Superpave 9.5 MM PG 70-22, High ESAL.

2.5 MIXES

- A. Refer to MD SHA for mix design requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to support paving and imposed loads.
- B. Proof-roll subbase using heavy, pneumatic-tired rollers to locate areas that are unstable or that require further compaction.
- C. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 COLD MILLING

- A. Mill bituminous pavement in accordance with MD SHA Category 500, Section 508.

3.3 PATCHING

- A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd. .
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- C. Patching: Fill excavated pavements with hot-mix asphalt base mix and, while still hot, compact flush with adjacent surface.

3.4 REPAIRS

- A. Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch in existing pavements.
 - 1. Install leveling wedges in compacted lifts not exceeding 3 inches thick.

3.5 HOT-MIX ASPHALT PLACING

- A. Provide construction in accordance with the applicable requirements of the MD SHA, except where indicated or specified otherwise.
- B. Subgrade
 - 1. Section 02300, "Earthwork."
- C. Aggregate Base Course
 - 1. MD SHA, methods of construction of the subbase shall be in accordance with Category 500, Section 501.
- D. Base Course
 - 1. MD SHA, methods of construction of the base course shall be in accordance with Category 500, Section 504.
- E. Surface Course
 - 1. MD SHA, methods of construction of the surface course shall be in accordance with Category 500, Section 504. Placement will not be permitted unless the Contractor has a working asphalt thermometer on site.

3.6 JOINTS

- A. Where new pavement abuts existing bituminous pavement, mill existing bituminous pavement in straight lines approximately 12 inches from edge.

3.7 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete compaction before mix temperature cools to 185 deg F.
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density: 96 percent of reference laboratory density according to AASHTO T 245, but not less than 94 percent nor greater than 100 percent.
 - 2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.8 SURFACE TREATMENTS

- A. Fog Seals: Apply fog seal at a rate of 0.10 to 0.15 gal./sq. yd. to existing asphalt pavement and allow to cure. With a fine sand, lightly dust areas receiving excess fog seal.

3.9 FIELD QUALITY CONTROL

A. Sample shall be taken by Contractor as specified herein.

B. Testing

1. Testing of Pavement Course

a. Density: Determine density of pavement by in-place testing using Nuclear Method in accordance with ASTM D 2950. Frequency of testing shall be performed in accordance with MD SHA Category 500, Section 504.03.10.

2. Thickness: Determine thickness of finished pavement by use of following equation:

$$t = \frac{W}{0.75d}$$

Where t= pavement thickness, in inches.

W= average weight per square yard of mixture actually used in work.

d= compacted density as measured by nuclear density device.

3. Straightedge Test: Test compacted surface of binder course and wearing course with a straightedge as work progresses. Apply straightedge parallel with and at right angles to center line after final rolling. Variations in the binder course surface shall not be more than 1/4 inches from the lower edge of the 10 foot straightedge; variations in wearing course surface shall not be more than 1/8 from the lower edge of the 10 foot straightedge. Pavement showing irregularities greater than that specified shall be corrected.

C. Grade Verification

1. Upon completion of all concrete work and before installation of the asphalt concrete wearing course, the Contractors surveyor shall perform a grade check of all poured concrete and base asphalt to verify that curbs and pavements are sloped to drain and that there will be no standing water in the project area, This survey information shall be presented to the Owner in the form of marked project plan or profile sheets. All non-conforming work shall be repaired or replaced to the satisfaction of the Owner.

END OF SECTION 321216

SECTION 323113 - CHAIN-LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Chain-Link Fences: Industrial.
- B. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving" for site excavation, fill, and backfill where chain-link fences and gates are located.
 - 2. Division 3 Section "Cast-in-Place Concrete (Limited Applications)" for concrete post concrete fill.

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide chain-link fences and gates capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Minimum Post Size and Maximum Spacing for Wind Velocity Pressure: Determine based on mesh size and pattern specified, and on the following minimum design wind pressures and according to CLFMI WLG 2445:
 - a. Wind Speed: 80 mph.
 - b. Fence Height: 10 feet.
 - c. Line Post Group: IA, ASTM F 1043, Schedule 40 steel pipe.
 - d. Wind Exposure Category: B.
 - 2. Determine minimum post size, group, and section according to ASTM F 1043 for framework up to 12 feet high, and post spacing not to exceed 10 feet.
- B. Lightning Protection System: Maximum grounding-resistance value of 25 ohms under normal dry conditions.

1.4 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.
 - 1. Fence and gate posts, rails, and fittings.
 - 2. Reinforcements, and attachments.
 - 3. Gates and hardware.
- B. Shop Drawings: Show locations of fences, gates, posts, rails, tension wires, details of extended posts, extension arms, gate swing, and accessories. Indicate materials, dimensions, sizes, weights, and finishes of components. Include plans, gate elevations, sections, details of post anchorage, attachment, bracing, and other required installation and operational clearances.
- C. Product Certificates: For each type of chain-link fence and gate, signed by product manufacturer.
 - 1. Strength test results for framing according to ASTM F 1043.
- D. Qualification Data: For Installer.
- E. Field quality-control test reports.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed chain-link fences and gates similar in material, design, and extent to those indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
 - 1. Engineering Responsibility: Preparation of data for chain-link fences and gates, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
- B. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
 - 1. Testing Agency's Field Supervisor: Person currently certified according to NETA ETT, or the National Institute for Certification in Engineering Technologies, to supervise on-site testing specified in Part 3.

1.6 PROJECT CONDITIONS

- A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

NOT USED

2.2 INDUSTRIAL FENCE FRAMING

- A. Posts and Rails: Comply with ASTM F 1043 for framing, ASTM F 1083 for Group IC round pipe, and the following:

1. Group: IA, round steel pipe, Schedule 40.
2. Fence Height: 8 feet.
3. Strength Requirement: Light industrial according to ASTM F 1043.
4. Post Diameter and Thickness: According to ASTM F 1043.
 - a. Swing Gate Post: According to ASTM F 900.
5. Coating for Steel Framing:
 - a. Metallic Coating:
 - 1) Type A, consisting of not less than minimum 2.0-oz./sq. ft. average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. zinc coating per ASTM A 653/A 653M.
 - 2) Type B, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film.
 - 3) External, Type B, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film. Internal, Type D, consisting of 81 percent, not less than 0.3-mil- thick, zinc pigmented coating.
 - 4) Type C, Zn-5-Al-MM alloy, consisting of not less than 1.8-oz./sq. ft. coating.
 - 5) Coatings: Any coating above.

2.3 TENSION WIRE

- A. General: Provide horizontal tension wire at the following locations:
1. Location: Extended along top and bottom of fence fabric.

2. Location: Extended along top of barbed wire arms and top of fence fabric for supporting barbed tape.

B. Metallic-Coated Steel Wire: 0.177-inch- diameter, marcelled tension wire complying with ASTM A 817, ASTM A 824, and the following:

1. Metallic Coating: Type II, zinc coated (galvanized) by hot-dip process, with the following minimum coating weight:

- a. Class 1: Not less than 0.8 oz./sq. ft. of uncoated wire surface.
- b. Class 2: Not less than 1.2 oz./sq. ft. of uncoated wire surface.
- c. Class 3: Not less than 2 oz./sq. ft. of uncoated wire surface.
- d. Matching chain-link fabric coating weight.

2.4 INDUSTRIAL SWING GATES

A. General: Comply with ASTM F 900 for single or double swing gate types.

1. Metal Pipe and Tubing: Galvanized steel. Comply with ASTM F 1043 and ASTM F 1083 for materials and protective coatings.

2. Metal Pipe and Tubing: Aluminum. Comply with ASTM B 429 and ASTM F 1043 for materials and protective coatings.

B. Frames and Bracing: Fabricate members from galvanized steel tubing with outside dimension and weight according to ASTM F 900 and the following:

1. Gate Fabric Height: 2 inches less than adjacent fence height.

2. Leaf Width: 36 inches.

3. Frame Members:

- a. Tubular Steel 1.66 inches.

C. Frame Corner Construction:

1. Welded or assembled with corner fittings and 5/16-inch- diameter, adjustable truss rods for panels 5 feet wide or wider.

D. Extended Gate Posts and Frame Members: Extend gate posts and frame end members above top of chain-link fabric at both ends of gate frame 12 inches as required to attach barbed wire assemblies.

E. Hardware: Latches permitting operation from both sides of gate, hinges and keepers for each gate leaf more than 5 feet wide. Fabricate latches with integral eye openings for padlocking; padlock accessible from both sides of gate.

2.5 FITTINGS

A. General: Comply with ASTM F 626.

- B. Post and Line Caps: Provide for each post.
 - 1. Line post caps with loop to receive tension wire or top rail.
- C. Rail and Brace Ends: Attach rails securely to each gate, corner, pull, and end post.
- D. Rail Fittings: Provide the following:
 - 1. Top Rail Sleeves: Pressed-steel or round-steel tubing not less than 6 inches long.
 - 2. Rail Clamps: Line and corner boulevard clamps for connecting intermediate and bottom rails in the fence line-to-line posts.
- E. Tension and Brace Bands: Pressed steel.
- F. Tension Bars: Steel, length not less than 2 inches shorter than full height of chain-link fabric. Provide one bar for each gate and end post, and two for each corner and pull post, unless fabric is integrally woven into post.
- G. Barbed Wire Arms: Pressed steel or cast iron, with clips, slots, or other means for attaching strands of barbed wire, and means for attaching to posts; for each post, unless otherwise indicated, and as follows:
 - 1. Line posts with arms that accommodate top rail or tension wire.
 - 2. Corner arms at fence corner posts, unless extended posts are indicated.
 - 3. Type I, single slanted arm.
- H. Tie Wires, Clips, and Fasteners: According to ASTM F 626.
 - 1. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:
 - a. Hot-Dip Galvanized Steel: 0.106-inch-diameter wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.
- I. Finish:
 - 1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.
 - 2. Aluminum: Mill finish.

2.6 BARBED WIRE

- A. Zinc-Coated Steel Barbed Wire: Comply with ASTM A 121, Standard grade for the following two-strand barbed wire:
 - 1. Standard Size and Construction: 0.099-inch- diameter line wire with 0.080-inch-diameter, 2-point round barbs spaced not more than 4 inches

2.7 CAST-IN-PLACE CONCRETE

- A. Materials: Portland cement complying with ASTM C 150, Type I aggregates complying with ASTM C 33, and potable water[for ready-mixed concrete complying with ASTM C 94/C 94M].[Measure, batch, and mix Project-site-mixed concrete according to ASTM C 94/C 94M.]
 - 1. Concrete Mixes: Normal-weight concrete air entrained with not less than 3000-psi compressive strength (28 days), 3-inch slump, and 1-inch maximum size aggregate.
- B. Materials: Dry-packaged concrete mix complying with ASTM C 387 for normal-weight concrete mixed with potable water according to manufacturer's written instructions.

2.8 GROUT AND ANCHORING CEMENT

- A. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

2.9 FENCE GROUNDING

- A. Conductors: Bare, solid wire for No. 6 AWG and smaller; stranded wire for No. 4 AWG and larger.
 - 1. Material above Finished Grade: Copper.
 - 2. Material on or below Finished Grade: Copper.
 - 3. Bonding Jumpers: Braided copper tape, 1 inch wide, woven of No. 30 AWG bare copper wire, terminated with copper ferrules.
- B. Connectors and Grounding Rods: Comply with UL 467.
 - 1. Connectors for Below-Grade Use: Exothermic welded type.
 - 2. Grounding Rods: Copper-clad steel.
 - a. Size: 5/8 by 96 inches.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for a verified survey of property lines and legal boundaries, site clearing, earthwork, pavement work, and other conditions affecting performance.
 - 1. Do not begin installation before final grading is completed, unless otherwise permitted by Architect.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.3 INSTALLATION, GENERAL

- A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements specified.
 - 1. Install fencing on established boundary lines inside property line.

