INVITATION TO BID – SEALED BID

SEALED BIDS will be received by the PURCHASING DIVISION of the CITY OF BATON ROUGE, EAST BATON ROUGE PARISH until 11:00 am CST, August 12, 2026

TITLE: 26-PARKLET DOWNTOWN DEVELOPMENT DISTRICT THIRD STREET PARKLET	RETURN BID TO: PURCHASING DIVISION Physical Address: 222 St. Louis Street 8th Floor Room 826 Baton Rouge, LA 70802 **NOTE: U.S. Postal Regular & Expedited Mail do not deliver to our physical address; delays
FILE NO: 26-PARKLET AD DATES: 07/21/26 & 07/28/26	
SHIP TO ADDRESS: Downtown Development District 247 Florida Street Baton Rouge, La. 70801	Contact Regarding Inquiries: Purchasing Analyst : Richard Terrell Telephone Number: 225-389-3259 x 3263 Email: rterrell@brla.gov
VENDOR NAME	MAILING ADDRESS
REMIT TO ADDRESS	CITY, STATE, ZIP
TELEPHONE NO.	E-MAIL
FEDERAL TAX ID OR SOCIAL SECURITY NUMBER	TITLE
AUTHORIZED SIGNATURE (Required)	PRINTED NAME

TO BE COMPLETED BY VENDOR: CONTRACTORS LICENSE IF APPLICABLE

1. _____STATE DELIVERY DAYS MAXIMUM AFTER RECEIPT OF ORDER.
2. _____% discount for payment made within 30 days. Discount for payment made in less than 30 days, or less than 1%, or applicable to an indefinite quantity contract will be accepted but not an award consideration.

Bidders should acknowledge all addenda and the date received.
The Bidder acknowledges receipt of the following issued ADDENDA

No.	Date:	No.	Date:	No.	Date:	No.	Date:
No.	Date:	No.	Date:	No.	Date:	No.	Date:

F.O.B.: DESTINATION - PAYMENT TERMS: NET 30
ALL BLANKS ON THIS PAGE SHOULD BE COMPLETED TO AVOID REJECTION OF BID

The signature on this document certifies that proposer has carefully examined the instructions to bidders, terms and specifications applicable to, and made a part of this solicitation. By submission of this document, proposer further certifies that the prices shown are in full compliance with the conditions, terms and specifications of this solicitation. Bid must be signed in the designated space above and by person authorized to sign for bidder.

No alterations, changes or additions are allowed on this solicitation, and no additional information, clarifications or other documents are to be included unless specifically required by the specification. Any errors in extensions of prices will be resolved in favor of unit prices submitted.

If services are to be performed in East Baton Rouge City-Parish, evidence of a current occupational license and/or permit issued by the City-Parish shall be supplied by the successful vendor, if applicable.

INSTRUCTIONS TO BIDDERS / TERMS & CONDITIONS - SEALED BIDS

Bidders are urged to promptly review the requirements of this specification and submit questions for resolution as early as possible during the bid period. Questions or concerns must be submitted in writing to the purchasing division during the inquiry period. Otherwise, this will be construed as acceptance by the bidders that the intent of the specifications is clear and that competitive bids may be obtained as specified herein. Protests with regard to the specification documents will not be considered after bids are opened.

1. Read the entire bid, including all terms and conditions and specifications.
2. Bids are mailed only as a courtesy. The City - Parish does not assume responsibility for failure of bidders to receive bids. Bidders should rely only on advertisements in the local newspaper, and should personally pick up bids and specifications. Full information may be obtained, or any questions answered, by contacting the Purchasing Division, 222 Saint Louis Street, 8th Floor, Room 826, Baton Rouge, LA 70802 or by calling (225) 389-3259. The City will not accept fax proposals or proposals sent via e-mail.
3. Only one bid will be accepted from each bidder for the same job. Alternates will not be accepted unless specifically requested in the proposal. Submission of more than one bid or alternates not requested may be grounds for rejection of all bids by the bidder.

4. **The method of delivery of bids is the responsibility of the bidder. All bids must be received by the Purchasing Division on or before the specified bid opening date and time. Late bids will not be considered under any circumstances.** NO FAXED OR EMAIL BIDS WILL BE ACCEPTED.

5. Failure to deliver within the time specified in the bid will constitute a default and may cause cancellation of the contract. Where the city has determined the contractor to be in default, the city reserves right to purchase any or all products or services covered by the contract on the open market and to charge the contractor with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting contractor will be considered.

6. The City Parish specifically reserves the right to evaluate bids and award items separately, grouped or on an all or none basis, to accept the bid which is in the best interest of the City parish, and to reject all proposals if that is in the best interest of the City Parish.
7. Bid forms and submissions must be downloaded and submitted through the www.centralbidding.com on-line bidding site. Bids shall be accepted only on proposal forms furnished by the City of Baton Rouge and Parish of East Baton Rouge Purchasing Division. The City - Parish will only accept bids from those bidders in whose names the proposal forms and/or specifications were issued. Altered or incomplete proposals, or the use of substitute forms or documents, shall render the bid non- responsive and subject to rejection. The entire proposal package, including the specifications and copies of any addenda issued shall be submitted to the Purchasing Division as the bid

8. All bids must be typed or written in ink. Any erasures, strikeover and/or changes to prices should be initialed by the bidder. Failure to initial may be cause for rejection of the bid as non-responsive.

9. All bids must be manually signed by a properly authorized party. Failure to do so shall cause the bid to be rejected as non-responsive.
10. Where one or more vendor's exact products or typical workmanship is designated as the level of quality desired or equivalent, the Purchasing Division reserves the right to determine the acceptability of any equivalent offered. If bidding other than specified, sufficient information should be enclosed with the bid in order to determine quality, suitability, and compliance with the specifications. Failure to comply with this request may eliminate your bid from consideration. If requested, literature and/or specifications must be submitted within seven (7) days.

11. Detailed factory specifications, illustrative literature and any deviations should be submitted with bid as required by the specifications or on the bid form. Representative samples shall be submitted upon request, if appropriate. Bidders proposing an equivalent brand or model should submit with the bid information (such as illustrations, descriptive literature, and technical data) sufficient for the City to evaluate quality, suitability, and compliance with the specifications in the solicitation.

12. Written addenda issued prior to bid opening which modifies the bid shall become a part of the bid, and shall be incorporated within the purchase order and/or contract. Only a written interpretation or correction by Addendum shall be binding. Bidders shall not rely upon any interpretation or correction given by any other method. Failure to acknowledge receipt of addenda (if any) shall render the bid non- responsive and subject to rejection.

13. For Printing solicitations, artwork, dies and/or molds shall become the property of the City - Parish Government and must be returned to the Purchasing Division, 222 Saint Louis Street, 8th Floor, Room 826, Baton Rouge, LA 70802, upon completion of the order.

14. All applicable chemicals, herbicides, pesticides and hazardous materials must be registered for sale in Louisiana by the Department of Agriculture, State of Louisiana, registered with the EPA and must meet all requirements of Louisiana State Laws. Bidders should submit product label, material safety data sheet and EPA registry number with bid or within five (5) days of request from purchasing office. This information will be required on any subsequent deliveries if there is a change in chemical content or a different product is being supplied. Failure to submit this data may be cause for the bid to be rejected or the contract canceled.is being supplied. Failure to submit this data may be cause for the bid to be rejected or the contract canceled.

15. Delivery of items must be made on time to City - Parish final destinations within East Baton Rouge Parish. All freight charges shall be prepaid by vendor. EAST BATON ROUGE PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.. Late deliveries or unsatisfactory performance may be cause to cancel the Purchase Order or contract.

16. EAST BATON ROUGE PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission

17. The State of Louisiana Code of Governmental Ethics places restrictions on awarding contracts or purchase orders to persons who are employed by any agency of the City - Parish Government, or any business of which he or his spouse has more than a twenty-five percent (25%) interest. The Code also prescribes other restrictions against conflict of interest and establishes guidelines to assure that appropriate ethical standards are followed. If any question exists regarding potential violation of the Code of Ethics, bidders should contact the Purchasing Division prior to submission of the bid. Any violation of the Code of Ethics shall be grounds for disqualification of bid or cancellation of contract.

18. The City-Parish reserves the right to award items separately, grouped or on an all-or-none basis and to reject any or all bids and waive any informalities

19. Quantities, if shown, are estimated only. Smaller or larger quantities may be purchased based upon the needs of the City-Parish. There is no guaranteed minimum quantity.

20. All Prices bid shall remain in effect for a period of at least sixty (60) days. City - Parish purchases are excluded from state and local taxes.

21. Acceptance of award by vendor, either in writing or by shipment of any article described herein, shall effectuate a contract between City - Parish and vendor for the materials described herein, and no additional conditions or amendments shall have any effect unless approved in writing by City - Parish.

22. The City - Parish is an equal opportunity employer, and does not discriminate against anyone on the basis of race, sex, creed, color, religion, national origin, ancestry, reprisal, disability, sexual orientation, marital status or political affiliation.

23. In accordance with Louisiana Revised Statutes, a preference may be allowed for equivalent products produced, manufactured or grown in Louisiana and/or firms doing business in the State of Louisiana. Do you claim this preference if allowed? YES ____ NO____. If this preference is claimed, attach substantiating information to the proposal to show the basis for the claim.

24. **Right To Audit Clause: The Contractor shall permit the authorized representative of the City-Parish to periodically inspect and audit all data and records of the Contractor relating to his performance under this contract.**

25. Terms and Conditions: This solicitation contains all terms and conditions with respect to the purchase of the goods and/or services specified herein. Submittal of any contrary terms and conditions may cause your bid to be rejected. By signing and submitting a bid, vendor agrees that contrary terms and conditions which may be included in their bid are nullified; and agrees that this contract shall be construed in accordance with this solicitation and governed by the laws of the State of Louisiana as required by Louisiana Law.

26. In accordance with the provisions of LA. R.S. 38:2212.9, in awarding contracts after August 15, 2010, any public entity is authorized to reject the lowest bid from, or not award the contract to, a business in which any individual with an ownership interest of five percent or more has been convicted of, or has entered a plea of guilty or ***Nolo Contendere*** to any state felony crime or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of Chapter 10 of this Title, professional, personal, consulting, and social services procurement under the provisions of Chapter 16 of Title 39 of the Louisiana Revised Statutes of 1950, or the Louisiana Procurement Code under the provisions of Chapter 17 of Title 39 of the Louisiana Revised Statutes of 1950.

27. Certification of no suspension or debarment. By signing and submitting any bid for $25,000 or more, the bidder certifies that their company, any subcontractors, or principals are not suspended or debarred by the general services administration (GSA) in "Audit Requirements In subpart F of the Office of Management and Budget's uniform administrative requirements, cost principles, and audit requirements for federal awards" (Formerly OMB circular a-133).

    a. A list of parties who have been suspended or debarred can be viewed via the internet at http://www.sam.gov.
    b. A contract award must not be made to parties listed on the government wide exclusions in the System for Award Management. (SAM), in accordance with OMB guidelines at 2 C.F.R. 180. SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

28. Bid prices shall include delivery of all items F.O.B. destination or as otherwise provided. Bids containing "Payment in Advance" or "C.O.D. requirements may be rejected. Payment is to be made within 30 days after receipt of properly executed invoice or delivery, whichever is later.

29. East Baton Rouge Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by East Baton Rouge Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and local taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

30. Bidders may attend the bid opening, but no information or opinions concerning the ultimate contract award will be given at the bid opening or during the evaluation process. Bid tabulations may be accessed at: http://city.brla.gov/dept/purchase/bidresults.asp.

31. Contractor agrees, upon receipt of written notice of a claim of a claim or action, to defend the claim or action, or take other appropriate measure, to indemnify, and hold harmless, the city, its agents and employees from and against all claims and actions for bodily injury, death or property damages caused by fault of the contractor, its officers, its agents, or its employees. Contractor is obligated to indemnify only to the extent of the fault of the contractor, its officers, its agents, or its employees, however the contractor shall have no obligation as set forth with respect to any claim or action from bodily injury, death or property damages arising out of the fault of the City, its officers, its agents, or its employees.

32. In accordance with Louisiana Law (R.S. 12:262.1 and 12:1308.2), all corporations and limited liability companies must be in good standing with the Louisiana Secretary of State at the time of execution of the contract.

33. Vendors submitting signed bids agree to EEOC compliance and certify that they agree to adhere to the mandates dictated by Title VI and VII of the Civil Right Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1975, and agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

34. Bidders must agree to keep informed of and comply with all federal, state and local laws, ordinances and regulations which affect their employees or prospective employees.

35. **All departments and agencies of the City of Baton Rouge, Parish of East Baton Rouge utilize an Enterprise Resource Planning (ERP) system, Vendor Self Service (VSS) via the Tyler Technologies Munis system.**

Vendor Self-Service (VSS) enables vendors to register and maintain information about their organization for the purpose of doing business with City-Parish and receive notifications of business opportunities. The City-Parish procurement activities are subject to the State of Louisiana Public Bid Law, local city-parish ordinances as well as applicable federal statutes as directed by grant providers. Vendors must be registered to receive bid notifications.

New vendors or existing vendors who need to create a VSS account can do so clicking the Registration link at http://brla.gov/vss. Vendors are encouraged to review the step by step https://www.brla.gov/DocumentCenter/View/4899/Vendor-Self-Service-Registration-Guide-PDF before beginning the registration process which may be assessed at https://www.brla.gov/DocumentCenter/View/4899/Vendor-Self-Service-Registration-Guide-PDFide.

Additional information regarding how to do business with EBR City-Parish is available at: https://www.brla.gov/DocumentCenter/View/678.

We also post our scheduled bid openings, as well as unofficial bid tabulations after the bids have opened at http://city.brla.gov/dept/purchase/bids.asp.

Note: Commodity codes are required for setting up your profile. These numbers tell us what commodities and services that you can provide. When agencies request products or services, our buyers pull directly from these numbers to send out solicitations, bids, and quotes. The first 3 numbers are the class numbers; the subclasses are two digit numbers that better describe the commodity or service. For questions regarding commodity codes, please contact purchasing at (225) 389-3259 Ext 0.

Important! - A W-9 Form is required in order to do business with City-Parish. Part of the online enrollment process requires you to upload a completed W-9 form. Please have the completed form in an electronic format so that you can submit it as part of the registration process. The W-9 form can be downloaded from the IRS website. We have created step by step directions on how to properly complete the W-9 Form.

FEDERAL CLAUSES, IF APPLICABLE.

I. Remedies for Breach

Bidder acknowledges that contracts in excess of the simplified purchase threshold ($150,000.00) shall contain provisions allowing for administrative, contractual, or legal remedies for contractor breaches of the contract terms, and shall provide for such remedial actions as appropriate.

II. Termination and Settlement

Bidder acknowledges that contracts in excess of $10,000.00 shall contain termination provisions including the manner in which termination shall be effected and the basis for settlement. In addition, such provisions shall describe conditions for termination due to fault and for termination due to circumstances outside of the contractors' control.

III. Access to Records

Bidder acknowledges that all contracts (except those for less than the small purchase threshold) shall include provisions authorizing the recipient, US Funding Agency, the Comptroller General, or any of their duly authorized representatives access to all books, documents, papers, and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts, and transcriptions.

IV. Equal Employment Opportunity

Bidder acknowledges that all contracts shall contain provisions requiring compliance with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11236 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Dept. of Labor.

V. Copeland "Anti-Kickback" Act

Bidder acknowledges that all construction/repair contracts and sub-grants in excess of $2,000 shall include provisions requiring compliance with the Copeland "Anti-kickback" Act (18 U.S.C. §3141-3148), which provides that each contractor or sub-recipient shall be prohibited from inducing any person employed in the construction, completion, or repair of public work, to give up any part of the entitled.

VI. Davis-Bacon Act

Bidder acknowledges that all construction contracts in excess of $2,000 shall include a provision for compliance with the Davis-Bacon Act, which requires contractors to pay laborers and mechanics wages at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. Additionally, contractors shall be required to pay wages not less than once a week.

VII. Contract Work Hours and Safety Standards Act

Bidder acknowledges that all construction contracts in excess of $2,000, and all other contracts involving the employment of mechanics or laborers in excess of $2,500 shall include provisions for compliance with sections 102 and 107 of the Contract Work Hours and Safety Standards Act, which requires each contractor to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours. Section 107 is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous.

VIII. Rights to Inventions Made Under a Contract or Agreement

Bidder acknowledges that contracts for the performance of experimental, developmental, or research work shall include provisions providing for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and the Small Business Firms under Governments Grants, Contracts, and Cooperative Agreements"

IX. Clean Air Act

Bidder acknowledges that the Clean Air Act (CAA) is the comprehensive federal law regulating air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants

X. Clean Water Act.

The contractor hereby agrees to adhere to the provisions which require compliance with all applicable Standards, orders, or requirements issued under section 508 of the clean water act which prohibits the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA list of violating facilities

XI. Energy policy and conservation act

The contractor hereby recognizes the mandatory standards and policies relating to energy Efficiency which is contained in the state energy conservation plan issued in compliance with the energy policy and Conservation act (P.L. 94-163).

Bidders must agree to keep informed of and comply with all federal, state and local laws, ordinances and regulations which affect their employees or prospective employees.

MBE/SBE/WBE Initiative
Participation by Certified Small Entrepreneurships/DBE Initiative

This procurement has been designated as suitable for certified small entrepreneurships **(MBE/SBE/WBE)** participation.

The City of Baton Rouge, Parish of East Baton Rouge strongly encourages the participation of Small andMinority and Women-owned business in all contracts or procurements let by the City of Baton Rouge Consolidated Government for goods and services and labor and material. To that end, all Service Providers and suppliers are encouraged to utilize federal, state or locally certified Small, Minority and Women-owned businesses in the purchase or sub-contracting of materials, supplies, services and labor and material in which disadvantaged businesses are available. Proposers that are not eligible for certification are encouraged to use Small, Minority and Women-owned businesses where sub-contracting opportunities exist. To be responsive to this request for proposal, the proposer should be a Small, Minority or Women-owned businesses or have put forth a good faith effort touse certified Small, Minority or Women-owned businesses as subcontractors. By submitting and signing aproposal, the proposer certifies that they are in compliance with this requirement. The proposer shall submit with the proposal a plan and selection process outlining good-faith efforts to utilize Small, Minority or Women-owned businesses as subcontractors.

Written notification is the preferred method to inform Small, Minority and Women-owned businesses of potential subcontracting opportunities. A current list of certified Small, Minority and Women-owned businesses may be obtained from the Louisiana Economic Development Certification System at https://smallbiz.louisianaeconomicdevelopment.com/certifiedbusiness/default.aspx. Additionally, a current list of Small, Minority and Women-owned businesses, which have been certified by the LouisianaDepartment of Economic Development and have opted to enroll in the State of Louisiana Procurement and Contract (LaPAC) Network, may be accessed from http://wwwprd1.doa.louisiana.gov/OSP/LaPAC/Vendor/srchven2.cfm. You may then determine the search criteria (i.e. alphabetized list of all certified vendors, by commodities, etc.), and select "SmallE". Additional assistance may also be obtained from the Small Business Administration and the Minority Business Development Agency of the Department of Commerce to solicit and use these firms at http://www.mbda.gov/contact.
Copies of notification to certified Small, Minority and Women-owned businesses will satisfy the notification requirements. Notification must be provided to the certified entrepreneurships by the proposer in writing no less than five working days prior to the date of proposal deadline.

Notification must include the scope of work, location to review plans and specifications (if applicable), information about required qualifications and specifications, any bonding and insurance information and/or requirements (if applicable), and the name of a person to contact.

