

# Florida's Warmest Welcome

## CITY OF POMPANO BEACH REQUEST FOR PROPOSALS P-04-19 Amphitheater – Custom Roof Addition for Seating Coverage

MANDATORY PRE-PROPOSAL CONFERENCE AND MANDATORY WALK-THRU NOVEMBER 14, 2:00 P.M. EMMA LOU OLSEN CIVIC CENTER CONFERENCE ROOM 1801 NE 6<sup>TH</sup> STREET POMPANO BEACH, FLORIDA 33060

RFP OPENING: DECEMBER 19, 2018 2:00 P.M. PURCHASING OFFICE 1190 N.E. 3RD AVENUE, BUILDING C (Front) POMPANO BEACH, FLORIDA 33060

#### CITY OF POMPANO BEACH, FLORIDA

## REQUEST FOR PROPOSALS P-04-18 Amphitheater – Custom Roof Addition for Seating Coverage

The City is seeking proposals from qualified firms to provide turnkey design and installation services of a custom roof system to provide full coverage over the seating area at the Amphitheater (The Amp).

The City will receive sealed proposals until, <u>2:00 p.m. (local), on December 19, 2018.</u> Proposals must be submitted electronically through the eBid System on or before the due date/time stated above. Any proposal received after the due date and time specified, will not be considered. Any uncertainty regarding the time a proposal is received will be resolved against the Proposer.

Proposer must be registered on the City's eBid System in order to view the solicitation documents and respond to this solicitation. The complete solicitation document can be downloaded for free from the eBid System as a pdf at: <u>https://pompanobeachfl.ionwave.net/CurrentSourcingEvents.aspx</u>. The City is not responsible for the accuracy or completeness of any documentation the Proposer receives from any source other than from the eBid System. Proposer is solely responsible for downloading all required documents. A list of proposers will be read aloud in a public forum.

#### Mandatory Pre-Proposal Meeting and Mandatory Walk-Thru

There will be a mandatory pre-proposal meeting and mandatory walk-thru to review the City's expectations for the project, including backgrounds and scopes, and to answer questions from potential proposers on **November 14, 2018, beginning at 2:00 p.m.** in The AMP, 1801 Northeast 6th Street, Pompano Beach, Florida, 33060. Applicants are required to attend the mandatory site meeting with Parks and Recreation personnel to develop the entire scope of work including, but not limited to design, permitting and installation services. Proposers must set aside up to 2 hours for the walk-thru including time for questions, photos, etc. **Proposals will not be accepted from firms that do not attend these mandatory meetings.** 

#### Introduction

The City intends to issue a single contract to a qualified contractor to provide turnkey services to the City to design and install a custom roof system to provide full coverage over The Amp's seating area.

The project entails installing a roof that will provide coverage from the elements and allow The Amp to operate even on rainy days. The structure shall be an iconic feature and shall be designed to withstand wind loads in accordance with applicable State of Florida building codes.

In addition, the City wishes to entertain adding a cupula/art element to the existing Amp's roof system similar to one that was recently removed. This art element will be considered an add-alternate and it is not presently funded.

The budget for this project has been set to \$3.5 million inclusive of all services, permitting fees, etc. No additional funding is available.

#### A. <u>Scope Of Services</u>

The scope of services may include, but is not limited, to the following:

- Prepare preliminary design plans and/or design alternative recommendations for interior improvements based on input from City staff.
- Conduct presentations to elected officials, staff, and the public, if necessary.
- Prepare required documents for the project. This will include preparing surveys, design plans, technical specifications, construction plans, etc.
- Attendance at City Commission meetings may be required.
- Coordinate processing the projects through all required governmental and quasigovernmental agencies, City Departments and other appropriate review boards.
- Prepare and process all required permit applications and submittal packages as required for permit issuance of all agency permits (i.e. State, County and City)
- Provide installation and construction oversight for the project. Proposer may need to make provisions for threshold inspections, shop drawing/contractor submittal reviews and approvals, responding to subcontractor requests for information, and reviewing subcontractor payment applications, if applicable.
- Provide project close-out services. This may include preliminary and final acceptance of projects, preparation and approval of punch list items and project certification as required to all permitting agencies.

Firms must have previous municipal experience.

#### B. <u>Tasks/Deliverables</u>

Firms will develop plans and will interact with City staff at various design intervals (30-60-90%) and during installation and construction. Firms will prepare 100% construction plans. Firms will assist and secure required permits process in a timely fashion, if applicable. Firms will provide full construction services and final project certification. Team members shall develop the scope of work based on input provided by City staff and prepare design and construction documents that meet the budget.

#### C. <u>Term of Contract</u>

Project shall be completed by no later than September 30, 2020.

#### D. Local Business Program

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On March 13, 2018, the City Commission approved Ordinance 2018-112, establishing a Local Business Program, a policy to increase the participation of City of Pompano Beach businesses in the City's procurement process.

For purposes of this solicitation, "Local Business" will be defined as follows:

- 1. TIER 1 LOCAL VENDOR. POMPANO BEACH BUSINESS EMPLOYING POMPANO BEACH RESIDENTS. A business entity which has maintained a permanent place of business within the city limits and maintains a staffing level, within this local office, of at least ten percent who are residents of the City of Pompano Beach or includes subcontracting commitments to Local Vendors Subcontractors for at least ten percent of the contract value. The permanent place of business may not be a post office box. The business must be located in a non-residential zone, and must actually distribute goods or services from that location. The business must be staffed with full-time employees within the limits of the city. In addition, the business must have a current business tax receipt from the City of Pompano Beach for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.
- 2. TIER 2 LOCAL VENDOR. BROWARD COUNTY BUSINESS EMPLOYING POMPANO RESIDENTS OR UTILIZING BEACH LOCAL VENDOR SUBCONTRACTORS. A business entity which has maintained a permanent place of business within Broward County and maintains a staffing level, within this local office, of at least 15% who are residents of the City of Pompano Beach or includes subcontracting commitments to Local Vendors Subcontractors for at least 20% of the contract value. The permanent place of business may not be a post office box. The business must be located in a non-residential zone, and must actually distribute goods or services from that location. The business must be staffed with full-time employees within the limits of the city. In addition, the business must have a current business tax receipt from the respective Broward County municipality for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.
- 3. LOCAL VENDOR SUBCONTRACTOR. POMPANO BEACH BUSINESS. A business entity which has maintained a permanent place of business within the city limits of the City of Pompano Beach. The permanent place of business may not be a post office box. The business must be located in a non-residential zone, and must actually distribute goods or services from that location. The business must be staffed with fulltime employees within the limits of the city. In addition, the business must have a current business tax receipt from the City of Pompano Beach for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.

You can view the list of City businesses that have a current Business Tax Receipt on the City's website, and locate local firms that are available to perform the work required by the bid specifications. The business information, sorted by business use classification, is posted on the webpage for the Business Tax Receipt Division: <u>www.pompanobeachfl.gov</u> by selecting the Pompano Beach Business Directory in the Shop Pompano! section.

The City of Pompano Beach is **strongly committed** to insuring the participation of City of Pompano Beach Businesses as contractors and subcontractors for the procurement

of goods and services, including labor, materials and equipment. Proposers are required to participate in the City of Pompano Beach's Local Business Program by including, as part of their package, the Local Business Participation Form (Exhibit A,) listing the local businesses that will be used on the contract, and the Letter of Intent Form (Exhibit B) from each local business that will participate in the contract.

The required goal for this RFP is 10% for Local Vendor.

If a Prime Contractor/Vendor is not able to achieve the level of goal attainment of the contract, the Prime Vendor will be requested to demonstrate and document that good faith efforts were made to achieve the goal by providing the Local Business Unavailability Form (Exhibit C), listing firms that were contacted but not available, and the Good Faith Effort Report (Exhibit D), describing the efforts made to include local business participation in the contract. This documentation shall be provided to the City Commission for acceptance.

#### NOTE:

The awarded proposer will be required to submit "Local Business Subcontractor Utilization Reports" during projects and after projects have been completed. The reports will be submitted to the assigned City project manager of the project. The Local Business Subcontractor Utilization Report template and instructions have been included in the bid document. The Frequency of the submittals will be determined by the City project Manager.

Failure to meet Local Vendor Goal commitments will result in "unsatisfactory" compliance rating. Unsatisfactory ratings may impact award of future projects if a sanction is imposed by the City Commission.

The city shall award a Local Vendor preference based upon vendors, contractors, or subcontractors who are local with a preferences follows:

- 1. For evaluation purposes, the Tier 1 and Tier 2 businesses shall be a criterion for award in this Request for Proposal (RFP). No business may qualify for more than one tier level.
- 2. For evaluation purposes, local vendors shall receive the following preferences:

a. Tier 1 business as defined by this subsection shall be granted a preference in the amount of five percent of total score.

b. Tier 2 business as defined by this subsection shall be granted a preference in the amount of two and one-half percent of total score.

3. It is the responsibility of the awarded vendor/contractor to comply with all Tier 1&2 guidelines. The awarded vendor/contractor must ensure that all requirements are met before execution of a contract.

<u>NOTE</u> IN ORDER FOR YOUR FIRM TO COMPLY WITH THE CITY'S LOCAL BUSINESS PROGRAM AS A TIER 1 OR TIER 2 VENDOR, BIDDERS MUST COMPLETE THE INFORMATION ON THE COMPLIANCE FORM AND UPLOAD THE FORM TO THE RESPONSE ATTACHMENTS TAB IN THE EBID SYSTEM.

#### E. <u>Required Proposal Submittal</u>

#### Submission/Format Requirements

Sealed proposals shall be submitted electronically through the eBid System on or before the due date/time stated above. Proposer shall upload response as one (1) file to the eBid System. The file size for uploads is limited to 100 MB. If the file size exceeds 100 MB the response must be split and uploaded as two (2) separate files.

**Information to be included in the proposal**: In order to maintain comparability and expedite the review process, it is required that proposals be organized in the manner specified below, with the sections clearly labeled:

#### Title page:

Show the project name and number, the name of the Proposer's firm, address, telephone number, name of contact person and the date.

#### Table of Contents:

Include a clear identification of the material by section and by page.

#### Letter of Transmittal:

Briefly state the Proposer's understanding of the project and express a positive commitment to provide the services described herein. State the name(s) of the person(s) who will be authorized to make representations for the Proposer, their title(s), office and E-mail addresses and telephone numbers. Please limit this section to two pages.

#### Fees & Costs:

Include a concise narrative with sufficient detail indicating the proposed approach to providing the required services, including a description of the types and qualities of service that would be provided. Provide a cost for each of the major services provided along with the estimated number of expected work hours for each qualified staff.

Proposer shall itemize all costs to complete all and necessary tasks as described under Scope of Services. Costs associated with travel as well as miscellaneous expenses should be adequately described.

#### Schedule:

Proposer shall provide a timeline that highlights proposed tasks that will meet all applicable deadlines.

#### **References:**

Submit a client reference list, including name of contact, firm and/or governmental entity, address, telephone number and type of service provided to each reference.

#### Local Businesses:

Completed Local Business program forms, Exhibits A-D.

#### Litigation:

Disclose any litigation within the past five (5) years arising out your firm's performance.

#### City Forms:

The RFP Proposer Information Page Form and any other required forms <u>must</u> be completed and submitted electronically through the City's eBid System.

The City reserves the right to request additional information to ensure the proposer is financially solvent and has sufficient financial resources to perform the contract and shall provide proof thereof of its financial solvency. The City may as at its sole discretion ask for additional proof of financial solvency, including additional documents post proposal opening, and prior to evaluation that demonstrates the Proposer's ability to perform the resulting contract and provide the required materials and/or services.

#### **Reviewed and Audited Financial Statements:**

Proposers shall be financially solvent and appropriately capitalized to be able to service the City for the duration of the contract. Proposers shall provide a complete financial statement of the firm's most recent audited financial statements, indicating organization's financial condition and uploaded as a separate file titled "Financial Statements" to the Response Attachments tab in the eBid System.

Financial statements provided shall not be older than twelve 12) months prior to the date of filing this solicitation response. The financial statements are to be reviewed and submitted with any accompanying notes and supplemental information. The City of Pompano Beach reserve the right to reject financial statements in which the financial condition shown is of a date twelve (12) months or more prior to the date of submittals.

The City is a public agency subject to Chapter 119, Florida's Public Records Law and is required to provide the public with access to public records, however, financial statements that are required as submittals to prequalify for a solicitation will be exempt from public disclosure.

The City reserves the right to request additional information to ensure the proposer is financially solvent and has sufficient financial resources to perform the contract and shall provide proof thereof of its financial solvency. The City may as at its sole discretion ask for additional proof of financial solvency, including additional documents post proposal opening, and prior to evaluation that demonstrates the Proposer's ability to perform the resulting contract and provide the required materials and/or services.

A combination of two (2) or more of the following may substitute for audited financial statements:

- 1) Bank letters/statements for the past 3 months
- 2) Balance sheet, profit and loss statement, cash flow report
- 3) IRS returns for the last 2 years
- 4) Letter from CPA showing profits and loss statements (certified)

#### F. Insurance

CONTRACTOR shall not commence services under the terms of this Agreement until certification or proof of insurance detailing terms and provisions has been received and approved in writing by the CITY's Risk Manager. If you are responding to a bid and have questions regarding the insurance requirements hereunder, please contact the CITY's Purchasing Department at (954) 786-4098. If the contract has already been awarded, please direct any queries and proof of the requisite insurance coverage to CITY staff responsible for oversight of the subject project/contract.

CONTRACTOR is responsible to deliver to the CITY for timely review and written approval/disapproval Certificates of Insurance which evidence that all insurance required hereunder is in full force and effect and which name on a primary basis, the CITY as an additional insured on all such coverage.

Throughout the term of this Agreement, CITY, by and through its Risk Manager, reserve the right to review, modify, reject or accept any insurance policies required by this Agreement, including limits, coverages or endorsements. CITY reserves the right, but not the obligation, to review and reject any insurer providing coverage because of poor financial condition or failure to operate legally.

Failure to maintain the required insurance shall be considered an event of default. The requirements herein, as well as CITY's review or acceptance of insurance maintained by CONTRACTOR, are not intended to and shall not in any way limit or qualify the liabilities and obligations assumed by CONTRACTOR under this Agreement.

Throughout the term of this Agreement, CONTRACTOR and <u>all subcontractors or other</u> <u>agents hereunder</u>, shall, at their sole expense, maintain in full force and effect, the following insurance coverages and limits described herein, including endorsements.

A. Worker's Compensation Insurance covering all employees and providing benefits as required by Florida Statute, Chapter 440. CONTRACTOR further agrees to be responsible for employment, control and conduct of its employees and for any injury sustained by such employees in the course of their employment.

B. Liability Insurance.

(1) Naming the City of Pompano Beach as an additional insured as CITY's interests may appear, on General Liability Insurance only, relative to claims which arise from CONTRACTOR's negligent acts or omissions in connection with Contractor's performance under this Agreement.

(2) Such Liability insurance shall include the following <u>checked types of</u> <u>insurance</u> and indicated minimum policy limits.

#### Type of Insurance

#### Limits of Liability

#### **GENERAL LIABILITY:** Minimum \$1,000,000 Per Occurrence and \$2,000,000 Per Aggregate \* Policy to be written on a claims incurred basis XX comprehensive form bodily injury and property damage XX premises - operations bodily injury and property damage explosion & collapse hazard underground hazard XX products/completed bodily injury and property damage combined operations hazard XX contractual insurance bodily injury and property damage combined XX broad form property damage bodily injury and property damage combined XX independent contractors personal injury XX personal injury

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	sexual abuse/molestation	Minimum \$1,000,00	00 Per Occurrence	ce and Aggregate
	liquor legal liability	Minimum \$1,000,00	00 Per Occurrenc	ce and Aggregate
AUTOMOBILE LIABILITY: XX comprehensive form		Minimum \$1,000,000 Per Occurrence and Aggregate. Bodily injury (each person) bodily injury (each accident), Property damage, bodily injury and property damage combined.		
XX XX XX	owned hired non-owned			
REA	L & PERSONAL PROPERTY			
	comprehensive form	Agent must show p	proof they have th	iis coverage.
EXC			Per Occurrence	e Aggregate
	other than umbrella	bodily injury and property damage combined	\$1,000,000	\$1,000,000
PRC	FESSIONAL LIABILITY		Per Occurrence	e Aggregate
XX	* Policy to be written on a clair	ms made basis	\$1,000,000	\$1,000,000

(3) If Professional Liability insurance is required, Contractor agrees the indemnification and hold harmless provisions set forth in the Agreement shall survive the termination or expiration of the Agreement for a period of four (4) years unless terminated sooner by the applicable statute of limitations.

CYBER LIABILITY	Per Occurrence	Aggregate
* Policy to be written on a claims made basis	\$1,000,000	\$1,000,000

\_\_\_\_ Network Security / Privacy Liability

Breach Response / Notification Sublimit (minimum limit of 50% of policy aggregate)

Technology Products E&O - \$1,000,000 (only applicable for vendors supplying technology related services and or products)

\_\_\_\_ Coverage shall be maintained in effect during the period of the Agreement and for not less than four (4) years after termination/ completion of the Agreement.

C. <u>Employer's Liability</u>. If required by law, CONTRACTOR and all subcontractors shall, for the benefit of their employees, provide, carry, maintain and pay for Employer's Liability Insurance in the minimum amount of One Hundred Thousand Dollars (\$100,000.00) per employee, Five Hundred Thousand Dollars (\$500,000) per aggregate.

D. <u>Policies</u>: Whenever, under the provisions of this Agreement, insurance is required of the CONTRACTOR, the CONTRACTOR shall promptly provide the following:

- (1) Certificates of Insurance evidencing the required coverage;
- (2) Names and addresses of companies providing coverage;
- (3) Effective and expiration dates of policies; and

(4) A provision in all policies affording CITY thirty (30) days written notice by a carrier of any cancellation or material change in any policy.

E. <u>Insurance Cancellation or Modification</u>. Should any of the required insurance policies be canceled before the expiration date, or modified or substantially modified, the issuing company shall provide thirty (30) days written notice to the CITY.

F. <u>Waiver of Subrogation</u>. CONTRACTOR hereby waives any and all right of subrogation against the CITY, its officers, employees and agents for each required policy. When required by the insurer, or should a policy condition not permit an insured to enter into a pre-loss agreement to waive subrogation without an endorsement, then CONTRACTOR shall notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy which includes a condition to the policy not specifically prohibiting such an endorsement, or voids coverage should CONTRACTOR enter into such an agreement on a pre-loss basis.

#### G. <u>Selection/Evaluation Process</u>

A Selection/Evaluation Committee will be appointed to select the most qualified firm(s). The Selection/Evaluation Committee will present their findings to the City Commission.

Proposals will be evaluated using the following criteria.

	Criteria	<u>Point</u> Range
1	Experience and Expertise	0-35
	• Previous related work experience and qualifications in the subject area of personnel assigned.	
	• Demonstrates a clear understanding of scope of work and other technical or legal issues related to the project.	
2	References	0-10
	• History and performance of firm/project team on similar projects.	
	References and recommendations from previous clients.	
3	Resources and Methodology	0-20
	• Adequacy of amount of quality resources assigned to the project.	
	<ul> <li>Overall approach to project. Consideration of services provided and approach to meeting goals and deadlines.</li> </ul>	
	Financial resources.	

#### 4 Cost

0-35

• Including the overall project-task budget and itemized cost breakdowns.

#### Total

0-100

Additional 0-5% for Tier1/Tier2 Local Business will be calculated on combined scoring totals of each company.

#### <u>NOTE</u>

Financial statements that are required as submittals to prequalify for a solicitation will be exempt from public disclosure; however, financial statements submitted to prequalify for a solicitation, and are <u>not</u> required by the City, may be subject to public disclosure.

<u>Value of Work Previously Awarded to Firm (Tie-breaker)</u> - In the event of a tie, the firm with the lowest value of work as a prime contractor on City of Pompano Beach projects within the last five years will receive the higher ranking, the firm with the next lowest value of work shall receive the next highest ranking, and so on. The analysis of past work will be based on the City's Purchase Order and payment records.

The Committee has the option to use the above criteria for the initial ranking to short-list Proposers and to use an ordinal ranking system to score short-listed Proposers following presentations (if deemed necessary) with a score of "1" assigned to the short-listed Proposer deemed most qualified by the Committee.

Each firm should submit documentation that evidences the firm's capability to provide the services required for the Committee's review for short listing purposes. After an initial review of the Proposals, the City may invite Proposers for an interview to discuss the proposal and meet firm representatives, particularly key personnel who would be assigned to the project. Should interviews be deemed necessary, it is understood that the City shall incur no costs as a result of this interview, nor bear any obligation in further consideration of the submittal.

