

PROJECT MANUAL FOR:

**Pembroke Road Wall Replacement
South 25th Avenue to South 27th Avenue**



PROJECT BID NO. EN-14-014a

CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION

2600 HOLLYWOOD BOULEVARD
HOLLYWOOD, FL 33022

BID PACKAGE

FOR

PROJECT BID NO. EN-14-014a

**Pembroke Road Wall Replacement
South 25th Avenue to South 27th Avenue**

SUBMITTED BY: _____

DECEMBER 2014

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SUBMIT THIS COMPLETE PACKAGE AND ONE COPY WITH YOUR BID

CITY OF HOLLYWOOD

FLORIDA

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**Pembroke Road Wall Replacement
South 25th Avenue to South 27th Avenue**

CITY OF HOLLYWOOD

**DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

PROJECT BID NO.: EN-14-014a

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**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

NOTICE TO BIDDERS

PROJECT NAME: Pembroke Road Wall Replacement from South 25th Avenue to South 27th Avenue

PROJECT BID NUMBER: EN-14-014a

NOTICE IS HEREBY GIVEN that the City Commission of the City of Hollywood, Florida, is advertising for sealed bids which shall be **submitted to the City Clerk's Office** (City Hall, 2600 Hollywood Boulevard, Room 221) of the City of Hollywood, Florida, **until Tuesday, December 30, 2014 at 9:00 am**, local time, at which time they will be opened and read publicly at the Department of Public Works, Engineering & Architectural Services Division Conference Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. **A pre-bid meeting will be held on Wednesday, December 17, 2014, at 9:00 am, local time**, at the Department of Public Works, Engineering & Architectural Services Division Conference Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. **Attendance at this pre-bid meeting is NOT required.**

The Bid Package and any other Contract documents may be obtained from the Department of Public Works, Engineering & Architectural Services Division, Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. The first copy to all eligible bidders will be provided at no cost. Additional copies will be furnished upon request for a nominal fee. The bid package can also be downloaded at <http://www.hollywoodfl.org/Bids.aspx>. Questions shall be submitted in writing no later than **Monday, December 22, 2014** to Clarissa Ip, PE (cip@hollywoodfl.org) or Frank Leon, PE (fleon@hollywoodfl.org). The telephone number for general information is (954) 921-3900. It is the contractor's responsibility to periodically check the City's website for any changes to the contract during the bidding process.

Each bid must be accompanied by a Bid Security, in an amount no less than ten percent (10%) of the bid amount. Said security shall be in the form of a Certified Check or Cashier's Check on a solvent National or State Bank, or a bid bond executed by the Bidder and a qualified Surety, satisfactory and payable to the City of Hollywood, Florida.

A Cone of Silence is in effect with respect to this bid. The Cone of Silence prohibits certain communications between potential vendors and the City. For further information, please refer to Section 30.15(E) of the City's Code of Ordinances.

The City of Hollywood is strongly committed to ensuring the participation of local Hollywood vendors in the procurement of goods and services. Each bidder must carefully review Exhibit A within the attached Bid Package. For additional information about the City's Local Preference Ordinance, visit <http://www.hollywoodfl.org/index.aspx?nid=216> or contact The Procurement Department at 954-921-3345.

It will be the sole responsibility of the Bidder to deliver personally or by mail, his/her proposal to the City Clerk's Office at City Hall on or before the closing hour and date for the receipt of bids as noted above.

The City Commission reserves the right to reject any or all bids, to waive informalities and to accept or reject all or any part of any bid, as they may deem to be in the best interest of the City of Hollywood, Florida.

Dated this 11th Day of December, 2014

CITY OF HOLLYWOOD, FLORIDA

Jonathan Vogt, P.E.,
Deputy Director/City Engineer

SECTION 00100

INSTRUCTIONS TO BIDDERS

1. PREPARATION OF BIDS:

Bids must be submitted on the separate and enclosed **BIDDING PACKAGE** forms, which shall be completed **by typewriter** or legibly handwritten in ink. The Total Bid price must be stated in words and numerals; in case of a conflict, words will take precedence. Where unit prices and extended totals are required, unit prices take precedence. Likewise, discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

If the Bid is made by an individual, he must sign his name therein and state his address. If the Bid is made by a firm or partnership, its name and address must be stated, as well as the name and address of each member of the firm or partnership. Bids by corporations must be signed by an authorized corporate officer (accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the Secretary or an Assistant Secretary of the corporation. The corporate address and state of incorporation shall be shown below the signature. When the state of incorporation is other than Florida, proof of registry with Florida must be attached.

2. RECEIPT AND OPENING OF BIDS:

The separate **BIDDING PACKAGE** consisting of the PROPOSAL, PROPOSAL BID FORM, APPROVED BID BOND, TRENCH SAFETY FORM, INFORMATION REQUIRED FROM BIDDERS AND LIST OF SUBCONTRACTORS AND/OR MATERIAL SUPPLIERS shall be completed, signed and sealed as required and must be delivered in a sealed, opaque envelope, addressed to the City Clerk of Hollywood, Florida, by the time called for in the Notice to Bidders and shall be properly identified on the face thereof.

Proposals will be publicly opened and immediately read aloud at the time and place designated in the Notice to Bidders. No proposal will be considered which is not based upon these Drawings and Specifications, or which contains any letter or written memorandum qualifying the same, or which is not properly made out and signed in writing by the Bidder.

3. PRE-BID CONFERENCE:

A Pre-bid Conference will be held on Wednesday, December 17, 2014, at 9:00 am, local time, at the Department of Public Works, Engineering & Architectural Services Division Conference Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. Attendance at this pre-bid meeting is not required. Contractors with questions or concerns are encouraged to attend. It is the responsibility of the Contractor to visit the site prior to bidding.

4. CONTRACT DOCUMENTS:

The Contract Documents provide the description of the work to be done under this Contract and estimated quantities of each item of work for which Bids are invited, the time in which the work must be completed, the amount of the Bid Guaranty, if any, and the date, time and place of the receipt and opening of the Bids. The location of the work is within the City of Hollywood and will be provided in work orders issued throughout the contract duration.

5. EXAMINATION OF CONTRACT DOCUMENTS AND SITE:

The Bidder is required to carefully examine the Contract Documents for the work contemplated. It will be assumed that the Bidder has investigated and is fully informed as to the requirements of the Contract Documents, laws, ordinances, codes and any other factors which may affect the performance of the work. Failure to be so informed will not relieve a successful Bidder of his obligation to furnish all material, equipment and labor necessary to carry out the provision of the Contract Documents and to complete the

contemplated work for the consideration set forth in his Bid.

6. DIMENSIONS, QUANTITIES AND SUBSURFACE INFORMATION:

Dimensions, quantities and subsurface information supplied by the City are in no way warranted to indicate true amounts or conditions. Bidders/Contractors shall neither plead misunderstanding or deception, nor make claims against the City if the actual amounts, conditions or dimensions do not conform to those stated. Any "Outside" reports made available by the Engineer are neither guaranteed as to accuracy or completeness, nor a part of the Contract Documents.

7. ADDENDA - CHANGES WHILE BIDDING:

During the Bidding period, Bidders may be furnished addenda or bulletins for additions or alterations to the Plans or Specifications which shall be included in the work covered by the Proposal.

Any prospective Bidder in doubt as to the meaning of any part of the Drawings, Specifications or other Contract Documents may submit a written request to the Engineer for an interpretation. The Bidder submitting the request will be responsible for its prompt delivery. Any interpretation of the documents will be made by an addendum and a copy of such addendum may be mailed, e-mailed or delivered to each prospective Bidder who has received a set of documents. The City will not be responsible for any other explanations or interpretations of the proposed documents.

8. BID GUARANTY:

A Bid Guaranty in the form of a Cashier's Check, Certified Check or Bid Bond executed by the Bidder and a qualified Surety in the amount of **10%** of the Bid is required for this project in accordance with the Notice to Bidders.

9. TRENCH SAFETY FORM:

The Trench Safety Form included in the Bid Documents must be completed and signed. Noncompliance with this requirement may invalidate the bid.

10. QUALIFICATIONS AND DISQUALIFICATIONS OF BIDDERS:

The Contract will be awarded only to a Bidder, who in the opinion of the Engineer, is fully qualified to undertake the work. The City reserves the right before awarding the Contract to require a Bidder to submit such evidence of their qualifications as it may deem necessary and may consider any available evidence of his/her financial status, technical qualifications and other qualifications and abilities. Once the contract is awarded to the bidder, the work cannot be subcontracted in its entirety to another contractor, and payroll documents will be required as proof that the majority of the work is being completed by staff employed by the bidder. Any one of the following causes, among others, may be considered as sufficient justification to disqualify a Bidder and reject his Bid:

- A. Submission of more than one Bid for the same work by an individual, firm, partnership or corporation under the same or different names.
- B. Evidence of collusion.
- C. Previous participation in collusive Bidding on work for the City of Hollywood, Florida.
- D. Submission of an unbalanced Bid in which the prices Bid for some items are out of proportion to the prices Bid for other items.
- E. Lack of competency. The Engineer may declare any Bidder ineligible, at any time during the process or receiving Bids or awarding the Contract, if developments arise, which in his

opinion, adversely affects the Bidder's responsibility. The Bidder will be given an opportunity, by the Engineer, to present additional evidence before final action is taken.

- F. Lack of responsibility as shown by past work judged by the Engineer from the standpoint of workmanship and progress.
- G. Uncompleted work for which the Bidder is committed by Contract, which is in the judgment of the Engineer, might hinder or prevent the prompt completion of work under this Contract.
- H. Being in arrears on any existing Contracts with the City, or any taxes, licenses or other monies due the City; in litigation with the City or having defaulted on a previous contract with the City.

12. LIFE AND WITHDRAWAL OF BID:

All Bids shall remain open for 90 days after the day of the Bid opening, however, the Engineer may, at his sole discretion, release any Bid and return the Bid Guaranty prior to that date. Any Bid may be modified or withdrawn prior to the time scheduled for the opening of Bids.

13. REJECTION OF IRREGULAR BIDS:

Bids will be considered irregular and may be rejected if they show omissions, alterations of form, additions not called for, conditions, limitations, unauthorized alternate Bids or other irregularities of any kind.

14. BIDDING ERRORS:

If after the opening of bids, a Bidder claims an error and requests to be relieved of the Award, or the Engineer believes that an error may have been made then, the Bidder shall present his work sheets and supplier quotations to the Engineer for verification. This information shall be presented on the same day as the bid opening or if the opening is in the afternoon then on the following business day. When the Engineer has suspected an error and requires the documents, Bidder's failure to produce them within the time specified shall make the Bidder non-responsive and thereby eligible for disqualification. Award may then be made to the next lowest responsive, responsible Bidder, or the work may be re-advertised or it may be performed by City forces, as the Commission desires.

15. AWARD OF CONTRACT:

The City Commission reserves the right to reject any or all Bids, or any part of any Bid, to waive any informality in any Bid, or to re-advertise for all or any part of the work contemplated. If Bids for both options are found to be acceptable, one of the two options will be selected and written notice of award by the City Commission will be given to the lowest responsive, responsible Bidder for the selected option.

16. EXECUTION OF CONTRACT:

The Bidder to whom the Contract is awarded shall, within ten days of the date of award, execute and deliver three (3) copies of the following to the Engineer.

- A. The Contract
- B. Performance and Payment Bond
- C. Evidence of required Insurance
- D. Proof of authority to execute the Contract

- E. Proof of authority to execute the Bond on behalf of the Awardee
- F. List of Subcontractors providing materials, equipment or additional staff, estimated Contract Value for each and proof that such subcontractors possess all required Federal, State, County and/or municipality licenses, including but not limited to certified of competency and occupational license

The above documents must be furnished, executed and delivered before the Contract will be executed by the City. The Contract shall not be binding upon the City until it has been executed by the City and a copy of such fully executed Contract is delivered to the Contractor.

17. FAILURE TO EXECUTE CONTRACT, BID GUARANTY FORFEITED:

Should the Bidder to whom the Contract has been awarded refuse or fail to complete the requirements of Article 16 above within ten (10) days after Notice of Award, the additional time in days (including weekends) required to CORRECTLY complete the documents will be deducted, in equal amount, from the Contract Time, or the City may elect to revoke the Award. In the same manner as Article 13, the Bid Guaranty of any Bidder failing to execute the awarded Contract shall be retained by the City and the Contract awarded as the Commission desires.

18. GUARANTY OF FAITHFUL PERFORMANCE AND PAYMENT:

A Performance Bond and a Payment Bond each equal to 100 percent of the total Bid will be required of the Awardee. The Bond must be written through a company licensed to do business in the State of Florida and be rated at least "A", Class X, in the latest edition of "Best's Key Rating Guide", published by A.M. Best Company. As per Florida Statute Section 255.05, the Contractor shall be required to record the payment and performance bonds in the public records of Broward County.

19. INSURANCE:

Bidder must satisfy all insurance requirements as set forth in the Supplementary and General Conditions.

The insurance policy shall not contain any exceptions that would exclude coverage for risks that can be directly or reasonably related to the scope of goods or services in this bid/proposal. A violation of this requirement at any time during the term, or any extension thereof shall be grounds for the immediate termination of any contract entered in to pursuant to this bid/proposal. In order to show that this requirement has been met, along with an insurance declaration sheet demonstrating the existence of a valid policy of insurance meeting the requirements of this bid/proposal, the successful proposer must submit a signed statement from insurance agency of record that the full policy contains no such exception.

20. QUALIFICATIONS:

At the time of submission of the bid, Bidder must possess, and be able to provide City, any and all required Federal, State, County and/or municipal licenses, including but not limited to certificates of competency and occupational licenses. Moreover, upon receipt of the Award of the Contract, Bidder must provide proof of valid licensing for all subcontractors and/or material suppliers hired by the Contractor as set forth in Article 16 above.

When the Bidder is a Joint Venture, in order to satisfy the construction licensing requirements one member of a Joint Venture must hold a valid state certificate as well as the appropriate county and city license. The Contractor shall be held responsible for assurance that all subcontractors and/or material suppliers hired by the Contractor have the appropriate state certificate and licenses.

21. PERMITS:

The Contractor and Subcontractors must obtain Building Permits required for all work covered under this Contract as well as any other permit required by any other regulatory agency. The Master Building Permit required by the City shall be obtained by the Contractor but paid for by the City. Any and all other permits required by the City, County, State of Florida, or any other regulatory agency shall be obtained and paid for by the Contractor.

The Contractor or Subcontractors shall also be responsible to call for all inspections as required in Section 105 (Inspections) of the latest edition of the Florida Building Code.

- END OF SECTION -



NOTICE OF IMPOSITION OF CONE OF SILENCE

On **December 11, 2014**, the City of Hollywood, FL Department of Public Works – Engineering and Architectural Services Division issued the following:

FY 2015-PEMBROKE ROAD WALL REPLACEMENT FROM SOUTH 25TH AVENUE TO SOUTH 27TH AVENUE Project Bid # EN-14-014a

SCOPE:

Project scope includes:

1) Demolition of an existing 5 feet high concrete slat wall including rod iron portion of the wall and any below ground foundations as part of the existing wall or any prior walls within the easement area along the rear property lines of 2052-2658 Fletcher Street.

2) The construction of a new privacy wall along Pembroke Road between South 25th Avenue and South 27th Avenue with two options.

Option 1 – Precast concrete wall

Option 2 – Concrete masonry unit/block wall

3) Scope includes all of the wall's columns and accessories, wall's stucco finish, wall's painting, wall's neighborhood identification signage and restoration to private properties.

This bid is requesting that all bidders to submit bids for one or both of the options.

Pursuant to Section 30.15(E) of the Code of Ordinances, a Cone of Silence has been imposed on the items set forth above. The Cone of Silence will continue until the City awards or approves a contract, votes to reject all bids or responses, or otherwise takes action which ends the solicitation. If the City Commission refers the item back to the City Manager and staff for further review, the Cone of Silence shall remain in effect until an award is made, a contract is approved, or the City Commission takes any other action which ends the solicitation.

cc: City Commission Office
City Manager
City Clerk (sunshine board)
Affected department(s)/office(s)

NOTICE TO ALL BIDDERS AND PROPOSERS

Cone of Silence

The City of Hollywood City Commission adopted Ordinance No. O-2007-05, which created Section 30.15(E) imposing a Cone of Silence for certain City purchases of goods and services.

The Cone of Silence refers to limits on communications held between vendors and vendor's representatives and City elected officials, management and staff during the period in which a Formal Solicitation is open.

The Ordinance does allow potential vendors or vendor's representatives to communicate with designated employees for the limited purpose of seeking clarification or additional information. The names and contact information of those employees that may be contacted for clarification or additional information are: Clarissa Ip, P.E. and Frank Leon, P.E. at (954) 921-3900.

The Cone of Silence does not prohibit a vendor or vendor's representative from communicating verbally, or in writing to the City Manager, the City Manager's designee, the City Attorney or the City Attorney's designee on those procurement items to be considered by the City Commission.

The Cone of Silence does not prohibit a vendor or vendor's representative from making public presentations at a duly noticed pre-bid conference or duly noticed evaluation committee meeting or from communicating with the City Commission during a duly noticed public meeting.

The Cone of Silence shall be imposed when a formal competitive solicitation has been issued and shall remain in effect until an award is made, a contract is approved, or the City Commission takes any other action which ends the solicitation.

To view the Cone of Silence, Ordinance No. O-2007-05, go to the City of Hollywood's Official website at <http://www.hollywoodfl.org/ConeOfSilence>.

- END OF SECTION -

SECTION 00300

PROPOSAL

TO THE MAYOR AND COMMISSIONERS
CITY OF HOLLYWOOD, FLORIDA

SUBMITTED _____

Dear Mayor and Commissioners:

The undersigned, as BIDDER, hereby declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a Bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The BIDDER further declares that he/she has informed him/herself fully in regard to all conditions pertaining to the Work that is to be done; that he/she has examined the Drawings and Specifications for the Work and contractual documents relative thereto, including the Notice to Bidders, Instructions to Bidders, Proposal Bid Form, Form of Bid Bond, Form of Contract and Form of Performance Bond, General, Supplementary and Technical Specifications, Addenda, and Drawings, and has read all of the Provisions furnished prior to the opening of bids; and that he/she has satisfied him/herself relative to the work to be performed.

The undersigned BIDDER has not divulged to, discussed or compared his bid with other bidders and has not colluded with any other BIDDER of parties to this bid whatever.

If this Proposal is accepted, the undersigned BIDDER proposes and agrees to enter into and execute the Contract with the City of Hollywood, Florida, in the form of Contract specified; of which this Proposal, Instructions to Bidders, General Specifications, Supplementary Conditions and Drawings shall be made a part for the performance of Work described therein; to furnish the necessary bond equal to one hundred (100) percent of the total Contract base bid, the said bond being in the form of a Cash Bond or Surety Bond prepared on the applicable approved bond form furnished by the CITY; to furnish all necessary materials, equipment, machinery, tools, apparatus, transportation, supervision, labor and all means necessary to construct and complete the work specified in the Proposal and Contract and called for in the Drawings and in the manner specified; to commence Work on the effective date established in the "Notice to Proceed" from the ENGINEER; and to substantially complete all Contract Work within 60 days with final completion within 14 days, and stated in the "Notice to Proceed" or pay liquidated damages for each calendar day in excess thereof, or such actual and consequential damages as may result therefrom.

The BIDDER acknowledges receipt of the following addenda:

No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____

And the undersigned agrees that in case of failure on his part to execute the said Contract and the Bond within ten (10) days after being presented with the prescribed Contract forms, the check or Bid Bond accompanying his bid, and the money payable thereon, shall be paid into the funds of the City of Hollywood, Florida, otherwise, the check or Bid Bond accompanying this Proposal shall be returned to the undersigned.

Attached hereto is a certified check on the

_____ Bank of _____

or approved Bid Bond for the sum of

_____ Dollars (\$) according to the conditions
under the Instructions to Bidders and provisions therein.

NOTE: If a Bidder is a corporation, the legal name of the corporation shall be set forth below, together with signature(s) of the officer or officers authorized to sign Contracts on behalf of the corporation and corporate seal; if Bidder is a partnership, the true name of the firm shall be set forth below with the signature(s) of the partner or partners authorized to sign Contracts in behalf of the partnership; and if the Bidder is an individual, his signature shall be placed below; if a partnership, the names of the general partners.

WHEN THE BIDDER IS AN INDIVIDUAL:

(Signature of Individual)

(Printed Name of Individual)

(Address)

WHEN THE BIDDER IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

(Name of Firm)

(Address)

_____(SEAL)
(Signature of Individual)

WHEN THE BIDDER IS A PARTNERSHIP:

(Name of Firm) A Partnership

(Address)

By: _____ (SEAL)
(Partner)

Name and Address of all Partners:

WHEN THE BIDDER IS A JOINT VENTURE:

(Correct Name of Corporation)

By: _____ (SEAL)
(Address)

(Official Title)

As Joint Venture
(Corporate Seal)

Organized under the laws of the State of _____, and authorized by the law to make this bid and perform all Work and furnish materials and equipment required under the Contract Documents.

WHEN THE BIDDER IS A CORPORATION:

(Correct Name of Corporation)

By: _____
(SEAL)

(Official Title)

(Address of Corporation)

Organized under the laws of the State of _____, and authorized by the law to

make this bid and perform all Work and furnish materials and equipment required under the Contract Documents.

CERTIFIED COPY OF RESOLUTION OF
BOARD OF DIRECTORS

(Name of Corporation)

RESOLVED that _____
(Person Authorized to Sign)

_____ of
(Title) (Name of Corporation)

be authorized to sign and submit the Bid or Proposal of this corporation for the following project:

CITY OF HOLLYWOOD

**FY 2015-PEMBROKE ROAD WALL REPLACEMENT
FROM SOUTH 25TH AVENUE TO SOUTH 27TH AVENUE
Project Bid No.: EN-14-014a**

The foregoing is a true and correct copy of the Resolution adopted by

_____ at a meeting of its Board of
(Name of Corporation)

Directors held on the _____ day of _____, 20_____.

By: _____

Title: _____

(SEAL)

The above Resolution MUST BE COMPLETED if the Bidder is a Corporation.

- END OF SECTION –

PROPOSAL BID FORM

City File No.: EN-14-014a

Project: FY 2015-PEMBROKE ROAD WALL REPLACEMENT
S 25TH AVENUE TO S 27TH AVENUE

Account No.: TBA

This bid is requesting that all bidders to submit bids for one or both of the options.

OPTION 1 – PRECAST CONCRETE WALL **OPTION 2 – CONCRETE MASONRY UNIT/BLOCK WALL**

Please Check below the Option that Applies to your Bid:

Option 1 Only _____ Option 2 Only _____ Both Options 1 & 2 _____

If this Proposal is accepted the undersigned Bidder agrees to complete all work under this contract within 60 CALENDAR DAYS after the effective date established in the Notice to Proceed. UNIT PRICE PREVAILS OVER TOTAL PRICE. All entries to this form must be typed or written in ink.

Payment to the CONTRACTOR shall be made on the basis of the Proposal bid items as full and complete payment for furnishing all materials, labor, tools and equipment, and for performing all operations necessary to complete the work included in the Contract Documents. Such compensation shall also include payments for any loss or damages arising directly or indirectly from the work, or from any discrepancies between the actual quantities of work and those shown in the Contract Documents, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the CITY.

The prices stated in the proposal include all costs and expenses for taxes, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the plans and specified herein. Unit prices used will be applied to the actual quantities furnished and installed in conformance with the Contract Documents.

The quantities for payment under the Contract shall be determined by actual measurement of the completed items, in place, ready for service and accepted by the CITY. A representative of the CONTRACTOR shall witness all field measurements.

OPTION 1 – PRECAST CONCRETE WALL					
No.	Description	Qty.	Unit	Unit Price	Total
1.	Demolition and Site Clearing	1	LS		
2.	Mobilization: Lump sum price bid, full compensation for all mobilization/demobilization activities, including but not limited to any space required for staging, laydown, storage, parking, etc., and all other activities necessary to prepare to complete the contract work	1	LS		
3.	Maintenance of Traffic: As approved by FDOT to include all temporary signs, striping, barricades, concrete barrier wall, flag man complete in place. (Certified MOT plan to be provided by Contractor)	1	LS		
4.	Temporary Construction Chain Link Fence with Privacy Mesh	1,205	FT		
5.	Furnish & Install Precast Concrete Wall: Using the Duratek Precast Technologies Generation #1 Wall System, Smooth Finish, or approved equal, including but not limited to all foundation, footing, panels, columns, caps, trims, accessories, etc., and all other materials and activities necessary to complete the contract work .	1,205	FT		

6.	Furnish & Apply Primer and Paint to the New Wall (2 Colors)	1	LS		
7.	Furnish & Install Landscaping Mulch	263	CF		
8.	Restoration to private properties: Including but not limited to labor and materials to fill and sod, fences, walls, walls with rod irons, landscaping, irrigation, etc.	1	LS		
9.	Furnish & Install Wall's Neighborhood Identification Signage as per plan Sheet 9 attached	1	LS		

OPTION 1 TOTAL BASE BID _____

OPTION 1 TOTAL BASE BID IN WRITING:

OPTION 2 – CONCRETE MASONRY UNIT/BLOCK WALL

No.	Description	Qty.	Unit	Unit Price	Total
1.	Demolition and Site Clearing	1	LS		
2.	Mobilization: Lump sum price bid, full compensation for all mobilization/demobilization activities, including but not limited to any space required for staging, laydown, storage, parking, etc., and all other activities necessary to prepare to complete the contract work	1	LS		
3.	Maintenance of Traffic: As approved by FDOT to include all temporary signs, striping, barricades, concrete barrier wall, flag man complete in place. (Certified MOT plan to be provided by Contractor)	1	LS		
4.	Temporary Construction Chain Link Fence with Privacy Mesh	1,201	FT		
5.	Labor & Material to Construct Concrete Masonry Unit/Block Wall: Including but not limited to all foundation, footing, columns, accessories, mortar, cement, stucco, etc., and all other materials and activities necessary to complete the contract work	1,201	FT		
6.	Furnish & Apply Primer and Paint to the New Wall (2 Colors)	1	LS		
7.	Furnish & Install Landscaping Mulch	491	CF		
8.	Restoration to Private Properties: Including but not limited labor and materials to fill and sod, fences, walls, walls with rod irons, landscaping, irrigation, etc.	1	LS		
9.	Furnish & Install Wall's Neighborhood Identification Signage as per plan Sheet 9 attached	1	LS		

OPTION 2 TOTAL BASE BID _____

OPTION 2 TOTAL BASE BID IN WRITING:

CONTRACTOR NAME: _____

SECTION 00410

APPROVED BID BOND
(Construction)

STATE OF FLORIDA

COUNTY OF _____

KNOW ALL MEN BY THESE PRESENTS:

That we _____, as Principal, and

_____, as Surety, are held

and firmly bound unto the City of Hollywood in the sum of _____

_____ Dollars (\$_____) lawful money of the

United States, amounting to 10% of the total Bid Price, for the payment of said sum, we bind ourselves,

our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal has submitted the accompanying bid, dated _____ 20__ for

**FY 2015-PEMBROKE ROAD WALL REPLACEMENT
FROM SOUTH 25TH AVENUE TO SOUTH 27TH AVENUE
PROJECT BID NO. EN-14-014a**

NOW, THEREFORE, if the principal shall not withdraw said bid within 90 days after date of the same and shall within ten days after the prescribed forms are presented to him for signature, enter into a written contract with the CITY, in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, and provide the necessary Insurance Certificates as may be required for the faithful performance and proper fulfillment of such Contract, then this obligation shall be null and void.

In the event of the withdrawal of said bid within the specified period, or the failure to enter into such contract and give such bond and insurance within the specified time, the principal and the surety shall pay to the City of Hollywood the difference between the amount specified in said bid and such larger amount for which the City of Hollywood may in good faith contract with another party to perform the work and/or supply the materials covered by said bid.

IN WITNESS WHEREOF, the above bound parties have executed this statement under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of:

Witness

Signature of Individual

Address

Printed Name of Individual

Witness

Address

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

Secretary

Name of Corporation

Business Address

By: _____
(Affix Corporate Seal)

Printed Name

Official Title

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the secretary of the Corporation named as Principal in the attached bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature thereto is genuine and that said bond was duly signed, sealed and attested for and on behalf of said Corporation by authority of its governing body.

(SEAL)
Secretary

TO BE EXECUTED BY CORPORATE SURETY:

Attest:

Secretary

Corporate Surety

Business Address

BY: _____
(Affix Corporate Seal)

Attorney-in-Fact

Name of Local Agency

Business Address

STATE OF FLORIDA

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared,
_____ to me well known, who being by me first duly sworn upon oath says that
he is the attorney-in-fact for the _____ and
that the has been authorized by _____ to execute the forgoing bond on
behalf of the CONTRACTOR named therein in favor of the City of Hollywood, Florida.
Subscribed and sworn to before me this _____ day of _____, 20_____

Notary Public, State of Florida

My Commission Expires:

- END OF SECTION -

SECTION 00420

INFORMATION REQUIRED FROM BIDDERS

GENERAL INFORMATION

The Bidder shall furnish the following information. Failure to comply with this requirement may cause its rejection. Additional sheets shall be attached as required.

1. Contractor's Name/Address: _____

2. Contractor's Telephone Number: _____
and e-mail address: _____
3. Contractor's License (attach copy): _____
Primary Classification: _____
Broward County License Number (attach copy): _____
4. Number of years as a Contractor in construction work of the type involved in this
Contract: _____

5. List the names and titles of all officers of Contractor's firm:

6. Name of person who inspected site or proposed work for your firm:
Name: _____
Date of Inspection: _____
7. What is the last project of this nature you have completed?

8. Have you ever failed to complete work awarded to you; if so, where and why?

9. Name three individuals or corporations for which you have performed work and to which you refer:

10. List the following information concerning all contracts on hand as of the date of submission of this proposal (in case of co-venture, list the information for all co-ventures).

Name of Project	City	Total Contract Value	Contracted Date of Completion	% Completion to Date

(Continue list on inset sheet, if necessary)

11. What equipment do you own that is available for the work?

12. What equipment will you purchase for the proposed work?

NOTE:

If requested by CITY, the Bidder shall furnish a notarized financial statement, references and other information, sufficiently comprehensive to permit an appraisal of its current financial condition.

SOURCE OF INFORMATION

How did you find out about this solicitation? Check all that apply.

1. www.hollywoodfl.org ☐
2. www.bidsync.com ☐
3. Daily Business Review ☐
4. The Miami Herald ☐
5. Referral/word- of mouth ☐ Specify Source: _____
6. Search Engine/Internet search ☐
7. E-mail, newsgroup, online chat ☐ Specify Source: _____
8. Banner or Link on another website ☐
9. Flyer, newsletter, direct mail ☐ Specify Source: _____
- Other ☐ Specify Source: _____

Bid/RFP/RFQ Number: _____ Title: _____

LIST OF SUBCONTRACTORS

The Bidder shall list below the name and address of each Subcontractor who will perform work under this Contract in excess of one-half percent of the total bid price, and shall also list the portion of the work which will be done by such Subcontractor. After the opening of Proposals, changes or substitutions will be allowed with written approval of the City of Hollywood. Subcontractors must be properly licensed and hold a valid Hollywood Certificate of Competency.

	<u>Work to be Performed</u>	<u>Subcontractor's Name / Address</u>
1.	<hr/> <hr/>	<hr/> <hr/>
2.	<hr/> <hr/>	<hr/> <hr/>
3.	<hr/> <hr/>	<hr/> <hr/>
4.	<hr/> <hr/>	<hr/> <hr/>
5.	<hr/> <hr/>	<hr/> <hr/>
6.	<hr/> <hr/>	<hr/> <hr/>
7.	<hr/> <hr/>	<hr/> <hr/>
8.	<hr/> <hr/>	<hr/> <hr/>
9.	<hr/> <hr/>	<hr/> <hr/>
10.	<hr/> <hr/>	<hr/> <hr/>

NOTE: Attach additional sheets if required.

- END OF SECTION -

REFERENCES

Contractor's Name: _____ **Phone Number:** _____
Contractor's Address: _____

Please list all of the projects you have completed in the last three (3) years, by using the following table.

Project Name or Description:	Location/Address:	Completion Date	Contract Amount	Email or Website Address	Contact Person Name & Phone Number:
1.					
2.					
3.					
4.					
5.					
6.					
7.					

8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

You may attach additional sheets as necessary

References - Page 2

SECTION 00435

LOCAL PREFERENCE (EXHIBIT "A")

Pursuant to §38.50 of the City of Hollywood Code of Ordinances, the City shall grant a preference to local Hollywood vendors if their initial bid is within 5% of the bid of the lowest responsive responsible bidder that is a non-local Hollywood vendor. The preference shall allow the local Hollywood vendor to submit a second and final offer, which must be at least 1% less than the bid of the lowest responsive responsible non-local Hollywood vendor to be awarded. The local Hollywood vendor shall have the burden of demonstrating that it maintains a permanent place of business with full-time employees within the City limits and has done so for a minimum of one (1) year prior to the date of issuance of a bid or proposal solicitation within Hollywood, Florida. All supporting documentation (e.g. City of Hollywood valid local business tax receipt) for local preference eligibility must be received with the bid package prior to the bid opening date and time.

SECTION 00495

TRENCH SAFETY FORM

This form must be completed and signed by the Bidder.

Failure to complete this form may result in the bid being declared non-responsive.

Bidder acknowledges that the Florida Trench Safety Act, Section 553.60 et. seq., which became effective October 1, 1990, shall be in effect during the period of construction of the project. The Bidder by signing and submitting the bid is, in writing, assuring that it will perform any trench excavation in accordance with applicable trench safety standards. The Bidder further identifies the following separate item of cost of compliance with the applicable trench safety standards as well as the method of compliance:

Method of Compliance

Cost

Total \$ _____

Bidder acknowledges that this cost is included in the applicable items of the Proposal and in the Grand Total Bid Price. Failure to complete the above will result in the bid being declared non-responsive.

The Bidder is, and the Owner and Engineer are not, responsible to review or assess Bidder's safety precautions, programs or costs, or the means, methods, techniques or technique adequacy, reasonableness of cost, sequences or procedures of any safety precaution, program or cost, including but not limited to, compliance with any and all requirements of Florida Statute Section 553.60 et. seq. cited as the "Trench Safety Act". Bidder is, and the owner and Engineer are not, responsible to determine if any safety related standards apply to the project, including but not limited to, the "Trench Safety Act".

Witness Signature

Contractor's Signature

Witness Printed Name

Printed Name

Witness Address

Title

Date

Date

- END OF SECTION -

SECTION 00500



**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

2600 Hollywood Boulevard
Hollywood, Florida 33022
Phone (954) 921-3900 Fax (954) 921-3416

CONTRACT

THIS AGREEMENT, made and entered into, this ____ day of _____, A.D., __, by and between the CITY OF HOLLYWOOD, Florida, a municipal corporation of the State of Florida, part of the first part, (hereinafter sometimes called the "CITY"), and

party of the second part (hereinafter sometimes called the "CONTRACTOR").

WITNESSETH: The parties hereto, for the considerations herein- after set forth, mutually agree as follows:

Article 1. Scope of Work: The CONTRACTOR shall furnish all labor, materials, and equipment and perform all work in the manner and form provided by the Contract Documents, for:

**FY 2015-PEMBROKE ROAD WALL REPLACEMENT
FROM SOUTH 25TH AVENUE TO SOUTH 27TH AVENUE
PROJECT BID NO. EN-14-014a**

Article 2. The Contract Sum: The CITY shall pay to the CONTRACTOR, for the faithful performance of the Contract, in lawful money of the United States of America, and subject to additions and deductions as provided in the Contract Documents, as follows:

Based upon the prices shown in the Proposal heretofore submitted to the CITY by the CONTRACTOR, a copy of said Proposal being a part of these Contract Documents, the aggregate amount of this Contract being the sum of:

Article 3. Partial and Final Payments: In accordance with the provisions fully set forth in the "General Conditions" of the "Specifications", and subject to additions and deductions as provided, the CITY shall pay the CONTRACTOR as follows:

- (a) On the 15th day, or the first business day thereafter, of each calendar month, the CITY shall make partial payments to the CONTRACTOR on the basis of a duly certified and approved estimate of work performed during the preceding calendar month by the CONTRACTOR, less ten percent (10%) of the amount of such estimate which is to be retained by the CITY until all work has been performed strictly in accordance with this Agreement and until such work has been accepted by the CITY.

- (b) Upon submission by the CONTRACTOR of evidence satisfactory to the CITY that all payrolls, material bills and other costs incurred by the CONTRACTOR in connection with the construction of the WORK have been paid in full, and also, after all guarantees that may be required in the Specifications have been furnished and are found acceptable by the CITY, final payment on account of this Agreement shall be made within sixty (60) days after completion by the CONTRACTOR of all work covered by this Agreement and acceptance of such work by the ENGINEER and approved by the CITY.

Article 4. Time of Completion: The CONTRACTOR shall commence work to be performed under this Contract within ten (10) consecutive calendar days after date of written Notice To Proceed and shall fully complete the Contract in accordance within the Contract Documents and meet all intermediate milestone completion dates required after said date of written notice as set forth in the Proposal, as may be modified by Instructions to Bidders, and stated in the Notice to Proceed.

It is mutually agreed between the parties hereto, that time is of the essence, and in the event that construction of the WORK is not completed within the Contract Time and per intermediate dates, as may have been modified solely in accordance with the General Conditions of this Contract, that from the compensation otherwise to be paid to the CONTRACTOR, the CITY is authorized and shall retain, for each day thereafter, Sundays and holidays included, the sum set forth in the Supplementary General Conditions of this Contract as liquidated damages sustained by the CITY in the event of such default by the CONTRACTOR, or shall withhold such compensation for actual and consequential damages as may be stated therein or contemplated therefrom.

Article 5. Additional Bond: It is further mutually agreed between the parties hereto, that if, at any time after the execution of this Agreement and the Payment and Performance Bonds required herein for the express purpose of assuring the faithful performance of the Contractor's work hereto attached, the CITY shall deem the surety or sureties' to be unsatisfactory, or, if for any reason, said bonds cease to be adequate to cover the performance of the work, the CONTRACTOR shall, at his expense, within five (5) days after receipt of notice from the CITY furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the CITY. In such event, no further payment to the CONTRACTOR shall be deemed to be due under this agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the CITY.

Article 6. Contract Documents: All of the documents hereinafter listed form the Contract and they are as fully a part of the Contract as if hereto attached, or repeated in this Agreement:

- | | |
|--------------------------------------|--------------------------------------|
| 1. Notice to Bidders | 9. Contract |
| 2. Instruction to Bidders | 10. Performance Bond |
| 3. Proposal | 11. Payment Bond |
| 4. Proposal Bid Form | 12. General Conditions |
| 5. Bid Bond | 13. Supplementary General Conditions |
| 6. Information Required from Bidders | 14. Addenda |
| 7. Local Preference | 15. Specifications |
| 8. Trench Safety Form | 16. Drawings |

Article 7. The rate of wages and fringe benefits, or cash equivalent, for all laborers, mechanics and apprentices employed by any contractor or subcontractor on the work covered by the contract shall be not less than the prevailing rate of wages and fringe benefit payments or cash equivalent for similar skills or classifications of work as established by the General Wage Decision by the United States Department of Labor for Broward County, Florida that is in effect prior to the date the city issues its invitation for bids. If the General Wage Decision fails to provide for a fringe benefit rate for any worker classification, then the fringe benefit rate applicable to the worker classification shall be the fringe benefit rate applicable to the worker classification with a fringe benefit rate that has a basic hourly wage closest in dollar amount to the worker classification for which no fringe benefit rate has been provided.

Article 8. No additional work or extras shall be performed unless the same be duly authorized by appropriate action of the City.

Article 9. That in the event either party brings suit for enforcement of disagreement, the prevailing party shall be entitled to attorney's fees and court costs in addition to any other remedy afforded by law.

Article 10. The Contractor shall guarantee the complete project against poor workmanship and faulty materials for a period of twelve (12) months after final payment and shall immediately correct any defects which may appear during this period upon notification by the City or the Engineer.

Article 11. The making and acceptance of the final payment shall constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

As prepared/approved by:

Jonathan Vogt, P.E.
Deputy Director of Public Works/City Engineer

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the day and date first above written in three (3) counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original contract:

THE CITY OF HOLLYWOOD, FLORIDA
Party of the First Part

By: _____ (SEAL)
PETER BOBER, MAYOR

ATTEST:

PATRICIA CERNY, MMC, CITY CLERK

CONTRACTOR
Party of the Second Part

WHEN THE CONTRACTOR IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of:

_____ (Witness)	_____ (Signature of Individual)	(SEAL)
_____ (Witness)	_____ (Signature of Individual)	

WHEN THE CONTRACTOR IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

Signed, sealed and delivered in the presence of:

_____ (Witness)	_____ (Name of Firm)	
_____ (Witness)	_____ (Signature of Individual)	(SEAL)

WHEN THE CONTRACTOR IS A PARTNERSHIP:

Signed, sealed and delivered in the presence of:

(Witness)

(Name of Firm) a Partnership

(Witness)

BY: _____ (SEAL)
(Partner)

WHEN THE CONTRACTOR IS A CORPORATION:

Attest:

Secretary

(Correct Name of Corporation)

BY: _____ (SEAL)
President

APPROVED AS TO FORM AND LEGALITY FOR
THE USE AND RELIANCE OF THE CITY OF
HOLLYWOOD, FLORIDA ONLY:

APPROVED AS TO FINANCE:

By _____
JEFFREY SHEFFEL, CITY ATTORNEY

By _____
Director of Financial Services

CERTIFICATE

STATE OF FLORIDA)
COUNTY OF BROWARD)

I HEREBY CERTIFY that a meeting of the Board of Directors of _____,
a corporation under the laws of the State of _____, was held on _____, 20____, and the
following resolution was duly passed and adopted:

"RESOLVED, that _____ as _____ President of the corporation, be and he is
hereby authorized to execute the contracts on behalf of this corporation, and that his
execution thereof, attested by the Secretary of the corporation and with corporate seal
affixed, shall be the official act and deed of this corporation."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the corporation, this
day of _____, 20____.

Secretary

- END OF SECTION -

SECTION 00610 / SECTION 00620

PAYMENT AND/OR PERFORMANCE BOND COVER PAGE
In Compliance with Florida Statutes 255.05 (1)(a)

Bond No.: _____

Contractor Name: _____

Contractor Address: _____

Contractor Phone No.: _____

Surety Name: _____

Surety Address: _____

Surety Phone No.: _____

Owner Name: _____

Owner Address: _____

Owner Phone No.: _____

Obligee Name: _____
(If contracting entity is different from the owner, the contracting public entity)

Obligee Address: _____

Obligee Phone No.: _____

Contract No.: _____
(If applicable)

Project Name: _____

Legal Description: _____

Street Address: _____

Description of Work: _____

FRONT PAGE

All other bond page(s) are deemed subsequent to this page regardless of any page number(s) that may be preprinted thereon.



SECTION 00610

**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

2600 Hollywood Boulevard
Hollywood, Florida 33022
Phone (954) 921-3900 Fax (954) 921-3416

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we _____,
Name Address Tel. No.

as Principal, and _____,
Name Address Tel. No.

as Surety, are held and firmly bound unto the City of Hollywood in the sum of _____ Dollars (\$ _____), for the payment of said sum we bind ourselves, our heirs, executors, administrators and assigns, jointly and severally, for the faithful performance of a certain written contract, dated the _____ day of _____, 20____ entered into between the Principal and the City of Hollywood, Florida, for the installation of:

**FY 2015- PEMBROKE ROAD WALL REPLACEMENT
FROM SOUTH 25TH AVENUE TO SOUTH 27TH AVENUE
PROJECT BID NO. EN-14-014a**

A copy of said Contract is incorporated herein by reference and is made a part hereof as if fully copied herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that if the Principal shall in all respects comply with the terms and conditions of said Contract and his obligations thereunder, including all of the Contract Documents (that include the Notice to Bidders, Instructions to Bidders, Proposal, Proposal Bid Form, Basis of Payment, Approved Bid Bond, , Trench Safety Form, Information Required from Bidders, Contract, Performance Bond, Payment Bond, General and Supplementary General Conditions, Technical Specifications, Addenda and Drawings), therein referred to and made a part thereof, and such alterations as may be made in said Drawings and Specifications as therein provided for, and shall indemnify and save harmless the City of Hollywood against and from all expenses, damages, injury or conduct, want of care of skill, negligence or default, including patent infringement on the part of said Principal, his agents or employees, in the execution or performance of said Contract, including errors in the Drawings furnished by said Principal, and further, if the Principal shall promptly make payments to all who supply him, with labor and/or materials, used directly or indirectly by the Principal in the prosecution of the work provided for in said Contract, then this obligation shall be null and void; otherwise, the Principal and Surety, jointly and severally, agree to pay the City of Hollywood any difference between the sum that the City of Hollywood may be obliged to pay for the completion of said work, by Contract or otherwise, and the sum that the City of Hollywood would have been obliged to pay for the completion said work had the Principal properly executed all of the

provisions of said Contract, and any damages, whether direct, indirect, or consequential, which the City of Hollywood may incur as a result of the failure of the said Principal to properly execute all of the provisions of said Contract.

AND, the said Principal and Surety hereby further bind themselves, their successors, executors, administrators and assigns, jointly and severally, that they will amply and fully protect the City of Hollywood against, and will pay any and all amounts, damages, costs and judgments which may be recovered against or which the Owner may be called upon to pay to any person or corporation by reason of any damage arising from the performance of the said work, repair or maintenance thereof, or the manner of doing the same, or his agents or his servants, or the infringements of any patent rights by reason of the use of any material furnished or work done, as aforesaid or otherwise.

AND, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed hereunder or the Specifications and Drawings accompanying the same, shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications and Drawings.

AND, the said Principal and Surety jointly and severally covenant and agree that this Bond will remain in full force and effect for a period of one year commencing on the date of Substantial Completion as established on the Certificate of Substantial Completion as issued by the City of Hollywood.

This bond is executed pursuant to Section 255.05, Florida Statutes, and is subject to the notice and time limitation provisions thereof.

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of:

(Witness)

(Signature of Individual)

(Printed Name of Witness)

(Printed Name of Individual)

(Address)

(Witness)

(Printed Name of Witness)

(Address)

WHEN THE PRINCIPAL IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

Signed, sealed and delivered in the presence of:

(Witness)

(Printed Name of Witness)

(Address)

(Witness)

(Printed Name of Witness)

(Address)

(Name of Firm)

By:

(Seal) _____
(Signature of Individual)

(Printed Name of Individual)

WHEN THE PRINCIPAL IS A PARTNERSHIP:

Signed, sealed and delivered in the presence of:

(Witness)

(Printed Name of Witness)

(Address)

(Witness)

(Printed Name of Witness)

(Address)

(Name of Partnership)

By: (Seal)

(Partner)

(Printed Name of Partner)

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

(Secretary)

(Name of Corporation)

By: _____ (Seal)
(Affix Corporate Seal)

(Printed Name)

(Official Title)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the corporation named as Principal in the within bond; that

_____, who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said Bond was duly signed, sealed and attested for and on behalf of said corporation by authority of its governing body.

(SEAL)
Secretary

Printed Name of Secretary

TO BE EXECUTED BY CORPORATE SURETY

Attest:

(Secretary)

(Corporate Surety)

(Business Address)

By: _____
(Affix Corporate Seal)

(Attorney-In-Fact)

(Name of Local Agency)

(Business Address)

STATE OF FLORIDA

COUNTY OF _____

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared, _____ to me well known, who being by me first duly sworn upon oath, says that he is the attorney-in-fact for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the CONTRACTOR named therein in favor of the City of Hollywood, Florida. Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public, State of Florida

My Commission Expires:

APPROVED AS TO FORM AND LEGALITY
for the use and reliance of the city of Hollywood,
Florida only:

By _____
JEFFREY SHEFFEL, CITY ATTORNEY

APPROVED AS TO FINANCE:

By _____
Director of Financial Services

- END OF SECTION -



SECTION 00620

**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

2600 Hollywood Blvd.
Hollywood, Florida 33022
Phone (954-921-3900 Fax (954) 921-3416

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

That we _____, as Principal,
and _____, as Surety, are held and firmly bound
unto the City of Hollywood, its officials and employees, in the sum of _____
_____ Dollars (\$_____), for the
payment of said sum we bind ourselves, our heirs, executors, administrators and assigns,
jointly and severally, for the faithful performance of a certain written contract, dated the ____
____ day of _____ 20 _____, entered into between the Principal and the City
of Hollywood, Florida , 2600 Hollywood Boulevard, Hollywood, Florida, 33022, Phone # 954-
921-3900 for:

Copy of said Contract is incorporated herein by reference and is made a part hereof as if fully copied herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if the Principal shall promptly make payments to all claimants, as herein below defined, then this obligation shall be void; otherwise, this Bond shall remain in full force and effect, subject to the following terms and conditions:

- A. A claimant is defined as any person supplying the Principal with labor, material and supplies, used directly or indirectly by the said Principal or any subcontractor in the prosecution of the work provided for in said Contract, and is further defined in Section 713.01 of the Florida Statutes.
- B. The above named Principal and Surety hereby jointly and severally agree with the City of Hollywood, its officials, and employees, that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after performance of the labor or after complete delivery of materials and supplies by such claimant, may sue on this Bond for the use of such claimant, prosecute the suit to final judgment for such sums or sums as may be justly due claimant, and have execution thereon. The City shall not be liable for the payment of any costs or expenses of any such suit.
- C. No suit or action shall be commenced hereunder by any claimant:
 - 1. Unless claimant, other than one having a direct contract with the Principal, shall within forty-five (45) days after beginning to furnish labor, materials or supplies for the prosecution of the work, furnish the Principal and Surety with a notice that he intends to look to this bond for protection.
 - 2. Unless claimant, other than one having a direct contract with the Principal, shall within ninety (90) days after such claimant's performance of the labor or complete delivery of materials and supplies, deliver to the Principal and Surety written notice of the performance of such labor or delivery of such material and supplies and the nonpayment therefore.
 - 3. After the expiration of one (1) year from the performance of the labor or completion of delivery of the materials and supplies; it being understood, however, that if any limitation embodied in this Bond is prohibited by any law controlling the construction hereof such limitations shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - 4. Other than in a state court of competent jurisdiction in and for Broward County, Florida, or in the United States District Court for the Southern District of Florida, and not elsewhere.
- D. The Principal and the Surety jointly and severally, shall repay the City of Hollywood any sum which it may be compelled to pay because of any lien for labor or materials furnished for any work included in or provided by said Contract.