In the event questions arise after an award is made relative to the proposer's good faith efforts, the proposer will be required to provide supporting documentation to demonstrate its good faith subcontracting plan was actually followed. If it is at any time determined that the Service Provider did notin fact perform its good faith subcontracting plan, the contract award or the existing contract may be terminated.

MANDATORY PRE-BID MEETING

Interested bidders must attend the Mandatory Pre-bid Meeting. Only those firms in attendance are eligible to receive an award on this project. The mandatory pre-bid meeting is scheduled for:

Date: July 30, 2026

Time: 9:00 a.m.

Place: Downtown Development District
247 Florida Street
Baton Rouge, LA 70801

Contact: Iboro Udoh
225-389-5520
iudoh@brla.gov

INQUIRY PERIOD

Inquiry Period:

An inquiry period is hereby firmly set for all interested bidders to perform a detailed review of the bid documents and to submit any written questions relative thereto. ***Without exception*, all questions MUST be in writing** (even if an answer has already been given to an oral question during the pre-bid conference or job site visits.) Inquiries are to be directed as follows:

Hand Delivered or by Courier
Richard Terrell, Senior Purchasing Analyst
City-Parish Purchasing Department
222 Street Louis Street, Room 826
Baton Rouge, LA 70802

By email: rterrell@brla.gov

The City-Parish shall not and cannot permit an open-ended inquiry period, as this creates an unwarranted delay in the procurement cycle and operations of our departments. The City-Parish reasonably expects and requires *responsible and interested* proposers to conduct their in-depth proposal review and submit inquiries in a timely manner.

All inquiries shall be received by 5:00 p.m. CST on August 5, 2026.

TELECONFERENCE

The City of Baton Rouge and Parish of East Baton Rouge, Purchasing Division, is offering teleconference and in-person attendance by vendors at public bid openings for bids published by our office.

Any vendor who would like to listen to the opening of this bid can access the following link, at the date and time of this bid opening:

Join by phone
+1-408-418-9388 United States Toll
Access code: 263 373 080 (followed by the # button)

Alternate numbers to call if number above is not available, which may occur due to network traffic (use the same Access Code, followed by the # button):

United States Toll (Boston) +1-617-315-0704
United States Toll (Chicago) +1-312-535-8110
United States Toll (Dallas) +1-469-210-7159
United States Toll (Denver) +1-720-650-7664
United States Toll (Jacksonville) +1-904-900-2303
United States Toll (Los Angeles) +1-213-306-3065

This link will provide you with live audio access to this bid opening. The link will be live at the noted bid opening time and date.

NOTE: The only vendor information shared at the bid opening will be the reading of the names of those vendors who submitted bids.

BIDDER'S ORGANIZATION

BIDDER IS:

AN INDIVIDUAL

Individual's Name: _____

Doing business as: _____

Address: _____

Telephone No.: _____

A PARTNERSHIP

Firm Name: _____

Address: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____

A LIMITED LIABILITY COMPANY

Company Name: _____

Address: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____

A CORPORATION

IF BID IS BY A CORPORATION, THE CORPORATE RESOLUTION SHOULD BE SUBMITTED WITH BID

Corporation Name: _____

Address: _____

State of Incorporation: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____

IF BID IS BY A JOINT VENTURE, ALL PARTIES TO THE BID SHOULD COMPLETE THIS FORM

CORPORATE RESOLUTION

A meeting of the Board of Directors of_____a corporation organized under the laws of the State of_____and domiciled in _____ was held this_____day of_____, 20 ___and was attended by a quorum of the members of the Board of Directors.

The following resolution was offered, duly seconded and after discussion was unanimously adopted by said quorum:

BE IT RESOLVED, that_____is hereby authorized to submit proposals and execute agreements on behalf of this corporation with the City of Baton Rouge, and Parish of East Baton Rouge.

BE IT FURTHER RESOLVED, that said authorization and appointment shall remain in full force and effect, unless revoked by resolution of this Board of Directors and that said revocation will not take effect until the Purchasing Director of the Parish of East Baton Rouge, shall have been furnished a copy of said resolution, duly certified.

I,_____, hereby certify that I am the Secretary of_____, a corporation created under the laws of the State of_____ domiciled in _____; that the foregoing is a true and exact copy of a resolution adopted by a quorum of the Board of Directors of said corporation at a meeting legally called and held on the____ day_of_____, 20 , as said resolution appears of record in the Official Minutes of the Board of Directors in my possession.

This_____ day of _____, 20____.

_____

SECRETARY

CONTRACTOR'S AND SUB CONTRACTOR'S INSURANCE

Contractor and any subcontractor shall carry and maintain at least the minimum insurance as specified below until completion and acceptance of the work. Contractor shall not commence work under this contract until certificates of insurance have been approved by the City-Parish Purchasing Division. Insurance companies listed on certificates must have industry rating of A, Class VI or higher, according to Best's Key Rating Guide. Contractor is responsible for assuring that its subcontractors meet these insurance requirements.

A. General Liability Insurance

General Liability insurance, endorsed to provide coverage for explosion, collapse and underground damage hazards to property of others; Contractual Liability, Products and Completed Operations (for a minimum of two year after acceptance of the Work), **Additional Insured and Waiver of Subrogation in favor of Contractor and Owner.**

	Limits
General Aggregate	$2,000,000
Products/Completed Operations	$1,000,000
Personal and Advertising Injury	$1,000,000
Per Occurrence	$1,000,000
Damage to Premises Rented to You	$100,000
Medical Payments	$5,000

B. Automobile Liability Insurance

Automobile Liability insurance which shall include coverage for all owned, non-owned and hired and shall be endorsed to include a Waiver of Subrogation and Additional Insured in favor of Contractor and Owner.

Bodily Injury and Property Damage $1,000,000 Combined Single Limit Each Occurrence (Minimum)

C. Worker Compensation and Employers Liability Insurance

Subcontractor agrees to comply with Workers Compensation laws of the state where the Work is performed, and to maintain a Workers Compensation and Employers Liability policy. **The policy shall include a Waiver of Subrogation endorsement in favor of the Contractor and Owner. Full statutory liability for State of Louisiana with Employer's Liability Coverage.**

Workers Compensation	Statutory
Employer's Liability	$1,000,000 Each Accident (Minimum)
	$1,000,000 Disease Each Employee

D. Excess Umbrella Liability Coverage

Excess/Umbrella Liability insurance shall be follow form the primary coverages and shall be endorsed to include a Waiver of Subrogation and Additional Insured in favor of Contractor and Owner.

Bodily Injury and Property Damage $1,000,000 Combined Single Limit Each Occurrence (Minimum)

E. The City of Baton Rouge and Parish of East Baton Rouge must be named as additional insured on all general liability policies described above.

F. Waiver of subrogation in favor of City of Baton Rouge and Parish of East Baton Rouge, is required from Workers Compensation Insurer.

G. Certificates must provide for thirty (30) days written notice to Certificate Holder prior to cancellation or change.

H. The Certificate Holder should be shown as:

City of Baton Rouge and Parish of East Baton Rouge
Attn: Purchasing Division
222 St. Louis Street
8th Floor Room 826
Baton Rouge, LA 70802

STANDARD FEDERAL AWARD
CONTRACTOR TERMS AND CONDITIONS
COMPLIANCE WITH THE CODE OF FEDERAL REGULATIONS
(2 C.F.R. § Pt. 200, App. II)

TO CONFIRM THAT NO U.S. TREASURY CORONAVIRUS LOCAL FISCAL RECOVERY FUNDS ARE BEING USED FOR THIS CONTRACT/PROFESSIONAL SERVICE AGREEMENT

1. **Termination for Cause or Convenience; Suspension**. CITY-PARISH may exercise any rights available under Louisiana law to terminate for cause upon the failure of the CONTRACTOR to comply with the terms and conditions of this AGREEMENT, provided that the CITY-PARISH shall give contractor written notice specifying contractor's failure and thirty (30) days to cure the defect.

CITY-PARISH may terminate the AGREEMENT at its convenience at any time for any or no reason by giving thirty (30) days written notice to CONTRACTOR.

Upon termination for cause or convenience, the CONTRACTOR shall be entitled to payment for deliverables in progress through the date of termination, to the extent work has been performed in accordance with the terms and/or conditions of this AGREEMENT or otherwise to the satisfaction of CITY-PARISH, as well as reasonable termination and demobilization costs.

Should the CITY-PARISH find it necessary to suspend the work for lack of funding or other circumstances beyond its control, this may be done by thirty (30) days written notice given by CITY-PARISH to that effect. If the AGREEMENT is suspended for more than thirty (30) consecutive calendar days, the CONTRACTOR shall be compensated for services performed prior to the notice of suspension. In addition, when work under the AGREEMENT resumes, the CONTRACTOR's compensation shall be equitably adjusted to provide for expenses incurred in the interruption and resumption of the CONTRACTOR's services.

2. **Remedies**. If any work performed by the CONTRACTOR fails to meet the requirements of the AGREEMENT, the CITY-PARISH may in its sole discretion:

a) elect to have the CONTRACTOR re-perform or cause to be re-performed at the CONTRACTOR's sole expense, any of the work which failed to meet the requirements of the AGREEMENT;
b) hire another subconsultant to perform the work and deduct any additional costs incurred by CITY-PARISH as a result of substituting the Proposer from any amounts due to the CONTRACTOR; or
c) pursue and obtain any and all other available legal or equitable remedies.

3. **Equal Employment Opportunity.** During the performance of this contract, the CONTRACTOR agrees as follows:

a) The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The CONTRACTOR will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
b) Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

c) The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of he CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
d) The CONTRACTOR will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the CONTRACTOR's legal duty to furnish information.
e) The CONTRACTOR will 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 advising the said labor union or workers' representatives of the CONTRACTOR's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
f) The CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
g) The CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
h) In the event of the CONTRACTOR's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
i) The CONTRACTOR will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, The CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

4. **Davis Bacon Act.** When required by federal program legislation or local program policies all prime construction contracts in excess of $2,000.00 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144 and 3146-3148).

The CONTRACTOR agrees to comply with the requirements of the Secretary of Labor in accordance with the Davis-Bacon Act (40 U.S.C. 3141-3148) as amended, with the provisions of Contract Work Hours and Safety Standards Act, the Copeland "Anti-Kickback" Act (40 U.S.C. 276a-276a-5•, 40 USC 327 and 40 USC 276c) and all other applicable Federal, state and local laws and regulations pertaining to labor standards in so far as those acts apply to the performance of this contract. In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The CONTRACTOR shall maintain documentation which demonstrates compliance with requirements of this part. Such documentation shall be made available to the City-Parish for review upon request.

5. **Compliance with the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)**. All contracts awarded by the non-Federal entity in excess of $100,000.00 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Any contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (b)(1) through (4) below along with a clause requiring subcontractors to include these clauses in any lower tier subcontracts.

a) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

b) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the CONTRACTOR and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

c) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

d) Subcontracts. The CONTRACTOR or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions, which are hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

6. **Rights to Inventions Made Under a Contract or Agreement.** If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

. **Clean Water Act/ Federal Water Pollution Control Act**. Contracts and subgrants of amounts in excess of $150,000.00 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of Environmental Protection Agency (EPA).

The CONTRACTOR hereby agrees to adhere to the provisions, which require compliance with all applicable standards, orders, or requirements issued under Section 508 of the Clean Water Act which prohibits the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities.

a) The CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 et seq.
b) If this contract is funded by federal dollars, The CONTRACTOR agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the CITY-PARISH, and the appropriate Environmental Protection Agency Regional Office.
c) If this contract is funded by federal dollars, the CONTRACTOR agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal assistance.

8. **Debarment & Suspension.** A contract award must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with OMB guidelines at 2 C.F.R. 180. SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the CONTRACTOR is required to verify that none of the CONTRACTOR's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

This certification is a material representation of fact relied upon by CITY-PARISH. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to CITY-PARISH, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The CONTRACTOR agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The CONTRACTOR further agrees to include a provision requiring such compliance in its lower tier covered transactions.

The CONTRACTOR shall submit a Federal Debarment Certification to assure compliance with the aforementioned regulation.

9. **Byrd Anti-Lobbying Act.** Contractors that apply or bid for an award exceeding $100,000.00 must file the required certification under the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352).

The CONTRACTOR will be expected to comply with Federal statutes required in the Anti-Lobbying Act. Contractors who apply or bid for an award shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any Agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

10. **Procurement of Recovered Materials (2 C.F.R. 200.322)**. A non-Federal entity that is a state agency or agency of a political subdivision of a state and its CONTRACTOR must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the items exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

11. **Surveillance Services or Equipment.** A non-Federal entity and subrecipients who procure telecommunications and video surveillance services or equipment by obligating or expending loan or grant funds must comply with the provisions of 2 C.F.R. §200.216.

Specifically, (a) recipients and subrecipients are prohibited from using grant funds to: (1) Procure or obtain; (2) Extend or renew a contract to procure or obtain; or (3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). (i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities). (ii) Telecommunications or video surveillance services provided by such entities or using such equipment. (iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. (b) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained. (c) See Public Law 115-232, section 889 for additional information. (d) See also § 200.471.

12. **Domestic Preferences for Procurement**. As appropriate and to the extent consistent with law, the parties should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all sub awards including all contracts and purchase orders for work or products under this award.

For purposes of this section: (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

IN WITNESS WHEREOF, the **Contractor/Vendor/Sub-Recipient** understands and agrees to the above Federal award provisions.

CONTRACTOR

_____

BY: _____
(Authorized Signature, printed name)

Date: _____

FAIR CHANCE ORDINANCE

Requires Fair Chance hiring standards for person, corporations, and entities in a contract, cooperative endeavor agreement, or grant with the City of Baton Rouge, Parish of East Baton Rouge by limiting the consideration of criminal history of an applicant, and to provide otherwise with respect hereto.

Section 1

A contractor shall not request from the applicant their criminal history before the contractor extends a conditional offer of employment.

Section 2

All contracts shall include a certification that the contractor has complied with the provisions of the fair chance ordinance.

Section 3

The applicant will acknowledge in writing that a background check will be performed before a final offer of employment.

Section 4

Section 1 does not apply if consideration of an applicant's criminal history is required by law.

Section 5

The Purchasing department is the enforcing agency and shall establish a procedure for complaint.

Section 6

The Fair Chance ordinance shall not apply to the following City Parish departments: Human Resources, Police, Constable, Fire Department, Emergency Medical Services, Juvenile Services, and Metro Airport.

Section 7

The ordinance shall be effective May 5, 2023 following adoption and shall apply to contracts executed on or after the effective date EXCLUDING renewals to contracts awarded in response to an Request for Proposal (RFP), a Request for Qualifications (RFQ) or awarded by the Engineers or Architectural Selection Boards. The ordinance shall not apply to any agreements executed before the effective date of this ordinance.

The signature below certifies that the signer has carefully examined the above and is in full compliance with the terms listed.

Date	Authorized Signature	Authorized Name (Printed)

Appendix A

SEDB Forms and Procedures

SOCIALLY AND ECONOMICALLY DISADVANTAGED BUSINESS ENTERPRISE INCLUSION

The City-Parish's Socially and Economically Disadvantaged Business Enterprise Program ("the Program") is made part of this contract and incorporated hereto.

PART I – POLICY/ COMPLIANCE

(A) The City-Parish strongly encourages the acquisition of goods and services from and direct participation of Socially and Economically Disadvantaged Business Enterprise ("SEDBE"). The term Socially and Economically Disadvantaged Business ("SEDB") shall have the meaning set forth in the City-Parish's Socially and Economically Disadvantaged Business Enterprise Certification Program.

The Program is a race and gender-neutral program intended to provide additional contracting and procurement opportunities for certified small, disadvantaged, woman-owned, minority-owned, veteran- owned, and service-disabled veteran-owned business enterprises by encouraging contractors who receive City-Parish contracts to use good-faith efforts to utilize such certified entities in the performance of those contracts. The City-Parish desires to achieve, to the greatest extent possible, commercially meaningful and useful participation by SEDBs. By providing equitable opportunities for SEDBs, the City- Parish derives multiple benefits, including contributing to the economic vitality of our communities and ensuring a broader selection of competitively priced goods and services.

Contractor should present a responsible plan that provides for participation of qualified SEDBs. Participation shall be counted toward meeting the contract goals only by business entities certified under the City-Parish's Socially and Economically Disadvantaged Business Enterprise Certification Program. The direct participation goal can be achieved through direct ownership, joint venture participation, owner/operator agreements, or subcontract agreements for participation.

If the Contractor does not meet the full SEDB goal, then written documentation must be provided showing their good faith efforts to secure SEDB participation, the unavailability of potential SEDB firms, and provide justification as to why such goals cannot be met that is found to be acceptable to the SEDB Liaison Officer.

(B) FAILURE TO COMPLY WITH SEDB REQUIREMENTS: All City-Parish contract performers (Prime Contractors, Subcontractors, etc.) are hereby notified that failure to carry out the SEDB obligation, as set forth, shall constitute a breach of contract. The breach of contract will be reviewed by City-Parish which may result in termination of the contract or other remedies deemed appropriate for the given situation.

(C) SUBCONTRACTS: All Prime Contractors, and Subcontractors, hereby shall include the following clauses in all contracts that offer further subcontracting opportunities.

The Contractor or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of City-Parish's Socially and Economically Disadvantaged Business Enterprise Program in the award and administration of City-Parish contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient (City-Parish) deems appropriate.

The Prime Contractor agrees to pay each Subcontractor under this contract for satisfactory performance of its contract prior to submitting an invoice to the City-Parish for request for payment. This payment will be documented on the Contractor's Monthly Report form that is submitted with each payment request. The Prime Contractor agrees further to return retainage payments to each Subcontractor within 14 days after the Subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause. This clause applies to both SEDB and non-SEDB Subcontractor(s).

(D) AWARD OF SEDB SUBCONTRACTS: The Contractor shall, no later than three (3) business days from the award of a contract, execute formal contracts or purchase orders with the SEDB (s) included on Form 1.

(E) COUNTING SEDB PARTICIPATION: City-Parish will count SEDB participation toward overall and contract goals as provided in City-Parish's Socially and Economically Disadvantaged Business Enterprise Program ("the Program"). City-Parish will only count SEDB participation by those SEDBs performing commercially useful functions. City-Parish Purchasing Division will not count the participation of SEDB Subcontractors toward a Contractor's final compliance with its SEDB obligations on a contract until the amount being counted has actually been paid to the SEDB.

The Contractor may count its entire expenditure to SEDB manufacturers (i.e., a supplier that produces goods from raw materials or substantially alters them before resale). The Contractor may count sixty percent (60%) of its expenditures to SEDB suppliers that are not manufacturers, provided that the SEDB supplier performs a commercially useful function in the supply process.

A Contractor shall not count the value of any payment made to an SEDB for work that was further subcontracted out by the SEDB to a non-SEDB.

PART II – PROCEDURE TO DETERMINE QUALIFICATION STATEMENT OR PROPOSAL COMPLIANCE

(A) ELIGIBILITY OF SEDBs: To be counted toward the participation Goals pursuant to the Program, an SEDB must be certified by the City-Parish at the time a bid or proposal is submitted. The fact that an SEDB is certified does not necessarily mean that it has the qualifications and experience for the type of work required by any particular Contract. The responsibility for determining whether an SEDB has the qualifications and experience for the type of work required by the Contract rests with the Contractor. To be deemed an SEDB certified entity, firms must complete the City-Parish's certification process. Only SEDB certified firms under the City-Parish at the time the Bid opening will count toward the SEDB goal.