When more than three responses are received, the committee shall furnish the City Commission (for their approval) a listing, in ranked order, of no fewer than three firms deemed to be the most highly qualified to perform the service. If three or less firms respond to the RFP, the list will contain the ranking of all responses.

The City Commission has the authority to (including, but not limited to); approve the recommendation; reject the recommendation and direct staff to re-advertise the solicitation; or, review the responses themselves and/or request oral presentations and determine a ranking order that may be the same or different from what was originally presented to the City Commission.

<u>Value of Work Previously Awarded to Firm (Tie-breaker)</u> - In the event of a tie, the firm with the lowest value of work as a prime contractor on City of Pompano Beach projects within the last five years will receive the higher ranking, the firm with the next lowest value of work shall receive the next highest ranking, and so on. The analysis of past work will be based on the City's Purchase Order and payment records.

#### H. Hold Harmless and Indemnification

Proposer covenants and agrees that it will indemnify and hold harmless the City and all of its officers, agents, and employees from any claim, loss, damage, cost, charge or expense arising out of any act, action, neglect or omission by the Proposer, whether direct or indirect, or whether to any person or property to which the City or said parties may be subject, except that neither the Proposer nor any of its subcontractors will be liable under this section for damages arising out of injury or damage to persons or property directly caused by or resulting from the sole negligence of the City or any of its officers, agents or employees.

#### I. <u>Right to Audit</u>

Contractor's records which shall include but not be limited to accounting records, written policies and procedures, computer records, disks and software, videos, photographs, subcontract files (including proposals of successful and unsuccessful bidders), originals estimates, estimating worksheets, correspondence, change order files (including documentation covering negotiated settlements), and any other supporting evidence necessary to substantiate charges related to this contract (all the foregoing hereinafter referred to as "records") shall be open to inspection and subject to audit and/or reproduction, during normal working hours, by Owner's agent or its authorized representative to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by the contractor or any of his payees pursuant to the execution of the contract. Such records subject to examination shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with this contract.

For the purpose of such audits, inspections, examinations and evaluations, the Owner's agent or authorized representative shall have access to said records from the effective date of this contract, for the duration of the Work, and until 5 years after the date of final payment by Owner to Consultant pursuant to this contract.

Owner's agent or its authorized representative shall have access to the Contractor's facilities, shall have access to all necessary records, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this article. Owner's agent or its authorized representative shall give auditees reasonable advance notice of intended audits.

Contractor shall require all subcontractors, insurance agents, and material suppliers (payees) to comply with the provisions of this article by insertion of the requirements hereof in any written contract agreement. Failure to obtain such written contracts which include such provisions shall be reason to exclude some or all of the related payees' costs from amounts payable to the Contractor pursuant to this contract.

#### J. <u>Retention of Records and Right to Access</u>

The City of Pompano Beach is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's Public Records Law, as amended. Specifically, the Contractor shall:

a. Keep and maintain public records required by the City in order to perform the service;

b. Upon request from the City's custodian of public records, provide the City with a copy of requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes or as otherwise provided by law;

c. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law;

d. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to the City; and

e. Upon completion of the contract, transfer, at no cost to the City, all public records in possession of the Contractor, or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records in a format that is compatible with the information technology systems of the City.

#### K. <u>Communications</u>

No negotiations, decisions, or actions shall be initiated or executed by the firm as a result of any discussions with any City employee. Only those communications, which are in writing from the City, may be considered as a duly authorized expression on behalf of the City. In addition, only communications from firms that are signed and in writing will be recognized by the City as duly authorized expressions on behalf of firms.

#### L. <u>No Discrimination</u>

There shall be no discrimination as to race, sex, color, age, religion, or national origin in the operations conducted under any contract with the City.

#### M. Independent Contractor

The selected firm will conduct business as an independent contractor under the terms of this contract. Personnel services provided by the firm shall be by employees of the firm and subject to supervision by the firm, and not as officers, employees, or agents of the City. Personnel policies, tax responsibilities, social security and health insurance, employee benefits, purchasing policies and other similar administrative procedures applicable to services rendered under this agreement shall be those of the firm.

#### N. <u>Staff Assignment</u>

The City of Pompano Beach reserves the right to approve or reject, for any reasons, Proposer's staff assigned to this project at any time. Background checks may be required.

#### O. <u>Contract Terms</u>

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The contract resulting from this RFP shall include, but not be limited to the following terms:

The contract shall include as a minimum, the entirety of this RFP document, together with the successful Proposer's proposal. Contract shall be prepared by the City of Pompano Beach City Attorney.

If the City of Pompano Beach defends any claim, demand, cause of action, or lawsuit arising out of any act, action, negligent acts or negligent omissions, or willful misconduct of the contractor, its employees, agents or servants during the performance of the contract, whether directly or indirectly, contractor agrees to reimburse the City of Pompano Beach for all expenses, attorney's fees, and court costs incurred in defending such claim, cause of action or lawsuit.

#### P. <u>Waiver</u>

It is agreed that no waiver or modification of the contract resulting from this RFP, or of any covenant, condition or limitation contained in it shall be valid unless it is in writing and duly executed by the party to be charged with it, and that no evidence of any waiver or modification shall be offered or received in evidence in any proceeding, arbitration, or litigation between the parties arising out of or affecting this contract, or the right or obligations of any party under it, unless such waiver or modification is in writing, duly executed as above. The parties agree that the provisions of this paragraph may not be waived except by a duly executed writing.

#### Q. <u>Survivorship Rights</u>

This contract resulting from this RFP shall be binding on and inure to the benefit of the respective parties and their executors, administrators, heirs, personal representative, successors and assigns.

#### R. <u>Termination</u>

The contract resulting from this RFP may be terminated by the City of Pompano Beach without cause upon providing contractor with at least sixty (60) days prior written notice.

Should either party fail to perform any of its obligations under the contract resulting from this RFP for a period of thirty (30) days after receipt of written notice of such failure, the non-defaulting part will have the right to terminate the contract immediately upon delivery of written notice to the defaulting part of its election to do so. The foregoing rights of termination are in addition to any other rights and remedies that such party may have.

#### S. <u>Manner of Performance</u>

Proposer agrees to perform its duties and obligations under the contract resulting from this RFP in a professional manner and in accordance with all applicable local, federal and state laws, rules and regulations.

Proposer agrees that the services provided under the contract resulting from this RFP shall be provided by employees that are educated, trained and experienced, certified and licensed in all areas encompassed within their designated duties. Proposer agrees to furnish the City of Pompano Beach with all documentation, certification, authorization, license, permit, or registration currently required by applicable laws or rules and regulations. Proposer further certifies that it and its employees are now in and will maintain

good standing with such governmental agencies and that it and its employees will keep all license, permits, registration, authorization or certification required by applicable laws or regulations in full force and effect during the term of this contract. Failure of Proposer to comply with this paragraph shall constitute a material breach of contract.

#### T. <u>Acceptance Period</u>

Proposals submitted in response to this RFP must be valid for a period no less than ninety (90) days from the closing date of this solicitation.

#### U. <u>RFP Conditions and Provisions</u>

The completed proposal (together with all required attachments) must be submitted electronically to City on or before the time and date stated herein. All Proposers, by electronic submission of a proposal, shall agree to comply with all of the conditions, requirements and instructions of this RFP as stated or implied herein. All proposals and supporting materials submitted will become the property of the City.

Proposer's response shall not contain any alteration to the document posted other than entering data in spaces provided or including attachments as necessary. By submission of a response, Proposer affirms that a complete set of bid documents was obtained from the eBid System or from the Purchasing Division only and no alteration of any kind has been made to the solicitation. Exceptions or deviations to this proposal may not be added after the submittal date.

All Proposers are required to provide all information requested in this RFP. Failure to do so may result in disqualification of the proposal.

The City reserves the right to postpone or cancel this RFP, or reject all proposals, if in its sole discretion it deems it to be in the best interest of the City to do so.

The City reserves the right to waive any technical or formal errors or omissions and to reject all proposals, or to award contract for the items herein, in part or whole, if it is determined to be in the best interests of the City to do so.

The City shall not be liable for any costs incurred by the Proposer in the preparation of proposals or for any work performed in connection therein.

#### V. <u>Standard Provisions</u>

#### 1. <u>Governing Law</u>

Any agreement resulting from this RFP shall be governed by the laws of the State of Florida, and the venue for any legal action relating to such agreement will be in Broward County, Florida.

#### 2. <u>Licenses</u>

In order to perform public work, the successful Proposer shall: Be licensed to do business in Florida, if an entity, and hold or obtain such Contractor' and Business Licenses if required by State Statutes or local ordinances.

#### 3. <u>Conflict Of Interest</u>

For purposes of determining any possible conflict of interest, each Proposer must disclose if any Elected Official, Appointed Official, or City Employee is also an owner, corporate officer, or an employee of the firm. If any Elected Official, Appointed Official, or City Employee is an owner, corporate officer, or an employee, the Proposer must file a statement with the Broward County Supervisor of Elections pursuant to §112.313, Florida Statutes.

#### 4. Drug Free Workplace

The selected firm(s) will be required to verify they will operate a "Drug Free Workplace" as set forth in Florida Statute, 287.087.

#### 5. <u>Public Entity Crimes</u>

A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity, may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit proposals on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida Statute, Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

#### 6. <u>Patent Fees, Royalties, And Licenses</u>

If the selected Proposer requires or desires to use any design, trademark, device, material or process covered by letters of patent or copyright, the selected Proposer and his surety shall indemnify and hold harmless the City from any and all claims for infringement by reason of the use of any such patented design, device, trademark, copyright, material or process in connection with the work agreed to be performed and shall indemnify the City from any cost, expense, royalty or damage which the City may be obligated to pay by reason of any infringement at any time during or after completion of the work.

#### 7. <u>Permits</u>

The selected Proposer shall be responsible for obtaining all permits, licenses, certifications, etc., required by federal, state, county, and municipal laws, regulations, codes, and ordinances for the performance of the work required in these specifications and to conform to the requirements of said legislation.

#### 8. <u>Familiarity With Laws</u>

It is assumed the selected firm(s) will be familiar with all federal, state and local laws, ordinances, rules and regulations that may affect its services pursuant to this RFP. Ignorance on the part of the firm will in no way relieve the firm from responsibility.

#### 9. <u>Withdrawal Of Proposals</u>

A firm may withdraw its proposal without prejudice no later than the advertised deadline for submission of proposals by written communication to the General Services Department, 1190 N.E. 3<sup>rd</sup> Avenue, Building C, Pompano Beach, Florida 33060.

#### 10. <u>Composition Of Project Team</u>

Firms are required to commit that the principals and personnel named in the proposal will perform the services throughout the contractual term unless otherwise provided for by way of a negotiated contract or written amendment to same executed by both parties. No diversion or substitution of principals or personnel will be allowed unless a written request that sets forth the qualifications and experience of the proposed replacement(s) is submitted to and approved by the City in writing.

#### 11. Invoicing/Payment

All invoices should be sent to City of Pompano Beach, Accounts Payable, P.O. Drawer 1300, Pompano Beach, Florida, 33061. In accordance with Florida Statutes, Chapter 218, payment will be made within 45 days after receipt of a proper invoice.

#### 12. Public Records

- a. The City of Pompano Beach is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's Public Records Law, as amended. Specifically, the Contractor shall:
  - i. Keep and maintain public records required by the City in order to perform the service;
  - ii. Upon request from the City's custodian of public records, provide the City with a copy of requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes or as otherwise provided by law;
  - iii. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to the City; and
  - iv. Upon completion of the contract, transfer, at no cost to the City, all public records in possession of the Contractor, or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the

contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records in a format that is compatible with the information technology systems of the City.

b. Failure of the Contractor to provide the above described public records to the City within a reasonable time may subject Contractor to penalties under 119.10, Florida Statutes, as amended.

## PUBLIC RECORDS CUSTODIAN

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

CITY CLERK 100 W. Atlantic Blvd., Suite 253 Pompano Beach, Florida 33060 (954) 786-4611 <u>RecordsCustodian@copbfl.com</u>

#### W. <u>Questions and Communication</u>

All questions regarding the RFP are to be submitted using the Questions feature in the eBid System. Questions must be received at least seven (7) calendar days before the scheduled solicitation opening. Oral and other interpretations or clarifications will be without legal effect. Addenda will be posted to the RFP solicitation in the eBid System, and it is the Proposer's responsibility to obtain all addenda before submitting a response to the solicitation.

#### X. <u>Addenda</u>

The issuance of a written addendum or posting of an answer in response to a question submitted using the Questions feature in the eBid System are the only official methods whereby interpretation, clarification, or additional information can be given. If any addenda are issued to this RFP solicitation the addendum will be issued via the eBid System. It shall be the responsibility of each Proposer, prior to submitting their response, to contact the City Purchasing Office at (954) 786-4098 to determine if addenda were issued and to make such addenda a part of their proposal. Addenda will be posted to the RFP solicitation in the eBid System.

#### Y. <u>Contractor Performance Report</u>

The City will utilize the Contractor Performance Report to monitor and record the successful proposer's performance for the work specified by the contract. The Contractor Performance Report has been included as an exhibit to this solicitation.

RFP P-04-19

#### COMPLETE THE PROPOSER INFORMATION FORM ON THE ATTACHMENTS TAB IN THE EBID SYSTEM. PROPOSERS ARE TO COMPLETE THE FORM IN ITS ENTIRITY AND INCLUDE THE COMPLETED FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB FOR THE RFP IN THE EBID SYSTEM.

#### **PROPOSER INFORMATION PAGE**

RFP\_\_\_\_\_, \_\_\_

(number) (RFP name)

To: The City of Pompano Beach, Florida

The below named company hereby agrees to furnish the proposed services under the terms stated subject to all instructions, terms, conditions, specifications, addenda, legal advertisement, and conditions contained in the RFP. I have read the RFP and all attachments, including the specifications, and fully understand what is required. By submitting this proposal. I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this proposal.

Proposal submitted by:

Name (printed)	_Title
Company (Legal Registered)	
Federal Tax Identification Number	
Address	
City/State/Zip	
Telephone No	Fax No
Email Address	

## REQUESTED INFORMATION BELOW IS ON THE ATTRIBUTES TAB FOR THE RFP IN THE EBID SYSTEM. PROVIDE THIS INFORMATION ELECTRONICALLY.

#### **VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS**

Respondent Vendor Name: \_\_\_\_\_

Vendor FEIN:

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies, for goods or services over \$1,000,000, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified By (include Name and Title):



City of Pompano Beach, Purchasing Division 1190 N.E. 3rd Avenue, Building C Pompano Beach, Florida, 33060

## CITY OF POMPANO BEACH CONTRACTOR PERFORMANCE REPORT

1. Report Period: from	to	
2. Contract Period: from	to	
3. Bid# & or P.O.#:		
4. Contractor Name:		
5. City Department:		
6. Project Manager:		
7. Scope of Work (Service Deliverables): _		

#### **Contractor Performance Report**

CATEGORY	RATING	COMMENTS
<ul> <li>1. Quality Assurance/Quality</li> <li>Control <ul> <li>Product/Services of high quality</li> <li>Proper oversight</li> <li>Communication</li> </ul> </li> </ul>	Poor =1 Satisfactory =2 Excellent =3	
<b>2. Record Keeping</b> -Accurate record keeping -Proper invoicing -Testing results complete	Poor =1 Satisfactory =2 Excellent =3	
<ul> <li>3. Close-Out Activities</li> <li>- Restoration/Cleanup</li> <li>- Deliverables met</li> <li>- Punch list items addressed</li> </ul>	Poor =1 Satisfactory =2 Excellent =3	
<ul> <li>4. Customer Service</li> <li>City Personnel and Residents</li> <li>Response time</li> <li>Communication</li> </ul>	Poor =1 Satisfactory =2 Excellent =3	
<ul> <li>5. Cost Control</li> <li>Monitoring subcontractors</li> <li>Change-orders</li> <li>Meeting budget</li> </ul>	Poor =1 Satisfactory =2 Excellent =3	
<ul> <li>6. Construction Schedule</li> <li>Adherence to schedule</li> <li>Time-extensions</li> <li>Efficient use of resources</li> </ul>	Poor =1 Satisfactory =2 Excellent =3	
SCORE		ADD ABOVE RATINGS/DIVIDE TOTAL BY NUMBER OF CATEGORIES BEING RATED

#### RATINGS

**Poor Performance (1.0 – 1.59)**: Marginally responsive, effective and/or efficient; delays require significant adjustments to programs; key employees marginally capable; customers somewhat satisfied.

Satisfactory Performance (1.6 - 2.59): Generally responsive, effective and/or efficient; delays are excusable and/or results in minor program adjustments; employees are capable and satisfactorily providing service without intervention; customers indicate satisfaction.

*Excellent Performance (2.6 – 3.0):* Immediately responsive; highly efficient and/or effective; no delays; key employees are experts and require minimal direction; customers expectations are exceeded.

Would you select/recommend this contractor again? \_\_\_\_\_ Yes \_\_\_\_\_ No

Please attach any supporting documents to this report to substantiate the ratings that have been provided.

Ratings completed by (print name)	Ratings completed by signature	Date
Department Head (print name)	Department Head Signature	Date
Vendor Representative (print name)	Contractor Representative Signature	Date

Comments, corrective actions etc., use additional page if necessary:

## City of Pompano Beach Florida

## Local Business Subcontractor Utilization Report

Project Name (1)		Contract Number and Work Order Number (if applicable) (2)	
Report Number (3)	Reporting Period (4)	Local Business Contract Goal (5)	Estimated Contract Completion Date (6)
	to		
Contractor Name (7)		Contractor Telephone Number (8)	Contractor Email Address (9)
		( ) -	
Contractor Street Address (10)	Project Manager Name (11)	Project Manager Telephone Number (12)	Project Manager Email Address (13)
		( ) -	

Local Business Payment Report						
Federal Identification Number (14)	Local Subcontractor Business Name (15)	Description of Work (16)	Project Amount (17)	Amount Paid this Reporting Period (18)	Invoice Number (19)	Total Paid to Date (20)
Total Paid to Date for All Local Business Subcontractors (21) \$				0.00		

#### I certify that the above information is true to the best of my knowledge.

Contractor Name – Authorized Personnel (print) (22)	Contractor Name – Authorized Personnel	(sign) (23) Title (24)	Date (25)

#### Local Business Subcontractor Utilization Report Instructions

- Box (1) Project Name Enter the entire name of the project.
- **Box (2)** Contract Number (work order) Enter the contract number and the work order number, if applicable (i.e., 4600001234, and if work order contract include work order number 4600000568 WO 01).
- **Box (3) Report Number -** Enter the Local Business Subcontractor Utilization Report number. Reports must be in a numerical series (i.e., 1, 2, 3).
- Box (4) Reporting Period Enter the beginning and end dates this report covers (i.e., 10/01/2016 11/01/2016). The frequency of submittal of this report shall be determined by the City Project Manager.
- Box (5) Local Contract Goal Enter the Local Contract Goal percentage on entire contract.
- **Box (6)** Contract Completion Date Enter the expiration date of the contract, (not work the order).
- **Box (7)** Contractor Name Enter the complete legal business name of the Prime Contractor.
- **Box (8)** Contractor Telephone Number Enter the telephone number of the Prime Contractor.
- Box (9) Contractor Email Address Enter the email address of the Prime Contractor.
- **Box (10)** Contractor Street Address Enter the mailing address of the Prime Contractor.
- **Box (11) Project Manager Name -** Enter the name of the Project Manager for the Prime Contractor on the project.
- **Box (12)** Project Manager Telephone Number Enter the direct telephone number of the Prime Contractor's Project Manager.
- **Box (13)** Project Manager Email Address Enter the email address of the Prime Contractor's Project Manager.
- **Box (14)** Federal Identification Number Enter the federal identification number of the Local Subcontractor(s).
- **Box (15)** Local Subcontractor Business Name Enter the complete legal business name of the Local Subcontractor(s).
- **Box (16)** Description of Work Enter the type of work being performed by the Local Subcontractor(s) (i.e., electrical services).
- **Box (17) Project Amount –** Enter the dollar amount allocated to the Local Subcontractor(s) for the entire project (i.e., amount in the subcontract agreement).

- **Box (18)** Amount Paid this Reporting Period Enter the total amount paid to the Local Subcontractor(s) during the reporting period.
- **Box (19)** Invoice Number Enter the Local Subcontractor's invoice number related to the payment reported this period.
- **Box (20)** Total Paid to Date Enter the total amount paid to the Local Subcontractor(s) to date.
- **Box (21)** Total Paid to Date for All Local Subcontractor(s) Enter the total dollar amount paid to date to all Local Subcontractors listed on the report.
- **Box (22)** Contractor Name Authorized Personnel (print) Print the name of the employee that is authorized to execute the Local Subcontractor Utilization Report.
- **Box (23)** Contractor Name Authorized Personnel (sign) Signature of authorized employee to execute the Local Subcontractor Utilization Report.
- **Box (24)** Title Enter the title of authorized employee completing the Local Subcontractor Utilization Report.
- **Box (25)** Date Enter the date of submission of the Local Subcontractor Utilization Report to the City.