- E. The Surety, for value received, hereby stipulates and agrees that no charge, extension of time, alteration of or addition to the terms of the Contract or to the work to be performed thereunder or to the Specifications applicable thereto shall in any way affect its obligations on this Bond, and the Surety hereby waives notice of any such change, extension of time, alterations of or addition to the terms of the Contract, or to the work or to the Specifications.
- F. The Surety represents and warrants to the City of Hollywood, its officials, and employees, that they have a Best's Key Rating Guide, General Policyholder's rating of "A" and Financial Size Category of Class "X".
- G. Any action under this bond must be instituted in accordance with the Notice and Time Limitations provisions prescribed in Section 255.05, Florida Statutes.
- H. The Surety hereby waives notice and agrees that any changes in or under the Contract documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect the Surety's obligation under this bond.

IN WITNESS WHEREOF, the above bounded parties executed this instrument under their several seals, this _____ day of _____, 20_____ A.D., the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

This bond is executed pursuant to Section 255.05, Florida Statutes, and is subject to the notice and time limitation provisions thereof.

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signature of Individual

Printed Name of Individual

Address of Individual

Phone Number of Individual

Signed, sealed and delivered in the presence of:

Witness

Printed Name of Witness

Address of Witness

Phone Number of Witness

Witness

Printed Name of Witness

Address of Witness

Phone Number of Witness

WHEN THE PRINCIPAL IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

Name of Firm

Signature of Individual

Printed Name of Individual

Address of Individual

Phone Number of Individual

Signed, sealed and delivered in the presence of:

Witness

Witness

Printed Name of Witness

Printed Name of Witness

Address of Witness

Address of Witness

Phone Number of Witness

Phone Number of Witness

WHEN THE PRINCIPAL IS A PARTNERSHIP:

Name of Partnership

BY: _____
Partner (SEAL)

Printed Name of Partner

Address of Partner

Phone Number of Partner

Signed, sealed and delivered in the presence of:

Witness

Printed Name of Witness

Address of Witness

Phone Number of Witness

Witness

Printed Name of Witness

Address of Witness

Phone Number of Witness

WHEN THE PRINCIPAL IS A CORPORATION:
attest:

Secretary

Name of Corporation

BY: _____
(Affix Corporate Seal)

Printed Name

Official Title

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine and that said Bond was duly signed, sealed and attested for and on behalf of said corporation by authority of its governing body.

Secretary (SEAL)

Printed Name of Secretary

TO BE EXECUTED BY CORPORATE SURETY:
attest:

Secretary

Corporate Surety

Business Address

Business Phone Number

BY: _____
(Affix Corporate Seal)

Attorney-In-Fact

Name of Local Agency

Business Address



**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

2600 Hollywood Blvd.
Hollywood, Florida 33022
Phone (954) 921-3900 Fax (954) 921-3416

PAYMENT BOND

STATE OF FLORIDA
COUNTY OF BROWARD
CITY OF HOLLYWOOD

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared, _____
_____ to me well known, who
being by me first duly sworn upon oath, says that he is the attorney-in-fact for the _____
_____ and that he has been authorized by _____
_____ to execute the foregoing bond on behalf of the
CONTRACTOR named therein in favor of the City of Hollywood, Florida. CONTRACTOR
named therein in favor of the City of Hollywood, Florida.

Subscribed and sworn before me this _____ day of _____, 201____.

Notary Public, State of Florida

Printed Name of Notary

Commission Number: _____

My Commission Expires: _____

APPROVED AS TO FORM AND LEGALITY
FOR THE USE AND RELIANCE OF THE
CITY OF HOLLYWOOD, FLORIDA, ONLY.

BY: _____
CITY ATTORNEY

APPROVED AS TO FINANCIAL SERVICES

BY: _____
DIRECTOR OF FINANCIAL SERVICES

Insert copy of Insurance Certificate

END OF SECTION



**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

GENERAL CONDITIONS

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FOR CONSTRUCTION CONTRACTS**ARTICLE 1 - DEFINITIONS**

In the interpretation of these Contract Documents the following terms shall have the meaning indicated:

ADDENDA - Written or graphic instruments issue prior to the opening of Bids which clarify, correct or change the Contract Documents.

CHANGE ORDER - A written order to CONTRACTOR signed by the City Manager or his/her authorized designee authorizing an addition, deletion or revision in the work, or an adjustment in the Contract Price or the Contract Time, issued after the date of Award.

CITY - The City of Hollywood, Florida.

COMMISSION - The City Commission of the City of Hollywood, Florida, being the legislative body of the CITY described in the City Charter.

CONTRACT - The written agreement between the CITY and the CONTRACTOR covering the work to be performed in accordance with the other Contract Documents which are attached to or referenced in the Contract and made a part thereof.

CONTRACTOR - The person, firm, or corporation with whom the CITY has entered into the Contract.

CONTRACT DOCUMENTS - The Notice to Bidders, Instruction to Bidders, Proposal, Information Required of Bidders, the Record of the Contract Award by the City Commission, the CONTRACTOR'S Response thereto, all Bonds, Agreement, and all supporting documents, these General Conditions, the Specifications, Drawings and Permits, together with all Addenda and Change Orders issued with respect thereto, and any Project Manual.

CONTRACT TIME - The number of days agreed to in the Proposal, commencing with the date of the Notice to Proceed for completion of the work.

CONSULTANT - As used herein shall mean the Architect or Engineer who has contracted with the City to provide professional services for this Project and who is registered under the laws of Florida as a registered Architect, Engineer or Landscape Architect, as applicable.

DATE OF SUBSTANTIAL COMPLETION - The date when the work on the project, or specified part thereof, is substantially completed in accordance with the Contract Documents, such that the CITY can occupy or utilize the project or specified part thereof for the use and purpose for which it was intended.

DAYS - Calendar days of 24 hours measured from midnight.

DRAWINGS - The drawings which show the character and scope of the work to be performed and which have been prepared or approved by OWNER'S REPRESENTATIVE and are referred to in and are a part of the Contract Documents.

EXCUSABLE DELAY - Delay caused by acts or neglect by the CITY, hurricane, tornadoes, fires, floods, epidemics or labor strikes.

GENERAL CONDITIONS - That segment of the Contract Specifications incorporating the Provisions common to all CITY Construction Contracts.

INEXCUSABLE DELAY - Any delay caused either (i) by events or circumstances within the control of the CONTRACTOR, such as inadequate crewing, slow submittals, material deliveries etc., which might have

been avoided by the exercises of care, prudence, foresight, or diligence on the part of the CONTRACTOR, or (ii) by weather conditions (other than hurricanes or tornadoes).

INSPECTOR - The sole authorized representative of the CITY and OWNER'S REPRESENTATIVE in all on-site relations with the CONTRACTOR, assigned to make all inspections of the work being performed or materials being furnished.

LIQUIDATED DAMAGES - The amount prescribed in the Supplementary Conditions to be paid the CITY, or to be deducted from any payments due the CONTRACTOR for each day's delay in completing the whole or any specified portion of the work beyond the Contract Time.

NOTICE OF AWARD - The written notice by the CITY to the successful Bidder stating that upon his execution of the Agreement and other requirements as listed therein within the time specified the CITY will sign and deliver the Agreement.

NOTICE TO PROCEED - A written notice by the OWNER'S REPRESENTATIVE to the CONTRACTOR fixing the date on which the Contract Time will commence to run and on which the CONTRACTOR shall start to perform his obligation under the Contract Documents.

OTHER CONTRACTORS – As used herein shall mean any person, firm or corporation with whom a Contract has been made by the Owner for the performance of any work on the site, which work is not a portion the work covered by the Contract.

OWNER - The CITY of Hollywood, Florida.

OWNERS REPRESENTATIVE - as used herein shall mean Director of Public Works for the City of Hollywood, 2600 Hollywood Boulevard, Hollywood, FL.

"OR EQUAL" - Equivalent or superior in construction, efficiency and effectiveness to a type, brand, model or process called out in the Contract Documents to establish a basis of quality.

PROJECT MANAGER is the person, who is an employee of the City of Hollywood, who is assigned by the Director of Public Services to manage the Project, and attempt to resolve issues with the Contract Documents, as a direct representative of the Owner.

SHOP DRAWINGS - All certified affidavits, drawings, diagrams, illustrations, schedules and other data which are specifically prepared by CONTRACTOR, a Sub-Contractor, manufacturer, fabricator, supplier or distributor to illustrate some portion of the work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the WORK.

SPECIFICATIONS - Division 1 through 16 of these Contract Documents, consisting of administrative details and written technical descriptions of materials, equipment, standards and workmanship.

SUPERINTENDENT, as used herein refers to the executive representative for the Contractor present on the work at all times during progress, authorized to receive and fulfill instructions from the Owner's Representative and capable of superintending the work efficiently.

SUPPLEMENTARY CONDITIONS - Division 1 of the Contract Specifications incorporating the provisions peculiar to a specific project.

SUB-CONTRACTOR - An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Sub-CONTRACTOR for the performance of a part of the work. The term "Sub-CONTRACTOR will include Sub-Sub-CONTRACTORS, Suppliers and Material Providers of the CONTRACTOR."

SURETY - The person, firm or corporation responsible for the Bidder's acts in the execution of the Contract, or which is bound with and for the CONTRACTOR to insure performance of the Contract and payment of all obligations pertaining to the work.

WORK - All the work materials or products specified, indicated, shown or contemplated in the Contract Documents to construct and complete the improvement, including all alterations, modifications, amendments or extension thereto made by Change Orders.

PROPOSAL GUARANTY, as used herein shall mean that the bid bond or good faith deposit designated in the Proposal, to be furnished by the Bidder as a guaranty of good faith to enter into a Contract with the Board, if the Contract is awarded to him.

WRITTEN NOTICE, shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, if delivered at or sent by registered mail to the last business address known to him who gives notice.

BENEFICIAL OCCUPANCY, as used herein means that date at which time the project is substantially completed, as determined by Owner's Representative, and the Owner may occupy the project with furniture, equipment and accessories required for the operation of the facility. It does not refer to any prior dates wherein the Owner employs other contractors to work on the same site of the project.

PUNCH LIST, as used herein shall refer to a list of items of work required by the Contract Documents which after inspection by the Consultant or Owner's Representative has been termed to be deficient and/or inconsistent with the Contract Documents. This list will be compiled, and submitted to the Contractor, only upon substantial completion of the project, as determined by the Owner's Representative or Consultant.

FINAL COMPLETION, as used herein means that date subsequent to the date of Beneficial Occupancy at which time the project, including the correction of all punch list items, is totally completed in all of its detail for final acceptance, to the satisfaction of the Consultant and Owner's Representative.

SUBSTANTIAL COMPLETION, as used herein, the date on which, as certified in writing by CONSULTANT, the work, or a portion thereof designated by CONTRACT ADMINISTRATOR, in its sole discretion, is at a level of completion in substantial compliance with the CONTRACT documents such that all conditions of permits and regulatory agencies have been satisfied and the Owner or its designee can enjoy use or occupancy and use or operate it in all respects for its intended purpose. A Certificate of Occupancy must be issued for substantial completion to be achieved, however, the issuance of a Certificate of Occupancy or the date thereof is not determinative of the achievement or date of substantial completion.

ARTICLE 2 - ORGANIZATIONAL ABBREVIATIONS

Abbreviations of organizations which may be used in these Specifications are:

AASHTO:	American Association of State Highway and Transportation Officials
ACI:	American Concrete Institute
AIA:	American Institute of Architects
AISC:	American Institute of Steel Construction
AITC:	American Institute of Timber Construction
ANSI:	American National Standards Institute
APWA:	American Public Works Association
ASTM:	American Society for Testing and Materials
ASCE:	American Society of Civil Engineers
ASME:	American Society of Mechanical Engineers
ASHRAE:	American Society of Heating, Refrigerating and Air Conditioning Engineers
AWPA:	American Wood Preservers Association
AWWA:	American Water Works Association
AWS:	American Welding Society
BCEQCB:	Broward County Environmental Quality Control Board
CRSI:	Concrete Reinforcing Steel Institute
DER:	Florida Department of Environmental Regulation
DNR:	Florida Department of Natural Resources
FDOT:	Florida Department of Transportation
FP&L:	Florida Power and Light
IEEE:	Institute of Electrical and Electronic Engineers
NACE:	National Association of Corrosion Engineers
NCPI:	National Clay Pipe Institute
NEC:	National Electrical Code

NEMA:	National Electrical Manufacturers Association
NFPA:	National Fire Protection Association
OSHA:	Occupational Safety and Health Act
PCI:	Prestressed Concrete Institute
SFBC:	South Florida Building Code, Broward Edition, Latest Revision
SFWMD:	South Florida Water Management District
SSPC:	Structural Steel Painting Council
UL:	Underwriters' Laboratories, Inc.
UNCLE:	Utility Notification Center for Location before Excavation (1-800-432-4770)
USEPA:	United States Environmental Protection Agency
USGS:	United States Geological Survey
WWEMA:	Water and Wastewater Equipment Manufacturers Association

ARTICLE 3 – ADMINISTRATION OF THE CONTRACT

The Consultant and the Project Manager will provide Administration of the Contract hereinafter described. For those projects for which the City of Hollywood serves as the Consultant (Architect of Record) all references to the Consultant shall be considered to be to the Project Manager.

The Consultant and the Project Manager will have authority to act on behalf of the Owner to the extent provided in the Contract Documents, unless otherwise modified by written instrument which will be issued to the Contractor. All instructions to the Contractor shall be issued through the Consultant, except under special circumstances when instructions may be issued by the Project Manager or with the Project Manager approval, by the Architect reporting to him/her, or the Engineer reporting to him/her.

The Consultant, the Project Manager and other personnel authorized by the Owner, shall at all times have access to the Work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access so the Consultant and the Project Manager may perform their functions under the Contract.

The Consultant will make periodic visits to the site to familiarize him/herself generally with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. On the basis of on-site observations the Consultant will keep the Owner informed of the progress of the Work, and will endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor.

Neither the Consultant nor the Owner will be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and neither will be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

The Consultant will have authority to reject Work which does not conform to the Contract Documents and to require special inspection or testing, but shall take such action only after consultation with the Project Manager. The Project Manager will have the authority to reject Work which does not conform to the Contract Documents. Whenever the Project Manager considers it necessary or advisable to insure the proper implementation of the Contract Documents, the Project Manager will have the authority to require special inspection or testing of the Work, whether or not such Work be then fabricated, installed or completed. Neither the Consultant's nor the Project Manager's authority to act under this Subparagraph, nor any decision made by them in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Consultant or the Project Manager to the Contractor, any Subcontractor, any of their agents or employees, or any other person performing any of the Work.

All interpretations and recommendations of the Consultant shall be consistent with the intent of the Contract Documents. In this capacity as interpreter, the Consultant will exercise best efforts to insure faithful performance by both the Owner and the contractor and will not show partiality to either.

The Contractor shall forward all communications to the Consultant, with copies to the Project Manager.

The Project Manager will assist the Consultant in conducting inspections to determine the date or dates of Substantial Completion and Final Acceptance, and will receive and review written guarantees and related documents required by the Contract. The Project Manager will approve Project Payment Certificates.

The duties, responsibilities and limitations of authority of the Consultant and the Project Manager as the Owner's Representative during assembly as set forth in these General Conditions will not be modified nor extended without written consent of the Contractor, the Consultant, and the Owner.

Neither the consultant nor the Owner will be responsible for the acts of omissions of the Contractor, any Sub-Contractor's, or any of their agents or employees, or any persons performing any of the Work.

In case of the termination of employment of the Consultant, the Director of Facilities may appoint a Consultant whose status under the Contract Documents shall be that of the former Consultant.

ARTICLE 4 – MISCELLANEOUS PRELIMINARY MATTERS

4.1 Contract Document Discrepancies:

Any discrepancies, conflicts, errors or omissions found in the Contract Documents shall be promptly reported to the OWNER'S REPRESENTATIVE who will issue a correction, if necessary, in writing. The CONTRACTOR shall not take advantage of any such discrepancies, conflicts, errors or omissions, but shall comply with any corrective measures regarding the same as prescribed by the OWNER'S REPRESENTATIVE.

4.2 Submissions:

Within seven days subsequent to the CONTRACTOR executing and submitting the required documents of Article 15 in the Instructions to Bidders, he shall submit to the OWNER'S REPRESENTATIVE an estimated progress schedule indicating the starting and completion days of the various stages of the work. A preliminary Schedule of Values and a preliminary schedule of Shop Drawing submissions may also be required by Sections 1.05, 1.11 and 1.12 respectively, of the Supplementary conditions.

4.3 Pre-Construction Conference:

Section 12 of the Supplementary conditions may require a Pre-Construction conference for a review of the above schedules, establishing procedures and establishing a working understanding among the parties as to the work. If required, attendance will be mandatory.

4.4 Contract Time:

The Contract Time will commence on the date of the Notice to Proceed and shall exist for the total number of days as specified in the Proposal (or any subsequent Change Orders), unless the CONTRACTOR failed to complete the requirements of Article 15 of the Instructions to Bidders, in which case the additional time in days (including weekends) required to correctly complete the documents will be deducted from that Contract Time specified in the proposal.

4.5 Computation of Time:

When any period of time is referred to the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a legal holiday, such day shall be omitted from the computation.

4.6 Commencement of Work:

The CONTRACTOR shall not perform work at the site prior to the date of the Notice to Proceed.

4.7 Extension of Contract Time:

Extensions of time shall be based solely upon the effect of delays to the work as a whole. Extensions of time shall not be granted for delays to the work, unless the CONTRACTOR can clearly demonstrate, through schedule analysis, that the delay to the work as a whole arose in accordance with Article 18, changes in Contract Time and that such delays did or will, in fact, delay the progress of work as a whole. Time extensions shall not be allowed for delays to parts of the work that are not on the critical path of the Project schedule. Time extensions shall not be granted until all float or contingency time, at the time of the delay, available to absorb specific delays and associated impacts, is used.

4.8 Notice and Service Thereof:

All notices, demands, requests, instructions, approvals and claims shall be in writing. Notices, demands, etc., shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

4.9 Separate Contract:

The CITY reserves the right to let other contracts in connection with this Project. The CONTRACTOR shall afford other OTHER CONTRACTORS a reasonable opportunity for the introduction and storage for their materials and the execution of their work and shall properly connect and coordinate his work with theirs.

4.10 Assignments of Contract:

No assignment by the CONTRACTOR of the Contract or of any part thereof, or any monies due or to become due thereunder shall be made without the prior written approval of the City Commission, which approval will be given only after the Surety on the Contract Bond has informed the City Commission in writing that it approves of such assignment being made.

In the event that the CONTRACTOR shall undertake to assign all or any part of any monies due or to become due under the Contract, the instrument of assignment shall contain a provision substantially to the effect that it is agreed that the right of the assignee in and to any such monies shall be subject to the prior liens of all persons for services rendered or material supplied for the performance of all work embraced by the Contract.

4.11 Patent Rights and Infringement:

There are various established performance criteria throughout this contract for products and services. There may exist patent coverage for some means and methods of achieving these performance criteria. CONTRACTOR is responsible for ascertaining that means and methods of the products and services which they are providing are not being provided in violation of any such patent rights. CONTRACTOR responsibilities are as follows:

1. To hold harmless, the CITY, as to any violation to include dollar amounts that could owe as a result of damages for infringement including potential treble damages as provided for under U. S. Patent and Trademark Law.
2. To pay any and all royalties and cost arising from patents, trademarks and copyrights in any way involved in the work and to show evidence that the right to use any such product has been secured by suitable legal agreements with the Patentee or owner and a copy of the agreement must be filed with the OWNER'S REPRESENTATIVE.

3. Any and all costs that the CITY would incur in replacing materials and services which are determined to infringe patent rights.
4. All administrative, legal and other costs that would be incurred as a result of an infringement.

If any product or services proposed to be provided by the CONTRACTOR are known by the CONTRACTOR to be subject to any existing claims of infringement, CONTRACTOR shall notify CITY of such claim and provide evidence of financial ability to perform on the above hold harmless requirement.

4.12 Federal Excise Tax:

The forms needed for applying for exemption certificates for materials and equipment, normally subject to the Federal Excise Tax, may be obtained from the Director of Internal Revenue, Jacksonville, Florida.

The CONTRACTOR is solely responsible for obtaining the desired exemption certificate from the Federal Government.

4.13 Savings Due to Excise Tax Exemptions:

The Bidder shall include in the Bid price the estimated cost of all goods, supplies and equipment which will be incorporated in the Work and the taxes that the Bidder would be required to pay if the Bidder were to purchase such goods, supplies or equipment. By subsequent Change Order(s), the parties shall reduce the Bid price to reflect any goods, supplies and equipment purchased directly by City and the resulting tax savings due to City's exemption from Excise Taxes.

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Florida and its political subdivisions.

Consistent with the tax exemption for municipalities provided by state law, CITY and CONTRACTOR shall jointly operate so that CITY may purchase directly, goods, supplies and equipment which will be incorporated into the Work. The goods, supplies and equipment that will be purchased by CITY shall be approved in advance by the parties.

With respect to all goods, supplies and equipment to be purchased by CITY, CONTRACTOR shall, on behalf of CITY, take all actions necessary and appropriate to cause all purchases to be made and shall be responsible for delivery of all such goods, supplies and equipment, including verification of correct quantities and documents or orders, coordination of purchases and delivery schedules, sequence of delivery, unloading, handling and storage through installation, obtaining warranties and guarantees required by the Contract Documents, inspection and acceptance of the goods, supplies and equipment at the time of delivery, and other arrangements normally required for the particular goods, supplies or equipment purchased. Unless otherwise directed by CITY, such actions shall also include taking the lead in efforts to resolve any and all disputes with the vendor. CONTRACTOR shall ensure that each vendor of goods, supplies and equipment purchased by CITY agrees in writing to the terms and conditions contained in CITY'S standard purchase order, which terms and conditions are set forth in Section 00800 of the Contract Documents. Even though CITY may purchase such goods, supplies and equipment, the goods, supplies and equipment shall be stored at the site in the same manner as goods, supplies and equipment purchased by CONTRACTOR.

CONTRACTOR shall hold CITY harmless from delays in manufacturing, delivery, and other unforeseen conditions that may arise as part of the procurement of CITY-purchased goods, supplies and equipment.

4.14 Overtime Work:

The CONTRACTOR shall receive no additional compensation for overtime work, i.e. work in excess of eight hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the OWNER'S REPRESENTATIVE in writing. Additional compensation will be paid the CONTRACTOR for overtime work only in the event extra work is ordered by the OWNER'S REPRESENTATIVE and the Change Order specifically authorizes the use of overtime work and then only to such extent as overtime work of a similar nature in the same locality.

4.15 Inspections and Testing During Overtime:

All costs of inspection and testing performed during overtime work by the CONTRACTOR, which is allowed solely for the convenience of the CONTRACTOR, shall be borne by the CONTRACTOR, and a credit given to the CITY to deduct the costs of all such inspection and testing from any partial payments otherwise due to the CONTRACTOR.

4.16 Nights, Sunday or Holiday Work:

Except upon specific permission of the OWNER'S REPRESENTATIVE, the CONTRACTOR shall not perform any work on Sundays or on legal State or Municipal holidays in accordance with City of Hollywood Code of Ordinances, Section 21.49, no work between 6:00 p.m. and 8:00 a.m. will be permitted, except in an emergency. All costs of testing and inspection performed during night, Sunday or holiday work shall be borne by the CONTRACTOR.

4.17 Injury or Damage Claims:

Should CITY or CONTRACTOR suffer injury or damage to his person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim shall be made in writing to the other party within a reasonable time of the observance of such injury or damage. However, nothing herein shall be deemed to affect the rights, privileges and immunities of Municipalities as are set forth in Section 765.28, Florida Statutes.

ARTICLE 5– CONTRACT DOCUMENTS

5.1 Intent

The Contract Documents comprise the entire Agreement between the CITY and CONTRACTOR concerning the work. The Contract Documents can be altered only by Change Order. The Contract Documents are complementary, what is called for by one is as binding as if called for by all. It is the intent of the Contract Documents that the CONTRACTOR, for due consideration, shall furnish all equipment, material, supervision and labor, (except as may be specifically noted otherwise) required or necessary to complete the work in total accordance with said Documents. It is the intent of the Drawings and Specifications to describe the Project to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Drawings or Specifications as being required to produce the intended result shall be supplied whether or not it is specifically called for.

5.2 Order of Precedence of Contract Documents:

In resolving differences resulting from conflicts, errors or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:

1. Contract Agreement

2. Specifications
3. Drawings

Within the Specifications the order of precedence is as follows:

1. Addenda
2. Notice Inviting Bids
3. Instruction to Bidders
4. Proposal
5. General Conditions
6. Supplementary Conditions
7. Technical Specifications
8. Referenced Standard Specifications

With reference to the Drawings the order of precedence is as follows:

1. Figures Govern over Scaled Dimensions
2. Detail Drawings Govern over General Drawings
3. Change Order Drawings Govern over Contract Drawings
4. Contract Drawings Govern over Standard or Shop Drawings

5.3 Reference to Standards:

Any reference to standard Specifications, manuals or codes of any organization or governmental authority shall mean that the latest edition, in effect as of the Bid Advertisement Date.

ARTICLE 6 – PREPARATION OF PROPOSAL

Each bidder must sign his Proposal with his full name and give his address. In cases where a firm or corporation submits a Proposal, the Proposal shall be signed with the full name of each member of the firm name of the officer or officers of the corporation authorized in its bylaws, in addition to the firm or corporation signature, with official corporate seal affixed thereto and the address of such firm or corporation and of such officer thereof must be given. The CONTRACTOR is cautioned that in preparing his bid, a detailed statement should be prepared as a breakdown of the work, which will be required from the successful bidder to be used in preparing requisitions for payment. This form must be set up and prepared in such a manner as to meet with the approval of the OWNER'S REPRESENTATIVE.

ARTICLE 7 – POSTING OF BIDS

7.1 Notice of Intent

Notice of Intent to award or reject bids shall be posted at City Hall with recommendations reflecting the lowest responsible, responsive bidder meeting specifications, terms and conditions.

7.2 Posting

Recommendation and tabulation will be posted by 4:30 p.m. the next workday following the bid date outside the City Clerk's office. The City Hall located at 2600 Hollywood Boulevard, Hollywood, FL 33022.

7.3 Bid Tabulation

The bid tabulation with the recommendation will remain on display for no less than 72 hours. Failure to file a protest within the time prescribed in Section 38.51 of the City Code of Hollywood will forfeit any right to protest.

7.4 Protests

Protests must be made in accordance with Section 38.51 of the Hollywood City Code, which is reproduced herein. Failure to follow the requirements of the Code in making a protest shall bar the protest.

ARTICLE 8 – REJECTION OF IRREGULAR PROPOSALS

The City Commission reserves the right to waive non-material, technical informalities, irregularities, or defects in a Proposal, and to reject any and all bids, to re-bid the Project.

ARTICLE 9 – WITHDRAWAL OF PROPOSALS

No Proposal shall be withdrawn after it is filed unless the Bidder makes his request in writing to the City Manager of the City of Hollywood prior to the time set for opening of bids, and the request for withdrawal is approved by the City of Hollywood Commission. The Proposal may be withdrawn, without penalty, if the City of Hollywood fails to accept it within 60 days after the date fixed for opening bids.

ARTICLE 10 – DISQUALIFICATION OF BIDDERS

Only one Proposal from an individual, firm or partnership, joint venture, or corporation (including a subsidiary or affiliate) under the same or different names will be considered.

Should it appear to the Owner that any Bidder is interested in more than one Proposal for the work contemplated; all Proposals in which such Bidder is interested will be rejected.

Should there be any reasonable grounds for the Commission believing that a collusion or combination exists between bidders, all Proposals may be rejected, at the sole discretion of the City Commission, and all such Bidders, or participants in such combination or collusion will not be considered in the future Proposals for the same work.

No proposal or Bid will be considered unless accompanied by a Proposal guarantee or good faith deposit in the amount and on the form specified in the Invitation for Bids, and/or Advertisements for Bids. No other Bond Form or form of bid security will be acceptable. Failure to comply with this section shall cause a rejection of bids.

ARTICLE 11 – RETURN OF PROPOSAL GUARANTIES

The Proposal guaranties and good faith deposits will be returned within fifteen (15) days following the award of the Contract and that of the successful bidder upon the execution of the Contract.

ARTICLE 12 – EXAMINATION OF DOCUMENTS

The bidder is required to examine the site of the work, and to examine and become familiar with the form of the Proposal, plans, specifications and all other Contract Documents pertaining to the proposed work, and the submission of a bid shall be sufficient to establish the presumption that the Bidder has investigated the site of the work and is satisfied as to all conditions to be encountered, the character, quantity and quality of the work to be performed and materials furnished in the completion thereof. Requests for interpretation arising out of this Article must be presented in writing at least five (5) days before bid dates to the Project Manager.

ARTICLE 13 – BID BONDS, BONDS AND INSURANCE

13.1 Bid Guarantee:

Bidders may be required to submit a Bid Guarantee in an amount indicated in the NOTICE TO BIDDERS. The Bid Guarantee must be submitted with the Bid or the Bid will be rejected by the City. This Guarantee may be a Certified or Cashier's Check on a solvent National or State Bank transacting business in Broward County, Florida, or a Bid Bond written by a Surety licensed to do business in the State of Florida and having a Resident Agent in the State of Florida.

The Surety must be listed in the United States Department of Treasury's Circular 750 and rated at least "A", Class X in the latest edition of "Best Key Rating Guide" published by A.M. Best & Company.

13.2 Performance and Payment Bond:

CONTRACTOR shall furnish Performance and Payment Bond, in an amount equal to the Contract Price as Security for the faithful performance and payment of the obligations. The Bond or Bonds shall remain in effect one year after the date of final payment or the City may require an additional Bond which shall be conditioned upon the Contractor following written notification by the City will correct any defective or faulty work or materials that appear within one year after final completion of the contract. The Surety must be qualified as specified above in Paragraph 13.1

13.3 Signatures:

All Bonds signed by an Agent must be accompanied by a Certified copy of the Agent's authority to act with said copy having been signed (not typed nor printed) by an Officer of the Surety and carrying the seal of the Surety.

13.4 Insurance Coverage:

Within ten days from Notice of Award the CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from CONTRACTOR'S operations under the Contract, whether such operations by himself or by any Sub-Contractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- A. Claims under Worker's Compensation, Employer's Liability, Disability Benefit and other similar employee benefits acts as required by the "Worker's Compensation Law" of the State of Florida;

- B. Claims for damages because of bodily injury, occupation, sickness or disease, or death of his employees;
- C. Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
- D. Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of any offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person;
- E. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
- F. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- G. If operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen & Harbor Workers Act and Jones Act.

13.5 Certificates of Insurance:

Certificates of Insurance shall contain a provision that coverages afforded under the policies will not be cancelled or materially modified until at least 30 days prior written notice has been given to the CITY. The City of Hollywood must be named as additional insured on all coverage with the exception of Worker's Compensation, Employer's Liability, Disability Benefit and other similar employee benefit coverage. Policies shall be issued by companies authorized to do business under the Laws of the State of Florida. Policyholders and Financial Ratings must be no less than "A" and Class X respectively in the latest edition of "Best's Key Rating Guide", published by A.M. Best Company. Any SubContractor used by the contractor shall supply such similar insurance required of the contractor. Such certificates shall name the City as Additional Insured on the general liability and auto liability policies.

13.6 Insurance Limits of Liability:

The insurance required by this Article shall be written for no less than the level of liability specified in "Insurance Requirements", Section 1.03 of the Supplementary Conditions, or required by law, whichever is greater. The insurance shall include contractual liability insurance applicable to the CONTRACTOR'S obligations under this contract.

The level required in Section 1.3 of the Supplementary Conditions will not be reduced for any reason.

ARTICLE 14 – AVAILABILITY OF LAND; REFERENCE POINTS

14.1 Rights-of-Way:

Lands or Rights-of-Way for the work to be constructed under the Contract will be provided by the CITY. Nothing contained in the Contract Documents shall be interpreted as giving the CONTRACTOR exclusive occupancy of the lands or Rights-of-Way provided. Any additional lands or Rights-of-Way required for construction operations shall be provided by the CONTRACTOR at his own expense; provided, that the CONTRACTOR shall not enter upon nor use any property not under the control of the CITY until a written Agreement has been executed, and a copy of said Agreement furnished to the OWNER'S REPRESENTATIVE prior to said use; and neither the CITY nor the OWNER'S REPRESENTATIVE shall be liable for any claims or damages resulting from the CONTRACTOR'S unauthorized trespass or use of any such properties.

14.2 Permits

When required by Section 1.6 of the Supplementary Conditions, the CONTRACTOR shall secure, from the agencies having jurisdiction, the necessary permits to create obstructions, to make excavations if required under the Contract, and to otherwise encroach upon Rights-of-Way, and to present evidence to the OWNER'S REPRESENTATIVE that such permission has been granted, before work is commenced. Regulations and requirements of all agencies concerned shall be strictly adhered to in the performance of the Contract. The enforcement of such requirements under the Contract shall not be made the basis for additional compensation.

14.3 Lines and Grades:

The CONTRACTOR shall furnish all surveying services required to perform all work required under this Contract.

ARTICLE 15 – CONTRACTOR'S RESPONSIBILITIES

15.1 Laws/ Regulations to Be Observed:

The CONTRACTOR shall familiarize himself and comply with all Federal, State, County and CITY laws, by-laws, ordinances or regulations controlling the action or operation of those engaged or employed in the work or affecting material used, and governs himself in accordance with them. He shall indemnify and save harmless the CITY and all of its officers, agents and employees against any claims or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders or decrees, whether by himself or his employees, agents, or Sub-Contractors.

In accordance with this requirement, it has not been considered necessary to enumerate all wiring, plumbing and other requirements covered by the codes. The CONTRACTOR in making his bid agrees that the requirements of such codes and regulations will be as carefully adhered to be him as if they were specifically set forth in the specifications.

The CONTRACTOR warrants that the products and services supplied to the City of Hollywood shall conform in all respects to the standard set forth in the Occupational Safety and Health Act of 1970, as amended.

15.2 Responsibility for Claims, etc:

In consideration of \$25.00, and other valuable, separate and distinct consideration, the CONTRACTOR shall indemnify and save harmless the CITY and all of its officers, agents and employees and CONSULTANT from all suits, actions, or claims brought because of any injury or damages received or sustained by any person, persons, or property on account of the said CONTRACTORS operations to this Contract during or on account of or in consequence of any neglect in safeguarding the work, or through the use of unacceptable materials in constructing the work, or because of any act or omission by the CONTRACTOR; or on account of, any operations connected with the construction of this Project (including the Warranty Period) or in consequence of any negligence excluding the sole negligence of the City or Consultant, in connection with same, because of any claims or amounts recovered from any infringement of patent, trademark or copyright, or from any claims or amounts arising or recovered under the Worker's Compensation Law or any other laws, and the OWNER'S REPRESENTATIVE may regain monies due the CONTRACTOR and/or hold the Surety and/or the Insurance until such suits, actions or claims for damages or injuries shall have been settled and suitable written evidence to that effect furnished the OWNER'S REPRESENTATIVE. The CONTRACTOR, or his Surety, or his Insurer, shall reimburse the CITY in enforcing the provisions of this Paragraph. These indemnifications shall survive the term of this Contract.

15.3 Guarantee of Payments:

The CONTRACTOR guarantees the payment of all just claims for materials, supplies, tools, labor and other just claims against him, or any Sub-Contractor in connection with this Contract, and his bond will not be released by final acceptance and payment by the CITY unless all such claims are paid or released.

15.4 Surveys, Permits and Licenses:

The CONTRACTOR shall obtain all required permits and licenses as specified in Section 1.6 of the Supplementary Conditions and by Chapter 3 of the South Florida Building Code. Such permits and licenses, along with any corresponding general and specification conditions and requirements, shall become a part of the contract documents. The CONTRACTOR shall comply with all of the conditions and requirements of said permits and licenses.

Payment for all required permit and license fees shall be in accordance with Section 1.6 of the Supplementary Conditions. The CONTRACTOR shall be responsible for paying any and all fees, penalties, and fines imposed as a result of the CONTRACTOR'S failure to obtain such permits and licenses prior to the commencement of the work.

15.5 Emergencies:

In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER'S REPRESENTATIVE or CITY, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give OWNER'S REPRESENTATIVE prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby.

15.6 Measurements To Be Verified:

Before ordering any material or doing any work, the CONTRACTOR shall verify all measurements at the site and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of difference between actual dimensions and the measurements indicated on the drawings; any difference which may be found, shall be submitted to the Consultant for consideration before proceeding with the work.

15.7 Grouping of Data in Specifications:

Titles to divisions and paragraphs in these Contract Documents are introduced merely for convenience and are not to be taken as a correct or complete segregation of the several units of material and labor. No responsibility, either direct or implied, is assumed by the Owner for omission or duplications by the CONTRACTOR or his Sub-Contractors, due to real or alleged error in arrangement of matter in these Contract Documents.

15.8 Substitutes or "Or Equal":

A. Substitutes or "Equal" Materials or Equipment:

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment or other Suppliers may be accepted by the OWNER'S REPRESENTATIVE if sufficient information submitted by the CONTRACTOR to allow the OWNER'S REPRESENTATIVE to determine that the material or equipment proposed is equivalent or equal to that named.

The OWNER'S REPRESENTATIVE will be allowed a reasonable time within which to evaluate each proposed substitute. The OWNER'S REPRESENTATIVE will be the sole judge of acceptability, and NO SUBSTITUTE WILL BE ORDERED, INSTALLED OR UTILIZED WITHOUT THE OWNER'S REPRESENTATIVE PRIOR WRITTEN ACCEPTANCE which will be evidenced by either a Change Order or an approved set of Shop Drawings. Requests for review of substitute items of material and equipment will not be accepted by the OWNER'S REPRESENTATIVE from anyone other than the CONTRACTOR. The procedure for review by the OWNER'S REPRESENTATIVE is as follows:

If the CONTRACTOR wishes to furnish or use a substitute item of material or equipment, the CONTRACTOR shall make written application to the OWNER'S REPRESENTATIVE for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. In addition, the application shall:

1. State that the evaluation and acceptance of the proposed substitute will not prejudice the CONTRACTOR'S achievement of completion on time.
2. State whether or not acceptance of the substitute for use in the WORK will require a change in any of the Contract Documents to adapt design to the proposed substitute.
3. State whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty.
4. Provide complete substitute identification and description, including manufacturer's and local distributor's name and address, performance and test data, and reference standards.
5. Provide samples, as required by OWNER'S REPRESENTATIVE.
6. Provide name and address of similar projects on which the proposed substitute has been used, and date of installation.
7. Identify all variations of the proposed substitute from that specified.
8. Indicate available maintenance, repair and replacement service.
9. Submit an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other CONTRACTORS affected by the resulting change.
10. Provide any additional data about the proposed substitute as the OWNER'S REPRESENTATIVE may require of the CONTRACTOR.

B. Substitute means, method, technique, sequence or procedure of construction:

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the, OWNER'S REPRESENTATIVE, if the CONTRACTOR submits sufficient information to allow the OWNER'S REPRESENTATIVE to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for

review by the OWNER'S REPRESENTATIVE will be similar to that provided in Paragraph 15.8 A.

- C. The CITY may require the CONTRACTOR to furnish at the CONTRACTOR'S expense, a special performance guarantee or other surety with respect to any substitute.
- D. The OWNER'S REPRESENTATIVE will record time required by himself or herself in evaluating substitutions proposed by the CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not the OWNER'S REPRESENTATIVE accepts a proposed substitute, THE CONTRACTOR SHALL REIMBURSE THE CITY FOR THE CHARGES OF THE OWNER'S REPRESENTATIVE AND THE OWNER'S REPRESENTATIVE'S CONSULTANTS FOR EVALUATING EACH PROPOSED SUBSTITUTE.

15.9 Shop Drawings:

Shop Drawing submittals shall be as follows:

- A. The CONTRACTOR shall submit a sufficient number of copies of each Shop Drawing to enable the OWNER'S REPRESENTATIVE to retain three copies. Resubmissions of Shop Drawings shall be made in the same quantity until final approval is obtained.
- B. The CONTRACTOR shall submit Shop Drawings for all equipment, apparatus, machinery, fixtures, piping, fabricated structures, manufactured articles and structural components as listed in Section 1.5 of the Supplementary Conditions. CONTRACTOR shall also provide for all items so noted in Section 1.5 of the Supplementary Conditions, a Manufacturer's Certified Affidavit that the item supplied complies with the design Specifications.
- C. When required by Section 1.5 of the Supplementary Conditions, Shop Drawings for structural components, electrical or mechanical systems shall be Certified by a Registered OWNER'S REPRESENTATIVE of the discipline involved.
- D. The CONTRACTOR shall thoroughly review and check the Shop Drawings, and each and every copy shall show his approval thereon. If the Shop Drawings show or indicate departures from the Contract requirements, the CONTRACTOR shall make specific mention thereof in his letter of transmittal. Failure to point out such departures shall not relieve the CONTRACTOR from his responsibility to comply with the Drawings and Specifications.
- E. No approval will be given to partial submittals of Shop Drawings for items, which interconnect and/or are interdependent. It is the CONTRACTOR'S responsibility to assemble the Shop Drawings for all such interconnecting and/or interdependent items, check them himself and then make one submittal to the OWNER'S REPRESENTATIVE along with his comments as to compliance, non-compliance, or features requiring special attention.
- F. If catalog sheets or prints of manufacturer's standard drawings are submitted as Shop Drawings, any additional information or changes on such Drawings shall be typewritten or lettered in ink.
- G. The CONTRACTOR shall keep one set of Shop Drawings marked with the OWNER'S REPRESENTATIVE'S approval at the job site at all times.
- H. Where a Shop Drawing or sample is required by the Specifications, no related work shall be commenced until the submittal has been reviewed and approved by the OWNER'S REPRESENTATIVE.

- I. Approval of the Shop Drawings shall constitute approval of the subject matter thereof only, and not of any structure, material, equipment or apparatus shown or indicated. The approval of the Shop Drawings will be general and shall not relieve the CONTRACTOR of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the work, nor for the furnishing of materials or work required by the contract and not indicated on the Drawings. Approval shall not relieve the CONTRACTOR from responsibility for errors or omissions of any sort on the Shop Drawings.

15.10 Personnel:

A. Supervision and Superintendence:

1. The CONTRACTOR shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but the CONTRACTOR shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. The CONTRACTOR shall be responsible to see that the finished work complies accurately with the Contract Documents.
2. The CONTRACTOR shall keep on the work at all times during its progress a competent resident Superintendent fluent in both oral and written communication in the English language, who shall not be replaced without prior written notice to the OWNER'S REPRESENTATIVE except under extraordinary circumstances. The Superintendent will be the CONTRACTOR'S representative at the site and shall have authority to act on behalf of the CONTRACTOR. All communications given to the Superintendent shall be as binding as if given to the CONTRACTOR.

B. Workforce:

1. None but skilled workers shall be employed by CONTRACTOR on work requiring special qualifications. When required in writing by the OWNER'S REPRESENTATIVE the CONTRACTOR or any Sub CONTRACTOR shall discharge any person who is, in the opinion of the OWNER'S REPRESENTATIVE, incompetent, disorderly or otherwise unsatisfactory, and shall not again employ such discharged person on the work except with the consent of the OWNER'S REPRESENTATIVE. The Workers are not employed, directly or indirectly, by the City and are not entitled to any benefit, privilege or incident of municipal employment. Such discharge shall not be the basis of any claim for damages against the CITY or any CITY agents and such discharge is covered by Section 15.2 herein.
2. To the extent allowed by law, with respect to all skilled, semi-skilled and unskilled workers employed on the Project under this Contract, preference in employment shall be given to persons residing in Hollywood when such persons are available and qualified to perform the work to which the employment relates. No person shall be employed in violation of the State or National labor Laws. No person under the age of 16 years shall be employed on a Project under the Contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the Project under this Contract; provided that this shall not operate against the

employment of physically handicapped persons, otherwise employable where such persons may be safely assigned to work which they can ably perform.

3. No discrimination shall be made in the employment of persons on the work by the CONTRACTOR or by any Sub-Contractor under him, because of the race, color, sex, age or religion of such persons, and there shall be full compliance with the provisions of applicable State and Federal laws in this regard.

15.11 Safety and Protection:

A. Federal Safety and Health Regulations:

The CONTRACTOR and Sub-Contractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the Secretary of Labor under the "Occupational Safety and Health Act of 1970", as amended from time to time.

B. Responsibilities:

The CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. All employees on the work and other persons who may be affected thereby.
2. All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site.
3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and Services not designated for removal, relocating or replacement in the course of construction.

C. Designated Safety Officer:

The CONTRACTOR shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the CONTRACTOR'S Superintendent unless otherwise designated in writing by the CONTRACTOR to the OWNER'S REPRESENTATIVE.

D. Protection of the Work:

Until acceptance of the work by the CITY, it shall be under the charge and in care of the CONTRACTOR and he shall take every necessary precaution against injury or damage to the work by action of the elements or from the execution or from the non-execution of the work. The CONTRACTOR shall rebuild, restore and make good, at his own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance.

CONTRACTOR shall take every reasonable precaution to secure and safeguard materials, equipment, supplies and other items used in prosecution of the work including, without limitation, using barriers, locks, storage sheds, and similar measures.

- E. Prevailing Wage Rate Ordinance: If the Contract is in excess of \$500,000.00 the following sections shall apply.

1. The rate of wages and fringe benefit payments for all laborers, mechanics, and apprentices shall not be less than those payments for similar skills in classifications of work in a like construction industry as determined by the Secretary of Labor and as published in the Federal Register (latest revision is attached hereto as Exhibit F).
2. All mechanics, laborers, and apprentices, employed or working directly upon the site of the Work shall be paid in accordance with the above referenced wage rates. CONTRACTOR shall post notice of these provisions at the site of the Work in a prominent place where it can be easily seen by the workers.
3. If the parties cannot agree on the proper classification of a particular class of laborers or mechanics or apprentices to be used, the Owners Representative shall submit the question, together with its recommendation, to the County Administrator for final determination.
4. In the event it is found by the Owners Representative that any laborer or mechanic or apprentice employed by CONTRACTOR, or any subcontractor directly on the site of the work has been or is being paid at a rate of wages less then the rate of wages required, the Owners Representative may (1) by written notice to contractor terminate its right to proceed with the Work or such part of the Work for which there has been a failure to pay said required wages; and (2) prosecute the Work for or portion thereof to completion by contract or otherwise. Whereupon, CONTRACTOR and its sureties shall be liable to county for any excess costs occasioned to county thereby.
5. Sections 23.4.1 through 23.4.4 above shall apply to this Contract to the extent that it is (1) a prime Contract subject to the rules and requirements of the City; or (2) a Subcontract also subject to the rules and requirements of the City under such prime Contract.
6. CONTRACTOR shall maintain payrolls and basic records relating thereto during the course of the Work and shall preserve such records for a period of three (3) years thereafter for all laborers, mechanics, and apprentices working at the site of the Work. Such records shall contain the name and address of each such employee; its current classification; rate of pay (including rates of contributions for, costs assumed to provide, fringe benefits); daily and weekly number of hours worked; deductions made; and actual wages paid.
7. CONTRACTOR shall submit, with each requisition for payment, a signed and sworn "Statement of Compliance" attesting to compliance.
8. The Owners Representative may withhold or cause to be withheld from CONTRACTOR so much of the payments requisitioned as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, watchpersons, and guards employed by CONTRACTOR or any Subcontractor on the Work, the full amount of wages required by the Contract.
9. If CONTRACTOR or any Subcontractor fails to pay any laborer, mechanic, or apprentice employed or working on the site of the Work all or part of the wages required by the Contract, the Owners Representative may, after written notice to CONTRACTOR, take such action as may be necessary to cause suspension of any further payments or advances until such violations have ceased.

F Occupational Health and Safety

1. In compliance with Chapter 442, Florida Statutes, any toxic substance listed in Section 38F-41.03, Florida Administrative Code, delivered as a result of this Project must be accompanied by a Material Safety Data Sheet (MSDS) which may be obtained from the manufacturer. The MSDS must include the following information:
 - 1.1 The chemical name and the common name of the toxic substance, including:
 - 1.2 The hazards or other risks in the use of the toxic substance, including:
 - (1) The potential for fire, explosion, corrosion, and reaction;
 - (2) The known acute and chronic health effects of risks from exposure, including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance; and
 - (3) The primary routes of entry and symptoms of overexposure.
 - 1.3 The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of overexposure.
 - 1.4 The emergency procedure for spills, fire, disposal, and first aid.
 - 1.5 A description in lay terms of the known specific potential health risks posed by the toxic substance intended to alert any person reading this information.
 - 1.6 The year and month, if available, that the information was compiled and the name, address, and emergency telephone number of the manufacturer responsible for preparing the information.

G. Hurricane Precautions

1. During such periods of time as are designated by the United States Weather Bureau as being a hurricane warning or alert, the CONTRACTOR, at no costs to the City, shall take all precautions necessary to secure the project site in response to all threatened storm events, regardless of whether the City or CONSULTANT has given notice of same.
2. Compliance with any specific hurricane warning or alert precautions will not constitute additional work.
3. Suspension of the Work caused by a threatened or actual storm event, regardless of whether the City has directed such suspension, will entitle the CONTRACTOR to additional Contract Time as non-compensable, excusable delay, and shall not give rise to a claim for compensable delay.

15.12 Traffic Control, Public Safety and Convenience:

- A. The maintenance of traffic for the project shall be in accordance with the Manual on Uniform Traffic Control Devices (U.S Department of Transportation FHWA).