(B) REPORTING FORMS 1, 1A, AND 3: The following fully completed forms shall be furnished to the City-Parish on a monthly basis. The forms shall have all blank spaces filled in completely and correctly. These forms are as follows:

FORM 1 – SEDB RESPONSIVENESS FORM (copy attached): It is the obligation of the Respondent to make good faith efforts to meet the SEDB goal. Respondents can demonstrate their good faith efforts either by meeting the contract goal or by documenting good faith efforts taken to obtain SEDB participation. The Form 1 shall accurately detail the work proposed by the Respondents to be performed by Respondent and all entities participating in the project and, if it is a bid or proposal, the percent value of that work. If a Respondent is unable to fully meet the SEDB goal of this contract, the Respondent shall submit a Form 2 form and all documentation demonstrating the good faith efforts made to comply with the SEDB requirements.

FORM 1A - REQUIRED PARTICIPATION QUESTIONNAIRE FORM (copy attached): Form 1A shall accurately detail the work to be performed by each and every firm participating in the project. A Form 1A must be submitted for the Contractor and for each Subcontractor included on Form 1. In addition, each participating SEDB firm must submit a current letter of SEDB certification along with its Form 1A.

FORM 2 - Good Faith Efforts (copy attached): Form 2 is only required when the prime firm is unable to fully meet the SEDB contract goal. Form 2 shall provide documentation of good faith efforts made to obtain SEDB participation. Form 2 must be accompanied by supporting documentations such as, but not be limited to, phone logs, facsimiles, and e-mail correspondence with potential SEDB firms. Further explanation of good faith efforts may be found in the Instructions for Form 2. It is up to City-Parish or its Designee to make a fair and reasonable judgment whether a Respondent made adequate good faith efforts to achieve the contract goal.

FORM 4 - Monthly Utilization/Participation SEDB Report (copy attached): Form 4 shall be submitted to the Field Engineer along with monthly payment requests and shall accurately represent the amount paid to SEDB Subcontractors during that invoice period. This form must be submitted with every monthly invoice regardless of the amount of payment or lack of payment. The form shall be signed by the Contractor and the SEDB Subcontractor(s) if payment has been made for that month. SEDB participations will not be counted toward the Contractor's commitment until payment has been rendered to the SEDB. Failure to submit the required reports may result in withholding of payment or partial payments to the Contractor until the required forms are submitted.

FORM 1 SEDB Responsiveness Form INSTRUCTIONS

Column A. Indicate the firm's role: Contractor, subcontractor, manufacturer, regular dealer/supplier, or broker/agent. Note that only 60% of the value of regular dealer/supplier commissions and fees can be counted toward Socially and Economically Disadvantaged Business Enterprise participation. All firms participating SEDB and non-SEDB, prime and subs) must be included on the form.

Column B. Provide the name and address of the firm.

Column C. Provide the principal contact person and phone number of the firm.

Column D. Describe the work, goods, and/or services to be provided by the firm.

Column E. Indicate the percent value of the amount of work assigned to the firm. Total percent value of work should equal 100% to account for all work being performed on the contract.

Column F. Indicate whether firm is an SEDB or non-SEDB. SEDB-certified means to be certified by the EBRP Socially and Economically Disadvantaged Business Enterprise Program.

FORM 1
SEDB Responsiveness Form

EBRP Project Title:_____ Project No:_____

SEDB Contract Goal:_____%

A	B	C	D	E	F
FIRM ROLE *(Prime, sub-contractor, manufacturer, supplier, etc)*	FIRM NANE AND ADDRESS	PRINCIPAL CONTACT NAME AND PHONE NUMBER	WORK TO BE SUBCONRACTED/GOODS/SERVICE TO BE PURCHASED	%VALUE OF WORK/PURCHASES*	SEDB OR NON-SEDB
				%	
				%	
				%	
				%	
				%	
				%	
				%	
				%	
				%	
				%	

TOTAL VALUE OF PARTICIPATION FROM CONTINUATION PAGES:

	%	%
Enter Total Bid Amount	**Total Must Equal 100%**	**Total SEDB Participation**
$	%	%

*Supplier/Manufacturer/Purchase/Dealer work is counted at 60% participation toward SEDB goal.

If total SEDB participation is less than the goal, refer to the Good Faith Efforts section of the instruction and attach a Form 2 and all other necessary documentation.
Firms must be SEDB certified with authorized agent of the City of Baton Rouge and Parish of East Baton Rouge Purchasing Division to count towards the goal.

The undersigned prime firm will enter into a formal written agreement with the subcontractors identified herein for work and/or goods and services as shown in this schedule, conditioned upon the execution of a contract with the City of Baton Rouge and Parish of East Baton Rouge. The undersigned agrees to be contractually bound to maintain the level of SEDB participation set forth above. Failure to comply with this agreement constitutes breach of contract.

Signature:_____ Date:_____

Printed Name:_____ Title:_____

FORM 1A
Required Participation Questionnaire

INSTRUCTIONS: A fully completed Form 1A "Required Participation Questionnaire" must be submitted for the prime firm, each subcontractor, and any other tier or subcontractor, as a condition of responsiveness. This information is to be collected and documented for all City of Baton Rouge and Parish of East Baton Rouge.

All items requested on the form are required, if an item is not applicable, respondents shall enter N/A. Each prime firm participating as a joint venture shall complete a separate form and indicate (Item 9) that the response is a joint venture.

<table>
<tr><td>1. Project name, project number and date of submittal:</td><td>2. Official name of firm:

Indicate if prime or subcontractor</td><td>3. Address of office to perform work:</td></tr>
<tr><td>4. Name of parent company, if any:</td><td>5. Location of headquarters (city):</td><td>6. Age of firm:</td></tr>
<tr><td>7. Name, title, and telephone number of principal contact:</td><td colspan="2">8. Indicate Any Special Status:

□ small business □SBA certified
□Women-owned business □LAUCP DBE certified
□ Minority-owned business □SEDB certified with CITY-PARISH
*A firm participating as a SEDB must be certified by the City of Baton Rouge and Parish of East Baton Rouge SEDBE Program by the date of submittal. Current letter of certification shall be attached.</td></tr>
<tr><td>9. Is this submittal a joint venture (JV)?
□ Yes □ No</td><td colspan="2">10. Summary of firm's annual revenues (please insert index number from below):
Last Year:_____ 2 Years ago:_____ 3 Years ago:_____</td></tr>
<tr><td>If so, has the JV worked together before?
□ Yes □ No</td><td colspan="2">Ranges of annual revenues received:

<u>Index:</u>
1. less than $500,000 4. $2,000,000-$4,000,000
2. $500,000-$1,000,000 5. $5,000,000-$6,000,000
3. $1,000,000 - $2,000,000 6. $6,000,000 or greater</td></tr>
</table>

I do solemnly declare and affirm under the penalties of perjury that the contents of this document are true and correct, and that I am authorized on behalf of this firm to make this affidavit.

Signature:_____ Date:_____

Printed Name:_____ Title:_____

FORM 2 Good Faith Efforts INSTRUCTIONS:

If required, attach a completed Form 2 and supporting documents to establish that Good Faith Efforts were undertaken to secure SEDB participation:

The following is a list of types of actions which you should consider as part of the Contractor's good faith efforts to obtain SEDB participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified SEDBs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all SEDBs listed in the City's directory of transportation firms that specialize in the areas of work desired (as noted in the SEDB directory) and which are located in the area or surrounding areas of the project. The Contractor should solicit this interest as early in the acquisition process as practicable to allow the SEDBs to respond to the solicitation and submit a timely offer for the subcontract. The Contractor should determine with certainty if the SEDBs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by SEDBs in order to increase the likelihood that the SEDB goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate SEDB participation, even when the Contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates SEDB participation.

C. Providing interested SEDBs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

D. Negotiating in good faith with interested SEDBs. It is the Contractor's responsibility to make a portion of the work available to SEDB subcontractors and suppliers and to select those portions of the work or material needs consistent with the available SEDB subcontractors and suppliers, so as to facilitate SEDB participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of SEDBs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for SEDBs to perform the work.

E. A Contractor using good business judgment would consider a number of factors in negotiating with subcontractors, including SEDB subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using SEDBs is not in itself sufficient reason for a Contractor's failure to meet the contract SEDB goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the Contractor of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from SEDBs if the price difference is excessive or unreasonable.

F. Not rejecting SEDBs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the SEDB because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the Contractor to accept unreasonable quotes in order to satisfy contract goals.

G. Contractor's inability to find a replacement SEDB at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original SEDB. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement SEDB, and it is not a sound basis for rejecting a prospective replacement SEDB's reasonable quote.

H. Making efforts to assist interested SEDBs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

I. Making efforts to assist interested SEDBs in obtaining necessary equipment, supplies, materials, or related assistance or services.

J. Effectively using the services of available minority/women/veteran community organizations; minority/women/veteran contractors' groups; local, State, and Federal minority/women/veteran business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of SEDBs.

FORM 2
Good Faith Efforts

If the Respondent cannot fully meet the SEDB goal of the Contract, the Respondent shall complete Form 2 and attach documentation demonstrating the Respondent's good faith efforts. It is up to City of Baton Rouge and Parish of East Baton Rouge Purchasing Division to make a fair and reasonable judgment whether a Respondent that did not meet the contract goal made adequate good faith efforts.

I,_____ certify that on the date (s) below I invited the following proposed SEDB subcontractor (s) to respond or propose work items to be performed on:

PROJECT NAME:_____

PEOJECT NO:_____

Date of Request	Name and Address of SEDB Firm	Transmittal Type	Work Items Sought	Describe Response and/or Follow-up

I do solemnly declare and affirm under the penalties of perjury that the contents of this document are true and correct, and that I am authorized on behalf of this firm to make this affidavit.

Signature:_____ Date:_____

Printed Name:_____ Title:_____

☐ Supporting documentation of Good Faith Efforts attached (required)

FORM 3
Contractor or Consultant Monthly SEDBE Report

INSTRUCTIONS: This report covers the previous estimate period and shall be submitted to the Project Manager Representative or Project Inspector with the current month's pay estimate. The prime firm shall prepare one form for each SEDB firm participating in the project. Questions should be directed to the City of Baton Rouge and Parish of East Baton Rouge Purchasing Division through assigned project manager. **Signatures from SEDB firms who received payment during the report period are required.** No signature is required if no payments were made to the SEDB firm during the reporting period. **If actual SEDB item of work is different than that approved at the time of award, the Substitution Form must be completed (if you have not already done so).**

PRIME CONTRACTOR INFORMATION:

Prime Firm Name		Phone Number	
Project Name			
City Parish Project No.		State Project No.	
Project Start Date		Est. Project Completion Date	
Original Contract Amount $	Change Orders (count)	Current Contract Value $	SEDB Commitment _____%
Invoice Number	Report Period Begin Date	Report Period End Date	

SUBCONTRACTOR INFORMATION:

SEDB Subcontractor		
SEDB Contact:		SEDB Phone Number
Original Subcontract Amount S	Original Commitment to Firm _____%	Current Subcontract Value $
Amount Paid to Sub This Period $	Amount Paid to Sub to Date $	
Scheduled Date of Sub Services (or state ongoing)	Estimated Date of Completion of Sub Services	
Item Number/Description of Work Performed by Sub		

By signing below, I attest that the information provided is complete and accurate, and true to the best of my knowledge.

Prime Firm's Authorized Signature:_____ Date:_____

Print Name:_____ Date:_____

Subcontractor's Authorized Signature:_____ Date:_____

Print Name: _____ Date:_____

I certify that the contracting records and on-site performance of the SEDB has been monitored. If actual SEDB item of work is different than that approved at the time of award, the Substitution Form must be completed.

Project Manager Representative/Inspector's Signature:_____ Date:_____

Print Name: _____ Title: _____

EBRP Project Manager or SEDBE Liaison Officer (SEDBELO) has reviewed this form.

SEDBELO's or Authorized Owner's Representative's Signature _____ Date:_____

Form 4
Guidance for Removal and/or Substitution of a SEDB Firm

Prime contractor must receive prior written consent from the City -Parish before terminating a SEDB subcontractor listed in response to the City-Parish Purchasing Division solicitation (or an approved substitute SEDB firm). This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a SEDB subcontractor with its own forces or those of an affiliate, a non-SEDB firm, or with another SEDB firm. All requests must be accompanied by documentation of good faith efforts to maintain the SEDB commitment percentage on the total contract value.

The City-Parish Purchasing-SEDBE Division may provide written consent only if it agrees that the prime contractor has Good Cause to terminate the SEDB firm. Good Cause includes the following circumstances:

1. The listed SEDB subcontractor fails or refuses to execute a written contract;
2. The listed SEDB subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the SEDB subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
3. The listed SEDB subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.
4. The listed SEDB subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
5. The listed SEDB subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings or applicable state law;
6. The City-Parish Purchasing Division has determined that the listed SEDB subcontractor is not a responsible contractor;
7. The listed SEDB subcontractor voluntarily withdraws from the project and provides to the City of Baton Rouge and Parish of East Baton Rouge Purchasing Division written notice of its withdrawal;
8. The listed SEDB is ineligible to receive SEDB credit for the type of work required;
9. A SEDB owner dies or becomes disabled with the result that the listed SEDB contractor is unable to complete its work on the contract;
10. Other documented good cause that the City-Parish Purchasing Division determines compels the termination of the SEDB subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a SEDB it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the SEDB contractor was engaged or so that the prime contractor can substitute another SEDB or non- SEDB contractor after contract award.
11. Before transmitting to the City-Parish Purchasing Division its request to terminate and/or substitute a SEDB subcontractor, the prime contractor must give notice in writing to the SEDB subcontractor, with a copy to the City-Parish Purchasing Division, of its intent to request to terminate and/or substitute, and the reason for the request.
12. The prime contractor must give the SEDB five days to respond to the prime contractor's notice and advise the City-Parish Purchasing Division and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the City-Parish Purchasing Division should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the City-Parish Purchasing Division may provide a response period shorter than five days.
13. In addition to post-award terminations, the provisions of this section apply to pre-award deletions of or substitutions for SEDB firms put forward by offerors in negotiated procurements.
14. After Good Cause is demonstrated by the Contractor and approved by the Purchasing Division, the contractor must make good faith efforts to replace a SEDB that is terminated with another certified SEDB, to the extent needed to meet the contract goal.
15. In this situation, we will require the prime contractor to provide copies of new or amended subcontracts, or documentation of good faith efforts. If the contractor fails or refuses to comply in the time the City-Parish Purchasing-SEDBE Division specified, our contracting office will issue an order stopping all or part of payment/work until satisfactory action has been taken. If the contractor still fails to comply, the contracting officer may issue a termination for default proceeding.

Appendix B

Downtown Development District
Third Street Parklet Project

Downtown Development District Third Street Parklet Project

This project will transform a drop-off space into a parklet designed to engage passersby – the secondary parking/load-in area will remain. Parklets are a key component of the larger Third Street Master Plan, designed to extend urban green space into the fabric of the Central Business District.

"Front Porch" Vision

Parklets will serve as the "front porches of Third Street," offering flexible programming opportunities including:

- **Outdoor dining**
- **Art installations**
- **Recreational activities**

Transformative Impact

- **Collectively, this and future potential parklets along Third Street will accommodate people of all ages, creating community spaces that engage visitors an those who live and/or work downtown.**

Construction Days: **60 days.**

Contractor Requirements: **Contractors should have a Landscape, Grading, and Beautification License and a Landscape Horticulturist License**

Liquidated Damages: **$250/day**

BIDDER INFORMATION

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

_____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER: _____

DATE: _____

The bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar wit the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform in a workmanlike manner, all work and services for the construction and completion pf the referenced project, all in strict accordance with the Bidding Documents prepared by: **DOWNTOWN DEVELOPMENT DISTICT.**

TOTAL BASE BID: For work required, the sum of:

_____ **Dollars ($_____)**

ALTERNATE 1: Owner to provide description of alternates and state whether add or deduct, the sum of:

_____ **Dollars ($_____)**

ALTERNATE 2: Owner to provide description of alternates and state whether add or deduct, the sum of:

_____ **Dollars ($_____)**

RENDERING,

CONSTRUCTION DOCUMENTS,

&

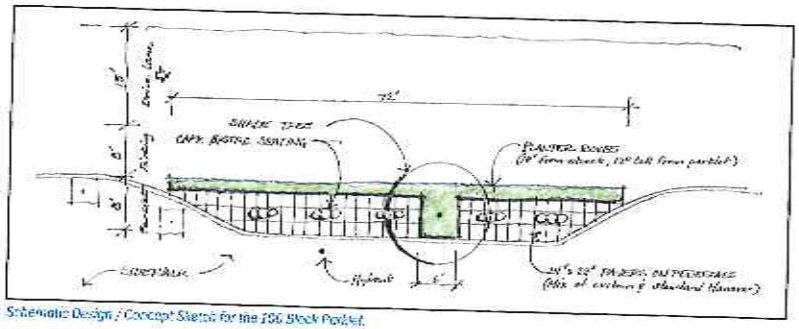
SPECIFICATIONS

To download, click on this link:

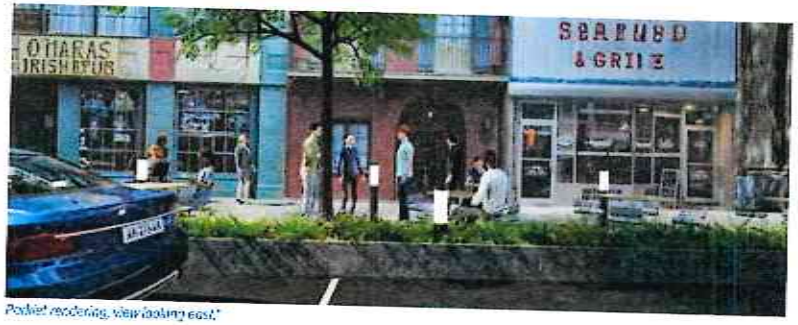
https://sftp.brla.gov:444/login

ID: PurchVendor4
Password: PurchVendor4

PARKLET CONCEPT - THIRD STREET'S "FRONT PORCH"