#### REQUESTED INFORMATION BELOW IS ON LOCAL BUSINESS PROGRAM FORM ON THE BID ATTACHMENTS TAB. BIDDERS ARE TO COMPLETE FORM IN ITS ENTIRITY AND INCLUDE COMPLETED FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB IN THE EBID SYSTEM.

#### CITY OF POMPANO BEACH, FLORIDA LOCAL BUSINESS PARTICIPATION FORM

Solicitation # & Title: \_\_\_\_\_

Prime Contractor's Name: \_\_\_\_\_

Name of Firm, Address	Contact Person, Telephone Number	Type of Work to be Performed/Materials to be Purchased	Contract Amount

#### LOCAL BUSINESS EXHIBIT "A

#### LOCAL BUSINESS EXHIBIT "B" LETTER OF INTENT TO PERFORM AS A LOCAL SUBCONTRACTOR

RFP Number\_\_\_\_\_

TO:

(Name of Prime or General Bidder)

The undersigned City of Pompano Beach business intends to perform subcontracting work in connection with the above contract as (check below)

\_\_\_\_ an individual

\_\_\_\_\_ a corporation

a partnership

\_\_\_\_\_a joint venture

The undersigned is prepared to perform the following work in connection with the above Contract, as hereafter described in detail:

at the following price: \_\_\_\_\_

(Date)

(Name of Local Business Contractor)

(address)

(address City, State Zip Code)

\_\_\_\_

BY: \_\_\_\_\_\_(Name)

LOCAL BUSINESS EXHIBIT "B"

#### LOCAL BUSINESS EXHIBIT "C" LOCAL BUSINESS UNAVAILABILITY FORM

	<u>RFP #</u>	
I, (Name and Title)		
of	, certify that on the	day of
,, I (Month) (Year)	invited the following LOCAL BUSINES	SS(s) to bid work
items to be performed in th	e City of Pompano Beach:	
Business Name, Address	Work Items Sought	Form of Bid Sought (i.e., Unit Price, Materials/Labor, Labor Only, etc.)
Said Local Businesses:		
	Did not bid in response to the invitation	on
	Submitted a bid which was not the low	w responsible bid
	Other:	
	Name and Title:	
	Date:	
Note: Attach additional do	cuments as available.	

LOCAL BUSINESS EXHIBIT "C"

#### LOCAL BUSINESS EXHIBIT "D" GOOD FAITH EFFORT REPORT LOCAL BUSINESS PARTICIPATION

RFP #\_\_\_\_\_

1. What portions of the contract have you identified as Local Business opportunities?

2. Did you provide adequate information to identified Local Businesses? Please comment on how you provided this information.

3. Did you send written notices to Local Businesses?

Yes	No

If yes, please include copy of the notice and the list of individuals who were forwarded copies of the notices.

4. Did you advertise in local publications?

\_\_\_\_ Yes \_\_\_\_ No

If yes, please attach copies of the ads, including name and dates of publication.

5. What type of efforts did you make to assist Local Businesses in contracting with you ?

7. List the Local Businesses you will utilize and subcontract amount.

 \$
 \$
 \$

8. Other comments: \_\_\_\_\_

#### LOCAL BUSINESS EXHIBIT "D" - Page 2

LOCAL BUSINESS EXHIBIT "D"

## **TIER 1/TIER 2 COMPLIANCE FORM**

#### IN ORDER FOR YOUR FIRM TO COMPLY WITH THE CITY'S LOCAL BUSINESS PROGRAM AS A TIER 1 OR TIER 2 VENDOR, BIDDERS MUST COMPLETE THE INFORMATION BELOW AND UPLOAD THE FORM TO THE RESPONSE ATTACHMENTS TAB IN THE EBID SYSTEM.

### TIER 1 LOCAL VENDOR

\_\_\_\_\_ My firm has maintained a permanent place of business within the city limits and maintains a staffing level, within this local office, of at least ten percent who are residents of the City of Pompano Beach.

#### And/Or

\_\_\_\_\_ My firm has maintained a permanent place of business within the city limits and my submittal includes subcontracting commitments to Local Vendors Subcontractors for at least ten percent of the contract value.

Or

My firm does not qualify as a Tier 1 Vendor.

#### **TIER 2 LOCAL VENDOR**

\_\_\_\_\_ My firm has maintained a permanent place of business within Broward County and maintains a staffing level, within this local office, of at least 15% who are residents of the City of Pompano Beach

#### And/Or

\_\_\_\_\_ My firm has maintained a permanent place of business within Broward County and my submittal includes subcontracting commitments to Local Vendors Subcontractors for at least 20% of the contract value.

Or

\_\_\_\_ My firm does not qualify as a Tier 2 Vendor.

#### I certify that the above information is true to the best of my knowledge.

(Date)

(Name of Firm)

BY: \_\_\_\_\_

(Name)



November 7, 2018

## ADDENDUM #1, RFP P-04-19

Amphitheater – Custom Roof Addition for Seating Coverage

To Whom It May Concern,

RFP P-04-19 Addition of Geotechnical Engineering Report to Attachments Tab

The remainder of the solicitation is unchanged at this time.

Sincerely,

Jill Klaskin Press, CPPO Purchasing Consultant

cc: website



November 15, 2018

## ADDENDUM #2, RFP P-05-19

## AMPHITHEATER – CUSTOM ROOF ADDITION FOR SEATING COVERAGE

To Whom It May Concern,

- 1. Addition of Sign-In Sheets from Mandatory Pre-Proposal and Mandatory Walk-Thru
- 2. Addition of nine (9) attachments consisting of AMP Plans

The remainder of the solicitation is unchanged at this time.

Sincerely,

Jill Klaskin Press, CPPO Purchasing Consultant

cc: website



## **Geotechnical Engineering Report**

Pompano Beach Amphitheater Pompano Beach, Florida

November 6, 2018 Terracon Project No. 34185039

#### **Prepared for:**

E Sciences, Inc. Fort Lauderdale, FL

#### Prepared by:

Terracon Consultants, Inc. Fort Lauderdale, Florida


November 6, 2018

**Terracon** GeoReport

E Sciences, Inc. 224 SE 9th Street Fort Lauderdale, FL 33316

- Attn: Ms. Maria Paituvi, P.E. Senior Engineer P: (954) 484 8500 E: mpaituvi@esciencesinc.com
- Re: Geotechnical Engineering Report Pompano Beach Amphitheater SW Corner of US1/Federal Highway and NE 10th Street Pompano Beach, Florida Terracon Project No. 34185039

Dear Ms. Paituvi:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P34185039 dated August 13, 2018. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations for the proposed membrane roof for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely, Terracon Consultants, Inc.

Rutugandha H. Nulkar, P.E. Senior Engineer Fl Registration No. 70625 Douglas S. Dunkelberger, P.E. Principal FL Registration No. 33317

Terracon Consultants, Inc. 5371 NW 33<sup>rd</sup> Avenue, Suite 201, Fort Lauderdale, FL 33309 P (954) 741 8282 F (954) 741 8240 terracon.com



### **REPORT TOPICS**

REPORT SUMMARY	
INTRODUCTION	1
SITE CONDITIONS	2
GEOTECHNICAL CHARACTERIZATION	4
PROJECT DESCRIPTION	5
GEOTECHNICAL OVERVIEW	6
EARTHWORK	7
DEEP FOUNDATIONS	9
GENERAL COMMENTS	.11

### **ATTACHMENTS**

EXPLORATION AND TESTING PROCEDURES SITE LOCATION AND EXPLORATION PLANS EXPLORATION RESULTS (Boring Logs) SUPPORTING INFORMATION (General Notes and Unified Soil Classification System)



## **REPORT SUMMARY**

Topic <sup>1</sup>	Overview Statement <sup>2</sup>		
Project Description	The project consists of construction of membrane roof over an existing amphitheater. The roof cables connect to a rigid streel truss which rests on top of two towers in the front and at the back the membrane is supported by a series of columns (cable- supported masts).		
Geotechnical Characterization	The subsurface conditions at the project area consist of very loose to medium dense sands to a depth of 20 feet below existing grade. The upper sands are underlain by a highly weathered limestone formation to a depth of approximately 40 feet below existing grade. The limestone is underlain by loose to medium dense sands to the termination depths of the borings. A lower limestone formation begins at a depth of 50 feet but is highly variable in thickness as well as hardness.		
Earthwork	Prepare the subgrade as indicated in Site Preparation		
Deep Foundations	Based on the provided structural loads, which are very large, we recommend use of drilled shaft foundations to support the proposed roof structure. Allowable shaft capacities (compressive and uplift) are proved in this report but should be verified through a load testing program.		
General Comments	This section contains important information about the limitations of this geotechnical engineering report.		
<ol> <li>If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.</li> <li>This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.</li> </ol>			

## Pompano Beach Amphitheater SW Corner of US1/Federal Highway and NE 10th Street Pompano Beach, Florida Terracon Project No. 34185039 November 6, 2018

### **INTRODUCTION**

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed roof at the amphitheater located at SW Corner of US1/Federal Highway and NE 10th Street in Pompano Beach, Florida. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil (and rock) conditions
- Groundwater conditions
- Site preparation and earthwork
- Foundation design and construction

The geotechnical engineering scope of services for this project included the advancement of eight (8) test borings to a depth of 90 feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs in the **Exploration Results** section of this report.



## SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description	
Parcel Information	The project is located at SW Corner of US1/Federal Highway and NE 10th Street in Pompano Beach, Florida. (See Exhibit D)	
Existing Improvements	The project site is within existing Pompano Community Park. The site is occupied by an existing amphitheater.	
Current Ground Cover	Ground Amphitheater with associated parking areas	
Existing Topography	Existing grade is fairly level	

## **EXPLORATION AND TESTING PROCEDURES**

**Field Exploration** 

Number of Borings	Boring Depth (feet)	Planned Location				
8	90	Proposed membrane roof				

**Boring Layout and Elevations:** Unless otherwise noted, Terracon personnel provide the boring layout. Coordinates are obtained with a handheld GPS unit (estimated horizontal accuracy of about  $\pm 10$  feet).

**Subsurface Exploration Procedures:** We advance the borings with a truck-mounted drill rig using a rotary method. Four samples are obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. We observe and record groundwater levels during drilling and sampling. For safety purposes, all borings are backfilled with soil cuttings after their completion. Pavements are patched with coldmix asphalt and/or pre-mixed concrete, as appropriate.

The sampling depths, penetration distances, and other sampling information are recorded on the field boring logs. The samples are placed in appropriate containers and taken to our soil laboratory for testing and classification by a geotechnical engineer. Our exploration team prepares field boring

Pompano Beach Amphitheater Pompano Beach, Florida November 6, 2018 Terracon Project No. 34185039



logs as part of the drilling operations. These field logs include visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs are prepared from the field logs. The final boring logs represent the geotechnical engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

#### Laboratory Testing

The project engineer reviews the field data and assigns various laboratory tests to better understand the engineering properties of the various soil and rock strata as necessary for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods are applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D422 Standard Test Method for Particle-Size Analysis of Soils

The laboratory testing program often includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify the soil samples in accordance with the Unified Soil Classification System.

Boring log rock classification is determined using the Description of Rock Properties.

Pompano Beach Amphitheater Pompano Beach, Florida November 6, 2018 Terracon Project No. 34185039



## **GEOTECHNICAL CHARACTERIZATION**

#### Subsurface Profile

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the data and our understanding of the geologic setting and planned construction. The following table provides our geotechnical characterization.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation and foundation options. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Stratum	Approximate Depth to Bottom of Stratum (feet)	Material Description	Consistency/Density
1	20	Light brown to brown fine to medium SAND, occasional organic stain (SP)	0 to 27 bpf
2	40	Light brown LIMESTONE with fine sand	2 to 50 bpf
3	390Light brown fine to medium SAND with Limestone lenses and layers (SP)		3 to 53 bpf
1. br	of – blows per foot	-	

A lower limestone formation layer begins at about 50 feet but is highly variable in thickness and hardness.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

#### Groundwater Conditions

The boreholes were observed while drilling and after completion for the presence and level of groundwater. The water levels observed in the boreholes can be found on the boring logs in **Exploration Results**, and are summarized below.

Pompano Beach Amphitheater Pompano Beach, Florida November 6, 2018 Terracon Project No. 34185039



Boring Number	Approximate Depth to Groundwater while Drilling (feet) <sup>1</sup>
B-1	6.4
B-2	6.0
B-3	6.1
B-4	6.2
B-5	6.2
B-6	6.3
B-7	6.1
B-8	6.5
1. Depth of water below exis	ting grade

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

## **PROJECT DESCRIPTION**

Our understanding of the project was provided in our proposal and was discussed in the project planning stage.

ltem	Description
Information Provided	It is proposed to construct a membrane roof. The roof cables connect to a rigid streel truss which rests on top of two towers in the front and at the back the membrane is supported by a series of columns (cable-supported masts).
Project Description	The project includes construction of a membrane roof over the existing amphitheater.
Proposed Structure	We understand that the truss columns in the front of the structure and cables and mast on the rear of the structure will be supported on piles.

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Item	Description
	Based on email and preliminary calculations received from Big Span Structures dated 7/17/2018, we understand the following loading conditions at foundation level:
Building Construction	<ul> <li>Towers</li> <li>Ø Compressive load, 10,800 kips</li> <li>Ø Uplift load, 2,512 kips</li> </ul>
	<ul> <li>Mast and Cables</li> <li>Ø Compressive load, 2,700 kips</li> <li>Ø Uplift load, 628 kips</li> </ul>

### **GEOTECHNICAL OVERVIEW**

Based on the results of the subsurface exploration and our experience with heavy structures, the foundations for the roof membrane will require deep foundations which can develop high axial load capacity. We believe that technical and cost factors will favor use of drilled shafts. Therefore, we recommend that the structural framing for the roof be supported on drilled shafts. Drilled shafts are designed to develop their axial load capacity in side shear through both mechanical interlock and chemical bond between the cement grout and soil interface. As an added advantage, this system can be constructed with relatively little noise/vibration while still providing resistance to compression, lateral and uplift forces. Since the drilled shaft construction is in the wet, end bearing is neglected in the load carrying capacity calculations. Recommendations for 48-inch diameter shafts are provided in this report.

Preparation of the site, as discussed hereafter to receive the new structures should include removal of asphalt, topsoil and any unwanted vegetation as well as grubbing of vegetative root system. Once the clearing and grubbing have been completed the subgrade should be prepared as discussed in the Earthwork section of this report. The location of any existing underground utility lines within the construction area should be established. Provisions should be made to relocate any interfering utility lines within the construction area. Abandoned utilities should be removed or grouted to reduce the possibility of subsurface erosion that could result in future settlement. Based on our visual observations, the existing granular soils are suitable for use as structural fill. Geotechnical engineering recommendations for foundation systems and other earth connected phases of the project are outlined hereafter. The recommendations contained in this report are based upon the results of the test borings, engineering analyses, and our current understanding of the proposed project.

The General Comments section provides an understanding of the report limitations.



### EARTHWORK

Earthwork will include clearing and grubbing, excavations and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering evaluation for foundations, floor slabs, and pavements.

#### Site Preparation

The construction of foundation for the roof membrane will require removal of existing pavers, vegetation and root mat prior to any fill placement and foundation installation. Complete stripping of the topsoil should be performed in the proposed foundation areas.

Clearing and grubbing should consist of the complete removal and disposal of timber, brush, stumps, roots, rubbish debris and all other obstructions resting on or protruding through the surface of the existing ground and excavated areas. All roots greater than one inch in diameter, or high concentration of smaller diameter roots, should be removed to a depth of not less than 12 inches.

For site preparation near existing structures, we expect that small vibratory equipment (i.e. jumping jack or plate compactor) will be required due to access limitations. Fill material if required should follow the specifications indicated below.

#### Fill Material Types

Fill required to achieve design grade should be classified as structural fill Earthen materials used for structural and general fill should meet the following material property requirements:

Fill Type <sup>1</sup>	USCS Classification	Acceptable Location for Placement			
Structural and General	SP, SP-SM or GP, GP-GM (fines content < 12 percent, maximum particle size < 3 inches)	All locations and elevations			
Fill Placed Below Groundwater	Inorganic, non-plastic gravel, free of any man-made debris, with a three (3) inch maximum particle size and ASTM classification (USCS) of GP, GW; or FDOT 57 Stone with less than 5 percent material finer than the No. 200 sieve and a maximum particle size of 3 inches. The FDOT 57 stone should not be placed more than one foot above the water level.	Below Groundwater			
1. Structural and general fill should consist of approved materials free of organic matter and debris. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this					

site.



#### Fill Compaction Requirements

Structural and general fill should meet the following compaction requirements.

Item	Description		
	Fill lift thicknesses vary with the compaction methods used and should be completed as follows:		
Fill Lift Thickness	<ul> <li>12 inches or less in loose thickness when heavy vibratory compaction equipment is used. Maximum particle size should not exceed 3 inches on a 12-inch lift.</li> </ul>		
	<ul> <li>4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used. Maximum particle size should not exceed 1 ½ inches in a 4- to 6-inch lift.</li> </ul>		
Minimum Compaction Requirements	The area beneath the structure footprint subgrade elevation should be compacted to at least 95 percent of the maximum dry density as determined by the Modified Proctor Test (ASTM D-1557)		
Water Content Range <sup>1</sup>	Within +/- 2 percent of optimum moisture content as determined by the Modified Proctor Test, at the time of placement and compaction.		
1. We recommend that engineering fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and resisted as required until the specified moisture and compaction requirements are achieved.			

#### Earthwork Construction Considerations

Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction of floor slabs. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over, or adjacent to, construction areas should be removed. If the subgrade desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted, prior to floor slab construction.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local, and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

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#### **Construction Observation and Testing**

Any required earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of vegetation and top soil, proof-rolling and mitigation of areas delineated by the proof-roll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas. One density and water content test for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. If unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

## **DEEP FOUNDATIONS**

#### **Drilled Shafts**

Drilled shafts are the most commonly used deep foundation system in South Florida because they can attain relatively high side-shear resistance against the sedimentary rocks present throughout the area, and thus providing relatively high compressive and uplift capacities.

#### Drilled Shaft Design Parameters

The following table summarizes the design criteria and other information for a 48-inch diameter drilled shaft based on the loads provided to us.

Pompano Beach Amphitheater					
Drilled Shaft Parameters	48-inch Shaft				
Allowable Compressive Capacity	355 tons (70feet)				
Allowable Uplift Capacity	210 tons (70 feet)				
Minimum Center to Center Spacing	12 feet				
Minimum Concrete Compressive Strength <sup>3</sup> 5,000 psi					
1. Adequate pile reinforcing steel and grout must be designed by the structural engineer to resist all axial, bending, tensile, and shear stresses.					



Based on our analysis and the expected loading conditions, we expect the settlement of properly constructed shaft foundations to be on the order of 1 inch or less, with differential settlement on the order of 1/4 inch between adjacent pile caps. Most of the settlement is expected to be concurrent with construction.

The pile capacities provided in the preceding table should be verified through a program of load testing

#### **Drilled Shaft Construction Considerations**

The borings encountered zones of loose fine sands and highly weathered limestone. To prevent collapse of the sidewalls and/or to control groundwater seepage, the use of temporary steel casing and/or slurry drilling procedures may be required for construction of the drilled shaft foundations. Further to that consideration, the test borings all experienced complete loss of drill fluid circulation at a depth of about 20 to 25 feet coincident with the top of the first (upper) limestone formation.

A full-depth temporary steel casing may be required to stabilize the sides of the shaft excavations in the overburden. Difficult drilling conditions should be expected within both the sand layers and in the weathered limestone, and the potential for hard limestone drilling conditions should also be anticipated. If casing is removed during concrete placement, care should be exercised to maintain concrete inside the casing at a sufficient level to resist earth and hydrostatic pressures present on a casing exterior. Water or loose soil should be removed from the bottom of the drilled shafts prior to placement of the concrete.

Care should be taken to not disturb the sides and bottom of the excavation during construction. The bottom of the shaft excavation should be free of loose material before concrete placement. Concrete should be placed as soon as possible after the foundation excavation is completed, to reduce potential disturbance of the bearing surface.

"Wet" shafts should be constructed by slurry displacement techniques. In this process, the shaft excavation is filled with approved polymer-based slurry to counter-balance the hydraulic forces below the water level and stabilize the wall of the shaft. Concrete would then be placed using a tremie extending to within 6 inches of the shaft base of the slurry-filled excavation. The tremie remains inserted several feet into the fresh concrete as it displaces the slurry upward and until placement is complete. The slurry should have a sand content no greater than 1 percent at the time concrete placement commences. The maximum unit weight of the slurry should be established in consultation with Terracon.