3.4 CHAIN-LINK FENCE INSTALLATION

- A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- B. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
 - 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
 - 2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
 - a. Exposed Concrete: Extend 2 inches above grade; shape and smooth to shed water.
- C. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 15 degrees or more.
- D. Line Posts: Space line posts uniformly at 8 feet o.c.

- E. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Install braces at end and gate posts and at both sides of corner and pull posts.
 - 1. Locate horizontal braces at midheight of fabric 6 feet or higher, on fences with top rail and at 2/3 fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.
- F. Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch- diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches o.c. Install tension wire in locations indicated before stretching fabric.
 - 1. Top Tension Wire: Install tension wire through post cap loops.
 - 2. Bottom Tension Wire: Install tension wire within 6 inches of bottom of fabric and tie to each post with not less than same diameter and type of wire.
- G. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.
- H. Bottom Rails: Install, spanning between posts.
- I. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1 inch between finish grade or surface and bottom selvage, unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.
- J. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.
- K. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at 1 end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.
 - 1. Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.
- L. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side.
- M. Barbed Wire: Install barbed wire uniformly spaced , angled toward security side of fence. Pull wire taut and install securely to extension arms and secure to end post or terminal arms.

3.5 GATE INSTALLATION

- A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.6 GROUNDING AND BONDING

- A. Fence Grounding: Install at maximum intervals of 1500 feet except as follows:
 - 1. Fences within 100 Feet of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet.
 - a. Gates and Other Fence Openings: Ground fence on each side of opening.
 - 1) Bond metal gates to gate posts.
- B. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location, including the following:
 - 1. Each Barbed Wire Strand. Make grounding connections to barbed wire with wire-to-wire connectors designed for this purpose.
- C. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.
- D. Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
 - 1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
 - 2. Make connections with clean, bare metal at points of contact.
 - 3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
 - 4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
 - 5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

3.7 FIELD QUALITY CONTROL

- A. Grounding-Resistance Testing: Owner will engage a qualified independent testing and inspecting agency to perform field quality-control testing.

1. Grounding-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure grounding resistance not less than two full days after last trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural grounding resistance. Perform tests by two-point method according to IEEE 81.
2. Excessive Grounding Resistance: If resistance to grounding exceeds specified value, notify Architect promptly. Include recommendations for reducing grounding resistance and a proposal to accomplish recommended work.
3. Report: Prepare test reports certified by a testing agency of grounding resistance at each test location. Include observations of weather and other phenomena that may affect test results.

END OF SECTION 323113

SECTION 321313 - CONCRETE PAVEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes exterior cement concrete pavement for the following:
 - 1. Curbs and gutters.
 - 2. Scuppers
- B. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving" for subgrade preparation, grading, and subbase course.
 - 2. Division 03 Section "Cast-in-Place Concrete for general building applications of concrete.

1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash and other pozzolans, and ground granulated blast-furnace slag.

1.4 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Design Mixtures: For each concrete pavement mixture. Include alternate mixture designs when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Qualification Data: For manufacturer.
- D. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials:
 - 1. Aggregates.

- E. Material Certificates: Signed by manufacturers certifying that each of the following materials complies with requirements:
 - 1. Cementitious materials.
 - 2. Steel reinforcement and reinforcement accessories.
 - 3. Admixtures.
 - 4. Curing compounds.
 - 5. Bonding agent or epoxy adhesive.
- F. Field quality-control test reports.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products who complies with ASTM C 94/C 94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Testing Agency Qualifications: The Owner will provide an independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated, as documented according to ASTM E 548.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-01 or an equivalent certification program.
- C. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by requirements in the Contract Documents.
- D. Concrete Testing Service: Owner will engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

1.6 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.

2.2 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
 - 1. Use flexible or curved forms for curves with a radius 100 feet or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2.3 STEEL REINFORCEMENT

- A. Galvanized Reinforcing Bars: ASTM A 767/A 767M, Class II zinc coated, hot-dip galvanized after fabrication and bending; with ASTM A 615/A 615M, Grade 60 deformed bars.
- B. Epoxy-Coated Reinforcing Bars: ASTM A 775/A 775M or ASTM A 934/A 934M; with ASTM A 615/A 615M, Grade 60 deformed bars.
- C. Epoxy-Coated Joint Dowel Bars: ASTM A 775/A 775M; with ASTM A 615/A 615M, Grade 60, plain steel bars.
- D. Hook Bolts: ASTM A 307, Grade A, internally and externally threaded. Design hook-bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.
- E. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
 - 2. For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer-coated wire bar supports.
- F. Epoxy Repair Coating: Liquid two-part epoxy repair coating, compatible with epoxy coating on reinforcement.

2.4 CONCRETE MATERIALS

- A. Cementitious Material: Use[one of] the following cementitious materials, of the same type, brand, and source throughout the Project:
 - 1. Portland Cement: ASTM C 150, Type I/II Supplement with the following:]
 - a. Fly Ash: ASTM C 618, Class F.

- B. Normal-Weight Aggregates: ASTM C 33, Class 4S coarse aggregate, uniformly graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar pavement applications and service conditions using similar aggregates and cementitious materials.
 - 1. Maximum Coarse-Aggregate Size: 1 inch nominal.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
 - 1. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.

2.5 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.
- B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable.
- D. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
 - 1. Available Products:
 - a. Axim Concrete Technologies; Cimfilm.
 - b. Burke by Edeco; BurkeFilm.
 - c. ChemMasters; Spray-Film.
 - d. Conspec Marketing & Manufacturing Co., Inc.; Aquafilm.
 - e. Dayton Superior Corporation; Sure Film.
 - f. Euclid Chemical Company (The); Eucobar.
 - g. Kaufman Products, Inc.; Vapor Aid.
 - h. Lambert Corporation; Lambco Skin.
 - i. L&M Construction Chemicals, Inc.; E-Con.
 - j. MBT Protection and Repair, ChemRex Inc.; Confilm.
 - k. Meadows, W. R., Inc.; Sealtight Evapre.
 - l. Metalcrete Industries; Waterhold.
 - m. Nox-Crete Products Group, Kinsman Corporation; Monofilm.
 - n. Sika Corporation, Inc.; SikaFilm.
 - o. Symons Corporation; Finishing Aid.
 - p. Vexcon Chemicals, Inc.; Certi-Vex EnvioAssist.

- E. Clear Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.
1. Available Products:
 - a. Anti-Hydro International, Inc.; AH Curing Compound #2 DR WB.
 - b. Burke by Edoko; Aqua Resin Cure.
 - c. ChemMasters; Safe-Cure Clear.
 - d. Conspec Marketing & Manufacturing Co., Inc.; W.B. Resin Cure.
 - e. Dayton Superior Corporation; Day Chem Rez Cure (J-11-W).
 - f. Euclid Chemical Company (The); Kurez DR VOX.
 - g. Kaufman Products, Inc.; Thinfilm 420.
 - h. Lambert Corporation; Aqua Kure-Clear.
 - i. L&M Construction Chemicals, Inc.; L&M Cure R.
 - j. Meadows, W. R., Inc.; 1100 Clear.
 - k. Nox-Crete Products Group, Kinsman Corporation; Resin Cure E.
 - l. Symons Corporation; Resi-Chem Clear.
 - m. Tamms Industries Inc.; Horncure WB 30.
 - n. Unitex; Hydro Cure 309.
 - o. Vexcon Chemicals, Inc.; Certi-Vex Enviocure 100.

2.6 RELATED MATERIALS

- A. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

2.7 PAVEMENT MARKINGS

- A. Pavement-Marking Paint: Alkyd-resin type, lead and chromate free, ready mixed, complying with FS TT-P-115, Type II or AASHTO M 248, Type F.
1. Color: White.

2.8 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 301, for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience.
1. Use a Owner provided independent testing agency for preparing and reporting proposed concrete mixture designs for the trial batch method.
- B. Proportion mixtures to provide normal-weight concrete with the following properties:
1. Compressive Strength (28 Days): 3000 psi .
 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.45.
 3. Slump Limit: 4 inches , plus or minus 1 inch .

- C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
 - 1. Air Content: 4-1/2 percent plus or minus 1.5 percent for 1-inch nominal maximum aggregate size.
- D. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
- E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use high-range, water-reducing and retarding admixture in concrete, as required, for placement and workability.
- F. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement according to ACI 301 requirements as follows:
 - 1. Fly Ash or Pozzolan: 25 percent.

2.9 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Furnish batch certificates for each batch discharged and used in the Work.
 - 1. When air temperature is between 85 deg F and 90 deg F , reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F , reduce mixing and delivery time to 60 minutes.
- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.
 - 1. For concrete mixes of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
 - 2. For concrete mixes larger than 1 cu. yd. , increase mixing time by 15 seconds for each additional 1 cu. yd. .
 - 3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixing time, quantity, and amount of water added.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.

- B. Proof-roll prepared subbase surface below concrete pavements> with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding.
 - 1. Completely proof-roll subbase in one direction and repeat in perpendicular direction. Limit vehicle speed to 3 mph .
 - 2. Proof-roll with a loaded 10-wheel tandem-axle dump truck weighing not less than 15 tons.
 - 3. Subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch require correction according to requirements in Division 2 Section "Earthwork."
- C. Proceed with concrete pavement operations only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

3.2 PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Zinc-Coated Reinforcement: Use galvanized steel wire ties to fasten zinc-coated reinforcement. Repair cut and damaged zinc coatings with zinc repair material.
- E. Epoxy-Coated Reinforcement: Use epoxy-coated steel wire ties to fasten epoxy-coated reinforcement. Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D 3963/D 3963M.

3.5 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
 - 1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints.
 - 1. Continue steel reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
 - 2. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
- C. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a 3/8-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.

3.6 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery or at Project site.
- F. Do not add water to fresh concrete after testing.
- G. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- H. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 - 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and

consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.

- I. Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay welded wire fabric or fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed.
 1. Remove and replace concrete that has been placed for more than 15 minutes without being covered by top layer, or use bonding agent if approved by Architect.
- J. Screed pavement surfaces with a straightedge and strike off.
- K. Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- L. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not approved, remove and replace with formed concrete.
- M. Slip-Form Pavers: When automatic machine placement is used for pavement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce pavement to required thickness, lines, grades, finish, and jointing as required for formed pavement.
 1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of paver machine during operations.
- N. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength.
- O. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 1. When air temperature has fallen to or is expected to fall below 40 deg F , uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
 2. Do not use frozen materials or materials containing ice or snow.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mix designs.
- P. Hot-Weather Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:

1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.7 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 1. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.8 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
 1. Moist Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches , and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.9 PAVEMENT TOLERANCES

A. Comply with tolerances of ACI 117 and as follows:

1. Elevation: 1/4 inch .
2. Thickness: Plus 3/8 inch , minus 1/4 inch .
3. Surface: Gap below 10-foot- long, unlevelled straightedge not to exceed 1/4 inch
4. Lateral Alignment and Spacing of Tie Bars and Dowels: 1 inch .
5. Vertical Alignment of Tie Bars and Dowels: 1/4 inch .
6. Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches .
7. Joint Spacing: 3 inches .
8. Joint Width: Plus 1/8 inch , no minus.

3.10 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow concrete pavement to cure for 28 days and be dry before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.
- D. Apply paint with mechanical equipment to produce pavement markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.

3.11 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain at least 1 composite sample for each 5000 sq. ft. or fraction thereof of each concrete mix placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
 4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
 5. Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
 6. Compressive-Strength Tests: ASTM C 39/C 39M; test 1 specimen at 7 days and 2 specimens at 28 days.
 - a. A compressive-strength test shall be the average compressive strength from 2 specimens obtained from same composite sample and tested at 28 days.
- C. Strength of each concrete mix will be satisfactory if average of any 3 consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi .
- D. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- E. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
- F. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
- G. Remove and replace concrete pavement where test results indicate that it does not comply with specified requirements.

- H. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.12 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313

SECTION 329200 - LAWNS AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Seeding.
- B. Related Sections include the following:
 - 1. Division 31 Section "Site Clearing" for topsoil stripping and stockpiling.
 - 2. Division 31 Section "Earth Moving" for excavation, filling and backfilling, and rough grading.