Schematic Design / Concept Sketch for the 700 Block Parklet

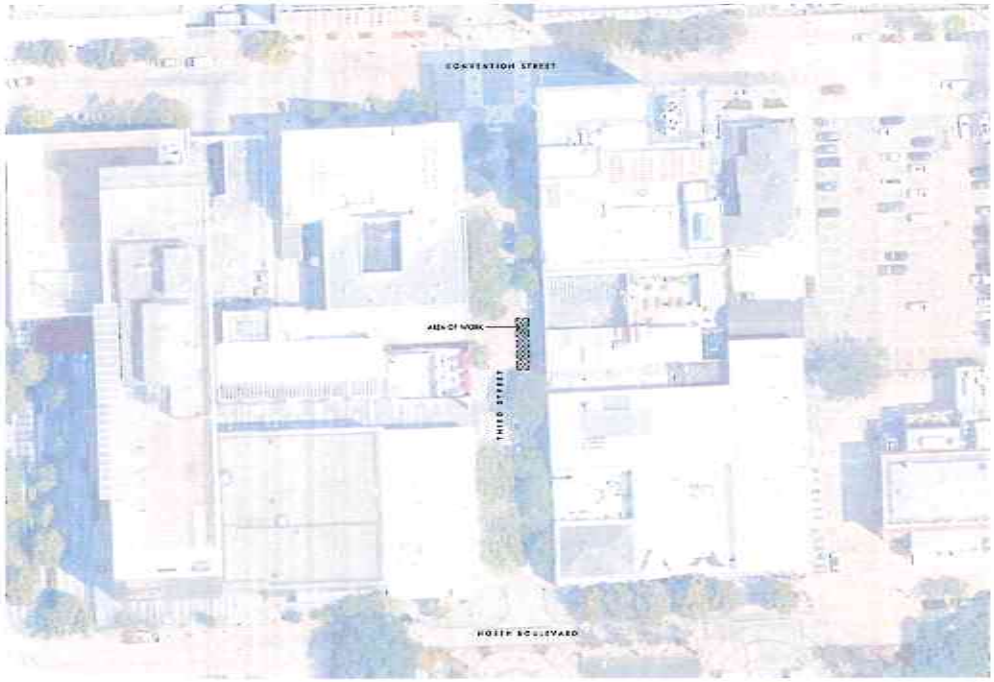


Parklet rendering, view looking east.*

Parklet rendering, view looking south.*

Parklet rendering, view looking west.*

* Parklet 3d renderings courtesy of Nabil Abdullah, DDB

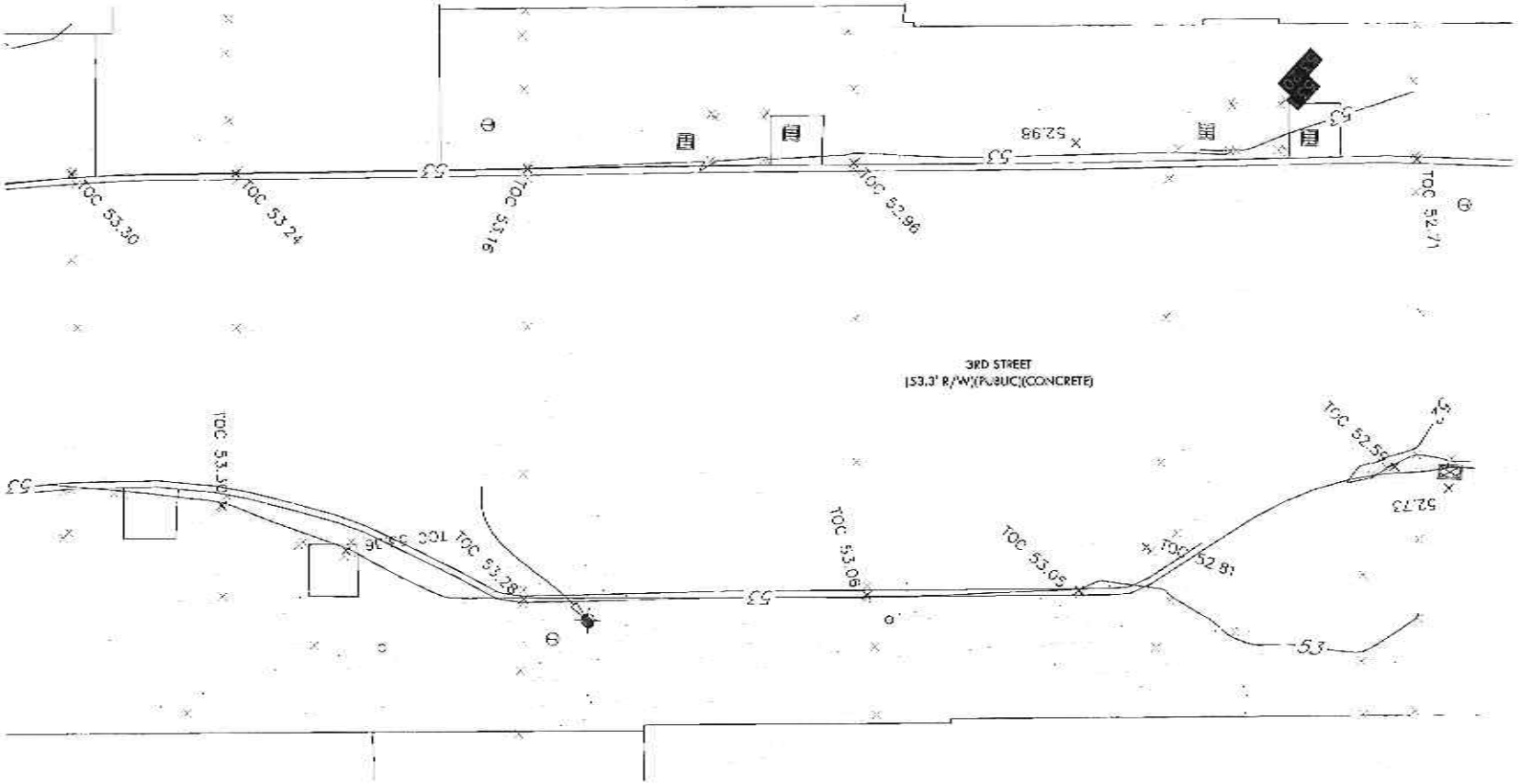


PARKLET DESIGN FOR:

THIRD STREET

100 BLOCK
BATON ROUGE, LA
LOADING ZONE: 130 THIRD STREET

NOTE:



1 EXISTING SURVEY PLAN

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

THIRD STREET PARKLET
100 BLOCK
BATON ROUGE, LOUISIANA

EXISTING SURVEY

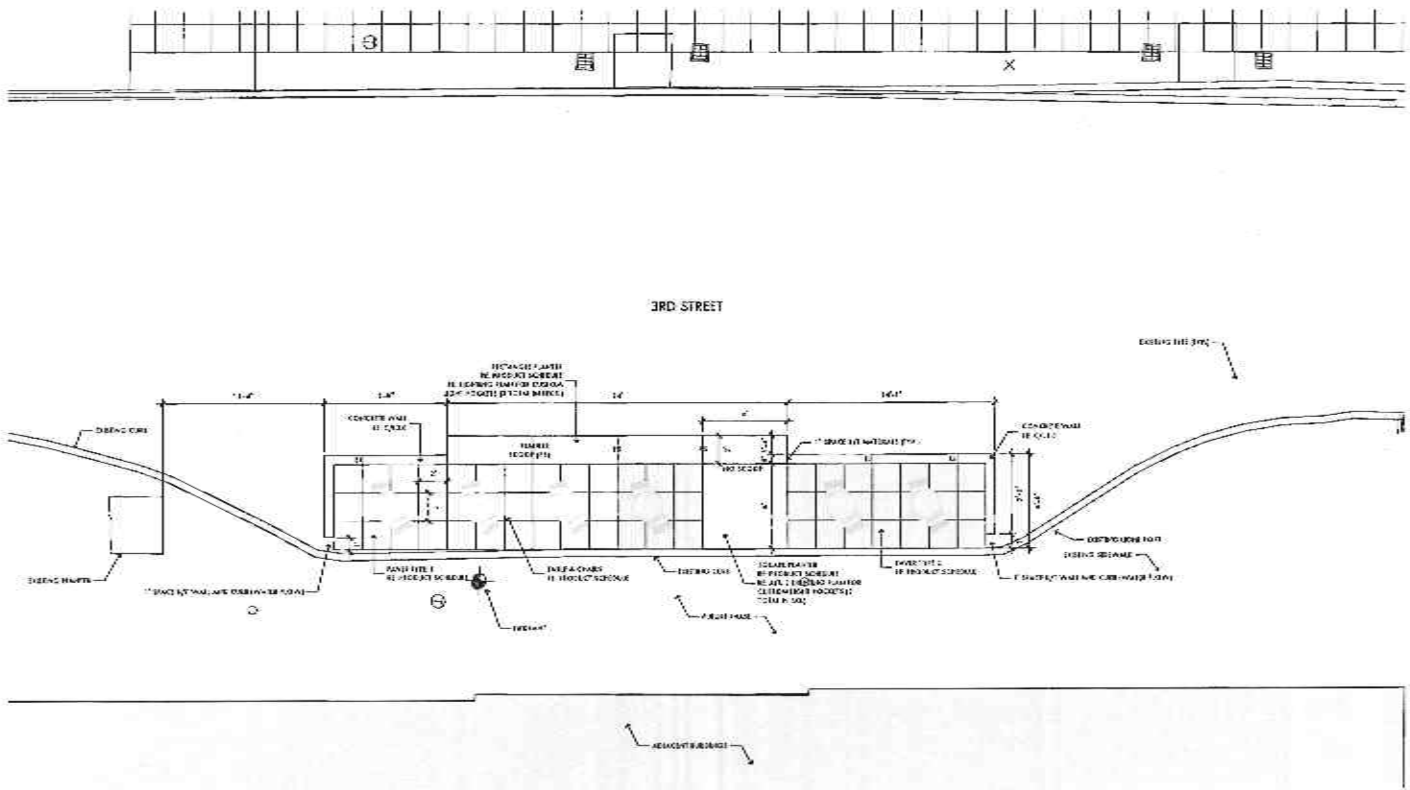
L0.0

PRODUCT SCHEDULE

QUANTITY	BASIS OF DESIGN/MANUFACTURER	PRODUCT NAME AND LOCATION	NOTES
4	Tournesol, or prior approved equal	[illegible] Size: [illegible] Finish: Weathering Steel	Consultant [illegible]
1	Tournesol, or prior approved equal	[illegible] Shape: Square Finish: Weathering Steel	Consultant [illegible]
36	[illegible], or prior approved equal	BASIS: Paver Type 1 Color: Gray [illegible]	[illegible]
28	[illegible], or prior approved equal	BASIS: Paver Type 2 Color: Charcoal [illegible]	[illegible]
FUTURE PHASE NOT IN CONTRACT 6	[illegible]	[illegible]	[illegible]
FUTURE PHASE NOT IN CONTRACT 6	[illegible]	[illegible]	[illegible]

CONSTRUCTION NOTES:

1. EXISTING ABOVE GROUND AND UTILITIES ARE NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LOUISIANA ONE CALL A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UTILITIES FIELD LOCATED.
2. ALL CONSTRUCTION TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
3. CONTRACTOR TO COORDINATE WORK WITH OTHER TRADES ON THE PROJECT.
4. CONTRACTOR SHALL BE FAMILIAR WITH ACTUAL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK.
5. ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IN A TIMELY MANNER AS TO NOT ADVERSELY AFFECT PROGRESS OF THE WORK.
6. FINAL STAKING OF PAVED AREAS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO POURING CONCRETE.
7. ALL MIXING, TRANSPORTING, PLACING, AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.
8. CONTRACTOR SHALL MAKE SMOOTH, FLUSH TRANSITIONS BETWEEN ALL EXISTING AND PROPOSED PAVEMENTS.
9. ALL ANGLES ARE ASSUMED TO BE 90° UNLESS OTHERWISE NOTED.
10. CONTRACTOR TO PROVIDE SAMPLES OF ALL MATERIALS, WHICH SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE CONSTRUCTION.
11. REFER TO CIVIL FOR GRADING PLANS.



(1) LAYOUT PLAN
SCALE: 1/4" = 1'-0"

Downtown Development District
Baton Rouge, LA

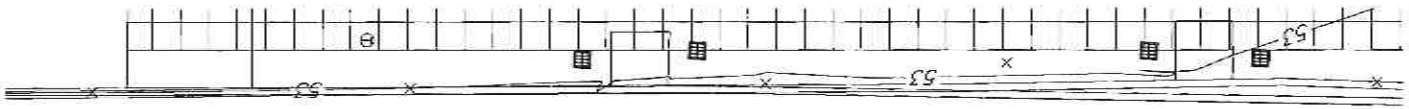
THIRD STREET PARKLET
100 BLOCK
BATON ROUGE, LOUISIANA

LAYOUT PLAN

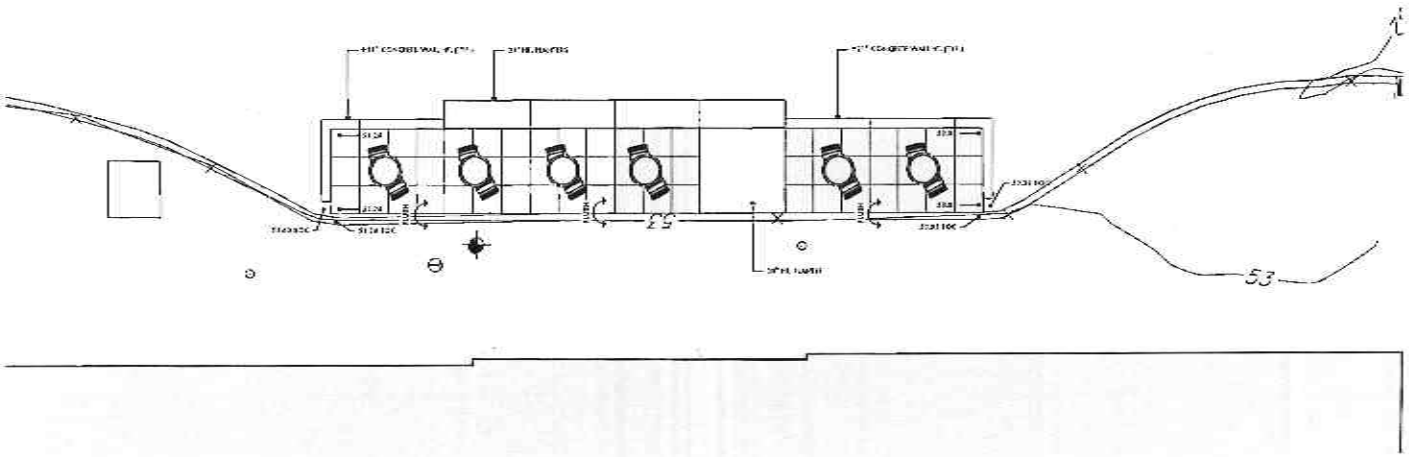
L1.0

DRAINAGE NOTES:

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]



3RD STREET



1 DRAINAGE PLAN

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

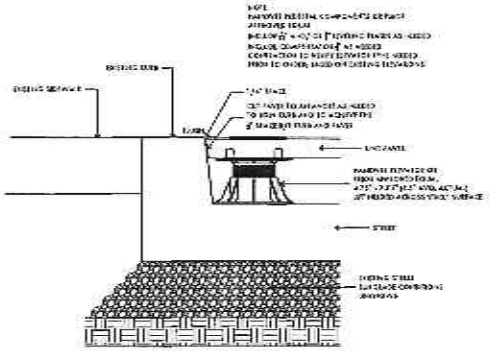
Downtown Development District
247 North Street
Baton Rouge, LA
70801

THIRD STREET PARKLET

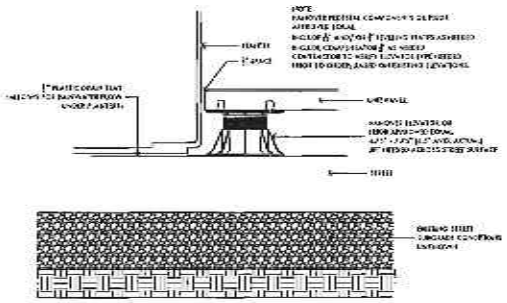
100 BLOCK
BATON ROUGE, LOUISIANA

DRAINAGE PLAN

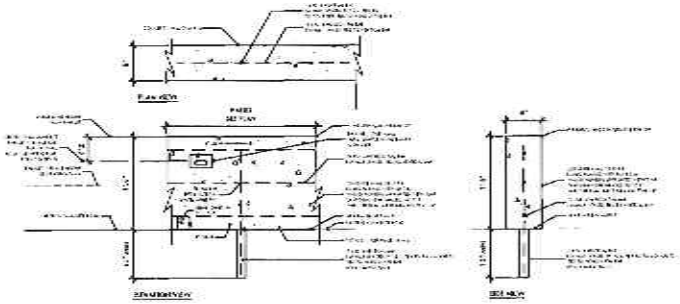
L2.0



A PAVERS AT CURB
SECTION — NTS



B PAVERS AT PLANTER
SECTION — NTS



C CONCRETE WALL
DETAIL — 1-1/2" = 1'-0"

THIRD STREET PARKLET
100 BLOCK
BATON ROUGE, LOUISIANA

DETAILS

L3.0

IRRIGATION NOTES:

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]

IRRIGATION LEGEND:

5 / 2" 30 GPM — [illegible]

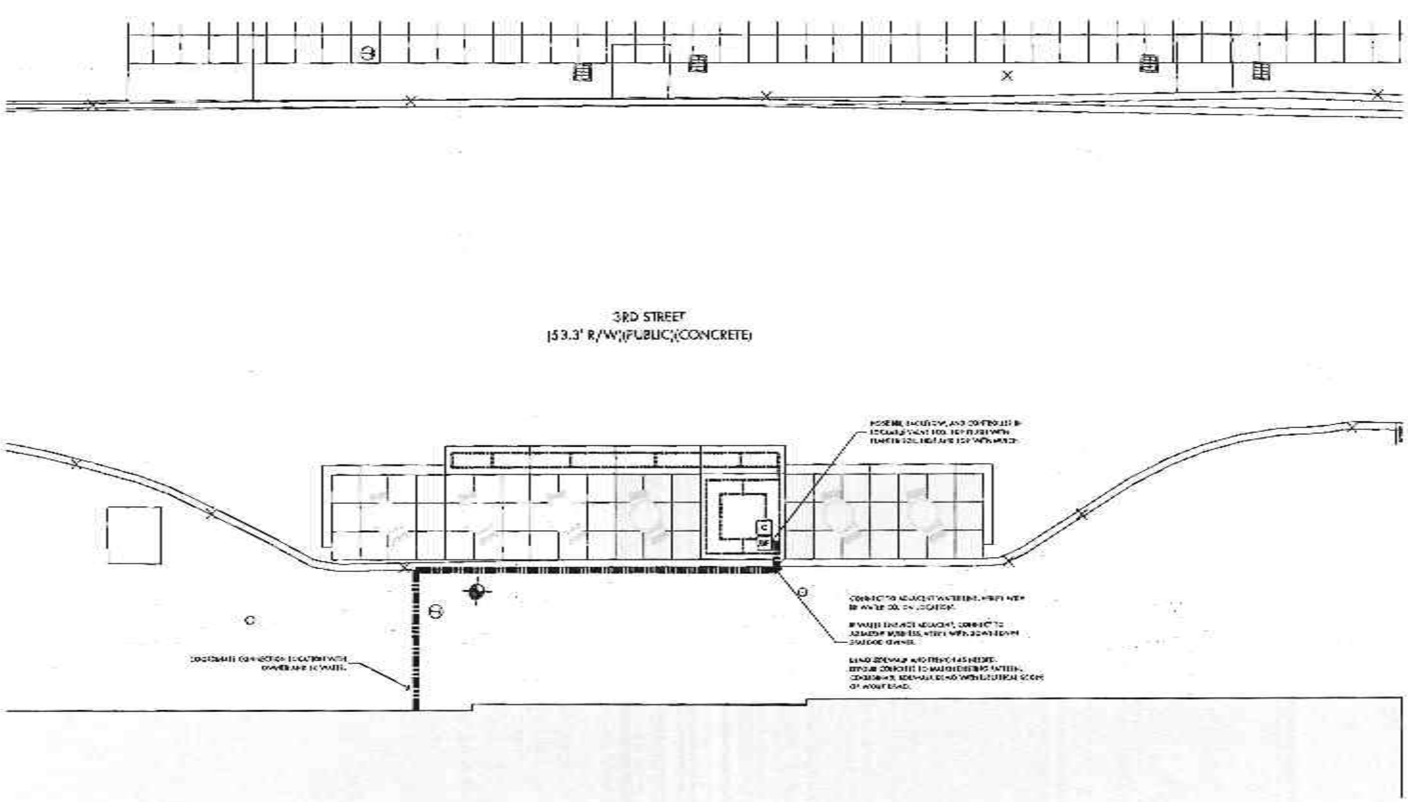
PVC IRRIGATION SLEEVE

[illegible]

BF — BACKFLOW PREVENTER [illegible]

M — WATER METER - USE EXISTING

C — AUTOMATIC CONTROLLER [illegible]