- B. The CONTRACTOR shall, at all times, conduct his work so as to assure the least possible obstruction to traffic and inconvenience to the general public, and provide adequate protection of persons and property in the vicinity of the work.
- C. WHEN THE NORMAL FLOW OF TRAFFIC WILL BE IMPAIRED OR DISRUPTED IN ANY MANNER ON ANY STREET, THE CONTRACTOR SHALL NOTIFY THE POLICE TRAFFIC SERGEANT AT 921-3610 AT LEAST 24 HOURS IN ADVANCE.
- D. Streets shall not be closed, except when and where directed by the OWNER'S REPRESENTATIVE, and whenever a street is not closed the work must be conducted with the provision for safe passageway for traffic at all times. The CONTRACTOR shall make all necessary arrangements concerning maintenance of traffic and selection of detours required.
- E. When permission has been granted to close an existing roadway, or portion thereof, the CONTRACTOR shall furnish and erect signs, barricades, lights, flags and other protective devices as necessary subject to the approval of the OWNER'S REPRESENTATIVE. Type I, II, III or Drum Barricades used for delineation at night shall be equipped with steady burn lights. High Intensity flashing arrow boards shall be used if required by the OWNER'S REPRESENTATIVE.
- F. All signs intended to be used during the hours of darkness shall be either reflectorized with a material that has a smooth, sealed outer surface, or illuminated to show approximately the same shape and color day and night. All pavement markings which are to be in place during night hours shall have temporary reflective pavement markers placed in accordance with the MUTCD. Any conflicting reflective pavement markers shall be removed.
- G. During working hours the CONTRACTOR shall furnish flagmen in sufficient numbers to protect and divert the vehicular and pedestrian traffic from working areas closed to traffic, or to protect any new work. Failure to comply with this requirement will result in the OWNER'S REPRESENTATIVE shutting down the work until the CONTRACTOR shall have provided the necessary protection.
- H. No separate payment will be made for such signs, barricades, lights, flags, flagmen or other protective devices as required, with all costs thereof deemed to be included in the prices bid for the various items scheduled in the bid.
- I. Sidewalks, gutters, drains, fire hydrants and private drives shall, insofar as practicable, be kept in condition for their intended uses. While the work is actually going on at any location, as much as half the street width at that location may be barricaded to exclude traffic entirely, but street traffic shall not be obstructed needlessly. Fire hydrants on or adjacent to the work shall be kept accessible to fire apparatus at all times, and no material or obstruction shall be placed within ten feet of any such hydrant.
- J. Construction material stored upon the public street shall be placed so as to cause as little obstruction to the general public as is reasonably possible.

15.13 Use of Explosives:

When the use of explosives is necessary for the prosecution of the work, the CONTRACTOR shall observe the utmost care so as not to endanger life or property, and whenever directed, the number and size of charges shall be limited. All explosives shall be stored in a secure manner and all such storage places shall be marked clearly "DANGEROUS EXPLOSIVES" and shall be in care of a competent watchman at all times. The CONTRACTOR must familiarize himself with all laws and ordinances pertaining thereto, and govern himself and his employees accordingly.

15.14 Loading of Structures:

The CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the CONTRACTOR subject any part of the work or adjacent property to stresses or pressures that will endanger it.

15.15 Concerning Sub-Contractors:

- A. The CONTRACTOR, with his own forces, shall perform no less than 25% of the work as determined by the Contract price. Each Sub-Contractor shall be properly licensed for the type of work he is to perform.
- B. A copy of each Sub-Contract shall be filed promptly with the OWNER'S REPRESENTATIVE upon request. Each Sub-Contract shall contain a reference to the Contract between the CITY and the CONTRACTOR, and the terms and conditions of the Contract shall be made a part of each Sub-Contract. Each Sub-Contract shall provide for cancellation or annulment of same by the CONTRACTOR upon written order of the OWNER'S REPRESENTATIVE if the Sub-Contractor fails to comply with the requirements of this Contract.
- C. The CONTRACTOR shall be responsible to the CITY and OWNER'S REPRESENTATIVE for the acts and omissions of his Sub- CONTRACTORS and their employees to the same extent as he is responsible for the acts and omissions of his own employees. Nothing contained in this Contract shall create any contractual relationship between any Sub-Contractor and the CITY or OWNER'S REPRESENTATIVE nor relieves the CONTRACTOR of any liability or obligation under this Contract.

15.16 Materials and Equipment:

- A. Material for the Work:
 - 1. The CONTRACTOR shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the work.
 - 2. Unless otherwise specified, shown or permitted by the OWNER'S REPRESENTATIVE, all material and equipment incorporated in the work shall be new and of current manufacture. The OWNER'S REPRESENTATIVE may request the CONTRACTOR to furnish manufacturer's certificates to this effect.
 - 3. The OWNER'S REPRESENTATIVE may require any or all materials to be subjected to test by means of samples or otherwise, at production points or after delivery. The CONTRACTOR shall afford such facilities as the OWNER'S REPRESENTATIVE may require for collecting and forwarding samples, which samples shall be furnished by the CONTRACTOR without charge. The CONTRACTOR shall furnish evidence satisfactory to the OWNER'S REPRESENTATIVE that the materials and finished articles have passed the required test prior to the incorporation of such materials and finished articles in the work. Unless otherwise provided, the cost of such inspection and testing shall be as provided in Article 12.2.
 - 4. All packaged manufactured products for use on the work shall be delivered to the work in their original, unopened packages, bearing thereon the manufacturer's name and the brand name of the product.

5. Wherever any product or material is selected to be used on the work, all such products or material shall be of the same brand and manufacture throughout the work.
6. All equipment, tools and machinery used for handling material or executing any part of the work shall be subject to the approval of the OWNER'S REPRESENTATIVE and shall be maintained in a satisfactory working condition. All equipment utilized on any portion of the work shall be such that no injury to personnel, the work, adjacent property or other objects will result from its use.
7. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

B. Storage of Materials:

1. All materials and equipment including that ordered by the CITY designed for permanent installation in the work shall be properly stored by the CONTRACTOR to insure protection against deterioration of any type. These materials shall be placed as to cause a minimum of inconvenience to other contractors on the work and to the public. The storage piles shall be arranged to facilitate inspections, and any deterioration shall be grounds for rejection.
2. Materials stored in public Rights-of-Way, shall be stored in such a manner so as to be compatible with the Traffic Control requirements set forth in Paragraph 15.12. Materials shall be stored so as not to deny access to public or private property. Stored materials shall be adequately marked with barricades and/or flashing warning lights, where necessary, so as to protect the materials from damage and to protect the public health, safety and welfare.
3. Lawns, grass plots or other private property shall not be used for storage purposes without written permission of the Owner or Lessee of that private property. Should the CONTRACTOR desire to store equipment or materials of any kind on the property of the CITY, he must obtain permission from the OWNER'S REPRESENTATIVE. The CITY reserves the right to order materials to be removed or relocated in such approved storage areas, if necessary.
4. The protection of stored materials shall be the CONTRACTOR'S responsibility and the City of Hollywood shall not be liable for any loss of materials, by theft or otherwise, nor for any damage to the stored materials.

C. Salvage of Materials and Equipment:

The CITY reserves the right to retain title to all soil, sand, stone, gravel, equipment, machinery or any other material that was a part of the structure, site or Right- of-Way and which was developed from excavations or other operations connected with the work. The CONTRACTOR will be permitted to use in the work, without charge, any such material which meets the requirements of the Contract Documents. For that material which the CITY desires to retain the CONTRACTOR shall, at his expense, transfer to a site within the CITY as designated by the OWNER'S REPRESENTATIVE. That material which the CITY does not wish to retain shall be the property of the CONTRACTOR and removed from the site at CONTRACTOR'S expense.

15.17 Temporary Services:

The CONTRACTOR shall provide and maintain at his own expense, all water, power, telephone and sanitary facilities as required to comply with State and/or local Codes and Regulations. If water, including that for testing is required, it is the CONTRACTOR'S responsibility to arrange through the CITY Water Department for a 2" water meter. A deposit to be paid by the CONTRACTOR is required for meter rental and all water shall be purchased at the prevailing rate.

15.18 Review of Records:

The CONTRACTOR shall allow and permit the OWNER'S REPRESENTATIVE or his duly authorized representative to inspect and review all payrolls, records of personnel, conditions of employment, invoice of materials, books of accounts and other relevant data and records pertinent to the CONTRACT and Sub-Contracts.

15.19 Use of Premises:

CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

15.20 CONTRACTOR Liable and Responsible to the Owner:

The CONTRACTOR shall be held liable by the OWNER for the performance of all the work provided for under this CONTRACT. These specifications make no attempt to fix the scope of the work of any sub-Contractor or the responsibilities of any such Sub-Contractor, it being understood that the CONTRACTOR shall fix the scope of work and responsibilities of the Sub-Contractor.

Any disputes which may arise in this connection between the CONTRACTOR and any Sub-Contractor must be settled between the parties concerned and the OWNER will not undertake, nor be in any way responsible for, the settlement of such disputes.

No Sub-Contractor shall under condition, relieve the CONTRACTOR of his liabilities and obligations to the OWNER under his CONTRACT and the CONTRACTOR shall be solely responsible to the OWNER as provided for herein.

15.21 CONTRACTOR's Daily Reports:

Except where otherwise provided, the CONTRACTOR shall complete a daily report indicating manpower, major equipment, Sub-Contractors, etc., involved in the performance of the work. The daily report shall be completed on forms prepared by the OWNER'S REPRESENTATIVE, and shall be submitted to the OWNER'S REPRESENTATIVE at the conclusion of each work day.

15.22 Record Documents:

The CONTRACTOR shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, Shop Drawings and samples at the site, in good order and annotated to show all changes made during the construction process. These shall be available to OWNER'S REPRESENTATIVE for examination and shall be delivered to OWNER'S REPRESENTATIVE upon completion of the work.

15.23 Cleanliness of the Site:

During the progress of the work, The CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the work. At the completion of the work the CONTRACTOR shall remove all waste materials, rubbish and debris

from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials, and shall leave the site clean and ready for occupancy by the CITY. The CONTRACTOR shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

15.24 Dust Control:

It shall be the CONTRACTOR'S responsibility to control dust by watering as directed by the OWNER'S REPRESENTATIVE. The water used shall be paid for by the CONTRACTOR. Should the CONTRACTOR fail to control dust to the satisfaction of the OWNER'S REPRESENTATIVE, the CITY will control the dust by whatever means the CITY desires and the CONTRACTOR shall pay all expenses incurred by the CITY associated with the control of the dust.

15.25 Continuing the Work:

The CONTRACTOR shall carry on the work and maintain the Progress Schedule during all disputes or disagreements with the CITY. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the CITY may otherwise agree in writing.

15.26 Indemnification:

The CONTRACTOR shall indemnify and hold harmless the CITY, its officers and employees, from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of this Contract. These provisions shall survive the expiration or earlier termination of this Contract. Nothing in this contract shall be construed in any way to affect the sovereign immunity of the CITY or the rights of the CITY as set forth in Florida Statutes 768.28, as amended from time to time.

ARTICLE 16 - CITY'S RESPONSIBILITIES

16.1 Communications:

The CITY shall issue all communications to the CONTRACTOR through the OWNER'S REPRESENTATIVE.

16.2 Furnish Contract Documents:

The CITY shall furnish an appropriate number of Contract Documents to the CONTRACTOR at no cost. Referenced Standard Specifications will not be provided, however, the procurement address and cost, if any, will be stated in the Supplementary Conditions.

16.3 Furnish Right-of-Way:

The CITY shall furnish the necessary land or Right-of-Way on which the work is to be accomplished, and will provide lines and grades as specified in Article 6.

16.4 Timely Delivery of Materials:

The CITY shall be responsible for the timely delivery of any CITY furnished material, equipment or labor such that the CONTRACTOR shall not incur damage solely due to delayed delivery.

16.5 Tests and Inspections:

The CITY'S responsibility with respect to inspections, tests and approvals is set forth in Article 12.

16.6 Payments to CONTRACTOR:

The CITY'S responsibility with respect to making prompt payments to the CONTRACTOR is set forth in Article 13.

16.7 Right to Stop or Suspend Work:

The CITY'S right to stop or suspend work is set forth in Articles 9, 12 and 15 and the City's Right to Terminate Services of the CONTRACTOR is set forth in Article 15.

ARTICLE 17 - CHANGES IN THE WORK/CONTRACT PRICE

17.1 Contract Price:

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to the CONTRACTOR for performing the work. All duties, responsibilities and obligations assigned to or undertaken by the CONTRACTOR shall be at his expense without change in the Contract Price or Time except as provided in Article 15.5.

17.2 Change Order:

The Contract Price and/or Time may only be changed by a Change Order. All requests for change orders must comply with Section 38.47 of the City Code. A copy of which is attached as Exhibit __ hereto. A FULLY EXECUTED CHANGE ORDER FOR ANY EXTRA WORK MUST EXIST BEFORE SUCH EXTRA WORK IS BEGUN. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party promptly (but in no event later than 15 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 30 days after such occurrence (unless more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 17.2. The CITY shall execute appropriate Change Orders prepared by the OWNER'S REPRESENTATIVE or CONTRACTOR covering changes in the work which are required by the CITY, or required because of unforeseen physical conditions or emergencies, or because of uncovering work found to be defective, or where the quantity of the work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such work indicated in the Contract Documents, or because of any other claim of the CONTRACTOR for a change in the Contract Time or the Contract Price which is recommended by the OWNER'S REPRESENTATIVE.

17.3 Notice of Change:

If notice of any change affecting the general scope of the work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be CONTRACTOR'S responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. The CONTRACTOR shall furnish proof of such adjustment to the CITY.

17.4 Payment for Extra Work:

All extra work ordered and performed in accordance with the foregoing, for which there is no price included in the Proposal, will be paid for at the price (mutually agreed upon, in writing, by the CONTRACTOR and the OWNER'S REPRESENTATIVE to be equitable compensation for the work contemplated) stipulated in the OWNER'S REPRESENTATIVE'S written order for such work subject to the requirements of this Contract and applicable laws. However, in the event the CONTRACTOR and the OWNER'S REPRESENTATIVE fail to agree upon an equitable price for any extra work ordered, it shall be performed by using such tools, labor, equipment and materials as may be specified by the OWNER'S REPRESENTATIVE, and will be paid for in the following manner:

- A. For all labor, including a foreman in direct charge of the specified operations, the CONTRACTOR shall receive a sum equal to the current local rate of wages for every hour that the labor is actually engaged in such work, to which shall be added an amount equal to a maximum of 15% of such sum and a total thereof shall be full compensation to the CONTRACTOR for general supervision and for furnishing and repairing small tools and ordinary equipment used in doing the extra work. In addition, the CONTRACTOR shall be paid the actual cost of Social Security Taxes, Surety Bond, Unemployment Insurance, Workmen's Compensation Insurance and CONTRACTOR'S Public Liability and Property Insurance involved in such extra work, based on actual wages paid to such labor.
- B. For all materials used, the CONTRACTOR shall receive the actual cost of such materials, including freight charges as shown by original receipted bills, to which cost shall be added, an amount equal to a maximum of 10% thereof.
- C. For any special machinery or special equipment, including fuel and lubricants therefor, required for the economical performance of extra work, the OWNER'S REPRESENTATIVE shall allow the CONTRACTOR a reasonable rental price, to be agreed upon in writing before such work is begun, for every hour that such special machinery or equipment is used on the work. Rental time will not be allowed while equipment is inoperative due to breakdowns and shall be restricted to the actual time that the equipment is in productive operation on the extra work being performed.

17.5 Records:

The CONTRACTOR'S representative and the OWNER'S REPRESENTATIVE shall compare records of extra work done at the end of the day. Such records shall be made in duplicate upon a form provided for such purpose by the OWNER'S REPRESENTATIVE and shall be signed by both the Inspector and the CONTRACTOR'S representative, one copy being submitted to the OWNER'S REPRESENTATIVE and the other being retained by the CONTRACTOR.

17.6 Cancelled Items and Payments:

The CITY COMMISSION shall have the right to cancel those portions of the Contract relating to the construction of any item provided therein. Such cancellation shall entitle the CONTRACTOR to payment in a fair and equitable amount covering all items of cost incurred by him prior to the date of cancellation or suspension of the work. The CONTRACTOR shall be allowed a profit percentage on the materials used and on construction work actually performed, at the same rates as provided for "Extra Work", but no allowance will be made for anticipated profits. Acceptable materials ordered by the CONTRACTOR or delivered on the work, prior to the date of such cancellation or suspension shall be purchased from the CONTRACTOR by the CITY at actual cost and shall, thereupon, become the property of the CITY.

17.7 Full Payment:

The Compensation herein provided shall be received and accepted by the CONTRACTOR as payment in full for all extra work done or costs incurred in event of cancellation.

ARTICLE 18 - CHANGES IN THE CONTRACT TIME

18.1 Change Order:

The Contract Time may only be changed by a Change Order. A FULLY EXECUTED CHANGE ORDER MUST EXIST PRIOR TO EXTENSION OR SHORTENING OF THE CONTRACT TIME.

18.2 Notice:

Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other party promptly (but in no event later than 15 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 30 days after such occurrence (unless OWNER'S REPRESENTATIVE allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. CONTRACTOR hereby agrees to waive rights to recover any lost time or incurred costs from delays unless CONTRACTOR has given the notice and the supporting data required by this Paragraph 18.2.

18.3 Basis for Extension:

Extensions of time shall be considered only for excusable delays and will be based solely upon the effect of delays to the work as a whole. Extensions of time shall not be granted for delays to the work, unless the CONTRACTOR can clearly demonstrate, through schedule analysis, that the delay to the work as a whole arose in accordance with Article 19.3 or Article 26.1, and that such delays did or will, in fact, delay the progress of work as a whole. Time extensions shall not be allowed for delays to parts of the work that are not on the critical path of the project schedule. Time extensions shall not be granted until all float or contingency time, at the time of the delay, available to absorb specific delays and associated impacts is used. Extensions of time via CONTRACTOR are final and CONTRACTOR may not come back at a later date and time and make any claim associated with the time extension.

18.4 Change of Time Due to Contract Execution Problems:

Refer to Article 3.4 for a decrease in Contract Time when the CONTRACTOR fails to return the correctly executed Contract Documents within the time allowed.

18.5 Change of Time Due to Substitution or Change Order Evaluation:

In rendering a substitution decision and when evaluating a proposed Change Order, the OWNER'S REPRESENTATIVE shall have access to any available float or contingency time. Extensions will only be considered in accordance with Article 18.3.

18.6 Change of Time and Inspection and Testing:

Neither observations by the OWNER'S REPRESENTATIVE, nor inspections, tests or approvals by others, passing or failing, will be cause for consideration of time extension.

18.7 Change of Time and Defective Work:

- A. If WORK is found to be defective, CONTRACTOR shall bear all remedial expenses including any additional costs experienced by CITY due to delays to others performing additional WORK. CONTRACTOR shall further bear the responsibility for maintaining schedule, and will be excluded from a time extension and the recovery of delay damages due to the uncovering.
- B. If the WORK is found to be defective per the Specifications, but the CITY chooses to accept it at its sole discretion, CONTRACTOR shall bear the responsibility for maintaining schedule, and will be excluded from a time extension and the recovery of delay damages due to the uncovering.
- C. If the WORK is suspended because of reasonable belief that it is defective and subsequent investigations and tests by the CITY find that the WORK is not defective or absolve the CONTRACTOR of the responsibility for the non-compliance, CONTRACTOR shall be allowed:
 - 1. An increase in Contract Price to recover the additional costs directly attributable to any uncovering, exposure, testing, inspection and reconstruction.
 - 2. An increase in Contract Time, but no increase in Contract Price as a result of the suspension of work. The only remedy for delay due to a suspension because of reasonable doubt that the work meets specifications will be a time extension pursuant to Article 11.3.

18.8 Liquidated and Consequential Damages:

All time limits stated in the Contract Documents are of the essence of the Contract. The provisions of this Article 18 shall not exclude recovery for damages as indicated in Section 1.09 of the Supplementary Conditions.

ARTICLE 19 - WARRANTY AND GUARANTEE: **TEST AND INSPECTIONS:** **CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

19.1 Warranty and Guarantee:

The CONTRACTOR warrants and guarantees to the CITY and the OWNER'S REPRESENTATIVE that all work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to the CONTRACTOR. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.

19.2 Tests and Inspections:

- A. The CONTRACTOR shall give the OWNER'S REPRESENTATIVE and, when appropriate, the Building Department and other regulatory authorities which have jurisdiction over the work, timely notice of readiness of the work for all required inspections, tests or approvals.
- B. When the Contract Documents, City Ordinances or Regulations, or the Florida Building Code, or the OWNER'S REPRESENTATIVE require any work, (or part thereof) to be specifically inspected, tested or approved, the CITY shall assume full responsibility for and pay all costs in connection with such inspections or tests EXCEPT THAT should said test or inspection fail to pass the CONTRACTOR shall pay all costs associated with the rework and the retesting.

- C. When any other regulatory authority, by virtue of its rules or regulations, requires specific tests or inspections, the CONTRACTOR shall assume full responsibility for and pay all costs in connection with said tests and inspections.
- D. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the OWNER'S REPRESENTATIVE'S acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the work, or of materials or equipment submitted for approval prior to CONTRACTOR'S purchase thereof for incorporation in the work.
- E. Neither observations by the ENGINEER OWNER'S REPRESENTATIVE nor inspections, tests or approvals by others shall relieve the CONTRACTOR from his obligations to perform the work in accordance with the Contract Documents.

19.3 Uncovering Work:

- A. If any work that is to be inspected, tested or approved is covered without written concurrence of the OWNER'S REPRESENTATIVE, it must, if requested, by the OWNER'S REPRESENTATIVE, be uncovered. Such uncovering and replacement shall be at the CONTRACTOR'S expense.
- B. If the OWNER'S REPRESENTATIVE considers it necessary or advisable that work previously covered with his permission or cognizance be observed, inspected or tested, the CONTRACTOR, at the OWNER'S REPRESENTATIVE'S request, shall uncover, expose or otherwise make available for observation, inspection or testing as the OWNER'S REPRESENTATIVE may require, that portion of the work in question, furnishing all necessary labor, material and equipment. If it is found that such work is defective, the CONTRACTOR shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services. If, however, such work is not found to be defective the CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction if he makes a claim therefore in accordance with Article 10.2 and Article 11.2.

19.4 City May Stop the Work:

If the work is defective, or the CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, the CITY may order the CONTRACTOR to stop the work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the CITY to stop the work shall not give rise to any duty on the part of the CITY to exercise this right for the benefit of the CONTRACTOR or any other party.

19.5 Correction or Removal of Defective Work:

If required by the OWNER'S REPRESENTATIVE, the CONTRACTOR shall promptly, without cost to the CITY and as specified by the OWNER'S REPRESENTATIVE either correct any defective work, whether or not fabricated, installed or completed, or if the work has been rejected by the OWNER'S REPRESENTATIVE, remove it from the site and replace it with non-defective work.

19.6 One Year Correction Period:

If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any work is found to be defective, the CONTRACTOR shall promptly without cost to the CITY and in accordance with the OWNER'S

REPRESENTATIVE'S written instructions, either correct such defective work, or if it has been rejected by the OWNER'S REPRESENTATIVE remove it from the site and replace it with non-defective work. If the CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the OWNER'S REPRESENTATIVE may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by the CONTRACTOR.

19.7 Acceptance of Defective Work:

If instead of requiring correction or removal and replacement of defective work, the OWNER'S REPRESENTATIVE prefers to accept it, he may do so. In such case, if acceptance occurs prior to the OWNER'S REPRESENTATIVE'S recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or if the acceptance occurs after such recommendation, an appropriate amount shall be paid by the CONTRACTOR to the CITY.

19.8 City May Correct Defective Work:

If the CONTRACTOR fails within a reasonable time after written notice of the OWNER'S REPRESENTATIVE to proceed to correct and to correct defective work or to remove and replace rejected work as required by the OWNER'S REPRESENTATIVE in accordance with Paragraph 12.5, or if the CONTRACTOR fails to perform the work in accordance with the Contract Documents, (including any requirements of the progress schedule), the CITY may, after seven days' written notice to the CONTRACTOR, correct and remedy any such deficiency. In exercising its rights under this Paragraph the CITY shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the CITY may exclude the CONTRACTOR from all or part of the site, take possession of all or part of the work, and suspend the CONTRACTOR'S services related thereto, take possession of the CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate in the work all materials and equipment stored at the site or for which the CITY has paid the CONTRACTOR but which are stored elsewhere. The CONTRACTOR shall allow the CITY, the CITY'S representatives, agents and employees such access to the site as may be necessary to enable the CITY to exercise his rights under this Paragraph. All direct and indirect costs of the CITY in exercising such rights shall be charged against the CONTRACTOR in an amount verified by the OWNER'S REPRESENTATIVE, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitations, compensation for additional professional services required and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the CONTRACTOR'S defective work. The CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the work attributable to the exercise by the CITY of the CITY'S rights hereunder.

ARTICLE 20 - PAYMENTS TO THE CONTRACTOR

20.1 Basis of Payment:

Progress payments shall be based on the aggregate of the unit price amounts listed in the Proposal or in the Schedule of Values which have been incorporated in the work acceptable to the OWNER'S REPRESENTATIVE.

20.2 Unit Price Inclusion:

The unit prices stated in the Proposal include all costs and expenses for materials, labor, tools, equipment, transportation, commissions, patent fees and royalties, removing crossings or other obstructions, protection or maintaining pipes, drains, railroad tracks, buildings, bridges, or other

structures furnishing temporary crossings or bridges, furnishing all supplemental construction stakes, batter boards, templates, common and ordinary labor for handling materials during inspection replacing any property damage, together with any and all costs or expenses for performing and completing the work as specified.

20.3 Schedule of Values:

If a Schedule of Values is required by Section 1.12 of the Supplementary Conditions, it shall be submitted within seven days subsequent to the CONTRACTOR executing and submitting the Documents required of Article 15 of the Instructions to Bidders. The schedules shall be satisfactory in form and substance to the OWNER'S REPRESENTATIVE, and shall include quantity and unit prices aggregating the Contract Price, and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by the OWNER'S REPRESENTATIVE, it shall be incorporated into a form of Application for Payment acceptable to the OWNER'S REPRESENTATIVE.

20.4 Changed Conditions:

It is mutually agreed that due to latent field conditions which cannot be foreseen at the time of advertising for bids, adjustments of the Plans to field conditions will be necessary during construction; and, therefore, such changes in the plans shall be recognized as constituting a normal and accepted margin of adjustment not unusual and not involving or permitting any change or modification of unit prices, in which case payment will be made for the revised quantities at the unit price bid in the Proposal.

20.5 Application for Progress Payment:

Prior to 4:30 p.m. on the first working day of the month the CONTRACTOR shall submit to the OWNER'S REPRESENTATIVE for review an Application for Payment form filled out and signed by the CONTRACTOR. The form shall be notarized, and shall cover the work completed as of the date of the application. The Application for Payment shall be accompanied by a "Page 2" laying out the Schedule of Values, and any other supporting documentation as the OWNER'S REPRESENTATIVE may reasonably require.

20.6 Payment for Materials:

If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by such data, satisfactory to The OWNER'S REPRESENTATIVE, as will establish the CITY'S title to the material and equipment and protect the CITY'S interest therein, including applicable insurance.

20.7 Affidavit Required:

All Applications for Payment shall include an Affidavit of the CONTRACTOR stating that all previous progress payments received on account of the work have been applied to discharge in full all of CONTRACTOR'S obligations reflected in prior Applications for Payment. The amount of retainage with respect to progress payments will be 10%.

20.8 CONTRACTOR's Warranty of Title:

The CONTRACTOR warrants and guarantees that title to all work, materials and equipment covered by any Application for Payment whether incorporated in the Project or not, will pass to the CITY at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereinafter in these General Conditions referred to as "Liens").

20.9 Review of Application for Payment:

The OWNER'S REPRESENTATIVE will promptly review the Application for Payment and either approve and submit it for payment or notify the CONTRACTOR of the deficiencies such that the CONTRACTOR may make the necessary corrections and resubmit in time for the month's payment. However, the OWNER'S REPRESENTATIVE may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations. He may also refuse to recommend any such payment, or because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in the OWNER'S REPRESENTATIVE'S opinion to protect the CITY from loss because:

- A. The work is defective, or completed work has been damaged requiring correction or replacement.
- B. Written claims have been made against the CITY or Liens have been filed in connection with the work.
- C. The Contract Price has been reduced because of Change Order.
- D. The CITY has been required to correct defective work or complete the work in accordance with Section 19.8 of the General Conditions.
- E. The CONTRACTOR'S unsatisfactory prosecution of the work in accordance with the Contract Documents.
- F. The CONTRACTOR'S failure to make payment to Sub-CONTRACTORS, or for labor, materials or equipment.

20.10 Payment to the CONTRACTOR:

Payments are made only on the fifteenth day or first workday thereafter of each month. The City shall pay undisputed sums no later than the time provided by the Prompt Payment Act, Section 218.70, et. Seq., Florida Statutes.

ARTICLE 21 – AS BUILT DRAWINGS AND SURVEY

A marked up set of prints will be kept up to date by the Contractor on the job site at all times. All trades to record any and all variances to the plans as the work progresses. This record will be given to the consultant and/or Owner's Representative at the completion of the work, and properly labeled "As-Built Drawings".

In addition to the "As-Built Drawings", the CONTRACTOR will cause to have prepared by a Surveyor, registered in the State of Florida, a site survey which shall clearly represent all work done under this contract.

This site survey shall show all fences, walls, walks, building(s) and appurtenances, fire hydrant(s), manholes, catch basins, meters, valve boxes, asphalt playing area, parking, drives, curbs, football goal posts, basketball back boards, tennis courts, ball fields, trees and shrubs. Based on the mean sea level datum, elevations to the 0.01 foot will be shown in sufficient number of points to clearly indicate the scope of parking, sidewalks, floor and other improved areas. A benchmark will be set at the base of the flag pole or other area as designated by the Owner's Representative. The grate and invert elevation will be shown for all manholes and catch basins. Elevations to 0.1 foot will be indicated at all changes in ground level, such as ditches, and at intervals not exceeding 100 feet including all adjacent rights-of-way. Replace all permanent corner markers which have been removed. An existing survey shall be furnished to the CONTRACTOR by the Owner. At the

completion of the work, the general CONTRACTOR shall furnish six (6) certified prints and a sepia on 3 Mil Mylars of the survey to the Consultant and/or Owner's Representative.

This is a critical item and final payment will be withheld from the CONTRACTOR until "As-Built Drawings" and survey are furnished to the OWNER'S REPRESENTATIVE.

ARTICLE 22 – TEMPORARY SANITARY SEWERS

The CONTRACTOR shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the regulations of the State Board of Health and the local health department. No nuisance will be permitted. Upon completion of work, such facilities shall be removed and the premises left in a sanitary condition. Reference should be made to supplementary conditions, Paragraph 1.07 of the Contract.

ARTICLE 23 – OWNERSHIP OF DRAWINGS

All drawings, specifications, and copies thereof furnished by the Consultant are the property of the City. All documents shall remain the property of the City and be turned over to the City ...

ARTICLE 24 – REGISTRATION AND CERTIFICATION

In accordance with Chapter 489, of the Florida Statutes, any bid submitted for construction, improvement, remodeling or repair of public buildings shall be accompanied by evidence that the bidder holds an appropriate certificate or registration issued by the Florida Construction Industry Licensing Board.

- A. Bidders are required to include their registration number and certificate number in the designated place on page 3 of the Proposal form.
- B. Bidders who do not have a certification from the Florida Construction Industry Licensing Board shall include on the Proposal form their Broward County certification number.
- C. The definitions below are from Chapter 489 of the Florida Statutes for the bidders information:

CERTIFICATE – Means a certificate of competency issued by the department as provided in this act.

CERTIFIED CONTRACTOR – Means any CONTRACTOR who possesses a certificate of competency issued by the department and who may contract in any jurisdiction in the state without being required to fulfill competency requirements of that jurisdiction.

REGISTRATION – Means registration with the department as provided in this act.

REGISTRATION CONTRACTOR – Means any CONTRACTOR who has registered with the department pursuant to fulfilling the competency requirements in the jurisdiction for which the registration is issued. Registered CONTRACTOR may contract only in these areas.

CERTIFICATION – Means the act of obtaining or holding a certificate of competency from the department as provided in this act.

ARTICLE 25 - SUBSTANTIAL COMPLETION, PARTIAL UTILIZATION, FINAL CLEAN UP, INSPECTION, PAYMENT AND ACCEPTANCE

25.1 Substantial Completion:

When the CONTRACTOR considers the entire work ready for its intended use, the CONTRACTOR shall, in writing to the OWNER'S REPRESENTATIVE, certify that the entire work is substantially complete and request that the OWNER'S REPRESENTATIVE issue a Certificate of Substantial Completion. Within a reasonable time thereafter the CONTRACTOR and the OWNER'S REPRESENTATIVE shall make an inspection of the work to determine the status of completion. If the OWNER'S REPRESENTATIVE does not consider the work substantially complete, the OWNER'S REPRESENTATIVE will notify the CONTRACTOR in writing giving his reasons thereof. If the OWNER'S REPRESENTATIVE considers the work substantially complete, the OWNER'S REPRESENTATIVE will prepare and deliver to the CONTRACTOR a Certificate of Substantial Completion, which shall fix the date of Substantial Completion. There shall be attached to the certificate a Punch List of items to be completed or corrected before final payment. At the time of delivery of the Certificate of Substantial Completion the OWNER'S REPRESENTATIVE will deliver to the CONTRACTOR written notice as to division of responsibilities pending final payment between the CITY and the CONTRACTOR with respect to security, operation, safety, maintenance, heat, Services and insurance, said responsibilities will be binding on the CITY and the CONTRACTOR until final payment. Unless otherwise stated herein or on the Certificate of Substantial Completion, all building, product, equipment, and machinery warranties will commence on the date of Substantial Completion. The CITY shall have the right to exclude the CONTRACTOR from the work after the date of Substantial Completion, but the CITY shall allow the CONTRACTOR reasonable access to complete or correct items on the Punch List.

25.2 Partial Utilization:

Use by the CITY of any finished part of the work which has specifically been identified in the Contract Documents or which the OWNER'S REPRESENTATIVE and the CONTRACTOR agree constitutes a separately functioning and usable part of the work that can be used by the CITY without significant interference with CONTRACTOR'S performance of the remainder of the work, may be accomplished prior to Substantial Completion of all the work subject to the following:

- A. The OWNER'S REPRESENTATIVE at any time may request the CONTRACTOR in writing to permit the CITY to use any such part of the work which the OWNER'S REPRESENTATIVE believes to be ready for its intended use and substantially complete. If the CONTRACTOR agrees, the CONTRACTOR will certify to the OWNER'S REPRESENTATIVE that said part of the work is substantially complete and request the OWNER'S REPRESENTATIVE to issue a Certificate of Substantial Completion for that part of the work. The CONTRACTOR, at any time, may notify the OWNER'S REPRESENTATIVE in writing that the CONTRACTOR considers any such part of the work ready for its intended use and substantially complete and request the OWNER'S REPRESENTATIVE to issue a Certificate of Substantial Completion for the part of the work. Within a reasonable time after either such request, the CONTRACTOR and the OWNER'S REPRESENTATIVE shall make an inspection of that part of the work to determine its status of completion. If the OWNER'S REPRESENTATIVE does not consider that part of the work to be substantially complete, the OWNER'S REPRESENTATIVE will notify the CONTRACTOR in writing giving the reasons therefor. If the OWNER'S REPRESENTATIVE considers that part of the work to be substantially complete, the provisions of Article 14.1 will apply with respect to Certificate of Substantial Completion of that part of the work and the division of responsibility in respect thereof and access thereto.

25.3 Final Clean-Up:

Upon completion of the work and before final inspection shall be made, the CONTRACTOR shall clean and remove from the site, the Right-of-Way and adjacent property, all surplus and discarded materials, rubbish, and temporary structures; restore in an acceptable manner all property, both

public and private, which has been damaged during the prosecution of the work; and shall leave the site and vicinity unobstructed in a neat and presentable condition throughout the entire area or length of the work under Contract. The placing of materials of every character, rubbish, or equipment on the abutting property, with or without the consent of the property owners, shall not constitute the satisfactory disposal. If the work is of such a character as may be done by block or sections, the CONTRACTOR may be required to promptly remove and dispose of accumulated rubbish, debris or surplus materials from blocks or sections as completed or partially completed. No separate payment will be made for final cleaning up and restoration of property, but all costs thereof shall be included in the prices bid for the various scheduled items of work.

25.4 Final Inspection:

Upon written notice from the CONTRACTOR that the entire work or an agreed portion thereof is complete and final clean-up has been completed, the OWNER'S REPRESENTATIVE will make a final inspection with the CONTRACTOR and will notify the CONTRACTOR in writing of all particulars in which this inspection reveals that the work is incomplete or defective. The CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

25.5 Final Application for Payment:

After the CONTRACTOR has completed all such corrections to the satisfaction of the OWNER'S REPRESENTATIVE and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in Article 15.22 of the General Conditions and other documents; all as required by the Contract Documents and after the OWNER'S REPRESENTATIVE has indicated that the work is acceptable (subject to the provisions of Article 25.9) the CONTRACTOR may make Application for Final Payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to the CITY) of all Liens arising out of or filed in connection with the work. In lieu thereof and as approved by the CITY, the CONTRACTOR may furnish receipts or releases in full; an affidavit of the CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the work for which the CITY or the CITY'S property might in any way be responsible, have been paid or otherwise satisfied; and consent of the Surety, if any, to final payment. If any Sub-Contractor or Supplier fails to furnish a release or receipt in full, the CONTRACTOR may furnish a Bond or other collateral satisfactory to the CITY to indemnify the CITY against any Lien.

25.6 Final Payment and Acceptance:

If on the basis of the OWNER'S REPRESENTATIVE'S observation of the work during construction and final inspection, and the OWNER'S REPRESENTATIVE'S review of the final Application for Payment and accompanying documentation, all as required by the Contract Documents, the OWNER'S REPRESENTATIVE is satisfied that the work has been completed and the CONTRACTOR'S other obligations under the Contract Documents have been fulfilled, the OWNER'S REPRESENTATIVE will recommend payment. Thereupon the OWNER'S REPRESENTATIVE will give written notice to the CITY and the CONTRACTOR that the work is acceptable subject to the provisions of Article 14.9.

25.7 Payment of Retainage without Final Completion:

If through no fault of the CONTRACTOR, final completion of the work is significantly delayed and if the OWNER'S REPRESENTATIVE so confirms, the CITY shall, upon receipt of the CONTRACTOR'S final Application for Payment and recommendation of the OWNER'S REPRESENTATIVE, and without terminating the Agreement, make payment of the balance due for the portion of the work fully completed and accepted. If the remaining balance to be held by the

CITY for work not fully completed or corrected is less than the retainage stipulated in the Agreement and if Bonds have been furnished as required in Article 13.2, the written consent of the Surety to the payment of the balance due for that portion of the work fully completed and accepted shall be submitted by the CONTRACTOR to the OWNER'S REPRESENTATIVE with the application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

25.8 CONTRACTOR's Continuing Obligation:

The CONTRACTOR'S obligation to perform and complete the work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the OWNER'S REPRESENTATIVE, nor the issuance of a Certificate of Substantial Completion, nor any payment by the CITY to the CONTRACTOR under the Contract Documents, nor any use or occupancy of the work or any part thereof by the CITY nor any act of acceptance by the CITY nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by the OWNER'S REPRESENTATIVE pursuant to Article 25.6, nor any correction of defective work by the CITY will constitute an acceptance of work not in accordance with the Contract Documents or a release of the CONTRACTOR'S obligation to perform the work in accordance with the Contract Documents (except as provided in Article 25.9).

25.9 Waiver of Claims:

The making and acceptance of final payment will constitute:

- A. A waiver of all claims by the CITY against the CONTRACTOR, except claims arising from unsettled Liens, from defective work appearing after final inspection pursuant to Article 25.4 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by the CITY of any rights in respect of the CONTRACTOR'S continuing obligations under the Contract Documents.
- B. A waiver of all claims by the CONTRACTOR against the CITY other than those previously made in writing and still unsettled.

ARTICLE 26 - SUSPENSION OF WORK AND TERMINATION

26.1 City May Suspend Work:

The CITY may, at any time and without cause, suspend the work or any portion thereof for a period of not more than 90 days by notice in writing to the CONTRACTOR which will fix the date on which work will be resumed. The CONTRACTOR shall resume the work on the date so fixed. The CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension.

26.2 City May Terminate:

- A. Upon the occurrence of any one or more of the following events:
 - 1. If the CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if the CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency.

2. If a petition is filed against the CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against the CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency.
 3. If the CONTRACTOR makes a general assignment for the benefit of creditors.
 4. If a trustee, receiver, custodian or agent of the CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of the CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of the CONTRACTOR'S creditors.
 5. If the CONTRACTOR admits in writing an inability to pay its debts generally as they become due.
 6. If the CONTRACTOR persistently fails to perform the work in accordance with the Contract Documents (including, but not limited to, failure to supply a qualified superintendent or sufficient skilled workers or suitable materials or equipment or failure to adhere to the approved progress schedule revised from time to time).
 7. If the CONTRACTOR disregards laws or regulations of any public body having jurisdiction.
 8. If the CONTRACTOR disregards the authority of the OWNER'S REPRESENTATIVE.
 9. If the CONTRACTOR otherwise violates in any material or substantial way any provisions of the Contract Documents or the exhibits thereto.
- B. The CITY may, after giving the CONTRACTOR and the Surety seven days' written notice and to the extent permitted by laws and regulations, terminate the services of the CONTRACTOR, exclude the CONTRACTOR from the site and take possession of the work and of all the CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by the CONTRACTOR (without liability to the CONTRACTOR for trespass or conversion), incorporate in the work all materials and equipment stored at the site or for which the CITY has paid the CONTRACTOR but which are stored elsewhere, and finish the work as the CITY may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the work (including but not limited to fees and charges of OWNER'S Representatives, consultant, architects, engineers, attorneys and other professionals, and court and arbitration costs) such excess will be paid to the CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR, or CONTRACTOR'S Surety, shall pay the difference to the CITY.
- C. Where the CONTRACTOR'S services have been so terminated by the CITY, the CITY alone shall determine the scope and description of the work to be completed and the method and schedule for completing it.
- D. Where the CONTRACTOR'S services have been so terminated by the CITY the termination will not affect any rights or remedies of the CITY against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due the CONTRACTOR by the CITY will not release the CONTRACTOR from liability.

- E. Upon seven days' written notice to the CONTRACTOR the CITY may, without cause, for convenience, and without prejudice to any other right or remedy, elect to abandon the work and terminate the Contract. In such case the CONTRACTOR shall be paid for all work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of OWNER'S REPRESENTATIVE, architects, attorneys and other professionals and court and arbitration costs).

26.3 CONTRACTOR May Stop Work or Terminate:

If through no act or fault of the CONTRACTOR, the work is suspended for a period of more than 90 days by the CITY or under an order of court or other public authority, or the CITY fails for 60 days to pay the CONTRACTOR any sum finally determined to be due, then the CONTRACTOR may, upon seven days' written notice to the CITY terminate the Contract and recover from the CITY payment for all work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Contract, if the CITY has failed to make any payment as aforesaid, the CONTRACTOR may upon seven days' written notice to the CITY stop the work until payment of all amounts then due are paid. The provisions of this paragraph shall not relieve the CONTRACTOR of the obligations under Paragraph 15.25 to carry on the work in accordance with the progress schedule and without delay during disputes and disagreements with the CITY.

26.4 Definition:

For purpose of Article 26, CITY means the City Manager or his designee.



**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

**DIVISION 1 – GENERAL REQUIREMENTS
00800 SUPPLEMENTARY CONDITIONS INDEX**

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**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

SUPPLEMENTARY CONDITIONS

PART – 1 - GENERAL

1.01 SCOPE OF WORK

A. The intent of this contract is to provide for:

1) Demolition of an existing 5 feet high concrete slat wall including rod iron portion of the wall and any below ground foundations as part of the existing wall or any prior walls within the easement area along the rear property lines of 2052-2658 Fletcher Street.

2) The construction of a new privacy wall along Pembroke Road between South 25th Avenue and South 27th Avenue with two options.

Option 1 – Precast concrete wall

Option 2 – Concrete masonry unit/block wall

3) Scope includes all of the wall's columns and accessories, wall's stucco finish, wall's painting, wall's neighborhood identification signage and restoration to private properties.

This bid is requesting that all bidders to submit bids for one or both of the options.

B. All labor, materials, equipment and services necessary to complete the work shall be provided. The bidder is advised to visit the job sites be familiarize with the existing conditions and/or any difficulties, which may arise.

C. Questions prior to Bid Opening shall be directed to Clarissa Ip, P.E. or Frank Leon, P.E. City of Hollywood Engineering Division, (954) 921-3900.

D. The Davis Bacon Act relating to the employment of skilled or unskilled workers prevails and wage rates reflected in the General Decision FL 130262 or any succeeding General Decision must be followed.

1.02 TIME AND WORK RESTRAINTS

A. Contractor's Use of Premises: During construction, contractor's use of premises is limited only by Owner's right to perform work or employ other contractors on portions of Project and as follows:

1. Contractor to coordinate Work Plan and hours of operations with Owner and must obtain Owner's approval prior to commencing Work.

- B. The estimated project schedule is provided below for informational purposes only:

Notice to Bidders:	Thursday, December 11, 2014
Pre-Bid Meeting:	Wednesday, December 17, 2014 at 9:00 am City Hall*, Room 308
Bid Opening:	Tuesday, December 30, 2014 at 9:00 am City Hall*, Room 308
Contract Awarded by City Commission Notice of Award:	Wednesday, January 21, 2015
Contract Execution/ Notice to Proceed:	Monday, February 9, 2015
Substantial Completion:	Monday, March 30, 2015
Contractual Completion:	Monday, April 13, 2015

*City Hall is located at 2600 Hollywood Boulevard, Hollywood, Florida 33022.

- C. The date of Substantial Completion of the project is the date when the construction is sufficiently completed in accordance with the contract documents, as modified by any change orders agreed to by the parties, so that the City of Hollywood can occupy or utilize the project for the use and purpose for which it was intended.

1.03 INSURANCE REQUIREMENTS:

All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida and satisfactory to the Owner. All companies shall have a Florida resident agent and be rated a minimum A-VI, as per A.M. Best Company's Key Rating Guide, latest edition.

The CONTRACTOR shall furnish certificates of insurance to the Risk Management Director for review and approval prior to the execution of this agreement. The Certificates shall clearly indicate that the CONTRACTOR has obtained insurance of the type, amount and classification required by these provisions, in excess of any pending claims at the time of contract award to the CONTRACTOR. No failure to renew, material change or cancellation of, the insurance shall be effective without a 30-day prior written notice to and approval by the Owner. The insurance required by Article 13 of the General Conditions shall be as follows:

- A. Comprehensive General Liability:

Prior to the commencement of work governed by this contract, the CONTRACTOR shall obtain General Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum:

1. Premises Operations
2. Products and Completed Operations
3. Blanket Contractual Liability
4. Personal Injury Liability
5. Expanded Definition of Property Damage

The minimum limits acceptable shall be:

\$500,000.00 Combined Single Limit (CSL)

If split limits are provided, the minimum limits acceptable shall be:

\$250,000.00 per Person
\$500,000.00 per Occurrence
\$50,000.00 Property Damage

An Occurrence Form policy is preferred. If coverage is provided on a Claims Made policy, its provisions should include coverage for claims filed on or after the effective date of this contract. In addition, the period for which claims may be reported should extend for a minimum of twelve (12) months following the acceptance of work by the CITY. The CITY of Hollywood shall be named as Additional Insured on all policies issued to satisfy the above requirements.

B. Comprehensive Automobile Liability:

Recognizing that the work governed by this contract requires the use of vehicles, the CONTRACTOR, prior to the commencement of work, shall obtain Vehicle Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum, liability coverage for:

Owned, Non-Owned, and Hired Vehicles

The minimum limits acceptable shall be:

\$300,000.00 Combined Single Limit (CSL)

If split limits are provided, the minimum limits acceptable shall be:

\$100,000.00 per Person
\$300,000.00 per Occurrence
\$50,000.00 Property Damage

The CITY of Hollywood shall be named as Additional Insured on all policies issued to satisfy the above requirements.

C. Worker's Compensation Insurance:

Prior to the commencement of work governed by this contract, the CONTRACTOR shall obtain Workers' Compensation Insurance with limits sufficient to respond to the applicable state statutes.

In addition, the CONTRACTOR shall obtain Employers' Liability Insurance with limits of not less than:

\$500,000.00 Bodily Injury by Accident
\$500,000.00 Bodily Injury by Disease, policy limits
\$500,000.00 Bodily Injury by Disease, each employee

Coverage shall be maintained throughout the entire term of the contract.

Coverage shall be provided by a company or companies authorized to transact business in the state of Florida and the company or companies must maintain a minimum rating of A-VI, as assigned by the A.M. Best Company.

If the CONTRACTOR has been approved by the Florida's Department of Labor, as an authorized self-insurer, the CITY shall recognize and honor the CONTRACTOR's status. The CONTRACTOR may be required to submit a Letter of Authorization issued by the Department of Labor and a Certificate of Insurance, providing details on the CONTRACTOR's Excess Insurance Program.

If the CONTRACTOR participates in a self-insurance fund, a Certificate of Insurance will be required. In addition, the CONTRACTOR may be required to submit updated financial statements from the fund upon request from the CITY.

- D. No Subcontractor shall commence work until a similar such insurance has been obtained and approved by the CITY. Any SubContractor used by the contractor shall supply such similar insurance required of the contractor. Such certificates shall name the City as Additional Insured on the general liability and auto liability policies.

1.04 REFERENCED STANDARDS

The following standards may be referenced in the specifications and/or on the drawings for this project. It is the responsibility of the CONTRACTOR to verify in the documents exactly which standards are applicable to this Project.

- | | | | | | | |
|----|----|--------|-----|-------|-----|------|
| A. | 1. | AASHTO | 6. | BCTED | 11. | OSHA |
| | 2. | ANSI | 7. | FDOT | 12. | SFBC |
| | 3. | ASCE | 8. | NEC | 13. | UL |
| | 4. | ASTM | 9. | NEMA | | |
| | 5. | AWPA | 10. | NFPA | | |

1.05 REQUIRED SHOP DRAWINGS

- A. Submit a preliminary schedule of shop drawing submittals as required in Paragraph 4.2 of the General Conditions and as required indicated in the drawings and specifications. The following shop drawings, illustrations, and samples are required.

<u>Section</u>	<u>Item</u>
03100	Concrete Formwork
03290	Joints in Concrete
03300	Cast in Place & Precast Concrete
03350	Concrete Finishes
03370	Concrete Curing
03400	Precast Concrete
04060	Mortar
04200	Unit Masonry
09220	Portland Cement Plaster and Stucco
09900	Painting

- B. The CONTRACTOR shall submit five (5) copies minimum of each shop drawings to enable the PROJECT MANAGER to retain three (3) copies. Resubmissions of shop designs shall be made in the same quantity until final approval is obtained.

1.06 REQUIRED PERMITS AND NOTIFICATIONS

- A. The CONTRACTOR shall comply with all state, county and local laws, regulations and ordinances applicable to this work, including all permit provisions and required testing.