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- C. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- D. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath planting soil.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.

- C. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of lawns during a calendar year. Submit before expiration of required maintenance periods.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment.
 - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
- B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers.

1.7 SCHEDULING

- A. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

1.8 LAWN MAINTENANCE

- A. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
 - 1. Seeded Lawns: 60 days from date of Substantial Completion.
 - a. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.
- B. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn.
 - 1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch. Anchor as required to prevent displacement.
- C. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches.

1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 2. Water lawn at a minimum rate of 1 inch per week.
- D. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 40 percent of grass height. Remove no more than 40 percent of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
1. Mow grass 1/2 to 1 inch high.
 2. Mow grass 1-1/2 to 2 inches high.
- E. Lawn Post-fertilization: Apply fertilizer after initial mowing and when grass is dry.
1. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. to lawn area.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species: State-certified seed of grass species, as follows:
 1. Sun and Partial Shade: Proportioned by weight as follows:
 - a. 50 percent Kentucky bluegrass (*Poa pratensis*).
 - b. 30 percent chewings red fescue (*Festuca rubra* variety).
 - c. 10 percent perennial ryegrass (*Lolium perenne*).
 - d. 10 percent redtop (*Agrostis alba*).
 2. Shade: Proportioned by weight as follows:
 - a. 50 percent chewings red fescue (*Festuca rubra* variety).
 - b. 35 percent rough bluegrass (*Poa trivialis*).
 - c. 15 percent redtop (*Agrostis alba*).

2.2 TOPSOIL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.

1. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 - a. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from agricultural land, bogs or marshes.

2.3 PLANTING ACCESSORIES

- A. Selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application.

2.4 FERTILIZER

- A. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.5 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Asphalt Emulsion: ASTM D 977, Grade SS-1; nontoxic and free of plant-growth or germination inhibitors.
- C. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.

2.6 PLANTING SOIL MIX

- A. Planting Soil Mix: Mix topsoil with the following soil amendments and fertilizers in the following quantities:
 1. Ratio of Loose Compost to Topsoil by Volume: 1:4.
 2. Weight of Slow-Release Fertilizer per 1000 Sq. Ft.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 LAWN PREPARATION

- A. Limit lawn subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply slow release fertilizer directly to subgrade before loosening.
 - 2. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
 - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
 - 3. Spread planting soil mix to a depth of 4 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
 - a. Spread approximately one-half the thickness of planting soil mix over loosened subgrade. Mix thoroughly into top 2 inches of subgrade. Spread remainder of planting soil mix.
- C. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future.
- D. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- E. Restore areas if eroded or otherwise disturbed after finish grading and before planting.

3.4 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - 1. Do not use wet seed or seed that is moldy or otherwise damaged.
- B. Sow seed at the rate of 3 to 4 lb/1000 sq. ft.
- C. Rake seed lightly into top 1/8 inch of topsoil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
 - 1. Bond straw mulch by spraying with asphalt emulsion at the rate of 10 to 13 gal./1000 sq. ft. . Take precautions to prevent damage or staining of structures or other plantings adjacent to mulched areas. Immediately clean damaged or stained areas.

3.5 SATISFACTORY LAWNS

- A. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.
- B. Reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory.

3.6 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by lawn work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect barricades and warning signs as required to protect newly planted areas from traffic. Maintain barricades throughout maintenance period and remove after lawn is established.

END OF SECTION 329200

SECTION 329300 - PLANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Plants.
 - 2. Planting soils.

1.2 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- C. Finish Grade: Elevation of finished surface of planting soil.
- D. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- E. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- F. Pests: Living organisms that occur where they are not desired, or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- G. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- H. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
- I. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- J. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- K. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated, including soils.
- B. Samples of mineral mulch.

1.4 INFORMATIONAL SUBMITTALS

- A. Product certificates.
- B. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of plants during a calendar year.

1.5 QUALITY ASSURANCE

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 - 1. Pesticide Applicator: State licensed, commercial.
- B. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory.
 - 1. The soil-testing laboratory shall oversee soil sampling.
 - 2. Report suitability of tested soil for plant growth.
 - a. State recommendations for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
 - b. Report presence of problem salts, minerals, or heavy metals; if present, provide additional recommendations for corrective action.
- C. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.
- D. Preinstallation Conference: Conduct conference at Project site

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver bare-root stock plants freshly dug. Immediately after digging up bare-root stock, pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
- B. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
- C. Handle planting stock by root ball.
- D. Store bulbs, corms, and tubers in a dry place at 60 to 65 deg F until planting.
- E. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and

trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.

1.7 WARRANTY

- A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner, or incidents that are beyond Contractor's control.
 - b. Structural failures including plantings falling or blowing over.
 - 2. Warranty Periods from Date of Planting Completion
 - a. Trees, Shrubs, Vines, and Ornamental Grasses: 12 months.
 - b. Ground Covers, Biennials, Perennials, and Other Plants: 12 months.
 - c. Annuals: 3 months.

1.8 MAINTENANCE SERVICE

- A. Initial Maintenance Service: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than maintenance period below.
 - 1. Maintenance Period for Trees and Shrubs: 12 months from date of planting completion.
 - 2. Maintenance Period for Ground Cover and Other Plants 6 months from date of planting completion

PART 2 - PRODUCTS

2.1 PLANT MATERIAL

- A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant Schedule or Plant Legend shown on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- B. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.
- C. Annuals and Biennials: Provide healthy, disease-free plants of species and variety shown or listed, with well-established root systems reaching to sides of the container to maintain a firm ball, but not with excessive root growth encircling the container. Provide only plants that are acclimated to outdoor conditions before delivery.

2.2 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
 - 1. Class: T, with a minimum of 99 percent passing through No. 8 sieve and a minimum of 75 percent passing through No. 60 sieve.
 - 2. Class: O, with a minimum of 95 percent passing through No. 8 sieve and a minimum of 55 percent passing through No. 60 sieve.
- B. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent sulfur, with a minimum of 99 percent passing through No. 6 sieve and a maximum of 10 percent passing through No. 40 sieve.
- C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- D. Aluminum Sulfate: Commercial grade, unadulterated.
- E. Perlite: Horticultural perlite, soil amendment grade.
- F. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through No. 50 sieve.
- G. Sand: Clean, washed, natural or manufactured, and free of toxic materials.
- H. Diatomaceous Earth: Calcite, 90 percent silica, with approximately 140 percent water absorption capacity by weight.
- I. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

2.3 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve; soluble salt content not to exceed 900 ppm; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or granular texture, with a pH range of 3.4 to 4.8.
- C. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent.
- D. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
- E. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, debris, and material harmful to plant growth.

2.4 FERTILIZERS

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 1 percent nitrogen and 20 percent phosphoric acid.
- B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- D. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
- E. Planting Tablets: Tightly compressed chip type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.
 - 1. Size 5-gram tablets.
 - 2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous, and 5 percent potassium, by weight plus micronutrients.

2.5 PLANTING SOILS

- A. Planting Soil: ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 2 percent organic material content Imported topsoil or manufactured topsoil from off-site sources; do not obtain from agricultural land, bogs or marshes. Verify suitability of soil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. Mix soil with the following soil amendments[and fertilizers] in the following quantities to produce planting soil:
 - 1. Ratio of Loose Compost to Topsoil by Volume: 1:4
 - 2. Ratio of Loose Wood Derivatives to Topsoil by Volume: 1:4
 - 3. Weight of Commercial Fertilizer per 1000 Sq. Ft.
 - 4. Weight of Slow-Release Fertilizer per 1000 Sq. Ft.

2.6 MULCHES

- A. Organic Mulch: Shredded hardwood
- B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve.

2.7 WEED-CONTROL BARRIERS

- A. Nonwoven Geotextile Filter Fabric: Polypropylene or polyester fabric, 3 oz. /sq. yd. minimum.
- B. Composite Fabric: Woven, needle-punched polypropylene substrate bonded to a nonwoven polypropylene fabric, 4.8 oz. /sq. yd.

2.8 PESTICIDES

- A. General: Pesticide registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

PART 3 - EXECUTION

3.1 PLANTING AREA ESTABLISHMENT

- A. Loosen subgrade of planting areas to a minimum depth of 4 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Thoroughly blend planting soil off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.
 - 2. Spread planting soil to a depth of 4 inches but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
- B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.2 EXCAVATION FOR TREES AND SHRUBS

- A. Planting Pits and Trenches: Excavate circular planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are not acceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball shall sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
 - 1. Excavate approximately three times as wide as ball diameter.
 - 2. Excavate at least 12 inches wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
 - 3. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
- B. Subsoil and topsoil removed from excavations may not be used as planting soil.

3.3 TREE, SHRUB, AND VINE PLANTING

- A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1.
- B. Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.
- C. Set stock plumb and in center of planting pit or trench with root flare 1 inch adjacent finish grades.
 - 1. Use planting soil for backfill around plants.
 - 2. Balled and Burlapped: After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 - 3. Container-Grown: Carefully remove root ball from container without damaging root ball or plant.
 - 4. Fabric Bag-Grown Stock: Carefully remove root ball from fabric bag without damaging root ball or plant. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 - 5. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
 - 6. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
 - 7. Continue backfilling process. Water again after placing and tamping final layer of soil.
- D. Bare-Root Stock: Set and support bare-root stock in center of planting pit or trench with root flare 1 inch above adjacent finish grade.
 - 1. Use planting soil for backfill.
 - 2. Spread roots without tangling or turning toward surface, and carefully work backfill around roots by hand. Puddle with water until backfill layers are completely saturated. Plumb before backfilling, and maintain plumb while working backfill around roots and placing layers above roots.
 - 3. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside soil-covered roots about 1 inch from root tips; do not place tablets in bottom of the hole or touching the roots.
 - 4. Continue backfilling process. Water again after placing and tamping final layer of soil.
- E. When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

3.4 TREE, SHRUB, AND VINE PRUNING

- A. Remove only dead, dying, or broken branches. Do not prune for shape.
- B. Prune, thin, and shape trees, shrubs, and vines according to standard professional horticultural and arboricultural practices. Unless otherwise indicated by Architect, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.

3.5 GROUND COVER AND PLANT PLANTING

- A. Set out and space ground cover and plants other than trees, shrubs, and vines 12 inches apart in even rows with triangular spacing.
- B. Use planting soil for backfill around plantings
- C. Dig holes large enough to allow spreading of roots.
- D. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.
- E. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.
- F. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.6 PLANTING AREA MULCHING

- A. Install weed-control barriers before mulching according to manufacturer's written instructions. Completely cover area to be mulched, overlapping edges a minimum of 6 inches and secure seams with galvanized pins.
- B. Mulch backfilled surfaces of planting areas as indicated on drawings.

3.7 PLANT MAINTENANCE

- A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
- B. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.
- C. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use practices to minimize the use of pesticides and reduce hazards.
- D. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

- E. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

END OF SECTION 329300

SECTION 334100 - SUBDRAINAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes subdrainage systems for the following:
 - 1. Bio-retention area.
- B. Related Sections include the following:
 - 1. Division 33 Storm Drainage Section.

1.3 DEFINITIONS

- A. PVC: Polyvinyl chloride plastic.
- B. Subdrainage: Drainage system that collects and removes subsurface or seepage water.

1.4 SUBMITTALS

- A. Product Data: For the following:
 - 1. Perforated-wall pipe and fittings.
 - 2. Geotextile filter fabrics.
- B. Approval of waterproofing manufacturer's service agent for use of drainage panels against and for waterproofing membrane protection.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 PIPING MATERIALS

- A. Refer to the "Piping Applications" Article in Part 3 for applications of pipe, tube, fitting, and joining materials.

2.3 PERFORATED-WALL PIPES AND FITTINGS

- A. Perforated PVC Sewer Pipe and Fittings: ASTM D 2729, bell-and-spigot ends, for loose joints.