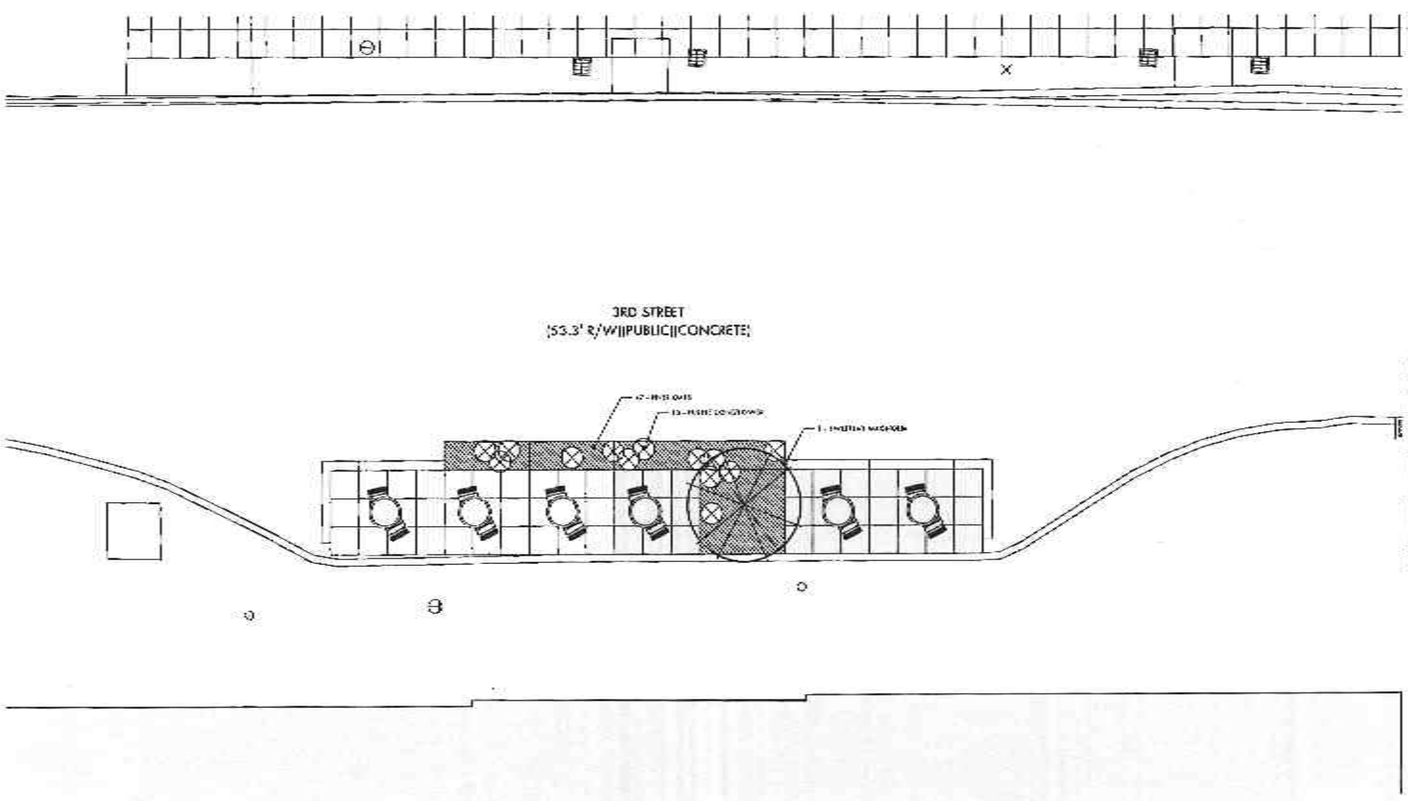


1 IRRIGATION PLAN
SCALE 1/4" = 1'-0"

THIRD STREET PARKLET
100 BLOCK
BATON ROUGE, LOUISIANA

IRRIGATION PLAN

L4.0



① PLANTING PLAN

SCALE 1/4" = 1'-0"

GENERAL PLANTING NOTES

1. LOCATE ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. ANY DAMAGE DONE TO EXISTING OR NEW UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO OWNER.

2. PLANTS SHALL BE WELL FORMED, NO. 1 GRADE OR BETTER NURSERY STOCK AND SHALL MEET THE APPLICABLE STANDARDS [illegible] OR SHALL BE SUBJECT TO REJECTION BY THE LANDSCAPE ARCHITECT.

3. STAKE OUT ALL TREE LOCATIONS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. LOCATE ALL TREES AS SHOWN ON PLANS.

4. COORDINATE WORK WITH THE WORK OF OTHER TRADES ON THE SITE.

5. ENTIRE SITE SHALL BE GRADED TO FINISH GRADE PRIOR TO COMMENCING PLANTING INSTALLATION.

6. PLANTS SHALL BE SPECIMEN QUALITY, [illegible] SYMMETRICAL FOLIAGE AND BRANCHING STRUCTURE. SHRUBS SHALL BE FULL TO GROUND.

7. PLANT MATERIAL OF THE SAME SPECIES SHALL BE MATCHING IN CHARACTER AND SIZE, OBTAINED FROM THE SAME SOURCE.

8. ANY CHANGES IN PLANT MATERIAL, SIZE, QUANTITY, SPECIES OR VARIETY MUST BE APPROVED BY THE OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

LANDSCAPE MATERIALS AND PLANTS LIST

QUANTITY	PLANT / MATERIAL NAME AND DESCRIPTION
[illegible]	[illegible]
[illegible]	Natural Hardwood Mulch - spread at 3" depth (square feet)
[illegible]	Purple Coneflower (Echinacea purpurea) 1 gallon container, [illegible] height, bushy foliage, full container
[illegible]	[illegible] 1 gallon container, [illegible] height, bushy foliage, full container, [illegible]
1	Sweetbay Magnolia (Magnolia virginiana [illegible]) [illegible] gallon container, [illegible] height, [illegible] spread, [illegible]

Downtown Development District

THIRD STREET PARKLET
100 BLOCK
BATON ROUGE, LOUISIANA

PLANTING PLAN

L5.0

LEGEND

QTY.	SYMBOL	DESCRIPTION
1		
2		
10		
1		
1		
1	TI	
1	E	

ELECTRICAL NOTES:

1.
2.
3.
4.
5.
6.
7.

LIGHTING PERFORMANCE NOTES:

1.

2.

3.

4.

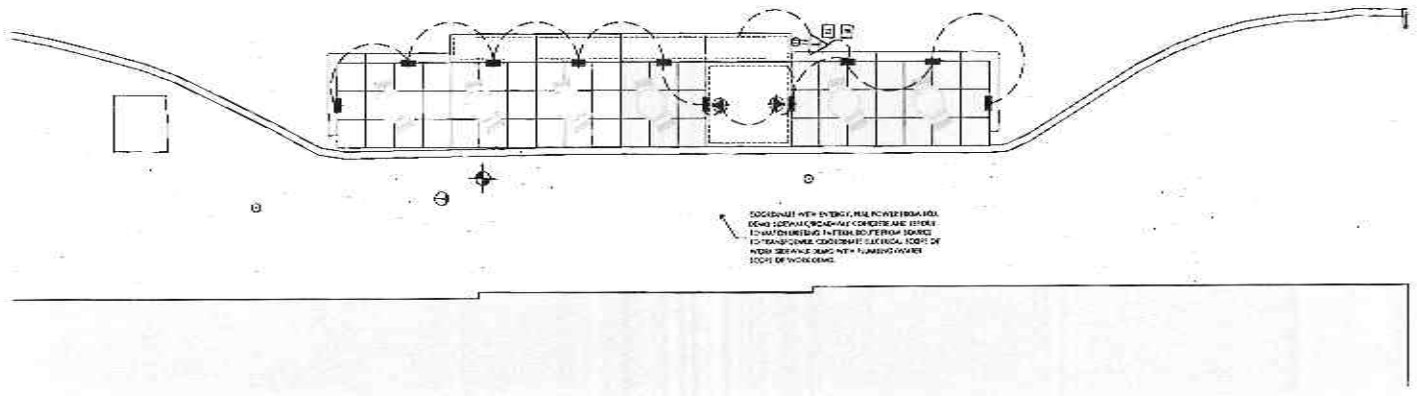
5.

6.

7.

NOTE
CONTRACTOR TO ADD SLEEVES AS NECESSARY TO ALLOW FOR BOTH IRRIGATION PIPING AND LIGHTING WIRE.

3RD STREET
(53.3' R/W)(PUBLIC)(CONCRETE)



1 LIGHTING PLAN (ALTERNATE 2)
SCALE 1/4" = 1'-0"

THIRD STREET PARKLET
100 BLOCK
BATON ROUGE, LOUISIANA

LIGHTING PLAN
(ALT. 2)

L6.0

SECTION 017300 – 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 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Cutting and patching.

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 construction to original conditions after installation of other work.

1.4 QUALITY ASSURANCE

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:

a. Water, moisture, or vapor barriers.
b. Membranes and flashings.
c. Exterior curtain-wall construction.
d. Sprayed fire-resistive material.
e. Equipment supports.
f. Piping, ductwork, vessels, and equipment.
g. Noise- and vibration-control elements and systems.

2. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction 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.

B. Cutting and Patching 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 for patching 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, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, 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; underground electrical services, and other utilities.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, 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. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

1. Description of the Work.
2. List of detrimental conditions, including substrates.

3. List of unacceptable installation tolerances.
4. Recommended corrections.

D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. 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.

B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

3.3 CUTTING AND PATCHING

A. Cutting and Patching, 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. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

C. Temporary Support: Provide temporary support of work to be cut.

D. 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.

E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching with the Owner.

F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

G. 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 neatly to minimum 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 Sections where required by cutting and patching operations.
5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
6. Proceed with patching after construction operations requiring cutting are complete.

H. 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 practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize 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.

3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

    a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.

I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

END OF SECTION 017300

SECTION 024113 - SELECTIVE SITE DEMOLITION

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 the following:

1. Demolition and removal of concrete and brick paving.

B. Related Sections include the following:

1. Division 1 Section "Summary" for use of premises and Owner-occupancy requirements.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and other tenants' on-site operations are uninterrupted.
2. Interruption of utility services. Indicate how long utility services will be interrupted.
3. Coordination for continuation of utility services.
4. Coordination of Owner's continuing occupancy of portions site and of Owner's partial occupancy of completed Work.

B. Predemolition Photographs: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Submit before Work begins.

1.5 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Standards: Comply with ANSI A10.6 and NFPA 241.

D. Predemolition Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to selective demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review and finalize selective demolition schedule.
3. Review areas where existing construction is to remain and requires protection.

1.6 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

1. Comply with requirements specified in Division 1 Section "Summary."

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

1. Before selective demolition, Owner will remove the following items:

a. Site Furnishings

C. Notify Landscape Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is unknown whether hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Landscape Architect and Owner. Owner will remove hazardous materials under a separate contract.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Landscape Architect.

C. Survey of Existing Conditions: Record existing conditions by use of measured drawings, preconstruction photograph and or preconstruction videotapes.

1. Comply with requirements specified in Division 1 Section "Photographic Documentation."

D. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

1. Comply with requirements for existing services/systems interruptions specified in Division 1 Section "Summary."

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Division 1 Section "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically.
2. Dispose of demolished items and materials promptly. Comply with requirements in Division 1 Section "Construction Waste Management."

B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Landscape Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete & Brick Paving: Demolish in small sections. Cut concrete to a depth of at least 2 inch at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated for selective demolition.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Division 1 Section "Construction Waste Management."

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.8 SELECTIVE DEMOLITION SCHEDULE

A. Existing Items to Be Removed: Concrete and Brick paving as shown on construction drawings.

B. Existing Items to Remain: All items not listed to be removed or demolished including but not limited to utilities, drains, drainage lines, light poles, signage, trees.

END OF SECTION 024113

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes cast-in-place concrete for walls and wall footings, including reinforcement, concrete materials, mixture design, placement procedures, and finishes.

B. Related Sections:

1. Section 042113 "Brick Masonry" for brick seat walls
2. Section 321313 "Concrete Paving" for concrete pavement and walks.

1.3 QUALITY ASSURANCE

A. Ready-Mix-Concrete 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.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").

B. Concrete Testing Service: Engage a qualified testing agency to perform material evaluation tests and to design concrete mixtures.

C. Comply with the following sections of ACI 301, 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."
6. "Normal Weight Concrete."

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. 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 gray.

B. Normal-Weight Aggregate: ASTM C 33, graded, 1-1/2-inch nominal maximum aggregate size.

C. Water: ASTM C 94/C 94M.

2.4 ADMIXTURES

A. 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.

2.5 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.

B. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth or cotton mats.

C. Water: Potable.

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 (ACI 301M), as follows:

1. Minimum Compressive Strength: 3500 psi at 28 days.
2. Slump Limit: 4 inches concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.

2.7 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 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.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, construct, erect, brace, and maintain formwork according to ACI 301.

3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining work attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 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.

3.4 CONCRETE PLACEMENT

A. Comply with ACI 301 for placing concrete.

B. Do not add water to concrete during delivery, at Project site, or during placement.

C. 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.

D. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.

3.5 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.

3.6 CONCRETE PROTECTING 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. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

D. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound or a combination of these as follows:

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, 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 occurring during installation or 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 that have been subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

3.7 FIELD QUALITY CONTROL

A. Testing Agency: 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 100 cubic yard 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 Landscape 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 Landscape 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 Landscape 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.

3.8 REPAIRS

A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION 033000

SECTION 03 35 00 - CONCRETE FINISHING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Repair of surface defects

B. Finishing of formed surfaces

C. Slabs and flatwork

D. Curing

1.2 RELATED SECTIONS

A. Section 03 11 00: Concrete Forming

B. Section 03 30 00: Cast-In-Place Concrete

C. Section 03 53 00: Concrete Topping

1.3 MEASUREMENT AND PAYMENT

A. Measurement: Repair of surface defects, finishing, and curing of concrete will not be measured separately for payment.

B. Payment: Repair of surface defects, finishing, and curing of concrete will be paid for as part of the indicated Contract unit prices or lump-sum prices for the associated concrete work as indicated in the Bid Schedule of the Bid Form.

1.4 REFERENCES

A. American Association of State Highway and Transportation Officials (AASHTO):

1. AASHTO M182: Burlap Cloth Made from Jute or Kenaf

B. American Concrete Institute (ACI):

1. ACI 117: Standard Specification for Tolerances for Concrete Construction and Materials

2. ACI 301: Standard Specifications for Structural Concrete

3. ACI 330R-08: Guide for the Design of Construction of Concrete Parking Lots

4. ACI 308: Standard Practice for Curing Concrete

5. ACI 503.4: Standard Specifications for Repairing Concrete with Epoxy Mortars

C. American Society for Testing and Materials (ASTM):

1. ASTM C33: Specification for Concrete Aggregates

2. ASTM C150: Specification for Portland Cement

3. ASTM C171: Specifications for Sheet Materials for Curing Concrete

4. ASTM C309: Specification for Liquid Membrane-Forming Compounds for Curing Concrete

5. ASTM C881: Specification for Epoxy-Resin-Base Bonding Systems for Concrete

6. ASTM E1155: Standard Test Method for Determining *FF* Floor Flatness and *FF* Floor Levelness Numbers

D. State of California, Department of Transportation (CalTrans), Standard Specifications:

1. Section 51 Concrete Structures

1.5 SUBMITTALS

A. General: Refer to Section 01 33 00 – Submittal Procedures, and Section 01 33 23.

B. Shop Drawings: Submit drawings, or diagrams to scale, that indicate the location in plan and elevation of all concrete finishes.

C. Product Data: Submit manufacturer's product data for manufactured products.

D. Samples:

1. Submit ½-pint sample container of aluminum oxide and silicon carbide abrasive grit for review and acceptance where "non-slip finish" is indicated.

2. Submit samples not less than 12 inches by 12 inches in size of each type of sand blast finish, indicating materials and methods used to produce the sand blast finishes Review by the Engineer will be for color and Texture only. Approved samples will become the Engineer's control samples.

1.6 QUALITY ASSURANCE

A. Finishes:

1. Finishing of formed concrete surfaces shall conform to applicable requirements of ACI 301.

2. Finishes for slabs and flatwork shall conform to applicable requirements of ACI 301.

3. Special architectural finishes for formed concrete surfaces shall conform with applicable requirements of ACI 301.

4. Bridge deck finishes shall conform to applicable requirements of Caltrans Standard Specifications Section 51.

B. Curing: Conform to requirements of ACI 301 and ACI 308, as applicable, and requirements specified herein.

C. Site Mock-Ups: Provide site mock-ups, at least 3 feet by 4 feet in size, of finishes of formed surfaces in exposed locations and of exposed slab finishes for the Engineer's review and

approval. Refer to Section 01 43 38 – Field Samples and Mock-ups, for requirements and procedures.

D. Site Mock-ups of Architectural Concrete: Provide site mock-ups of architectural concrete showing finish texture and pattern of exposed formed concrete surfaces.

1. Size of mock-up shall be a minimum of 2 feet by 4 feet, unless otherwise approved by the Engineer to be smaller.

2. The number of mock-up panels required shall be the number necessary to obtain the Engineer's approval of pattern and texture of panel.

3. Approved mock-up shall be used as the standard for the aesthetic quality of the surface finish of architectural concrete.

4. Requirements of Regulatory Agencies: Comply with air pollution regulations of governing authorities for sand – blasting activities and operations.

PART 2 PRODUCTS

2.1 TOOLS AND EQUIPMENT:

The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for performing the required concrete-finishing work.

2.2 REPAIR AND FINISHING MATERIALS

A. Portland Cement: ASTM C150, Type II, of the same brand as used in the work. Furnish white portland cement where required to produce color matching color of surrounding concrete.

B. Aggregate:

1. For Bonding Grout: ASTM C33, washed clean sand passing a No. 30 sieve.

2. For Patching Mortar: ASTM C33, washed clean, graded fine aggregate of suitable size for areas to be repaired. Clean coarse aggregate up to Size No. 8 may be added for repair of larger pockets and voids.

C. Commercial Patching Mortar: A structural repair mortar may be furnished if appropriate for the use and approved by the Engineer.

D. Epoxy Patching Mortar: As specified in ACI 503.4 for Epoxy Mortar.

E. Epoxy Adhesive: ASTM C881, Type II or Type V, epoxy-based bonding agent.

F. Anti-Slip Abrasive Grit: Virgin grain Aluminum Oxide or Silicon Carbide particles, or a mixture of the two.

2.3 CURING MATERIALS

A. Damp Curing Materials:

1. Waterproof Sheet Materials: ASTM C171, waterproof paper with white paper face, polyethylene film pigmented white, or white burlap-polyethylene sheeting.

2. Burlap: AASHTO M182, of class or weight suitable for the use and location. Do not use burlap where concrete is exposed to direct sunlight.

B. Curing Compound: ASTM C309, liquid membrane-forming curing compound, Type 1, Class A or B as appropriate for the use or location.

1. Where concrete surfaces will receive architectural finishes, such as resilient floor coverings or paint, or membrane waterproofing, membrane-forming curing compound shall not leave a coating or residue that will impair bond of adhesives, paints, and coatings with concrete.

PART 3 EXECUTION

3.1 REPAIR OF SURFACE DEFECTS

A. Repair Standards: Repair of surface defects shall conform with applicable requirements of ACI 301. When using epoxy mortar, conform with applicable requirements of ACI 503.4.

B. Surface Defects:

1. Repair of surface defects shall begin immediately after form removal. For repair with epoxy mortar, concrete shall be dry.