While withdrawing casing, care should be exercised to maintain concrete inside the casing at a sufficient level to resist earth and hydrostatic pressures acting on the casing exterior. Arching of

Pompano Beach Amphitheater Pompano Beach, Florida November 6, 2018 Terracon Project No. 34185039



the concrete, loss of seal and other problems can occur during casing removal and result in contamination of the drilled shaft. These conditions should be considered during the design and construction phases. Placement of loose soil backfill should not be permitted around the casing prior to removal.

The drilled shaft installation process should be performed under the direction of the Geotechnical Engineer. The Geotechnical Engineer should document the shaft installation process including soil/rock and groundwater conditions encountered, consistency with expected conditions, and details of the installed shaft.

The Geotechnical Engineer should also monitor load testing of drilled shafts to finalize design and construction recommendations.

### **GENERAL COMMENTS**

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in the final report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our scope of services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

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# ATTACHMENTS

SITE LOCATION AND EXPLORATION PLANS

#### SITE LOCATION

Pompano Beach Amphitheater Pompano Beach, FL November 5, 2018 Terracon Project No. 34185039





DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: WEST DIXIE BEND, FL (1/1/1983), BOCA RATON, FL (1/1/1986), FORT LAUDERDALE NORTH, FL (1/1/1995) and POMPANO BEACH, FL (1/1/1983).

#### **EXPLORATION PLAN**

Pompano Beach Amphitheater 
Pompano Beach, FL November 5, 2018 
Terracon Project No. 34185039





DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS **EXPLORATION RESULTS** 

	BORING LOG NO. B-1 Page 1 of 2											
PR	PROJECT: Pompano Beach Amphitheater CLIENT: E Scient Fort La					Inc rdal	e. Fl					
SIT	Г <b>Е</b> :	SW Corner of US1 and NE 10th Pompano Beach, FL	n Street					_				
<b>GRAPHIC LOG</b>	LOCATIO	N 5.2388° Longitude: -80.1053°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS		ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
		SOIL (OL), (3" thick)	brown	/	_	-	X	2-3-5-6 N=8				
		<u>, romebrom orace (or r</u> , brown to nght			5			10-8-7-{ N=15 3-3-2-2 N=5 2-2-2-2 N=4 2-2-3-3 N=5	5			
					10- - - 15- -	- - - - -		1-1-2 N=3				
	<u>18.5</u> SILT	Y FINE SAND (SM), light brown			 20	-	X	0-0-0 N=0			36	21
	23.5 SILT	Y FINE SAND (SM), with limestone lens	es/layers, light brow	n	 25	-	X	0-1-1 N=2				
	28.5 LIME	<b>ESTONE</b> , with fine sand, light brown			 30	-	X	2-2-2 N=4				
						- - - -	X	3-4-4 N=8				
	40.0 <u>FINE</u>	: TO MEDIUM SAND (SP), light brown			40 <u>-</u>	-	X	8-12-10 N=22	)			
					45- -	-	X	8-8-10 N=18				
0	48.5 <b>FINE</b>	TO MEDIUM SAND (SP), with limestone	e lenses/layers, light	gray	- - 50-	-	X	10-13-20	0			
	Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic											
Advancement Method:       Notes:         Rotary Mud Drilling and Casing       0: Weight of hammer         Total lost of drilling fluid from 22 to 60 feet												
BUI												
$\square$	Water In	itially Encoutered at 6.4'	Terr	acon	Boring S		: 09-12 -55	2-2018	Boring	Completed:	: 09-12-2	2018
			5371 NW 33r Ft Laude	d Ave, Ste 201 erdale, FL	Project	No.: 34	1850	39	Exhibit	: A-1		

		E	BORING L	OG NO. B-	1				Page	2 of 2	2
	PR	OJECT: Pompano Beach Amphitheater	: Pompano Beach Amphitheater CLIEN SW Corner of US1 and NE 10th Street								
	SIT	E: SW Corner of US1 and NE 10th Pompano Beach, FL	Street	TOTT		ruan	5, I L				
	<b>GRAPHIC LOG</b>	LOCATION Latitude: 26.2388° Longitude: -80.1053°			DEPTH (Ft.)	WATER LEVEL DBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
01 VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 34185039 POMPANO BEACH AMP.GP.J. TERRACON_DATATEMPLATE.GDT 10/17/18	Advan Rotz	DEPTH         FINE TO MEDIUM SAND (SP), with limestone         52.0 (continued)       LIMESTONE, with fine sand, light gray         Extremely Hard from 52 to 56 Feet         80.0         FINE TO MEDIUM SAND (SP), with limestone         80.0         90.0         Boring Terminated at 90 Feet         Stratification lines are approximate. In-situ, the transition may         cement Method:         ary Mud Drilling and Casing         omment Method:	lenses/layers, light	gray	- 55- 	> 0		N=33         50/2"         8-15-23         N=38         7-10-21         N=31         50/4"         3-20-15         N=35         3-25-50/5"         7-10-8         N=18         10-50/4"         attic			
LOG IS N	Bori	ing backfilled with soil cuttings upon completion.									
RING	$\square$	Water Initially Encoutered at 6.4'	Terr	acon	Boring S	Started	: 09-12-201	8 Boring	g Completed	: 09-12-2	2018
IIS BO			5371 NW 33rd	Ave, Ste 201	Drill Rig		-55	Drille			
Ē			Ft Laude	rdale, FL	Project	No.: 34	185039	Exhib	it: A-1		

		OG NO. B-2	2					Page	1 of 2	2	
PR	OJECT: Pompano Beach Amphitheater	CLIENT: E Scie	ences aude	lnc rdale	e. FL						
SIT	E: SW Corner of US1 and NE 10th Pompano Beach, FL	Street				-,					
GRAPHIC LOG	LOCATION Latitude: 26.2386° Longitude: -80.1049°			DEPTH (Ft.)	WATER LEVEL DBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS		ORGANIC CONTENT (%)	WATER CONTENT (%)	ERCENT FINES
<u>,                                    </u>	DEPTH 0.5 人 <mark>TOPSOIL (OL)</mark> , (6" thick)		/		- 0	$\mathbf{X}$	2-4-4-6				۵.
	<u>FINE TO MEDIUM SAND (SP)</u> , light brown			- - 5- - -			N=8 7-8-8-6 N=16 5-6-5-4 N=11 2-1-2-1 N=3				
	<u>FINE TO MEDIUM SAND (SP)</u> , trace organic s 10.0 FINE TO MEDIUM SAND (SP), light brown	stain, brown		10-	-	X.	2-2-2-2 N=4				
				- - 15- -	-	X	2-3-4 N=7				
	18.5 FINE TO MEDIUM SAND (SP), with limestone lenses/layers, light brown				-	X	2-2-2 N=4				
<mark>∵∵'∘ (</mark> . 	23.5 LIMESTONE, with fine sand, light brown			25- - -	-	X	2-1-2 N=3				
				- 30- -	-	X	2-2-2 N=4				
				35- - -	-	X	2-2-2 N=4				
, o (	40.0 FINE TO MEDIUM SAND (SP), with limestone	lenses/layers, light	brown	- 40 -	-	X	3-4-4 N=8				
				45- - -	-	X	6-10-12 N=22	2/			
	48.5 FINE TO MEDIUM SAND (SP), light brown			 50-	-	$\times$	8-8-10				
	Stratification lines are approximate. In-situ, the transition ma	y be gradual.		Hamr	ı ner Typ	be: Au	tomatic				I
Advan Rota	dvancement Method: Rotary Mud Drilling and Casing			Notes: Total I	: ost of c	drilling	fluid from 25 t	to 90 fe	eet		
Aband Bori	idonment Method: iring backfilled with soil cuttings upon completion.										
$\nabla$	WATER LEVEL OBSERVATIONS	WATER LEVEL OBSERVATIONS					-2018	Boring	Completed	: 09-17-2	2018
	water milliany Encoutered at 6.0	nerr	JCON	Drill Rig	: CME	-55		Driller	: OC		
		5371 NW 33r Ft Laude	d Ave, Ste 201 erdale, FL	Project	No.: 34	18503	9	Exhibi	t: A-2		

		BORING L	OG NO. B-2			Page	2 of 2	2
PR	OJECT: Pompano Beach Ar	nphitheater	CLIENT: E Science	es inc Iordalo, El				
SIT	E: SW Corner of US1 a Pompano Beach, Fl	nd NE 10th Street			-			
GRAPHIC LOG	LOCATION Latitude: 26.2386° Longitude: -80.1049°		DEPTH (Ft.)	WATER LEVEL DBSERVATIONS SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	ERCENT FINES
	DEPTH FINE TO MEDIUM SAND (SP),	ight brown <i>(continued)</i>			N=18	J		۵.
0000	53.5 FINE TO MEDIUM SAND (SP),	with limestone lenses/layers, light	gray 55		28-10-25 N=35	-		
			60		8-10-7 N=17			
0000			65		3-2-3 N=5			
, o (.	68.5 70.0 LIMESTONE, with fine sand, lig FINE TO MEDIUM SAND (SP),	ht brown with limestone lenses/layers, light	gray 70		3-4-4 N=8			
			75		4-5-7 N=12			
<u>``</u>	78.5 FINE TO MEDIUM SAND (SP),	ight gray	80		4-5-5 N=10			
0000	83.5 FINE TO MEDIUM SAND (SP), 1	with limestone lenses/layers, light	gray 85		3-2-3 N=5			
<u>;;</u> ; <u>o(</u> .	88.5 <sub>90.0</sub> LIMESTONE, with fine sand, lig	ht gray		]  ~{	50/3"	/		
	Boring Terminated at 90 Feet		90					
	Stratification lines are approximate. In-situ	the transition may be gradual.	Ha	mmer Type: Au	utomatic			
Advano Rota Abando Borin	cement Method: ary Mud Drilling and Casing onment Method: ng backfilled with soil cuttings upon completi	on.	Not	es:				
	WATER LEVEL OBSERVATION	s <b></b>	Borin	g Started: 09-17	7-2018 Borin	g Completed	: 09-17-2	2018
	Water Initially Encoutered at 6.0'	lierr		Rig: CME-55	Drille	r: OC		
		5371 NW 33r Ft Laude	d Ave, Ste 201 erdale, FL Proje	ct No.: 3418503	39 Exhib	it: A-2		

	I	BORING L	OG NO. B-3	3					Page	1 of 2	2
PR	OJECT: Pompano Beach Amphitheater	CLIENT: E Scie	ences aude	Inc rdal	e. Fl						
SI	E: SW Corner of US1 and NE 10th Pompano Beach, FL	Street				.,					
<b>GRAPHIC LOG</b>	LOCATION Latitude: 26.2382° Longitude: -80.1046°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS		ORGANIC CONTENT (%)	WATER CONTENT (%)	DERCENT FINES
<u> </u>	DEPTH 0.5_\ <u>TOPSOIL (OL)</u> , (6" thick)		/			X	2-5-7-8	}			
	FINE TO MEDIUM SAND (SP), light brown to b 8.0 FINE TO MEDIUM SAND (SP), organics stain,	brown					N=12 8-8-6-5 N=14 5-5-4-4 N=9 3-3-3-3 N=6 3-3-2-3	5 			
	10.0 FINE TO MEDIUM SAND (SP), light brown			10-	-	$ \land $	N=5				
				- - 15- -	-	X	2-2-2 N=4				
	18.5 SILTY FINE SAND (SM), light brown			 20	•	X	0-0-0 N=0				
0000	23.5 SILTY FINE SAND (SM), with limestone lense	es/layers, light brow	'n	25	•	X	1-1-2 N=3				
				 30	-	X	2-1-2 N=3				
	<u>33.5</u> LIMESTONE, with fine sand, light brown			35- 	•	X	3-2-3 N=5				
	42.0	iaht arou		40 <u>-</u> -	•	X	8-10-13 N=23	3/			
	<u>FINE TO WEDIOW SAND (SP)</u> , light blown of	igni gray		45 <u>-</u> 		X	10-10-1 N=22	2/			
				 50	-	X	8-8-10				
	Stratification lines are approximate. In-situ, the transition ma	y be gradual.		Hamn	ner Ty	be: Au	utomatic				
Advar Rot Abano	cement Method: ary Mud Drilling and Casing lonment Method:		Notes: 0: Wei Total le	ght of ost of c	hamm drilling	er fluid at 83 fee	ət				
	oring backfilled with soil cuttings upon completion.										
$\square$	WATER LEVEL OBSERVATIONS Water Initially Encoutered at 6.1'			Boring S	Started	: 09-1	4-2018	Boring	Completed	: 09-14-2	2018
		5371 NW 33r Ft Laude	d Ave, Ste 201 erdale, FL	Project	No.: 34	-55 118503	39	Exhibi	t: A-3		

	BORING I	.OG NO. B-3			Pa	e 2 of	2
PR	OJECT: Pompano Beach Amphitheater	CLIENT: E Science	s Inc	FI			
SIT	E: SW Corner of US1 and NE 10th Street Pompano Beach, FL		or dure,				
<b>GRAPHIC LOG</b>	LOCATION Latitude: 26.2382° Longitude: -80.1046°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
	DEPTH FINE TO MEDIUM SAND (SP), light brown to light gray (continue	ed)		N=18	3		
		55-		8-8-8 N=16	3 3		
		60		6-6-7 N=13	,, },		
	Thin lense of hard rock at 62.5 feet	65-		7-10-1 N=23	3		
0.0	70.0 FINE TO MEDIUM SAND (SP), with limestone lenses/layers, lig	ht brown 70		13-15-3 N=47	32		
		75-		13-10-1 N=20	10		
	81.0 SU TY FINE SAND (SM) light grav	80-		8-6-6 N=12	<u>}</u>		
	<u></u>	85		2-1-2 N=3	2		
	90.0 Boring Terminated at 90 Feet	90-		2-2-2 N=4	2		
	Stratification lines are approximate. In-situ, the transition may be gradual.	Harr	imer Type	Automatic			
Advan Rota Aband Bori	cement Method: ary Mud Drilling and Casing onment Method: ng backfilled with soil cuttings upon completion.	Note	5:				
			<u> </u>	0.44.00/5			00.15
$\bigtriangledown$	Water Initially Encoutered at 6.1'		Started: 0	9-14-2018	Boring Complet	ed: 09-14-	2018
	5371 NW 3 Ft Lau	3rd Ave, Ste 201 derdale, FL Projec	y. UNE-58 t No.: 3418	35039	Exhibit: A-3		

		BORING L	OG NO. B-4				Р	age 1 of	2
PF	OJECT: Pompano Beach Amphitheate	r	CLIENT: E Scie Fort La	nces l auder	Inc dale.	FL			
SI	TE: SW Corner of US1 and NE 10th Pompano Beach, FL	n Street			,				
GRAPHIC LOG	LOCATION Latitude: 26.2387° Longitude: -80.1053°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC	(%) WATER CONTENT (%)	PERCENT FINES
	17.0 <b>LIMESTONE</b> , with fine sand, light brown	erock, light brown to	brown			7-8-6-5 N=14 5-5-5-4 N=10 4-3-4-3 N=7 3-3-4-4 N=7 3-3-4-4 N=7 4-4-5 N=9 2-2-2 N=4 2-1-1 N=2			
RT. GEO SMART LOG-NO WELL 34185039 PON	35.0 FINE TO MEDIUM SAND (SP), light gray			30 30 35 40	X	3-2-2 N=4 2-2-2 N=4 4-6-6 N=12			
ROM ORIGINAL REPO	43.5 FINE TO MEDIUM SAND (SP), with limestone 48.5 LIMESTONE, with fine sand, light gray	e lenses/layers, light	gray	- - 45- - - - -	X	6-9-12 N=21 18-50/3	:, ,		
	Stratification lines are approximate. In-situ, the transition ma	ay be gradual.		50- Hamme	er Type:	Automatic			
C IS NOT VALID IF SEPAF	ncement Method: ary Mud Drilling and Casing donment Method: ing backfilled with soil cuttings upon completion.			Notes: Total los	st of drilli	ng fluid from 25	to 90 feet		
	Water Level OBSERVATIONS	Boring St	arted: 09	-19-2018	Boring Comp	eted: 09-19	-2018		
	vvaler milliany Encoutered at 6.2"	Ilerr		Drill Rig:	CME-55		Driller: OC		
THIS		I Ave, Ste 201 rdale, FL	Project N	o.: 3418	5039	Exhibit: A	-4		

				BORING L	OG NO. B-	4				Page	e 2 of 2	2
	PR	OJECT:	Pompano Beach Amphitheater	r	CLIENT: E Sci	ences	Inc	⊳ FI				
	SIT	E:	SW Corner of US1 and NE 10th Pompano Beach, FL	Street		Luuuu	laun	5, T E	-			
	GRAPHIC LOG	LOCATION	N 2387° Longitude: -80.1053°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
		LIME	STONE, with fine sand, light gray (contin	nued)		_						
/17/18						55-		X	10-26-50/5"	_		
IPLATE.GDT 10		60.0 <b>FINE</b>	TO MEDIUM SAND (SP), with limestone	e lenses/layers, light	gray	60-		X	28-15-13 N=28			
CON_DATATEN						65- -		X	20-12-10 N=22			
MP.GPJ TERRA						70-		X	9-16-10 N=26			
PANO BEACH A						- 75- -		X	10-13-25 N=38			
34185039 POMI						- 80- -		X	13-25-28 N=53			
LOG-NO WELL						85- -		X	5-8-8 N=16			
I. GEO SMART	000	90.0 <b>Borir</b>	ng Terminated at 90 Feet			- 90-		$\triangleleft$	10-13-25 N=38			
OM ORIGINAL REPOR												
ATED FR		Stratificatio	on lines are approximate. In-situ, the transition ma	y be gradual.		Hamn	ner Tyr	De: Au	tomatic			
SEPAR	dvan	cement Meth	od:			Notes						
ALID IF	Rota	ary Mud Drilli	ng and Casing									
OG IS NOT V	lband Bori	onment Meth ng backfilled	od: with soil cuttings upon completion.									
SING L	$\overline{\nabla}$	WATE Water Ini	R LEVEL OBSERVATIONS tially Encoutered at 6.2'	There	2000	Boring S	Started	: 09-19	-2018 Bori	ng Completed	: 09-19-:	2018
IIS BOF				5371 NW 33rd	d Ave, Ste 201	Drill Rig	: CME	-55	Dril	er: OC		
Ē			5371 NW 33rd Ave, Ste 201 Ft Lauderdale, FL			Project	No.: 34	18503	9 Exh	ibit: A-4		

			BORING L	OG NO. B-	5					Page	1 of 2	2		
PR	OJEC	T: Pompano Beach Amphitheate	r	CLIENT: E Sci Fort	ences Laude	Inc rdal	e, Fl	_						
SIT	E:	SW Corner of US1 and NE 10th Pompano Beach, FL	n Street											
<b>GRAPHIC LOG</b>	LOCAT	'ION : 26.2385° Longitude: -80.105°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS		ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES		
	0.2.\ <b>P</b>	AVER, (2" thick)		/			$\bigtriangledown$	11-8-10-	7					
<u>0028</u>	2.0 <u>FI</u>	LL - FINE TO MEDIUM SAND (SP), with lim	erock, light brown		-	-	$\left\{ \right\}$	<u>N=18</u> 7-8-8-6						
	<u>FI</u>	<u>Ne to medium sand (SP)</u> , light brown to	brown		5		$\left  \right\rangle$	N=16 6-5-6-4 N=11 2-3-2-2 N=5 2-2-3-3						
					10	-		<u> </u>						
					15-	-	X	3-3-4 N=7						
					20	-	X	5-7-8 N=15						
0000	23.5 <u>FI</u>	NE TO MEDIUM SAND (SP), with limestone	e lenses/layers, ligh	t brown	25-	-	X	1-1-1 N=2						
	28.5 <u>LI</u>	MESTONE, with fine sand, light brown			30-	-	X	1-1-2 N=3						
					35-	-	X	2-2-3 N=5						
, o (	40.0 <u>FI</u>	NE TO MEDIUM SAND (SP), with limestone	e lenses/layers, ligh	t gray	- 40 -	-	X	3-3-4 N=7						
00000					45	-	X	8-9-9 N=18						
<u>```(</u>	48.5 FI	NE TO MEDIUM SAND (SP) light grav			-			9-9-10						
		<u></u>			50-		$\square$							
	Stratifi	cation lines are approximate. In-situ, the transition material states and the states are approximate and the states are states	ay be gradual.		Hamr	ner Ty	pe: A	utomatic						
Advano Rota	cement M ary Mud I	Nethod: Drilling and Casing /ethod:	-		Notes: Total I	ost of o	drilling	fluid from 25 t	o 90 fee	t				
Boring backfilled with soil cuttings upon completion.														
						Started	l: 09-1	8-2018	Boring C	ompleted:	09-18-2	2018		
	Water Initially Encoutered at 6.2'				Drill Rig	: CME	-55		Driller: C	C				
			d Ave, Ste 201 erdale, FL	Project	No.: 34	41850	39	Exhibit:	A-5	mpleted: 09-18-201 2 A-5				