2.4 CLEANOUTS

- A. PVC Cleanouts: ASTM D 3034, PVC cleanout threaded plug and threaded pipe hub.

2.5 GEOTEXTILE FILTER FABRICS

- A. Description: Fabric of PP or polyester fibers or combination of both, with flow rate range from 110 to 330 gpm/sq. ft. when tested according to ASTM D 4491.
 1. Structure Type: Nonwoven, needle-punched continuous filament.
 2. Style(s): Flat and sock.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces and areas for suitable conditions where subdrainage systems are to be installed.
- B. If subdrainage is required for landscaping, locate and mark existing utilities, underground structures, and aboveground obstructions before beginning installation and avoid disruption and damage of services.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Division 31 Section "Earth moving."

3.3 PIPING APPLICATIONS

- A. Underground Subdrainage Piping:
 - 1. Perforated PVC sewer pipe and fittings for loose, bell-and-spigot joints.
- B. Underslab Subdrainage Piping:
 - 1. Perforated PVC sewer pipe and fittings and loose, bell-and-spigot joints.
- C. Header Piping:
 - 1. PVC sewer pipe and fittings, couplings, and coupled joints.

3.4 CLEANOUT APPLICATIONS

- A. In Underground Subdrainage Piping:
 - 1. At Grade in Earth: PVC cleanouts.

3.5 FOUNDATION DRAINAGE INSTALLATION

NOT USED

3.6 BIO-RETENTION DRAINAGE INSTALLATION

- A. Excavate for Bio-retention drainage system after subgrade material has been compacted but before drainage course has been placed. Include horizontal distance of at least 6 inches between drainage pipe and trench walls. Grade bottom of trench excavations to required slope, and compact to firm, solid bed for drainage system.
- B. Lay flat-style geotextile filter fabric in trench and overlap trench sides.
- C. Place supporting layer of drainage course over compacted subgrade and geotextile filter fabric, to compacted depth of not less than 4 inches.
- D. Encase pipe with sock-style geotextile filter fabric before installing pipe. Connect sock sections with adhesive or tape.
- E. Install drainage piping as indicated in Part 3.8 "Piping Installation"
- F. Add drainage course to width of at least 6 inches on either of pipe to perform tests.
- G. After satisfactory testing, cover drainage piping with drainage course to elevation of specified in drawings, and wrap top of drainage course with flat-style geotextile filter fabric.

3.7 RETAINING-WALL DRAINAGE INSTALLATION

NOT USED

3.8 PIPING INSTALLATION

- A. Install piping beginning at low points of system, true to grades and alignment indicated, with unbroken continuity of invert. Bed piping with full bearing in filtering material. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions and other requirements indicated.
 - 1. Bio-retention Subdrainage: Install piping pitched down in direction of flow, at a minimum slope of 0.5 percent and with a minimum cover of 36 inches, unless otherwise indicated.
 - 2. Lay perforated pipe with perforations down.
 - 3. Excavate recesses in trench bottom for bell ends of pipe. Lay pipe with bells facing upslope and with spigot end entered fully into adjacent bell.

- B. Install PVC piping according to ASTM D 2321.

3.9 PIPE JOINT CONSTRUCTION

- A. Join perforated PVC pipe and fittings according to ASTM D 2729, with loose bell-and-spigot joints.

3.10 CLEANOUT INSTALLATION

- 1. Install cleanouts from piping to grade. Locate cleanouts at beginning of piping run and at changes in direction. Install fittings so cleanouts open in direction of flow in piping.
- 2. In nonvehicular-traffic areas, use NPS 4 PVC pipe and fittings for piping branch fittings and riser extensions to cleanout. Set cleanout frames and covers in a cast-in-place concrete anchor, 12 by 12 by 4 inches in depth. Set top of cleanout plug 1 inch above grade.

3.11 CONNECTIONS

- A. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Connect low elevations of subdrainage system solid-wall-piping storm drainage system.

3.12 IDENTIFICATION

- A. Materials and their installation are specified in Division 31 Section "Earth Moving." Arrange for installation of green warning tapes directly over piping.
 - 1. Install detectable warning tape over nonferrous piping and over edges of underground structures.

3.13 FIELD QUALITY CONTROL

- A. Testing: After installing drainage course to top of piping, test drain piping with water to ensure free flow before backfilling. Remove obstructions, replace damaged components, and repeat test until results are satisfactory.

3.14 CLEANING

- A. Clear interior of installed piping and structures of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed. Place plugs in ends of uncompleted pipe at end of each day or when work stops.

END OF SECTION 334100

SECTION 334600 - STORM DRAINAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes gravity-flow, non-pressure storm drainage outside the building, with the following components:
 - 1. Precast concrete manholes.
 - 2. Stormwater Inlets.
 - 3. Drains.

1.3 DEFINITIONS

- A. PVC: Polyvinyl chloride plastic.

1.4 PERFORMANCE REQUIREMENTS

- A. Gravity-Flow, Nonpressure, Drainage-Piping Pressure Rating: 10-foot head of water. Pipe joints shall be at least silt tight, unless otherwise indicated.

1.5 SUBMITTALS

- A. Product Data for piping material and accessories.
- B. Shop Drawings: For the following:
 - 1. Manholes: Include plans, elevations, sections, details, and frames and covers.
 - 2. Stormwater Inlets. Include plans, elevations, sections, details, and frames, covers, and grates.
- C. Field quality-control test reports.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect pipe, pipe fittings, and seals from dirt and damage.

- B. Handle manholes according to manufacturer's written rigging instructions.
- C. Handle stormwater inlets according to manufacturer's written rigging instructions.

1.7 PROJECT CONDITIONS

- A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 - 1. Notify Construction Manager no fewer than two days in advance of proposed interruption of service.
 - 2. Do not proceed with interruption of service without Construction Manager's written permission.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 PIPING MATERIALS

- A. Refer to Part 3 "Piping Applications" Article for applications of pipe, fitting, and joining materials.

2.3 PVC PIPE AND FITTINGS

- A. PVC Profile Gravity Sewer Pipe and Fittings: ASTM F 794 pipe, with bell-and-spigot ends; ASTM D 3034 fittings, with bell ends; and ASTM F 477, elastomeric seals.

2.4 CONCRETE PIPE AND FITTINGS

- A. Reinforced-Concrete Sewer Pipe and Fittings: ASTM C 76 , with bell-and-spigot or groove and tongue ends and gasketed joints with ASTM C 443 , rubber gaskets.
 - 1. Class III, Wall C.

2.5 MANHOLES

- A. Standard Precast Concrete Manholes: ASTM C 478 , precast, reinforced concrete, of depth indicated, with provision for sealant joints.

1. Diameter: 48 inches minimum, unless otherwise indicated.
2. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
3. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and having separate base slab or base section with integral floor.
4. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.
5. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
6. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
7. Steps: 1/2-inch steel reinforcing rods encased in ASTM D 4101, PP, wide enough to allow worker to place both feet on 1 step and designed to prevent lateral slippage off of step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 60 inches.
8. Protective Coating: Plant-applied, SSPC-Paint 16, coal-tar, epoxy-polyamide paint 15-mil minimum thickness applied to exterior and interior surfaces.
9. Manhole Frames and Covers: Ferrous; 24-inch ID by 7- to 9-inch riser with 4-inch- minimum width flange and 26-inch- diameter cover. Include indented top design with lettering cast into cover, using wording equivalent to "STORM SEWER."
 - a. Material: ASTM A 536, Grade 60-40-18 ductile iron, unless otherwise indicated.
 - b. Protective Coating: Foundry-applied, SSPC-Paint 16, coal-tar, epoxy-polyamide paint; 15-mil minimum thickness applied to all surfaces, unless otherwise indicated.
10. Frames and Covers: covers shall be stamped as indicated on the drawings.

2.6 DRAINS

- A. Gray-Iron Area Drains: ASME A112.21.1M, round body with anchor flange and round bolted grate. Include bottom outlet with inside calk or spigot connection, of sizes indicated.
 1. Available Manufacturers:
 - a. Josam Company.
 - b. MIFAB Manufacturing, Inc.
 - c. Smith, Jay R. Mfg. Co.
 - d. Wade Div.; Tyler Pipe.
 - e. Watts Industries, Inc.
 - f. Watts Industries, Inc.; Enpoco, Inc. Div.
 - g. Zurn Industries, Inc.; Zurn Specification Drainage Operation.
 2. Top-Loading Classifications: Medium and heavyduty.
- B. Gray-Iron Trench Drains: ASME A112.21.1M, 6-inch- wide top surface, rectangular body with anchor flange or other anchoring device, and rectangular bolted grate.

Include units of total length indicated and number of bottom outlets with inside calk or spigot connections, of sizes indicated.

1. Available Manufacturers:

- a. Josam Company.
- b. Smith, Jay R. Mfg. Co.
- c. Wade Div.; Tyler Pipe.
- d. Watts Industries, Inc.
- e. Watts Industries, Inc.; Enpoco, Inc. Div.
- f. Zurn Industries, Inc.; Zurn Specification Drainage Operation.

2. Top-Loading Classification: heavy duty.

C. Beehive Grate and Frame: use cast iron High beehive or domed bolted grate and frame for area drains with size indicated.

1. Available Manufacturers:

- a. Neenah Foundry Company.
- b. NDS, Inc.
- c. East Jordan Iron Works Inc.

2.7 STORMWATER INLETS

- A. Curb Inlets: Vertical curb opening, of materials and dimensions indicated.
- B. Frames and Grates: Dimensions, opening pattern, free area, and other attributes indicated.

2.8 MISCELLANEOUS MATERIALS

- A. Paint: SSPC-Paint 16.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Division 31 Section "Earth Moving."

3.2 PIPING APPLICATIONS

- A. Gravity-Flow, Non-pressure Sewer Piping: Use any of the following pipe materials for each size range:

1. NPS 8 to NPS 12: PVC profile gravity sewer pipe and fittings, gaskets, and gasketed joints.
2. NPS 15: Reinforced-concrete sewer pipe and fittings, gaskets, and gasketed joints.
3. NPS 18 to NPS 36: Reinforced-concrete sewer pipe and fittings, gaskets, and gasketed joints.

3.3 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow, non-pressure drainage piping according to the following:
 1. Install piping pitched down in direction of flow, at minimum slope of 1 percent, unless otherwise indicated.
 2. Install piping with as indicated on the drawings and not less than 36-inch minimum cover.
 3. Install piping below frost line.
 4. Install corrugated steel piping according to ASTM A 798/A 798M.
 5. Install reinforced-concrete sewer piping according to ASTM C 1479 and ACPA's "Concrete Pipe Installation Manual."

3.4 PIPE JOINT CONSTRUCTION

- A. Basic pipe joint construction is specified in Division 2 Section "Piped Utilities - Basic Materials and Methods." Where specific joint construction is not indicated, follow piping manufacturer's written instructions.
- B. Join gravity-flow, non-pressure drainage piping according to the following:
 1. Join corrugated steel sewer piping according to ASTM A 798/A 798M.
 2. Join reinforced-concrete sewer piping according to ACPA's "Concrete Pipe Installation Manual" for rubber-gasket joints.

3. Join dissimilar pipe materials with non-pressure-type flexible or rigid couplings.

C. Join force-main pressure piping according to the following:

1. Join PVC pressure piping according to AWWA M23 for gasketed joints.

3.5 MANHOLE INSTALLATION

A. General: Install manholes, complete with appurtenances and accessories indicated.

B. Install precast concrete manhole sections according to ASTM C 891.

C. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches above finished surface elsewhere, unless otherwise indicated.

3.6 STORMWATER INLET INSTALLATION

A. Construct inlet head walls, aprons, and sides of reinforced concrete, as indicated.

3.7 CONNECTIONS

A. Connect non-pressure, gravity-flow drainage piping in building's storm building drains specified in Division 15 Section "Storm Drainage Piping."

3.8 CLOSING ABANDONED STORM DRAINAGE SYSTEMS

A. Abandoned Piping: Close open ends of abandoned underground piping indicated to remain in place. Include closures strong enough to withstand hydrostatic and earth pressures that may result after ends of abandoned piping have been closed. Use either procedure below:

1. Close open ends of piping with at least 8-inch thick, brick masonry bulkheads.
2. Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods suitable for size and type of material being closed. Do not use wood plugs.