- B. The CONTRACTOR and Subcontractors must obtain the standard Building Department Permits as may be required by the City of Hollywood Building Department for any work covered under this Contract. The CONTRACTOR or Subcontractors shall be responsible for obtaining all inspections required under Section 305 of the latest Broward Edition of the South Florida Building Code.
- C. The City of Hollywood will pay all permit fees including any Federal, State and County surcharges applicable at the time that the permit is issued. In instances where the City of Hollywood has obtained permits from Broward County Traffic Engineering Division (BCTED), Broward County Department of Planning & Environmental Protection (DPEP) and/or South Florida Water Management District (SFWMD) the CONTRACTOR shall comply with permit conditions.
- D. The CONTRACTOR is required to notify all utility companies and call Sunshine at 1-800-432-4770, a minimum of forty-eight (48) hours prior to any excavation for location of existing underground facilities.
- E. The CONTRACTOR is required to notify the Police Traffic Sergeant at 967-4572 when the normal flow of traffic on any street will be disrupted in any manner.
- F. The CONTRACTOR is required to notify the Public Works Department at (954) 967-4526 for location of all electrical facilities on City properties.

1.07 TEMPORARY SERVICES AND FACILITIES

- A. The CONTRACTOR shall make all arrangements for and furnish at his expense, all electricity, water, sanitary facilities and Services necessary for construction purposes.
- B. If water is required, it is the CONTRACTOR's responsibility to arrange through the City Water Department for a two (2") inch water meter. A deposit to be paid by the CONTRACTOR is required for meter rental and all water shall be purchased at the prevailing rate.

1.08 LINES AND GRADES

- A. The CONTRACTOR shall be responsible for and shall furnish all survey work required to locate and install all proposed facilities. The information on existing survey reference points will be provided to the CONTRACTOR by the PROJECT MANAGER. The CONTRACTOR shall provide as built drawings showing the exact location of all items installed including underground, upon completion of the work and prior to final payment.
- B. All work under this Contract shall be constructed in accordance with the lines and grades shown on the Contract Drawings or as directed by the PROJECT MANAGER. Elevations of existing ground, structures and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the PROJECT MANAGER for interpretation or correction.
- C. All survey work for construction control purposes shall be made by the CONTRACTOR at his expense.
- D. The CONTRACTOR shall establish all base lines for the location of the principal component parts of the work together with bench marks and batter boards adjacent to the work. Based upon the information provided by the Contract Drawings, the CONTRACTOR shall develop and make all detail surveys necessary for construction. The CITY will furnish information and location of existing bench marks.

- E. The CONTRACTOR shall have the responsibility to carefully preserve the bench marks, reference points and stakes. In case of destruction thereof by the CONTRACTOR or resulting from his/her negligence, he/she shall be held liable for any expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the necessary loss or disturbance of such bench marks, reference points and stakes.
- F. Existing or new control points, property markers, and monuments that will be established or are destroyed during the normal causes of construction shall be re-established by the CONTRACTOR; and all reference ties recorded therefore shall be furnished to the PROJECT MANAGER. All computations necessary to establish the exact position of the work shall be made and preserved by the CONTRACTOR.
- G. The PROJECT MANAGER may check all or any portion of the work and the CONTRACTOR shall afford all necessary assistance to the PROJECT MANAGER in carrying out such checks. Any necessary corrections to the work shall be performed immediately by the CONTRACTOR of any responsibilities for the accuracy or completeness of this work.

1.09 LIQUIDATED DAMAGES

- A. In as much as the actual damages sustained by the CITY as a result of the CONTRACTOR's failure to timely complete his obligations under the contract cannot be readily ascertained, the CONTRACTOR shall apply to the CITY, as damages for non-completion of the work within the time stipulated for its completion, according to the following tables, which sums are hereby agreed upon, fixed and determined by the parties hereto as liquidated damages that the CITY will suffer by reason of such default and shall not be considered a penalty.

Liquidated Damages: For each calendar day of delay that the project is unavailable for Beneficial Occupancy:

Projects up to	\$99,999	\$200.00 per calendar day
Projects from	\$100,000 to \$299,999	\$300.00 per calendar day
Projects from	\$300,000 to \$599,999	\$400.00 per calendar day
Projects from	\$600,000 to \$999,999	\$500.00 per calendar day
Projects from	\$1,000,000	\$600.00 per calendar day

For each consecutive calendar day that the correction for all items on the punch list remain incomplete after the date established for Final Completion, the Contractor and his sureties shall be liable for and shall pay to the Owner stipulated as fixed, agreed and additional liquidated damages in accordance with the following schedule.

Projects up to	\$99,999	\$100.00 per calendar day
Projects from	\$100,000 to \$299,999	\$150.00 per calendar day
Projects from	\$300,000 to \$599,999	\$200.00 per calendar day
Projects from	\$600,000 to \$999,999	\$250.00 per calendar day
Projects from	\$1,000,000	\$300.00 per calendar day

- B. The CITY is hereby authorized to deduct the sum described in Section 1.09 A. from the monies which may be due or become due to the CONTRACTOR for the work under this contract.
- C. Correction of work not complying with plans or specifications shall not be considered as grounds for a time extension

1.10 PROJECT CLOSEOUT

- A. The CONTRACTOR, prior to requesting final payment shall obtain and submit the following items to the PROJECT MANAGER:
 - 1. Written Guarantees
 - 2. Four (4) sets of record drawings/documents (if applicable) signed and sealed by a professional surveyor showing exact locations of all items of work installed under this contract. In addition, record drawings shall be submitted on an AutoCad (version 14) electronic disk. The Contractor shall be held fully responsible for costs incurred by the CITY due to erroneous information supplied on the record drawings submitted. Record drawings shall be provided for: paving, drainage, water, sewer, electrical, irrigation, landscaping, and all other improvements.
 - 3. Release from all parties who are entitled to claims again the subject project, property or improvement, pursuant to the provisions of law.
 - 4. A Certificate of Occupancy or Certificate of Completion (if applicable) as issued by the City of Hollywood Building Department showing that all Building Department inspections have been satisfactorily performed
- B. The CONTRACTOR shall comply with the maintenance and guarantee requirements obtained in Article 19 of the General Conditions.
- C. The Contractor shall make all repairs and replacements promptly upon the receipt of a written order from the CITY. If the CONTRACTOR fails to make such repairs or replacements promptly, the CITY reserves the right to do the work and the CONTRACTOR and his surety shall be liable to the CITY for the cost thereof.

1.11 PROGRESS SCHEDULE

- A. In accordance with Article 4.2 of the General Conditions, the CONTRACTOR shall, prior to commencing work, submit to the PROJECT MANAGER for approval a detailed Sequence of Construction showing the sequence in which the various work elements will be performed and showing conformance to the restrictions and requirements below.
- B. The CONTRACTOR must complete all driveway restoration work, apron restoration work and sodding within two (2) weeks after the concrete for the respective sidewalk has been placed.
- C. The progress schedule shall be updated and submitted every month during the course of the project. The pay request shall not be considered complete until an updated schedule is submitted. The Engineer reserves the right to withhold payment from a pay request until an updated Progress Schedule is submitted and approved.

1.12 SCHEDULE OF VALUES

- A. In accordance with Article 4.2 of the General Conditions the CONTRACTOR shall submit, with the estimated construction progress schedule, on suitable forms, a detailed estimate giving a complete breakdown of the Contract Price. The detailed estimate shall include the price for material, labor and other costs for various units of work in sufficient detail to correspondence with the contemplated construction operations. The schedule shall include all subcontracts and major items of equipment included in the Contract. The detailed estimate will be used only for determining the basis of monthly payment and will not be considered as establishing a basis for additions to or deductions from the Contract Price.

1.13 PROJECT AREA SAFETY

- A. The CONTRACTOR shall give special attention to the protection and welfare of the Public and City of Hollywood personnel who will be utilizing the sidewalk. Any hazardous areas shall be adequately marked and barricaded.

1.14 PREVAILING RATE OF WAGES AND FRINGE BENEFITS

- A. The CONTRACTOR shall be responsible for ensuring payment of the rate of wages and fringe benefits, or cash equivalent, for all laborers, mechanics and apprentices employed by them or their SUBCONTRACTORS on the work covered by this contract which shall be not less than the prevailing rate of wages and fringe benefits payment or cash equivalent for similar skills or classifications of work as established by the General Wage Decision by the United States Department of Labor for Broward County, Florida that is in effect prior to the date the CITY issued the invitation for bids for this project. If the General Wage Decision fails to provide for a fringe benefit rate for any worker classification, then the fringe benefit rate applicable to such worker classification shall be the fringe benefit rate that has a basic wage rate closest in dollar amount to the work classification for which no fringe benefit rate has been provided.
- B. Upon commencement of work, the CONTRACTOR and all of their SUB-CONTRACTORS shall post a notice in a prominent place at the work site stating the requirements of this section.
- C. If any questions should arise concerning the applications of this Section, which are not specifically addressed, the CITY may, but is not required to, rely on rules, regulations, practices, administrative rulings and court decisions governing applications of the Davis-Bacon Act.
- D. CONTRACTOR and SUBCONTRACTORS shall submit to the CITY on a regular basis, but not less than monthly, payroll sheets, which have been certified under oath by CONTRACTOR and/or SUBCONTRACTORS as to their accuracy and compliance with the provisions of this Section. The certified payroll sheets shall contain the following: name and address of each employee; his/her current classification; rate of pay (including rates of contributions for, or costs assumed to provide, fringe benefits); daily and weekly number of hours worked; deductions made; and actual wages paid. Such records shall be maintained by the CONTRACTOR and his/her SUBCONTRACTORS for a period of at least three (3) years following completion of the work.
- E. The CITY may withhold, or cause to be withheld from the CONTRACTOR, so much of any requisitioned payment as may be considered necessary to pay laborers, mechanics and apprentices the full amount of wages required by this section. The CITY, or its designee, may enter on the job site and conduct such inquiries of the CONTRACTOR'S workers and his/her SUBCONTRACTOR'S workers to determine whether this section is being complied with. If the CONTRACTOR or his/her SUBCONTRACTOR fails to pay any laborers, mechanics or apprentices employed or working on the job site all or part of the wages required by this section, then the CITY may, after written notice to the CONTRACTOR, take such action as may be necessary to cause suspension of any further payments or advances until such violations have been corrected. If the violations are not corrected, the CITY may terminate the CONTRACTOR'S right to proceed with the work or such part of the work for which there has been a failure to pay the required wages and take such steps as are necessary to complete the work, whereupon the CONTRACTOR and its sureties shall be liable to the CITY for all excess costs incurred by the CITY.
- F. The CONTRACTOR shall insert in any subcontracts such language as is necessary to require all of their SUBCONTRACTORS to comply with the requirements of this section.

The CONTRACTOR shall be responsible for noncompliance by any of their SUBCONTRACTORS. This section shall be deemed part of any contract entered into between the CONTRACTOR and any of their SUBCONTRACTORS.

1. The threshold dollar amount for construction contracts subject to prevailing wage and fringe benefit payments, pursuant to Section 38.52 of "Code of Ordinances", is \$500,000.00 (Five-hundred-thousand Dollars).
2. CONTRACTOR and SUBCONTRACTORS shall comply with Section 38.52 of the Code of Ordinances titled "Prevailing Rate of Wages and Fringe Benefits on City Construction Contracts" for contracts in the amount of \$500,000.00 and over.

1.15 BASIS FOR PAYMENT/QUANTITIES IN THE PROPOSAL:

- A. Quantities listed in the proposal are approximate and subject to variance. Such quantities are to be used by the OWNER for comparison only. Payment for items with unit prices shall be for the measured amount of such items incorporated by the CONTRACTOR in the completed work and accepted by the PROJECT MANAGER.
- B. The bidder shall not plead misunderstanding or deception because such listed quantities do not correspond with actual quantities. It is understood that the quantities may be increased or decreased in accordance with provisions of the General Conditions.

1.16 CONTRACT EXTENSION:

- A. The successful bidder shall be given the option of accepting a one year extension of the Contract if the City finds it to its benefit to offer one. Extension of this Contract would require that work be performed at the unit prices shown in the Proposal, or at mutually agreed upon adjustments in the unit prices. The City may be willing to allow cost adjustments to the contractor's unit rates, as outlined below, if price increases occur in the industry. Extension of this Contract would be subject to the appropriation of funds by the City for the work.
- B. Costs for any extension year shall be subject to an adjustment only if increases occur in the industry. However, unless very unusual and significant changes have occurred in the industry, such increases shall not exceed 5% per year or, whichever is less, the latest yearly percentage increase in the All Urban Consumers Price Index (CPU-U) (National) as published by the Bureau of Labor Statistics, U.S. Department of Labor. The yearly increase, or decrease in the CPI shall be the latest index published and available ninety (90) days prior to the end of the contract year then in effect compared to the index for the same month one year prior. Any requested cost increase shall be fully documented and submitted to the City at least ninety (90) days prior to the contract anniversary date. Any approved cost adjustments shall become effective upon the anniversary date of the contract. In the event the CPI or industry costs decline, the City shall have the right to receive from the Contractor a reasonable reduction in costs that reflect such cost changes in the industry.

1.17 PROJECT COORDINATION:

- A. The CONTRACTOR or a representative shall attend project coordination meetings as deemed necessary by the Project Manager.

1.18 PRE-CONSTRUCTION PHOTOGRAPHIC RECORD:

- A. For certain projects, and at certain locations, a pre-construction photographic record may be needed. The CONTRACTOR shall verify the applicability of this requirement with the PROJECT MANAGER.

1.19 SITE CONDITIONS AND SUBSURFACE INVESTIGATION:

- A. The CONTRACTOR shall be responsible for having determined to his satisfaction, prior to the submission of his bid, the nature of the work, subsurface soil conditions, the character and quality of the substrate, the types and quantity of materials to be encountered, the nature of the ground water conditions, the character of equipment and facilities needed preliminary to and during the execution of the work, the general and local conditions and all other matters which can in any way affect the work under this contract. The prices established for the work to be done will reflect all costs pertaining to the work. Any claims for extras based on substrate or ground water table conditions will not be allowed.
- B. If applicable, soil boring logs will be provided in the Appendix and are for information only. The CITY makes no guarantees as to their accuracy and is not responsible for assumptions made by the CONTRACTOR based upon the information.

1.20 CONTRACTORS RESPONSIBILITY FOR MATERIAL AND STORAGE:

- A. The CONTRACTOR shall be responsible for all materials furnished by him. All such material which is defective in manufacture or has been damaged in transit or has been damaged after delivery shall be replaced by the CONTRACTOR at his expense.
- B. The CONTRACTOR shall be responsible for the safe storage of material furnished to or by him, and accepted by him, until it has been incorporated in the completed project. The CONTRACTOR shall be responsible for the safe storage of material furnished to or by him, and accepted by him, until it has been incorporated in the completed project.
- C. The CONTRACTOR shall be responsible for the securing of any facilities that may be required for material and equipment storage on the project.

1.21 DUST CONTROL:

- A. CONTRACTOR shall provide to the PROJECT MANAGER for approval, a method of controlling and preventing the spread of dust to occupied premises and vehicles parked along the work area.
- B. The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other traffic. Any earth or other excavated materials spilled from trucks shall be removed immediately by the CONTRACTOR and the streets cleaned to the satisfaction of the ENGINEER. The walks, roadways, temporary pavement, etc. shall be swept clean at the end of each day.

1.22 GUARANTEES:

- A. Written guarantees shown below shall be provided to the CITY. The guarantee period shall begin the day the project is accepted as complete by the PROJECT MANAGER. Final payment will not be released until all the guarantees have been received in writing, properly signed and executed.
 - 1. CONTRACTOR'S GUARANTEE:
 - a. The CONTRACTOR shall furnish a written one (1) year guarantee on all labor and materials furnished by him except stated otherwise. No costs will be borne by the CITY for correcting defective workmanship or materials.
 - b. The landscape guarantee shall be for a minimum of 180 days.

1.23 SUBSTITUTIONS - GENERAL:

- A. After the execution of the Contract, requests made by the CONTRACTOR for substitution of equipment and/or material of makes and/or types other than those specified in the Contract will be considered for two reasons only:
1. That the equipment and/or material proposed for substitution is **superior** in construction and/or efficiency to that specified in the Contract.
 2. That the equipment and/or material proposed for substitution is **equal** in construction and/or efficiency to that specified in the Contract.

In either case, it will be assumed that the cost to the CONTRACTOR of the equipment and/or material proposed to be substituted is less than the equipment and/or material specified in the Contract and, if the substitution is approved, the Contract price shall be reduced a corresponding amount.

1.24 MAINTENANCE OF TRAFFIC:

- A. In projects where it is applicable, The CONTRACTOR shall submit a maintenance of traffic plan for approval by the CITY TRAFFIC ENGINEER, TRAFFIC SERGEANT AND FIRE MARSHALL prior to commencing work.
- B. The CONTRACTOR shall control their operations and those of their SUBCONTRACTORS and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration. The CONTRACTOR shall keep roads, streets, or highways open to all traffic and shall provide such maintenance as may be required to maintain specified traffic. The CONTRACTOR shall furnish, erect and maintain barricades, warning signs, flagmen, and other traffic control devices in reasonable conformity with the manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office), unless otherwise specified herein. The CONTRACTOR shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways.
- C. Beginning date of CONTRACTOR's responsibility: the CONTRACTOR's responsibility for maintenance of traffic shall begin on the day they starts work on the project or on the first day contract time is charged, whichever is earlier. Their responsibility at this date is to notify the PROJECT MANAGER of the dates when traffic will be affected and where it will be affected and the steps they will take to maintain traffic safety.
- D. Sections not requiring traffic maintenance: In general the CONTRACTOR will not be required to maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. The CONTRACTOR, however, shall not obstruct nor create a hazard to any traffic during the prosecution of the work and shall be responsible for repair of any damage to existing pavement or facilities caused by their operation.
- E. No waiver of liability: The CONTRACTOR shall conduct their operations in such a manner that no undue hazard will result due to the requirements of this section, and the procedures and policies described therein shall in no way act as a waiver of any of the terms of the liability of the CONTRACTOR or their surety.

1.25 WORK HOURS AND OVERTIME WORK:

- A. City noise ordinances prohibit any work prior to 7:00 a.m. and after 6:00 p.m., Monday through Friday. Work is allowed 8:00 a.m. to 6:00 p.m. on Saturdays. No work is allowed on Sundays.
- B. CONTRACTOR shall provide weekly progress schedule indicating working hours, and days subject to PROJECT MANAGER'S approval.
- C. CONTRACTOR shall be responsible for reimbursement of inspector's wages when inspection is required for over 40 hours per week, at a rate of \$50.00 per hour.
- D. Overtime inspection fees will not be deducted from moneys due the CONTRACTOR. Payment covering all overtime reimbursements must accompany monthly pay request.

1.26 HURRICANE PREPAREDNESS:

- A. As the schedule for this project may coincide, in part, with the recognized South Florida hurricane season, the CONTRACTOR's attention is drawn to the possibility of hurricane conditions, or severe storm conditions, occurring at the site during the course of Contract work.
- B. When applicable, the CONTRACTOR shall submit to the PROJECT MANAGER and OWNER a Hurricane Preparedness Plan. The plan should outline the necessary measures which the CONTRACTOR proposes to perform at no additional cost to the OWNER in case of hurricane warning.
- C. In the event of inclement weather, or whenever the PROJECT MANAGER shall direct, the CONTRACTOR shall, and will cause sub-Contractors to protect carefully the work and materials against damage or injury by reasons of failure on the part of the CONTRACTOR or any Sub-Contractor to so protect the work. Such work and materials so damaged shall be removed and replaced at the expense of the CONTRACTOR.

Hurricane Watch: Upon designation of a hurricane watch, CONTRACTORS shall be responsible for storing all loose supplies and equipment on the job site that may pose a danger. The CONTRACTOR shall also cooperate with City Personnel in protecting other structures at the site.

Hurricane Warning: No mobile "temporary facility" under the control of the City of Hollywood, or on City property shall be staffed during a hurricane warning. CONTRACTOR facilities meeting these criteria shall comply.

- D. The CONTRACTOR is advised to take all necessary precautions to protect his equipment by moving it to higher ground if in an area subject to flooding. Known areas of Hollywood that would be subject to flooding from storm tides include:

Hollywood Blvd.	North Lake Area	South Lake Area
A1A	Sheridan Street	Dania Beach Blvd.
US Highway 1	46 th Avenue	Hallandale Bch Blvd.

1.27 MAINTENANCE OF ACCESS:

- A. CONTRACTOR shall maintain access to all private property at all times during construction.

- B. CONTRACTOR shall provide alternate means of access where it is impractical to use the primary means of access during construction.
- C. The CONTRACTOR must not deny access to any driveway for any period of time that will exceed 24 hours.
- D. Any potential access interruption shall be coordinated between the CONTRACTOR and property owner.

1.28 CONSTRUCTION PHASING & COORDINATION WITH THE SCHOOL

- A. Coordination with the adjacent school is required.
- B. CONTRACTOR shall provide notification of any construction activities to the School's principal and the School Board verbally and via email 48 hours in advance.
- C. Phasing plans provided shall be adhered to.
- D. Work shall not interfere with school activities and shall be done while school is not in session.

END OF SECTION

DIVISION 1**GENERAL****SECTION 01568****TEMPORARY EROSION AND SEDIMENTATION CONTROL****PART 1 - GENERAL****1.01 DESCRIPTION****A. Scope of Work:**

1. The Work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as required by applicable rules and regulations and permit conditions.
2. Temporary erosion controls include, but are not limited to, grassing, mulching, netting, and providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits.
2. Temporary sedimentation controls include, but are not limited to; silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits.
3. Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

B. Related Work Described Elsewhere:

1. Section 02950-Top Soil and Sodding
2. Section 02060-Demolition and Site Clearing
3. Section 02200-Excavation, Grading, Backfill and Compaction

PART 2 - PRODUCTS**2.01 EROSION CONTROL**

- A. Sodding is specified in Section 02950.
- B. Netting shall be fabricated of material acceptable to the Owner.

2.02 SEDIMENTATION CONTROL

- A. Bales shall be clean, seed-free cereal hay type.
- B. Netting shall be fabricated of material acceptable to the Owner.
- C. Filter stone shall be crushed stone which conforms to Florida Department of Transportation (FDOT) Specifications.
- D. Concrete block shall be hollow, non-load bearing type.
- E. Concrete shall be exterior grade not less than 1-inch thick.

PART 3 - EXECUTION**3.01 EROSION CONTROL****A. Minimum procedures for grassing are:**

1. Scarify slopes to a depth of not less than 6 inches and remove large clods, rock, stumps, roots larger than 1/2 inch in diameter and debris.
2. Sow seed within 24 hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4 inch and 1-1/2 inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.02 SEDIMENTATION CONTROL

- A. Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and working drawings. Hay bales which deteriorate and filter stone which is dislodged shall be replaced.

3.03 PERFORMANCE

- A. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the State of Florida, the Owner or Engineer, the Contractor shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

END OF SECTION

DIVISION 2**SITEWORK****SECTION 02060****DEMOLITION & SITE CLEARING****PART 1 - GENERAL****1.01 WORK INCLUDED:**

- A. The work covered by this section of the specifications consists of furnishing all materials, labor, tools, equipment, plant, appliances and services necessary to complete all demolition, site clearing, removals and relocation work required on the Drawings and specified herein in order to complete the project as designed.
- B. The CONTRACTOR shall examine the various Drawings, visit the site and determine for himself the extent of work affected therein and all conditions under which he is required to perform the various operations.
- C. The work shall include but not limited to the removal of the existing fences, existing walls, existing trees, concrete, vegetation debris and other items as indicated on plan or as may be necessary within the five (5) foot wall easement area for the installation of the new precast or concrete masonry block privacy wall and its related columns, foundations and footings.
- D. The work shall also include the trimming of existing trees, shrubs etc. in areas where they may interfere with either the removal of the existing wall or with the installation of the new privacy wall.

1.02 RELATED WORK:

- A. Section 02220-Excavations, Backfill and Compaction
- B. Section 02950-Top Soil and Sodding
- C. Section 03300-Cast In Place & Precast Concrete

1.03 PROTECTION:

- A. Utility Services: CONTRACTOR shall notify utility companies or local authorities furnishing gas, water, electrical, telephone, cable or sewer service to remove, disconnect, cap or plug their services or equipment owned by them as necessary in areas where removals or new construction is to take place.
- B. Underground Utilities Locates: CONTRACTOR is responsible to coordinate for utility locates and any damages to existing underground utilities.
- C. Care: CONTRACTOR is to use extreme caution when working in or around areas of existing underground utilities.
- D. Provide adequate protection for the property owners to insure that no damage to existing structures will occur. Protection shall include control of dust during demolition work.

- E. Provide adequate protection for the property owners to insure that no damage to existing structures and privately owned items will occur.
- F. Protection shall include control of dust during demolition work.
- G. Provide suitable barricades and lighting to protect the public prior to closure of any sidewalks, ramps etc. Barricades and lights shall be removed as soon as possible after closure.

PART 2 - PRODUCTS (N/A)

3.01 EXECUTION:

3.01 PREPARATION:

- A. Salvage: Any items that are determined to be of no value to the CITY after removal and CITY'S inspection shall be removed from the site by the CONTRACTOR at no extra cost to the CITY.

3.02 PERFORMANCE:

- A. General: Demolition shall result in the complete removal and disposal of existing items and appurtenances from the site as indicated on Drawings or mentioned in these Specifications and the cleanup after completion of the demolition and removal work.

B. Fence/Wall Removal:

1. The existing wall shall be removed at all locations where the new privacy wall will be installed.
2. All existing wall foundations and any foundation from prior walls shall be removed and disposed of.
3. Existing fences and walls installed up to the existing wall to be replaced shall be removed and relocated or reconstructed up to the new privacy wall.

C. Trees, Shrubs and Tree Stumps

1. Remove all trees, tree stumps, tree roots and shrubs that will interfere with either the removal of the existing walls or fences with the installation of the new privacy wall.

D. Depressions

1. All depressions excavated below the surface of the existing ground as a result of the removal of roots, fence foundations etc. shall be filled with select backfill meeting the requirements of Section 02220 "Excavation, Backfill and Compaction" and compacted to a density conforming to the surrounding ground.

E. Miscellaneous Clearing and Grubbing

1. Remove all timber, brush, grass, weeds, rubbish and all other objectionable obstructions that will interfere with the removal of the existing walls and fences, the installation of the new privacy wall or activities as per plan.

3.03 DAMAGE:

- A. The CONTRACTOR shall take all reasonable precautions so as not to damage any portions of the existing conditions that will remain after the installation of the new privacy wall.
- B. The CONTRACTOR shall also take all reasonable precautions so as not to damage any existing trees, shrubs or other items that will remain after or not in the way of the installation of the new privacy wall.

3.04 CLEANUP:

- A. The Site shall be left in a clean condition satisfactory to the ENGINEER, free from demolished materials, rubbish or debris.
- B. The Site shall be graded to meet adjacent contours and existing grades and to provide for the installation of sod and topsoil.
- C. All interrupted utility services shall be returned to their pre-existing state and any temporary services shall be disconnected, unless otherwise specified.
- D. Materials resulting from demolition and removal shall not be stored on the project site - such materials shall be removed immediately from the site upon demolition and removal.
- E. Repair/restore damage to adjacent structures or items on private properties that are due to CONTRACTOR operations to condition equal or better than existing condition at no extra cost to the CITY.
- F. Repair/restore damage to all existing items scheduled to remain, such as asphalt driveways; asphalt aprons; concrete driveways; concrete aprons; sod; shrubs; trees; fences; sprinkler systems; mailboxes; walls; sheds, etc., that are due to CONTRACTOR operations to condition equal or better than existing condition at no extra cost to the CITY.

END OF SECTION

DIVISION 2**SITE WORK****SECTION 02220****EXCAVATION, BACKFILL AND COMPACTION****PART 1 - GENERAL****1.01 WORK INCLUDED:**

- A. The work included under this section consists of excavating, grading, backfilling and compacting as required for the construction of items shown on plans, including achieving the final grades.
- B. The CONTRACTOR shall furnish all labor, material, equipment and incidentals necessary for excavating, grading, backfilling and compacting as required for the installation of a new precast concrete or concrete masonry privacy wall and its related reinforced concrete footings and as required with respect to the removal of the existing wall.
- B. Excavation shall include the removal of all material of whatever nature encountered, including all obstructions of any nature that would interfere with the proper execution and completion of the work. The removal of said material shall conform to the lines and grades shown.
- C. Furnish, place and maintain all supports and shoring that may be required for the sides of the excavation and provide for all pumping, ditching or other approved measures for the removal or exclusion of water, including taking care of storm and waste water reaching the work site from any source so as to prevent damage to the work or adjoining property.
- D. Prepare bottom of excavation to receive reinforced concrete footings.

1.02 - RELATED WORK:

- A. Section 02050-Demolition and Site Clearing
- B. Section 03330-Cast In Place & Precast Concrete

1.03 PROTECTION:

- A. Excavations:
 - 1. It is CONTRACTOR'S discretion to use "hand dug" method to excavate as necessary to avoid damaging any underground utilities. CONTRACTOR is responsible for any damaged underground utilities.
 - 2. The CONTRACTOR shall use extreme caution when working in or around areas of existing underground utilities.
 - 3. The CONTRACTOR shall notify all utilities company a minimum of 48 hours prior to any excavating so that a company representative can be present.

4. Protect excavations by shoring, bracing, sheet piling, under-pinning or other methods as required to prevent cave-ins in accordance with applicable state safety requirements and requirements of OSHA Safety and Health Standards for Construction (29CFR1926).
5. Support adjacent structures which may be damaged by excavation work, including utilities services.
6. Notify ENGINEER of unexpected subsurface conditions and discontinue work in affected area until notification to resume work.
7. Grade excavation top perimeter to prevent surface water run-off into excavation.
8. Provide and maintain adequate barricades and warning lights to protect pedestrian and vehicular traffic from open trenches.
9. Holes shall not be left open overnight.

B. Existing Utilities:

1. All water pipes, storm drains, force mains, gas or other pipe, telephone or power cables or conduits, all house services, irrigation systems, meter boxes, valve boxes and all other obstructions, shall be protected and if damaged, shall be repaired by the CONTRACTOR at no additional cost to the CITY.
2. Those existing utilities that are to be retained shall be protected, and if damaged, shall be repaired by the CONTRACTOR at no additional cost to the CITY.
3. The CONTRACTOR shall notify CALL SUNSHINE at their toll free number 1-800-432-4770 and/or each utility individually, forty-eight (48) hours prior to excavation.
4. Where it is necessary to sever, remove or relocate any utility for the proper excavation of the work, the CONTRACTOR shall notify the various Utilities in sufficient time so measures may be taken to prevent or minimize interruption of service. The CONTRACTOR shall be responsible for any necessary utility relocation and for the coordination and supervision of such work with the appropriate Utility. This work shall be completed by either the existing Utility or CONTRACTOR'S forces, at the discretion of the responsible Utility, all at no additional cost to the CITY.
5. Where it is necessary to temporarily interrupt any services the CONTRACTOR shall notify the owner or occupant, both twenty (24) hours before the interruption and again immediately before service is resumed. Before disconnecting any pipes or cables, the CONTRACTOR shall obtain permission from the owner, or shall make suitable arrangements for their disconnection by the owner. The CONTRACTOR shall be responsible for any damage to any such pipes, conduits or cables, and shall restore them to service promptly as soon as the work has progressed past the point involved at no additional cost to the CITY.
6. The CONTRACTOR shall be responsible for adjusting meter boxes, valve box, etc., to an appropriate elevation flush with proposed surfaces or as directed by the Engineer.

PART 2 – PRODUCTS:

2.01 MATERIAL:

- A. Imported fill material where required by the Engineer, shall be non-cohesive, non-plastic material, free of all debris and lumps, namely clean, imported, granular, sandy material with no organic traces.

- B. Material shall not have rocks larger than two inches (2") in diameter.
- C. Unsuitable material shall be removed from the site at the CONTRACTOR'S expense away from the project.

PART 3 - EXECUTION

3.01 EXCAVATION:

- A. General:
 1. Excavation shall include the removal of all material of whatever nature encountered, including all obstructions of any nature that would interfere with the proper execution and completion of the work. The removal of said material shall conform to the lines and grades ordered.
 2. The base for sidewalks and ramps shall be granular material free of muck, peat, organic material and any deleterious material. Any unsuitable base material must be removed and disposed of away from the project. Granular fill shall be replaced as needed to meet the required grade and/or to replace unsuitable material. The CONTRACTOR shall not over-excavate an area without the permission of the ENGINEER.
 3. When excavations are to be made in paved surfaces, the pavement shall be saw-cut ahead of the excavation by means of suitable sharp tools to provide a uniform sharp edge, with minimum disturbance of remaining material. The saw shall be of sufficient size to entirely cut through the pavement. Jagged and excessive cuts will not be permitted. Partial sawing and breaking of concrete will not be allowed.
 4. Any over-excavation carried below the grade ordered, specified or shown, shall be refilled to the required grade with suitable selected granular material.
 5. Work required due to over excavation when not ordered shall be performed by the CONTRACTOR at his own expense.
- B. Disposal of Excess Excavated Material:
 1. The CONTRACTOR shall remove and dispose of all excess excavated material at his own expense, in accordance with Paragraph 7.14 C of the General Conditions.
 2. Unsuitable material such as trees, shrubs, etc. shall be the CONTRACTORS responsibility to load, haul and provide a disposal site.
- C. Excavation in Vicinity of Trees:
 1. Trees that are designated not to be removed shall be protected from injury during construction operations. Cut and remove all tree roots smaller than four inches (4") in diameter which are under the sidewalk to be replaced or under the proposed new sidewalk. No tree roots over four (4) inches in diameter shall be cut without express permission of the Engineer. Trees shall be supported during excavation as may be directed by the Engineer.
 2. All depressions that were created below the surface of the ground as a result of removal of roots shall be filled with suitable material and compacted to a density conforming to the surrounding ground.

3.03 BACKFILLING:

- A. Backfill shall not be placed around or upon any structure until the concrete has attained sufficient strength to withstand the loads imposed.
- B. The backfill shall be brought up evenly with each layer moistened and compacted by mechanical means to ninety-eight percent (98%) of maximum density.
- C. Fill material shall be placed in compacted layers of no more than six inches (6") in depth to the required sub-grade elevation.
- D. Imported fill is allowed to be used only after the existing fill that is suitable for use has been completely used up.
- E. The ENGINEER must approve of all locations where imported fill is to be used.

3.04 COMPACTION:

- A. Fill material including limerock or existing sub-grade material shall be thoroughly compacted. Granular fill replacing unsuitable material shall be of sufficient depth to prevent any "working-up" of the unsuitable material and no less than six inches (6") measured after compaction. The base shall be graded parallel to finish grade.
- B. All material that will be beneath new concrete shall be compacted by mechanical means to ninety-eight (98%) of maximum density in paved areas and ninety (90%) of maximum density in grassed areas.
- C. When material does not have the proper moisture content to obtain the required density, then wetting or drying of the material shall be required.

3.04 COMPACTION TESTING:

- A. Compaction testing specified herein are expressed as a percentage of maximum density. Maximum density shall be determined by AASHTO T-180, Method D.
- B. The CITY will retain an independent test laboratory to perform density and/or other soil tests.
- C. The CITY shall only pay for passing compaction density tests. All tests which fail to meet minimum compaction requirements shall be paid for by the CONTRACTOR.
- D. Trench backfill which does not comply with the specified densities, as indicated by such tests, shall be reworked and recompacted until the required compaction is secured, at no additional cost to the CITY.

END OF SECTION

DIVISION 2**SITE WORK****SECTION 02920****CHAIN LINK FENCES AND GATES****PART 1 - GENERAL****1.01 WORK INCLUDED:**

- A. The work specified in this Section consists of relocating, furnishing and erecting chain link fences and gates at location shown in the Plans and in conformance with the following (including latest revisions).
 - 1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. M181: Standard Specification for Chain-Link Fence.
 - 2. American Society for Testing and Materials (ASTM):
 - a. A53/A53M: Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - b. A121: Standard Specification for Metallic-Coated Carbon Steel Barbed Wire.
 - c. A392: Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric.
 - d. F567: Standard Practice for Installation of Chain-Link Fence.
 - e. F654: Standard Specification for Residential Chain Link Fence Gates.
 - f. F900: Standard Specification for Industrial and Commercial Swing Gates.
 - g. F1184: Standard Specification for Industrial and Commercial Horizontal Slide Gates.
- B. Chain Link Fence Manufacturers Institute (CLFMI):
 - 1. PM 2445: Chain Link Fence Manufacturers Institute Product Manual.

1.02 PERFORMANCE REQUIREMENTS:

- A. Delegated Design: Design chain-link fences and gates, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance: Chain-link fence and gate framework shall withstand the effects of gravity loads, privacy slats installed, and the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7:
 - 1. Minimum Post Size and Maximum Spacing: Determine according to CLFMI WLG

2445, based on mesh size and pattern specified and on the following:

- a. Wind Loads: 146 mph
- b. Fence Height: see drawings

1.03 SUBMITTALS:

- A. Submit the following.
 - 1. Sustainable Design Submittals.
 - 2. Submit Manufacturer's specifications, drawings, details and fence layout with appurtenances.
 - 3. Submit two samples of fencing materials. Mark or tag each sample and submit 30 days prior to erection of fence.
 - 4. Submit certified test reports with results of tests for fence finish.
 - 5. Submit shop drawings, samples and certificates simultaneously as one complete package.

PART 2 - PRODUCTS

2.01 SYSTEM DESCRIPTION:

- A. Provide framework, fabric, accessories and gates in accordance with ASTM F567.
- B. Fence heights as indicated with top rail and bottom tension wire.
- C. Fence heights as indicated with top rail, bottom tension wire, and three strands of barbed wire projecting outward at top.
- D. Gates:
 - 1. Industrial and Commercial:
 - a. Provide swing gates in accordance with ASTM F900.

2.02 FENCE FABRIC:

- A. Galvanized steel.
- B. Colored PVC-coated steel fabric with galvanized and factory-painted steel posts, hardware, and fittings.
- C. Galvanized steel chain-link fabric conforming to ASTM A392, with Class 2 zinc coating (2.0 ounces (610 grams) of zinc per square foot (square meter) of uncoated wire surface); Fabric woven in 2-inch (50 mm) mesh from No. 9 gage wire in a [6 feet (1.97 m)] height with barbed selvages top and bottom.
- D. Fabric woven in 2-inch (50 mm) mesh from PVC coated wire in a [6 feet (1.97 m)] height with barbed selvages top and bottom. PVC coating thermally fused and bonded over galvanized plastic primed commercial quality steel wire with minimum coating thickness of

7 mils. Coated wire 9-gage with minimum breaking strength of 1,200 lbs. Color to be selected to match total fence system (0.40 oz. of zinc per sq. ft. of surface).

2.03 BARBED WIRE AND SUPPORT ARMS:

- A. Galvanized-steel barbed wire consisting of two strands of twisted No. 12-1/2 gage wires with 4-point barbs spaced 3 inches (80 mm) apart and conforming to ASTM A121, with Class 3 zinc coating (minimum of 0.8 oz (244 g) of zinc coating over each square foot (square meter) of uncoated wire surface for No. 12-1/2 gage wire).
- B. Color matched PVC coated galvanized steel wire, consisting of three strands of twisted No. 11 gage wires with No. 14 gage, 4-point vinyl coated aluminum alloy barbs spaced 3 inches (80 mm) apart.
- C. Support arms projecting outward, from top of posts, at 45 degrees and capable of withstanding 200 lb. (890 N) downward pull on outermost end of arm, without failure. Arms with provision for attachment of three strands of evenly spaced barbed wire and integral with post top weather caps with holes for passage of top rail at intermediate posts.

1.04 TENSION WIRE:

- A. No. 7-gage coil spring steel wire with galvanized finish having minimum of 0.8 oz (244 g) of zinc coating over each square foot (square meter) of uncoated wire surface.
- B. Color matched PVC coated No. 6 gage outside diameter, zinc coated coil spring steel wire having 0.40 oz of zinc coating per sq. ft. of wire surface.

2.05 TIE WIRES:

- A. Tie wires, for fastening fence fabric to line posts and rails, not less than No. 6 gage aluminum wire.
- B. Tie wires, for fastening fence fabric to line posts and rails, not less than 9 gage (outside diameter) color matched PVC coated galvanized steel wire.

2.06 LINE POSTS:

- A. 2-3/8 inches (60.3 mm) outside diameter steel pipe weighing not less than 3.65 lb/ft (5.4 kg/m), or 1-7/8 inch (47.6 mm) high carbon steel H-beams weighing not less than 2.70 lb/ft (4.0 kg/m).

2.07 END, CORNER, AND PULL POSTS:

- A. 2-7/8 inch (73 mm) outside diameter steel pipe weighing not less than 5.79 lb/ft (8.6 kg/m), or 2-1/2 inch (63.5 mm) square steel tube weighing not less than 5.14 lb/ft (7.6 kg/m), or 3-1/2 inch (89 mm) by 3-1/2 inch (89 mm) roll-formed, steel corner section weighing not less than 5.14 lb/ft (7.6 kg/m).

2.08 GATE POSTS:

- A. 2-7/8 inches (73 mm) outside diameter steel pipe and gate posts, for gate leaves up to and including 6 feet (1.8 m) wide, weighing not less than 5.79 lb. per ft., or 2-1/2 inch (63.5 mm) square steel tube weighing not less than 5.14 lb. per ft., or 3-1/2 inch (89 mm) by 3-1/2 inch (89 mm) roll-formed, steel corner section weighing not less than 5.14 lb/ft (7.6 kg/m).

- B. 4 inch (100 mm) outside diameter steel pipe, gate posts for gate leaves over 6 feet (1.8 m) wide and up to and including 13 feet (4 m) wide and weighing not less than 9.10 lb/ft (13.5 kg/m).
- C. 6-5/8 inch (168.3 mm) outside diameter steel pipe, gate posts for gate leaves over 13 feet (4 m) wide and up to and including 18 feet (5.5 m) weighing not less than 18.97 lb/ft (28.2 kg/m).

2.09 RAILINGS:

- A. 1-5/8 inch (41.3 mm) outside diameter steel pipe with minimum weight of 2.27 lb/ft (3.4 kg/m) or 1-5/8 inch (41.3 mm) by 1-1/4 inch (31.8 mm), 14-gage roll-form section, for top railing and railings for top middle and bottom braces between terminal posts and adjacent line posts.

2.10 TRUSS:

- A. 3/8 inch (9.5 mm) diameter steel rod diagonal truss braces between terminal adjacent line posts and for gate framework.

2.11 FITTINGS:

- A. Heavy-duty malleable iron or pressed steel fittings of suitable size to produce strong construction.

2.12 STRETCHER BARS:

- A. Flat bars with minimum cross section dimensions of 1/4-inch (6.4 mm) by 3/4 inch (19 mm), full height of fabric, secured with bar bands of minimum 11-gage sheet steel, spaced approximately 15 inches (380 mm) on centers and bolted with 3/8-inch (9.5 mm) diameter bolts, for attaching fabric to terminal posts.

2.13 GATE LEAF FRAMEWORK:

- A. 1-7/8 inch (47.6 mm) inch outside diameter steel pipe weighing 2.72 lb/ft (4 kg/m), minimum.

2.14 GATE HINGES:

- A. Heavy pattern of adequate strength for gate size, with large bearing surfaces for clamping or bolting in position.

2.15 LATCH:

- A. Gates with suitable latch, accessible from both sides and with provision for padlocking.

2.16 GATE PADLOCKS:

- A. Manufacturers:
 1. Eaton Corp. Lock & Hardware Div., Yale Marketing Dept., Charlotte, NC.
 2. P&F Corbin, Div. of Emhart Corp., Berlin, CT.

3. Best Universal Lock Co., Inc., Indianapolis, IN. Solid brass cases hardened steel shackles, removable core cylinders, and galvanized steel chains attached to shackle by a clevis.

2.17 NOT USED

2.18 CONCRETE FOOTINGS:

- A. Concrete: Concrete shall be Class B with minimum compressive strength of 3000 psi at 28 days.

2.19 GROUT:

- A. One part Portland cement and three parts of clean, sharp, well-graded sand with minimum water for proper workability for posts set in solid rock.

2.20 PRIVACY SLATS: sized to fit mesh specified and install slats in direction indicated, securely locked in place.

- A. Material: PVC, UV-light stabilized, not less than 0.023 inch (0.58 mm) thick
- B. Material: Polyethylene tubular slats, not less than 0.023 inch (0.58 mm) thick manufactured for chain-link fences from virgin polyethylene containing UV inhibitor; with vandal-resistant fasteners and lock strips.
- C. Material: Fiber-glass-reinforced plastic, UV-light stabilized, not less than 0.06 inch (1.5 mm) thick, with vandal-resistant fasteners and lock strips.
- D. Material: Aluminum, not less than 0.01 inch (0.25 mm) thick,
- E. Color: As selected by Owner's representative from manufacturer's full range.

2.21 ACCESSORIES:

- A. Steel pipe dimensions and weights: ASTM A53/A53M, Schedule 40. Dimensions specified are nominal pipe sizes.
- B. Dimensions and weight tolerances: Plus or minus 5 percent.
- C. Zinc Coating: Minimum 2.0 ounces per square foot (610 grams per square meter).
- D. Provide posts with tops of same material, and designed to fit securely over post and carry top rail. Carry apron around outside of post at base of top fitting.
- E. Ferrous metal fittings, posts, fence, gate framework, and accessories galvanized with heavy coating of 2.0 oz/ft² (610 g/m²) pure zinc spelter per square foot or surface area to be coated. Use hot-dip process. Thinner zinc coatings, electro-galvanizing, zinc paint or cold galvanizing compounds not used as substitute for hot-dipped galvanized finish not acceptable.
- F. Fabricate and weld before hot-dip galvanizing. Weld conforming to American Welding

Society standards.

- G. Hot-dip galvanized gate frame, after welding, if bolted or riveted corner fittings not used.
- H. Galvanize fittings, posts, fence and gate framework, and accessories, then epoxy phenolic primed and top coated with matching PVC, using thermal bond process.
- I. Single and double leaf swing gates with center bolt, center stop, and automatic backstops.
- J. Cantilever sliding (rolling type) gate complete with latch, stop, keeper, rollers, heavy duty roller track, and 3 strands of barbed wire installed vertically above fabric and electrically operated.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Examine conditions under which fence and gates are to be installed. Notify Owner's representative in writing, of improper conditions of work.
- B. Do not proceed with work until unsatisfactory conditions have been corrected.
- C. Verify measurements at site.
- D. Check location of underground work to make sure fence footings clear utilities and drainage work.
- E. Do not install fence until final grading is complete and finish elevations are established.
- F. Do not drive equipment on areas to be landscaped, except as accepted by Owner's representative. Areas not accessible from roads shall be protected with heavy wood planking. Remove barricades and protection at completion of project. Repair damaged landscape surfaces.

3.02 INSTALLATION:

- A. Footings:
 - 1. Vertical sides to minimize up-lift. Dispose of excavated material.
 - 2. Rod and compact concrete around posts. Slope top of footings above level of adjacent grade, and trowel finish.
 - 3. Size:
 - a. 6 inches (150 mm) minimum diameter, plus outside dimension of post.
 - b. Set corner, end, pull, and gate posts 42 inches (1050 mm) into concrete.

- c. Set line posts set 36 inches (900 mm) into concrete.
 - d. Total depth of concrete 6 inches (150 mm) greater than required for post embedment.
4. Time of Set: 48 hours before rails are erected or before fabric is applied or stretched.

B. Framing:

1. Install line posts not more than 10 feet (3 m) apart.
2. Install pull posts not more than 600 feet (183 m) apart where a straight run of fence exceeds 600 feet (183 m) and where fence line changes direction by more than 15 degrees but less than 30 degrees.
3. Install corner posts where the fence line changes direction by more than 30 degrees.
4. Set posts in concrete footings, plumb and true to line.
5. Brace and truss end, pull, corner, and gate posts to adjacent line posts. Provide brace to match top rail spaced midway between top rail and tension wire and extending to adjacent line posts. Provide brace to match top rail spaced midway between top rail and tension wire and extending to adjacent line post. Truss diagonally with 5/16-inch (7.9 mm) diameter tension rod with turnbuckle.
6. Fasten top rail to end, pull, gate and corner posts. Pass top rail through fittings of line posts.
7. Provide expansion and contraction joints in top rail for each 100 linear feet (30.5 linear meters) of fence.
8. Fasten bottom tension wire to end, pull, gate, corner, and line posts.
9. Maximum area of unbraced fence shall not exceed 1,500 square feet (139.3 square meters).
10. Use galvanized sleeve and grout posts or install with suitable galvanized flange casings and galvanized anchor bolts as accepted by Owner's representative.
11. When rock is encountered, set posts into rock a minimum depth of 12 inches (300 mm) for line posts and 18 inches (450 mm) for terminal posts. If solid ledge is encountered without overburden of soil, provide post holes at least 1 inch (25 mm) greater in diameter than post, fill post holes with concrete work post into hole taking care not to cause voids, remove excess concrete and crown remainder at top to shed water. Where solid rock is covered by overburden, do not exceed total setting depth required for setting in earth, grout posts into rock as described.

C. Fabric:

1. Place fabric on outside of posts and stretch to avoid bulging or buckling.

2. Fasten at line posts, top rail, and bottom tension wire with aluminum or zinc PVC coated ties. Space ties not more than 15 inches (380 mm) apart on line posts and not more than 24 inches (600 mm) apart on rail and tension wire.
3. Fasten at terminal posts at intervals not exceeding 15 inches (380 mm) using flat or beveled galvanized steel bands with 5/16-inch (7.9 mm) x 1-1/4 inch (31.8 mm) galvanized carriage bolts and nuts.
4. Make tie connections on interior side of fence.
5. Provide steel angle metal closures where finished ground surface is more than two inches below bottom tension wire. Bolt steel angle to fence posts, and install reinforcing rods and bracing members as accepted. Install rods of accepted length vertically. Where drainage ditches cross fence line, provide concrete ditch lining and steel reinforcing bar grill.
6. Install three strands of barbed wire on each extension arm of line fence and at top of each gate. Pull wires taut and fasten at each support.
7. Install barbed wire on extension arms as indicated. Pull each wire taut, and make entire assembly secure. Attach wire to end, corner, pull, and gate posts with wire stretching bands.
8. Install gates plumb, level, and secure for full width of opening and hardware adjusted for smooth operation.
9. Electrical Ground where a power line carrying more than 600 volts passes over fence, install ground rod at nearest point directly below each point of crossing.

3.03 REPAIR:

- A. Remove and replace fencing which is improperly located or is not true to line, grade and plumb within tolerances as indicated.
- B. Repair damaged vinyl-coated components as recommended by manufacturer.