2. Surface defects are defined to include: form-tie holes, air voids or pockets, bug holes with a nominal diameter or depth greater than 1/4-inch, honeycombed areas, rock pockets, visible construction joints, fins, and burrs.

3. Repair of surface defects shall be tightly bonded and shall result in concrete surfaces of uniform color and texture, matching adjacent surfaces, and free of shrinkage cracks.

C. Repair Work:

1. Remove honeycombed and other defective concrete down to sound concrete. Saw-cut the edges perpendicular to the surface or slightly undercut. Feather-edges will not be permitted. Dampen the area to be patched and an area at least 6 inches wide surrounding it to prevent absorption of water from the patching mortar.

2. Where rock pockets or similar defects or voids expose steel reinforcement, cutout to solid surface behind the reinforcing steel to provide suitable key-lock for patching mortar. Patching mortar shall envelope the exposed reinforcing bar.

3. Bond patching mortar to concrete with bonding grout or epoxy adhesive. Bonding grout shall consist of 1 part portland cement to 1 part No. 30 mesh sand, mixed to the consistency of a thick cream, and then well brushed onto the concrete. Bond commercial patching mortar to concrete in accordance with the manufacturer's instructions.

4. Make the patching mortar of the same materials and of approximately the same proportions as used for the concrete, except omit the coarse aggregate. Use not more than 1 part portland cement to 2-1/2 parts sand by damp loose volume, and substitute white portland cement for a portion of the regular gray portland cement to

produce patching mix matching the surrounding concrete in color when dry. Determine the proportion of white portland cement by trial mixes and test areas, prior to repair of actual defective areas.

5. After surface water has evaporated from the area to be patched, brush the bond coat well into the surface. When the bond coat begins to lose the water sheen, apply the patching mortar. Compact the mortar into place and strike off so as to leave the patch slightly higher than the surrounding surface. To permit initial shrinkage, leave the patch undisturbed for at least 1 hour before being finally finished. Keep the patched area damp for 7 days.

6. Neatly finish patched surfaces to match adjacent surrounding surface texture of concrete. Grind or fill surfaces to produce level and plumb, true planes.

7. For walls exposed in the finish work, form tie holes shall be patched and finished flush with adjacent surface. For holes passing entirely through walls, a plunger type injection gun or other suitable device shall be used to completely fill the holes.

8. Patching of honeycombed areas or rock pockets that are too large and unsatisfactory for mortar patching shall be cut out to solid surface, keyed, and packed solid with matching concrete to produce firm bond flush surface. Patching shall match texture of adjacent surfaces where exposed in the finished work.

9. Repair work in exposed locations that does not match the texture and color of surrounding adjacent surfaces or that was not well performed shall be removed and performed again until the repair work conforms with Specification requirements.

10. Surfaces to receive membrane waterproofing shall have fins and loose material removed, and voids and cracks patched flush with adjacent surfaces.

11. Completed repairs shall be cured as herein specified under Article 3.04, Curing.

3.2 FINISHING OF FORMED SURFACES

A. Unexposed Surfaces:

12. Concrete that will not be exposed in the completed structure shall be any form finish as specified in Section 03 11 00 – Concrete Forming, and ACI 301 for "rough form finish".

13. Concrete to receive membrane waterproofing shall receive a "Smooth form finish" in accordance with ACI 301.

B. Exposed Surfaces: Unless indicated otherwise, concrete that will be exposed in the completed structure shall receive the following finishes as indicated:

1. Wall: Board - Form Finish, joints and dimension as shown on drawings.

2. Smooth Form Finish: Conform to ACI 301

3. Smooth Rubbed Finish: Conform to ACI 301

4. Grout Cleaned Finish: Conform to ACI 301

5. Unspecified Finish: When finish is not indicated, provide "smooth form finish" as specified above.

C. Sand Blast Finish:

1. Blasting Operations and Requirements:

a. Apply sandblasted finish to exposed concrete surfaces where indicated.

b. Perform sand blasting at least 72 hours after placement of concrete. Coordinate with formwork construction, concrete placement schedule, and formwork removal to ensure that surfaces to be blast finished are blasted at the same age for uniform results.

c. Determine type nozzle, nozzle pressure, and blasting techniques required to match the Engineer's control samples.

d. Abrasive blast corners and edge of patterns carefully, using back-up boards, to maintain uniform corner or edge line.

2. Depths of Cut: Use an abrasive grit of proper type and graduation to expose aggregate and surrounding matrix surface to match the Engineer's control samples as follows:

a. Brush Sand Blast Finish: Remove cement matrix to expose face of fine aggregate; no reveal.

b. Light Sand Blast Finish: Expose fine aggregate with occasional exposure of coarse aggregate; maximum 1/16-inch reveal.

c. Medium Sand Blast Finish: Generally expose coarse aggregate; 3/16-inch to ¼-inch reveal.

3. Surface Continuity: Perform sand blast finishing in as continuous an operation as possible, utilizing the same work crew to maintain continuity of finish on each surface or area of work. Maintain patterns of variances in depths of cuts as indicated.

4. Construction Joints: Use technique acceptable to the Engineer to achieve uniform treatment of construction joints.

5. Protection and Repair:

a. Protect adjacent materials and finishes from dust, dirt, and other surface or physical damage during abrasive blast finishing operations. Provide protection as required and remove from site at completion of the work.

b. Repair or replace other work damaged by finishing operations.

6. Clean-up: Maintain control of concrete chips, dust, and debris in each area of the work. Clean up and remove such material at the completion of each day of operation. Prevent migration of airborne materials by use of tarpaulins, wind breaks, and similar containing devices.

3.3 SLABS AND FLATWORK

A. Placement and Finishing Standards: Slabs and flatwork shall be placed, consolidated, and finished in accordance with applicable requirements of ACI 301. Coordinate with Section 03 30 00 – Cast-In-Place Concrete, as applicable.

1. High volume fly ash concrete (HVFAC) exhibits little or no bleed water. Commence finishing as soon as power screeding is complete, and commence initial curing as soon as finishing has been completed.

B. Placement:

1. Slabs and flatwork shall be placed and finished monolithically. Strike off and screed slabs to true, plane surfaces at required elevations, and thoroughly compact concrete with vibrators, floats, and tampers to force coarse aggregate below the surface. Finish slab within four hours of concrete placement.

2. Whether indicated or not, in areas where drains occur, slope finished slab to drains. Slope shall be a minimum of 1/8-inch per foot unless otherwise indicated.

C. Slab Finishes: Unless indicated otherwise, slabs and flatwork shall receive the following finishes as indicated:

1. Scratched Finish: Conform to ACI 301. Provide "scratched finish" for slab substrates to receive cementitious toppings or finishes, such as terrazzo or mortar setting bed for ceramic tile.

2. Floated Finish: Conform to ACI 301. Provide "floated finish" for track slabs and mud slabs and for slabs and flatwork to receive roofing and membrane waterproofing.

3. Troweled Finish: Conform to ACI 301. Provide "troweled finish" for interior slabs and flatwork to be exposed in the completed structure, for slabs to receive resilient floor coverings, and for flatwork to receive elastomeric bearing pads.

4. Broom Finish: Conform to ACI 301. Exact texture and coarseness of the broom finish shall match the approved site mock-up. Provide fine or medium-coarse "broom finish" as indicated for exterior sidewalks and paving, exterior ramps, equipment and transformer pads, and subway invert slab.

5. Nonslip Finish: Conform to ACI 301. Nonslip materials shall be aluminum oxide and silicone carbide grit particles. Provide "nonslip finish" for interior pedestrian ramps, walkways, subway cross-passage floors, and other floor areas where indicated.

6. Swirl Pattern Finish: Provide for garage floors. After basic floating operations have been completed, hand float slabs using wood float to produce a continuous swirl patterned surface, free from porous spots, irregularities, depressions, and small pockets or rough spots such as may be caused by accidentally disturbing particles of coarse aggregate embedded near surface. Use natural arm circular motion to produce rows of approximately one-foot radius swirl pattern covering approximately half of the preceding row with each successive row.

7. Unspecified Finish: When finish is not indicated or specified, provide finishes as specified in ACI 301.

D. Surface Tolerances: As specified herein:

1. Flat Tolerance: Slabs and flatwork with "troweled finish" and with "nonslip finish".

2. Straightedge Tolerance: Slabs and flatwork with fine "broom finish" or medium-coarse "broom finish".

3. Bullfloated Tolerance: Slabs and flatwork with "scratched finish," with "floated finish," and with coarse "broom finish".

E. Joints:

1. Construction, expansion, isolation, and contraction joints shall be located as indicated. Construction joints shall act as contraction joints. Where additional contraction joints are required to prevent shrinkage cracks, saw-cut such joints. All joints shall be straight and true to line. Saw-cut joints not less than twelve hours nor more than twenty-four hours after placing concrete, unless otherwise approved by the Engineer.

2. Mark-off lines or edges at formed construction and expansion joints shall be finished with 1/4-inch radius curved edging tool, neat and true to line, uniform throughout.

3.4 CURING

A. Curing Standards: Curing of concrete shall conform with applicable requirements of ACI 301 and ACI 308, except that the duration of the curing period shall be ten days. Curing with earth, sand, sawdust, straw, hay will not be permitted.

B. Curing Requirements:

1. Concrete shall be cured with waterproof sheet materials, damp burlap, or curing compounds.

2. Curing compounds shall not be used on top of ballasted aerial structures and on surfaces when their use may be detrimental to bonding of concrete, mortar, membrane waterproofing, calking and sealants, adhesives, plaster, paint, or the specified surface finish or coating.

C. Damp Curing:

1. Vertical surfaces shall be cured by keeping the forms wet at all times and by leaving the forms in place as long as possible as specified in Section 03 11 00 – Concrete Forming. After removal of forms, concrete shall be kept continuously damp by fog spraying or otherwise washing down the concrete in an accepted manner until ten days after placing. Protect exposed surfaces by covering with sheet materials or burlap kept continuously moist.

2. Horizontal surfaces shall be cured and protected by covering the finished surfaces with waterproof sheet materials or damp burlap, left in place for a minimum of ten days and kept continuously moist.

3. Fog spray freshly placed slabs until finishing operations commence. Allow no slabs to become dry until finishing operations are complete.

D. Curing HVFAC: Initiate damp curing as soon as finishing has been completed. Damp cure for a minimum of ten days. Continue curing for a total of 28 days. Curing after initial ten days

may be damp curing or using membrane-forming curing compound. Use evaporation reducer between finish operations, as necessary, to protect concrete from rapid drying.

E. Curing Compound: Application of curing compound shall conform to applicable requirements of ACI 308.

3.5 PROTECTION

A. Protect exposed concrete surfaces, including flatwork, as required to prevent damage from impact or strains.

B. Protect fresh concrete from drying winds, rain, damage, or soiling.

C. Refer to Section 03 30 00 – Cast-In-Place Concrete, Article 3.09, for additional requirements.

3.6 TOLERANCES

A. Formed Surfaces: Conform with applicable requirements of ACI 117.

1. Where elastomeric bearing pads are indicated, the level plane upon which bearing pads are placed shall not vary more than 1/16-inch from a 10-foot straightedge placed in any direction across the area and the area shall extend a minimum of 1 inch beyond the limits of the pads.

2. Bearing surfaces of girders on a slope or girders with a camber be finished on a horizontal/level plane so that loads are uniformly distributed over the entire surface of the elastomeric bearing pads.

3. The finished plane shall not very more than 1/8-inch from the elevation indicated.

B. Slabs and Flatwork: Conform to applicable classification requirements of ASTM E1155, as follows:

1. Very Flat Tolerance: FF 50, FL30. True plane with maximum variation of 1/8-inch in 10 feet when measured with a 10-foot straightedged placed anywhere on the slab in any direction.

2. Flat Tolerance: FF 30, FL20. True plane with maximum variation of 3/16-inch in 10 feet when measured with a 10-foot straightedge placed anywhere on the slab in any direction.

3. Straightedge Tolerance: FF 20, FL15. True plane with maximum variation of 5/16-inch in 10 feet when measured with a 10-foot straightedged placed anywhere on the slab in any direction.

4. Bullfloated Tolerance: FF 15, FL13. True Plane with maximum variation of ½ inch in 10 feet when measured with a 10-foot straightedge placed anywhere on the slab in any direction.

END OF SECTION

SECTION 129300 - SITE FURNISHINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Planters

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 STEEL PLANTERS

A. Products: Subject to compliance with requirements, provide the following:

1. Tournesol Wilshire Planter; WWR-WS722424
   a. Number: 4
   b. Size: 72"x24"x24"
   c. Finish: Weathering steel
   d. Prior approved manufacturers:
      1) Landscape Forms
      2) Planter Craft
      3) Or other prior approved.

2. Tournesol Wilshire Planter; WWR-WS7200
   a. Number: 1
   b. Size: 72"x72"x30"
   c. Finish: Weathering steel
   d. Prior approved manufacturers:
      1) Landscape Forms
      2) Planter Craft
      3) Or other prior approved.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.

B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.

C. Install site furnishings level, plumb, true, and positioned at locations indicated on Drawings.

END OF SECTION 129300

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. Sidewalks

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with fly ash.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Other Action Submittals:

1. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: 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.

B. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by requirements in the Contract Documents.

C. Preinstallation Conference: Conduct conference at Project site.

1. Review methods and procedures related to concrete paving, including but not limited to, the following:

a. Quality control of concrete materials and concrete paving construction practices.

2. Require representatives of each entity directly concerned with concrete paving to attend, including the following:

   a. Contractor's superintendent.
   b. Concrete paving subcontractor.

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 FORMS

A. Form Materials: Plywood, lumber, boards, or other approved materials to provide full-depth, continuous, straight, smooth exposed surfaces.

   1. Use flexible or uniformly curved forms for curves with a radius of 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.

2.2 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 (Grade 420); deformed.

C. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.

D. 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.

2.3 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout the Project:

   1. Portland Cement: ASTM C 150, Type I/II gray.

B. Normal-Weight Aggregates: ASTM C 33, Class 3S coarse aggregate, uniformly graded. Provide aggregates from a single source.

1. Maximum Coarse-Aggregate Size: 1 inch #57 nominal.

C. Water: Potable and complying with ASTM C 94/C 94M.

D. 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 Admixture: ASTM C 494/C 494M, Type F.

2.4 CURING MATERIALS

A. Water: Potable.

B. Clear Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

2.5 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.

B. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

2.6 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 qualified 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): 3500 psi.
2. Slump Limit: 5 inches plus or minus 1 inch.

C. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.

D. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement according to ACI 301 requirements.

2.7 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 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.

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 to identify soft pockets and areas of excess yielding.

1. Completely proof-roll subbase in one direction and repeat in perpendicular direction.

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. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

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.

C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.

1. Locate expansion joints at intervals of as indicated on construction drawings.
2. Extend joint fillers full width and depth of joint.
3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.

E. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a 1/4-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. 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.

C. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.

D. Do not add water to concrete during delivery or at Project site.

E. Do not add water to fresh concrete after testing.

F. 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.

G. 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.

H. 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 Landscape Architect.

I. Screed pavement surfaces with a straightedge and strike off.

J. 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.

K. 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.

L. 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.

M. 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-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.

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. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

D. Curing Methods: Cure concrete by curing compound.

1. Moist Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

a. 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, unleveled straightedge not to exceed 1/4 inch.
4. Lateral Alignment and Spacing of Dowels: 1 inch.
5. Vertical Alignment of Dowels: 1/4 inch.
6. Joint Spacing: 1 inch.
7. Contraction Joint Depth: Plus 1/4 inch, no minus.
8. Joint Width: Plus 1/8 inch, no minus.

3.10 FIELD QUALITY CONTROL

A. Testing Agency: 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 100 cu. ydor 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 Landscape 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 Landscape 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 Landscape 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.

3.11 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 Landscape 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 321400 - UNIT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Concrete pavers

1.3 ACTION SUBMITTALS

A. Product Data: For materials other than water and aggregates.

B. Product Data: For the following:

1. Pavers.

C. Sieve Analyses: For aggregate setting-bed materials, according to ASTM C 136.

D. Samples for Initial Selection: For the following:

1. Each type of unit paver indicated.

E. Samples for Verification:

1. Full-size units of each type of unit paver indicated. Assemble no fewer than five Samples of each type of unit on suitable backing.

1.4 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of unit paver, joint material, and setting material from single source with resources to provide materials and products of consistent quality in appearance and physical properties.

B. Preinstallation Conference: Conduct conference at Project site.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store pavers on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied.

B. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

1.6 PROJECT CONDITIONS

A. Cold-Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

PART 2 - PRODUCTS

2.1 CONCRETE PAVERS

A. Concrete Pavers: Solid paving units, made from normal-weight concrete with a compressive strength not less than 6000 psi, water absorption not more than 5 percent according to ASTM C 140, and no breakage and not more than 1 percent mass loss when tested for freeze-thaw resistance according to ASTM C 67.

1. Base Bid:
   a. Type 1 Paver: Belgard
      1) Thickness: 2"
      2) Face Size and Shape: 24"x24" square.
      3) Color: Gray
   b. Type 2 Paver: Belgard
      1) Thickness: 2"
      2) Face Size and Shape: 24"x24" square.
      3) Color: Charcoal

2. **Alternate 1:** Basis of Design: Hanover Pavers or prior approved equal. **Product must match in appearance, color, texture, and finish of adjacent sites (North Boulevard Town Square; Davis Rhorer Plaza).** Proposed substitutions must match the appearance and performance of the Basis of Design product and be approved by the Landscape Architect prior to installation.
   a. Type 1 Paver: Hanover Prest Paver
      1) Thickness: 2"
      2) Face Size and Shape: 24"x24" square.
      3) Color: Tudor Limestone Gray (no bevel)
   b. Type 2 Paver: Hanover Prest Paver
      1) Thickness: 2"
      2) Face Size and Shape: 24"x24" square.
      3) Color: Tudor Matrix B91744 (no bevel)
3. Approved equals for base bid.
   a. Belgard
   b. Hanover
   c. Unilock

2.2 AGGREGATE SETTING-BED MATERIALS

A. Sand for Leveling Course: Sound, sharp, washed, natural sand or crushed stone complying with gradation requirements in ASTM C 33 for fine aggregate.

B. Sand for Joints: Fine, sharp, washed, natural sand or crushed stone with 100 percent passing No. 16 sieve and no more than 10 percent passing No. 200 sieve.

1. Provide sand of color needed to produce required joint color.

PART 3 - EXECUTION

3.1 PREPARATION.

A. Sweep concrete substrates to remove dirt, dust, debris, and loose particles.

3.2 INSTALLATION, GENERAL

A. Do not use unit pavers with chips, cracks, voids, discolorations, or other defects that might be visible or cause staining in finished work.

B. Mix pavers from several pallets or cubes, as they are placed, to produce uniform blend of colors and textures.

C. Cut unit pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.

1. For concrete pavers, a block splitter may be used.

D. Joint Pattern: As indicated on drawings.

E. Pavers over Waterproofing: Exercise care in placing pavers and setting materials over waterproofing so protection materials are not displaced and waterproofing is not punctured or otherwise damaged. Carefully replace protection materials that become displaced and arrange for repair of damaged waterproofing before covering with paving.

F. Tolerances: Do not exceed 1/16-inch unit-to-unit offset from flush (lippage) nor 1/4 inch in 10 feet from level, or indicated slope, for finished surface of paving.

3.3 AGGREGATE SETTING-BED APPLICATIONS

A. Place leveling course on concrete subbase and screed to a thickness of 1 to 1-1/2 inches, taking care that moisture content remains constant and density is loose and uniform until pavers are set and compacted.