B. Backfill to grade according to Division 31 Section "Earth Moving."

3.9 PAINTING

A. Clean and prepare concrete manhole surfaces for field painting. Remove loose efflorescence, chalk, dust, grease, oils, and release agents. Roughen surface as required to remove glaze. Paint the following concrete surfaces as recommended by paint manufacturer:

1. Precast Concrete Manholes: All exterior and interior.

- B. Prepare ferrous frame and cover surfaces according to SSPC-PA 1 and paint according to SSPC-PA 1 and SSPC-Paint 16. Do not paint surfaces with foundry-applied, corrosion-resistant coating.

3.10 IDENTIFICATION

- A. Materials and their installation are specified in division 31 Section "Earth Moving." Arrange for installation of green warning tape directly over piping and at outside edge of underground structures.
 - 1. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.11 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
 - 1. Submit separate reports for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 - 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 - 4. Reinspect and repeat procedure until results are satisfactory.
- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
 - 1. Do not enclose, cover, or put into service before inspection and approval.
 - 2. Test completed piping systems according to authorities having jurisdiction.
 - 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 - 4. Submit separate report for each test.
 - 5. Gravity-Flow Storm Drainage Piping: Test according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
 - a. Option: Test concrete piping according to ASTM C 924.
- C. Leaks and loss in test pressure constitute defects that must be repaired.

- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.12 CLEANING

- A. Clean interior of piping of dirt and superfluous materials. Flush with potable water.
- B. Inspect and clean existing downstream structures at project completion. Remove silt and construction debris completely.

END OF SECTION 334600

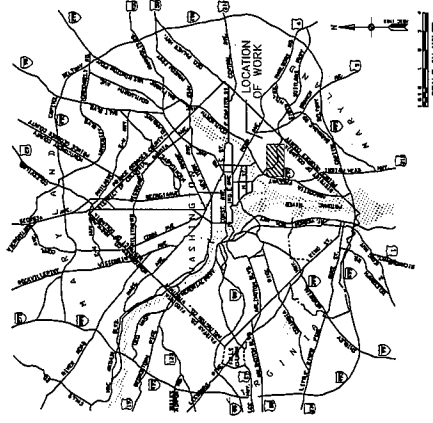
SAINT ELIZABETH'S PARKING LOT EXPANSION

2700 MARTIN LUTHER KING, JR. AVENUE
WASHINGTON, DC 20032



CIVIL ENGINEERING
ALPHA CORPORATION
21351 RIDGETOP CIRCLE
SUITE 200
DUILLES, VIRGINIA 20166
703/450-0800

VICINITY PLAN



LIST OF DRAWINGS

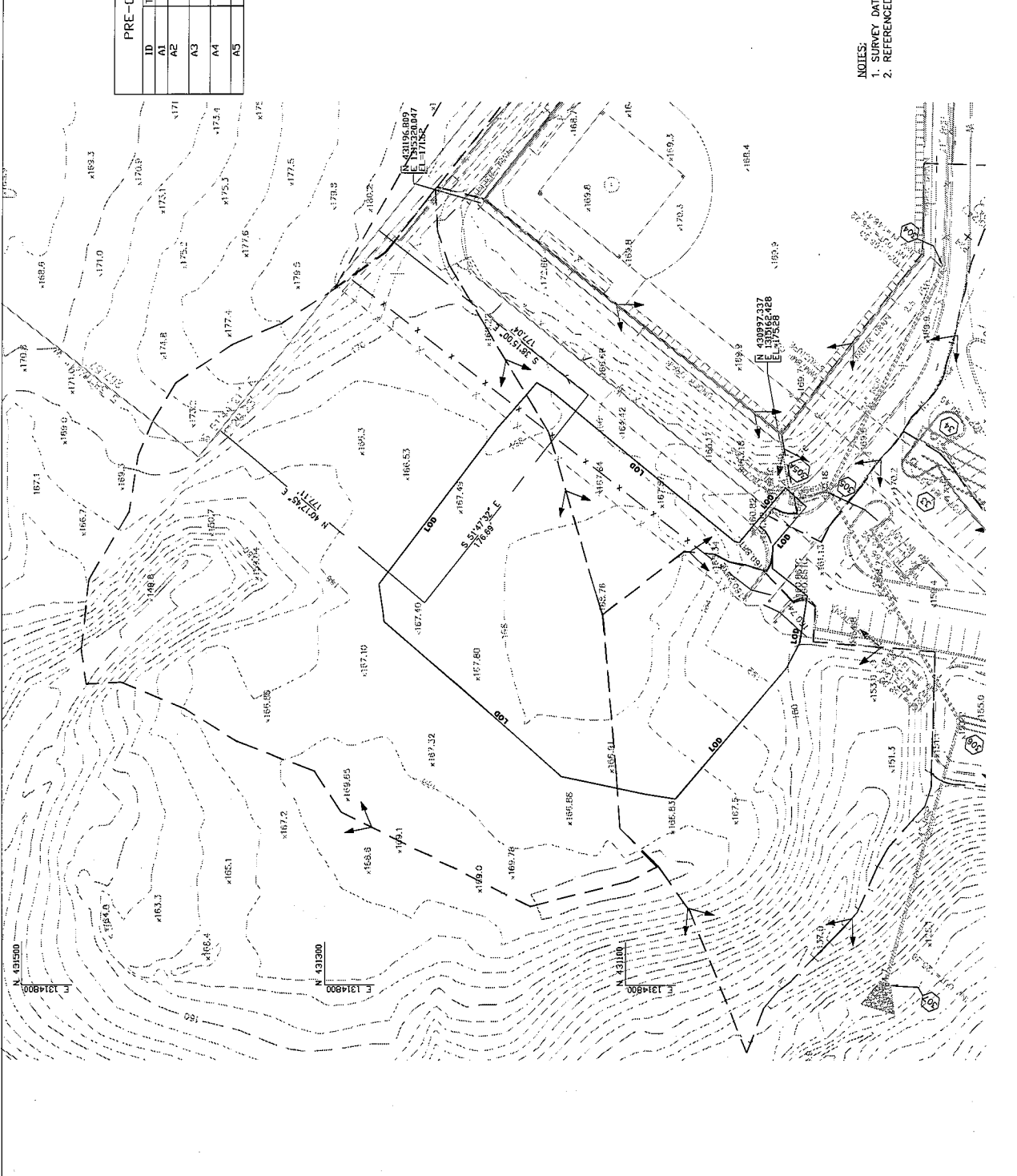
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C-1	EXISTING CONDITIONS PLAN
C-2	DEMOLITION AND EROSION AND SEDIMENT CONTROL PLAN
C-3	SITE PLAN
C-4	GRADING PLAN
C-5	DETAILS
C-6	EROSION AND SEDIMENT CONTROL DETAILS
C-7	EROSION AND SEDIMENT CONTROL NOTES
C-8	STORM WATER MANAGEMENT DETAILS AND CALCULATIONS
C-8A	STORM WATER MANAGEMENT CALCULATIONS AND NARRATIVE
C-9	STORM PROFILES AND CALCULATIONS
C-10	FLOODPLAIN MANAGEMENT PLAN
L-1	BIO-RETENTION PLANTING PLAN
E-001	ELECTRICAL LEGENDS SCHEDULES AND DETAILS
E-002	ELECTRICAL PARKING PLAN

APRIL 09, 2013

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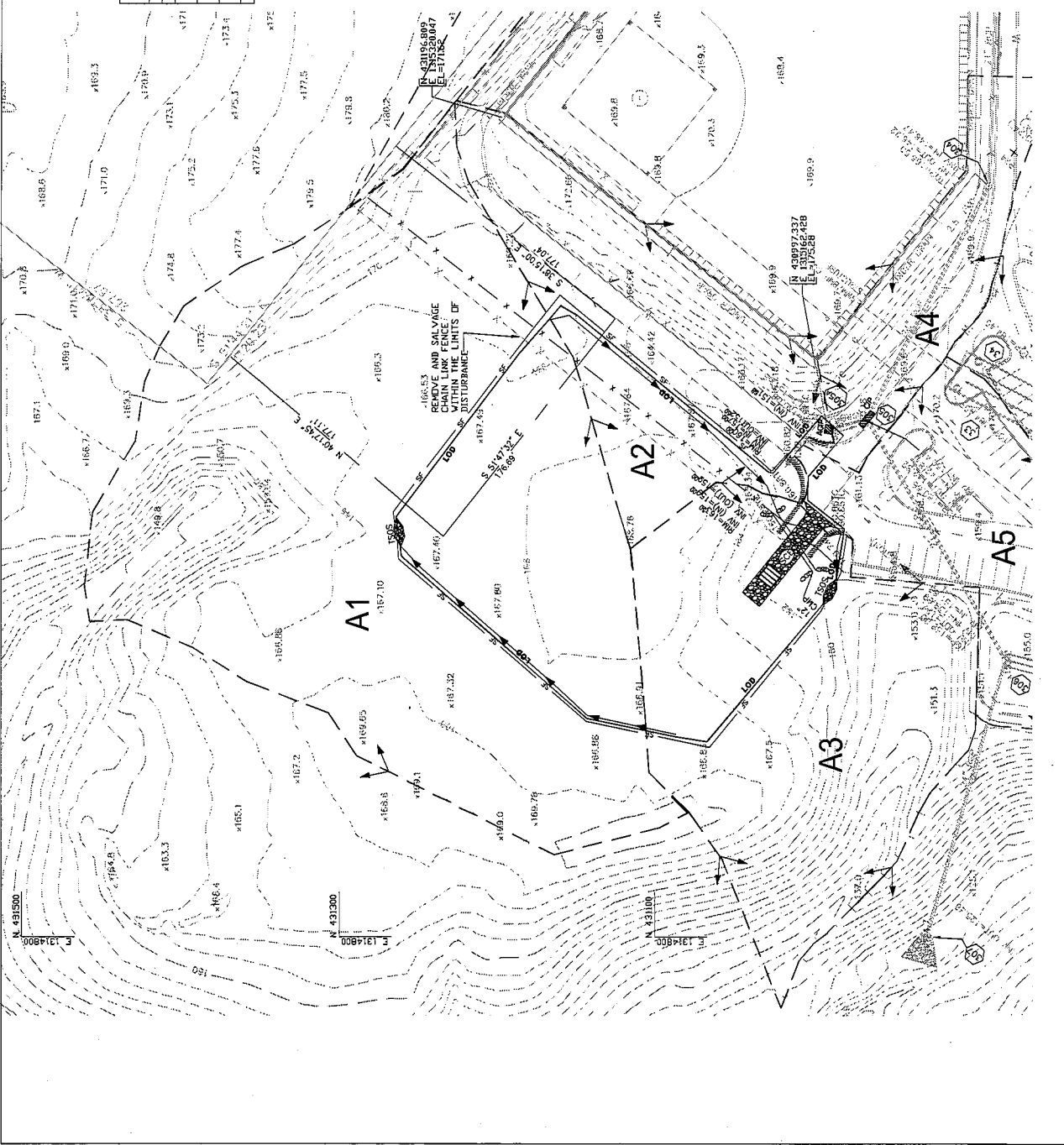
PRE-CONSTRUCTION DRAINAGE AREAS	
ID	DESCRIPTION
A1	PERVIOUS
A2	0.54AC PERVIOUS 0.22AC IMPERVIOUS
A3	1.03AC PERVIOUS 0.00AC IMPERVIOUS (UNTREATED)
A4	0.22AC PERVIOUS 0.00AC IMPERVIOUS (UNTREATED)
A5	0.86AC IMPERVIOUS (TREATED)



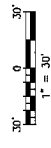
NOTES:
 1. SURVEY DATA RECORDED ON SEPTEMBER 24, 2012.
 2. REFERENCED COORDINATES REFER TO MARYLAND STATE PLANE.