END OF SECTION

DIVISION 2**SITE WORK****SECTION 02950****TOP SOIL AND SODDING****PART 1 - GENERAL****1.01 WORK INCLUDED:**

- A. Furnish, place and water sod as indicated in the Contract documents.
- B. Review requirements under other sections and coordinate with the requirements of this section.

1.02 RELATED WORK:

- A. Section 02050-Demolition & Site Clearing
- B. Section 02200-Excavation, Grading, Backfill & Compaction

PART 2 - PRODUCTS**2.01 MATERIALS:**

- A. Topsoil:
 - 1. Topsoil shall conform to Section 162-2 of the 2015 FDOT Specifications for Road and Bridge Construction.
- B. Sod:
 - 1. Sod shall be Floratam or Argentine Bahia. Other type of sod may be used if directed or approved by the Engineer. The sod shall be in commercial size rectangles, preferably 12" x 24" or larger. The CONTRACTOR shall be responsible for supplying sod sufficiently thick to secure a dense strand of live grass at a depth of two inches (2") as necessary to cover the full extent of the sodded area as directed by the Engineer.as indicated on the plans.
 - 2. No sod which has been cut for more than seventy-two (72) hours shall be used.

PART 3 - EXECUTION**3.01 SOD PLACEMENT:**

- A. Topsoil shall be three inches (3") in thickness within the areas designated to receive sod or as directed by the ENGINEER and raked smooth.
- B. Muck from excavations on-site shall not be used as fill material or topsoil.
- C. Sod which is not planted within twenty-four (24) hours after cutting shall be stacked in an approved manner and maintained properly moistened.

- D. Any piece of sod which, after placing, shows an appearance of extreme dryness shall be removed from the work and replaced with healthy sod.
- E. Placing sod shall conform to Section 570 of the 2010 FDOT Standard Specifications for Road and Bridge Construction. Sod shall be placed with edges in close contact and shall be firmly and smoothly embedded by light tamping with appropriate tools.
- F. Sod shall be placed one half foot (1/2') away from the edge of asphalt pavement where there is no curbing, and flush with concrete elsewhere.
- G. Sodding shall not be performed when weather or soil conditions are, in the City's opinion, unsuitable for proper results. The area on which the sod is to be placed shall contain sufficient moisture for optimum results after being placed.
- H. The sod shall be kept in a moist condition for the duration of the contract period and in no case less than thirty (30) days. The moistened conditions shall extend at least to the full depth of the rooting zone.
- I. Watering of sod shall be scheduled in accordance with the most current restrictions as issued by the SFWMD.
- J. Any existing landscaping denoted to remain that is damaged during construction shall be replaced by the CONTRACTOR. The cost thereof shall be the CONTRACTOR's responsibility.
- K. No separate bid item is provided in the proposal for topsoil.
- L. No separate payments shall be made to the CONTRACTOR for watering the sod. All costs thereof shall be included in the contract unit price, installed complete in place as specified per Contract Documents or as directed by ENGINEER.

END OF SECTION

DIVISION 3**CONCRETE****SECTION 03100****CONCRETE FORMWORK****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

- A. The CONTRACTOR shall furnish all materials for concrete formwork, bracing, shoring, and supports and shall design and construct all false work, all in accordance with the provisions of the Contract Documents.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Codes: All codes, as referenced herein.
- B. Government Standards:
 - PS 1 Construction and Industrial Plywood
 - PS 20 American Softwood Lumber Standard
- C. Commercial Standards:
 - ACI 117 Standard Tolerances for Concrete Construction and Materials
 - ACI 347 Guide to Formwork for Concrete

1.03 CONTRACTOR SUBMITTALS

- A. The CONTRACTOR shall, in accordance with the requirements, submit detailed plans of the falsework proposed to be used. Such plans shall be in sufficient detail to indicate the general layout, sizes of members, anticipated stresses, grade of materials to be used in the falsework, means of protecting existing construction which supports falsework, and typical soil conditions.
- B. The CONTRACTOR shall submit the following.
 - 1. Form ties and all related accessories, including taper tie plugs, if taper ties are used.
 - 2. Form gaskets.

1.04 QUALITY ASSURANCE

- A. Tolerances: The variation from established grade or lines shall not exceed 1/4-inch in 10 feet and there shall be no offsets or visible waviness in the finished surface. All other tolerances shall be within the tolerances of ACI 117.

PART 2 -- PRODUCTS**2.01 GENERAL**

- A. Except as otherwise expressly accepted by the ENGINEER, all lumber brought on the job site for use as forms, shoring, or bracing shall be new material. All forms shall be smooth surface forms and shall be of the following materials:

Walls	-	Steel or plywood panel
Columns	-	Steel, plywood or fiber glass
Roof and floor	-	Plywood
All other work	-	Steel panels, plywood or tongue and groove lumber

- B. Form materials which may remain or leave residues on or in the concrete shall be classified as acceptable for potable water use by the Environmental Protection Agency within 30 days of application or use.

2.02 FORM AND FALSEWORK MATERIALS

- A. Materials for concrete forms, formwork, and falsework shall conform to the following requirements:
1. Lumber shall be Douglas Fir or Southern Yellow Pine, construction grade or better, in conformance with U.S. Product Standard PS 20.
 2. Plywood for concrete formwork shall be new, waterproof, synthetic resin bonded, exterior type Douglas Fir or Southern Yellow Pine plywood manufactured especially for concrete formwork and shall conform to the requirements of PS 1 for Concrete Forms, Class I, and shall be edge sealed.
 3. Form materials shall be metal, wood, plywood, or other approved material that will not adversely affect the concrete and will facilitate placement of concrete to the shape, form, line, and grade shown. Metal forms shall be an approved type that will accomplish such results. Wood forms for surfaces to be painted shall be Medium Density Overlaid plywood, MDO Ext. Grade.
- B. Unless otherwise shown, exterior corners in concrete members shall be provided with 3/4-inch chamfers. Re-entrant corners in concrete members shall not have fillets unless otherwise shown.
- C. Forms and falsework to support the roof and floor slabs shall be designed for the total dead load, plus a live load of 50 psf (minimum). The minimum design load for combined dead and live loads shall be 100 psf.

2.03 FORM TIES

- A. Form ties shall be provided with a plastic cone or other suitable means for forming a conical hole to insure that the form tie may be broken off back of the face of the concrete. The maximum diameter of removable cones for rod ties, or of other removable form-tie fasteners having a circular cross-section, shall not exceed 1-1/2 inches; and all such fasteners shall be such as to leave holes of regular shape for reaming. Form ties for water-retaining structures shall have integral waterstops. Integral waterstops shall tightly fit the form tie so that they cannot be moved from mid-point of the tie. Form ties shall be Burke Penta-Tie System by the Burke Company; Richmond Snap-Tys by the Richmond Screw Anchor Company; or equal.
- B. Removable taper ties may be used when approved by the ENGINEER. A preformed neoprene or polyurethane tapered plug sized to seat at the center of the wall shall be inserted in the hole left by the removal of the taper tie. Use Burke Taper-Tie System by the Burke Company; Taper-Ty by the Richmond Screw Anchor Company; or equal.

PART 3 -- EXECUTION**3.04 GENERAL**

- A. Forms to confine the concrete and shape it to the required lines shall be used wherever necessary. The CONTRACTOR shall assume full responsibility for the adequate design of all forms, and any forms which are unsafe or inadequate in any respect shall promptly be removed from the WORK and replaced at the CONTRACTOR's expense. Provide worker protection from protruding reinforcement bars in accordance with applicable safety codes. A sufficient number of forms of each kind shall be provided to permit the required rate of progress to be maintained. The design and inspection of concrete forms, falsework, and shoring shall comply with applicable local, state and Federal regulations. Plumb and string lines shall be installed before concrete placement and shall be maintained during placement. Such lines shall be used by CONTRACTOR's personnel and by the ENGINEER and shall be in sufficient number and properly installed. During concrete placement, the CONTRACTOR shall continually monitor plumb and string line form positions and immediately correct deficiencies.
- B. Concrete forms shall conform to the shape, lines, and dimensions of members as called for on the Drawings, and shall be substantial, free from surface defects, and sufficiently tight to prevent leakage. Forms shall be properly braced or tied together to maintain their position and shape under a load of freshly-placed concrete. If adequate foundation for shores cannot be secured, trussed supports shall be provided.

3.05 FORM DESIGN

- A. All forms shall be true in every respect to the required shape and size, shall conform to the established alignment and grade, and shall be of sufficient strength and rigidity to maintain their position and shape under the loads and operations incident to placing and vibrating the concrete. Suitable and effective means shall be provided on all forms for holding adjacent edges and ends of panels and sections tightly together and in accurate alignment so as to prevent the formation of ridges, fins, offsets, or similar surface defects in the finished concrete. Plywood, 5/8-inch and greater in thickness, may be fastened directly to studding if the studs are spaced close enough to prevent visible deflection marks in the concrete. The forms shall be tight so as to prevent the loss of water, cement and fines during placing and vibrating of the concrete. Specifically, the bottom of wall forms that rest on concrete footings or slabs shall be provided with a gasket to prevent loss of fines and paste during placement and vibration of concrete. Such gasket may be a 1- to 1-1/2-inch diameter polyethylene rod held in position to the underside of the wall form. Adequate clean-out holes shall be provided at the bottom of each lift of forms. The size, number, and location of such clean-outs shall be as acceptable to the ENGINEER. Whenever concrete cannot be placed from the top of a wall form in a manner that meets the requirements of the Contract Documents, form windows shall be provided in the size and spacing needed to allow placement of concrete to the requirements of Section 03300, Cast-in-Place Concrete and Precast Concrete. The size, number, and location of such form windows shall be as acceptable to the ENGINEER.

3.06 CONSTRUCTION

- A. Vertical Surfaces: All vertical surfaces of concrete members shall be formed, except where placement of the concrete against the ground is shown. Not less than 1-inch of concrete shall be added to the thickness of the concrete member as shown where concrete is permitted to be placed against trimmed ground in lieu of forms. Such permission will be granted only for members of comparatively limited height and where

the character of the ground is such that it can be trimmed to the required lines and will stand securely without caving or sloughing until the concrete has been placed.

- B. Construction Joints: Concrete construction joints will not be permitted at locations other than those shown or specified, except as may be acceptable to the ENGINEER. When a second lift is placed on hardened concrete, special precautions shall be taken in the way of the number, location, and tightening of ties at the top of the old lift and bottom of the new to prevent any unsatisfactory affect whatsoever on the concrete. Pipe stubs and anchor bolts shall be set in the forms where required.
- C. Form Ties:
 - 1. Embedded Ties: Holes left by the removal of form tie cones shall be reamed with suitable toothed reamers so as to leave the surface of the holes clean and rough before being filled with mortar as specified for "Finish of Concrete Surfaces" in Section 03300 - Cast-in-Place Concrete and Precast Concrete. Wire ties for holding forms will not be permitted. No form-tying device or part thereof, other than metal, shall be left embedded in the concrete. Ties shall not be removed in such manner as to leave a hole extending through the interior of the concrete members. The use of snap-ties which cause spalling of the concrete upon form stripping or tie removal will not be permitted. If steel panel forms are used, rubber grommets shall be provided where the ties pass through the form in order to prevent loss of cement paste. Where metal rods extending through the concrete are used to support or to strengthen forms, the rods shall remain embedded and shall terminate not less than 1-inch back from the formed face or faces of the concrete.
 - 2. Removable Ties: Where taper ties are approved for use, the larger end of the taper tie shall be on the wet side of walls in water retaining structures. After the taper tie is removed, the hole shall be thoroughly cleaned and roughened for bond. A precast neoprene or polyurethane tapered plug shall be located at the wall centerline. The hole shall be completely filled with non-shrink grout for water bearing and below-grade walls. The hole shall be completely filled with non-shrink or regular cement grout for above-grade walls which are dry on both sides. Exposed faces of walls shall have the outer 2 inches of the exposed face filled with a cement grout which shall match the color and texture of the surrounding wall surface.

3.07 REUSE OF FORMS

- A. Forms may be reused only if in good condition and only if acceptable to the ENGINEER. Light sanding between uses will be required wherever necessary to obtain uniform surface texture on all exposed concrete surfaces. Exposed concrete surfaces are defined as surfaces which are permanently exposed to view. In the case of forms for the inside wall surfaces of hydraulic/water retaining structures, unused tie rod holes in forms shall be covered with metal caps or shall be filled by other methods acceptable to the ENGINEER.

3.08 REMOVAL OF FORMS

- A. Careful procedures for the removal of forms shall be strictly followed, and this work shall be done with care so as to avoid injury to the concrete. No heavy loading on green concrete will be permitted. In the case of roof slabs and above-ground floor slabs, forms shall remain in place until test cylinders for the roof concrete attain a minimum

compressive strength of 75 percent of the 28- day strength specified in Section 03300 - Cast-in-Place Concrete and Precast Concrete; provided, that no forms shall be disturbed or removed under an individual panel or unit before the concrete in the adjacent panel or unit has attained 75 percent of the specified 28-day strength and has been in place for a minimum of 7 days. The time required to establish said strength shall be as determined by the ENGINEER who will make several test cylinders for this purpose from concrete used in the first group of roof panels placed. If the time so determined is more than the 7-day minimum, then that time shall be used as the minimum length of time. Forms for all vertical walls of waterholding structures shall remain in place at least 36 hours after the concrete has been placed. Forms for all parts of the WORK not specifically mentioned herein shall remain in place for periods of time as recommended in ACI 347.

3.09 MAINTENANCE OF FORMS

- A. Forms shall be maintained at all times in good condition, particularly as to size, shape, strength, rigidity, tightness, and smoothness of surface. Forms, when in place, shall conform to the established alignment and grades. Before concrete is placed, the forms shall be thoroughly cleaned. The form surfaces shall be treated with a nonstaining mineral oil or other lubricant acceptable to the ENGINEER. Any excess lubricant shall be satisfactorily removed before placing the concrete. Where field oiling of forms is required, the CONTRACTOR shall perform the oiling at least two weeks in advance of their use. Care shall be exercised to keep oil off the surfaces of steel reinforcement and other metal items to be embedded in concrete.

3.10 FALSEWORK

- A. The CONTRACTOR shall be responsible for the design, engineering, construction, maintenance, and safety of all falsework, including staging, walkways, forms, ladders, and similar appurtenances, which shall equal or exceed the applicable requirements of the provisions of the OSHA Safety and Health Standards for Construction, the requirements of the Construction Safety Orders of the California Division of Industrial Safety, and the requirements specified herein.
- B. All falsework shall be designed and constructed to provide the necessary rigidity and to support the loads. Falsework for the support of a superstructure shall be designed to support the loads that would be imposed if the entire superstructure were placed at one time.
- C. Falsework shall be placed upon a solid footing, safe against undermining, and protected from softening. When the falsework is supported on timber piles, the maximum calculated pile loading shall not exceed 20 tons. When falsework is supported on any portion of the structure which is already constructed, the load imposed by the falsework shall be spread, distributed, and braced in such a way as to avoid any possibility of damage to the structure.

END OF SECTION

DIVISION 3**CONCRETE****SECTION 03290****JOINTS IN CONCRETE****PART 1 – GENERAL****1.01 REQUIREMENT**

- A. The CONTRACTOR shall construct all joints in concrete at the locations shown. Joints required in concrete structures are of various types and will be permitted only where shown, unless specifically accepted by the ENGINEER.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Federal Specifications:
 - TT-S-0227E(3) Sealing Compound, elastomeric type, Multi-component for Calking, Sealing, and Glazing Buildings and Other Structures).
- B. U.S. Army Corps of Engineers Specifications:
 - CRD-C572 PVC Waterstop.
- C. Commercial Standards:
 - ASTM A 775 Specification for Epoxy-Coated Reinforcing Steel Bars
 - ASTM C 920 Specification for Elastomeric Joint Sealants
 - ASTM D 412 Test Methods for Rubber Properties in Tension
 - ASTM D 624 Test Methods for Rubber Property – Tear Resistance
 - ASTM D 638 Test Method for Tensile Properties of Plastics
 - ASTM D 746 Test Method for Brittleness Temperature of Plastics and Elastomer by Impact
 - ASTM D 747 Test Method for Apparent Bending Modulus of Plastics by Means of Cantilever Beam
 - ASTM D 1056 Specification for Flexible Cellular Materials – Sponge or Expanded Rubber
 - ASTM D 1752 Specification for Performed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
 - ASTM D 2240 Test Method for Rubber Property – Durometer Hardness
 - ASTM D 2241 Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR-Series)

1.03 TYPES OF JOINTS

- A. Construction Joints: When fresh concrete is placed against a hardened concrete surface, the joint between the two pours is called a construction joint. Unless otherwise specified, all joints in water bearing members shall be provided with a waterstop and/or sealant groove of the shape specified and shown. The surface of the first pour may also be required to receive a coating of bond breaker as shown.

- B. **Contraction Joints:** Contraction joints are similar to construction joints except that the fresh concrete shall not bond to the hardened surface of the first pour, which shall be coated with a bond breaker. The slab reinforcement shall be stopped 4-1/2 inches from the joint; which is provided with a sleeve-type dowel, to allow shrinkage of the concrete of the second pour. Waterstop and/or sealant groove shall also be provided when specified or shown.
- C. **Expansion Joints:** To allow the concrete to expand freely, a space is provided between the two pours, the joint shall be formed as shown. This space is obtained by placing a filler joint material against the first pour, which acts as a form for the second pour. Unless otherwise specified, all expansion joints in water bearing members shall be provided with a center-bulb type waterstop as shown.
- D. Premolded expansion joint material shall be installed with the edge at the indicated distance below or back from finished concrete surface, and shall have a slightly tapered, dressed, and oiled wood strip secured to or placed at the edge thereof during concrete placement, which shall later be removed to form space for sealing material. The spaces formed shall be filled with a joint sealant as specified.
- E. The space so formed shall be filled with a joint sealant material as specified in the Paragraph in Part 2 entitled "Joint Sealant." In order to keep the two wall or slab elements in line the joint shall also be provided with a sleeve-type dowel as shown.
- F. **Control Joint (Weakened Plane):** The function of the control joint is to provide a weaker plane in the concrete, where shrinkage cracks will probably occur. A groove, of the shape and dimensions shown, is formed or saw-cut in the concrete. This groove is afterward filled with a joint sealant material as specified in the Paragraph in Part 2 entitled "Joint Sealant."
- G. All other Joints, bearing devices, and elastomeric bearing pads for bridge structures shall comply with CSS Section 51.

1.04 CONTRACTOR SUBMITTALS

- A. **Joint Sealant:** Prior to ordering the sealant material, the CONTRACTOR shall submit to the ENGINEER for the ENGINEER's review, sufficient data to show general compliance with the requirements of the Contract Documents. Certified test reports from the sealant manufacturer on the actual batch of material being supplied indicating compliance with the above requirements shall be furnished the ENGINEER before the sealant is used on the job.
- B. **Shipping Certification:** The CONTRACTOR shall provide written certification from the manufacturer as an integral part of the shipping form, to show that all of the material shipped to this project meets or exceeds the physical property requirements of the Contract Documents. Supplier certificates are not acceptable.
- C. **Joint Location:** The CONTRACTOR shall submit placement shop drawings showing the location and type of all joints for each structure.

1.05 QUALITY ASSURANCE

- A. The following waterstop defects represent a partial list of defects which shall be grounds for rejection:

1. Offsets at joints greater than 1/16-inch or 15 percent of material thickness, at any point, whichever is less.
 2. Exterior crack at joint, due to incomplete bond, which is deeper than 1/16-inch or 15 percent of material thickness, at any point, whichever is less.
 3. Any combination of offset or exterior crack which will result in a net reduction in the cross section of the waterstop in excess of 1/16-inch or 15 percent of material thickness at any point, whichever is less.
 4. Misalignment of joint which result in misalignment of the waterstop in excess of 1/2-inch in 10 feet.
 5. Porosity in the welded joint as evidenced by visual inspection.
 6. Bubbles or inadequate bonding which can be detected with a penknife test. (If, while prodding the entire joint with the point of a pen knife, the knife breaks through the outer portion of the weld into a bubble, the joint shall be considered defective.)
- F. Construction Joint Sealant: The CONTRACTOR shall prepare adhesion and cohesion test specimens as specified herein, at intervals of 5 working days while sealants are being installed.
- G. The sealant material shall show no signs of adhesive or cohesive failure when tested in accordance with the following procedure in laboratory and field tests:
1. Sealant specimen shall be prepared between 2 concrete blocks (1-inch by 2-inch by 3-inch). Spacing between the blocks shall be 1-inch. Coated spacers (2-inch by 1-1/2-inch by 1/2-inch) shall be used to insure sealant cross-sections of 1/2-inch by 2 inches with a width of 1-inch.
 2. Sealant shall be cast and cured according to manufacturer's recommendations except that curing period shall be not less than 24 hours.
 3. Following curing period, the gap between blocks shall be widened to 1-1/2-inch. Spacers shall be used to maintain this gap for 24 hours prior to inspection for failure.

1.06 GUARANTEE

- A. The CONTRACTOR shall provide a 5-year written guarantee of the entire sealant installation against faulty and/or incompatible materials and workmanship, together with a statement that it agrees to repair or replace, to the satisfaction of the OWNER, at no additional cost to the OWNER, any such defective areas which become evident within said 5-year guarantee period.

PART 2 -- PRODUCTS

2.01 JOINT SEALANT

- A. Joint sealant shall be polyurethane polymer designed for bonding to concrete which is continuously submerged in water. No material will be acceptable which has an

unsatisfactory history as to bond or durability when used in the joints of water retaining structures.

- B. Joint sealant material shall meet the following requirements (73 degrees F and 50 percent R.H.):

Work Life	45 - 90 minutes
Time to Reach 20 Shore "A" Hardness (at 77 degrees F, 200 gr quantity)	24 hours, maximum
Ultimate Hardness (ASTM D 2240)	30 - 40 Shore "A"
Tensile Strength (ASTM D 412)	250 psi, minimum
Ultimate Elongation (ASTM D 412)	400 percent, minimum
Tear Resistance (Die C ASTM D 624)	75 pounds per inch of thickness, min.
Color	Light Gray

- C. All polyurethane sealants for waterstop joints in concrete shall conform to the following requirements:

1. Sealant shall be 2-part polyurethane with the physical properties of the cured sealant conforming to or exceeding the requirements of ANSI/ASTM C 920 or Federal Specification
TT-S-0227 E(3) for 2-part material, as applicable.
2. For vertical joints and overhead horizontal joints, only "non-sag" compounds shall be used; all such compounds shall conform to the requirements of ANSI/ASTM C 920 Class 25, Grade NS, or Federal Specification TT-S-0227 E(3), Type II, Class A.
3. For plane horizontal joints, the self-leveling compounds which meet the requirements of ANSI/ASTM C 920 Class 25, Grade P, or Federal Specification TT-S-0227 E(3), Type I shall be used. For joints subject to either pedestrian or vehicular traffic, a compound providing non-tracking characteristics, and having a Shore "A" hardness range of 35 to 45, shall be used.
4. Primer materials, if recommended by the sealant manufacturer, shall conform to the printed recommendations of the sealant manufacturer.

- C. All sealants, wherever shown, or required hereunder shall be PSI-270 as manufactured by Polymeric Systems Inc.; Elastothane 227R as manufactured by Pacific Polymers; Sikaflex 2C, as manufactured by Sika Corporation; or equal.

2.02 JOINT MATERIALS

- A. Bearing Pad: Bearing pad to be neoprene conforming to ASTM D 2000 BC 420, 40 durometer hardness unless otherwise noted.
- B. Neoprene Sponge: Sponge to be neoprene, closed-cell, expanded, conforming to ASTM D 1056, type 2C3-E1.

C. Joint Filler:

1. Joint filler for expansion joints in waterholding structures shall be neoprene conforming to ASTM D1056, type 2C5-E1.
2. Joint filler material in other locations shall be of the preformed non-extruding type joint filler constructed of cellular neoprene sponge rubber or polyurethane of firm texture. Bituminous fiber type will not be permitted. All non-extruding and resilient-type preformed expansion joint fillers shall conform to the requirements and tests set forth in ASTM D 1752 for Type I, except as otherwise specified herein.

2.03 PREFORMED JOINT FILLER

- A. Preformed joint filler material shall be of the preformed non-extruding type joint filler constructed of cellular neoprene sponge rubber or polyurethane of firm texture. Bituminous fiber type will not be permitted. All non-extruding and resilient-type preformed expansion joint fillers shall conform to the requirements and tests set forth in ASTM D 1752 for Type I, except as otherwise specified herein.
- B. Unless otherwise noted, preformed joint filler shall be a non-extruding, resilient, bituminous type conforming to the requirements of ASTM D 1751.

2.04 BACKING ROD

- A. Backing rod shall be an extruded closed-cell, polyethylene foam rod. The material shall be compatible with the joint sealant material used and shall have a tensile strength of not less than 40 psi and a compression deflection of approximately 25 percent at 8 psi. The rod shall be 1/8-inch larger in diameter than the joint width except that a one-inch diameter rod shall be used for a 3/4- inch wide joint.

2.05 BOND BREAKER

- A. Bond breaker shall be Super Bond Breaker as manufactured by Burke Company, San Mateo, California; Select Cure CRB as manufactured by Select Products Co., Upland, California; or equal. It shall contain a fugitive dye so that areas of application will be readily distinguishable.

2.06 SLIP DOWELS

- A. Slip dowels in joints shall be A36 smooth epoxy-coated bars, conforming to ASTM A 775.

2.07 PVC TUBING

- A. PVC tubing in joints shall be Sch. SDR 13.5, conforming to ASTM D 2241.

PART 3 -- EXECUTION

3.01 GENERAL

- A. Waterstops of the type specified herein shall be embedded in the concrete across joints as shown. All waterstops shall be fully continuous for the extent of the joint. Splices necessary to provide such continuity shall be accomplished in conformance to printed instructions of manufacturer of the waterstops. The CONTRACTOR shall take suitable

precautions and means to support and protect the waterstops during the progress of the work and shall repair or replace at its own expense any waterstops damaged during the progress of the work. All waterstops shall be stored so as to permit free circulation of air around the waterstop material.

- B. When any waterstop is installed in the concrete on one side of a joint, while the other half or portion of the waterstop remains exposed to the atmosphere for more than 2 days, suitable precautions shall be taken to shade and protect the exposed waterstop from direct rays of the sun during the entire exposure and until the exposed portion of the waterstop is embedded in concrete.

3.02 JOINT CONSTRUCTION

- A. **Setting Waterstops:** In order to eliminate faulty installation that may result in joint leakage, particular care shall be taken of the correct positioning of the waterstops during installation. Adequate provisions must be made to support and anchor the waterstops during the progress of the WORK and to insure the proper embedment in the concrete. The symmetrical halves of the waterstops shall be equally divided between the concrete pours at the joints. The center axis of the waterstops shall be coincident with the joint openings. Maximum density and imperviousness of the concrete shall be insured by thoroughly working it in the vicinity of all joints.
- B. In placing flat-strip waterstops in the forms, means shall be provided to prevent them from being folded over by the concrete as it is placed. Unless otherwise shown, all waterstops shall be held in place with light wire ties on 12-inch centers which shall be passed through the edge of the waterstop and tied to the curtain of reinforcing steel. Horizontal waterstops, with their flat face in a vertical plane, shall be held in place with continuous supports to which the top edge of the waterstop shall be tacked. In placing concrete around horizontal waterstops, with their flat face in a horizontal plane, concrete shall be worked under the waterstops by hand so as to avoid the formation of air and rock pockets.
- C. In placing centerbulb waterstops in expansion joints, the centerbulb shall be centered on the joint filler material.
- D. Waterstop in vertical wall joints shall stop 6 inches from the top of the wall where such waterstop does not connect with any other waterstop and is not to be connected to for a future concrete placement.
- E. **Joint Location:** Construction joints, and other types of joints, shall be provided where shown. When not shown, construction joints shall be provided at 25-foot maximum spacing for all concrete construction, unless noted otherwise. Where joints are shown spaced greater than 40 feet apart, additional joints shall be provided to maintain the 25-foot maximum spacing. The location of all joints, of any type, shall be submitted for acceptance by the ENGINEER.
- F. **Joint Preparation:** Special care shall be used in preparing concrete surfaces at joints where bonding between 2 sections of concrete is required. Unless otherwise shown, such bonding will be required at all horizontal joints in walls. Surfaces shall be prepared in accordance with the requirements of Section [03300] [03310], "Cast-in-Place Concrete." Except on horizontal wall construction joints, wall to slab joints or where otherwise shown or specified, at all joints where waterstops are required, the joint face of the first pour shall be coated with a bond breaker as specified herein.

- G. Construction Joint Sealant: Construction joints in water-bearing floor slabs, and elsewhere as shown, shall be provided with tapered grooves which shall be filled with a construction joint sealant. The material used for forming the tapered grooves shall be left in the grooves until just before the grooves are cleaned and filled with joint sealant. After removing the forms from the grooves, all laitance and fins shall be removed, and the grooves shall be sand-blasted. The grooves shall be allowed to become thoroughly dry, after which they shall be blown out; immediately thereafter, they shall be primed, bond breaker tape placed in the bottom of the groove, and filled with the construction joint sealant. The primer used shall be supplied by the same manufacturer supplying the sealant. No sealant will be permitted to be used without a primer. Care shall be used to completely fill the sealant grooves. Areas designated to receive a sealant fillet shall be thoroughly cleaned, as outlined for the tapered grooves, prior to application of the sealant.
- H. The primer and sealant shall be placed strictly in accordance with the printed recommendations of the manufacturer, taking special care to properly mix the sealant prior to application. The sides of the sealant groove shall not be coated with bond breaker, curing compound, or any other substance which would interfere with proper bonding of the sealant. All sealant shall achieve final cure at least 7 days before the structure is filled with water.
- I. All sealant shall be installed by a competent waterproofing specialty contractor who has a successful record of performance in similar installations. Before work is commenced, the crew doing the WORK shall be instructed as to the proper method of application by a representative of the sealant manufacturer.
- J. Thorough, uniform mixing of 2-part, catalyst-cured materials is essential; special care shall be taken to properly mix the sealer before its application. Before any sealer is placed, the CONTRACTOR shall arrange to have the crew doing the WORK carefully instructed as to the proper method of mixing and application by a representative of the sealant manufacturer.
- K. Any joint sealant which, after the manufacturer's recommended curing time for the job conditions of the WORK hereunder, fails to fully and properly cure shall be completely removed; the groove shall be thoroughly sandblasted to remove all traces of the uncured or partially cured sealant and primer, and shall be re-sealed with the specified joint sealant. All costs of such removal, joint treatment, re-sealing, and appurtenant work shall be at the expense of the CONTRACTOR.

END OF SECTION

DIVISION 3**CONCRETE****SECTION 03300****CAST IN PLACE & PRECAST CONCRETE****PART 1 - GENERAL****1.01 WORK INCLUDED:**

- A. The work included under this section consist of furnishing all materials, forms, transportation and equipment, and performing all necessary labor to do all the plain concrete work shown on the Drawings, or incidental to the proper execution of the work, or as herein specified.
- B. Composition: Concrete shall be composed of cement, fine aggregate, coarse aggregate, and water, so proportioned and mixed as to produce a plastic workable mixture in accordance with all requirements under this section suitable to the specific conditions of placement.
- C. The work consists of furnishing and installing 1,195 linear feet OF concrete masonry block or precast privacy wall system. Each panel is 6 feet in height and varying 2¾ to 5 inches in thickness. The length of each precast panel unless otherwise noted on the Drawings is 20 feet as measured from centerline to centerline of the precast concrete columns that are between each precast panel. A reinforced concrete foundation must be provided to support the precast concrete wall. Above each column is a pyramid shaped precast concrete cap. The bottom of the precast concrete privacy wall shall be level. Any changes in the proposed bottom of privacy wall elevations shall be accomplished by providing adjacent precast wall panel sections at different levels. The maximum change in elevation between adjacent wall panel sections shall be 2".

1.02 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified.
 - 1. ACI 301 "Specifications for Structural Concrete for Buildings."
 - 2. ACI 318 "Building Code Requirements for Reinforced Concrete."
 - 3. Concrete Reinforcing Steel Institute, "Manual of Standard Practice."
- B. Materials and installed work may require testing and retesting, as directed by ENGINEER, at any time during progress of work. Allow free access to material stockpiles and facilities.
- C. Concrete Testing Service: Tests shall be performed by an independent testing laboratory selected by the CITY to perform material evaluation tests. Copies of report shall be provided to the CITY for review.

1.02 SUBMITTALS:

- A. The CONTRACTOR shall submit shop drawings for the precast wall system to be used and all materials to be used for the concrete masonry block wall. All materials specified shall be certified by the producer or manufacturer that the furnished material meets the requirements of the specification. Product Data: Submit manufacturer's product data with application and installation instructions for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, waterstops, joint systems, curing compounds, dry-shake finish materials, and others as requested by PROJECT MANAGER.
- B. The CONTRACTOR shall submit signed and sealed calculations to show that the precast concrete or concrete masonry block privacy wall will meet the hurricane wind load requirements as per the most recent edition of the South Florida building code.
- C. The CONTRACTOR shall provide signed and sealed shop drawings for the components of the precast concrete wall such as but not limited to the precast concrete lintel, precast concrete privacy wall, precast concrete cap and precast concrete column. The shop drawings shall include calculations, details, design, layout, and specifications.
- D. The CONTRACTOR shall provide shop drawings for reinforced concrete footing. The shop drawings shall include calculations, details, design, layout and specifications.
- E. The CONTRACTOR shall provide concrete job mix data, concrete test results of this mix on prior projects and current concrete test results for this project.
- F. Reinforcement: Submit shop drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures" showing bar schedules, stirrup spacing, diagrams of bent bars, and arrangement of concrete reinforcement. Include special reinforcement required and openings through concrete structures.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Precast Wall Option:
 - 1. Precast Panels to be provided by "Duratek Precast Technologies Generation #1 Wall System", 2180 American Flyer Way, Brooksville, Florida 34604. Telephone number (352) 796-5944. Point of Contact Mr. Daniel LaRocca. An approved equal to "Duratek Precast Technologies Generation #1 Wall System", can also be provided if submitted with Bid proposal and approved by the Engineer.

 CONTRACTOR to provide signed and sealed shop drawings consisting of layout, specifications, design data, sections, elevations and details of the following:

 Precast concrete lintel (integral with wall)
 Precast concrete privacy wall
 Precast concrete cap
 Precast concrete column
 - 2. The CONTRACTOR shall use materials as per the manufacturer's requirements.
- B. Concrete Masonry Unit/Block Option:

1. Cement: Cement of all concrete shall be domestic Portland cement that conforms to the requirements of ASTM Designation C 150, Type I, unless specified.
 - a. Use one brand of cement throughout project, unless otherwise specified.
2. Fine Aggregate: Fine aggregate shall conform to the requirements of Section 902, Article 902-1 of the Florida Department of Transportation 2015 "Standard Specifications for Road and Bridge Construction".
3. Coarse Aggregate: Coarse aggregate shall conform to the requirements of Section 901 of the Florida Department of Transportation 2015 "Standard Specifications for Road and Bridge Construction", except that slag shall not be used and the gradation shall be grade 57 as approved by the ENGINEER.
4. Water: Water shall be taken from a potable water supply and shall be fresh, clean and free from injurious amounts of oil, acid, alkali or organic matter.
5. Membrane Curing Compound: Membrane Curing compound shall conform to the requirements of AASHTO Designation M 148, Type 1 - clear.
6. Membrane: Membrane shall be a 6-mil polyethylene film. G.
7. Reinforcing Steel:
 - a. Welded wire fabric for concrete reinforcement shall conform to the requirements of ASTM Designation A 185 and shall be formed with smooth cold-drawn wire.
 - b. Reinforcing steel shall conform to the size and specifications shown on the drawings, and to the requirements of ASTM Designation A 615, Deformed grade 60, except where otherwise indicated.
 - i. The name of the manufacturer of the reinforcing steel shall be called out in the shop drawings together with a sketch showing the pattern of the deformation, including the mill mark.
 - ii. Bar reinforcement shall be accurately fabricated in accordance with the latest CRSI Manual of Standard Practice. The CONTRACTOR shall have prepared and shall submit to the ENGINEER five (5) copies of the necessary shop drawings and bar lists. The CONTRACTOR shall be responsible for errors made in shop drawings even though approved by the ENGINEER.
 - c. Bar Supports:
 - i. Bar supports for reinforcing steel shall conform to the requirements of CRSI Manual of Standard Practice, Chapter 3, and shall be of a height to furnish the concrete cover called for on drawings. High chairs shall be furnished for bent or top bars in solid slabs. Bar supports to be in contact with exterior surfaces of concrete shall be Class C with plastic caps at least 1-inch in length on the leg tips, or Class E with stainless steel legs. Bar supports shall be spaced not more than 100 times the diameter of the bars to

be supported, with not more than 1/4 spacing from the end of the supported bars to the first chair.

8. Forms: Forms shall be of wood, steel or other approved materials. The sheeting for all exposed surfaces shall be 5-ply plywood, unless otherwise specifically authorized. Forms of like character shall be used for similarly exposed surfaces in order to produce a uniform appearance. Forming for exposed exterior concrete form 1-foot below finished exterior grade to top of structure shall be carefully fabricated so as to provide a smooth finish without defects. The type, size, shape, quality and strength of all materials of which the forms are made shall be subject to the approval of the ENGINEER. If it is his opinion that the interior surfaces of the forms are too irregular to produce the specified finish, they shall be lined with smooth, dense, moisture resistant hardboard or other material of which he approves.
9. Non-shrink Grout: Non-shrink grout shall be nonmetallic pre-mixed type and shall be Ceresin F-100 Level Fill, Master Builders Masterflow 713, Burke Non-Ferrous, Non-Shrink Grout or approved equal.
10. Silicone Joint Sealant: Silicone Joint Sealant shall be 888 silicone joint sealant as manufactured by Dow Corning or approved equal.
11. Grout
 - a. Grout for pointing and patching shall consist of cement and fine aggregate mixed in the proportions used in the concrete and a minimum amount of water to produce a workable grout.
 - b. Material for grouting anchor bolts, reinforcing bars and pipe sleeves shall be of the non-shrink type and shall be mixed and placed as recommended by the manufacturer.
12. Cast in Place Foundation:
 - a. Concrete for cast in place items, signs and other foundations shall consist of Class B concrete with a comprehensive strength of no less than 3,000 psi at 28 days.
 - b. Reinforcing steel shall be as specified in this Section and as shown on the drawings and other contract documents.

2.02 CLASSIFICATION AND STRENGTH OF CONCRETE

A. Precast Wall Option:

1. The CONTRACTOR to follow the approved manufacturers or supplier design data.

B. Concrete Masonry Block Wall Option:

1. Class and minimum strength requirements for concrete shall be as tabulated below. Unless otherwise specified, Class B concrete shall be used.

2. Strength Requirements: Concrete class and strength shall meet the minimum compressive strength requirements at the age of 7 and 28 days as shown the following table. The compressive strengths shall be as determined by standard laboratory cylinder tests in accordance with the procedure set forth in ASTM Designation C 31 and C 39.

Compressive Strength in Pounds Per Square Inch

<u>Class</u>	<u>For Design Purpose</u>	<u>3 Consecutive Cylinder Average</u>	
		<u>7 Days</u>	<u>28 Days</u>
A	4000	2950	4250
B	3000	2100	3200
C	2500	1800	2700

- C. Slump: Slumps shall be as low as possible consistent with proper placing. Low slump concrete shall be used for footing and slabs on grade. Medium slump concrete shall be used for walls, columns and suspended slabs. Concrete shall conform to the limits specified in the following schedule:

<u>Class of Concrete</u>	<u>Medium Slump</u>	<u>Low Slump</u>
A	4 to 5 in.	2 to 3 in.
B	4 to 5 in.	2 to 3 in.
C	5 to 6 in.	3 to 4 in.

PART 3 - EXECUTION:

3.01 FORMS:

- A. Construction:

4. Forms shall be built true to line and grade, and shall be mortar tight and sufficiently rigid to prevent displacement or sagging between supports. Particular attention shall be given to adequacy of supports and shoring, which is the CONTRACTOR's responsibility. The surfaces of forms used for permanently exposed surfaces shall be smooth and free from irregularities, dents, sags, or holes. Forms for surfaces to receive stucco finish shall be suitable for its application. Bolts and rods used for internal ties shall be so arranged that, when the forms are removed, all metal is at least 1 1/2 inch from any concrete surface. Form ties shall be removed immediately after removal of forms, and holes shall be thoroughly plugged with grout within 24 hours after form removal and kept damp for 4 days to prevent shrinking.
2. Wire tires will not be permitted. All forms shall be so constructed that they can be removed without hammering or prying against the concrete. Unless otherwise indicated, suitable molding shall be placed to level or round exposed edges at expansion joints or at any other corners that are to remain. Beams below grade shall have forms at both sides.

- B. Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structure. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position.

- C. Coating: Prior to the placing of steel reinforcement or concrete, forms for exposed surfaces shall be coated with a nonstaining paraffin base oil or mineral oil. Forms for unexposed surfaces may be thoroughly wetted in lieu of oiling, immediately before the placing of concrete.
- D. Removal: Forms and/or form supports shall not be removed from any concrete until it has obtained sufficient strength to support itself and any live loads it may be subjected to, and then only with the approval of the ENGINEER.
- E. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed. Re-tighten forms and bracing after concrete placement is required to eliminate mortar leaks and maintain proper alignment.

3.02 PLACING REINFORCING STEEL

- A. When placed in the forms, reinforcement shall be clean and free of all rust, scale, dust, dirt, paint, oil, or other foreign material and shall be accurately and securely positioned in the forms as shown on the drawing before the placing of concrete. Reinforcing steel shall be wired or otherwise fastened together at intersections and shall be supported by concrete or metal supports, spacers or hangers.
 - 1. Splicing of reinforcement shall be held to a minimum and shall be placed at points of minimum stress. Bars shall be lapped at splices a minimum of 24 bar diameters unless otherwise shown on the Drawings or directed by the PROJECT MANAGER, and shall be rigidly wired or clamped.
 - 2. Wire fabric shall be straightened before placing and shall overlap one full space of mesh at ends and edges and shall be securely fastened. Fabric shall be supported so as to occupy its proper location in the concrete as shown on the drawings. Fabric shall not cross any expansion joints.
- B. Embedded items: In addition to steel reinforcement, pipes, inserts and other metal objects as shown, specified or ordered shall be built on, set in or attached to the concrete. All necessary precautions shall be taken to prevent these objects from being displaced, broken or deformed. Before concrete is placed, care shall be taken to determine that all embedded parts are firmly and securely fastened in place as indicated. They shall be thoroughly clean and free from paint or other coating, rust, scale, oil, or any foreign matter. No wood shall be embedded in concrete. The concrete shall be packed tightly around pipes and other metal work to prevent leakage and to secure perfect adhesion. Drains shall be adequately protected from intrusion of concrete.
- C. Accurately position, support and secure reinforcement against displacement by form work, construction or concrete placement operations. Locate and support reinforcement by spacers and hangers as required.
- D. Place reinforcement to obtain the minimum coverage for concrete protection. Arrange space and securely tie bars and bar support together with sixteen (16) gauge wire to hold reinforcement accurately in position during concrete placement operations. Set wire ties so that ends are directed into the concrete, not toward exposed concrete surfaces.

3.03 JOINTS

- A. Construction Joints: Locate and install construction joints, which are not shown on drawings, so as not to impair strength and appearance of the structure, as acceptable to ENGINEER.

3.04 CONCRETE PLACEMENT:

- A. General: Reinforcement shall be secured in position, inspected and approved before placing concrete. Runways for transporting concrete shall not rest on reinforcing steel. Concrete not placed within 90 minutes from the time mixing is started will be rejected and shall be removed from the job by the CONTRACTOR. Concrete shall be deposited as nearly as practicable in final position. Concrete shall not be allowed to drop freely more than six feet. All concrete shall be placed in daylight and (accepting seal concrete) shall be placed in the dry unless otherwise authorized by the ENGINEER in writing.
- B. Compaction: Concrete shall be compacted by internal vibrating equipment, supplemented by hand rodding and tamping as required. Vibrators shall in no case be used to move the concrete laterally inside the forms. Internal vibrators shall maintain a speed of at least 5000 impulses per minute when submerged in concrete. (At least one spare vibrator in working condition shall be maintained at the site during concrete placing operations.) Duration of vibration shall be limited to time necessary to produce satisfactory consolidation without causing segregation. Vibrator shall be moved constantly and placed in each specific spot only once.
- C. Protection: Rainwater shall not be allowed to increase the ratio of mixing water or to damage the surface finish. Concrete shall be protected from disfigurement, damage, vibration, internal fractures and construction overloads.
- D. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.
- E. Wet forms thoroughly before placing concrete.
- F. Use water-reducing retarding admixture (Type D) when required by high temperatures, low humidity, or other adverse placing conditions.

3.05 CURING:

- A. Curing shall be in accordance with Section 2506.5 of the latest edition of the South Florida Building Code.

3.06 FINISH:

- A. All irregular projections shall be removed flush with the surface. All holes, metal tie cavities; honey combing; chips and spills shall be cleaned, saturated with water and carefully pointed with mortar.
- B. Unless otherwise indicated, concrete surfaces will require no special finish other than such pointing up and rubbing necessary to leave them smooth and impervious.
- C. Other surfaces, which will be exposed in the completed work, shall be finished by being rubbed smooth with a float and water or a carborundum brick. The final surface shall be smooth and dense, without pits, irregularities, blowholes or bubbles.

3.07 SLUMP AND CYLINDER TEST:

- A. Slump and cylinder tests and reports to be performed and prepared by a recognized independent laboratory retained by the ENGINEER.
- B. Cylinders shall be made in accordance with ASTM C31 and tested in accordance with ASTM C39.
- C. Make one (1) set of four (4) cylinders and one (1) slump test for every fifty cubic yard (50 C.Y.) or less of concrete poured. Make at least (1) set for each day's placement. Give cylinders identification marks and record for reference.
- D. Break one (1) cylinder at three (3) days, one (1) at seven (7) days, one (1) at twenty-eight (28) days. Hold one (1) cylinder for future uses if test does not comply at twenty-eight (28) days.
- E. The CONTRACTOR shall reject any batch with excessive slump.
- F. The quality of concrete as to conformance to strength requirements is the entire responsibility of the CONTRACTOR until it is accepted in place in the structure and verified by final cylinder tests made by the laboratory.

END OF SECTION

DIVISION 3
CONCRETE
SECTION 03350
CONCRETE FINISHES

PART 1 -- GENERAL

1.01 REQUIREMENT

- A. Furnish all materials, labor, and equipment required to provide finishes of all concrete surfaces specified herein and shown on the Drawings.

1.02 RELATED WORK

- A . Section 03100-Concrete Formwork
- B . Section 03300-Cast in Place and Precast Concrete
- C . Section 03400-Precast Concrete

1.03 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Without limiting the generality of the other requirements of the specifications, all work herein shall conform to the applicable requirements of the following documents. All referenced specifications, codes, and standards refer to the most current issue available at the time of Bid.
 - 1. ACI 301 -Specifications for Structural Concrete for Buildings
 - 2. ACI 318 - Building Code Requirements for Reinforced Concrete

1.04 SUBMITTALS

- A. Submit the following:
 - 1. Samples or manufacturer's literature on all products specified in the Contract Documents.

PART 2 – PRODUCTS (NOT USED)

PART 3 -- EXECUTION

FINISHES ON FORMED CONCRETE SURFACES

- A. After removal of forms, the finishes described below shall be applied in accordance with Article 3.05 - Concrete Finish Schedule. Unless the finish schedule specifies otherwise, all surfaces shall receive at least a Type I finish. The CITY shall be the sole judge of acceptability of all concrete finish work.

1. Type I - Rough: All fins, burrs and other projections left by the forms shall be removed. All holes left by removal of ends of ties, and all other holes, depressions, or voids shall be filled solid with cement grout after first being thoroughly wetted. Honeycombs shall be chipped back to solid concrete as directed, prior to patching with cement grout. Holes shall be filled with a small tool that will permit packing the hole solidly with cement grout. Cement grout shall consist of one part cement to three parts sand, and the amount of mixing water shall be as little as consistent with the requirements of handling and placing. Color of cement grout shall match the adjacent wall surface.
2. Type II - Grout Cleaned: Where this finish is required, it shall be applied after completion of Type I finish. After the concrete has been predampened, a slurry consisting of one part cement (including an appropriate quantity of white cement in order to produce a color matching the surrounding concrete) and 1-1/2 parts sand passing the No. 16 sieve, by damp loose volume, shall be spread over the surface with clean burlap pads or sponge rubber floats. Any surplus shall be removed by scraping and then rubbing with clean burlap. The finish shall be kept damp for at least 36 hours after application.
3. Type III - Smooth Rubbed: Where this finish is required, it shall be applied after the completion of the Type I finish. No rubbing shall be done before the concrete is thoroughly hardened and the mortar used for patching is firmly set. A smooth, uniform surface shall be obtained by wetting the surface and rubbing it with a carborundum stone to eliminate irregularities. Unless the nature of the irregularities requires it, the general surface of the concrete shall not be cut into. Corners and edges shall be slightly rounded by the use of the carborundum stone. Brush finishing or painting with grout or neat cement will not be permitted.

END OF SECTION

DIVISION 3
CONCRETE
SECTION 03370
CONCRETE CURING

PART 1 -- GENERAL

1.01 REQUIREMENT

- A. Protect all freshly deposited concrete from premature drying and excessively hot or cold temperatures, and maintain with minimal moisture loss at a relatively constant temperature for the period of time necessary for the hydration of the cement and proper hardening of the concrete in accordance with requirements specified herein.

1.02 RELATED WORK

- A. Section 03100-Concrete Formwork
- B. Section 03290-Joints in Concrete
- C. Section 03300-Cast-in Place Concrete and Precast Concrete
- D. Section 03350 Concrete Finishes
- E. Section 03370-Concrete Curing
- F. Section 03400-Precast Concrete
- G. Section 09220-Portland Cement Plaster and Stucco
- H. Section 09900-Painting

1.03 SUBMITTAL

- A. The following shall be submitted:
 - 1. Procedures for protection of concrete under wet weather placement conditions.
 - 2. Procedures for hot weather placement.
 - 3. Procedures for moisture preservation.

1.04 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Without limiting the generality of other requirements of these specifications all work hereunder shall conform to the applicable requirements of the referenced portions of the following documents, to the extent that the requirements therein are not in conflict with the provisions of this Section.
 - 1. Specifications for Structural Concrete for buildings, ACI 301.
 - 2. Guide for Measuring, Mixing, Transporting, and Placing Concrete, ACI 304.
 - 3. Hot Weather Concreting, ACI 305.
 - 4. Specifications for Sheet Materials for Curing Concrete, ASTM C1 71.
 - 5. Specification for Liquid Membrane - Forming Compounds for Curing Concrete, ASTM C309.
 - 6. Federal Specification TT-C- 800.