B. Treat leveling course with herbicide to inhibit growth of grass and weeds.

C. Set pavers with a minimum joint width of 1/16 inch (1.5 mm) and a maximum of 1/8 inch (3 mm), being careful not to disturb leveling base. If pavers have spacer bars, place pavers hand tight against spacer bars. Use string lines to keep straight lines. Fill gaps between units that exceed 3/8 inch with pieces cut to fit from full-size unit pavers.

1. When installation is performed with mechanical equipment, use only unit pavers with spacer bars on sides of each unit.

D. Vibrate pavers into leveling course with a low-amplitude plate vibrator capable of a 3500- to 5000-lbf compaction force at 80 to 90 Hz. Use vibrator with neoprene mat on face of plate or other means as needed to prevent cracking and chipping of pavers. Perform at least three passes across paving with vibrator.

1. Compact pavers when there is sufficient surface to accommodate operation of vibrator, leaving at least 36 inches of uncompacted pavers adjacent to temporary edges.
2. Before ending each day's work, compact installed concrete pavers except for 36-inch width of uncompacted pavers adjacent to temporary edges (laying faces).
3. As work progresses to perimeter of installation, compact installed pavers that are adjacent to permanent edges unless they are within 36 inches of laying face.
4. Before ending each day's work and when rain interrupts work, cover pavers that have not been compacted and cover leveling course on which pavers have not been placed with nonstaining plastic sheets to protect them from rain.

E. Spread dry sand and fill joints immediately after vibrating pavers into leveling course. Vibrate pavers and add sand until joints are completely filled, then remove excess sand. Leave a slight surplus of sand on the surface for joint filling.

F. Do not allow traffic on installed pavers until sand has been vibrated into joints.

G. Repeat joint-filling process 30 days later.

3.4 REPAIRING AND CLEANING

A. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.

B. Cleaning: Remove excess grout from exposed paver surfaces; wash and scrub clean.

END OF SECTION 321400

SECTION 328400 – PLANTING IRRIGATION

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. Section Includes:

1. Piping.
2. Vacuum Breaker
3. Manual valves.
4. Automatic control valves.
5. Boxes for automatic control valves.
6. Rotors
7. Sprays
8. Controllers.
9. Decoders.
10. Sensors
11. Wire.

1.3 DEFINITIONS

A. Circuit Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.

B. Drain Piping: Downstream from circuit-piping drain valves. Piping is not under pressure.

C. Main Piping: Downstream from point of connection to water distribution piping to, and including, control valves. Piping is under water-distribution-system pressure.

D. Low Voltage: As defined in NFPA 70 for circuits and equipment operating at less than 50 V or for remote-control, signaling power-limited circuits.

1.4 PERFORMANCE REQUIREMENTS

A. Irrigation zone control shall be automatic operation with controller and automatic control valves.

B. Location of Sprinklers and Specialties: Design location is approximate. Make minor adjustments necessary to avoid plantings and obstructions such as signs and light standards. Maintain 100 percent irrigation coverage of areas indicated.

1.5 SUBMITTALS

A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics and furnished specialties and accessories.

1. Pipe
2. Vacuum Breaker
3. Manual Valves
4. Automatic Valves
5. Valve Boxes
6. Rotors (lawn) including nozzle types.
7. 4" Pop-up Sprays (lawn), including nozzle types.
8. 12" Pop-up Sprays (plants), including nozzle types.
9. Automatic Controller
10. Decoders
11. Sensors
12. Wiring

B. Coordination Drawings: Irrigation systems, drawn to scale, on which components are shown and coordinated with each other, using input from Installers of the items involved. Also include adjustments necessary to avoid plantings and obstructions such as signs and light standards.

C. Controller Timing Schedule: Indicate timing settings for each automatic controller zone.

1.6 PROJECT RECORD DOCUMENTS

A. Record drawings: Two (2) sets, noting exact locations of elements and changes to Construction Drawings.

B. Operating manual - Two (2) copies bound in one (1) inch diameter three ring binders, indexed and tabbed for easy reference, and labeled on spine and cover. Manual is to include the following:

1. Approved submittals as specified herein.
2. Installation instructions including mounting details for control valves.
3. Operating instructions:
    a. Winterization procedures
    b. Recommended operation sequence, frequency and length of operation cycle, as per relationship to estimated absorption rate, evaporation rate and anticipated flow.
4. Maintenance instructions:
    a. Items requiring manufacturer's product data, installation and maintenance instructions.
    b. Complete warranty information and mail to manufacturer and provide copies to the Owner.

C. Controller chart: Prepare coded chart, reduced in size, containing same plan information as As-Built drawings, and laminated in plastic on both sides, with the following specific information:

1. Note of control wires.

2. Identify each irrigation zone and its control valve including valve size and the station number as shown on controller and type of irrigation head on each valve / zone. Number in clockwise direction.

D. Controller Timing Schedule: Indicate timing settings for each automatic controller zone.

1.7 QUALITY ASSURANCE

A. Following installation make final adjustments to irrigation system prior to Owner's final inspection.

1. Flush system completely, with nozzles removed, to remove debris.
2. Verify sprinkler operation and alignment for direction of throw,
3. Check pop-up spray nozzling for proper arc of spray.
4. Insure uniform distribution and head to head coverage.

B. Following final adjustment, operate entire installation to demonstrate complete and successful operation of equipment.

C. Guarantee installation for one (1) year from date of final acceptance for following:

1. Defects in material, equipment and workmanship.
2. Repair of damage to premises resulting from leaks or other defects in material, equipment and workmanship to satisfaction of the Owner.

D. Repairs, if required, shall be done promptly at no cost to the Owner for the entire length of the one (1) year guarantee period.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.

B. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

1.9 PROJECT CONDITIONS

A. Interruption of Existing Water Service: Do not interrupt water service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water service according to requirements indicated:

1. Notify Owner no fewer than two (2) days in advance of proposed interruption of water service.
2. Do not proceed with interruption of water service without Owner's written permission.

PART 2 - PRODUCTS

2.1 BACKFLOW PREVENTER / VACUUM BREAKER

A. Comply with requirements and codes of local governing authority regarding backflow prevention.

B. Provide the necessary material, insulation/draining capabilities, and acceptable concealment to satisfy requirements and codes of local authority and aesthetic needs of the Owner. Concealment techniques would include painting of exposed piping, providing appropriate screen, providing painted metal enclosure around unit or approved equal. In most cases, this will be addressed by the landscape plan.

C. Blackflow preventers shall be the type suitable for use in high hazard cross connection to potable water system.

D. In absence of local codes or requirements double check assembly, backflow preventer, and install in strict accordance with manufacturer's written instructions.

E. Reduced pressure backflow preventers shall be manufactured by:

1. Watts Regulator Co., "No. 909 Series, Reduced Pressure Principle Backflow Preventer"
2. Wilkins, "No. 1-720AW-BV"
3. Approved equal.

2.2 BACKFLOW ENCLOSURE

A. Model 301-GT-C2 as manufactured by Dekorra 1.800.635.8585 or approved equal.

1. Polyethylene construction
2. Insulated
3. Two-piece design with easy lift-off access
4. Built-in double-locking hasp

2.3 PIPES, TUBES, AND FITTINGS

A. Comply with requirements in the piping schedule for applications of pipe, tube, and fitting materials, and for joining methods for specific services, service locations, and pipe sizes.

B. PVC Pipe: ASTM D 1785, Schedule 40.

1. PVC Socket Fittings: ASTM D 2466, Schedule 40.
2. PVC Threaded Fittings: ASTM D 2464, Schedule 80.
3. PVC Socket Unions: Construction similar to MSS SP-107, except both headpiece and tailpiece shall be PVC with socket ends.

2.4 PIPING JOINING MATERIALS

A. Solvent Cements for Joining PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.

B. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer unless otherwise indicated.

2.5 MANUAL VALVES

A. Bronze Gate Valves, Resilient Seated:

1. Basis-of-Design Product: Subject to compliance with requirements, provide NIBCO T-124 Bronze Gate Valve or comparable product by one of the following:

a. American Valve.
b. Approved Equal

2. Description:

a. Standard: AWWA C500-09.
b. Pressure Rating: 200 psi minimum.
c. Body Material: Bronze ASTM B 62.
d. End Connections: Class125 threaded end.
e. Interior Coating: Comply with AWWA C550-13.
f. Body Design: Rising stem.
g. Operator: Stem nut.
h. Disc: Solid wedge with resilient coating.

B. Operating Wrenches for Bronze Gate Valve Casings: Furnish two steel, tee-handle operating wrench(es) with one pointed end, stem of length to operate deepest buried valve, and socket matching valve operating nut for Project.

C. Plastic Ball Valves:

1. Manufacturers: Subject to compliance with requirements, provide Spears Manufacturing Company plastic ball valve or comparable product by one of the following:

a. American Valve, Inc.
b. NIBCO INC.
c. Approved Equal.

2. Description:

a. Standard: MSS SP-122.
b. Pressure Rating: 150 psi.
c. Body Material: PVC Type 1, ASTM D 1784.
d. Type: Union.
e. End Connections: Socket or threaded.
f. Port: Full.

2.6 AUTOMATIC CONTROL VALVES

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated ICV Valve or comparable product by one of the following:

1. Rain Bird Corporation.
2. Toro Company (The); Irrigation Division.
3. Approved Equal.

B. Description:

1. Glass-filled nylon construction.
2. External and internal manual bleed.
3. Double-beaded diaphragm seal.
4. Fabric reinforced EPDM diaphragm and EPDM seat.
5. DC latching solenoids.
6. Low flow and flow control capability.
7. Encapsulated 24-V ac solenoid with captive plunger.

2.7 BOXES FOR AUTOMATIC CONTROL VALVES

A. Plastic Boxes:

1. Description: Box and cover, with open bottom and openings for piping; designed for installing flush with grade.

    a. Size: As required for valves and service.
    b. Shape: Round for single valve, Rectangular for multiple valves.
    c. Sidewall Material: High density, structural Foam Polyethylene.
    d. Cover Material: High density, structural Foam Polyethylene.
    e. Cover Color: Green

        1) Lettering: "VALVE BOX or IRRIGATION."

B. Drainage Backfill: Cleaned gravel or crushed stone, graded from 3/4 inch minimum to 3 inches maximum.

2.8 ROTORS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated PGP Ultra (PGP-04) and I-25-04-SS Rotor where indicated on the drawing or comparable product by one of the following:

1. Rain Bird Corporation.
2. Toro Company (The); Irrigation Division.
3. Approved Equal.

B. PGP Ultra (PGP-04) Description:

1. Body and Riser Material: Corrosion resistant, impact resistant, heavy-duty ABS.
2. Retraction Spring: Stainless steel.
3. Internal Parts: Corrosion resistant.
4. Nozzle: PGP Ultra Standard Blue
5. 4" pop-up stroke.
6. Gear driven capable of covering a radius of 17' to 47' at 30 to 65PSI with a discharge rate from 1.2 to 9.8 GPM.
7. Full-circle and adjustable part-circle operation
8. Minutely adjustable from 50° to 360° during installation and operation.
9. Non-strippable drive mechanism.

C. I-25-04-SS Description:

1. Body Material: Corrosion resistant, impact resistant, heavy-duty ABS.

2. Riser Material: Stainless steel.
3. Retraction Spring: Stainless steel.
4. Internal Parts: Corrosion resistant.
5. 3.5" minimum pop-up stroke.
6. Nozzle: I-25 Standard, 25° trajectory, color coded for each radius
7. Gear driven capable of covering a radius of 37' to 71' at 40 to 100PSI with a discharge rate from 3.8 to 31.5 GPM.
8. Full-circle and adjustable part-circle operation
9. Minutely adjustable from 50° to 360° during installation and operation.
10. Non-strippable drive mechanism.

2.9 SPRAYS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated PRO-SPRAY (4" and 12") where indicated on the drawings or comparable product by one of the following:

1. Rain Bird Corporation.
2. Toro Company (The); Irrigation Division.
3. Approved Equal.

B. PROY-SPRAY (PROS-12) Description:

1. Body and Riser Material: Corrosion and UV-resistant, heavy-duty ABS.
2. Riser Material: Corrosion, abrasion and UV-resistant, heavy-duty ABS.
3. Retraction Spring: Stainless steel.
4. Internal Parts: Corrosion resistant.
5. 12" pop-up stroke.
6. Nozzle: PRO-SPRAY adjustable arc and fixed arc
7. Pressure-activated, multi-function, UV stable wiper seal.

C. PROY-SPRAY (PROS-4) Description:

1. Body and Riser Material: Corrosion and UV-resistant, heavy-duty ABS.
2. Riser Material: Corrosion, abrasion and UV-resistant, heavy-duty ABS.
3. Retraction Spring: Stainless steel.
4. Internal Parts: Corrosion resistant.
5. 4" pop-up stroke.
6. Nozzle: MP ROTATOR 1000-3000
7. Pressure-activated, multi-function, UV stable wiper seal.

2.10 CONTROLLERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated ACC99D Controller or comparable product by one of the following:

1. Rain Bird Corporation.
2. Toro Company (The); Irrigation Division.
3. Approved Equal.

B. Description:

1. The ACC controller shall be capable of two-wire decoder control of up to 99 stations via a plug-in decoder output module.
2. The decoder output module shall be field-installable without tools, and only a screwdriver to make the two-wire path connections. The controller interface shall have an Info button to provide text help instructions for each dial position.
3. The irrigation controllers shall have 6 automatic programs with 10 automatic start times, each. Start Times shall be set in one-minute increments, and may be set in 24-hour clock or AM/PM time formats.
4. Automatic programs shall have programmable water day schedules with optional Day of Week, Interval Day (1 to 31 days), or Odd or Even days, by program.
5. Automatic programs shall have user-programmed Non-Water windows to except certain time windows from watering, regardless of the water day schedule.
6. Automatic irrigation shall be capable of Cycle and Soak programming, by station, to minimize runoff. The controller shall also offer programmable delay between stations of up to 6 hours in one-second increments.
7. The controller shall have a programmable Rain Shutdown delay of up to 31 days.
8. Individual programs, or the entire controller, may be adjusted with Season Adjust from 0 to 300% in one percent increments.
9. The controller shall have a Quick Check test program, permitting all stations to run sequentially for a user-entered period of time, programmable in one-second increments up to 10 minutes each, for system startup and diagnostics.
10. The controller shall have a one-button manual station advance in Test mode for quick diagnostics checks.
11. The controllers shall permit stations to be grouped into Simultaneous Station Groups (SSG) for simultaneous activation and programming, in clusters of 2 to 4 stations. SSGs shall be used to reduce programming time, and to consolidate irrigation times when flow and pressure permit. SSGs shall be included in automatic programs with a single run time, in the same fashion as individual stations, but representing the electronic group of similar stations. SSGs may also be assigned alphanumeric names.

2.11 DECODERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated ICD Decoder or comparable product by one of the following:

1. Rain Bird Corporation.
2. Toro Company (The); Irrigation Division.
3. Approved Equal.

B. Description:

1. Compatible decoders include only the Hunter ICD Series as described herein. ICD Series de-coders are available in four different station output configurations, and shall be selected and placed to minimize the wiring distance from decoder to solenoid. The maximum distance recommended between individual decoder outputs, and the solenoids they are to activate, is 100 ft./33m. Shorter runs between individual decoder outputs and their solenoids reduce susceptibility to lightning damage in all decoder installations.
2. Decoders shall be available in one, two, four, or six station decoder units. Each decoder shall have a single pair of red/blue leads for connection to the two-wire path, and a pair of black leads for connection to the first solenoid. Multiple station decoders shall have color-coded outputs for each individual output, which corresponds to the station number of that output. Decoders with multiple station capability shall activate individual outputs, independently of each other color-coded output.

3. Each decoder output shall have sufficient capacity to activate two typical 24VAC irrigation solenoids simultaneously. A "typical" solenoid is assumed to require approximately 400 ma inrush current with approximately 200 ma holding current. The decoders shall have a current draw of 3.5 ma standby and 40 ma per active station.
4. Decoders shall be filled with a waterproof polymer compound to protect all circuitry, but shall be installed in valve boxes (or compatible top service valve-in-head sprinkler compartments) to facilitate proper connections and service.
5. Each decoder shall include an integrated surge suppression circuit with an exposed, unjacketed ground wire. No additional surge suppression devices shall be required in the two-wire path.
6. Each decoder output shall also have thermal, resettable circuit breakers to prevent overload from solenoid malfunctions.
7. Each decoder shall be programmable via wireless electro-magnetic induction while installed, without disconnection of any waterproof connections. A wireless handheld meter (Hunter Indus-tries Model ICD-HP) shall be furnished to allow programming, operation, and diagnostics through the decoder case.
8. The decoders shall be Hunter Industries Models as specified by station capacity:

    a. ICD-100 Single-station decoder
    b. ICD-200 Two-station decoder
    c. ICD-400 Four-station decoder
    d. ICD-600 Six-station decoder

9. The wireless handheld programmer shall be Hunter Industries Model ICD-HP.

2.12 SENSORS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated RAIN-CLIK (WR-CLIK) wireless rainfall sensor or comparable product by one of the following:

1. Rain Bird Corporation.
2. Toro Company (The); Irrigation Division.
3. Approved Equal.

B. RAIN-CLIK (WR-CLIK) Description

1. Sensor shall be capable of interrupting the power from the irrigation controller to the valves when rainfall exceeds a pre-selected amount.
2. Wireless operation with communication range up to 800ft. line of sight.
3. Sensor shall be adjustable.

2.13 WIRING AND WIRING CONNECTORS

A. Wire Paths (Main two-wire cable):

1. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Industries Incorporated IDWIRE1 or IDWIRE2 or comparable product by one of the following:

    a. Rainbird Corporation.

b. The Toro Company; Irrigation Division
c. Approved Equal

2. Description:

a. IDWIRE1 (14 AWG/1.6 mm dia./2.08 mm² area) solid-core twisted pair (red and blue color) for direct burial shall be installed for wire path lengths up to 10,000 ft.
b. IDWIRE2 (12 AWG/2 mm dia./3.31 mm² area) solid-core twisted pair (red and blue color) for direct burial shall be installed for wire path lengths up to 15,000 ft.

B. Decoder-to-Solenoid Wiring:

1. Wiring from the decoder to the solenoid should not exceed 150ft. If decoder-to-solenoid distance is over 20ft. use "webbed or twisted wire.
2. For connection of decoders-to-solenoids inside of valve box shall be a minimum of standard No. 18 AWG/1 mm wire.

C. Connectors and Splicing Materials:

1. All connections and splices in the red/blue two-wire path must be made with DBRY-6 or equal waterproof connectors with a 600V rating for direct burial with high temperature resistance.

2. Decoder-to-solenoid connections may be made with standard DBY or equal waterproof connectors with a 30V rating.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork."

B. Provide minimum cover over top of underground piping according to the following:

1. Irrigation Main Piping: Minimum depth of 18 inches below finished grade.
2. Circuit Piping: 12 inches.
3. Drain Piping: 12 inches.
4. Sleeves: 18 inches.

3.2 PREPARATION

A. Set stakes to identify locations of proposed irrigation system. Obtain Landscape Architect's approval before excavation.

3.3 PIPING INSTALLATION

A. Location and Arrangement: Drawings indicate location and arrangement of piping systems. Install piping as indicated unless deviations are approved on Coordination Drawings.

B. Install piping at minimum uniform slope of 0.5 percent down toward drain valves.

C. Install piping free of sags and bends.

D. Install groups of pipes parallel to each other, spaced to permit valve servicing.

E. Install fittings for changes in direction and branch connections.

F. Install underground thermoplastic piping according to ASTM D 2774.

G. Install expansion loops in control-valve boxes for plastic piping.

H. Lay piping on solid subbase, uniformly sloped without humps or depressions.

I. Install PVC piping in dry weather when temperature is above 40 deg F. Allow joints to cure at least 24 hours at temperatures above 40 deg F before testing.