PRE-CONSTRUCTION DRAINAGE AREAS	
ID	DESCRIPTION
A1	PERVIOUS
A2	0.54AC PERVIOUS 0.22AC IMPERVIOUS (UNTREATED)
A3	1.01AC PERVIOUS 0.02AC IMPERVIOUS (UNTREATED)
A4	0.22AC PERVIOUS 0.22AC IMPERVIOUS (UNTREATED)
A5	0.86AC IMPERVIOUS (TREATED)

LEGEND:
 DIMENSION DIME C-5 C-2
 SILT FENCE C-5 C-2
 AT GRADE INLET PROTECTION C-6 C-2
 CURB INLET PROTECTION C-6 C-2
 LIMIT OF DISTURBANCE
 DRAINAGE DIVIDES TO INLETS
 TEMPORARY STONE OUTLET STRUCTURE C-4 C-2
 TEMPORARY CMP CURVEY C-7 C-2
 STABILIZED CONSTRUCTION ENTRANCE C-1 C-2
 DEMOLISH CURB
 SF
 ACIP
 CIP
 LOB
 TSOS
 12" CUP



NOTES:
 1. SURVEY DATA RECORDED ON SEPTEMBER 24, 2012.
 2. REFERENCED COORDINATES REFER TO MARYLAND STATE PLANE.
 3. SEE SHEET C-5 FOR E&S DETAILS AND C-6 FOR E&S NOTES.



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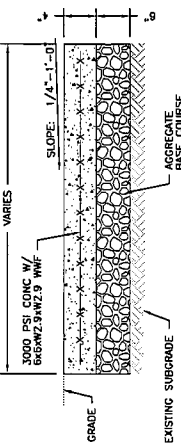
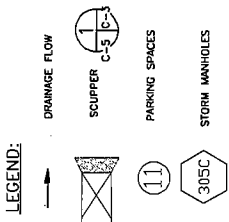
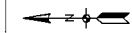
NO.	REV.	DATE	DESCRIPTION

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ST. ELIZABETH HOSPITAL - PARKING LOT EXPANSION
 DISTRICT OF COLUMBIA
 SHEET NO. C-3
 DATE: 04/09/13

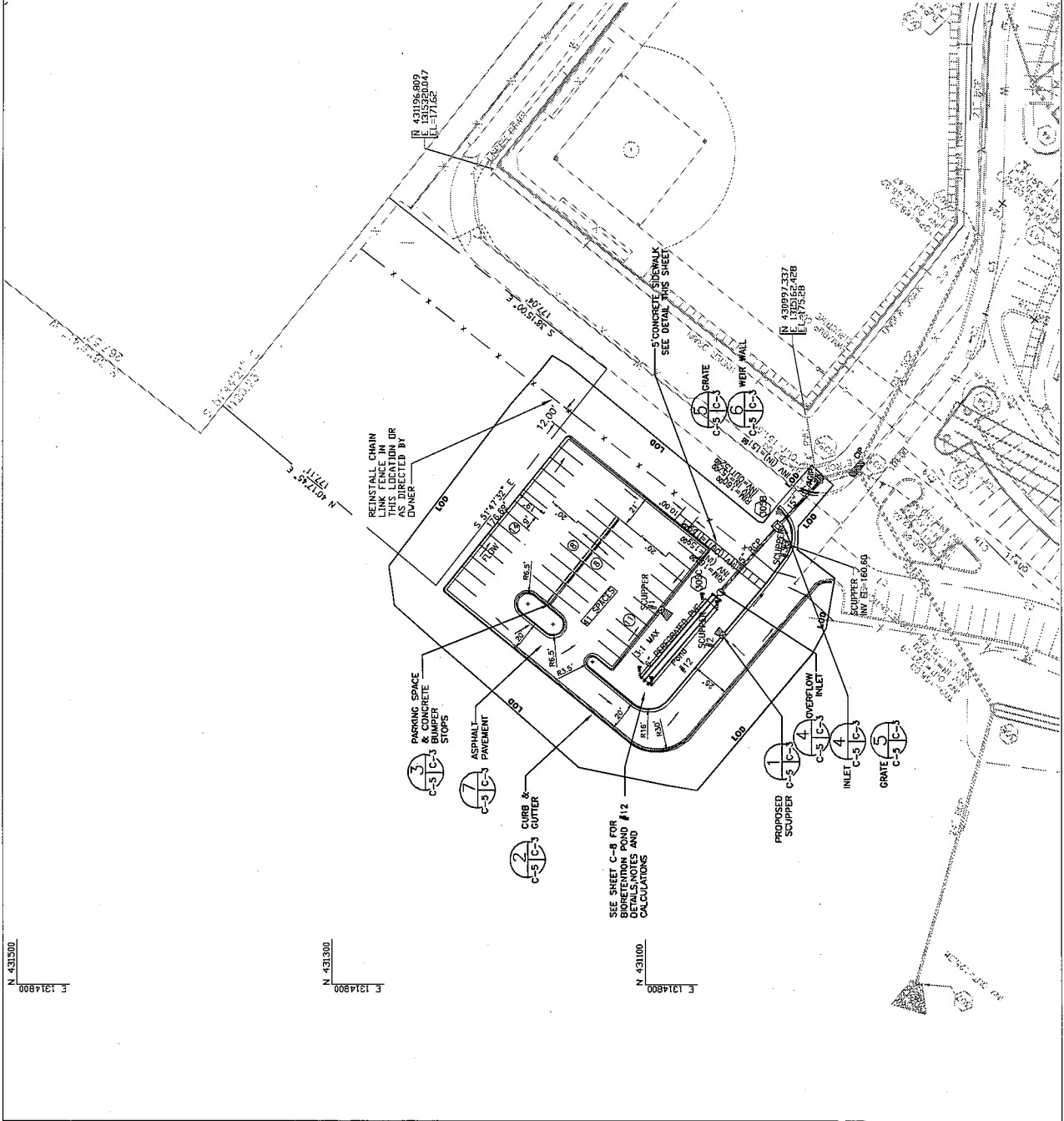
SITE PLAN
 DEPARTMENT OF MENTAL HEALTH
 SIDE PROJECT NO.



NOTE
 1. PROVIDE CONTROL JOINTS AT 4'-0" ON CENTERS (MAX).

CONCRETE SIDEWALK
 NOT TO SCALE

NOTES:
 1. FILL EXCAVATED FROM PARKING LOT CONSTRUCTION SHALL BE GRADED INTO BERMS ALONG THE EDGES OF LOT
 2. SURVEY DATA RECORDED ON SEPTEMBER 24, 2012.
 3. REFERENCED COORDINATES REFER TO MARYLAND STATE PLANE



GRADING PLAN

POST-CONSTRUCTION DRAINAGE AREAS

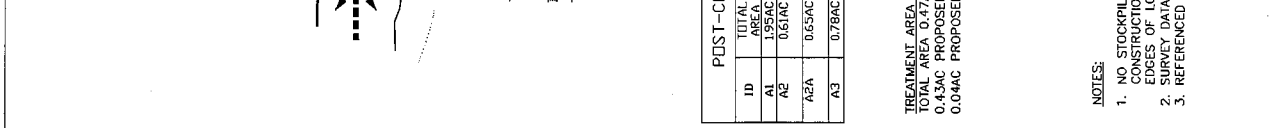
ID	TOTAL AREA	DESCRIPTION
A1	0.61AC	PERVIOUS AREA
A2	0.45AC	PERVIOUS AREA
A2A	0.22AC	PERVIOUS (TREATED)
A3	0.78AC	PERVIOUS AREA

TREATMENT AREA SUMMARY:
 TOTAL AREA 0.47AC PROPOSED IMPERVIOUS
 0.43AC PROPOSED TREATED (DRAINAGE AREA A2A)
 0.04AC PROPOSED UNTREATED (DRAINAGE AREA A2)

NOTES:
 1. NO STOCKPILE, ALL FILL EXCAVATED FROM PARKING LOT CONSTRUCTION SHALL BE GRADED INTO BERMS ALONG THE EDGES OF LOT
 2. SURVEY DATA RECORDED ON SEPTEMBER 24, 2012.
 3. REFERENCED COORDINATES REFER TO MARYLAND STATE PLANE.

LEGEND:

- LOD
- LIMIT OF DISTURBANCE
- PROPOSED DRAINAGE DIVIDES TO INLETS
- PROPOSED CONTOURS
- EXISTING CONTOURS
- PROPOSED SPOT GRADE
- FLOW ARROW
- PROPOSED REVERSE CURB



North Arrow

Scale: 1" = 30'

Coordinate: N 431900, E 1314800

PROPOSED SPOT GRADE: + 166

PROPOSED REVERSE CURB: (Symbol)

PROPOSED CONTOURS: 166, 167, 168

EXISTING CONTOURS: 166, 167, 168

PROPOSED DRAINAGE DIVIDES TO INLETS: (Symbol)

LIMIT OF DISTURBANCE: (Symbol)

LOD: (Symbol)

Flow Arrow: (Symbol)

PROPOSED SPOT GRADE: + 166

PROPOSED REVERSE CURB: (Symbol)

PROPOSED CONTOURS: 166, 167, 168

EXISTING CONTOURS: 166, 167, 168

PROPOSED DRAINAGE DIVIDES TO INLETS: (Symbol)

LIMIT OF DISTURBANCE: (Symbol)

LOD: (Symbol)

Flow Arrow: (Symbol)

PROPOSED SPOT GRADE: + 166

PROPOSED REVERSE CURB: (Symbol)

PROPOSED CONTOURS: 166, 167, 168

EXISTING CONTOURS: 166, 167, 168

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED DOWNSTREAM OF DISTURBED AREAS PRIOR TO ANY CLEARING, EXCAVATION AND/OR CONSTRUCTION. MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CONSTRUCTION. MEASURES SHALL BE INSTALLED FOR THE DISTRICT OF COLUMBIA. REFER TO PHASE 1 & 2 EROSION & SEDIMENT CONTROL PLANS. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
2. INSTALL THE APPROPRIATE TYPE OF STORM DRAIN INLET PROTECTION AS REQUIRED BY THE EROSION CONTROL DETAILS.
3. DO NOT ALLOW DEBRIS AND DERRIS TO ACCUMULATE ON STREETS, CLEAN STREETS OR ALLWAYS. REMOVE AND CLEAN SWEEP TRUCK TO THE SATISFACTION OF THE SEDIMENT CONTROL OFFICER.
4. EQUIPMENT WORKING ON DISTURBED AREAS SHALL NOT ENTER ADJACENT ROADWAYS UNTIL IT HAS BEEN INSPECTED AND CLEANED TO THE SATISFACTION OF THE SEDIMENT CONTROL OFFICER.
5. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEANED WHEN THEY REACH 50% CAPACITY. THE TRAPS SHALL BE RETURNED TO ORIGINAL STORAGE VOLUMES.
6. ALL INLET PROTECTION SHALL BE INSPECTED AFTER EACH RAIN EVENT TO ENSURE THAT THE GEOTEXTILE AND/OR THE FILTER STONE IS NOT CLOGGED. WHEN CLOGGED THE GEOTEXTILE SHALL BE REPLACED AND THE STONE CLEANED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY INLET OR DRAIN PIPE THAT BECOMES FILLED OR CLOGGED AS A RESULT OF CONSTRUCTION.
8. ALL DERRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.
9. IF STOCKPILING IS ALLOWED, ALL STOCKPILES SHALL BE STABILIZED WITH DUNE, INSPECTOR APPROVAL, AND WILL REMAIN STABILIZED FOR THE DURATION OF THE PROJECT. OR PIPES IN ACCORDANCE WITH ALL APPLICABLE LAWS & REGULATIONS.
10. CONTRACTOR SHALL PROPERLY DISPOSE OF ANY SEDIMENT CLEANED OUT OF TRAPS OR PIPES IN ACCORDANCE WITH ALL APPLICABLE LAWS & REGULATIONS.
11. ALL DISTURBED AREAS SHALL BE STABILIZED WITH DUNE INSPECTOR APPROVAL. AS THE SITE REACHES FINAL GRADES.
12. ALL Dewatering shall be discharged through an approved dewatering structure prior to discharge into the existing storm drain.
13. CONTRACTOR STAGING AREAS ARE AS DESIGNATED ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND STABILIZATION OF ALL STAGING AREAS TO THE SATISFACTION OF THE SEDIMENT CONTROL INSPECTOR.
14. VOLUME OF EXCAVATION SHOWN HEREON IS NOT TO BE USED BY THE CONTRACTOR AS HIS BASIS FOR BID. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE VOLUME OF EXCAVATION AND/OR FILL REQUIREMENTS FOR BIDDING.