			BORING L	OG NO. B-	5				Page	e 2 of :	2
PR	OJECT:	Pompano Beach Amphitheate	r	CLIENT: E Scie	ences aude	Inc rdale	FI				
SI	ſE:	SW Corner of US1 and NE 10th Pompano Beach, FL	n Street			laur	, . <b>-</b>	-			
GRAPHIC LOG	LOCATIOI Latitude: 26	N .2385° Longitude: -80.105°			DEPTH (Ft.)	WATER LEVEL DBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	ERCENT FINES
	DEPTH	TO MEDIUM SAND (SP), light gray (con	tinued)		_	- 0		N=19			<u> </u>
0,00	55.0 <b>FINE</b>	TO MEDIUM SAND (SP), with limestone	e lenses/layers, light	gray	55-		X	5-3-3 N=6			
00000					60- - -		X	9-5-25 N=30			
					65- - -	- - -	X	2-3-3 N=6			
0.000000					70-		X	5-8-5 N=13			
					75	- - -	X	5-6-8 N=14			
·• (• • • • • • • • • • • • • • • • • •					80-   		X	10-7-5 N=12			
, o (					85			3-2-15 N=17 18-8-6			
	Borir	ng Terminated at 90 Feet			90-			<u>N=14</u>			
	Stratificatio	on lines are approximate. In-situ, the transition ma	ay be gradual.		Hamn	l ner Typ	be: Au	tomatic			I
Advar Rot Abanc Bor	acement Meth ary Mud Drilli donment Meth ing backfilled	od: ng and Casing od: with soil cuttings upon completion.	_		Notes:						
	WATE	R LEVEL OBSERVATIONS			Denim	240-4	00.47	2018	ring Complet	4.00.10	2040
$\bigtriangledown$	Water Ini	tially Encoutered at 6.2'	Terr	acon	Boring S	started	09-18	3-2018 Bo	ring Complete	a: 09-18-	2018
			5371 NW 33rd	d Ave, Ste 201			19500		hibit: ^ 5		

		BORING L	OG NO. B-6					Page	1 of 2	2
PR	OJECT: Pompano Beach Amphitheater		CLIENT: E Scient	ces In	C ale Fl					
SIT	E: SW Corner of US1 and NE 10th Pompano Beach, FL	Street				-				
GRAPHIC LOG	LOCATION Latitude: 26.2382° Longitude: -80.1048°			DEPTH (Ft.)	SAMPLE TYPE	FIELD TEST RESULTS		ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
	DEPTH 0.2 A <b>PAVER</b> , (2" thick)		/			10-8-8-	7			а.
	FILL - FINE TO MEDIUM SAND (SP), with lime FINE TO MEDIUM SAND (SP), brown to light I	erock, light brown prown	/	_	$\square$	N=16 7-8-8-5	5			
	<u> </u>			5	$\bowtie$	N=16 4-3-3-3	3			
	6.0 FINE TO MEDIUM SAND (SP), trace organic s	stain, brown		Ŭ <u>-</u>   ∑	z (}}	N=6 2-2-2-2	2			
	8.0 FINE TO MEDIUM SAND (SP), brown to light I	orown		_	$\bowtie$	N=4 2-3-3-3	3			
			1	10-	$\square$	N=6				
				_						
			1	15-	X	3-3-3 N=6				
				_						
				-		3-3-4				
	21.0		2	20		N=7	)			
	LIMESTONE, with the salid, light blown			_						
			2	25-		2-2-2 N=4				
						2-3-3				
			3	30		N=6	/			
				_						
				35-		3-2-3 N=5				
						-				
				_		2-4-4				
			2	40	$\square$	N=8				
	42.0 FINE TO MEDIUM SAND (SP), light brown									
				15-		5-6-8 N=14				
				_		8 10 16				
			5	50-	$\square$	0-10-10	,			
	Stratification lines are approximate. In-situ, the transition ma	y be gradual.	ŀ	Hammer <sup>-</sup>	Туре: Ац	Itomatic				
Advan Rota	cement Method: ary Mud Drilling and Casing		N	lotes:						
			P	arcial los	t of drillir	ng fluid from 2	:5 to 90	teet 70%		
Aband Bori	bandonment Method: Boring backfilled with soil cuttings upon completion.									
	WATER LEVEL OBSERVATIONS	Bo	Boring Started: 09-20-2018 Boring Completed: 09-20-20					2018		
	Water Initially Encoutered at 6.3'	lierr	<b>JCON</b> Dri	ill Rig: CN	/IE-55		Driller	OC		
	Vater Initially Encoutered at 6.3'			oject No.:	3418503	39	Exhibit	t: A-6		

		BORING L	OG NO. B-6					Page	2 of 2	2
PF	<b>ROJECT: Pompano Beach Amphitheater</b>	ſ	CLIENT: E Scier	nces Iuder	Inc dale	FL				
SI	TE: SW Corner of US1 and NE 10th Pompano Beach, FL	n Street				,				
GRAPHIC LOG	LOCATION Latitude: 26.2382° Longitude: -80.1048°			DEPTH (Ft.)	WATER LEVEL BSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	ERCENT FINES
	DEPTH FINE TO MEDIUM SAND (SP), light brown (co	ontinued)			- 0		N=26			
0	52.0 FINE TO MEDIUM SAND (SP), with limestone	lenses/layers, ligh	t gray	_						
0/1//18				55- 		2	20-25-33 N=58	_		
				60- 			7-8-8 N=16			
				65- -			4-5-7 N=12			
				- - 70- -			8-15-18 N=33			
NO BEACH AM				- - 75			10-8-5 N=13			
1185039 POMPA	80.0 FINE TO MEDIUM SAND (SP), light gray			- - 80- -			4-4-6 N=10			
0G-NO WELL 3				 85			2-3-3 N=6			
	<u>LIMESTONE</u> , with fine sand, light gray			_						
	90.0 Boring Terminated at 90 Feet			90		$\leq 4$	47-50/3"			
FROM ORIGINAL REPORT. G										
AKAIEU	Stratification lines are approximate. In-situ, the transition ma	y be gradual.		Hamm	er Typ	e: Automa	atic			
Advar Advar Advar	ncement Method: tary Mud Drilling and Casing			Notes:						
Abano Boi	donment Method: ring backfilled with soil cuttings upon completion.									
	WATER LEVEL OBSERVATIONS Water Initially Encoutered at 6.3'	There		oring S	tarted:	09-20-201	8 Bori	ing Completed	: 09-20-2	2018
2 ROL		5371 NIM/ 224		rill Rig:	CME-	55	Dril	ler: OC		
Ï		Ft Laude	erdale, FL Pi	roject N	lo.: 34 <sup>.</sup>	85039	Exh	nibit: A-6		

			BORING L	OG NO. B-7	7				Page	e 1 of 2	2
PF	ROJECT	: Pompano Beach Amphitheate	ər	CLIENT: E Scie	ences aude	inc rdale	. FL				
SI	TE:	SW Corner of US1 and NE 101 Pompano Beach, FL	h Street	-			,				
GRAPHIC LOG	LOCATIC Latitude: 2	DN 6.2382° Longitude: -80.1056°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
		HALT, (1/2" thick)		/	_		$\times$	23-16-11-8 N=27			
DT 10/17/18	FINI	E TO MEDIUM SAND (SP), light brown		/	- - 5- - -			6-5-5-4 N=10 4-4-3-3 N=7 3-3-3-3 N=6 3-2-3-3			
EMPLATE.G					10 <u>-</u> -			N=5	_		
RACON_DATATE					15 <u>-</u> 			2-2-2 N=4			
MP.GPJ TER	<u>18.5</u> SIL1	FY FINE SAND (SM), light brown		20-			0-0-0 N=0				
		ESTONE, with fine sand, light brown			 25			2-2-3 N=5			
. 34185039 POMPA								2-2-2 N=4			
					35 <u>-</u> 			2-2-3 N=5			
RT. GEO SMAF	40.0 FINI gray	<u>E TO MEDIUM SAND (SP)</u> , with limestor	e lenses/layers, light	brown to light	40			4-3-3 N=6			
SIGINAL REPO					45- 			5-5-6 N=11			
	Stratifica	tion lines are approximate. In-situ, the transition n	nay be gradual.			ner Typ	e: Auto	4-5-5 matic			
SEPAR	dvancement Method:				Notoe						
S HI DITEX LOVA Ro Adva Ro Adva Ro Adva Ro Adva Ro Adva Ro S HI DITEX LOVA SI	Abandonment Method: Boring backfilled with soil cuttings upon completion.				0: Wei Total I	ight of h ost of d	ammer rilling flu	uid from 21 to 6	0 feet		
G LOG	WAT	ER LEVEL OBSERVATIONS			Borina S	Started:	09-13-2	2018 Bor	ing Completed	: 09-13-:	2018
	Water II	nitially Encoutered at 6.1	llerr	acon	Drill Rig	: CME-	55	Dril	ller: OC		
THIS		5371 NW 33rd Ave, Ste 201 Ft Lauderdale, FL			Project	No.: 34	185039	Ext	nibit: A-7		

	BORING LOG NO. B-7 Page 2 of 2											
	PR	OJECT:	Pompano Beach Amphitheat	er	CLIENT: ES	Sciences	lnc rdal	e Fl				
:	SIT	E:	SW Corner of US1 and NE 10 Pompano Beach, FL	th Street								
		LOCATION	N 2382° Longitude: -80.1056°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
	0. '0 (.	DEPTH FINE grav (	TO MEDIUM SAND (SP), with limestor	ne lenses/layers, light	brown to light	-			N=10			-
)/17/18		0 , 1				55-	-	X	2-3-3 N=6			
MPLATE.GDT 10						60-	-	X	3-3-12 N=15			
RACON_DATATE						65	-	X	3-4-3 N=7			
AMP.GPJ TERF						70-	-	X	2-3-6 N=9			
		73.5 LIME	<b>STONE</b> , with fine sand, light gray			75-	-		50/5"			
LL 34185039 PC						80	-	X	22-8-9 N=17			
							-	X	32-10-7 N=17			
ORT. GEO SMA	0.~ '0 (.	90.0 <b>Borin</b>	g Terminated at 90 Feet			90-	-	X	4-4-8 N=12			
FROM ORIGINAL REP												
ARATEC		Stratificatio	on lines are approximate. In-situ, the transition r	nay be gradual.		Hamr	l ner Tyj	be: Au	tomatic		<u> </u>	<u> </u>
OT VALID IF SEP.	Advancement Method: Rotary Mud Drilling and Casing				Notes	:						
OGISN	Boring backfilled with soil cuttings upon completion.											
ZINGL	WATER LEVEL OBSERVATIONS				Boring Started: 09-13-2018 Boring Completed: 09-13-					2018		
S BOF			• ·	5371 NIM/ 22m		Drill Rig	: CME	-55	Dril	ler: OC		
Ë				Ft Laude	a Ave, Sie 201 erdale, FL	Project	No.: 34	18503	9 Exh	nibit: A-7		

BORING LOG NO. B-8 Page 1 of 2											
PROJECT: Pompano Beach Amphitheater			CLIENT: E Scie Fort L	ences .aude	Inc rdal	ə, Fl	L				
SITE: SW Corner of US1 and NE 10th Street Pompano Beach, FL						-					
GRAPHIC LOG	LOCATION Latitude: 26.238° Longitude: -80.1052°			DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS		ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES
	0.2_\ <b>PAVER</b> , (2" thick)		/			$\bigtriangledown$	18-10-10-	-8			
	<b>FILL - FINE TO MEDIUM SAND (SP)</b> , with lim	erock, light brown	/	_		$\bigcirc$	N=20				
FINE TO MEDIUM SAND (SP), brown to light brown					$\nabla$	$\left  \right\rangle$	0-0-3-3 N=11 3-3-3-3 N=6 2-2-2-2 N=4 2-3-3-3	$\frac{1}{3}$			
				10— _ _		$\land$	N=6	<u>N=6</u>			
						X	2-2-2 N=4				
	18.5 SILTY FINE SAND (SM), light brown			 20		X	0-0-0 N=0				
	23.5			_							
	LIMESTONE, with fine sand, light brown			25 <u>-</u> 		A	N=2				
				30		X	1-2-2 N=4				
					X	2-2-3 N=5	3				
	42.0		40 <u>-</u>		X	5-3-5 N=8					
FINE TO MEDIUM SAND (SP), light brown to light gray				45 <u>-</u>		$\times$	7-8-10 N=18				
	50.0			- - 50-		$\times$	5-7-7				
	Stratification lines are approximate. In-situ, the transition may be gradual.					be: A	utomatic				
Advancement Method: Rotary Mud Drilling and Casing Abandonment Method:				Notes: 0: Weight of hammer Total lost of drilling fluid from 20 to 90 feet							
Bori	ng backfilled with soil cuttings upon completion.										
	WATER LEVEL OBSERVATIONS		Boring Started: 09-21-2018 Boring Completed: 0					09-21-2	2018		
Water Initially Encoutered at 6.5			acon	Drill Rig: CME-55 Driller: OC							
		5371 NW 33rd Ft Laude	d Ave, Ste 201 rdale, FL	Project	No.: 34	1850	39	Exhibit:	A-8		

BORING LOG NO. B-8 Page 2 of 2								
PROJECT: Pompano Beach Amphitheater CLIENT: E Sci			inc Incertale Fl					
SI	TE: SW Corner of US1 and NE 10th Street Pompano Beach, FL			-				
<b>GRAPHIC LOG</b>	LOCATION Latitude: 26.238° Longitude: -80.1052°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS SAMPLE TYPE	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	PERCENT FINES	
0	DEPTH FINE TO MEDIUM SAND (SP), with limestone lenses/layers, lig	ht gray		N=14	/			
	55.0 FINE TO MEDIUM SAND (SP), light gray			10-10-13 N=23				
		60		3-5-7 N=12				
0 '0	63.5 FINE TO MEDIUM SAND (SP), with limestone lenses/layers, lig	Jht gray 65		3-5-5 N=10				
) ) ) )	70.0 FINE TO MEDIUM SAND (SP), light gray			2-2-2 N=4				
	76.5	75-		2-0-1 N=1				
	Hard from 76.5 to 81 feet 81.0 FINE TO MEDIUM SAND (SP), light gray	80-		50/3"				
				2-3-3 N=6				
	88.5			50/3"				
	Boring Terminated at 90 Feet	90-		00/0				
	Stratification lines are approximate. In-situ, the transition may be gradual.	 Hamr	mer Type: Au	tomatic				
Advancement Method: Rotary Mud Drilling and Casing Abandonment Method: Boring backfilled with soil cuttings upon completion.			:					
	WATER LEVEL OBSERVATIONS	Boring	Started: 09-21	1-2018 Borin	n Completed	· 09-21-	2018	
$\square$	Water Initially Encoutered at 6.5		Drill Rig: CME-55 Driller: OC					
	5371 NW Ft La	33rd Ave, Ste 201 uderdale, FL Project	Project No.: 34185039 Exhibit: A-8					

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SUPPORTING INFORMATION
## UNIFIED SOIL CLASSIFICATION SYSTEM

Pompano Beach Amphitheater Pompano Beach, Florida November 6, 2018 Terracon Project No. 34185039

## **Terracon** GeoReport

					Soil Classification	
Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests A						Group Name <sup>B</sup>
	Gravels:	Clean Gravels:	Cu $^3$ 4 and 1 £ Cc £ 3 $^{E}$		GW	Well-graded gravel <sup>F</sup>
	More than 50% of	Less than 5% fines <sup>C</sup>	Cu < 4 and/or [Cc<1 or C	c>3.0] <sup>E</sup>	GP	Poorly graded gravel <sup>F</sup>
	coarse fraction	Gravels with Fines:	Fines classify as ML or N	1H	GM	Silty gravel <sup>F, G, H</sup>
Coarse-Grained Soils:	retained on No. 4 sieve	More than 12% fines <sup>C</sup>	Fines classify as CL or C	Н	GC	Clayey gravel <sup>F, G, H</sup>
on No. 200 sieve	Sands:	Clean Sands:	Cu <sup>3</sup> 6 and 1 £ Cc £ 3 <sup>E</sup>		SW	Well-graded sand
	50% or more of coarse fraction passes No. 4 sieve	Less than 5% fines <sup>D</sup>	Cu < 6 and/or [Cc<1 or C	c>3.0] <sup>E</sup>	SP	Poorly graded sand
		Sands with Fines:	Fines classify as ML or MH		SM	Silty sand <sup>G, H, I</sup>
		More than 12% fines <sup>D</sup>	Fines classify as CL or CH		SC	Clayey sand <sup>G, H, I</sup>
	<b>Silts and Clays:</b> Liquid limit less than 50	Inorganic:	PI > 7 and plots on or abo	ove "A"	CL	Lean clay <sup>K</sup> , L, M
			PI < 4 or plots below "A"	line <sup>J</sup>	ML	Silt <sup>K</sup> , L, M
		Organic:	Liquid limit - oven dried	< 0.75 OI	Organic clay <sup>K, L, M, N</sup>	
Fine-Grained Soils:			Liquid limit - not dried	< 0.75	UL	Organic silt <sup>K</sup> , L, M, O
No. 200 sieve		Inorganic	PI plots on or above "A" I	ine	СН	Fat clay <sup>K, L, M</sup>
	Silts and Clays:	morganic.	PI plots below "A" line		MH	Elastic Silt <sup>K</sup> , L, M
	Liquid limit 50 or more	Organic:	Liquid limit - oven dried	< 0.75	ОЦ	Organic clay <sup>K</sup> , L, M, P
		Organic.	Liquid limit - not dried		011	Organic silt <sup>K</sup> , L, M, Q
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

A Based on the material passing the 3-inch (75-mm) sieve

<sup>B</sup> If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

- <sup>C</sup> Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
- <sup>D</sup> Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

<sup>E</sup> Cu = D<sub>60</sub>/D<sub>10</sub> Cc = 
$$\frac{(D_{30})^2}{D_{40} \times D}$$

D<sub>10</sub> x D<sub>60</sub>

<sup>F</sup> If soil contains <sup>3</sup> 15% sand, add "with sand" to group name.

<sup>G</sup> If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

- <sup>H</sup> If fines are organic, add "with organic fines" to group name.
- <sup>I</sup> If soil contains <sup>3</sup> 15% gravel, add "with gravel" to group name.
- J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
- <sup>K</sup> If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
- L If soil contains <sup>3</sup> 30% plus No. 200 predominantly sand, add "sandy" to group name.
- <sup>M</sup>If soil contains <sup>3</sup> 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
- NPI <sup>3</sup> 4 and plots on or above "A" line.
- $^{\circ}$  PI < 4 or plots below "A" line.
- P PI plots on or above "A" line.
- <sup>Q</sup>PI plots below "A" line.



## **DESCRIPTION OF ROCK PROPERTIES**

Pompano Beach Amphitheater 
Pompano Beach, Florida

November 6, 2018 
Terracon Project No. 34185039

## **Terracon** GeoReport

WEATHERING					
Term	Description				
Unweathered	No visible sign of rock material weathering, perhaps slight discoloration on major discontinuity surfaces.				
Slightly weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discolored by weathering and may be somewhat weaker externally than in its fresh condition.				
Moderately weathered	Less than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a continuous framework or as corestones.				
Highly weathered	More than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.				
Completely weathered	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.				
Residual soil	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.				

STRENGTH OR HARDNESS				
Description	Field Identification	Uniaxial Compressive Strength, psi (MPa)		
Extremely weak	Indented by thumbnail	40-150 (0.3-1)		
Very weak	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	150-700 (1-5)		
Weak rock	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	700-4,000 (5-30)		
Medium strong	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer	4,000-7,000 (30-50)		
Strong rock	Specimen requires more than one blow of geological hammer to fracture it	7,000-15,000 (50-100)		
Very strong	Specimen requires many blows of geological hammer to fracture it	15,000-36,000 (100-250)		
Extremely strong	Specimen can only be chipped with geological hammer	>36,000 (>250)		

DISCONTINUITY DESCRIPTION

Fracture Spacing (Joints	, Faults, Other Fractures)	Bedding Spacing (May Include Foliation or Banding)		
Description	Spacing	Description	Spacing	
Extremely close	< ¾ in (<19 mm)	Laminated	< ½ in (<12 mm)	
Very close	¾ in – 2-1/2 in (19 - 60 mm)	Very thin	½ in – 2 in (12 – 50 mm)	
Close	2-1/2 in - 8 in (60 - 200 mm)	Thin	2 in – 1 ft. (50 – 300 mm)	
Moderate	8 in – 2 ft. (200 – 600 mm)	Medium	1 ft. – 3 ft. (300 – 900 mm)	
Wide	2 ft. – 6 ft. (600 mm – 2.0 m)	Thick	3 ft. – 10 ft. (900 mm – 3 m)	
Very Wide	6 ft. – 20 ft. (2.0 – 6 m)	Massive	> 10 ft. (3 m)	

<u>Discontinuity Orientation (Angle)</u>: Measure the angle of discontinuity relative to a plane perpendicular to the longitudinal axis of the core. (For most cases, the core axis is vertical; therefore, the plane perpendicular to the core axis is horizontal.) For example, a horizontal bedding plane would have a 0-degree angle.