J. Install piping in sleeves under parking lots, roadways, and sidewalks.

K. Install sleeves made of Schedule 40 PVC pipe and socket fittings, and solvent-cemented joints.

3.4 JOINT CONSTRUCTION

A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

C. Flanged Joints: Select rubber gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.

D. PVC Piping Solvent-Cemented Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:

1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements.
2. PVC Pressure Piping: Join schedule number, ASTM D 1785, PVC pipe and PVC socket fittings according to ASTM D 2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D 2855.
3. PVC Nonpressure Piping: Join according to ASTM D 2855.

3.5 VALVE INSTALLATION

A. Underground Bronze Gate Valves, Resilient Seat: Comply with all local codes. Install plumb to within 1/16 inch in valve box with six (6) inch deep layer of coarse gravel beneath bottom of valve.

B. Automatic Control Valves: Comply with all local codes. Install plumb to within 1/16 inch in valve boxes for automatic control valves with six (6) inch deep layer of coarse gravel beneath bottom of valve.

3.6 SPRINKLER INSTALLATION

A. Install sprinklers after hydrostatic test is completed.

B. Install sprinklers at manufacturer's recommended heights.

C. Locate part-circle sprinklers to maintain a minimum distance of 4 inches from walls and 2 inches from other boundaries unless otherwise indicated.

3.7 AUTOMATIC IRRIGATION-CONTROL SYSTEM INSTALLATION

A. Equipment Mounting: Install interior and exterior controllers on wall.

1. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
2. Install anchor bolts to elevations required for proper attachment to supported equipment.

B. Install control cable in 1" SCH. 40 PVC gray conduit from controller into ground. Provide junction box below controller.

C. Install control cable in same trench as irrigation piping and at least 2 inches below or besides piping. Provide conductors of size not smaller than recommended by controller manufacturer.

3.8 GROUNDING

A. The installer shall provide adequate earth ground (not to exceed 10 Ohms, or in compliance with practices as defined in American Society of Irrigation Consultants Earth Grounding Guideline 100-2002, available at www.asic.org) and connect it to one of the decoder ground leads every 1000 ft.(330m), or every 12th decoder module, whichever is shorter. Minimum ground hardware shall be a 4" x 36" (100 x 915mm) copper plate with at least 10AWG/2.5mm dia. copper wire. In high lightning areas, grounding may be increased to every 500 ft./150m or 6 decoders.

B. Ground connections from decoder ground lead to grounding hardware shall be made by joining the 12AWG (2mm dia.) decoder ground wire with a 10AWG (2.5mm dia.) solid copper lead in an approved wire nut of appropriate size, inserted in a DBRY-6 waterproof direct burial connector, or with an approved wire clamp. Ground hardware shall extend at right angles from the two-wire red/blue path, and ground hardware shall be located at least 6ft./2m away from the two-wire path.

3.9 CONNECTIONS

A. Comply with requirements for piping specified in Division 02 Section "Water Distribution" for water supply from exterior water service piping, water meters, protective enclosures, and backflow preventers. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to equipment, valves, and devices to allow service and maintenance.

C. Connect wiring between controllers and automatic control valves.

3.10 IDENTIFICATION

A. Identify system components. Comply with requirements for identification specified in Division 15 Section "Identification for Plumbing Piping and Equipment."

B. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on each automatic controller.

1. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.

C. Warning Tapes: Arrange for installation of continuous, underground, detectable warning tapes over underground piping during backfilling of trenches. See Division 2 Section "Earthwork" for warning tapes.

3.11 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

B. Tests and Inspections:

1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
2. Operational Test: After electrical circuitry has been energized, operate controllers and automatic control valves to confirm proper system operation.
3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

C. Any irrigation product will be considered defective if it does not pass tests and inspections.

D. Prepare test and inspection reports.

3.12 STARTUP SERVICE

A. Perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.
2. Verify that controllers are installed and connected according to the Contract Documents.
3. Verify that electrical wiring installation complies with manufacturer's written instructions.

3.13 ADJUSTING

A. Adjust settings of controllers.

B. Adjust automatic control valves to provide flow rate at rated operating pressure required for each sprinkler circuit.

C. Adjust sprinklers and devices, except those intended to be mounted aboveground, so they will be flush with, or not more than 1/2 inch above, finish grade.

3.14 CLEANING

A. Flush dirt and debris from piping before installing sprinklers and other devices.

3.15 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain automatic control valves and controllers.

3.16 PIPING SCHEDULE

A. Install components having pressure rating equal to or greater than system operating pressure.

B. Piping in control-valve boxes may be joined with flanges or unions instead of joints indicated.

C. Underground irrigation main piping, NPS 4 and smaller , shall be the following:

1. Schedule 40, PVC pipe and socket fittings, and solvent-cemented joints.

D. Circuit piping, NPS 2 and smaller, shall be the following:

1. Schedule 40, PVC pipe and socket fittings; and solvent-cemented joints.

E. Underground Branches and Offsets at Sprinklers and Devices: Schedule 80, PVC pipe; threaded PVC fittings; and threaded joints.

1. Option: Plastic swing-joint assemblies, with offsets for flexible joints, manufactured for this application.

F. Risers to Aboveground Sprinklers and Specialties: Schedule 80, PVC pipe and socket fittings; and solvent-cemented joints.

3.17 VALVE SCHEDULE

A. Underground, Shutoff-Duty Valves: Use the following:

1. NPS 1 and Larger: Bronze gate valve, resilient seated; bronze gate valve casing; and operating wrench(es).

END OF SECTION 328400

SECTION 329300 - PLANTS

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. Section Includes:

1. Plants.
2. Planting soils.
3. Tree stabilization.
4. Landscape edgings.

1.3 DEFINITIONS

A. Backfill: The earth used to replace or the act of replacing earth in an excavation.

B. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.

C. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.

D. Finish Grade: Elevation of finished surface of planting soil.

E. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.

F. 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.

G. 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.

H. Planting Area: Areas to be planted.

I. Planting Soil: Standardized topsoil or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.

J. Plant; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.

K. 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.

L. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.

M. 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.

N. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

O. 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.

1.4 SUBMITTALS

A. Warranty: Sample of special warranty.

B. Photographs: Photographs of all selected trees taken by grower with a scale figure shown so that size and character of tree can be analyzed by Landscape Architect five (5) days prior to shipping.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful establishment of plants.

1. State Licensed Landscape Contractor.
2. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.

B. Soil-Testing Laboratory Qualifications: An independent or university 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.

C. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of the soil.

1. Testing methods and written recommendations shall comply with USDA's Handbook No. 60.
2. The soil-testing laboratory shall oversee soil sampling; with depth, location, and number of samples to be taken per instructions from Landscape Architect. A minimum of three (3) representative samples shall be taken from varied locations for each soil to be used or amended for planting purposes.
3. Report suitability of tested soil for plant growth.

a. Based upon the test results, state recommendations for soil treatments and soil amendments to be incorporated. State recommendations in weight per 1000 sq. ft. or volume per cu. yd. 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, including aluminum, arsenic, barium, cadmium, chromium, cobalt, lead, lithium, and vanadium. If such problem materials are present, provide additional recommendations for corrective action.

D. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.

E. Measurements: Measure according to ANSI Z60.1. Do not prune to obtain required sizes.

1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for container grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches above the root flare for trees up to 4-inch caliper size, and 12 inches above the root flare for larger sizes.
2. Other Plants: Measure with stems, petioles, and foliage in their normal position.

F. Plant Material Observation: Landscape Architect may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Landscape Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.

1. Notify Landscape Architect of sources of planting materials seven (7) days in advance of delivery to site.

G. Preinstallation Conference: Conduct conference at Project site.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.

B. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

C. 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.

D. 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.

E. Handle planting stock by root ball.

F. Store bulbs, corms, and tubers in a dry place at 60 to 65° F until planting.

G. 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. Do not remove container-grown stock from containers before time of planting.
2. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly-wet condition.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.

B. Interruption of Existing Services or Utilities: Do not interrupt services or utilities to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary services or utilities according to requirements indicated:

1. Notify Owner no fewer than two (2) days in advance of proposed interruption of each service or utility.
2. Do not proceed with interruption of services or utilities without Owner's written permission.

C. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

D. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

E. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.

1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

1.8 MAINTENANCE SERVICE

A. Initial Plant Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue for not less than the following periods:

1. Thirty (30) days from date of Substantial Completion.

1.9 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.
c. Faulty performance of tree stabilization.

2. Warranty Periods from date of Owner's acceptance of the project:

a. Trees, Shrubs, Vines, and Ornamental Grasses: Twelve (12) months.
b. Ground Covers, Biennials, Perennials, and Other Plants: Twelve (12) months.
c. Annuals: Three (3) months.

3. Include the following remedial actions as a minimum:

a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

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 List shown on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting. 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.

1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch in diameter; or with stem girdling roots will be rejected.
2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.

B. Provide plants of sizes, grades, and container sizes as indicated in the Plant List shown on Drawings and complying with ANSI Z60.1 for types and form of plants required.

C. Plants of a larger size with a proportionate increase in size of roots, may be used if acceptable to Landscape Architect, but the use of such larger plants shall not increase the contract price.

D. 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.

E. Inspection / Rejection: The Landscape Architect may inspect the plants at the place of growth, but such inspection does not preclude the right of rejection on the site.

1. Any materials may be rejected if, in the opinion of the Landscape Architect, such does not meet the requirements of the Plant List, Drawings or the Specifications.
2. Rejected materials shall be removed from the site by the Contractor at no cost to the Owner.

F. Shape and Form: Plant material shall be symmetrical, typical of the variety and species and shall conform to the measurements specified in the Plant List. Plants used where symmetry is required shall be matched as nearly as possible.

1. Plants meeting the requirements specified in the Plant List, but not possessing a normal balance between height and spread will not be accepted.

G. Availability: If proof is submitted in writing by a minimum of twelve (12) reliable nursery sources, which are members of "The American Nurserymen's' Association", that any plant specified is not obtainable in the Southern United States, a proposal will be considered for use by the Landscape Architect for the nearest equivalent size and / or variety with no increase in contract price.

H. Labeling: Label at least one plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant as shown on Drawings.

I. If formal arrangements or consecutive order of plants is shown on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.

J. Annuals (Seasonal Color): 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 and that are in bud but not yet in bloom.

2.2 FERTILIZERS

A. 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.
2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

B. 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 laboratory.

2.3 PLANTING SOILS

A. Planting Soil: Imported topsoil or manufactured topsoil from off-site sources. Topsoil shall be fertile an sandy with a pH of between 6.0 and 7.0, weed free and shall meet the approval of the Landscape Architect prior to placement on the site.

1. Additional Properties of Imported Topsoil or Manufactured Topsoil: Screened and free of stones 1 inch or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; free of obnoxious weeds and invasive plants including quackgrass, Johnsongrass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and bromegrass; not infested with nematodes; grubs; or other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration. Continuous, air-filled pore space content on a volume/volume basis shall be at least 15 percent when moisture is present at field capacity. Soil shall have a field capacity of at least 15 percent on a dry weight basis.
2. Mix imported topsoil or manufactured topsoil with the following soil amendments and fertilizers in the following quantities to produce planting soil:

    a. Weight of Commercial Fertilizer per 1000 Sq. Ft.: 1 lb
    b. Weight of Slow-Release Fertilizer per 1000 Sq. Ft.: 1 lb

2.4 MULCHES

A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

1. Type: Shredded hardwood screened from composted and recycled tree and brush
2. Size Range: 3 inches maximum, 1/2 inch minimum.
3. Color: Natural.

2.5 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.

B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

2.6 TREE STABILIZATION MATERIALS

A. Stake and Guy System:

1. Upright and Guy Stakes:

   a. 15" Steel Eye Stake at grade.
   b. Arrow style below grade earth anchor or other dead-man anchor.
   c. Rough-sawn, sound, new softwood with wood pressure-preservative treatment, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal by length sufficient to maintain stability of planted trees, pointed at one end.

2. Guy and Tensioning Cables:

   a. ¾" flat woven polypropylene strap. Color: Green.
   b. Five-strand, 3/16-inch- diameter, galvanized-steel cable, with zinc-coated turnbuckles.
   c. Hose: Shall be suitable lengths of two-ply rubber or vinyl not less than on-half (1/2) inch inside diameter.

3. Flags: Standard surveyor's plastic flagging tape, white, 6 inches long.

Note: If desired, the Landscape Contractor may submit staking details. These will be considered for acceptance by the Landscape Architect.

~~B. Hidden Rootball Anchor System:~~ (NOT USED)

~~1. Root Anchor: Steel bar in circular pattern with (3) U-bracket extensions for attachment to tensioning strap. Size per manufacturer's recommendation based on tree gallon size~~

~~2. Tensioning Strap: Flat woven ¾" min. width, polypropylene strap, with "S" hook at one end for attached to U-bracket.~~

~~a. Hose: Shall be suitable lengths of two-ply rubber or vinyl not less than on-half (1/2) inch inside diameter.~~

~~3. Wedge Anchor: Plastic Wedge attached to end of tensioning strap for anchoring in compacted subgrade.~~

~~4. Basis of Design Product: Subject to compliance with requirements, provide:~~

~~a. Tree Stake Solutions, LLC. – 'Root Anchor', Underground Tree Support; or comparable product by one of the following:~~

~~1) Green Max – Root Ball Anchor~~
~~2) Platipus Anchors Inc – Rootball Fixing System with Plati-Mat~~
~~3) Other Approved Equal~~

Note: If desired, the Landscape Contractor may submit staking details. These will be considered for acceptance by the Landscape Architect.

2.7 LANDSCAPE EDGINGS

A. Aluminum Edging (If used refer to drawings): Standard commercial-aluminum edging, fabricated in sections of standard lengths, with loops stamped from or welded to face of sections to receive stakes.

1. Edging Size: 1/8 inch thick by 4 inches deep aluminum alloy 6063-T6

2. Stakes: Tapered aluminum alloy 6061-T6, a minimum of 12 inches long.
3. Accessories: Standard tapered ends, corners, and splicers.
4. Finish: Electrostatically applied baked on acrylic paint.
5. Paint Color: Green.

B. Shovel-Cut Edging: Separate mulched and planted areas from turf and paved areas, with a 45-degree, 3-inch- deep, shovel-cut edge.

2.8 MISCELLANEOUS PRODUCTS

A. Mycorrhizal Fungi: Dry, granular inoculant containing at least 5300 spores per lb of vesicular-arbuscular mycorrhizal fungi and 95 million spores per lb of ectomycorrhizal fungi, 33 percent hydrogel, and a maximum of 5.5 percent inert material.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Landscape Architect and replace with new planting soil.

3.2 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.

B. Install 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.

C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Landscape Architect's acceptance of layout before excavating or planting. Make minor adjustments as required.

D. Lay out plants at locations directed by Landscape Architect. Stake locations of individual trees and shrubs and outline areas for multiple plantings.

3.3 PLANTING AREA ESTABLISHMENT

A. Loosen subgrade of planting areas to a minimum depth of 8 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. Spread planting soil, apply soil amendments, pre-emergent pesticides and fertilizer on surface, and thoroughly blend planting soil.

    a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.

2. Spread planting soil to a depth of 6 inches but not less than required to meet finish grades after natural settlement and not more than required to stay below finished elevations of adjacent buildings and pavements. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.

    a. Spread approximately one-half the thickness of planting soil over loosened subgrade. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.

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.

C. Before planting, obtain Landscape Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

D. Application of Mycorrhizal Fungi: At time directed by Landscape Architect, broadcast dry product uniformly over prepared soil.

3.4 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 will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.

1. Excavate approximately two and one half times as wide as ball diameter for container-grown stock.
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.
4. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
5. Maintain required angles of repose of adjacent materials as shown on the Drawings. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
6. Maintain supervision of excavations during working hours.

7. Keep excavations covered or otherwise protected overnight, after working hours and when unattended by Installer's personnel.
8. If drain tile is shown on Drawings or required under planting areas, excavate to top of porous backfill over tile.

B. Subsoil and topsoil removed from excavations may be amended and used as planting soil or backfill.

C. Obstructions: Notify Landscape Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

1. Hardpan Layer: Drill 6-inch- diameter holes, 24 inches apart, into free-draining strata or to a depth of 10 feet, whichever is less, and backfill with free-draining material.

D. Drainage: Notify Landscape Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.

E. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.5 TREE, SHRUB, AND VINE PLANTING

A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.

B. Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.

C. Set container-grown stock plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.

1. Use a mixture of excavated and planting soil for backfill.
2. Carefully remove root ball from container without damaging root ball or plant.
3. 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.
4. Continue backfilling process. Water again after placing and tamping final layer of soil.

D. 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.

3.6 TREE, SHRUB, AND VINE PRUNING

A. Remove only dead, dying, or broken branches. Do not prune for shape.

B. Do not apply pruning paint to wounds.

3.7 TREE STABILIZATION

A. Staking and Guying: Staking shall be completed immediately after planting. Plants shall stand plumb after staking and shall be secured to withstand winds, rain and any other elements that may affect them.

1. Trees 10' Height and Under: Stakes and guys shall be maintained until acceptance of the Work. Unless otherwise approved, stakes shall be driven into the ground and fastened to the tree with guys. Guying material shall go inside hose so that it is not in contact with plants at any point. Trees under two (2) inches caliper, and ten (10) feet or less in height should be supported with a single stake with rubber hose and guying loop around the trunk(s). Alternate staking details may be submitted for approval by the Landscape Architect before planting begins.

2. Trees 10' Height and / or 2" Caliper: Shall be done with three (3) guys spaced equally about each tree. Each shall consist of guying materials and hose attached at about two-fifths (2/5) the height of the tree and anchored at the ground either to notched stakes or steel rods which must be driven into the ground so that the top will be near finished grade.

3. Flags shall be attached to guying a minimum of 30" above grade.

3.8 GROUND COVER AND PLANT PLANTING

A. Set out and space ground cover and plants other than trees, shrubs, and vines as shown on drawings or specified in the Plant List shown on the drawings.

B. Use a mixture of soil excavated from pit and planting soil for backfill.

C. Dig holes large enough to allow spreading of roots.

D. For rooted cutting plants supplied in flats, plant each in a manner that will minimally disturb the root system but to a depth not less than two nodes.

E. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

F. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

G. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.9 PLANTING AREA MULCHING

A. Mulch backfilled surfaces of planting areas and other areas indicated.

1. Organic Mulch in Planting Areas: Apply 3-inch average thickness of organic mulch over whole surface of planting area, and finish level with adjacent finish grades.

3.10 EDGING INSTALLATION

A. Steel Edging (If used refer to drawings): Install steel edging where indicated according to manufacturer's written instructions. Anchor with steel stakes spaced approximately 30 inches apart, driven below top elevation of edging.

B. Shovel-Cut Edging: Separate mulched areas from turf areas, with a 45-degree, 3-inch- deep, shovel-cut edge.

3.11 PLANT MAINTENANCE

A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, 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 integrated past management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.

3.12 PESTICIDE APPLICATION

A. 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.

B. Pre-Emergent Herbicides (Selective and Non-Selective): Apply to tree, shrub, and ground-cover areas in accordance with manufacturer's written recommendations. Do not apply to seeded areas.

3.13 CLEANUP AND PROTECTION

A. During planting, keep adjacent paving and construction clean and work area in an orderly condition.

B. 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.

C. After installation and before substantial completion, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.

3.14 DISPOSAL

A. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.

END OF SECTION 329300