SEDIMENT CONTROL FOR UTILITY CONSTRUCTION

1. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
 2. IMMEDIATELY FOLLOWING PIPE INSTALLATION, BACK FILL, COMPACT AND STABILIZE THE TRENCH AT THE END OF EACH WORKING DAY.
 3. PLACE TEMPORARY SILT FENCE IMMEDIATELY AROUND ANY STOCKPILE OF EXCAVATED TRENCH MATERIAL INTENDED TO REMAIN LONGER THAN ONE WORKING DAY. COVER THE EXCAVATED TRENCH MATERIAL WITH AN IMPERMEABLE MATERIAL SUCH AS PLASTIC SHEETING, SUFFICIENTLY ANCHORED SO AS NOT TO BE DISPLACED BY HIGH WINDS.
 4. WHEN DEWATERING OF TRENCHES IS REQUIRED, USE PORTABLE SEDIMENT TRAPS. PUMP SEDIMENT LADEN WATER FROM THE TRENCHES INTO A SEDIMENT TRAP BEFORE DISCHARGE ON THE SITE OR TO A STORM DRAIN. CHANGE SYSTEM PROTECTED BY AN APPROVED INLET PROTECTION DEVICE.
 5. MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES. DO NOT REMOVE OR DESTROY ANY EROSION AND SEDIMENT CONTROL DEVICES APPROVED BY THE EROSION & SEDIMENT CONTROL INSPECTOR.
 6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ACCESS TO ALL EROSION AND SEDIMENT CONTROL DEVICES UNTIL THE DEVICES ARE REMOVED.
 7. THE EROSION AND SEDIMENT CONTROL DEVICES PRESENTED ON THIS SHEET SHOULD BE USED FOR GUIDANCE ONLY. COORDINATE THE INSTALLATION AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES WITH THE EROSION & SEDIMENT CONTROL INSPECTOR.
- SEQUENCE OF CONSTRUCTION**
1. THE CONTRACTOR SHALL CALL THE INSPECTION/ENFORCEMENT BRANCH, WATERSHED PROTECTION DIVISION, DISTRICT DEPARTMENT OF THE ENVIRONMENT AT 202-535-2240 FOR A PRE-CONSTRUCTION MEETING 72 HOURS PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.
 2. INSTALL ALL EROSION AND SEDIMENT CONTROLS, INCLUDING PERIMETER CONTROLS, TEMPORARY STONE OUTLET STRUCTURES, AND INLET PROTECTION, AS THE FIRST CONSTRUCTION ITEM OF
 3. INSTALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH E&S PLAN AND DETAIL SHEET.
 4. CONSTRUCT AND INSTALL NEW IMPROVEMENTS.
 5. COMPLETELY STABILIZE ALL AREAS UP STREAM OF BAO-RETENTION POND
 6. INSTALL BAO-RETENTION POND AND STABILIZE
 7. CONDUCT REQUIRED TESTING.

DUST CONTROL STANDARDS & SPECIFICATIONS

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE SO AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DEleterious MATERIAL, TO BE USED FOR ON-SITE DUST CONTROL.
3. ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST ENDSURGES.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES.
 - B. ABRASIVE SPRAY BAR LEGS, MISTLE SPRAYS AND SPRAY PATTERNS TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER.
 - C. DISPENSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8MPa). WATER SHALL BE APPLIED AT A RATE OF 100 GPM PER LINEAL FOOT OF SPRAY BAR SUCH AS FOLLWS:
6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES.
 - B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NOISSE CONDITIONS SUCH AS FOLLWS:
 - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND THE SITE BOUNDARIES.

CONSTRUCTION NARRATIVE

THIS PROJECT WILL INCLUDE THE CONSTRUCTION OF A PARKING LOT, STORM WATER UTILITIES, ACCESS ROAD WORK, AND A BIORETENTION POND AT ELIZABETH'S HOSPITAL IN THE DISTRICT OF COLUMBIA.

SEMENT AND EROSION CONTROL MEASURES SHALL BE UTILIZED TO CONTROL EROSION AND SEDIMENTATION FROM ALL LAND DISTURBING ACTIVITIES. ALL CONSTRUCTION SHALL BE STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, AND TEMPORARY STONE OUTLET STRUCTURES, DIVERSION DRE AND DRAINAGE PIPES SHALL BE INSTALLED AND STABILIZATION OF DISTURBED AREAS SHALL BE COMPLETED PRIOR TO THE START OF ANY CONSTRUCTION TRUCK, AND PROPER DISPOSAL OF SURPLUS MATERIALS.

IN ADDITION TO THE MEASURES LISTED ABOVE, THE FOLLOWING PHASAGES, INDICATE SEDIMENT AND EROSION CONTROL PRACTICES THAT SHALL BE PERFORMED:

PRIOR TO CLEARING AND GRUBBING, INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON E&S PLANS. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE TO TEMPORARY STONE OUTLET STRUCTURE PRIOR TO INSTALLATION OF ROADWAYS.

INSTALL EROSION AND SEDIMENT CONTROLS MEASURES PER E&S PLANS. ALL E&S MEASURES SHALL BE DONE TO THE SATISFACTION OF THE INSPECTION AUTHORITY. TEMPORARY STABILIZATION OF LOCALIZE DISTURBED AREAS BIORETENTION #2 CAN BE CONSTRUCTED.

TOTAL AREA OF SITE	173.41	ACRES
AREA DISTURBED	1.13	ACRES
TOTAL CUT	±1,626	CUBIC YARDS *
TOTAL FILL	±1,626	CUBIC YARDS *
OFFSITE WASTE/SPORROW AREA LOCATION	±1,626	CUBIC YARDS
ONSITE FILL IN BERMS ON EDGE OF LOT		

* THESE NUMBERS SHALL BE USED FOR PERMIT PURPOSES ONLY AND NOT FOR BIDDING.

TEMPORARY SEEDING SUMMARY

SEED MIXTURE FOR HARDNESS ZONE 6b		SEEDING DATES	SEEDING DEPTHS (IN)	FERTILIZER RATE (10-10-10)	SEEDING RATE (LB/A)
NO	SPECIES	APPLICATION RATE (G/PA)	SEEDING DATES	SEEDING DEPTHS (IN) <td>FERTILIZER RATE (10-10-10) </td>	FERTILIZER RATE (10-10-10)
N/A	ANNUAL PERGRASS	50	3/11-4/20	1/4-1/2	600 LB/Ac
N/A	MILLET	50	8/15-11/1	1/2	2

PERMANENT SEEDING SUMMARY

SEED MIXTURE FOR HARDNESS ZONE 6b		SEEDING DATES	SEEDING DEPTHS (IN)	FERTILIZER RATE (10-20-20)	SEEDING RATE (LB/A)
NO	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS (IN) <td>FERTILIZER RATE (10-20-20) </td>	FERTILIZER RATE (10-20-20)
3	FALL BLUEGRASS	125	3/1-5/15	1/4-1/2	N P205 K20
	PERENNIAL PERGRASS	15	8/15-11/15		90 175 175
	KENTUCKY BLUEGRASS	10			600 LB/Ac 18/Ac 18/Ac

TURFGRASS ESTABLISHMENT

1. AREAS WHERE TURFGRASS MAY BE DESIRED, INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. AREAS TO RECEIVE SEED SHALL BE TILLED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVELS AND RAKED TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS SHALL BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY. USE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
2. KENTUCKY BLUEGRASS - FULL SUN MIXTURE - FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL OF MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING SHALL BE 1 TO 2 POUNDS/1000 SQUARE FEET. MINIMUM OF THREE BLUEGRASS CULTIVARS SHALL BE USED, RANGING FROM A MINIMUM OF 10% TO A MAXIMUM OF 50% OF THE MIXTURE BY WEIGHT.
3. KENTUCKY BLUEGRASS/PERENNIAL PERGRASS - FULL SUN MIXTURE - FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL PERGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN WITH EACH CULTIVAR RANGING FROM 10% TO 35% OF THE MIXTURE WEIGHT.
4. TALL FESCUE/KENTUCKY BLUEGRASS - FULL SUN MIXTURE - FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS BY LOT, CERTIFIED 0-3% seeding rate: 5 to 8 lb/1000 sq. ft. one or more cultivars may be blended.
5. KENTUCKY BLUEGRASS/FINE FESCUE - SHADE MIXTURE - FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED AREAS. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS AND CERTIFIED FINE FESCUE CULTIVARS MUST BE CHOSEN WITH EACH CULTIVAR RANGING FROM 10% TO 35% OF THE MIXTURE WEIGHT.
6. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM 10% TO 35% OF THE MIXTURE WEIGHT.
7. THE FOLLOWING CULTIVARS ARE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY NAMED #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".
8. IDEAL TIMES OF SEEDING

MARCH 1 - MAY 15, AUGUST 15 - OCTOBER 15 (HARDNESS ZONES - 7a, 7b)

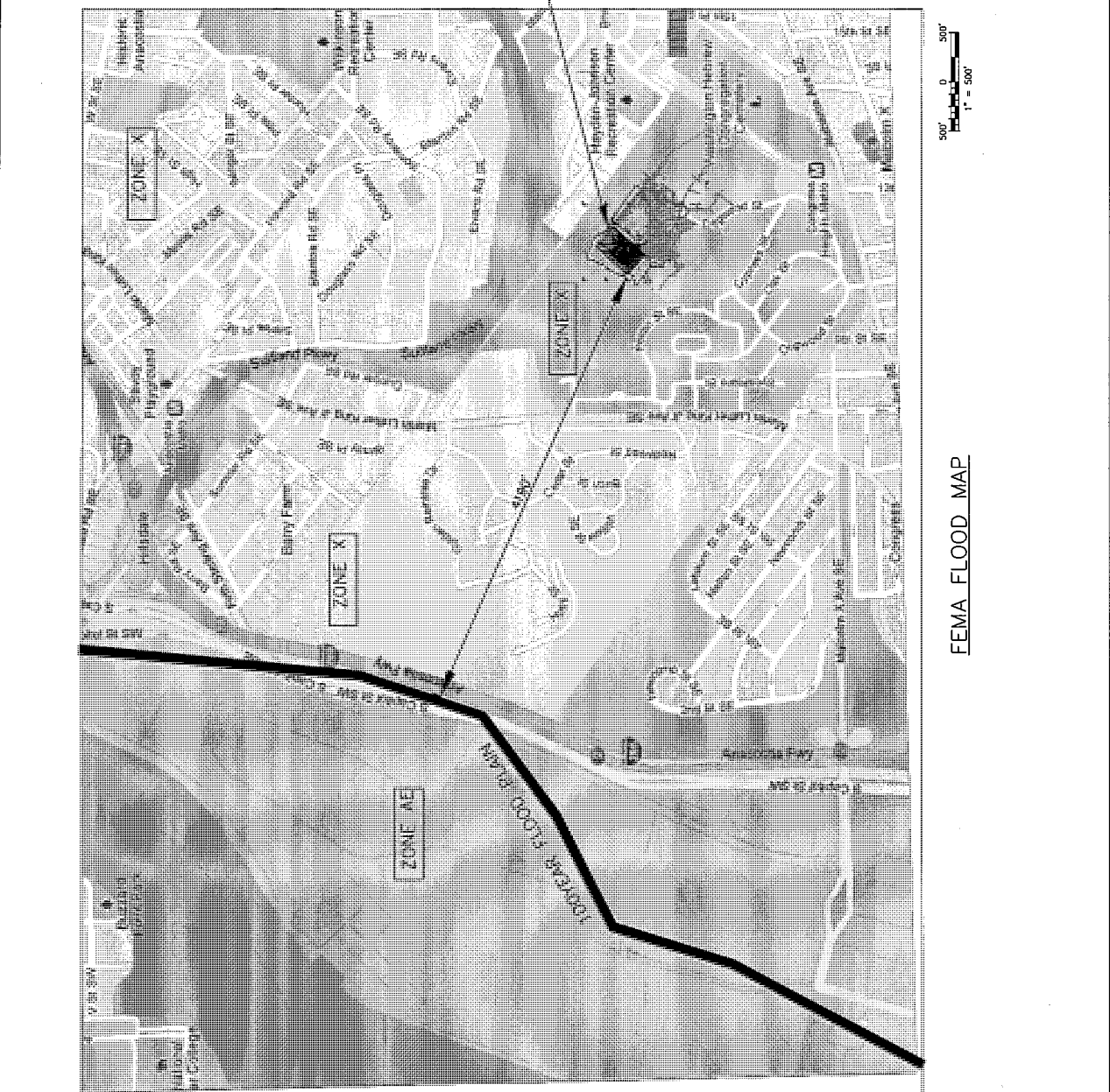
1. SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDLINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2" 1" EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDLINGS ARE MADE LATE IN THE SEASON. INSPECT ALL SEEDING AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON.
2. ONCE THE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUND COVER TO BE CONSIDERED ADEQUATELY STABILIZED.
3. IF THE STAND PROVIDES LESS THAN 40% COVERAGE, RESEEDING FOLLOWING ORIGINAL LINE. FERTILIZER, SEEDS PREPARATION AND SEEDING RECOMMENDATIONS.
4. IF THE STAND PROVIDES BETWEEN 40% AND 54% GROUND COVERAGE, OVERSEEDING AND FERTILIZING USING HALF OF THE RATES ORIGINALLY APPLIED MAY BE NECESSARY.
5. THE SEEDING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SEEDS FROM THE UNIVERSITY OF MARYLAND AND OTHER REPUTABLE TURFGRASS SUPPLIERS REFER TO THE UNIVERSITY OF MARYLAND PUBLICATION, "LAWN CARE IN MARYLAND" BULLETIN NO. 171.