ROCK QUALITY DESIGNATION (RQD) 1				
Description RQD Value (%)				
Very Poor	0 - 25			
Poor	25 – 50			
Fair	50 – 75			
Good	75 – 90			
Excellent	90 - 100			
1 The second in set law with a fall second and interstances as more				

1. The combined length of all sound and intact core segments equal to or greater than 4 inches in length, expressed as a percentage of the total core run length.

Reference: U.S. Department of Transportation, Federal Highway Administration, Publication No FHWA-NHI-10-034, December 2009 <u>Technical Manual for Design and Construction of Road Tunnels – Civil Elements</u>



<sup>02/21/91</sup> KEITH





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JOHN R. DEBELLO ARCHITECT 🛛 638 South Military Trail 🖬 Deerfield Beach, Florida 33442 🔲 (305) 426-2741

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		CHITECTI		RAL /	BBREV	ΠÅ		15
2 —	AC ADJ AFF AGG	ACOUSTICAL ADJUSTABLE ABOVE FINISH FLOOR AGGREGATE	G	GALV GA GC GL	GALVANIZED GAUGE GENERAL CONTRACTOR GLASS GRADE	Q	QT QTM	QUARRY TILE QUARRY TILE MINIATURES
	a.c. alum B BM BLK	AIR CONDITIONING ALUMINUM BEAM BLOCK	Command, read	GR GYP GYP BD HRDW	GRADE GYPSUM GYPSUM WALLBOARD HARDWARE HEIGHT	R	RÁD R REINF REQ'D RF	RADIUS RISER REINFORCED REQUIRED ROOF
3 —	BLKG BOT BLDG BLKHD	BLOCKING BOTTOM BUILDING BULKHEAD	Garranaar	HI HM HORIZ N	HOLLOW METAL HORIZONTAL INCH		RD RM RO REFL OR REF	ROOF DRAIN ROOM ROUGH OPENING REFLECTED
	CAB CARP CLG CEM C/L	CABINET CARPET CEILING CEMENT CENTER LINE		ID INSUL INT INV	INGIDE DIAMETER INGULATION INTERIOR INVERT	6	SECT SHT SHT MET OR SM SIM SQ	SECTION SHEET SHEET METAL SIMILAR SQUARE
4 —	C.T. CO CL OR CLOS COL CONC	CERAMIC TILE CLEAN OUT CLOSET COLUMN CONCRETE	C.	JT JST JC	JOINT JOIST JANITOR'S CLOSET		STD SS STL STOR STRUCT SUSP	STANDARD STAINLESS STEEL STEEL STORAGE STRUCTURAL SUSPENDED
	CMU CONST CONT CG CU	CONCRETE MASONRY UNIT CONSTRUCTION CONTINUOUS CORNER GRID CUBIC		LAV LAM LT LTWT	LAVATORY LAMINATED LIGHT LIGHT WEIGHT LINEAR FEET		SPECS TEL TEMP	SPECIFICATIONS TELEPHONE TEMPERED
5 —	D DEPT DIA DIM DN DS	DEPARTMENT DIAMETER DIMENSION DOWN DOWN SPOUT	A server	MAT ML MAX	MATERIAL MATCH LINE MAXIMUM		T TYP TR THK	TOILET TREADS TYPICAL TELEPHONE RECEPTACLE THICK
	DWG DF E.A. EA	DRAWING DRINKING FOUNTAIN EXPOSED AGGREGATE EACH		MECH MET OR MTL MIN MISC MACH MANUF	MECHANICAL METAL MINIMUM MISCELLANEOUS MACHINE MANUFACTURER	$\bigvee$	VERT VI VB VIIC	VERTICAL VINYL TILE VAPOR BARRIER VINYL WALL COVERING
6 —	EL ELEV EQ E <i>Q</i> UIP EXIST	ELEVATION (GRADE) ELEVATION (FACADE) EQUAL EQUIPMENT EXISTING	and the second	NOM NIC NTS	NOMINAL NOT IN CONTRACT NOT TO SCALE		VIIC-GYP VIIC-PLAS IIC	WALL COVERING - GYPSUM BOARD WALL COVERING - PLASTER WET COLUMN
	EXPJT. OR EJ EXP EXT ELEC	EXPANSION JOINT EXPOSED EXTERIOR ELECTRICAL	Ø	OFF OFNG OD OC	OFFICE OPENING OUTSIDE DIAMETER ON CENTER		WP WD W/ W/O WC	WATERPROOFING WOOD WITH WITHOUT WATER COOLER
7 —	FT FIN FE FEC FHC FL FD FLUOR FS FV	FEET FINISH FIRE EXTINGUIGHER FIRE HOSE CABINET FLOOR FLOOR DRAIN FLUORESCENT FULL SIZE FIELD VERIFY	Deserve	OH OR OPP .HD. PR PAGG PENT PC PJ PLAG POL PMLD	PAIR PAGGENGER PENTHOUSE PRECAST PANEL JOINT PLASTER POLIGHED PREMOULDED	Y	ΥD	YARD
8 —	FVC	FIRE VALVE CABINET		PNL	PANEL			
9 —								
10 —	Annual			P V A+				
		FERENC		51114	<u> 5015</u>			
11 —	<u>DOOR SYM</u>	BOL (145)	DOOR ULE	<u>Constr</u> Detail	UCTION STMBOL 33.04		DRAWING NUMBER	ß

BUILDING & DETAIL SECTION SYMBOL

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DETAIL NUMBER SHEET GRID

ELEVATION STMBOL COLUMN REFERENCE

DETAIL NUMBER SHEET GRID

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## SUMMARY OF WORK

THE WORK CONSISTS OF THE FOLLOWING DESCRIPTIONS. THIS SECTION IS INTENDED FOR THE CONTRACTOR'S GENERAL INFORMATION ONLY, AND IS NOT INTENDED TO BE A COMPLETE LIST OF THE WORK INTENDED FOR THIS PROJECT. THE SCOPE OF WORK IS INDICATED ON THE DRAWINGS AND BY THE REQUIREMENTS OF EACH SPECIFICATION SECTION.

- A. DEMOLITION:
  - 1. THIS WORK INCLUDES THE DEMOLITION OF EXISTING STUCCO AND METAL STUD WALLS AT EACH SIDE OF THE STAGE. CARE IS TO BE TAKEN AT SURFACE MOUNTED ELECTRICAL BOXES AND SERVICES.
  - 2. CONCRETE WALK AND SLAB TO BE DEMOLISHED FOR THE INSTALLATION OF NEW CONCRETE COLUMNS.
  - 3. EXISTING STEEL TRUSS TO BE REMOVED FROM THE SITE. EXISTING STAGE LIGHTING TO BE GIVEN TO THE OWNER.
- B. CONCRETE WORK:
- I. CONCRETE WORK INCLUDES NORMAL WEIGHT CONCRETE FOR COLUMNS, BEAM AND CONCRETE POURS ON TOP THE REAR BLOCK WALLS.
- 2. LIGHT WEIGHT CONCRETE WILL BE USED FOR ROOF DECKS.
- C. ROOF JOISTS AND METAL DECK:
- I. THE ROOF JOISTS AND METAL ROOF DECK TO BE INSTALLED UNDER THE EXISTING TENT STRUCTURE. THE CONTRACTOR SHALL PROVIDE: DETAILS AND A NARRATIVE IN THE BID DOCUMENTS DESCRIBING THE PROCESS AND THE EQUIPMENT THAT IS INTENDED TO BE USED.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING EQUIPMENT AND MATERIAL ITEMS FROM DAMAGE AS A RESULT OF HIS OPERATIONS, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS.
- D. MODIFIED BITUMINOUS SHEET ROOFING:
- 1. ROOFING WILL INCLUDE MODIFIED BITUMINOUS SHEET ROOFING WITH MINERAL GRANULE SURFACING, STAINLESS STEEL FLASHINGS, AND OTHER ROOF WORK TO MAKE A WATERTIGHT INSTALLATION.
- E. WORK SEQUENCE
- I. THE WORK WILL BE CONDUCTED AND COMPLETED IN PHASES. CONTRACTOR TO SCHEDULE THE WORK TO ACCOMMODATE SCHEDULED OF EVENTS AT THE AMPHITHEATER.

## ALTERNATES

ALTERNATES THAT AFFECT THIS WORK. REFER TO SPECIFICATION SECTION Ø1030 FOR DETAILS

ALTERNATE NO. 1:	ADD ALTERNATE FOR THE COMPLETE INSTALLATION OF THE MOVABLE PANELS AS INDICATED BY DETAILS ON THE DRAWINGS. THE ALTERNATE INCLUDES BUT NOT LIMITED TO: SIX (6) PIVOTED PANELS, HARDWARE, STRUCTURAL SUPPORTS BETWEEN THE JOISTS AND SIGNAGE REQUIRED BY THE FIRE DEPARTMENT. THE SPECIFICATION AND DETAILS ON THE DRAWINGS INDICATE A CONTRACTOR'S OPTION TO PURCHASE THE PANELS FACTORY ASSEMBLED OR FIELD ASSEMBLED.
ALTERNATE NO. 2:	SUPPLY AND INSTALL THE ACOUSTICAL WALL PANELS AS SHOWN ON DRAWING 32.01.
ALTERNATE NO. 3:	ADD THE FUSIBLE 200 AMP DISCONNECT AS INDICATED ON DRAWING 90.02, COMPLETE WITH CONDUIT AND CABLE TRAY. COORDINATE THE PANEL WITH THE NEW MASONRY WALL.
ALTERNATE NO. 4:	ADD PAINTING TO EXISTING CONCRETE, STUCCO WALLS, EXISTING MAN DOORS AND EXISTING ROLLING DOOR AS SHOWN ELEVATION DETAILS 4N, 9N AND I3N ON DRAWING 32.01.
ALTERNATE NO. 5 (A & B):	ADD SIGNAGE "THE POMPANO BEACH AMPHITHEATER" ON METAL FASCIA AS SHOWN ON DRAWING 31.01 AND SPECIFICATION SECTION 10425. ALT. 5A -CUT, PAINTED ALUMINUM SHEET LETTERS, ALT. 5B - CUT, PAINTED ACRYLIC SHEET LETTERS.

## CITY OF POMPANO BEACH, FLORIDA

## COMMISIONERS

EMMA LOU OLSON GEORGE H. MELCHER HERB SKOLNICK E. PAT LARKINS WILLIAM F. GRIFFIN

WILLIAM HARGETT

## CITY MANAGER

MAYOR

VICE MAYOR



## ROOF ADDITION

DRAWING NO.	DRAWING TITLE	ISSUE DATE	REVISED DATE
00.00	INDEX SHEET	07-14-95	10-30-95
ARCHITECTUR	<u>AL</u>		
30.01 30.02 30.03 31.01 32.01 33.01	FLOOR PLAN REFLECTED CEILING PLAN ROOF PLAN ELEVATION BUILDING SECTIONS & INT. ELEVATIONS DETAILS	07-14-95 07-14-95 07-14-95 07-14-95 07-14-95 07-14-95	10-30-95 10-30-95 10-30-95 10-30-95 10-30-95 10-30-95
<u>ENGINEERING</u> 60.01 90.01 90.01	STRUCTURAL PLAN ELECTRICAL PLAN SCHEDIII ES & RISERS	09-15-95 09-15-95 09-15-95	10-30-95 10-30-95 10-30-95
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STRUCTURAL ENG .: JENKINS & CHARLAND 3559 N.W. 53rd STREET FT. LAUDERDALE, FL. 33309 305-484-7777 MEP CONSULTANTS : R.A. KAMM & ASSOCIATES, INC. 949A CLINT MOORE ROAD BOCA RATON, FL. 33487 407-995-8636 ACOUSTICAL ENG. : DUNN & ASSOCIATES P.B. BOX 811438 BOCA RATON, FL. 33481 407-487-6898 R Q 67  $\bigcirc$ \_\_\_\_\_ R E  $\bigcirc$ B  $\bigcirc$ Ê in pa. 6\_ 0  $\langle$  $\sim$ ltem No. Date REVISIONS Seal Drawn U /A Checked Approved JOHN R. DEBELLO ARCHITECT -13 Quorum Bussiness Center 638 South Military Irail Deerfield Beach, Florida 33442 (305) 426-2741 Florida Reg. No. AR 6011635 Title INDEX SHEET Contr. No. 995117.00 Scale NONE @77-14-95 Date 00 Last Rev. 120-30-95





- 1. ALL DIM'S MUST BE VERIFY IN FIELD PRIOR CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCIES.
- 2. CONTRACTOR TO VERIFY EXISTING FOOTING UNDER STAGE EDGE
- FOR NEW S" CMU WALL. SEE STRUCTURAL FOR CONNECTION-3. DO NOT USE EXISTING ROOF AS A WORK AREA AND KEEP IT
- 4. CONTRACTOR TO VERIFY ALL EXISTING STRUCTURAL CONDITIONS
- AND NOTIFY ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCIES. 5. CONTRACTOR SHALL VISIT THE JOB SITE AND OBSERVE THE FIELD CONDITIONS BEFORE COMPLETING THE BID FOR THE PROJECT.

## DEMOLITION NOTES

1. USE CARE DURING THE DEMOLISHING OF STUD AND STUCCO WALL AND REMOVAL OF STEEL TRUSS TO MAINTAIN ALL EXISTING CONDITIONS FREE OF DAMAGE.





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STRUCTURRAL ENG .: JENKINS & CHARLAND 3559 N.W. 53rd STREET FT. LAUDERDALE, FL. 33309 305-484-7-777 MEP CONSSULTANTS : R.A. KAMM 🎿 ASSOCIATES, INC. 949A CLINT MOORE ROAD BOCA RATON, FL. 33487 407-995-8536 ACOUSTICAL ENG. : DUNN & ASSOCIATES P.B. BOX 811438 BOCA RATONI, FL. 33481 407-487-6298  $\Delta$ T jan ( o yang 8  $\bigcirc$ ĒĿ R E.  $\bigcirc$ B Q 0 Ē \_\_\_\_\_ T ĮĮ A 0 ~~~  $\leq$ X  $\leq$ No. Date ltem REVISIONS Drawn Seat Checked Approved JOHN R. DEBELLIC ARCHITECT -13 Quorum Busineess Conter 638 South Military Trail Deerfield Beach. Florida 33442 (305) 426-27441 in the second state of the second states Florida Reg. Não. AR 0011635 Title ROOF PLAN -14 Contr. No. 951177.00 20 Scale VV AS NAOTED Date 07-144-95 03 Last Rev. 10-300-95



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![](_page_84_Figure_0.jpeg)

D 2'-8" STAGE F.F.

![](_page_84_Figure_2.jpeg)

13N INTERIOR ELEVATION  $\frac{1}{4''} = 1'-0''$ 

- EXISTING WALL TO BE PAINTED FLAT BLACK (ALTERNATE)

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![](_page_84_Figure_9.jpeg)

![](_page_85_Figure_0.jpeg)

STRUCTURAL ENG .: JENKINS & CHARLAND 3559 N.W. 53rd STREET FT. LAUDER:DALE, FL. 33309 305-484-7777 MEP CONSULTANTS : R.A. KAMM & ASSOCIATES, INC. 949A CLINT MOORE ROAD BOCA RATON, FL. 33487 407-995-8636 ACOUSTICAL ENG. DUNN & ASSOCIATES P.B. BOX 811438 BOCA RATON, FL. 33481 407-487-6898 J 67 o (2000) **}** 3 C <u>F</u> A Ş ΓT  $\bigcirc$ Q \_\_\_\_ 26.1 L  $\bigcirc$ q T \_\_\_\_\_  $\bigcirc$  $\bigcirc$ \_\_\_\_\_ 0\_ 0  $\sim$ No. Date Item REVISIONS Drawn Seal Checked Approved -12 JOHN R. DEBELLO ARCHITECT -13 Quorum Busichess Center 638 South Millitary Trail Deerfield Beach, Florida 33442 (305) 426-27-11 Florida Reg. No. AR 0011635 DETAILS -14 Contr. No. 951017.00 33 Scale as Noted Date 07-14-95 01 Last Rev. 10-330-95

![](_page_86_Figure_0.jpeg)

STRUCTURAL ENG .: JENKINS & CHARLAND 3559 N.W. 53rd STREET FT. LAUDERDALE, FL. 33309 305-484-7777 MEP CONSULTANTS R.A. KAMM & ASSOCIATES, INC. 949A CLINT MOORE ROAD BOCA RATON, FL. 33487 407-995-8636 ACOUSTICAL ENG. DUNN & ASSOCIATES P.B. BOX 811438 BOCA RATON, FL. 33481 407-487-6898 J G, • ĹŢ. 0 ç....İ Ľ, A F [T  $\bigcirc$ T  $\bigcirc$ q J Q Ę  $\bigcirc$ a de la compañía de l  $\square$ No.| Date | item REVISIONS Drawn Sea Checked 6/25/96 Approved -10 JOHN R. DEBEILLO ARCHITECT -13 Quorum Business Center 638 South Millitary Trail Deerfield Beach, Florida 33442 (305) 426-2741 Florida Reg. No. AR 0011635 ROOF PLAN AND DETAILS Contr. No. 95117.00 60 1/8" = 1'-0" Scale Date M4 Last Rev. 10-302-95

![](_page_87_Figure_0.jpeg)

N	0	P	Q 	

![](_page_87_Figure_2.jpeg)

![](_page_87_Figure_3.jpeg)

STRUCTURAL ENG .: JENKINS & CHARLAND 3559 N.W. 53rd STREET FT. LAUDERDALE, FL. 33309 305-484-7777 MEP CONSULTANTS : R.A. KAMM & ASSOCIATES, INC. 949A CLINT MOORE ROAD BOCA RATON, FL. 33487 407-995-8636 ACOUSTICAL ENG. DUNN & ASSOCIATES P.B. BOX 811438 BOCA RATON, FL. 33481 407-487-6898 Q  $\bigwedge$ 6 0 7000 , see the second Î ŝ G S S Ŏ  $\bigcirc$ D D D OIM P No. Date Item REVISIONS Drawn Seal B.B. Checked B.B. Approved RAK JOHN R. DEBELLO ARCHITECT ; Quorum Business Center 638 South Military Trail Deerfield Beach. Florida 33442 (305) 426-2741 Florida Reg. No. AF 0011635 Title ELECTRICAL PLAN Contr. No. 95117..00 90 1/4" = 1" - 0"Scale 09-15-95 01 Date Last Rev. 10-30-95

![](_page_88_Figure_0.jpeg)

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A.	EXISTING DIMMER PANEL NORTH SECTION.
в.	3P 400A/400A. EXISTING DIMMER PANEL NORTH SECTION. 3P 400A/400A
C.	EXISTING DIMMER PANEL SOUTH SECTION. 3P 400A/400A.
D.	EXISTING DIMMER PANEL SOUTH SECTION. 3P 400A/400A.
Ε.	EXISTING WEST STAGE DISCONNECT. 3P 400A/400A.
F.	EXISTING WEST STAGE DISCONNECT. 3P 400A/400A.
G.	EXISTING PANEL "ALM" HOUSE LTS. 3P 200A/200A.
H.	EXISTING PANEL "D" SOUNDBOOTH. 3P 60A/60A.
.	EXISTING PANEL "A". 3P 100A/100A.
J.	ADD ALTERNATE NEW EAST STAGE DICONNECT. 3P 200A/200A.