1.05 QUALITY ASSURANCE

- A. Curing compound shall not be used on any surface where concrete or other material will be bonded unless the manufacturer certifies that the curing compound will not prevent bond or indicates measures to be taken to completely remove the curing compound from areas to receive bonded applications.
- B. Care shall be taken to ensure that curing compounds are compatible with all finish concrete castings.

PART 2 -- PRODUCTS

2.01 CURING COMPOUNDS

- A. All materials shall meet the ASTM specifications C309, Type 1 -D, Class or Federal Specification TT-C-800 and shall have a minimum solids content of 30 percent.

PART 3 -- EXECUTION

3.01 PROTECTION AND CURING

- A. All concrete work shall be protected from the elements, flowing water and from defacement of any nature during construction operations.
- B. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Protect concrete during the curing period such that the concrete temperature does not fall below the requirements of Section 3.02 - Concrete Temperature. Cure concrete in accordance with paragraph E or paragraph F.
- C. When concrete is placed in cold weather as defined in ACI 306, the concrete shall be protected in accordance with requirements of ACI 306, Cold Weather Concreting.
- D. When concrete is placed in hot weather as defined in ACI 305, the concrete shall be protected in accordance with the requirements of ACI 305, Hot Weather Concreting.
- E. After placing and finishing, use one or more of the following methods to preserve moisture in concrete:
 - 1. Ponding or continuous fogging or sprinkling.
 - 2. Application of mats or fabric kept continuously wet.
 - 3. Continuous application of steam (under 150 degrees Fahrenheit).
 - 4. Application of sheet materials conforming to ASTM C171.
 - 5. Application of a curing compound conforming to ASTM C309 or Federal Specification TT-C-800. Apply the compound in accordance with the manufacturer's recommendation on after water sheen has disappeared from the concrete surface and after finishing operations. The rate of application shall not exceed 200 square feet per gallon. For rough surfaces, apply in two directions at right angles to each other.
- F. Keep absorbent forms wet until they are removed. After form removal, cure concrete by one of the methods in paragraph E. Frames may be "cracked" within twenty-four hours and kept moist until they are required to be kept in place.

3.02 CONCRETE TEMPERATURE

- A. When the average of the highest and lowest temperature during the period from midnight to midnight is expected to drop below 40 F for more than three successive days, concrete shall be delivered to meet the following minimum temperature immediately after placement:
 - 1. 55 degrees Fahrenheit for sections less than 12 in. in the least dimension
 - 2. 50 degrees Fahrenheit for sections 12 in. to 36 in. in the least dimension
 - 3. 45 degrees Fahrenheit for sections 36 in. to 72 in. in the least dimension
 - 4. 40 degrees Fahrenheit for sections greater than 72 in. in the least dimension
- B. The temperature of concrete as placed shall not exceed these values by more than 20 degrees Fahrenheit.
- C. These minimum requirements may be terminated when temperatures above 50 degrees Fahrenheit occur during more than half of any 24 hour duration.
- D. Unless otherwise specified or permitted, the temperature of concrete as delivered shall not exceed 90 degrees Fahrenheit.
- E. During and following curing, do not allow the surface of the concrete to change temperature more than the following:
 - 1. 50 degrees Fahrenheit in any 24-hr period for sections less than 12 in. in the least dimension
 - 2. 40 degrees Fahrenheit for sections from 12 to 36 in. in the least dimension
 - 3. 30 degrees Fahrenheit for sections from 12 to 36 in. in the least dimension
 - 4. 20 degrees Fahrenheit for sections greater than 72 in. in the least dimension
- F. Cure for at least the first seven days after placement for all concrete except high early strength concrete, for which the period shall be at least the first three days after placement.
 - 1. Alternatively, moisture retention measures may be terminated when:
 - a. Tests are made on at least two additional cylinders kept adjacent to the structure and cured by the same methods as the structure and tests indicate 70 percent of the specified compressive strength, F'C, as determined in accordance with ASTM C39.
 - b. The temperature of the concrete is maintained at 50 degrees Fahrenheit or higher for the time required to achieve 85 percent of F'C in laboratory-cured cylinders representative of the concrete in place.
 - c. The strength of concrete reaches F'C as determined by accepted nondestructive methods or laboratory-cured cylinder test results.
- G. When one of the curing procedures in Paragraph 3.01-E is used initially, the curing procedure may be replaced by one of the other procedures when concrete is one day old, provided concrete is not permitted to become surface dry at any time.

END OF SECTION

DIVISION 3
CONCRETE
SECTION 03400
PRECAST CONCRETE

PART 1 -- GENERAL

1.02 THE REQUIREMENT

- A. The CONTRACTOR shall furnish all tools, equipment, materials, and supplies and shall perform all labor required to complete the precast concrete work in accordance with the Contract Documents.
- B. This Section covers the design, fabrication, delivery and installation of all precast concrete units, including connections, complete, in place, as shown and specified.

1.02 CONTRACTOR SUBMITTALS

- A. Shop Drawings:
 - 1. Shop drawings shall show details in accordance with ACI 315 and ACI 318 including installation details and design computations.
 - 2. Shop drawings, including design computations, shall be stamped and signed by a structural engineer registered in the State and shall be approved by the ENGINEER.
 - 3. Shop Drawings: Showing all elevations, dimensions, horizontal and vertical sections, openings, inserts, reinforcing, anchorage devices, details, design computations, and other requirements for each different type of panel to be incorporated into the portion of the project covered by the submittal. Drawings shall be 24 inches x 36 inches maximum.
- C. Test Reports: Tests for compressive strength of concrete shall be performed by an independent commercial testing laboratory. Copies of test reports including all test data and all test results shall be submitted.
- D. Certificates of Compliance: Certificates of compliance shall be submitted attesting that materials and products meet or exceed specified requirements.
- E. Manufacturer's Qualifications: Prior to commencing operations, a statement shall be submitted giving the qualifications of the precast concrete Manufacturer, and evidence that the Manufacturer and plant are PCI certified.

1.03 QUALITY ASSURANCE

- A. General Requirements: Design members under direct supervision of a professional structural engineer experienced in design of precast concrete units, registered in the State and conforming to requirements of PCI MNL-121 and to ACI 318.

1. Precast Manufacturer and erectors shall be qualified in accordance with PCI MNL-117 and MNL-116.
2. Welding shall be in accordance with AWS D1.1, AWS D12.1, AWS B2.1, and AWS A5.4.

1.04 DESIGN REQUIREMENTS

- A. General: The precast structure and connection design shall conform to all applicable codes and specification for the Design, Fabrication and Erection of civil concrete structures.
- B. Connections: Prior to submitting shop drawings, the CONTRACTOR shall verify the precast connection designs shown against the aforementioned and following design criteria and provide any additional materials necessary to meet the design conditions if applicable.
- C. Concrete Mix: The concrete mix shall as stated on Section 03300.

1.05 DELIVERY, STORAGE AND HANDLING

- A. General: Precast members shall be handled to position consistent with their shape and design; they shall be lifted and supported from design incorporated support points and provided with strong backs and other devices as required. Lifting or handling equipment shall be capable of maintaining units during manufacture, storage, transportation, erection, and in position for fastening.
- B. Blocking and supports, lateral restraints and protective materials during transport and storage shall be clean, nonstaining, without causing harm to exposed surfaces, including temporary support to prevent bowing and warping. Lateral restraints shall be provided to prevent undesirable horizontal movement. Edges and exposed faces of members shall be protected to prevent straining, chipping, or spalling of concrete.
- C. Units shall be marked with date of production and final position in structure in location not visible after erection.
- D. Precast units shall be stored off the ground in a manner to prevent warpage and they shall be protected from weather, marring, and overload.

PART 2 -- EXECUTION

2.01 INSTALLATION

- A. Examination: The CONTRACTOR shall verify that building structure, anchors, devices, and openings are ready to receive work of this Section. Beginning of installation means acceptance of existing condition.
- B. Preparation: The CONTRACTOR shall provide for erection procedures and induced loads, during erection, maintain temporary bracing in place until final support is provided, provide necessary hoisting equipment and safety and protective devices.

2.02 CLEANING

- A. Not sooner than 72 hours after joints are sealed, faces and other exposed surfaces of precast units shall be cleaned using a cleaning detergent recommended by the sealer

manufacturer and water applied with a soft bristle brush, and thoroughly rinsed using clean water or other approved procedures.

- B. Units shall be cleaned when temperature and humidity conditions are such that surfaces dry rapidly (e.g., 70 degrees F and rising, 50 percent RH or less).
- C. Discolorations which cannot be removed by these procedures shall be considered defective work, and repaired or replaced as directed by ENGINEER.

2.03 PROTECTION

- A. Adjacent surfaces shall be protected from damage during sealing and cleaning operations and against damage, disfiguration or discoloration from subsequent operations. Noncombustible shielding shall be used during welding operations.

END OF SECTION

DIVISION 4
MASONRY
SECTION 04060
MORTAR

PART1 GENERAL

1.01 SCOPE OF WORK

- A. Mortar shall conform to the property or proportion requirements of ASTM C270, latest edition. Non-load bearing and load-bearing concrete masonry shall be laid in mortar Type M.
- B. All concrete work shall be constructed in accordance with all of the applicable provisions of Section 03300.

1.02 STANDARDS

- A. National Concrete Masonry Association Specifications for the Design and Construction of Load Bearing Concrete Masonry.
- B. American National Standard Building Code requirements for reinforced masonry.
- C. National Concrete Masonry Association, T.E.K. Series.
- D. South Florida Building Code, current, 2010 edition.

1.03 RELATED SECTIONS

- A. Section 03100: Concrete Formwork
- B. Section 03300: Cast-In-Place and Precast Concrete

1.04 SUBMITTALS

- A. The Engineer of Record shall be supplied with shop drawings consisting of product data and samples. Include design mix, required environmental conditions, and admixture limitations.
- B. Submit reports to the Engineer of Record on mortar indicating conformance of mortar to property requirements of ASTM C270.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 530 and ACI 530.1.
- B. Where references are made to standards, the latest edition of the listed standard shall apply.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products in conformance with manufacturer's recommendations.

- B. Maintain packaged materials clean, dry, and protected against dampness, freezing, and foreign matter.

PART 2 DOCUMENTS

2.01 MATERIALS

- A. Portland cement: ASTM C150. Portland cement shall be Type II where exposed to sewage. Otherwise, Type I shall be used.
- B. Masonry cement: ASTM C91, Type II, white or gray.
- C. Hydrated Lime: ASTM C207, Type S.
- D. Sand: ASTM C144, sharp, natural sand mined in fresh water, hard durable grains, free of soft, flaky particles, salt, alkalis and organic material. Salt water sand strictly prohibited.
- E. Water: Clean and Potable.
- F. Waterproofing additive: Omicron mortar-proofing as manufactured by the Master Builders Co.
- G. Mortar: Mortar for above ground masonry shall conform to ASTM Standard C270, latest edition, "Mortar for Unit Masonry" and the following requirements:
 - 1. Use no antifreeze ingredient in the mortar.
 - 2. Color shall be natural.
 - 3. Submit data indicating proportions and materials to be used.

PART 3 EXECUTIONS

3.01 PREPARATION & MIXING

- A. Mortar for Masonry Walls and Partitions: Cement mortar mix for all unit masonry work shall be according to ASTM C270, Type M, 2500psi minimum compressive strength at 28 days.
- B. Mortar For Glass Unit Masonry: ASTM C270, Type S, using the Property specification.
- C. Mortar Mix proportions:
 - 1. One part Portland cement.
 - 2. One quarter part hydrated lime (Lime putty shall not exceed 10% of the cement used).
 - 3. 3 to 4 parts of damp loose sand.
 - 4. Water: Sufficient for workable mix. Re-tempering not permitted.
 - 5. Water proofing additive: add to mix for all exterior walls. Use a waterproofing admix equal to "OmicronOM" by Master Builders or "Mortarite" by Lambco, or approved equal, in all mortar for exterior use if the masonry cement has not been waterproofed by the addition of a waterproofing agent by the manufacturer. Proportion and use in accordance with the manufacturer's printed directions.
- D. Colors: natural.
- E. Mixing:
 - 1. Measurement of materials shall be such that the specified proportions are controlled and accurately maintained.

2. Initially, sand and cement shall be thoroughly dry mixed, hydrated lime then added to the mix and then water to obtain a proper working consistency. Materials shall be evenly distributed and dry as good workability will allow.
 3. Workability or consistency of mortar on the board shall be sufficiently wet to be worked under the trowel. Water for tempering shall be available on the scaffold at all times.
 4. Mortar which has begun to set or has stood for more than one hour shall be discarded and in no event shall an unbalanced or stale mix be re-tempered or used.
 5. Mix all cementitious materials and sand in mechanical batch mixer for minimum of 5 minutes. Adjust consistency of mortar to satisfaction of mason but add only as much water as is compatible with convenience in using mortar. If mortar begins to stiffen from evaporation or from absorption of part of mixing water, re-temper mortar immediately by adding water, and remix mortar to restore its workability. Re-temper only within two hours of mixing.
- 3.02 All mortar shall be used and placed in final position within two hours after mixing when air temperature is 80 degrees F or higher and within three hours when air temperature is less than 80 degrees F. Discard all mortar not used within these limits.

END OF SECTION

DIVISION 3
CONCRETE
SECTION 04200
UNIT MASONRY

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The Bidding and Contract Documents, General Requirements and Addenda, as may be issued prior to bidding, shall govern the work under this Section.

1.02 SCOPE OF THE WORK

- A. Provide all labor, materials, necessary equipment and services to complete the unit masonry work and related work, as indicated on the drawings, as specified herein.
- B. Including but not necessarily limited to the following:
 - 1. 8" masonry units

1.03 RELATED WORK

Section 04060: Mortar

Section 09220: Portland Cement Plaster and Stucco

1.04 DELIVERY AND STORAGE

- A. Deliver masonry units to the site that comply with moisture content specified.
- B. Store units above ground.
- C. Store on platform which permits air circulation.
- D. Cover and protect units against wetting.

1.05 QUALITY ASSURANCE: All work shall conform to the following standards.

- A. "Building Code Requirements for Masonry Structures (ACI 530-88/ASCE 5-88, Latest Edition)
- B. "Specifications for Masonry Structures" (ACI 530.1-88/ASCE 6-88 Latest Edition).

PART 2 - PRODUCTS

2.01 MASONRY UNITS

- A. Hollow load bearing concrete masonry units shall conform to ASTM C-90 and shall be of standard sizes as shown on the drawings. All concrete masonry shall have minimum compressive strength at 28 days f'm of 1,500 psi. The minimum compressive test strength of masonry units shall be 2,000 psi.

2.02 CONCRETE LINTELS-NOT APPLICABLE

- A. Concrete lintels shall be provided above all wall openings. Unless shown otherwise, lintels shall be a minimum of 8"x8" concrete reinforced with a minimum of two #5 bars

where the opening does not exceed 4 feet in width. Precast lintels may be utilized. If hollow precast concrete U-shaped lintels are used, the void shall be filled with concrete and two 5 bars added within the lintel. Minimum bearing of 8 inches on each side of all lintels shall be provided. Concrete lintels abutting a poured column shall be poured in place with the column.

2.03 ACCESSORIES

- A. Dovetail Anchors: Corrugated galvanized steel, minimum size of 1 inch in width, 22 gauge, 7 inches in length minimum. Heckmann Building Products No.106 or equivalent. Dovetail anchors shall be provided in each course of block where concrete columns are poured separately from the block wall.

2.04 MASONRY REINFORCEMENT

- A. All walls shall be reinforced horizontally at 16 inches center to center maximum vertical spacing by placing in every other horizontal joint a layer of 9 gage galvanized ladder type joint reinforcing with a nominal cross sectional area of 0.0173 square inches as manufactured by Dur-O-Wall or approved equal. Such reinforcement shall conform to ASTM A-116.

2.05 MORTAR

- A. Conform to "Tentative Specifications for Mortar for Unit Masonry" ASTM C-270 Type M or S for load bearing walls, 2500 PSI at 28 days.
 - 1. All ingredients shall meet appropriate ASTM Specifications.
 - 2. Water: Clean and Potable.
- B. Mixing: All mortar shall be thoroughly mixed for a period of at least 5 minutes after all materials are in mixer designed for this purpose. This requirements shall not be waived except for minor jobs and then only upon the written approval of the ENGINEER.
- C. Time Limit: All mortar to be used and placed in final position within 2-1/2 hours after mixing when air temperature is 80 degrees F or higher and within 3-1/2 hours when air temperature is less than 80 degrees F.

Mortar not used within these time limits shall be discarded.
- D. Re-Tempering: Mortar that has stiffened within the allowable time limit because of evaporation of moisture may be re-tempered to restore workability by adding water.

PART 3 - EXECUTION

3.01 WORKMANSHIP:

- A. Set units plumb, true to line with level courses accurately spaced.
- B. Bond shall be running with vertical joints located at center of units in course below unless special patterns are required by drawings.
- C. Units shall be dry when laid.
- D. Adjust units to final position while mortar is soft and plastic.

- E. All cutting and fitting of masonry units including that required to accommodate work of other sections shall be done by masonry saws.
- F. Remove any units disturbed after mortar has stiffened or that is broken, clean joints and re-lay unit with fresh mortar.

3.02 JOINTS AND BONDS:

- A. Lay all standard masonry units in running bond.

3.03 JOINING OF WORK:

- A. Where fresh masonry joints partially or totally set masonry, clean exposed surface of set masonry and remove loose mortar and foreign material prior to laying fresh masonry.
- B. If necessary to stop off a horizontal run of masonry, rack back one half block lengths in each course. Toothing not permitted unless approved by ENGINEER.

3.04 HORIZONTAL AND VERTICAL FACE JOINTS:

- A. All joints shall be uniform, 3/8" thick minimum, 5/8" maximum, unless otherwise indicated.
- B. Vertical joints shall be shoved tight.
- C. Joints in unpared masonry below grade shall be pointed tight with trowel.
- D. Joints in surfaces to be plaster, stuccoed or covered with other masonry shall be cut flush.
- E. Fill horizontal joints between top of masonry partitions and underside of concrete and steel slabs, decks, or beams with mortar.
- F. Strike horizontal and vertical joints on exposed masonry.

3.05 MORTAR BEDDING:

- A. Hollow Masonry Units:
 - 1. Lay with full mortar coverage on horizontal and vertical face shells.
 - 2. Webs shall also be bedded in all courses of piers, columns, and pilasters; in the starting course on footings, beams, and where adjacent to cells or cavities to be filled with grout.

3.06 ANCHORING:

- A. Bond bearing walls at intersection by laying at least 50% of the units in the masonry bond with alternate unit having a bearing of not less than 3" on unit below.
- B. Anchor abutting or intersecting interior non-load bearing walls with metal ties at vertical intervals not to exceed 16", and extend into masonry 4" minimum each way.

- C. Anchor walls adjoining or intersecting structural framing and dependent upon structural framing for lateral support to structural members with flexible metal anchors or metal ties keyed into structural members.
- D. All load bearing block walls shall be in place prior to pouring concrete columns. Provide temporary shoring as required.

3.07 PROTECTION OF WORK:

- A. Remove misplaced grout or mortar immediately.
- B. Protect all sills, ledges, off-sets and similar items from mortar drippings or other damage during construction.
- C. Cover top of walls with non-standing waterproof covering when work is not in progress to prevent infiltration of water.

3.08 BUILT-IN WORK:

- A. Consult with other trades to avoid cutting and patching.
- B. Install all bolts, anchors, nailing blocks, inserts, door frames, vents, flashing, conduits and other built-in items as masonry work progresses.
- C. Grout solid with mortar all spaces around built-in items including bolts.

3.09 CHASES:

- A. Chases shall be built in and not cut or broken in.
- B. Chases shall be positioned such that the stability of the wall is not impaired.

3.10 REINFORCEMENT:

- A. Masonry: Install Dur-O-Wall joint reinforcing in alternate courses of block lapping ends minimum of 4 inches. Reinforcing shall continue into poured columns and walls a minimum of 6 inches.

3.11 MASONRY JOINTING:

- A. At completion of the work, all holes in joints of masonry surfaces except weep holes shall be filled with mortar and suitably tooled.
- B. Dry brush masonry surface at the end of each day's work and after final pointing.
- C. Leave work clean and free from mortar spots and droppings.
- D. Repair cracks.
- E. Cut out and re-point defective joints.
- F. At completion, remove all excess materials and debris resultant from operations of work of this Section. Leave work in neat, clean condition satisfactory for receipt of other related items of work which are to be installed as part of work of other Sections of these Specifications.

- G. Any broken block shall be removed from wall and replaced.
- H. Half blocks shall be used wherever practical and to avoid using broken block.
- I. Cooperation with insulation contractor regarding fill is required.

END OF SECTION

DIVISION 9**FINISHES****SECTION 09220****PORTLAND CEMENT PLASTER AND STUCCO****PART 1 - GENERAL****1.01 SECTION INCLUDES:**

- A. Portland Cement Plaster (stucco) includes, but is not limited to, the following:
 - 1. Exterior three coat portland cement plaster.
 - 2. Interior three coat work on metal lath.
 - 3. Interior two coat portland cement plaster on masonry.
- B. Stucco Accessories.

1.02 RELATED SECTIONS:

- A. Section 03300: Cast-In-Place and Precast Concrete
- B. Section 04200: Unit Masonry
- C. Section 09900: Painting

1.03 SUBMITTALS:

- A. Submit product data and manufacturer's installation instructions for each product, including data showing compliance with requirements.
- B. Provide product data on stucco materials and accessories, including characteristics and limitations of products specified.
- C. Material Certificates: Submit producer's certificate for each kind of plaster aggregate indicating materials comply with requirements.
- D. Test Reports: Provide test reports from an independent laboratory certifying that cement, sand aggregate and other stucco mix components are free from contaminants and low alkalinity.

1.04 PRE-INSTALLATION MEETING:

- A. Schedule a pre-installation meeting to review the requirements of this specification and existing conditions with the Project Manager at least seven (7) days prior to commence work. Attending this meeting will be the Contractors Superintendent, the plastering Sub-Contractor's Superintendent and/or their lead man who will be present during this work, and the ENGINEER.

1.05 QUALITY ASSURANCE:

- A. Applicator: Company specializing in application of stucco work with minimum 5 years documented experience, with knowledge of ASTM C-926 and ASTM C-1063.
- B. Apply cement plaster in accordance with the latest edition of the PCA Plaster (stucco) manual and ASTM C-926-90, except as modified herein.

1.06 MOCK-UP:

- A. Before installation of plaster Work, fabricate mock-up panels for each type of finish and application required using materials, including lath and support system, indicated for final Work.
- B. Install sample panels 4'-0" x 4'-0" (minimum) x full thickness in location indicated, or if not otherwise indicated, as directed by Project Manager. Panels may form a part of the finished work if installed in accordance with the design parameters.
- C. Demonstrate proposed range of color, texture and installation to be expected in completed Work.
- D. Obtain ENGINEER'S acceptance of panel's visual quality before start of Work.
- E. Retain panel during construction as standard for judging completed Work.

1.07 ENVIRONMENTAL REQUIREMENTS:

- A. Do not apply stucco when substrate or ambient air temperature is less than 45 degrees Fahrenheit nor no more than 90 degrees Fahrenheit, with a humidity index of less 75, or up to 95 degrees with a humidity index is in excess of 75.
- B. Maintain minimum ambient temperature of 45 degrees Fahrenheit during and after installation of plaster for not less than 48 hours.
- C. Protect stucco against uneven and excessive evaporation and from blasts of dry air. Apply and cure stucco as required by climatic and job conditions to prevent rapid dryout. Provide suitable coverings, moist curing, and barriers to deflect direct sunlight and wind, or combination thereof.

1.08 PRODUCT OPTIONS:

- A. Single Source Responsibility: Obtain materials and employ materials from a single source for each type of material required for portland cement plaster to ensure consistency in quality performance and appearance.
- B. Standard of Comparison: Materials specified are for clarity of description and as a standard of comparison.
- C. Substitutions for specified products: Submit substitution request under provisions of the General and Supplementary Conditions.

1.09 DELIVERY, STORAGE AND HANDLING:

- A. Deliver all products in original packages or containers bearing brand name and identification of manufacturer.

- B. Store all bag materials inside, under cover and in a manner to keep them dry and protected from contamination and deterioration.

Note: Place sand under cover and in a manner to keep it lightly damp and prevent intrusion of foreign materials.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Portland Cement: Conform to ASTM C-150, Type I
- B. Hydrated Lime: Conform to ASTM C-207, Type S
- C. Masonry Cement: ASTM C-91, Type N
- D. Approved manufactures of a Portland Stucco System, which contains a integral water proofing agent, conforming to ASTM-C 926 are as follows:
1. Lafarge - Florida Super Stucco Cement.
 2. Rinker Materials Corporation (Rinker Stucco Cement).
 3. Lonestar Stucco Cement, as manufactured By Pennsuco Cement Company.
- E. Aggregate: (Conforming to C-144)

1. Sand:

- a. Clean, hard, natural sand.
- b. Manufactured within the following limits:

Sieve Size	Percent Retained	Percent Passing
No. 4	0	100%
No. 8	0 to 5	100% to 95%
No. 16	5 to 30	95% 70%
No. 30	30 to 65	70% to 35%
No. 50	65 to 95	35% to 5%
No. 100	90 to 100	5% to 0%

- F. Water for mixing and curing portland cement plaster: Potable, Clean, free of contaminants such as; oil, acids, alkali, vegetable matter, salts or other deleterious materials.
- G. Glass Fibers: Alkali resistant fibers conforming to ASTM C1116 (100 percent virgin polypropylene in microfilament form): Microfiber by Grace Construction Products or an approved equal.
- H. Metal Lath: Tilath, as manufactured by Alabama Metal Industries Corporation (AMICO) or United States Gypsum Company (USG).
- I. Bonding Agent:
1. **Exterior Applications and areas exposed to water immersion or to high humidity:** A non-re-emulsifiable acrylic emulsion. To be used integrally mixed.

- a. Products:
 - (1). Thoroseal/Acryl 60, as manufactured by Harris Specialty Chemicals Inc.
 - (2). Bonsal Acrylic Additive by W.R. Bonsal Company
- b. Products are to be delivered to job site premixed in the water at specified ratios.
- 2. Interior Applications: In areas not subject to water immersion or high humidity; a latex bonding agent conforming to ASTM-1059 Type II, may be used in lieu the integral bonding agent per 2.01.I. **(Where exposed to water immersion or high humidity, ensure the bonding agent complies with 2.01.I.1. as noted above).**
- J. Accessories, Beads, and Moldings (on wire lath and interior applications): Extruded Polyvinylchloride (PVC). Provide in profile and locations shown on drawings.
- K. Control and Expansion Joint Moldings (on wire lath and interior applications):
 - 1. As manufactured by Plastic Components, Inc. "Wide Flange Type"
 - a. Casing Bead #1075
 - b. "V" Control Joint" #2075
 - c. Slip Joint #2081
 - 2. Conform to ASTM D1784-92 and C1063-94
 - 3. 0.050 inch thick polyvinylchloride (PVC)
 - 4. Color: off-white
 - 5. 10 foot lengths
 - 6. Provide with the following accessories:
 - a. Connector clips: Polyvinylchloride (PVC) plastic clips for aligning continuous lengths of molding.
 - b. Notch-Lok Connections: Polyvinylchloride back plates for aligning intersecting lengths of moldings.
 - c. "+" and "T" Intersections: Factory fabricated intersections used to connect horizontal and vertical joints of moldings.
- L. Soffit Vent Moldings (on wire lath): Equal to Plastic Components, Inc. "Soffit Vent #550-58", ASTM D1784 and C1063, polyvinylchloride (PVC); off-white color; 10 foot lengths.
- M. Waterproofing: (Where not included within the Portland Stucco System.)
 - 1. Lambert Corporation: Hydrocel - One (1) quart per sack of cement.
 - 2. Master Builders: Omicron Mortar proofing, one (1) pound per sack of cement.
 - 3. A.C.Horn: Hydratite, two (2) quarts per sack of cement.
- N. Channels: Cold Rolled Steel, 16 Gauge, Asphaltam Coated or Galvanized.
 - 1. Main Runner: 1-1/2 inch (38 mm), 475 pounds/1000 feet.
 - 2. Cross Furring Channels: 3/4 inch (19 mm), 300 pounds/1000 feet.

O. Hangers:

1. Tie Wire: Conform to ASTM A 641 with Class I zinc coated (galvanized), soft tempered steel.
 - a. Support of main runners - No. 9 gage.
 - b. Support of cross furring - No. 18 gage.
 - c. Support wire lath - No. 18 gage.
 2. Rod: Cold Drawn, Mild Steel, Asphaltam Coated or Galvanized, 1/4 inch (6 mm) Diameter.
 3. Strap: Flat Mild Steel, Asphaltam Coated or Galvanized, 3/16 inch x 1 inch (5 mm x 25 mm).
- P. Metal Lath: Galvanized
1. For Overhead Installation: 3/8 inch rib lath, 3.4 pounds/square yard.
 2. For Vertical Plaster Installation: Diamond Mesh, 3.4 pounds/square yard.
- Q. Paper -backed Wire Fabric Lath: FS-UU-B-690a, Type I, Grade D, Style 2, Asphalt Impregnated Paper Factory-bonded to back; USG Paper backed Metal Lath.
- R. Fasteners: Clips, Screws, Nails (stub nails, 3/4 inch minimum length), and Staples, as recommended by the manufacturer of the lath system.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Verify that surfaces and site conditions are ready to receive Work.
1. Verify all surfaces to receive plaster are true and plumb within their allowable tolerance. Chip back concrete as required and modify surfaces where necessary to avoid installing plaster thickness greater than indicated.
 2. Concrete: Verify joints are cut flush and surface is ready to receive Work. Verify no bituminous, water repellent coatings, form release agents, etc. are on concrete surfaces to receive stucco finish.
- B. Concealed Supports, Blocking: Verify items have been installed in proper locations.
- C. Mechanical and Electrical: Verify services within walls and soffits have been installed, tested and approved.

3.02 PREPARATION:

- A. Protect other work and building surfaces from splattering stucco.
- B. Exterior Masonry and Concrete Surfaces:
1. Abrade all cast-in-place concrete surfaces that will receive plaster. Ensure the abraded surface texture of the concrete approaches or matches that of typical masonry texture. Abrasion may be attempted by using a machine that will develop a high water pressure through a nozzle. Surfaces not adequately abraded by this method as determined by the Project Manager, or if not

attempted, shall be abraded by sand blasted or water blasted. The abraded finish shall be to the satisfaction of the ENGINEER.

2. Patch all masonry joints and honeycombing in cast-in-place concrete to provide flush, true surfaces to receive plaster.
3. After sand blasting or water blasting, wash concrete surfaces with Tri-Sodium Phosphate to remove form oil and other contaminants.
4. Wash masonry and concrete surfaces by pressure washing (min. 3500 psi pressure) to remove dust, sand and other contaminants within three (3) hours prior to stuccoing that area.
5. On exterior masonry and concrete surfaces install temporary grounds and screeds as necessary to strike off plaster to true surfaces. The use of permanent corner beads, fabricated control joints, grounds screeds, recesses, etc. on exterior masonry and cast-in-place concrete surfaces **are not allowed**, except at building structural expansion joints.

C. Wire Lath and Interior Applications: NOT APPLICABLE

1. Install corner beads, control joints, expansion joints and accessories indicated on drawings and noted within this section true and plumb, using maximum lengths available.
2. Anchor securely to substrate.
3. Do not shim or bridge areas that are not plumb, true or straight.
4. Expansion joints: Tied to the wire lath and not to substrate.
5. Wire lath: Do not extend through expansion joints.

D. Do not apply plaster until electrician has protected all boxes.

E. Conceal all piping, conduit, etc. which cannot be concealed in walls, columns, or soffits with wire lath and plaster.

F. Application of Applied Bonding Agent.

1. Exterior Surfaces: **DO NOT APPLY BONDING AGENT OF ANY KIND.**
2. Interior Surfaces: NOT APPLICABLE

Note: Only on surfaces not subjected to water immersion or high humidity

- a. Clean concrete surfaces of foreign matter. Thoroughly dampen surfaces before using acid solutions, solvent, or detergents to perform cleaning. Wash surfaces with clean water.
- b. Apply specified bonding agent with a brush or roller on cast-in-place concrete.
- c. Dampen concrete and masonry surfaces prior to the application of plaster and maintain in a moist condition throughout the course of application.
- d. Verify the surface is free of visible standing water prior to installing

plaster.

3.03 INSTALLATION - LATHING MATERIALS AND ACCESSORIES:

- A. Installation to conform to ASTM C 1063; except as modified herein.
- B. Install main runners at 48 inches on center (maximum) with their supports at 36 inches on center or install main runners at 36 inches on center (maximum) with their supports at 48 inches on center. Install main runners within 6 inches of walls paralleling, to support ends of cross furring. Where system is exposed to wind up-lift, provide vertical stiff legs equal to main runners or better at 4 feet on center (maximum) each way, or closer if required due to uplift loading.
- C. Install furring channel supports for overhead applications at 16 inches on center (maximum) and for vertical application at 24 inches on center (maximum). Saddle tie furring channels to each main runners with doubled No. 18 tie wire.
- D. Apply one (1) ply of felt underlayment over substrate in walls of shower areas; weatherlap edges 4 inches minimum. Fasten in place. NOT APPLICABLE
- E. Apply lath taut, with long dimension perpendicular to supports. Tie lath to supports with No. 18 wire at 6 inches on center for horizontal installation and 9 inches on center for vertical installation.
- F. Lap ends minimum 1 inch to 1 1/4 inch (maximum). Nest ribs of rib lath at end laps. Secure end laps with tie wire. End laps: shall occur over supports.
- G. Lap sides of diamond mesh lath together minimum 1 inch to 1-1/4 inch (maximum). Nest of rib lath together.
- H. Place strip mesh diagonally at corners of lathed openings. Secure rigidly in place.
- I. Where dissimilar materials abut, provide a continuous expansion joint and joint molding. Wire lath and supports: do not extend through the joint. Double furr each side of expansion joints.
- J. Place expanded casing beads (Stucco Stop) at termination of stucco finishes and between concrete and wood. Butt and align ends. Secure rigidly in place.
- K. Independently support Light fixtures, A.C. vents, etc.
- L. Install accessories to required lines and levels.

3.04 CEMENT PLASTER MIXES:

- A. Exterior Applications-Masonry, concrete and Wire Lath:
 - 1. Dash Coat: (apply on concrete surfaces)
 - a. One (1) bag of Portland Stucco System.
 - b. 2.25 to 4 cubic feet of damp aggregate.
 - c. Water: mixed with bonding agent ATA rate of one (1) part bonding agent to two (2) parts water.
 - 2. Scratch Coat:
 - a. One (1) bag of Portland Stucco System
 - b. 2.25 to 4 cubic feet * of aggregate

- b. One-half (1/2) bag of hydrated lime.
- c. Water [mixed with bonding agent at a rate of one (1) part bonding agent to two (2) parts water] (approximately 7 percent solids content).

* Seven (7) shovels of sand in a No. 2 shovel equals 1 cubic foot of sand, or 7.5 gallons Equals 1 cubic foot.

- 3. Brown Coat:
 - a. One (1) bag of Portland Stucco System
 - b. 3 to 5 cubic feet of aggregate
 - c. ½ pound of fiberglass fibers
- 4. Finish Coat:
 - a. One (1) bag of Portland Stucco System
 - b. 2.25 to 3 cubic feet of aggregate

B. Interior Applications:

- 1. Scratch Coat:
 - a. One (1) bag of Portland Stucco System.
 - b. 2 1/4 to 4 cubic feet of aggregate
- 2. Finish Coat:
 - a. One (1) bag of Portland Stucco System
 - b. 2.25 to 3 cubic feet of aggregate

C. Mixing:

- 1. Mechanical Mixer:
 - a. Provide sufficient horsepower to agitate the stiff stucco mix.
 - b. Mixer blades: Clean and free of foreign materials.
 - c. Thoroughly clean mixer after each mix.
- 2. Load materials into the stucco mixer in the following order:
 - a. 2/3 of the water
 - b. 1/2 of the aggregate
 - c. All of the Portland Stucco System
 - d. 1/2 of the aggregate (allow to mix two (2) minutes)
 - e. Remaining water
- 3. Mechanically mix cementitious and aggregate materials for plasters to comply with applicable referenced application standard and with recommendations of plaster manufacturer. Turn each finished mix for at least five minutes.
- 4. Do not retemper mixes after the initial set has occurred, or if mix has been prepared more than 45 minutes earlier.
- 5. Do not add other than the approved fiberglass fibers on the job site.

3.05 STRESS RELIEF:

A. Masonry and concrete surfaces:

- 1. Provide incised control joints thru brown and finish coat or provide recess control incised wide joints indicated on the drawings that are up to 5/8 inch wide by 1/4

inch deep immediately after the initial set of application on masonry and concrete. Ensure control incised joints are made prior to application of a final sprayed on finish coat if it is called for.

2. Install control joints in locations indicated on drawings.

B. Installed Wire Lath:

1. Provide control and expansion joints in locations indicated on drawings and spaced the following:
 - a. In any direction not to exceed 12 feet on center.
 - b. Limit area to 100 square feet.
 - c. The short length to the long length ratio: not to exceed 1 to 2 1/2.
 - d. Provide an expansion joint where stucco support on wire lath abuts dissimilar material. Wire lath and supports: do not extend through an expansion and control joints.
 - e. Metal lath shall be discontinuous behind control and expansion joint accessories.

3.06 PLASTER APPLICATION:

- A. Apply cement plaster under provisions of PCA Plaster (stucco) Manual and ASTM C-926-90 and as herein modified. The desired time of the complete installation of the three (3) coat stucco is within 48 hours or less. As far as possible apply each coat in a continuous operation to avoid unsightly jointing.
- B. Sequence the work to allow for the continuous application of plaster over all surfaces, and including window and door returns, louvers and other features to provide uniform thickness and finishes.
- C. Plaster:
 1. Provide Portland cement plaster (stucco), of the composition indicated, to comply with the following requirements:
 - a. Dampen masonry and concrete surfaces by fog spraying prior to installation of dash coat and scratch coat. Ensure surface is free of visible water before applying dash or scratch coat.
 - b. Over concrete surfaces, apply a dash coat of stucco with a stiff brush or by spraying to develop a rough surface coating on concrete, approximately 1/16 inch thick. Do not over wet the dash coat. After applying dash coat, apply scratch coat after 1 hour, but not more than 4 hours (while the dash coat is still damp).
 - c. Install scratch coat by first trowelling on a thin tight layer (approximately 1/16 inch thick) to masonry and concrete surfaces with strong pressure, followed immediately with a trowelled applied balance of the scratch coat (approximately 3/16 inch thick).
 - d. Apply scratch, brown, and skim coat by hand troweling.
 - e. Back trowel each coat, applying with heavy pressure to fill voids, eliminate air bubbles, and promote mechanical bond.
 - f. When the scratch coat becomes firm, score the entire surface with scarifier tool by Harrington or Goldlath before initial set. On vertical surfaces score horizontally. Ensure the tool shall create a score of sufficient width to permit intrusion of the brown coat.

Note: The use of wire combs or brushes for scoring the scratch coat is not allowed.

g. Strip all exterior corners.

h. Finish coat consists of the following:

- (1). A skim coat 1/8 inch thick. Skim coat: receive a floated finish if not covered with a textured coat.
- (2). Over skin coat apply a trowelled or sponge textured finish, or a machine sprayed finish where indicated or specified.

i. Required minimum thickness: With a tolerance of zero to plus 1/8 inch per coat.

- (1). Three coat work on masonry, poured concrete and metal lath:

	Vertical Surfaces	Horizontal Surfaces
Scratch coat	1/4 inch	1/4 inch
Brown coat	1/4 inch	1/4 inch
Finish coat	1/8 inch *	1/8 inch *
Total	5/8 inch	5/8 inch

* Plus any raised texture finishes.

Note: On wire lath, the scratch coat shall be 1/4" beyond the lath.

- (2). Two coat work on masonry: (Interior occupied spaces)

	Vertical Surfaces	Horizontal Surfaces
Scratch coat	1/4 inch	1/4 inch
Finish coat	1/8 inch *	1/8 inch *
Total	3/8 inch	3/8 inch

* Plus any raised texture finishes.

- (3). Provide 1/4 inch or 1/2 inch skim coat on masonry where scheduled.

j. Finishes:

1. Exterior Stucco - Smooth troweled sand finish unless otherwise noted.
2. Cement Plaster - Smooth troweled sand finish unless otherwise noted.

k. Plaster surfaces to be straight-edged, with jambs and angles straight and true.

D. Miscellaneous:

1. Ensure all surfaces are clean and free of harmful materials before application of stucco.
2. Apply coating continuously without allowing mix to dry at edges.

3. Fully stucco all exterior exposed or projecting concrete unless otherwise indicated.
4. Grout fill all hollow metal frames in masonry walls.

3.07 CURING:

- A. Provide sufficient moisture to all coats to permit continuous hydration of the cementitious materials.
- B. Moisture curing of plaster:
 1. Lightly mist the stucco using a nursery fogging nozzle or with pressure tank nursery sprayer to maintain it in a dark gray color. Do not over wet.
 2. The stucco surfaces: Never saturate or directly spray with jetted water.
 3. Ensure there is no visible water on the surface when plaster is applied.
- C. After applying the scratch coat the second coat (brown coat) can be applied after the scratch coat has become firm to the touch. No dampening of scratch coat is required if applied within 12 hours. If the second coat is not applied within 12 hours, moist cure the scratch coat for a minimum of 48 hours or until the second coat is applied. Do not saturate the stucco.
- D. Apply the finish coat within 4 hours of the application of the brown coat without moisture curing the brown coat or moist cure the brown coat for a minimum of 48 hours, or until the finish coat is applied.
- E. After installing the finish coat, moist cure a minimum of four (4) times a day every 5 hours maximum during daylight hours and 8 hours (maximum) during night time for the following three (3) days after applying finish coat. Maintain finished work in a continuously moist condition indicated by surface having uniform "dark gray" color.

3.08 REPAIRING:

- A. Sounding Surfaces:
 1. Sound out all stucco on masonry and poured concrete by tapping the surface.
 2. Mark all hollow sounding surfaces that indicate a non bonding of substrate.
- B. Cutting and patching:
 1. Cut, patch, point-up, and repair removed plaster as necessary to accommodate other Work and to restore cracks, dents, and imperfections.
 2. Remove plaster to eliminate blisters, buckles, excessive crazing, check cracking, dryout, efflorescence, sweat-out and similar defects, and where bond to substrate has failed, Replace plaster matching adjacent surfaces.

3.09 PAINTING:

- A. Prior to painting plaster, ensure the moisture content of the plaster is less than that recommended by the paint manufacturer and the ph of the plaster is less than 10. Verify the moisture content using an electronic moisture meter and the ph pencil. Test every 1,000 square feet.

3.10 CLEANING:

- A. Remove temporary protection and enclosure of other Work.
- B. Promptly remove plaster from door frames, windows, and other surfaces which are not to be plastered.
- C. Repair floors, walls and other surfaces which have been stained, marred, or otherwise damaged during plastering Work.
- D. When plastering Work is completed, remove unused materials, containers and equipment, and clean floors of plaster debris.

3.11 PROTECTION:

- A. Provide final protection and maintain conditions which ensures plaster Work being without damage or deterioration at time of Substantial Completion.

END OF SECTION

DIVISION 9
FINISHES
SECTION 09900
PAINTING

PART 1 - GENERAL

1.01 CONDITIONS AND REQUIREMENTS:

All provisions of the Conditions of the Contract apply to this Section.

1.02 DESCRIPTION:

- A. This Section encompasses all painting and finishing of surfaces as indicated on the drawings, herein specified, and as normally requiring a paint finish, including exposed mechanical and electrical lines and electrical panels painted to match adjacent surfaces, unless otherwise noted.
- B. Work not Included:
 - 1. Finish hardware.
 - 2. Factory pre-finished items such as plumbing fixtures, lighting fixtures, ceramic tile, glazing, rubber, vinyl, plastic laminate, toilet accessories, etc.

1.03 QUALITY ASSURANCE:

- A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for this project with a record of successful in-service performance.
- B. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.
- C. Include on label of containers:
 - 1. Manufacturer's name
 - 2. Type of paint
 - 3. Manufacturer's stock number
 - 4. Color
 - 5. Instructions for reducing, where applicable
 - 6. Application instructions
 - 7. VOC Content
- D. At Job Completion submit to ENGINEER, "Record Paint Schedule" at end of Section, completely filled out.

1.04 SUBMITTALS:

- A. Color Selection to be determined by OWNER: Submit manufacturer's sample of the colors selected by OWNER.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Deliver materials and store on the site in original containers, unopened, with manufacturer's labels and identification legible and intact.
- B. Comply with health and fire regulations.

1.06 JOB CONDITIONS:

- A. Environmental Requirements:
 - 1. Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied.
 - 2. **DO NOT REMOVE FIRE LABELS FROM DOORS OR FRAMES UNDER ANY CIRCUMSTANCES. DO NOT PAINT FIRE LABELS.**
- B. Protection:
 - 1. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently or not to be painted.
 - 2. Provide "Wet Paint" signs as required to protect newly painted surfaces.
 - 3. After construction activities of other trades are complete, touch-up and restore damaged or defaced coated surfaces.
 - 4. Provide barriers and taped perimeters to discourage damage to newly coated surfaces.

1.07 EXTRA MATERIALS:

- A. Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Owner.
 - 1. Quantity: Furnish the Owner with an additional 5 percent, but not less than 1 gal or 1 case, as appropriate, of each material and color applied.

PART 2 -PRODUCTS**2.01 MANUFACTURERS:**

- A. Products: Subject to compliance with requirements, provide one of the products in the paint schedules.
- B. Manufacturers Names: The following manufacturers are referred to in the paint schedules by use of shortened versions of their names, which are shown in parentheses:
 - 1. Sherwin-Williams Co. (S-W).
 - 2. Benjamin Moore & Co. (Moore).
 - 3. Pratt & Lambert, Inc. (P & L).

2.02 PAINT MATERIALS, GENERAL:

- A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

2.03 COLORS:

- A. Colors of paints shall match color chips submitted by ENGINEER. Colors are to be determined.
- B. Wall will be limited to two paint colors.

2.04 CRACK FILLERS:

- A. Crack Fillers: Provide the manufacturer's standard factory-formulated acrylic emulsion crack fillers that are compatible with the substrate and finish coat materials indicated.
- B. Products: Subject to compliance with requirements, provide one of the following:
 - 1. Crack filler:
 - a. Ful-Teck: 9200 Elastomeric Sealant.
 - b. Powercrete: Powerfix ECF.
 - c. Pittsburgh: Buttering Grade Vinyl Sealant 236-2414.
 - d. Sonneborn: Hydrocide 750 Brush Grade and Knife Grade Patching Compound.
 - e. Thoro: Thorolastic Brush Grade and Knife Grade.
 - 2. Provide primers for crack fillers in accordance with the manufacturer's recommendations.

PART 3 - EXECUTION**3.01 INSPECTION:**

- A. Examine substrates and conditions under which painting systems will be applied for compliance with requirements for application. Surfaces to be painted must be thoroughly dry before coatings are applied.
 - 1. Notify the ENGINEER in writing of anticipated problems using coatings specified with substrates primed by others.
 - 2. Do not proceed with application until unsatisfactory conditions have been corrected, including curing and aging of repaired stucco surfaces.
- B. Start of coating within a particular area will be construed as the Applicator's acceptance of surface conditions.

3.02 PREPARATION:

- A. General: If applicable, remove hardware, hardware accessories, plates, machined surfaces, light fixtures, and similar items that are not to be coated, or provide surface-applied protection prior to surface preparation and coating. Remove these items, if necessary, to completely coat the substrates and adjacent surfaces. Following completion of coating operations in each area, reinstall items removed, using workers skilled in the trades involved.
- B. Protect areas of adjacent work completely from work under this contract by covering with visqueen or other protective material.
- C. Cleaning: Before applying coatings or other surface treatments, clean substrates as required, in accordance with paint manufacturer's recommendations, of substances that could impair bond of coating systems. Schedule cleaning and coating application so dust and other contaminants will not fall on wet, newly coated surfaces.
- D. Surface Preparation: Clean and prepare surfaces to be coated according to the manufacturer's instructions for the particular substrate conditions, and as specified.
 - 1. Wood Surfaces: Sand to smooth and even surface, dust off. Fill nail holes, cracks, open joints, etc., with putty after primer has dried. Apply shellac to all knots, pitch and resinous sapwood before applying prime coat.
 - 2. Plaster: Fill narrow, shallow cracks and small holes with spackling compound. Rake deep, wide cracks and deep holes, dampen with water and fill with thin layers of patching plaster. Sand smooth.
 - 3. Concrete, Masonry and Stucco: Fill cracks and irregularities with Portland cement grout to provide uniform surface texture. Clean concrete surfaces to remove efflorescence and laitance with 5% solution (by weight) of muriatic acid.
 - 4. Ferrous Metal Surfaces: Remove loose rust, scale, and other foreign substances. Solvent clean. Follow standard as established by The Steel Structures Painting Council.
 - 5. Galvanized Surfaces: Remove dirt, grease and other foreign substances. Solvent clean.
 - 6. Aluminum Reglets, Vents, etc.: Degrease and clean with solvent as recommended by the paint manufacturer. Acid etch all screeds and reglets, as recommended by screed manufacturer prior to start of painting.
- E. Material Preparation: Carefully mix and prepare materials complying with the coating manufacturer's directions.
 - 1. Stir materials before application to produce a mixture of uniform density, and as required during application. Do not stir film that may form on surfaces into the material. Remove film and, if necessary, strain the coating material before using.
 - 2. If the manufacturer permits thinning, use only thinners recommended by the manufacturer, and only within the limits recommended by the manufacturer.

3.03 APPLICATION:

- A. General: Apply paints to exposed surfaces indicated. Coating colors, surface treatments,

and finishes are indicated herein.