!!! WARNING - EROSION & SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED !!!

ST. ELIZABETH HOSPITAL-PARKING LOT EXPANSION FLOODPLAIN MANAGEMENT PLAN		SDE PROJECT NO. _____ DISTRICT OF COLUMBIA DEPARTMENT OF MENTAL HEALTH	
DATE	09/16/13	SCALE	AS SHOWN
DRAWN BY	AS SHOWN	CAD FILE	09-13-092-04
CHECKED BY	AS SHOWN	SHEET NO.	C-10

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NOTES:
 1. SOURCE: FEMA FIRM REVISED SEPTEMBER 27, 2010.
 2. MAPS REFERENCED 1100010076C AND 11001057C

DEFINITIONS:
 ZONE X= LESS THAN 0.2% ANNUAL CHANCE OF FLOOD OR
 ZONE AE= FLOOD HAZARD AREA WITH 1% ANNUAL CHANCE OF FLOOD

FEMA FLOOD MAP

NO.	DATE	DESCRIPTION

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ST. EUZABETH HOSPITAL-PARKING LOT EXPANSION
 SIDE PROJECT NO.

DISTRICT OF COLUMBIA
 DEPARTMENT OF MENTAL HEALTH
 ST. EUZABETH HOSPITAL-PARKING LOT EXPANSION
 SIDE PROJECT NO.

SHEET NO. 1-1
 DATE: 04/13/13
 DRAWN BY: AS SHOWN
 CHECKED BY: C043-682-00

PLANTING TABLE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING	NOTES
BDH	BETULA NIGRA	DURA HEAT RIVER BIRCH	10'-0"	B&B	12' DC	
CO	CELTIS OCCIDENTALIS	HACKBERRY	2" CAL	B&B	AS SHOWN	
MSA	MIXXANTHUS SINENSIS	EULALIA GRASS(DWARF)	1 GAL CONTAINER	CONTAINER	18" DC	

NOTES:
 1. SEED ALL AREAS WITHIN THE LIMITS OF DISTURBANCE THAT ARE NOT PAVED, PLANTED OR MULCHED.
 2. SEE SHEET C-6 FOR TURF SEEDING TABLE AND NOTES.

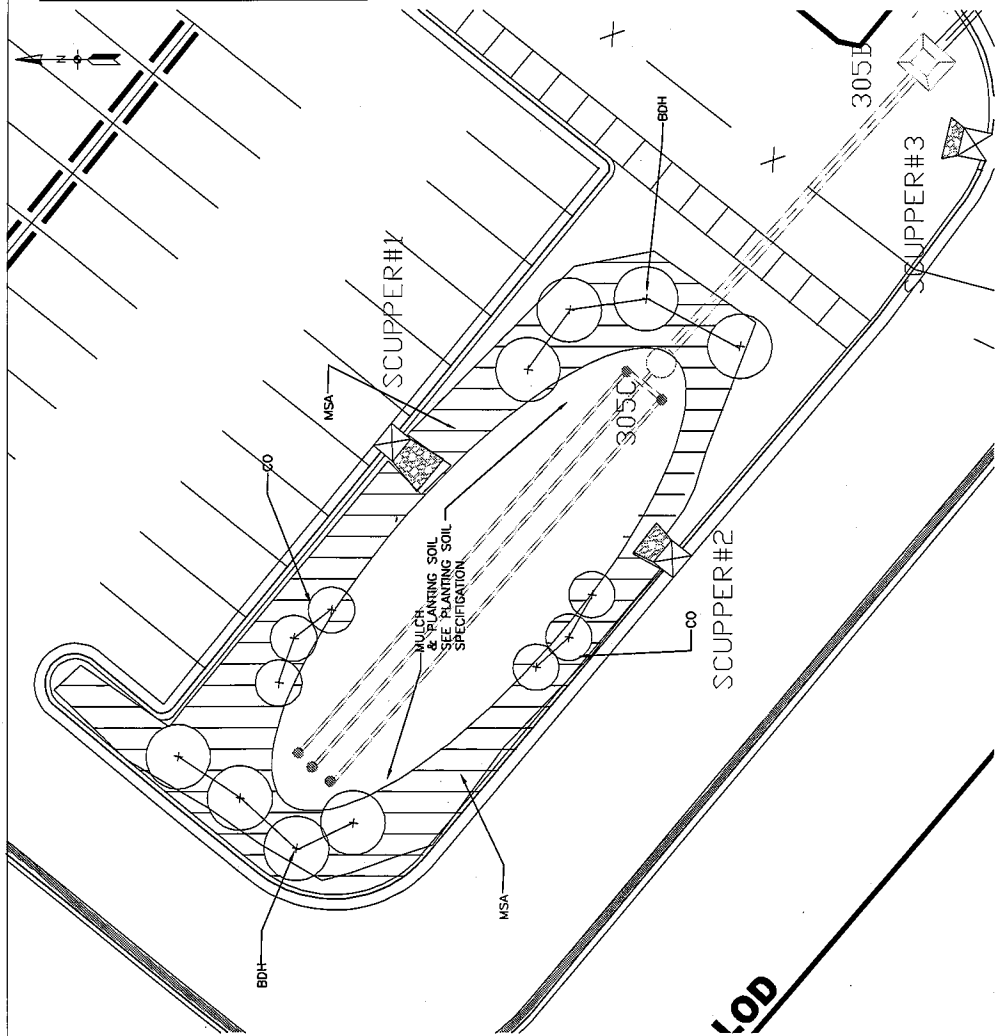
PLANTING SOIL SPECIFICATION

1. Planting Soil
 The bioretention areas shall contain a planting soil mixture of 50% sand, 30% leaf compost (fully decomposed, particle size 1/8" or less), and 20% topsoil. Topsoil shall be sandy loam or loamy sand of higher permeability than the underlying soil. The soil shall be free of rocks, roots or similar objects greater than one inch, brush, or any other material or substance which may be harmful to plant growth, or a hindrance to plant growth or maintenance. The top soil shall be free of plants or plant parts of Bermuda grass, Quack grass, Johnson grass, Mugwort, Nuttall's, Poison Ivy, Canadian Thistle or others as specified. It shall not contain toxic substances harmful to plant growth.
 The top soil shall be tested and meet the following criteria:
 pH: 6.0 to 7.0
 Organic matter: Greater than 1.5%
 Magnesium (Mg): 100+ Units
 Phosphorus (P2O5): 150+ Units
 Potassium (K2O): 120+ Units
 Soluble salts: not to exceed 900 ppm/9 MHHDS/cm (soil) not to exceed 3000 ppm/2.5 MHHDS/cm (organic mix)
 The following testing frequencies shall apply to the above soil constituents:
 pH: Organic Matter: 1 test per 30 cubic yards, but no more than 1 test per Bioretention Area.
 Magnesium, Phosphorus, Potassium, Soluble Salts:
 1 test per 500 cubic yards, but no less than 1 test per borrow source
 The grain size analysis shall be performed per 90 cubic yards of planting soil, but no less than 1 test per Bioretention Area. Soil tests must be verified by a qualified professional.

2. Mulch
 A mulch layer shall be provided on top of the planting soil. An acceptable mulch layer shall include shredded hardwood or shredded wood chips or other similar product. If the approved mulch products all must be well aged, uniform in color, and free of foreign material including plant material.

3. Sand
 The sand for bioretention basins when utilized, shall be ASTM C-33 Concrete Sand and free of deleterious material.

4. Compaction
 Soil shall be placed in lifts less than 18 inches and lightly compacted (minimal compactive effort) by tamping or rolled with a hand-operated landscape roller.



10'
 0
 10'
 1" = 10'

NO.	REV.	DATE	DESCRIPTION

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NO.	REV.	DATE	DESCRIPTION

ST. ELIZABETH HOSPITAL - PARKING LOT EXPANSION
 DEPARTMENT OF MENTAL HEALTH
 DISTRICT OF COLUMBIA
 SDE PROJECT NO. _____
 DATE: 05/09/50
 SHEET NO. E002



GENERAL NOTES

1. THE EXISTING ROUTINGS SHOWN ARE SCHEMATIC IN NATURE, AND ARE ONLY TO AID THE CONTRACTOR IN HIS/HER UNDERSTANDING OF THE PROJECT. THE CONTRACTOR SHALL STUDY ALL CONDITIONS AND PROVIDE ROUTINGS ACCORDINGLY. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO USE HIS/HER BEST MEANS AND METHODS IN LOCATING AND INSTALLING THE FEEDERS IN HARMONY WITH THE BUILDING CONDITIONS AND OTHER TRADES' WORK.
2. CONDUIT ROUTINGS ARE SHOWN SCHEMATICALLY. LOCATE ACTUAL CONDUITS MINIMUM 8" FROM CENTERPOINT OF ANY TREE PLANTING LOCATIONS, COORDINATE WITH CIVIL ENGINEERING DRAWINGS.
3. REFER TO DINK E001 FOR SITE LIGHTING FIXTURES SCHEDULE.
4. COORDINATE POWER OUTAGES TO THE PARKING LOT LIGHTING WITH THE MAIN HOSPITAL.
5. EXTEND EXISTING #6 AWG WIRING FOR CIRCUIT #13 FROM THE NOTED POLE TO FEED THE NEW POLE LIGHTING VIA EXISTING UNDERGROUND PVC 1-1/2" CONDUIT.
6. EXTEND EXISTING CIRCUIT #13 & #15 FROM NOTED EXISTING POLE TO THE NEW POLES.
7. EXISTING POLE LIGHTING ARE ALREADY RAN (CIRCLED) VIA EXISTING LIGHTING CONTROL PANEL IN THE MAIN HOSPITAL. THE NEW POLE LIGHTING SHALL BE CONTROLLED THE SAME WAY.