R.A. KAMM & ASSOC. JOB #95312	aansaa sa
R.A. KAMM & ASSOCIATES,	INC. SEAL
CONSULTING ENGINEERS	
949A CLINT MOORE ROAD DATE:	6/24/86
BOCA RATON, FL 33487	
(407) 995-8636	
FLORIDA LICENSE #44004	
	<u></u>

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STRUCTURAL ENG .: JENKINS & CHARLAND 3559 N.W. 53rd STREET FT. LAUDERDALE, FL. 33309 305-484-7777 MEP CONSULTANTS R.A. KAMM & ASSOCIATES, INC. 949A CLINT MOORE ROAD BOCA RATON, FL. 33487 407-995-8636 C...... ACOUSTICAL ENG. DUNN & ASSOCIATES P.B. BOX 811438 BOCA RATON, FL 33481 407-487-6898 Florida Beach, Pompano  $\square$ Ţ  $\square$  $\leq$  $\overline{\phantom{a}}$ No.| Date | Item REVISIONS Drawn Seal B.B. Checked B.B. Approved RAK JOHN R. DEBELLO ARCHITECT Quorum Business Center 638 South Military Trail Deerfield Beach, Florida 33442 (305) 426-2741 Florida Reg. No. AR 0011635 Title SCHEDULES & RISERS Contr. No. | 95117.00 90 Scale  $1/4^{"} = 1' - 0"$ \_\_\_\_ 09-15-95 02 Date Last Rev. 10-30-95

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	15'-4"	
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STOLET ST 

![](_page_90_Figure_3.jpeg)

![](_page_91_Figure_0.jpeg)

![](_page_92_Figure_0.jpeg)

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![](_page_93_Figure_0.jpeg)

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HEREE	IY GIV	EN <sup>∞</sup> .				

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WATER HEATER - SEE SPECIFICATIONS - FOR CAPACITY AND HEATING ELEMENTS

ASME RATED POST RELIEF VALVE CONTINUE PAT RELIEF LINE TO RELIEF RISER OR TERMINATE OUTDOORS AT 6" ABOVE GRADE.

COLD WATER LINE. SEE DF

WH SOV TO BE SAME SIZE AS THE PIPE IT SERVES.

- HEAT TRAP - UNIONS AT INLET & OUTLET CONNECTIONS

MINIMUM MOUNTING HEIGHT OF 6'-6" TO BOTTOM OF PLATFORM

SAFEPAN DRAIN TO OBSERVABLE POINT

- SECURE FRAME TO 2X4 BACKING

1-1/2° ANGLE IRON FRAMÉ WITH MINIMUM 2 COATS OF RUSTPROOF PRIMER

PROVIDE 2X4 WOOD STUD BACKING - IN WALL FOR SECURING WH MOUNTING FRAME INTO.

WATER HEATER - MAXIMUM OF 30 GALLON CAPACITY.

SEE WATER HEATER DETAIL FOR PIPING SPECIFICS

Keith & Schnars, P., LANDSCAPE ARCHITECTS ENGINEERS PLANNERS SURVEYORS 6500 NORTH ANDREWS AVENUE FORT LAUDERDALE, FLORIDA ZIP CODE: 33309-2132 PHONE: (305)776-1616 ARCHITECTURE ARCHITECT JEFF FALKANGER & ASSOC., INC. FT. LAUDERDALE, FLORIDA ELECTRICAL, MECHANICAL & PLUMBING ENGINEER TODD W. CAREY & ASSOC., INC. FT. LAUDERDALE, FLORIDA ( )10N AT NON L  $\bigcirc$ N S Li 00  $\bigcirc$ X N  $\triangleleft$ NO Q\_ OW Q Ó O Concept) Contraction of the local division of the loc Contraction S 12 4-03-92 REVISED PER 201 NO. DATE DESCRIPTION REVISIONS PROJECT NO. 12469 DATE APRIL 29, 1991 DRAWN ISSUE CHECKED A.D.B./TH CAD SHEET TITLE ROOF PLAN plumbing & DETAILS P-2

![](_page_94_Picture_0.jpeg)

	-			
e s	CH	EDULE	(AMPHITHEA	TER)
 	VOLT	LAMP	MANUFACTURER & CATALOG NO.	REMARKS
LASS	208	(1) 1500W MH	1	SEE NOTE #1
LASS	208	(() 250 Ш МН	AAL: ALS178A -250 MH - 50 - F	SEE NOTE #2
LA55	120	(1) 500 W QTZ	Hubbel : 505	
A55	208	(1) 175 W MH	GEWILR-117 M-208-AI-L	SEE NOTE # 2
1466	120	(2) 8 W 75	COLE : F21566 - F	
	208	(I) 175 W MH	MOLDCAST: 37319-208-	ROUNTED ON LOFT.
	120	(2) F40 CW	HUBBEL : SW42R-EI-4A	
×K [	120	(1)75 W R30	MARCO : CI45 -6C-P	
	120	(4) F40 CW	HUBBEL: RD4FNBIO-EI-48	
÷	120	INCLUDED	AAL: ALE-95A-ROW-SC	SELF-CONTAINED
	120	INCLUDED	HUBBEL: EEL	SELF-CONTAILED
6	120	INCLUDED	HUBBEL : EUPRW	SELF-CONTAINED
રકં	120	included	COLE : T298 - RED-120 - EM-W	SELF-CONTAINED

Keith & Schnars, P.A. LANDSCAPE ARCHITECTS ENGINEERS PLANNERS SURVEYORS 6500 NORTH ANDREWS AVENUE FORT LAUDERDALE, FLORIDA ZIP CODE: 33309-2132 PHONE: (305)776-1616 ARCHITECTURE ARCHITECT JEFF FALKANGER & ASSOC., NC. FT. LAUDERDALE, FLORIDA ELECTRICAL, MECHANICAL & PLUMBING ENGINEER TODD W. CAREY & ASSOC., NC. FT. LAUDERDALE, FLORIDA RENOVATIONS MMUNIT.  $\overline{\mathbf{G}}$ 0 S  $\bigcirc$ × 04-02-92 REVISED PER COI NO. DATE DESCRIPTION REVISIONS PROJECT NO 12469 OCT. 28, 1991 SHEET TITLE AMPHITHEATHE UPPER FLOG PLAN LIGHTING

**E-3** 

![](_page_95_Figure_0.jpeg)

![](_page_96_Figure_0.jpeg)

![](_page_97_Figure_0.jpeg)

Keith & Schnars, P.A. LANDSCAPE ARCHITECTS ENGINNERS PLANNERS
SURVEYORS 6500 NORTH ANDREWS AVENUE FORT LAUDERDALE, FLORIDA ZIP CODE: 33309-2132 PHONE: (305)776-1616
ARCHITECTURE ARCHITECT JEFF FALKANGER & ASSOC., INC. FT. LAUDERDALE, FLORIDA ELECTRICAL, MECHANICAL & PLUMBING ENGINEER TODD W. CAREY & ASSOC., INC. FT. LAUDERDALE, FLORIDA
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PROJECT NO. 12469 DATE OCT. 28, 1991
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CATEGORY SUBCATEGORY SHEET

![](_page_98_Figure_0.jpeg)

![](_page_99_Figure_0.jpeg)

![](_page_100_Figure_0.jpeg)

![](_page_100_Figure_1.jpeg)

## **@** N.W. CORNER SCALE: 1/8" = 1'-0"

![](_page_101_Figure_0.jpeg)

![](_page_101_Figure_1.jpeg)

# ON.W. CORNER

![](_page_101_Picture_4.jpeg)

![](_page_102_Figure_0.jpeg)

![](_page_102_Figure_5.jpeg)

![](_page_103_Figure_0.jpeg)

![](_page_103_Figure_4.jpeg)

![](_page_104_Figure_0.jpeg)

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![](_page_105_Figure_0.jpeg)

![](_page_105_Figure_1.jpeg)

![](_page_106_Figure_0.jpeg)

![](_page_106_Figure_3.jpeg)

g kenne

![](_page_107_Figure_0.jpeg)
STRUCTURAL NOTES

## GENERAL

Where the year of adoption, edition or revision of the codes, standards and specifications cited below is not indicated, the latest shall apply.

Where shop drawings are required to be submitted, such drawings shall first be reviewed by the General Contractor who shall indicate his approval of dimensions, compatibility with other trades, and general compliance with the contract documents before submission to the Architect/Engineer for review. Fabrication, erection or placement may not commence until the Architect/Engineer's review has been satisfactorily completed.

## DESIGN CRITERIA

The structure has been designed in accordance with the requirements of the South Florida Building Code to sustain the following superimposed loads :-Plaza live load ..... 100 psf Stairs live load ..... 100 psf Roof live load ..... 30 psf Design wind velocity ..... 120 mph

## CONCRETE

Concrete mixes shall be designed by an approved testing laboratory in accordance with the requirements of ASTM C94-86a and ACI 318-89 to achieve 28-day compressive strengths as stated below :-

Beams, columns, retaining walls, slabs: 4000 psi. 4000 psi. Risers and slab on grade: 3000 psi. Pile caps and footings: The mix design for each class of concrete shall be submitted for review prior to placing.

No water beyond that shown in the mix design may be added at the site. The elapsed time from the first contact of water with cement to the deposit of the concrete in its final position shall not exceed 90 minutes. Any concrete which cannot be deposited within such a time shall be discarded. The testing laboratory shall state in its report any non-compliance with the provisions of this paragraph.

Concrete may contain water-reducing and retarding admixtures conforming to ASTM C494-86 and/or an air entraining admixture conforming to ASTM C260-86. Placing, finishing and curing shall meet all the requirements of ACI 301-84. Curing compounds shall comply with ASTM C309-81.

## CONCRETE TESTS

Concrete compressive strength test samples shall be obtained and tested by an approved testing laboratory in accordance with the requirements of Section 16.3.4 of ACI 301-84 except that a set of five cylinders shall be made for every 50 cubic yards or fraction thereof of concrete placed per day: one to be tested at the proposed time of stripping, one at 7 days, two at 28 days, and one retained for subsequent testing in the event that the 28-day test fails to meet the specified strength requirement.

## REINFORCING STEEL

Concrete reinforcing bars shall conform to ASTM A615-86 Grade 60, free from oil, loose scale and rust and shall be fabricated and placed in accordance with the bending diagrams on these drawings and with the standards of ACI 315-80. Welded wire fabric shall conform to ASTM A185-85. Shop drawings shall be submitted for review prior to commencement of fabrication.

## FORMWORK

The design, erection and removal of formwork including shoring shall meet the specifications of ACI 301-89 and the recommendations of ACI 347R-88. Formwork to the soffits of elevated structural elements such as beams, joists and slabs shall not be removed until the supported concrete has reached at least two-thirds of its specified 28-day compressive strength.

## PRESTRESSED CONCRETE JOIST SYSTEM

Unless otherwise indicated, floor and roof decks shall be 3" thick composite concrete slabs reinforced with #3 bars at 12" c-c each way at mid-depth over prestressed concrete joists with maximum depths and spacings as shown on the drawings. The ends of the joists shall extend 3" into the supporting beams. Beams prefixed SB- shall have precast-prestressed concrete beam soffits furnished with positive reinforcing and stirrups to resist the moments and shears indicated in the beam schedule. Stirrups may be cut within the middle eighth of the span to facilitate placing of top reinforcing provided that a drop-in stirrup is furnished for each cut stirrup. The prestressed concrete joist system shall be designed in accordance with the requirements of ACI 318-89 to sustain the self weight of the members including topping and the following superimposed loads :-

> Plaza deck live load ... 100 psf dead load .... 28 psf Roof live load ..... 30 psf dead load ..... 29 psf

The design shall be prepared under the supervision of an engineer registered in the State of Florida in strict conformance to all applicable codes. Sealed shop drawings shall be submitted for review prior to commencement of fabrication.

## MASONRY

Concrete masonry units shall have a nominal thickness of 8" unless otherwise shown on these drawings and shall comply with the specifications of ASTM C90-85, Grade N, Type I. Mortar shall conform to ASTM C270-86b, Type M (2500 psi). Dur-O-Wal or equal 9 ga. truss type horizontal reinforcement shall be provided at every third course. Where concrete columns are cast before masonry units are laid, dovetail slots with anchors at every third course shall be provided. Cells adjacent to openings and free ends of walls and reinforced cells shall be filled with pea-gravel concrete in maximum lifts of 4 feet.

## LINTELS

Precast or poured-in-place reinf provided across masonry openings Spans up to 6 ft. :

8" wide x 8" deep with 2#5 bottom Spans greater than 6 ft. but less than 12 ft. : 8" wide x 16" deep with 2#5 top & bottom Minimum bearing shall be 8" at each end. Where the lintel abuts a concrete column, the lintel shall be cast integrally with the column with 2#5 added top bars.

#### STRUCTURAL STEEL

Structural steel shall conform to the following ASTM designations except where noted in these drawings :-Shapes, plates and bars : A36-87 Pipes : A501-84 Tubes : A500-84, Grade B Anchor bolts : A36-87 Machine bolts : A307-86a Welds shall conform to AWS A5.1-81, E-70XX Electrode.

All steel shall receive one shop coat and a field touch-up of on these drawings. Fabrication, painting and erection shall Design. Shop drawings shall be submitted for review prior to commencement of fabrication.

## TENSION STRUCTURE

The design and detailing of the tension structure shall be prepared under the supervision of an engineer registered in the State of Florida in strict conformance to all applicable codes. Sealed shop drawings and calculations shall be submitted for review prior to commencement of fabrication and prior to installation of pile foundations.

## SOIL COMPACTION

The foundations have been designed for an allowable soil bearing pressure of 2500 psf.

Topsoil to a minimum depth of one foot and all organic and deleterious materials shall be removed from the entire area covered by the building and five feet beyond building lines. Clean, well-graded granular fill meeting the requirements of ASTM D2487-85, Classification SW shall be placed up to finished grade in lifts not exceeding 12" thick. The subgrade and each lift of fill material shall be mechanically compacted to 98% of the Modified Proctor Density as determined in accordance with ASTM D1557-78.

Compliance with the compaction requirement for the subgrade and each lift of fill material shall be verified by tests performed by an approved soils testing laboratory.

## AUGERCAST PILES

Augercast piles shall be placed by rotating a continuous-flight hollow-shaft auger into the ground to a pre-determined pile depth. While the auger is withdrawn, high-strength mortar shall be pumped to fill the hole with sufficient pressure to avoid hole collapse and to cause lateral penetration of the mortar into soft or porous zones of the surrounding soil. Whether or not the hole is sufficiently stable to retain its shape without support from the earth-filled auger, a head of at least several feet of mortar above the injection point shall be carried around the perimeter of the auger flighting at all times during the withdrawal of the auger so that the high-strength mortar has a displacing action removing any loose material from the hole.

The high-strength mortar shall consist of portland cement, fluidifier, sand and water so proportioned as to provide a hardened mortar having an ultimate compressive strength of 4000 psi. at 28 days. The mortar mix shall be tested by making one set of 2" cubes for each day during which augercast piles are placed. A set of cubes shall consist of 2 cubes to be tested at 7 days and 2 cubes to be 'tested at 28 days. The test cubes shall be made and tested in accordance with ASTM C109-86, except that the mortar should be restrained from expansion by a top plate.

The piles shall be installed within 1 1/2 inches of the locations shown on the drawings and shall be capable of sustaining the pile loads indicated. Upon completion of the installation, the piling contractor shall provide a certification sealed by a geotechnical engineer registered in the State of Florida that the design capacities of the piles have been met.

The Contractor shall provide for one compression and one tension load test to be performed in accordance with the requirements of ASTM D1143-81 and ASTM D3689-83 prior to commencement of pile installation.

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red oxide primer or equal except where galvanizing is required comply with the provisions of the 1989 AISC Specification for Structural Steel Buildings - Allowable Stress Design and Plastic

BEA	M SCHEDU	LE			
<u>MARK</u>	TOP ELEVATION	<u>SIZE Width x De</u>	<u>REINF</u> pth Bott.	ORCING Top	HOOP SPACING
RB-1	+21'-0"	24" x 36	." 4#8	2#9TA 2#7TB	2#3 @ 16" T/O
RB-2	+21'-0"	24" x 36	." 4#9	2#10TA 2#8TB	2#3 @ 16" T/O `
RB-3	+21'-0"	24" x 36	s" 3 <b>#</b> 9	2#9TA 1#7TB	#3 @ 16" T/O
RB-4	+21'-0"	24" x 36	;" 3#9	3#8TC	#3 @ 16" T/O
RB-5	+21'-0"	12" x 36	5" 3#8	2#6TC 1#6TB	<b>#3 @</b> 12" T/O
RB-6	+16'-0"	12" x 24	1" 2#7	2#6TC	#3 @ 10" T/O
RB-7	+21'-0"	12" x 32	2" 2#8	2#6TC	#3 @ 12" T/O
RB-8	+21'-0"	8" x 24	4" max 2 <b>#</b> 6	2#5TC	#3 @ 16" T/O
RTB-1	+21'-0"	8" x 2	1" 2#5	2#5TC	
RTB-2	See Sect. R	8" x 1:	2"min 2#5	2#5TC	
RTB-3	+20'-0"	8" x 1	2" min 2#5	2#5TC	
B-1	+ 6'-2"	8" x 1	8" 2 <b>#</b> 7	2#5TC	6#3 @ 8" EE Bal. @ 12"
B-2	See Plan	16" x 3	2" 3#8	3#6TC	#3 @ 12" T/O
B-3	See Plan	16" x 3 See Not	2" 4#1 e 2	1 3#9TC	#3 @ 12" T/O
B-4	+11'-1 1/4"	24" x 3	2"5#1	1 4#8TC	10 pr.#3 @ 7" E Bal. #3 @ 12"
	+11'-7 3/4"	12" x 2	4" 2#6	2#6TC	#3 @ 10" T/O
B-6	+ 5'-4"	8" x 1	6"2#5	2#5TC	#3 @ 12" T/O
TB-1	See Plan	8" x 2	0" min 2#5	2#5TC	
TB-2	+ 6'-2"	8" x 1	8" 2#5	2#5TC	
TB-3	See Plan	8" x 1	2″min 2#5	2 <b>4</b> 5TC	
TB-4	See Plan	8" x 3	2" min 2#5	2#5TC	
TB-5	See Plan	8" x 1	2°min 2#5	2#5TC	
TB-6	See Plan	8" x 1	2" min 2 <b>#</b> 5	2#5TC	
TB-7	See Sect. S	8" x 1	2" min 2∦5 、	2≢5тс	

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Notes: 1. EE = each end, T/O = throughout. 2. Provide 1 1/2" upward camber at midspan. 3. Al! TB reinforcing shall be continuous. Provide corner





# TYPICAL BENDING DIAGRAM FOR BEAMS NO SCALE

1. TOP CONTINUOUS BARS MAY BE SPLICED AT MIDSPAN. TA BARS (TOP BARS ACROSS SUPPORTS) SHALL BE VERTICALLY BUNDLED AT SUPPORTS. HOOP SPACING SHALL COMMENCE WITH A HOOP AT HALF SPACE FROM FACE OF SUPPORT. 4. CONCRETE COVER SHALL BE 1 1/2" CLEAR OVER HOOPS EXCEPT AT SURFACES EXPOSED TO EARTH OR WEATHER WHERE COVER SHALL BE 2" CLEAR FOR #6 BARS AND LARGER.

MARK	SIZE	VERT. BARS	HOR. TIES
$\Delta \tilde{\zeta_1}$	72" × 72"	64#11*	Set 8#4@18"
762	60" x 60"	48#11*	Set 7#4 @ 18"
) e	40" dia.	12#8 *	#4 @ 18"
$\geq \in$	40" dia.	30#11*	#5-@-9"
79	<u>66" dia.</u>	36#11*	<u>+5 0 18</u>
6	12" x 17"	4#8	#3 @ 12"
7	8" x 16" x 16"	6#6	Set 2#3 @ 8"
8	12" x 12"	4#6	#3 @ 12"
9	8" x 12"	4#6	#3 @ 8"
10	8" x 12"	4#5	#3 @ 8"
11	8" x 16"	4#6	#3 @ 8"
12	12" x 24"	4#8	#3 @ 12"
£13	60" x 60"	24 #11*	Set 6 #4 @ 18"
			#n o o" o

14 8" x 14" 15 TYPE III LIGHT POLE 54-6"MIN.LG. / 12'-6" BELOW GROUND. lote: \* = Provide full mechanical connection at splices capable of developing in tension and compression at least 125% of the specified yield strength (60 ksi.) of the bar. Stagger splices at least 24" apart.

FOOTING SCHEDULE 1'-8" W x 10" D x Cont. WF1-8 WF2-0 2'-0" W x 12" D x Cont. 2'-6" W x 12" D x Cont. WF2-6 F3-6 3'-6" x 3'-6" x 1'-0" 4'-0" x 4'-0" x 1'-0" F4-0 4'-6" x 4'-6" x 1'-0" F4-6 5'-0" x 5'-0" x 1'-0" F5-0 F5-6 5'-6" x 5'-6" x 1'-1" F6-06'-0" x 6'-0" x 1'-2" 7'-0" x 7'-0" x 1'-5" F7-0 Note: W = wide, D = deepCont. = continuous, Trans. = transverse.