1. Colors: Where an item or surface is not specifically mentioned in the Schedules, coat the same color as similar adjacent materials or surfaces. If a color is not designated, the ENGINEER will select a color from standard colors available.
- B. Application Procedures: Apply coatings by brush, roller, or spray according to manufacturer's directions.
1. Brushes: Use brushes best suited for the material being applied.
 2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required.
 3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required.
- C. Minimum Coating Thickness: Apply each material no thinner than the manufacturer's recommended spreading rate. Provide the total dry film thickness as recommended by the manufacturer.
1. The number of coats and film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer.
 2. Apply primers and finish coats by brush or roller, unless manufacturer's instructions permit other types of applicators.
 3. Wherever spray application is used, apply each coat to provide the equivalent hiding of brush-applied coats. Do not double back with spray equipment building-up film thickness of two coats in one pass.
- D. Prime Coats: Apply prime coats of paint over all materials scheduled to be painted. Prime coats of paint shall be pigmented.
- E. Brush Application: Brush out and work brush coats into surfaces in an even film. Eliminate cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Neatly draw glass lines and color breaks.
- F. Spray Application: Use spray equipment for application only when permitted by manufacturer's recommendations and governing ordinances.
- G. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or recoat work not complying with specified requirements.
- H. All work shall be performed under favorable weather conditions.
- I. Comply with product manufacturer's instructions concerning application and drying time between coats.
- J. Finish the top and bottom of all doors to match other door surfaces.
- K. Back prime all exterior wood work with house paint primer.
- L. Vary slightly the color of succeeding coats.
- M. Finish coats shall be smooth, free of brush marks, streaks, laps or pile up of paints, and skipped or missed areas.

- N. Coverage and hide shall be complete. When color, stain, dirt, or undercoats show through final coat, the surface shall be covered by additional coats until the paint film is of uniform finish, color appearance and coverage, at no additional cost to the Owner.

3.04 INSPECTION:

- A. Do not apply additional coats until completed coat has been inspected by the Project Manager.
- B. Only inspected coats of paint will be considered in determining number of coats applied.

3.05 CLEANING:

- A. Touch up and restore finish where damaged.
- B. Remove spilled, splashed or splattered paint from all surfaces.
- C. Do not mar surface finish of item being cleaned.
- D. Entire project shall be left in a clean condition.
- E. Cleanup: At the end of each work day, remove rubbish, empty cans, rags, and other discarded materials from the site.
 - 1. After completing work, clean glass and spattered surfaces. Remove spattered coatings by washing, scraping or other methods, being careful not to scratch or damage adjacent finished surfaces.

3.06 PAINT SCHEDULE:

- A. Provide the following painting systems for substrates indicated.
 - 1. Apply additional coats, if undercoats or other conditions show through the final coat, until the cured film is of uniform coating finish, color, and appearance.
- B. Stucco and Concrete (New and Existing): Semigloss, Acrylic-Enamel Finish: 2 finish coats over a primer.
 - 1. Primer: Alkali-resistant, Exterior, Acrylic-Latex Primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.

 Moore: Moore's Latex Exterior Primer #102.
 P & L: Z/F 1001 Suprime "1" Multi-Purpose 100 percent Acrylic Primer.
 S-W: Loxon Exterior Masonry Acrylic Primer A24W300.
 - 2. First and Second Coats: Semigloss, Exterior, Acrylic-Latex Enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.4 mils.

 Moore: MoorGlo Latex House & Trim Paint #096.
 P & L: Z/F 3100 Series Aqua Royal Latex House & Trim Finish.
 S-W: A-100 Exterior Latex Gloss House Paint.
- C. Ferrous Metal: Full-Gloss Alkyd-Enamel Finish: 2 finish coats over a rust-inhibitive

primer.

1. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.

Moore: IronClad Retardo Rust-Inhibitive Paint #163.

P & L: S 4551 Tech-Gard High Performance Rust-Inhibitor Primer.

S-W: Kem Kromik Metal Primer B50N2/B50W1.

2. First and Second Coats: Full-gloss, Exterior, Alkyd Enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 3.0 mils.

Moore: Impervo Enamel #133.

P & L: S 4500 Series Tech-Gard Maintenance Gloss Enamel.

S-W: Industrial Enamel B-54 Series.

D. Zinc-Coated Metal: Semigloss, acrylic-enamel finish: 2 finish coats over a primer.

1. Primer: Galvanized metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils.

Moore: IronClad Galvanized Metal Latex Primer #155.

P & L: Z/F 1003 Suprime "3" Interior/Exterior Latex Metal Primer.

S-W: Galvite Primer B50W3.

2. First and Second Coats: Semigloss, Exterior, Acrylic-Latex Enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.

Moore: MoorGlo Latex House & Trim Paint #096.

P & L: Z/F 3100 Series Aqua Royal Latex House & Trim Finish.

S-W: A-100 Exterior Latex Gloss House Paint (Exterior). DTM Acrylic Coating Gloss B66 Series (Interior).

E. Aluminum: Semigloss, Acrylic-Enamel Finish: 2 finish coats over a primer.

1. Primer: Rust-inhibitive, acrylic- or alkyd-based, metal primer, as recommended by the manufacturer for use over aluminum, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.

Moore: Primer not required.

PPG: 90-709 Pitt-Tech One Pack Interior/Exterior Primer/Finish DTM Industrial Enamel.

S-W: Zinc Chromate Primer B50Y1.

2. First and Second Coats: Semigloss, Exterior, Acrylic-Latex Enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.

Moore: MoorGlo Latex House & Trim Paint #096.

PPG: 78 Line Sun-Proof Semi-Gloss Acrylic Latex House and Trim Paint.

P & L: Z/F 3100 Series Aqua Royal Latex House & Trim Finish.

S-W: A-100 Exterior Latex Gloss House Paint.

F. Gypsum Board, Cement Plaster/Stucco, Painted Wood Trim: Semi-Gloss, Acrylic-Enamel
Finish: 2 finish coats over a primer where required.

1. Primer: Alkali-resistant, Acrylic-Latex, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils. Apply primer to all new work and patches in existing work. Primer not required on previously painted work.

Moore: Regal First Coat Interior Latex Primer & Underbody #216.

P & L: Z/F 1001 Suprime "1" 100 Percent Acrylic Multi-Purpose Primer.

S-W: Preprite 200 Latex Primer, B28W200.

2. First and Second Coats: Semi-Gloss, Acrylic-Latex, Interior Enamel Paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.

Moore: Moore's Regal AquaGlo Vinyl-Acrylic Latex Enamel #333.

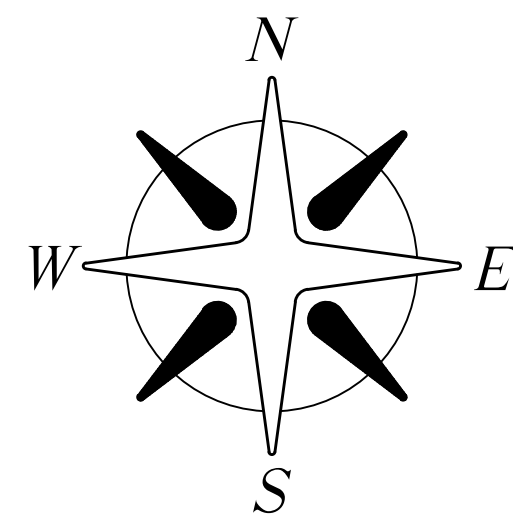
P & L: Z/F 4100 Series Accolade Interior Semi-Gloss.

S-W: ProMar Interior Latex Semi-Gloss, B31W200.

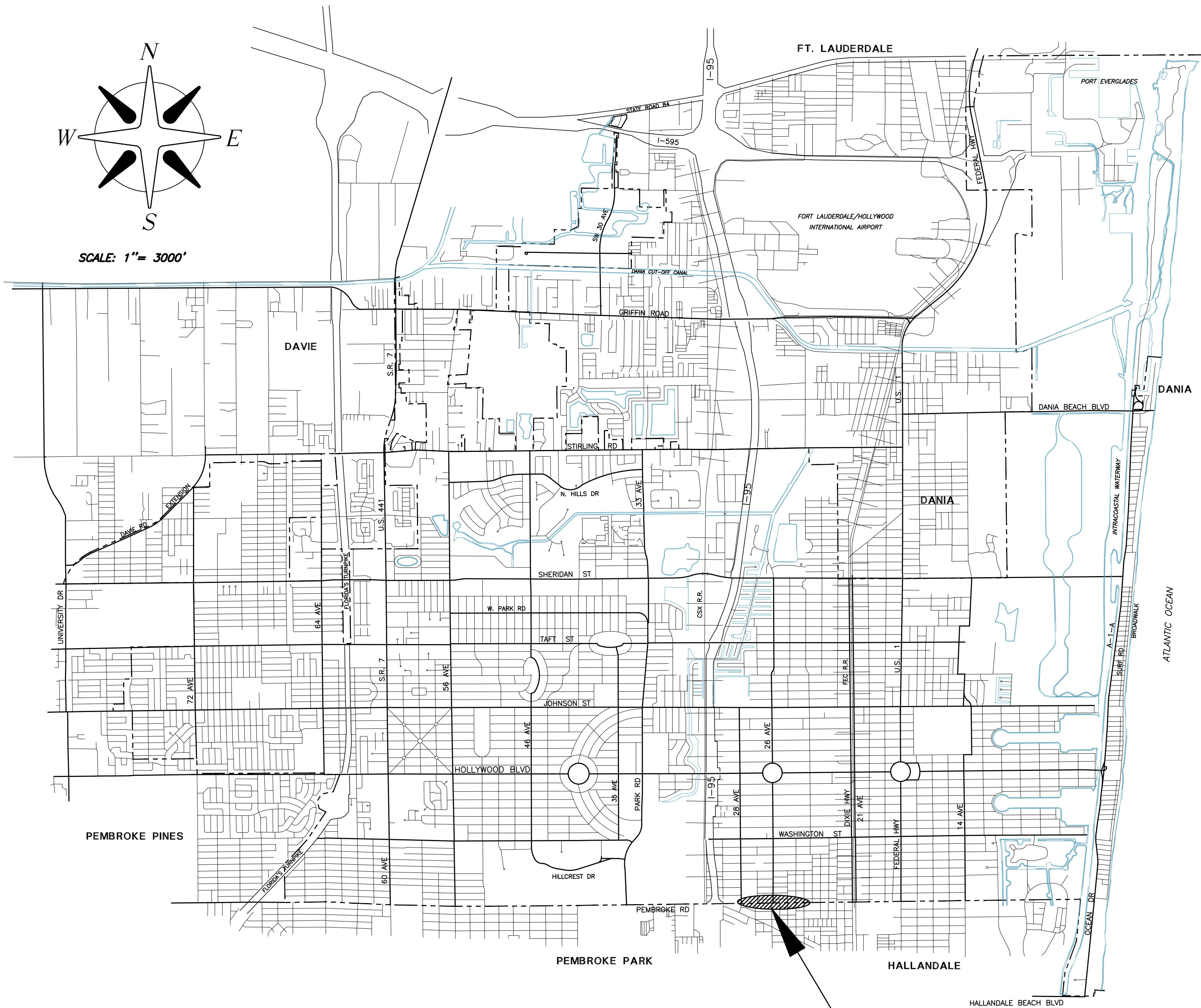
END OF SECTION

PLANS/SPECIFICATIONS

PEMBROKE ROAD
WALL REPLACEMENT
FROM S 27TH AVENUE TO S 2THh AVENUE
CITY OF HOLLYWOOD, FLORIDA.
PROJECT BID # EN 14-014a



SCALE: 1"= 3000'



GENERAL NOTES:

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY:
SUNSHINE _____ 1-800-432-4770
F.P. & L. _____ 1-800-749-9203
BELL SOUTH (CALL SUNSHINE) _____ 1-800-432-4770
TECO PEOPLES GAS _____ (954) 763-8900
T.C.I. OF HOLLYWOOD _____ (954) 921-1773X222

CITY OF HOLLYWOOD
ENGINEERING INSPECTOR _____ (954) 921-3900
UNDERGROUND UTILITIES _____ (954) 921-3046

BROWARD COUNTY
ENGINEERING DIVISION _____ (954) 357-6230/357-6233
TRAFFIC ENGINEERING DIVISION _____ (954) 484-9600
- THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED BY CONTRACTOR 48 HOURS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT.
- NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN OVERNIGHT.
- THE CITY OF HOLLYWOOD HAS A NOISE ORDINANCE WHICH PROHIBITS EXCAVATION & CONSTRUCTION BEFORE 7:00 A.M. AND AFTER 6:00 P.M., MONDAY THRU FRIDAY; BEFORE 8:00 A.M. AND AFTER 6:00 P.M. ON SATURDAYS; AND ALL DAY SUNDAY.
- THE CONTRACTOR IS TO USE EXTREME CAUTION WHEN WORKING IN OR AROUND AREAS OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES. CONTRACTOR MUST HAND DIG FOR FOUNDATIONS AS NECESSARY.
- THE LOCATION, SIZE AND MATERIAL OF THE EXISTING UTILITIES AND STRUCTURES HAVE BEEN RECORDED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY AND ALL CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE CITY OF HOLLYWOOD ENGINEERING & ARCHITECTURAL SERVICES DIVISION. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL REPLACE IN KIND ALL ITEMS DAMAGED BY THEIR OPERATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VISIT JOB SITE(S) PRIOR TO BIDDING.
- SUITABLE EXCAVATED MATERIAL SHALL BE USED IN FILL AREAS. NO SEPARATE PAY ITEM FOR THIS WORK, INCLUDE COST IN OTHER ITEMS.
- CONTRACTOR WILL BE RERSPONSIBLE IN PRESERVING EXISTING CONDITIONS ON PRIVATE PROPERTIES AND IS RESPONSIBLE FOR ANY RESTORATION TO EQUAL OR BETTER CONDITIONS.
- THE CONTRACTOR WILL REMOVE ALL VEGETATION AND TREES IN THE AREA WHICH CONFLICTS WITH THE INSTALLATION OF THE NEW PRIVACY WALL.
- THE CITY OF HOLLYWOOD WILL NOT BE RESPONSIBLE FOR REPAIRING ANY PORTIONS OF EXISTING FENCE/WALLS TO REMAIN WHICH ARE DAMAGED DUE TO INSTALLATION OF THE NEW PRIVACY WALL.
- THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE EXISTING WALLS OR FENCES THAT ABUTS TO THE EXISTING WALL AND REPLACE OR RESTORE AFTER CONSTRUCTION OF NEW PRIVACY WALL.
- HE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THE FOUNDATION OF THE EXISTING CONCRETE SLAT WALL AND ANY FOUNDATION FROM PRIOR WALLS WITHIN THE PROPOSED 5 FEET WALL EASEMENT.
- THE CONTRACTOR SHALL PROVIDE SOD AND TOPSOIL IN THE BACK OF THE PRIVACY WALL AND TOPSOIL AND MULCH IN THE FRONT SIDE (SIDEWALK SIDE). IRRIGATION TO BE PLACED BY OTHERS, BUT CONTRACTOR MUST COORDINATE WITH CITY OR IRRIGATION CONTRACTOR FOR IRRIGATION INSTALLATION.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY CHAIN LINK FENCE WITH NON TRANSPARENT PRIVACY MESH AROUND REAR OF PRIVATE PROPERTIES FOR SECURITY PURPOSES.
- DESIGN SHALL COMPLY WITH THE AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD 7-10 AND THE SOUTH FLORIDA BUILDING CODE LATEST EDITION.
- SEVEN SIGNED & SEALED COPIES OF SHOP DRAWINGS AND DESIGN DATA SHALL BE SUBMITTED TO THE CITY OF HOLLYWOOD PROJECT ENGINEER. ALLOW A MINIMUM OF 10 DAYS TURN AROUND FOR SUBMITTALS.
- THE COLOR OF THE PRECAST WALL OR CONCRETE MASONRY BLOCK WALL, ITS COLUMNS, AND ALL ACCESSORIES TO BE DETERMINED. SEE SECTION 09900 OF CONTRACT DOCUMENTS.
- THE CITY OF HOLLYWOOD IS RESPONSIBLE FOR PROVIDING SOIL BORING INVESTIGATIONS, CALCULATIONS AND TESTS. THE CALCULATIONS MUST INCLUDE SOIL BEARING INFORMATION, ANALYSIS AND BASED ON EXISTING CONDITIONS. A STABILITY ANALYSIS MUST BE PROVIDED, BASED ON EXISTING SITE SPECIFIC SOIL CONDITIONS TO DETERMINE THE ALLOWABLE SAFE SOIL BEARING PRESSURE.

LEGEND:

- P — PROPERTY LINE
— X — EXISTING UTILITY CABINET
— ◇ — EXISTING SIGNAL POLE
— ◇ — EXISTING UTILITY POLE
— (H) — EXISTING FIRE HYDRANT
— [] — EXISTING CONC. SLAT WALL (TO BE REMOVED)
R/W RIGHT OF WAY

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SURVEY
3	OPTION 1 PRECAST CONCRETE WALL
4 & 5	OPTION 1 PRECAST CONCRETE WALL DETAILS
6	OPTION 2 CONCRETE MASONRY UNIT/BLOCK WALL
7 & 8	OPTION 2 CONCRETE MASONRY UNIT/BLOCK WALL DETAILS
9	NEIGHBORHOOD SIGN DETAIL



City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

SCALE
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DRAWN
ISSUE DATE

PEMBROKE ROAD
WALL REPLACEMENT

SHEET

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WALL REPLACEMENT

SHEET

1 OF 9

DESCRIPTION
NO.
DATE
REVISIONS

NO.
DATE



City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

SCALE
DESIGNED
DRAWN
ISSUE DATE

PEMBROKE ROAD
WALL REPLACEMENT

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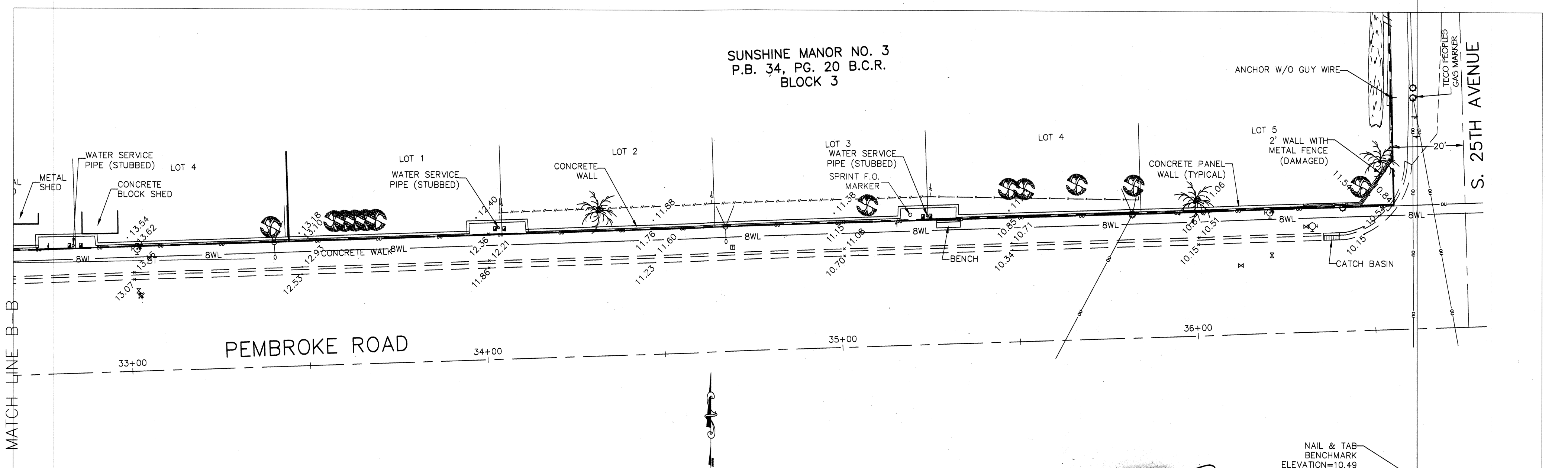
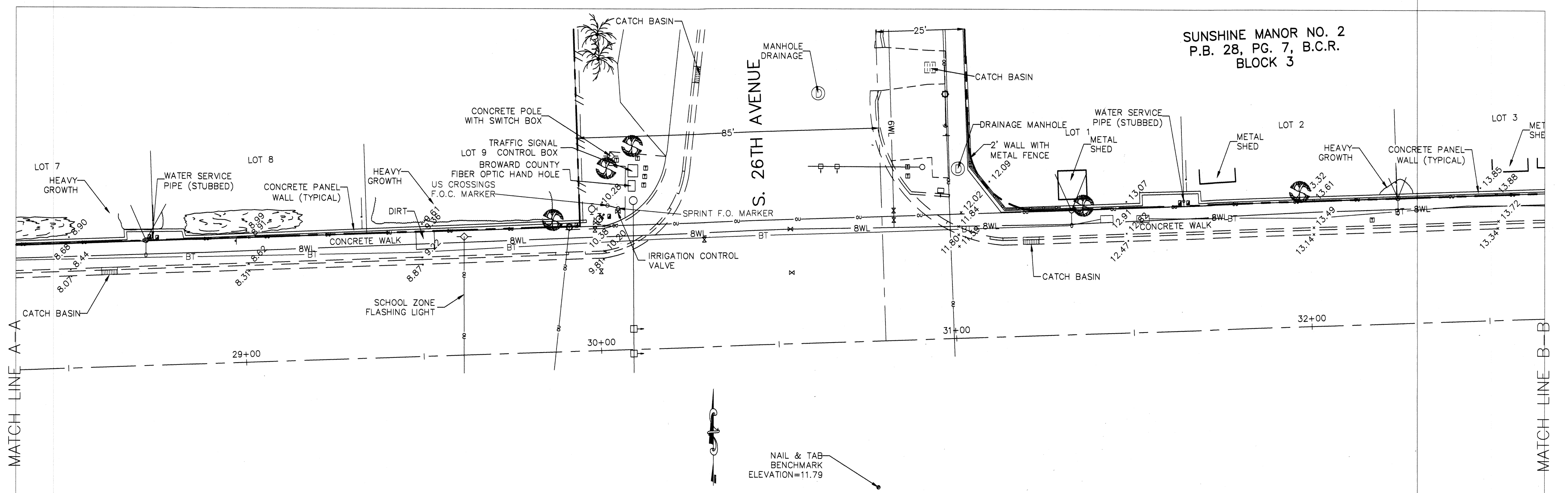
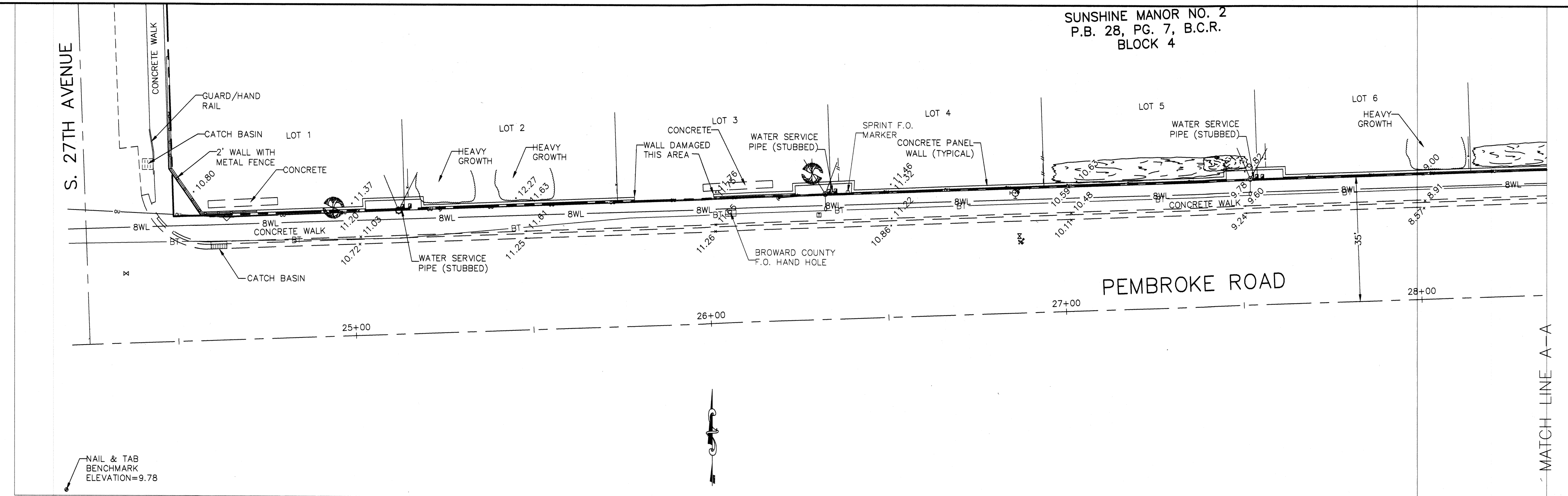


City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

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LEGEND

<ul style="list-style-type: none"> CB TEL EB MBX CONC. O.R.B. B.C.R. TREE BUSH HEDGE PALM 	<ul style="list-style-type: none"> FLAG POLE CABLE TV RISER TELEPHONE RISER ELECTRIC BOX BACKFLOW PREVENTOR SIAMSESE CONNECTION BOLLARD METAL LIGHT POLE GATE VALVE WATER METER FIRE HYDRANT ASSEMBLY MANHOLE - SEE SURVEY CB WOOD POWER POLE CONCRETE POWER POLE ANCHOR/GUY WIRE CONCRETE LIGHT POLE TRAFFIC SIGN POST CLEANOUT MAIL BOX CONCRETE OFFICIAL RECORD BOOK BROWARD COUNTY RECORDS 	<ul style="list-style-type: none"> CHAIN/LINK FENCE METAL FENCE WOOD FENCE PVC FENCE CONCRETE WALL BURIED TELEPHONE BURIED FORCE MAIN BURIED WATER LINE REUSE WATERLINE BURIED CABLE TV BURIED ELECTRIC BURIED GAS LINE OVERHEAD UTILITY CENTERLINE RIGHT-OF-WAY LINE LIMITED ACCESS RIGHT-OF-WAY LINE MAST ARM
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ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE & SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK OPERATIONS

Call 48 hours before you dig
It's the Law!
-800-432-4770
Sunshine State One Call of Florida, Inc.

NOTES
1) THE LAND DESCRIPTION SHOWN HEREON WAS PROVIDED BY THE CLIENT. EASEMENTS AND RIGHTS-OF-WAY PER RECORD PLAT HAVE BEEN SHOWN HEREON. NO FURTHER SEARCH FOR MATTERS OF RECORD HAS BEEN MADE BY THIS FIRM.
2) THIS SURVEY IS PREPARED FOR THE SOLE AND EXCLUSIVE USE OF THE PARTIES AS SURVEYED FOR AND AS CERTIFIED TO AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL.
3) ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.
4) BENCHMARK NG5 MONUMENT PID AD2500, ELEVATION=13.44, NAVD83 AT NORTHEAST CORNER OF CITY HALL BUILDING, CITY OF HOLLYWOOD.
5) NORTH ARROW RELATIVE TO ASSUMED S.87°56'01"W. ALONG THE CENTERLINE OF PEMBROKE ROAD.

PANEL NO.	SUFFIX	ZONE	FIRM DATE	BASE ELEV.	LOWEST FLR. ELEV.	AVG. GRD.
N/A	N/A	N/A	N/A	N/A	N/A	N/A

REVISION	DATE	BY
ADDITIONAL WALL	10/30/14	CM

SKETCH OF TOPOGRAPHIC SURVEY
JOB #: RN8472 DATE: 10-16-14 DRAWN BY: SHG
SCALE: 1"=20' SHEET 1 OF 1 CHECKED BY: SKS

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER

GIBBS LAND SURVEYORS
2131 HOLLYWOOD BOULEVARD, SUITE 204
HOLLYWOOD, FL 33020 (954) 923-7666
LICENSED BUSINESS NO. 7018

GENERAL NOTES AND SPECIFICATIONS *

DESIGN CRITERIA

1. ALL DESIGN AND CONSTRUCTION IS BASED ON AND SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2010 EDITION WITH LATEST REVISIONS.
2. TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE STRUCTURAL PLANS AND SPECIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE ABOVE REFERENCED CODE AND DESIGN STANDARDS LISTED BELOW.
3. DESIGN WIND LOAD:
 - A) BASIC WIND SPEED (3 SECOND GUST): 156 mph
 - B) WIND IMPORTANCE FACTOR: 0.77
 - C) WIND EXPOSURE CATEGORY: 'I'
 - D) DESIGN WIND PRESSURE: TO BE DETERMINED
4. DESIGN SOIL BEARING PRESSURE: 3,000 PSF
DESIGN AVERAGE N VALUE: 8 BLOWS/FT.
WATER TABLE: BELOW FOUNDATION
5. DESIGN STANDARDS:
2010 FLORIDA BUILDING CODE W/ REVISIONS.
ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
ACI 318-02 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
PCI DESIGN HANDBOOK, 6TH EDITION, MNL120-04.
ASCE 37-02 DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION.
TAPARED STEEL POLES-CAISSON DESIGN, TENG & ASSOC. US STEEL CORP. PUBLICATION, 1969.
AASHTO GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS.
FDOT DESIGN INSTRUCTIONS FOR PRECAST SOUND BARRIERS.
FDOT SOILS AND FOUNDATIONS HANDBOOK 2006.

GENERAL AND MISCELLANEOUS

1. ALL POWER LINES IN THE VICINITY OF THE WORK (ABOVE AND BELOW GROUND) MUST BE DE-ENERGIZED (IF NECESSARY) PRIOR TO START OF DIGGING OR ERECTION. LOCATES SHALL BE PERFORMED FOR ALL UNDERGROUND UTILITIES, DRAINAGE STRUCTURES, OR OTHER HAZARDS.
2. ANY CHANGES TO THE STRUCTURE SHALL HAVE BEEN REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO COMMENCING WORK ON ITEMS AFFECTED.
3. THESE DRAWINGS, UPON APPROVAL BY THE GENERAL CONTRACTOR, ENGINEER, AND/OR ARCHITECT SHALL BECOME THE CONTRACT DRAWINGS AND THE PRECAST CONCRETE COMPONENTS AND FOUNDATIONS SHALL BE FABRICATED AND CONSTRUCTED TO THE DIMENSIONS AND REQUIREMENTS DEPICTED IN THESE DRAWINGS.
4. GENERAL CONTRACTOR IS RESPONSIBLE FOR CLEARING, GRUBBING, BACKFILLING, AND FINAL GRADING OF SITE.
5. THE SPECIALTY ENGINEER AND DURATEK HAVE DESIGNED THIS WALL SYSTEM FOR THE SPECIFIC (WIND) LOADS DESCRIBED ABOVE: BASED ON THE LOAD REQUIREMENTS SPECIFIED BY THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT. E.O.R. IS TO VERIFY DESIGN CRITERIA SHOWN ABOVE AND SHALL NOTIFY SPECIALTY ENGINEER IF DIFFERENT.
6. BERMS AND OTHER FILL LOCATIONS WITHIN 5' OF WALL SHALL BE SAND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 15157). EACH LAYER OF FILL SHALL NOT EXCEED 12" THICKNESS AND SHALL BE COMPACTED PRIOR TO PLACEMENT OF NEXT LAYER. WORK BEHIND AND WITHIN 2 TIMES THE DEPTH (HORIZONTALLY) OF DURATEK RETAINING WALLS SHALL ONLY BE PERFORMED WITH SMALL COMPACTION AND EARTH MOVING EQUIPMENT WEIGHING LESS THAN 200 LBS.
7. GENERAL CONTRACTOR SHALL PROVIDE SURVEY AND LAYOUT WORK AS FOLLOWS:
 - PLACE SURVEY STAKES WITH A 4'-0" OFFSET FROM THE \angle OF THE WALL
 - ALONG STRAIGHT RUNS OF WALL, PLACE STAKES EVERY 100ft. (MAX.)
 - PLACE STAKES (W/ AND W/O OFFSET) AT ALL START, END, TURNING POINTS AND ELEVATION CHANGES.
 - INDICATE BOTTOM OF WALL ELEVATION ON ALL STAKES.
 - LOCATE AND STAKE ALL UNDERGROUND UTILITIES OR DRAINAGE STRUCTURES.

FOUNDATIONS

1. A GEOTECHNICAL REPORT WILL BE PROVIDED BY THE CITY.
2. FOUNDATION EXCAVATIONS MAY BE DEWATERED UTILIZING THE CONCRETE DISPLACEMENT METHOD. PROVIDED THAT THAT THE CONCRETE IS PUMPED DIRECTLY TO THE BOTTOM OF THE FOUNDATION DURING THE ENTIRE OPERATION. CONCRETE SHALL BE OVER - PUMPED AND TOP 2 INCHES SHALL BE REMOVED AND DISCHARGED.
3. DESIGN TO DETERMINE DEPTH OF CYLINDRICAL FOUNDATIONS, TO RESIST LATERAL LOADS, COMPLIES WITH 2007 FBC SECTION 1805.7.2 UTILIZING FBC OR FDOT OR USS/TENG METHOD. BUILDING OFFICIAL VERIFY AND APPROVE.

CONCRETE AND REINFORCING STEEL

1. APPLICABLE STANDARDS:
- | | |
|-------------|---|
| ACI-117 | STANDARD SPECIFICATIONS FOR CONCRETE CONSTRUCTION. |
| ACI-304 | GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE. |
| ACI-304.2 | PLACING CONCRETE BY PUMPING METHODS. |
| ACI-305 | HOT WEATHERING CONCRETE. |
| ACI-306 | COLD WEATHERING CONCRETE. |
| ACI-308 | GUIDE FOR CURING CONCRETE. |
| ACI-309 | GUIDE FOR CONSOLIDATION OF CONCRETE. |
| ACI-318 | BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. |
| ACI-347 | RECOMMENDED PRACTICE FOR CONCRETE FORMWORK. |
| ACI-SP15 | FIELD REFERENCE MANUAL. |
| CRSI | RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS. |
| CRSI | MANUAL OF STANDARD PRACTICE. |
| PCI MNL-132 | ERECTION SAFETY MANUAL. |
| PCI MNL-127 | ERECTOR'S MANUAL. |
| PCI MNL-116 | MANUAL FOR QUALITY CONTROL. |
2. CONCRETE MATERIALS:
- PORTLAND CEMENT – ASTM C150, TYPE 1.
 - AGGREGATES – NORMAL WEIGHT, CONCRETE, COARSE AND FINE, ASTM C33 AND STRUCTURAL LIGHT WEIGHT ASTM C330.
 - AIR – ENTRAINING – ASTM C260.
 - WATER REDUCING – ASTM C494, TYPE A
 - WATER – FRESH, CLEAN AND POTABLE.
 - NO ACCELERATORS, RETARDANTS OR ADMIXTURES CONTAINING CHLORIDES SHALL BE USED.
 - FLY ASH – ASTM C318, CLASS F OR G, 20% MAX. OF CEMENTITIOUS MATERIAL BY WEIGHT.
 - SUPER PLASTICIZER – ASTM C494, TYPE F OR G.
 - SPECIAL PROPORTIONS IN ACCORDANCE WITH ACI-301 TO PROVIDE CONCRETE CAPABLE OF BEING PLACED WITHOUT EXCESSIVE SEGREGATION AND WITH ACCEPTABLE FINISHING PROPERTIES, DURABILITY, SURFACE HARDNESS, APPEARANCE, AND STRENGTH REQUIREMENTS.
3. REINFORCING MATERIAL:
- DEFORMED BARS – ASTM A615, GRADE 60.
 - SMOOTH DOWELS – ASTM A615, PLAIN BARS MIN. YIELD STRENGTH OF 60,000 PSI.
 - WELDED WIRE FABRIC – ASTM A185, PLAIN WIRE FABRIC IN FLAT SHEETS ONLY.
 - ACCESSORIES TO CONFORM TO ACI 315.
 - REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60.
4. ALL CONCRETE FINISHES SHALL BE SMOOTH STEEL FORM AND WITHOUT PAINT, UNLESS NOTED OTHERWISE.
5. ALL CONCRETE SHALL HAVE THE FOLLOWING MIN. 28 DAY COMPRESSIVE STRENGTH AND REINFORCING COVER:
- | | | |
|-------------------|-----------|-------|
| • PRECAST POST: | 5,000 PSI | 1.5" |
| • PRECAST PANELS: | 5,000 PSI | 0.75" |
| • FOUNDATIONS: | 2,500 PSI | 3" |

* CONTRACTOR SHALL OBTAIN AND FOLLOW NOTES AND SPECIFICATIONS OF THE PRECAST WALL SPECIFIC TO THIS PROJECT PROVIDED BY THE MANUFACTURER, "DURATEK PRECAST TECHNOLOGIES WALL SYSTEMS" OR APPROVED EQUAL BY ENGINEER.

City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

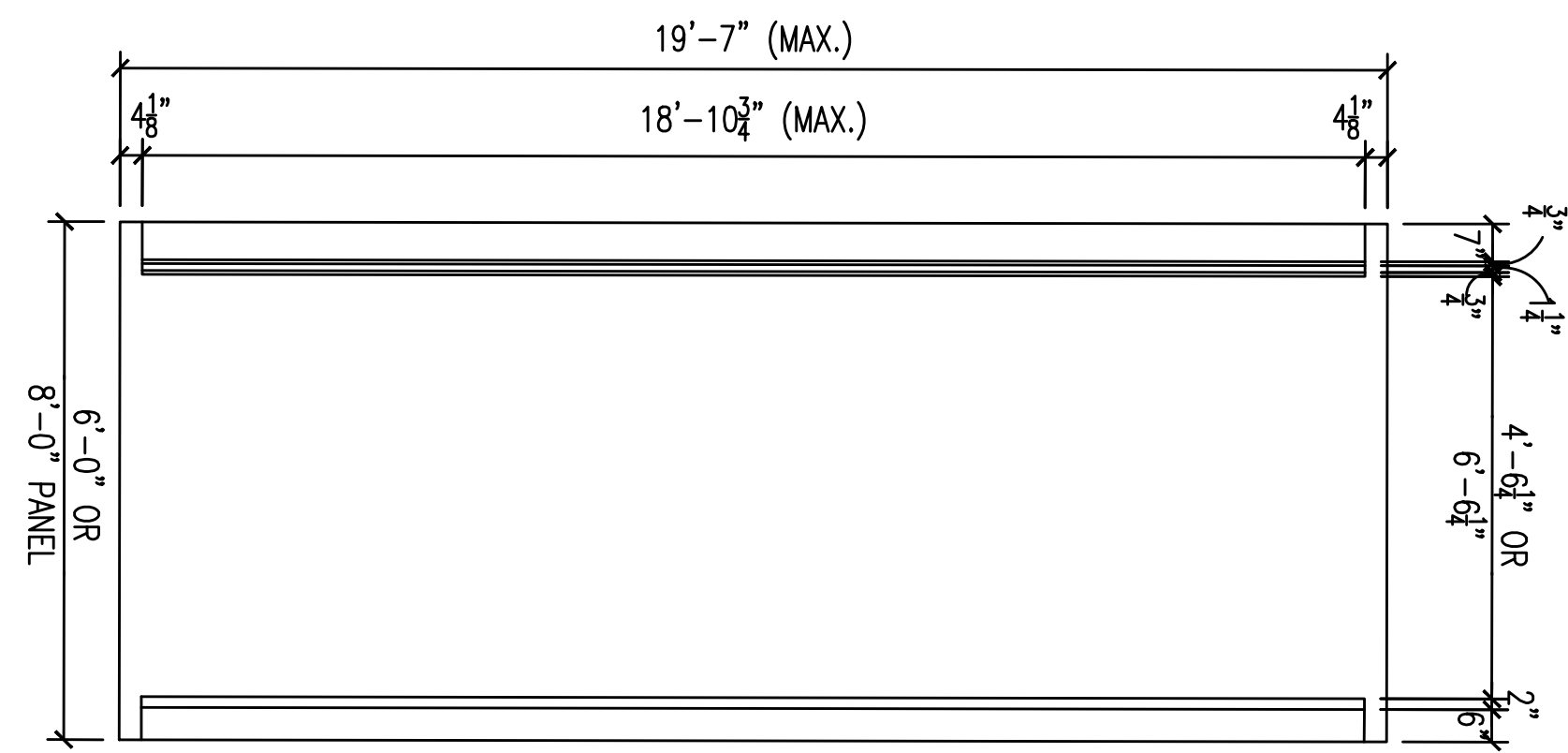
**PEMBROKE ROAD
WALL REPLACEMENT
OPTION 1 PRECAST CONCRETE WALL
STANDARD DETAILS**

SHEET

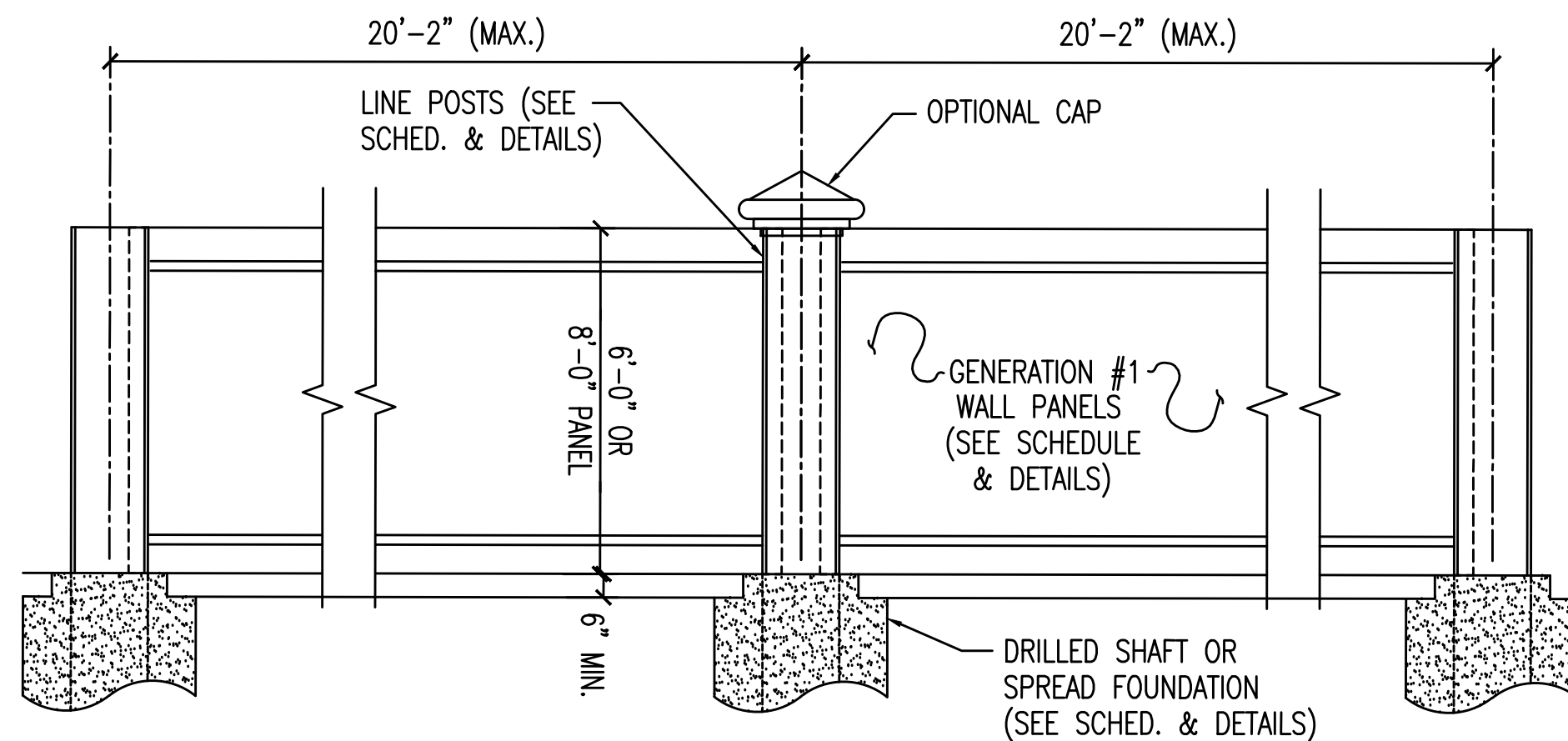
4 OF 9

REVISIONS	DESCRIPTION
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NO.	DATE
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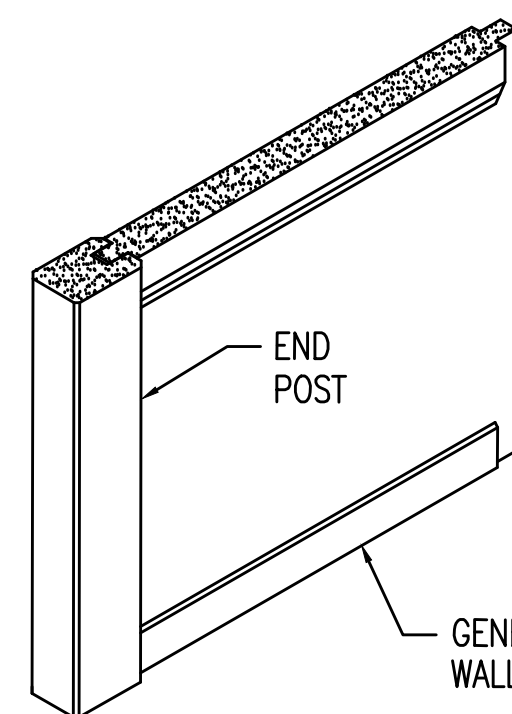


TYP. GENERATION ONE WALL PANEL ELEVATION
N.T.S.

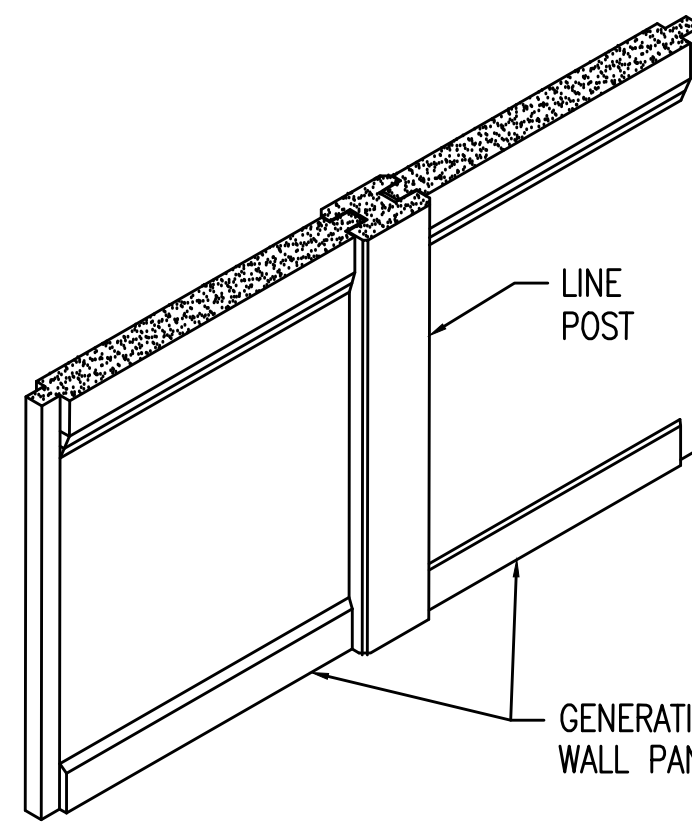


TYP. WALL PANEL ELEVATION - 6'-0" OR 8'-0" PANELS
N.T.S.

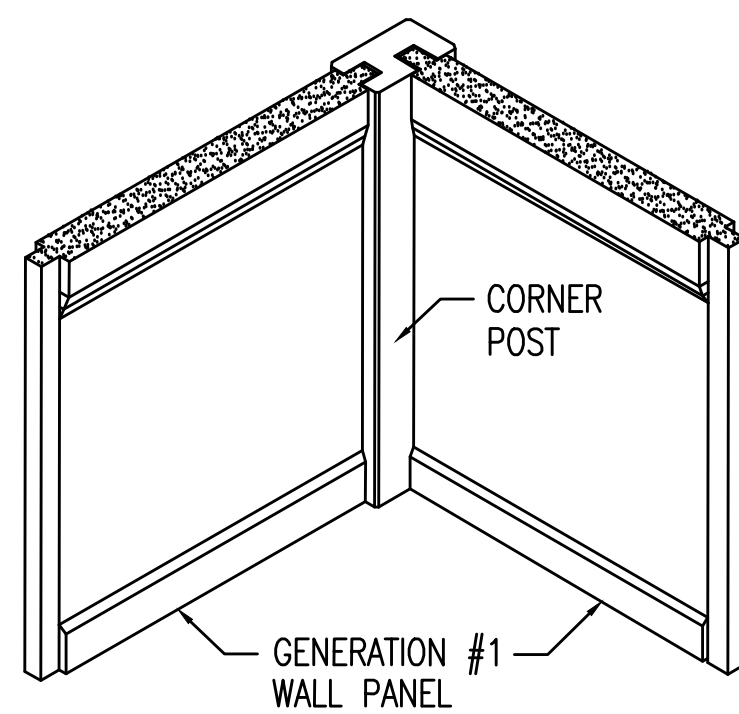
NOTE:
TOP OF FOUNDATION MUST BE A MINIMUM
OF 6" BELOW FINISHED GRADE.
USE EITHER A PRECAST PEDESTAL OR
CONCRETE OVERPOUR TO ACHIEVE THIS
CLEARANCE.