REIM	<b>VFORCIN</b>	₩G	
2#5	Bott.	cont	
3#5 #3 @	Bott. ⊇ 12"	cont. Bott.	trans.
3#5 #3 (	Bott. 9 12" 1	cont Bott.	trans.
4#4	Bott.	each	way
4 # 5	Bott.	each	way
4#5	Bott.	each	way
5#5	Bott.	each	way
6#5	Bott.	each	way
7#5	Bott.	each	way
6#6	Bott.	each	way
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TOP CONT. (TC) -TOP CONT. (TC) (NOTE 2) - SPAN X: TOP RIGHT (TR) OR SPAN Y: TOP LEFT (TL) — - TOP OVERHANG (TO) EQUAL TO SPAN Z 1/4 SPAN Y FXTERIOR SPAN CANTILEVER SPAN Z V. ST. JOHN WILLIAMS, P.E. CONSULTING ENGINEER 2300 W. SAMPLE ROAD, #214 POMPANO BEACH, FL 33073 (305) 978-6218



## STRUCTURAL NOTES

## GENERAL

Azartasi

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# DESIGN CRITERIA

The structure has been designed in accordance with the requirements of the South Florida Building Code to sustain the following superimposed loads :-Plaza live load ..... 100 psf Stairs live load ..... 100 psf Roof live load ..... 30 psf Design wind velocity ..... 120 mph

#### CONCRETE

Concrete mixes shall be designed by an approved testing laboratory in accordance with the requirements of ASTM C94-86a and ACI 318-89 to achieve 28-day compressive strengths as stated below :-

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	Beams, columns, retaining walls, slabs:	4000 psi.
	Risers and slab on grade:	4000 psi.
	Pile caps and footings:	3000 psi.
The mi	x design for each class of concrete shall	be submitted
for re	view prior to placing.	

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Concrete reinforcing bars shall conform to ASTM A615-86 Grade 60, free from oil, loose scale and rust and shall be fabricated and placed in accordance with the bending diagrams on these drawings and with the standards of ACI 315-80. Welded wire fabric shall conform to ASTM A185-85. Shop drawings shall be submitted for review prior to commencement of fabrication.

## FORMWORK

The design, erection and removal of formwork including shoring shall meet the specifications of ACI 301-89 and the recommendations of ACI 347R-88. Formwork to the soffits of elevated structural elements such as beams, joists and slabs shall not be removed until the supported concrete has reached at least two-thirds of its specified 28-day compressive strength.

## PRESTRESSED CONCRETE JOIST SYSTEM

Unless otherwise indicated, floor and roof decks shall be 3" thick composite concrete slabs reinforced with #3 bars at 12" c-c each way at mid-depth over prestressed concrete joists with maximum depths and spacings as shown on the drawings. The ends of the joists shall extend 3" into the supporting beams. Beams prefixed SB- shall have precast-prestressed concrete beam soffits furnished with positive reinforcing and stirrups to resist the moments and shears indicated in the beam schedule. Stirrups may be cut within the middle eighth of the span to facilitate placing of top reinforcing provided that a drop-in stirrup is furnished for each cut stirrup. The prestressed concrete joist system shall be designed in accordance with the requirements of ACI 318-89 to sustain the self weight of the members including topping and the following superimposed loads :-

> Plaza deck live load ... 100 psf dead load .... 28 psf Roof live load ..... 30 psf dead load ..... 29 psf

The design shall be prepared under the supervision of an engineer registered in the State of Florida in strict conformance to all applicable codes. Sealed shop drawings shall be submitted for review prior to commencement of fabrication.

#### MASONRY

Concrete masonry units shall have a nominal thickness of 8" unless otherwise shown on these drawings and shall comply with the specifications of ASTM C90-85, Grade N, Type I. Mortar shall conform to ASTM C270-86b, Type M (2500 psi). Dur-O-Wal or equal 9 ga. truss type horizontal reinforcement shall be provided at every third course. Where concrete columns are cast before masonry units are laid, dovetail slots with anchors at every third course shall be provided. Cells adjacent to openings and free ends of walls and reinforced cells shall be filled with pea-gravel concrete in maximum lifts of 4 feet.

## LINTELS

Precast or poured-in-place rein provided across masonry opening Spans up to 6 ft. :

8" wide x 8" deep with 2# Spans greater than 6 ft. but 8" wide x 16" deep with

Minimum bearing shall be 8" at a concrete column, the lintel column with 2#5 added top bars.

## STRUCTURAL STEEL

Structural steel shall conform designations except where noted Shapes, plates and bars Pipes : A501-84 Tubes : A500-84, Grade B Anchor bolts : A36-87 Machine bolts : A307-86a Welds shall conform to AWS A5.

All steel shall receive one she red oxide primer or equal except on these drawings. Fabrication comply with the provisions of Structural Steel Buildings - A Design. Shop drawings shall be commencement of fabrication.

## TENSION STRUCTURE

The design and detailing of the prepared under the supervision State of Florida in strict con Sealed shop drawings and calcu review prior to commencement o installation of pile foundation

## SOIL COMPACTION

The foundations have been desi pressure of 2500 psf.

Topsoil to a minimum depth of deleterious materials shall be covered by the building and fi Clean, well-graded granular fi ASTM D2487-85, Classification grade in lifts not exceeding lift of fill material shall be of the Modified Proctor Densit with ASTM D1557-78.

Compliance with the compaction and each lift of fill material performed by an approved soils

## AUGERCAST PILES

Augercast piles shall be place hollow-shaft auger into the gr depth. While the auger is with be pumped to fill the hole wit hole collapse and to cause lat into soft or porous zones of not the hole is sufficiently support from the earth-filled feet of mortar above the injec the perimeter of the auger fli withdrawal of the auger so that displacing action removing any

The high-strength mortar shall fluidifier, sand and water so hardened mortar having an ulti 4000 psi. at 28 days. The mort one set of 2" cubes for each are placed. A set of cubes shall consist of 2 cubes to be tested at 7 days and 2 cubes to be tested at 28 days. The test cubes shall be made and tested in accordance with ASTM C109-86, except plate.

The piles shall be installed within 1 1/2 inches of the locations shown on the drawings and shall be capable of sustaining the pile loads indicated. Upon completion of the installation, the piling contractor shall provide a certification sealed by a geotechnical engineer registered in the State of Florida that the design capacities of the piles have been met.

The Contractor shall provide for one compression and one tension load test to be performed in accordance with the requirements of ASTM D1143-81 and ASTM D3689-83 prior to commencement of pile installation.

<b>,</b>				· •		
•		BEAR	1 SCHEDU	LE		
۰. ب		MARK	TOP ELEVATION	SIZE <u>Width</u> x <u>Depth</u>	<u>REINFORCING</u> Bott. <u>Top</u>	HOOP SPACING
nforced concrete lintels shall be gs as follows :-	a de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción d	RB-1	+21'-0"	24" x 36"	4#8 2#9TA 2#7TB	2#3 @ 16" T/O
#5 bottom t less than 12 ft. : 2#5 ton & bottom	gystry, radagor a 1844 a Teora	RB-2	+21'-0"	24" x 36"	4#9 2#10TA 2#8TB	2#3 @ 16" T/O
each end. Where the lintel abuts shall be cast integrally with the		RB-3	+21'-0"	24" x 36"	3#9 2#9TA 1#7TB	#3 @ 16" T/O
		RB-4	+21'-0"	24" x 36"	3#9 3#8TC	#3 @ 16" T/O
to the following ASTM		RB-5	+21'-0"	12" x 36"	3#8 2#6TC 1#6TB	#3 @ 12" T/O
d in these drawings :- : A36-87		RB-6	+16'-0"	12" x 24"	2#7 2#6TC	#3 @ 10" T/O
		RB-7	+21'-0"	12" x 32"	2#8 2#6TC	#3 @ 12" T/O
		RB-8	+21'-0"	8" x 24" max	¢ 2#6 2#5TC	#3 @ 16" T/O
1-81, E-70XX Electrode.	1	RTB-1	+21'-0"	8" x 21"	2#5 2#5TC	
op coat and a field touch-up of pt where galvanizing is required		RTB-2	See Sect. R	8" x 12" mii	n 2#5 2#5TC	<i>k</i> .
, painting and erection shall the 1989 AISC Specification for llowable Stress Design and Plastic submitted for review prior to	n over a sometiden av senare sometiden av sometiden av sometiden av sometiden av sometiden av sometiden av som	RTB-3	+20'-0"	8" x 12" mi	n 2#5 2#5TC	
		B-1	+ 6'-2"	8" x 18"	2#7 2#5TC	6#3 @ 8" EE Bal. @ 12"
		B-2	See Plan	16" x 32"	3#8 3#6TC	#3 @ 12" T/O
e tension structure shall be of an engineer registered in the formance to all applicable codes.		B-3	See Plan	16" x 32" See Note 2	4#11 3#9TC	#3 @ 12" T/O
lations shall be submitted for f fabrication and prior to	an an an an an an an an an an an an an a	B-4	+11'-1 1/4"	24" x 32"	5#11 4#8TC	10 pr.#3 @ 7" EE Bal. #3 @ 12"
***** *		B-5	+11'-7 3/4"	12" x 24"	2#6 2#6TC	#3 @ 10" T/O
	Г с	B-6	+ 5'-4"	8" x 16"	2#5 2#5TC	#3 @ 12" T/O
gned for an allowable soil bearing	to a contract of the second	TB-1	See Plan	8" x 20" mi	n 2#5 2#5TC	,
one foot and all organic and		TB-2	+ 6'-2"	8" x 18"	2#5 2#5TC	
removed from the entire area ve feet beyond building lines.		TB-3	See Plan	8" x 12" mi	n 2#5 2 <b>#</b> 5TC	
ll meeting the requirements of SW shall be placed up to finished	Gurrijika Adalovi	TB-4	See Plan	8" x 32" mi	n 2#5 2#5TC	•
2" thick. The subgrade and each mechanically compacted to 98%	ф.	TB-5	See Plan	8" x 12" mi	n 2#5 2#5TC	
y as determined in accordance .	1	TB-6	See Plan	8" x 12" mi	n 2#5 2#5TC	
requirement for the subgrade shall be verified by tests		TB-7	See Sect. S	. 8" x 12" mi	n 2#5 2#5TC,	1 1 1
testing laboratory.		Notes:	1. EE = each 2. Provide 1 3. All TB rei	end, T/O = throug 1/2" upward cambe nforcing shall be	hout. F at midspan. Continuous. I	Provide corner
ed by rotating a continuous-flight round to a pre-determined pile adrawn, high-strength mortar shall th sufficient pressure to avoid teral penetration of the mortar the surrounding soil. Whether or stable to retain its shape without auger, a head of at least several of the point shall be carried around ighting at all times during the at the high-strength mortar has a y loose material from the hole.			μ			





# TYPICAL BENDING DIAGRAM FOR BEAMS NO SCALE

1. TOP CONTINUOUS BARS MAY BE SPLICED AT MIDSPAN. 2. TA BARS (TOP BARS ACROSS SUPPORTS) SHALL BE VERTICALLY BUNDLED AT SUPPORTS. 3. HOOP SPACING SHALL COMMENCE WITH A HOOP AT HALF SPACE FROM FACE OF SUPPORT.

4. CONCRETE COVER SHALL BE 1 1/2" CLEAR OVER HOOPS EXCEPT AT SURFACES EXPOSED TO EARTH OR WEATHER WHERE COVER SHALL BE 2" CLEAR FOR #6 BARS AND LARGER.

8. 4. <del>3</del> 1 7 7	OTES		HOP TIES
<u>IARK</u>	<u>S1ZB</u>	<u>VERI. DARS</u>	<u>now, 1180</u>
1	72" x 144 x 192	120#11*	Set 2040 6 10
2	48 x 48	44#11*	aet 1#4 e 10 #4 @ 19"
3	40 dia.	12+0 *	#T C 10 #5 @ 9"
4	40 dia.	364111	#5 @ 18"
э с	10" v 17"	4#8	#3 @ 12"
9	$12 \times 16^{10} \times 16^{10}$	6#6	set 2#3 @ 8"
, 8	$12^{+} \times 12^{+}$	4#6	#3 @ 12"
0	9. <sup>10</sup> x 1:9. <sup>10</sup>	***~~ A: <b>#</b> ·R	<b>#3 @ 8</b> "
9 10	9" x 12"	4#5	#3 @ 8"
11	x = x = x = x = x	4#6	#3 @ 8"
12	12" x 24"	4#8	#3 @ 12"
13	48" x 120" x 120	" 60#11*	Set 12#4 @ 18"
1 4		A # R	
Note:	8" x 14" * = Provide full of developing in the specified yie splices at least	mechanical conn tension and com ld strength (60 24" apart.	#3 @ 8 nection at splices capable npression at least 125% of hsi.) of the bar. Stagger
Note:	8" x 14" * = Provide full of developing in the specified yie splices at least OTING SCH	mechanical conn tension and com ld strength (60 24" apart. EDULE	#3 @ 8 nection at splices capable npression at least 125% of ) ksi.) of the bar. Stagger
Note: FOC	8" x 14" * = Provide full of developing in the specified yie splices at least DTING SCH <u>SIZE</u>	mechanical conn tension and com 1d strength (60 24" apart. EDULE	#3 @ 8 nection at splices capable hpression at least 125% of (ksi.) of the bar. Stagger <u>REINFORCING</u>
Note: FOC <u>MARK</u> WF1-8	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10	mechanical conn tension and com 1d strength (60 24" apart. EDULE " D x Cont.	#3 @ 8 nection at splices capable npression at least 125% of hsi.) of the bar. Stagger <u>REINFORCING</u> 2#5 Bott. cont.
14 Note: FOC <u>MARK</u> WF1-8 WF2-0	8" x 14" * = Provide full of developing in the specified yie splices at least OTING SCH <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12	mechanical conn tension and con 1d strength (60 24" apart. EDULE " D x Cont.	<pre>#3 @ 8" nection at splices capable npression at least 125% of ) ksi.) of the bar. Stagger  <u>REINFORCING</u> 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans.</pre>
Note: FOC <u>MARK</u> WF1-8 WF2-0 WF2-6	8" x 14" * = Provide full of developing in the specified yie splices at least OTING SCH <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 2'-6" W x 12	mechanical conn tension and com ld strength (60 24" apart. EDULE " D x Cont. " D x Cont.	<pre>#3 @ 8" nection at splices capable npression at least 125% of ksi.) of the bar. Stagger  <u>REINFORCING</u> 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans. 3#5 Bott. cont. #3 @ 12" Bott. trans.</pre>
14 Note: FOC <u>MARK</u> WF1-8 WF2-0 WF2-6 F3-6	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 2'-6" W x 12 3'-6" x 3'-6	mechanical conn tension and com 1d strength (60 24" apart. EDULE " D x Cont. " D x Cont. " D x Cont.	<pre>#3 @ 8" nection at splices capable npression at least 125% of ) ksi.) of the bar. Stagger  <u>REINFORCING</u> 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans. 3#5 Bott. cont. #3 @ 12" Bott. trans. 4#4 Bott. each way</pre>
FOC <u>MARK</u> WF1-8 WF2-0 WF2-6 F3-6 F4-0	8" x 14" * = Provide full of developing in the specified yie splices at least DTING SCH SIZE 1'-8" W x 10 2'-0" W x 12 3'-6" W x 12 3'-6" x 3'-6 4'-0" x 4'-0	mechanical conn tension and com ld strength (60 24" apart. EDULE " D x Cont. " D x Cont. " D x Cont. " D x Cont.	<pre>#3 @ 8" hection at splices capable hpression at least 125% of b ksi.) of the bar. Stagger  <u>REINFORCING</u> 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans. 3#5 Bott. cont. #3 @ 12" Bott. trans. 4#4 Bott. each way 4#5 Bott. each way</pre>
FOC <u>MARK</u> WF1-8 WF2-0 WF2-6 F3-6 F4-0 F4-6	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 3'-6" W x 12 3'-6" x 3'-6 4'-0" x 4'-0 4'-6" x 4'-6	mechanical conn tension and con 1d strength (60 24" apart. EDULE " D x Cont. " D x Cont. " D x Cont. " x 1'-0" " x 1'-0" " x 1'-0"	<pre>#3 @ 8" nection at splices capable npression at least 125% of ksi.) of the bar. Stagger 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans. 3#5 Bott. cont. #3 @ 12" Bott. trans. 4#4 Bott. each way 4#5 Bott. each way 4#5 Bott. each way</pre>
FOC <u>MARK</u> WF1-8 WF2-0 WF2-0 WF2-6 F3-6 F4-0 F4-6 F5-0	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 2'-6" W x 12 3'-6" x 3'-6 4'-0" x 4'-0 4'-6" x 4'-6 5'-0" x 5'-0	mechanical conn tension and com ld strength (60 24" apart. EDULE " D x Cont. " D x Cont. " D x Cont. " D x Cont. " x 1'-0" " x 1'-0" " x 1'-0" " x 1'-0"	<pre>#3 @ 8" nection at splices capable npression at least 125% of ) ksi.) of the bar. Stagger 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans. 3#5 Bott. cont. #3 @ 12" Bott. trans. 4#4 Bott. each way 4#5 Bott. each way 4#5 Bott. each way 5#5 Bott. each way</pre>
FOC <u>MARK</u> WF1-8 WF2-0 WF2-6 F3-6 F4-0 F4-6 F5-0 F5-6	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 2'-6" W x 12 3'-6" x 3'-6 4'-0" x 4'-0 4'-6" x 4'-6 5'-0" x 5'-0 5'-6" x 5'-6	<pre>mechanical conn tension and com ld strength (60 24" apart. EDULE " D x Cont. " D x Cont. " D x Cont. " D x Cont. " X 1'-0" " x 1'-0" " x 1'-0" " x 1'-0" " x 1'-0" " x 1'-1"</pre>	<ul> <li>#3 @ 8"</li> <li>nection at splices capable apression at least 125% of breasing of the bar. Stagger</li> <li>2#5 Bott. cont.</li> <li>2#5 Bott. cont.</li> <li>3#5 Bott. cont.</li> <li>#3 @ 12" Bott. trans.</li> <li>3#5 Bott. cont.</li> <li>#3 @ 12" Bott. trans.</li> <li>3#5 Bott. each way</li> <li>4#4 Bott. each way</li> <li>4#5 Bott. each way</li> <li>4#5 Bott. each way</li> <li>5#5 Bott. each way</li> <li>5#5 Bott. each way</li> <li>6#5 Bott. each way</li> </ul>
FOC <u>MARK</u> WF1-8 WF2-0 WF2-6 F3-6 F4-0 F4-6 F5-0 F5-6 F6-0	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 2'-6" W x 12 3'-6" x 3'-6 4'-0" x 4'-0 4'-6" x 4'-6 5'-0" x 5'-6 6'-0" x 6'-0	<pre>mechanical conn tension and con ld strength (60 24" apart. EDULE " D x Cont. " D x Cont. " D x Cont. " D x Cont. " X 1'-0" " x 1'-0" " x 1'-0" " x 1'-0" " x 1'-1" " x 1'-2"</pre>	<ul> <li>#3 @ 8"</li> <li>nection at splices capable apression at least 125% of ksi.) of the bar. Stagger</li> <li>2#5 Bott. cont.</li> <li>2#5 Bott. cont.</li> <li>3#5 Bott. cont.</li> <li>#3 @ 12" Bott. trans.</li> <li>3#5 Bott. cont.</li> <li>#3 @ 12" Bott. trans.</li> <li>3#5 Bott. each way</li> <li>4#4 Bott. each way</li> <li>4#5 Bott. each way</li> <li>5#5 Bott. each way</li> <li>5#5 Bott. each way</li> <li>6#5 Bott. each way</li> <li>7#5 Bott. each way</li> </ul>
FOC MARK WF1-8 WF2-0 WF2-0 WF2-0 WF2-6 F3-6 F4-0 F4-6 F5-0 F5-6 F5-6 F6-0 F7-0	8" x 14" * = Provide full of developing in the specified yie splices at least <b>DTING SCH</b> <u>SIZE</u> 1'-8" W x 10 2'-0" W x 12 2'-6" W x 12 3'-6" x 3'-6 4'-0" x 4'-0 4'-6" x 4'-6 5'-0" x 5'-6 6'-0" x 6'-0 7'-0" x 7'-0	<pre>mechanical conn tension and com ld strength (60 24" apart. EDULE " D x Cont. " x 1'-0" " x 1'-0" " x 1'-0" " x 1'-0" " x 1'-1" " x 1'-2" " x 1'-5"</pre>	<pre>#3 @ 8" nection at splices capable apression at least 125% of ) ksi.) of the bar. Stagger 2#5 Bott. cont. 3#5 Bott. cont. #3 @ 12" Bott. trans. 3#5 Bott. cont. #3 @ 12" Bott. trans. 4#4 Bott. each way 4#5 Bott. each way 4#5 Bott. each way 5#5 Bott. each way 5#5 Bott. each way 6#5 Bott. each way 7#5 Bott. each way 6#6 Bott. each way</pre>



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Keith & Schnars, P.A

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COLUMN MK. 2 SCALE : 1/2" = 1'-0"