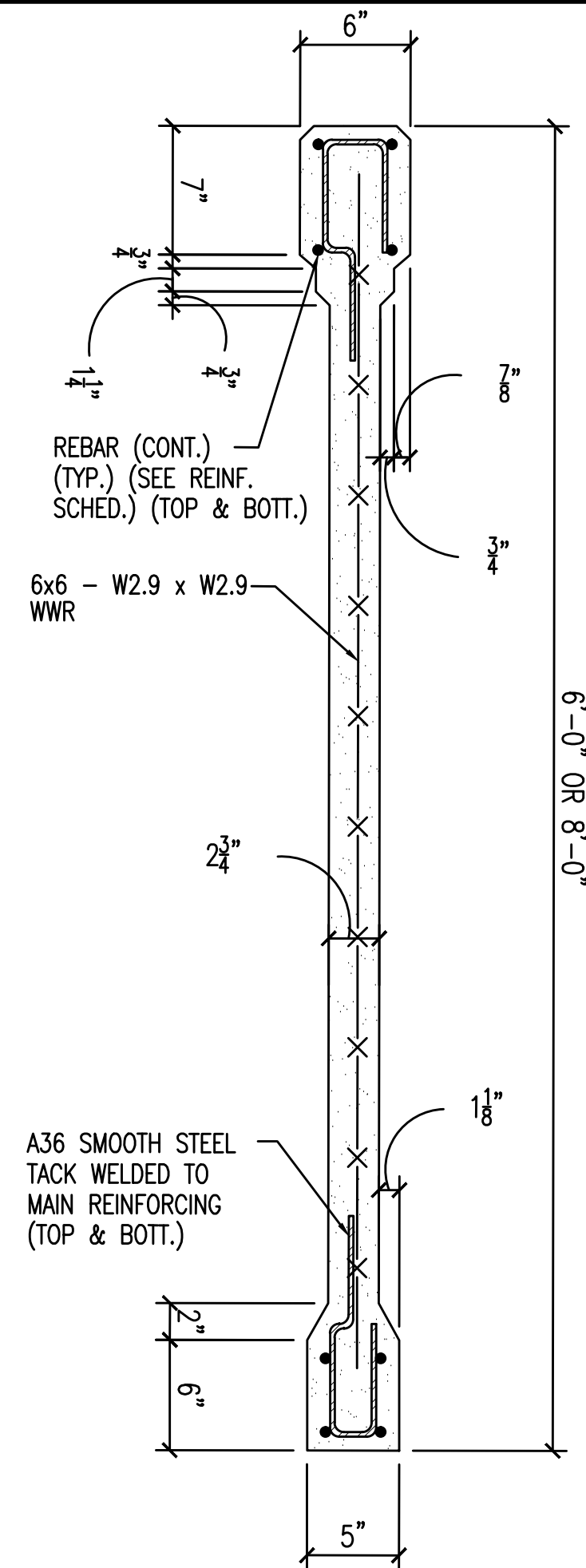
TYP. END POST TO WALL PANEL ISO. VIEW



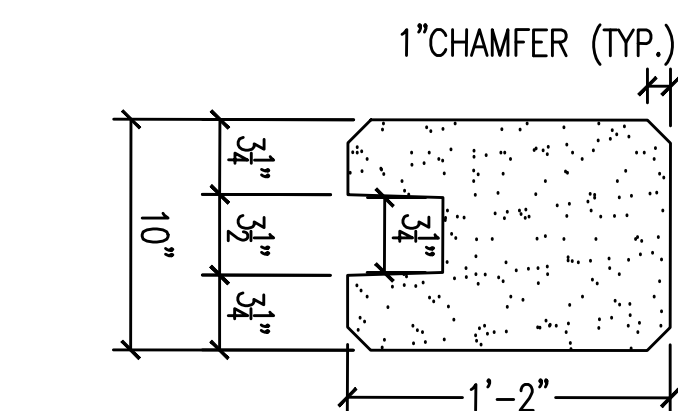
TYP. LINE POST TO WALL PANEL ISO. VIEW



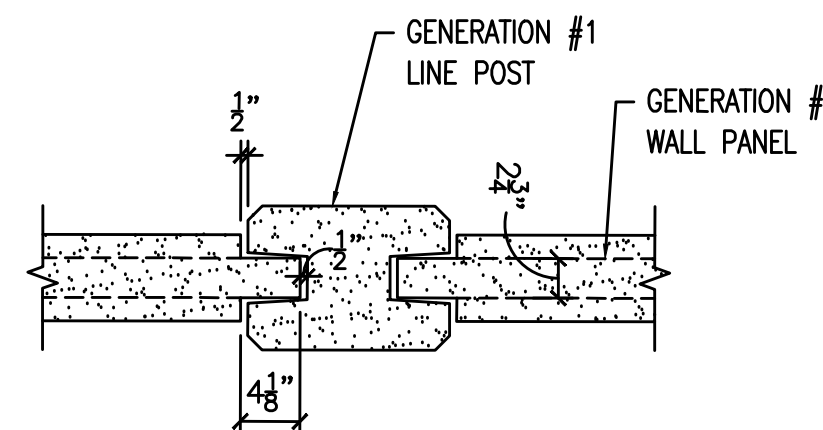
TYP. 90° CORNER POST TO WALL PANEL ISO. VIEW



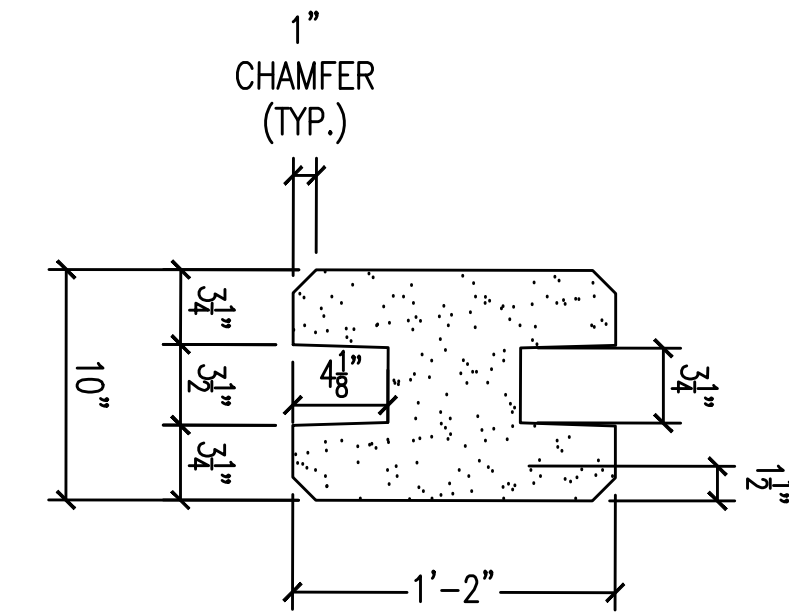
GENERATION ONE 6'-0" OR
8'-0" H. WALL PANEL SECTION
N.T.S.



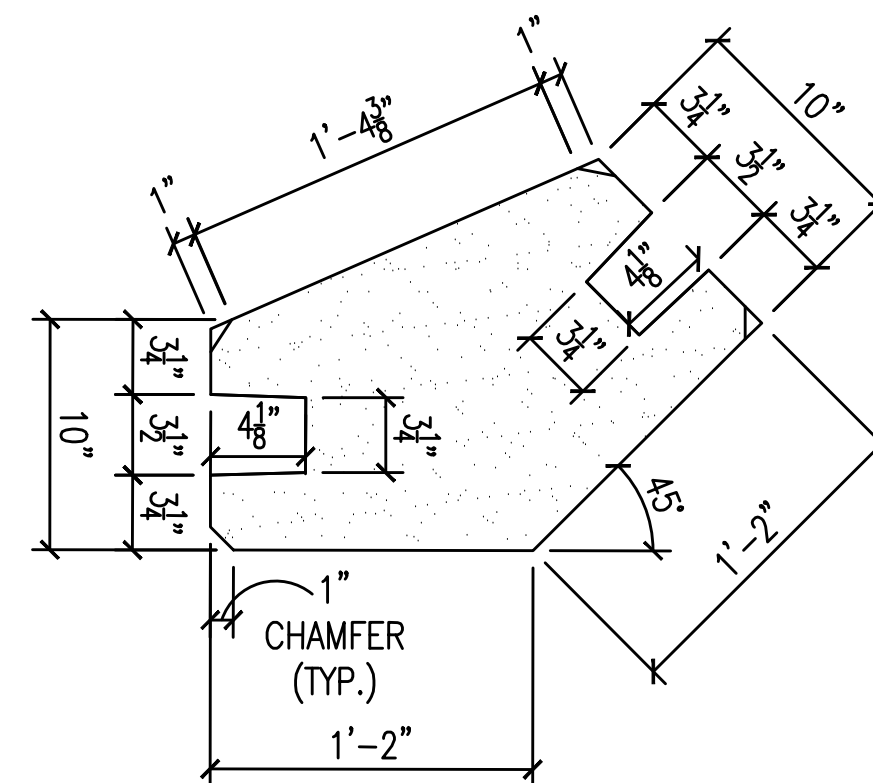
STD. END POST SECT. (UP TO 10'-0" H.)
N.T.S.



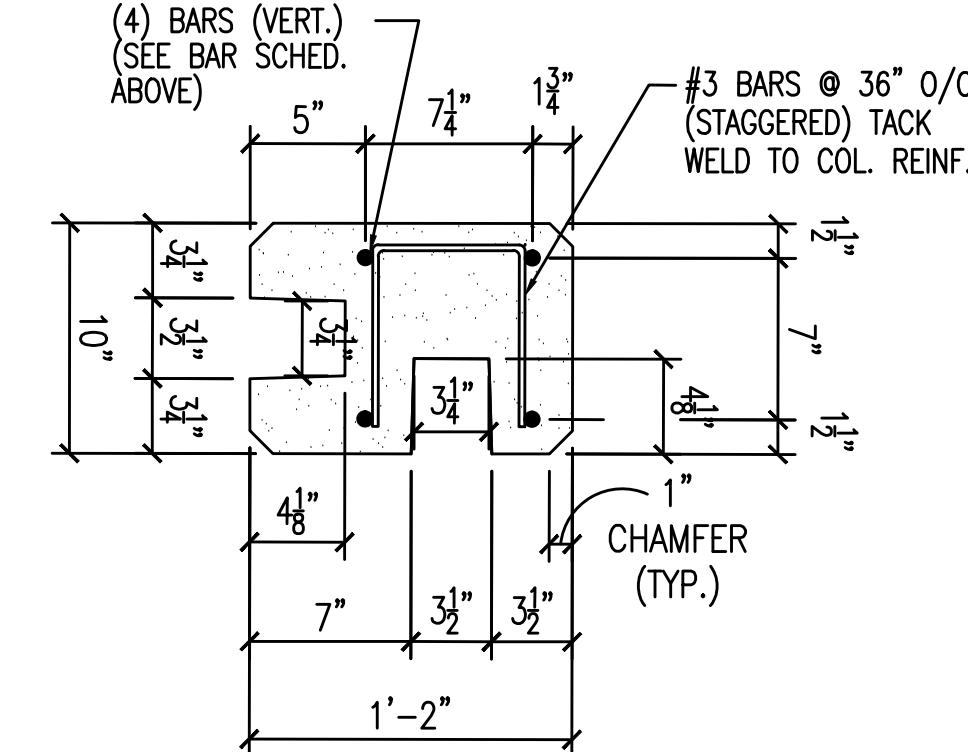
TYP. WALL PANEL TO LINE POST DTL.
N.T.S.



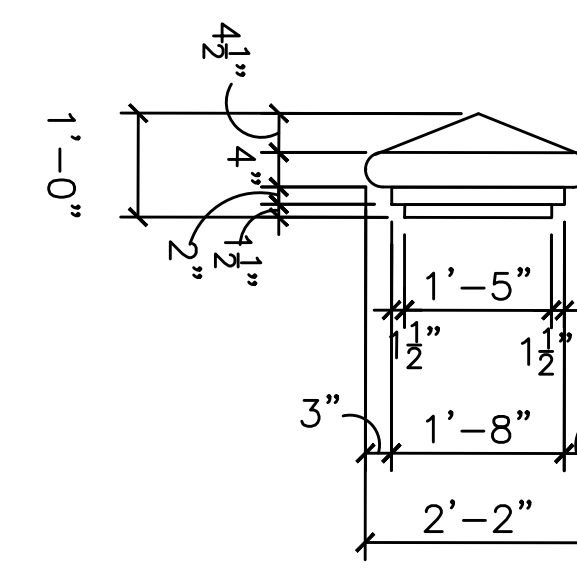
6'-0" THRU 10'-0" H. LINE POST SECT.
N.T.S.



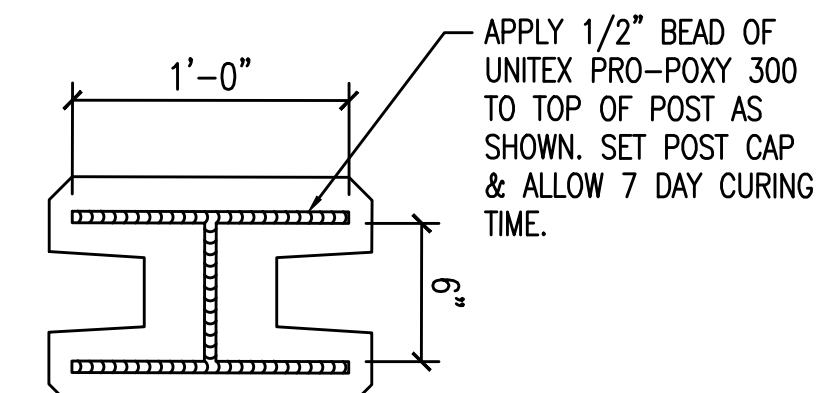
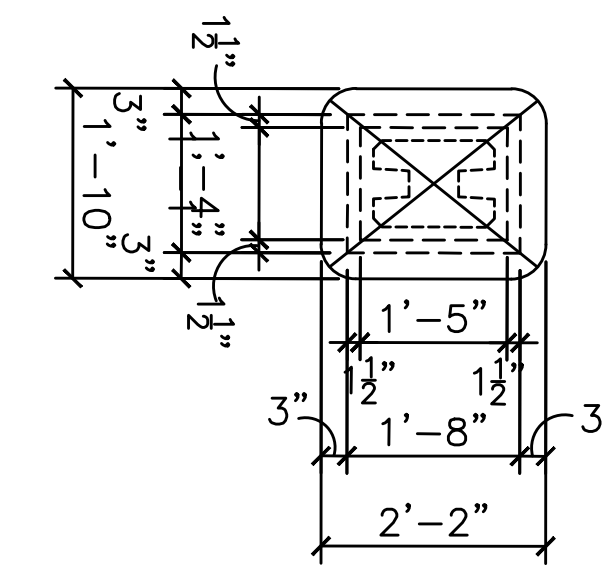
45° POST SECT. (UP TO 10'-0" H.)
N.T.S.



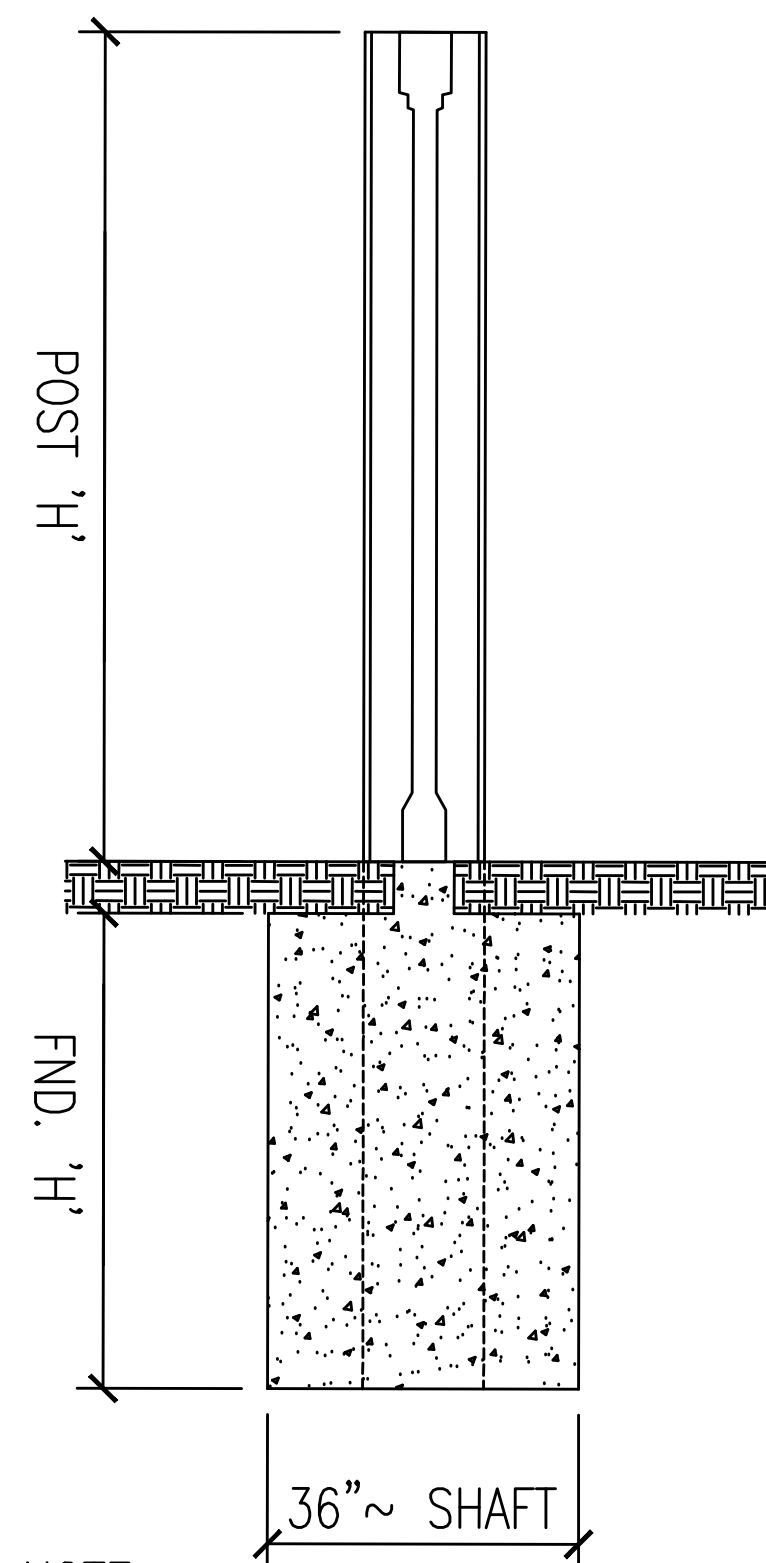
STD. CORNER POST SECT. (UP TO 10'-0" H.)
1" = 1'-0"



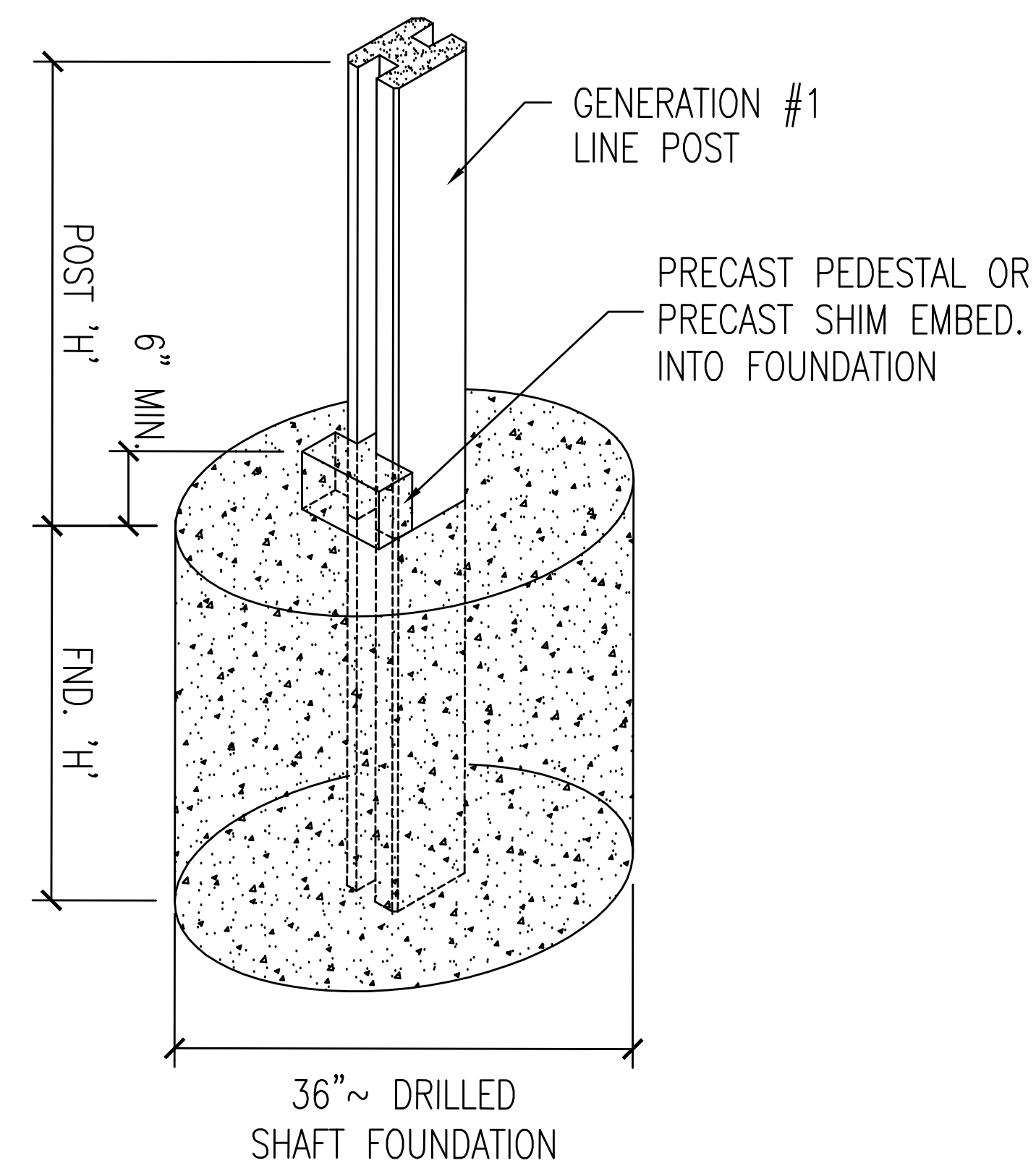
POST CAP DETAIL
N.T.S.



POST CAP INSTALLATION
N.T.S.



NOTE;
TOP OF FOUNDATION MUST BE A MINIMUM
OF 6" BELOW FINISHED GRADE.
USE EITHER A PRECAST PEDESTAL OR
CONCRETE OVERPOUR TO ACHIEVE THIS
CLEARANCE.



TYP. DRILLED SHAFT FND. DETAIL

NO.	DATE	DESCRIPTION



City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

SCALE	DESIGNED	DRAWN	ISSUE DATE

**PEMBROKE ROAD
WALL REPLACEMENT
OPTION 1 PRECAST CONCRETE WALL
STANDARD DETAILS**

SHEET

5 OF 9

SEAL

GENERAL STRUCTURAL/CONSTRUCTION NOTES

GENERAL STRUCTURAL/CONSTRUCTION NOTES

GENERAL:

1. UNLESS OTHERWISE NOTED (U.O.N.) ON PLANS OR IN THE SPECIFICATIONS, THE FOLLOWING GENERAL STRUCTURAL NOTES SHALL APPLY TO THIS PROJECT.
2. ABBREVIATIONS NOTED ON THE DRAWINGS OR SPECIFICATIONS ARE THOSE COMMONLY USED. UPON REQUEST, THE ENGINEER WILL DEFINE ANY ABBREVIATION THAT IS QUESTIONED BY THE CONTRACTOR.
3. IF ANY ERRORS OR OMISSIONS APPEAR ON THE PLANS, SPECIFICATIONS OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH OMISSIONS OR ERRORS PRIOR TO PROCEEDING WITH ANY WORK, WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILURE TO GIVE SUCH NOTICE, HE SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COST OF RECTIFYING THE SAME.
4. ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ALL DISCREPANCIES DISCOVERED OR DEVIATIONS FROM THE APPROVED PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH WORK. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF EXISTING CONDITIONS.
5. DO NOT CONCEAL ANY WORK UNTIL ENGINEER AND BUILDING DEPARTMENT INSPECTOR APPROVE INSPECTION OF WORK.
6. ANY AND ALL ITEMS REQUIRED TO FURNISH A COMPLETE CONSTRUCTION, BUT NOT SPECIFICALLY SHOWN OR SPECIFIED ON THESE DRAWINGS SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE FLORIDA BUILDING CODE AND LOCAL ORDINANCES AND, GOOD WORKMANLIKE MANNER.
7. IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW EVERY DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS REQUIRED TO COMPLETE THE WORK.
8. THE ENGINEER IS NOT RESPONSIBLE FOR THE EXISTING WALL, UTILITIES OR WORK NOT SPECIFICALLY SHOWN OR SPECIFIED ON THESE DRAWINGS.
9. THE CONTRACTOR SHALL COORDINATE ALL PARKING, STORAGE, TRASH REMOVAL, ETC. WITH THE OWNERS.
10. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING FINISHES AND/OR ANY ITEMS DAMAGED DURING CONSTRUCTION TO MATCH THE ADJACENT EXISTING.
11. THE PLANS ARE NOT TO BE SCALED. THE PLANS AND DIAGRAMS SHOW RELATIVE LOCATIONS AND ACTUAL EXISTING CONDITIONS MAY VARY IN THE FIELD.
12. SECTIONS AND DETAILS SHOWN TYPICAL ON THE DRAWINGS MAY NOT BE SPECIFICALLY NOTED AT EACH LOCATION. HOWEVER, THESE DETAILS MAY BE APPLICABLE OR MAY BE REQUIRED IN MORE THAN ONE LOCATION.
13. COMPACT SOIL TO MIN. 12"DEEP UNDER FOOTING TO OBTAIN 98% MODIFIED PROCTOR DRY DENSITY TEST (ASTMD 1557)

STRUCTURAL DESIGN CRITERIA:

1. ALL REFERENCED CODES AND SPECIFICATIONS SHALL BE LATEST EDITION AT TIME OF PERMIT.
2. THE GOVERNING BUILDING CODE FOR THIS PROJECT IS THE FLORIDA BUILDING CODE (2010 EDITION WITH REVISIONS). TO THE BEST OF OUR KNOWLEDGE, THIS DESIGN COMPLIES WITH THE REQUIREMENTS OF THE GOVERNING BUILDING CODE.
3. WIND LOAD CRITERIA AS PER ASCE 7-10, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES:
 - A) BASIC WIND VELOCITY: 115 MILES PER HOUR.
 - B) EXPOSURE CATEGORY C.
 - C) BUILDING CATEGORY I.

FOUNDATIONS:

1. PER VISUAL OBSERVATION OF SITE, FOUNDATIONS ARE DESIGNED TO BEAR ON WELL-COMPACTED LIMEROCK FILL WITH AN ALLOWABLE PRESCRIPTIVE BEARING CAPACITY OF 2000 PSF. NOTIFY ENGINEER OF ANY DISCREPANCY IN SOIL BEARING CAPACITY BEFORE PROCEEDING WITH THE WORK.
2. THE CITY OF HOLLYWOOD IS RESPONSIBLE FOR PROVIDING SOIL BORING INVESTIGATIONS, CALCULATIONS AND TESTS. THE CALCULATIONS MUST INCLUDE SOIL BEARING INFORMATION, ANALYSIS AND BASED ON EXISTING CONDITIONS. A STABILITY ANALYSIS MUST BE PROVIDED, BASED ON EXISTING SITE SPECIFIC SOIL CONDITIONS TO DETERMINE THE ALLOWABLE SAFE SOIL BEARING PRESSURE.
3. ALL TOP OF FOOTINGS TO BE MINIMUM 0'-8" BELOW FINAL GRADE.

CONCRETE:

1. FOR ALL CONCRETE TO BE PLACED THE SLUMP SHALL NOT EXCEED FIVE (5) INCHES. NO WAIVERS OF THIS REQUIREMENT SHALL BE CONSIDERED.
2. ALL CONCRETE TO BE REGULAR WEIGHT WITH A MINIMUM DESIGN COMPRESSIVE STRENGTH AS FOLLOWS: A) FOUNDATIONS: 3000 PSI. AT 28 DAYS. B) ALL UNSPECIFIED CONCRETE: 3000 PSI AT 28 DAYS.

REINFORCING STEEL:

1. TO BE DOMESTIC, NEW BILLET STEEL CONFORMING TO THE LATEST A.S.T.M. A615, SPECIFICATIONS FOR DEFORMED AND PLAIN BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 60 SPECIFICATIONS, FABRICATED IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE OF THE C.R.S.I. AND PLACED IN ACCORDANCE WITH A.C.I. 315 AND A.C.I. MANUAL OF STANDARD PRACTICE.
2. WALL REINFORCEMENT: DOWELS TO BE SAME SIZE AND NUMBER AS VERTICALS ABOVE. LAP 48-BAR DIAMETER OR MINIMUM OF 30", WHICHEVER IS GREATER. PROVIDE RIGID TEMPLATES FOR DOWEL LOCATION. PROVIDE STANDARD HOOKS FOR ALL VERTICAL NON-CONTINUOUS REINFORCEMENT, TYPICAL UNLESS OTHERWISE NOTED.
3. ALL DOWELS FOR COLUMNS AND WALLS TO BE SECURED IN POSITION PRIOR TO CONCRETING. DRILLING OR PUSHING THE DOWELS INTO POSITION IN WET CONCRETE IS NOT PERMITTED.
4. CONCRETE COVER TO REINFORCING STEEL, UNLESS OTHERWISE DETAILED ON PLANS:

A) FOOTINGS: 3" TO BOTTOM REINFORCING WHEN CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH EARTH.

MASONRY WALLS AND PARTITIONS:

1. CONCRETE MASONRY UNITS (BLOCKS) SHALL COMPLY WITH THE PROVISIONS OF THE ASCE/ACI 530, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. HOLLOW BLOCK SHALL COMPLY WITH ASTM C90, HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS, TYPE I, AND GRADE N-1. MINIMUM NET COMPRESSIVE STRENGTH AT 28 DAYS, F'C = 2000 PSI.
3. MORTAR SHALL COMPLY WITH ASTM C270-92, MORTAR FOR UNIT MASONRY, TYPE M, WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 2500 PSI. LAY UNITS WITH FULL MORTAR COVERAGE ON BOTH HORIZONTAL AND VERTICAL JOINTS.
4. MINIMUM HORIZONTAL JOINT REINFORCEMENT SHALL BE PROVIDE AT EVERY SECOND COURSE (16" VERTICAL) FOR BEARING OR NON-BEARING EXTERIOR MASONRY WALLS. REINFORCEMENT SHALL PROVIDE 2-3/16" SIDE RODS ONE EACH SIDE) AND 9 GAGE CROSS RODS, LADDER TYPE FOR VERTICALLY REINFORCED MASONRY AND TRUSS TYPE FOR ALL OTHERS. REINFORCEMENT SHALL EXTEND 4" INTO THE COLUMNS OR TIED TO STRUCTURAL COLUMNS WITH 2#4 DOWELS EXTENDING 12" EACH SIDE OF COLUMN TO SPLICE WITH THE WALL REINFORCEMENT SIDE RODS, OR ANY OTHER ACCEPTED METHOD SUBJECT TO ENGINEER'S APPROVAL.
5. VERTICAL REINFORCING, WHERE SPECIFIED, SHALL CONFORM TO ASTM A615, GRADE 60 SPECIFICATIONS. FILL ALL REINFORCED CELLS WITH 3000 PSI CONCRETE OR GROUT. SEE PLAN FOR SIZE AND SPACING OF VERTICAL REINFORCING. PROVIDE STANDARD HOOKS FOR ALL VERTICAL NON-CONTINUOUS REINFORCEMENT.
6. GROUT SHALL BE A PLASTIC MIX HAVING A MAXIMUM SLUMP OF 9"±1".
7. GROUTING SHALL BE A CONTINUOUS OPERATION IN LIFTS NOT EXCEEDING 4'-0".
8. CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF GROUTED CELLS OF EACH LIFT OVER 4'-0" HIGH. CLEANOUTS SHALL BE SEALED AFTER CLEANING AND INSPECTION, AND BEFORE GROUTING.
9. MASONRY COMPRESSIVE STRENGTH F'M = 1500 PSI.
10. CONTROL JOINTS, OTHER THAN THOSE SHOWN ON PLANS, ARE SUBJECT TO THE APPROVAL OF THE ENGINEER.

REVISIONS	
NO.	DESCRIPTION



City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

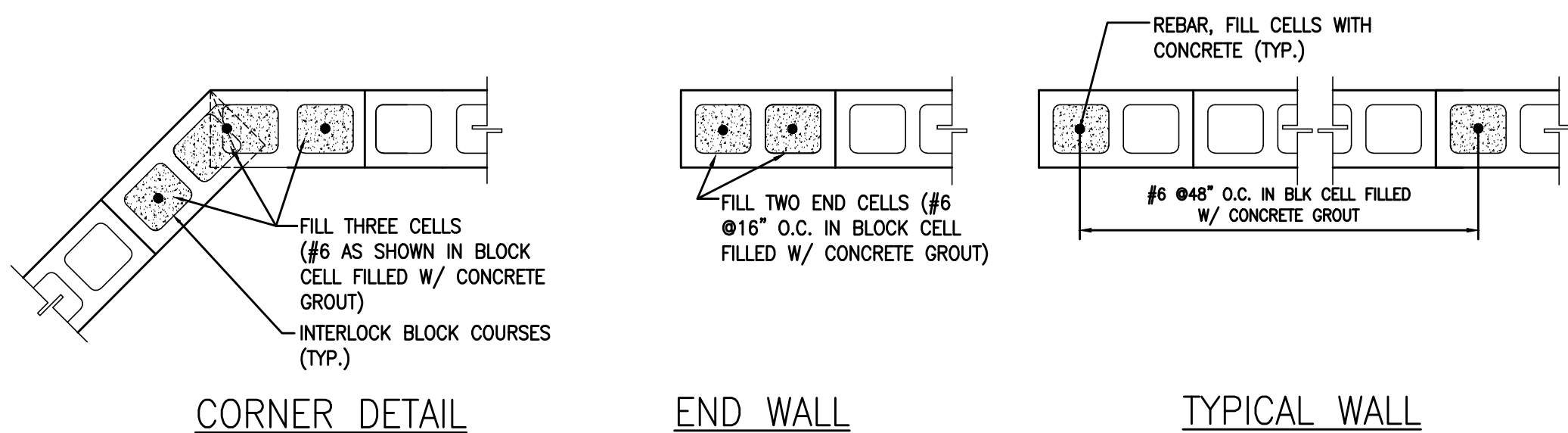
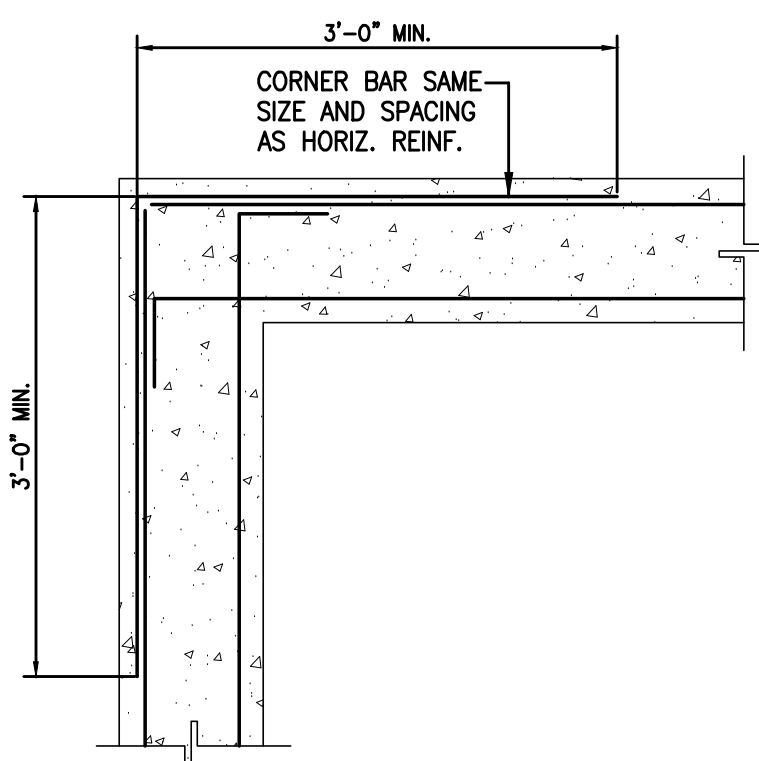
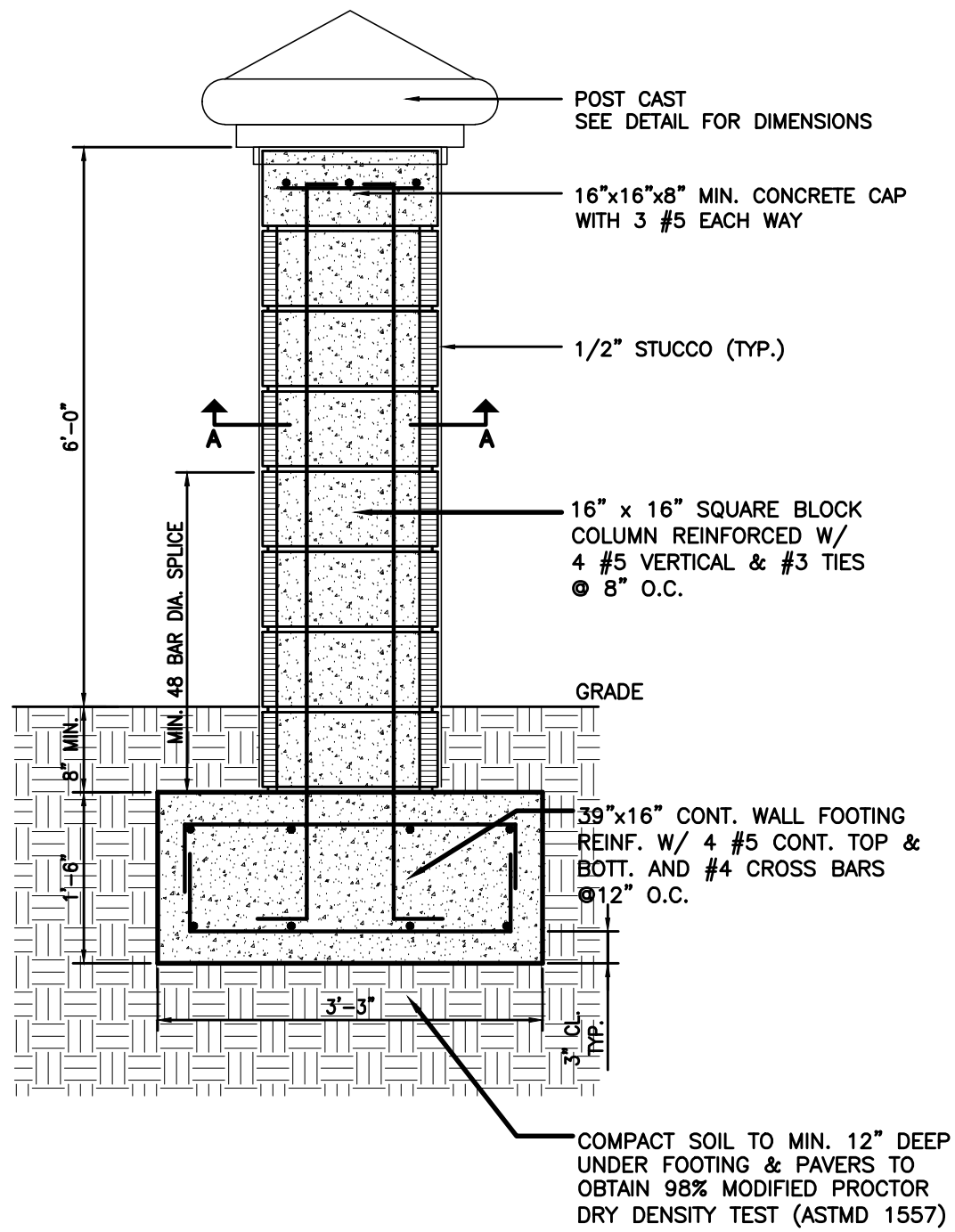
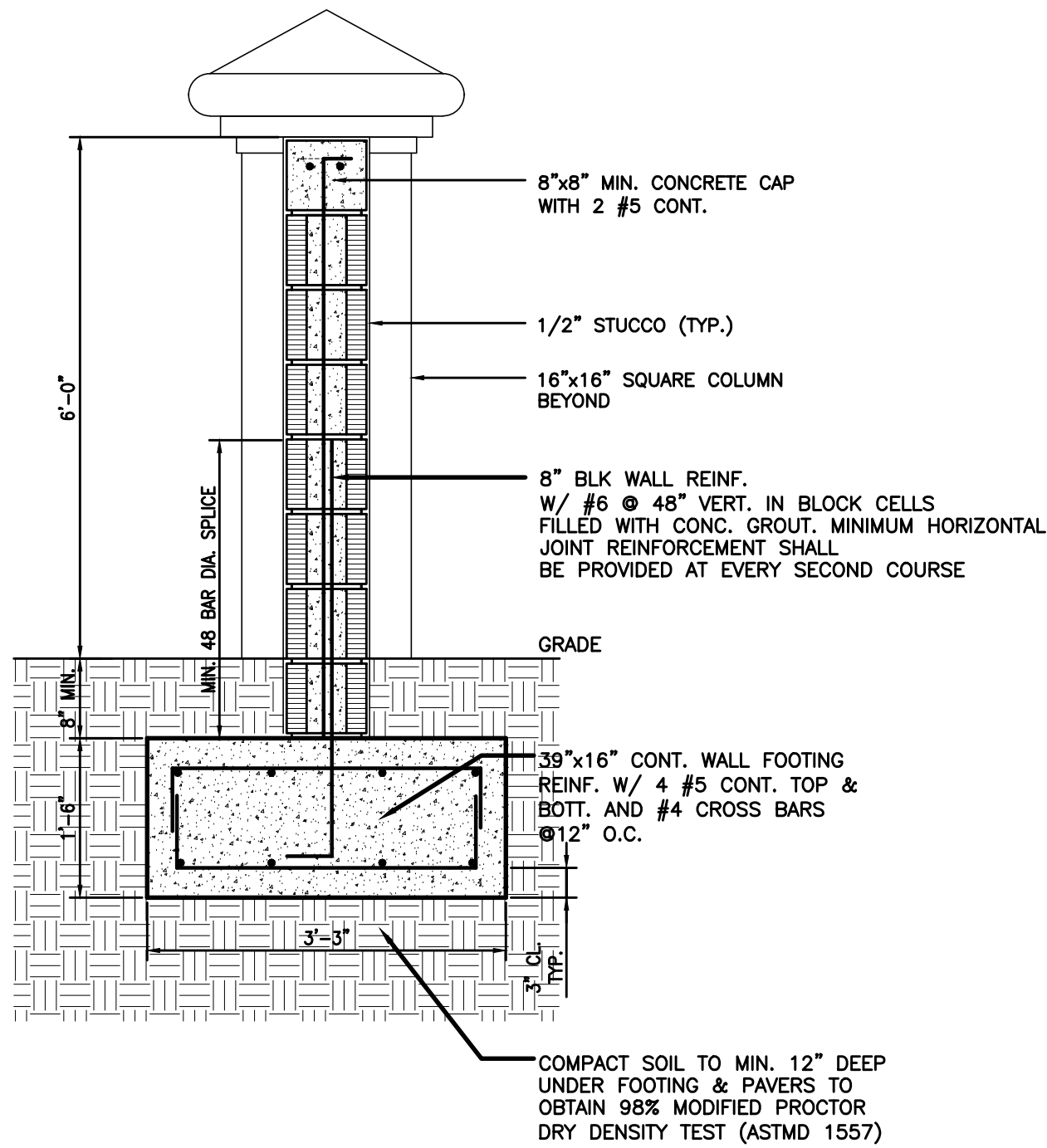
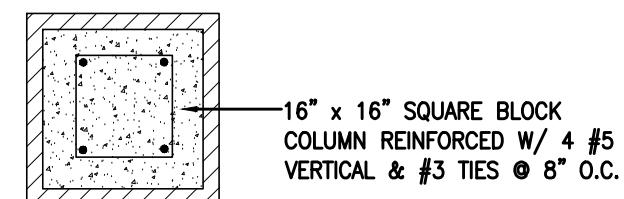
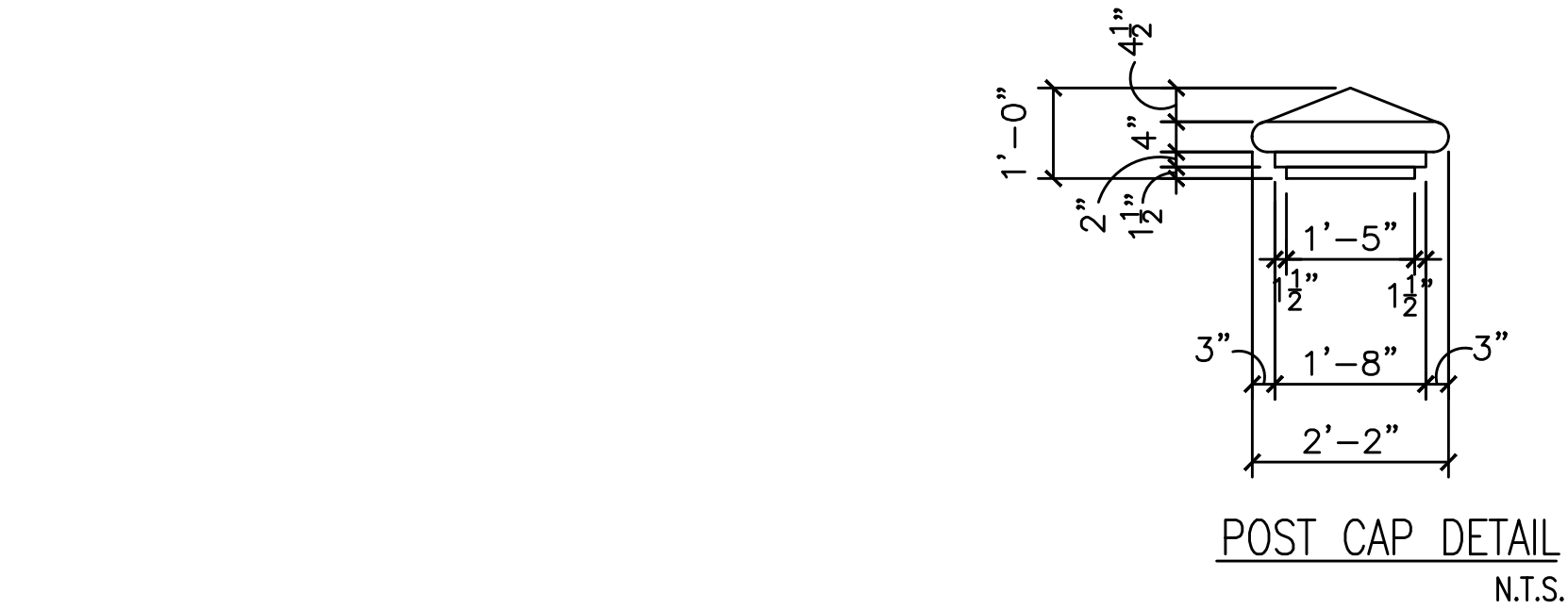
SCALE	DESIGNED	DRAWN	ISSUE DATE

PEMBROKE ROAD
WALL REPLACEMENT
OPTION 2 CONCRETE MASONRY
UNIT/BLOCK WALL

SHEET

7 OF 9

SEAL



REVISIONS	
NO.	DESCRIPTION



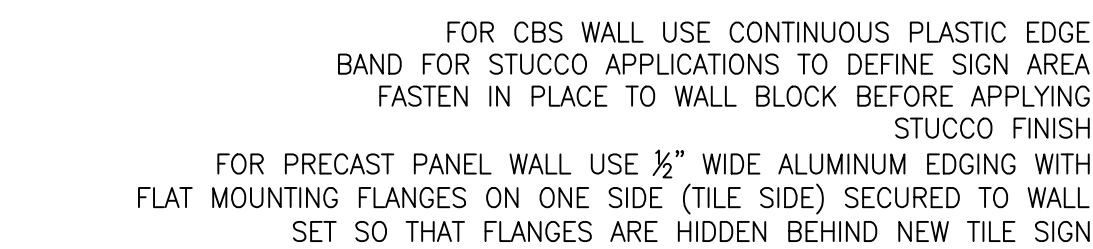
City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

SCALE	DESIGNED	DRAWN	ISSUE DATE

PEMBROKE ROAD
WALL REPLACEMENT
OPTION 2 CONCRETE MASONRY
UNIT/BLOCK WALL

SHEET

8 OF 8



'City of Hollywood' 1/4" THICK X 5" HEIGHT
COMMERCIAL SCRIPT FONT POWDER COATED
STEEL LETTERING WITH MOUNTING STUDS FOR
OFFSET MOUNTING COLOR TBD BY CITY)

'hardland Gardens' 1/2" THICK X 14" HEIGHT COMMERCIAL
SCRIPT FONT POWDER COATED STEEL LETTERING WITH
MOUNTING STUDS (COLOR TBD BY CITY)
DRILL HOLES FOR STUDS INTO WALL PER
MANUFACTURER'S SPECIFICATIONS AND SET
WITH TWO PART EPOXY
INDIVIDUAL CHARACTERS SHALL BE LEVEL/EVEN ALONG
THE DIRECTION OF LETTERING AND OFFSET FROM EDGES
AS SHOWN ON SCALED DRAWING

PEMBROKE ROAD

NEIGHBORHOOD IDENTIFICATION SIGN (TYPICAL OF TWO)

1/2" = 1'-0"

SEAL

City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division

SCALE AS SHOWN
DESIGNED
DRAWN
ISSUE DATE

**PEMBROKE ROAD
WALL REPLACEMENT
NEIGHBORHOOD
SIGN DETAIL**

SHEET

9 OF 9



CITY OF HOLLYWOOD, FLORIDA

DEPARTMENT OF PUBLIC WORKS ENGINEERING AND ARCHITECTURAL SERVICES DIVISION

2600 Hollywood Blvd. • P. O. Box 229045 • Hollywood, Florida 33022-9045
Phone (954)921-3900 • Fax (954)921-3481 • www.hollywoodfl.org

DATE: December 19, 2014

ADDENDUM NUMBER 1

PROJECT TITLE: Pembroke Road Wall Replacement-South 25th Avenue to South 27th Avenue

PROJECT BID NO.: EN-14-014a

ALL BIDDERS BE ADVISED OF THE FOLLOWING ADDITIONAL INFORMATION/CLARIFICATION TO THE ABOVE REFERENCED PROJECT AS LISTED BELOW:

Item #1:

Geotechnical Report is being provided, please see attached.

Item #2:

Added Item 10, *Labor & Material to Relocate Metal Shed* to the Proposal Bid Form for both Option 1 and Option 2 of the bid, revised form attached.

ALL OTHER TERMS, CONDITIONS, AND SPECIFICATIONS SHALL REMAIN THE SAME.

THIS ADDENDUM SHALL BE ATTACHED TO THE CONTRACT DOCUMENTS AND THE RECEIPT OF THE SAME SHALL BE NOTED IN THE PROPOSAL IN THE SPACE PROVIDED.

Jonathan M. Vogt
City Engineer



Our Mission: We are dedicated to providing municipal services for our diverse community in an atmosphere of cooperation, courtesy and respect. We do this by ensuring all who live, work and play in the City of Hollywood enjoy a high quality of life.

"An Equal Opportunity and Service Provider Agency"

PROPOSAL BID FORM

City File No.: EN-14-014a

Project: FY 2015-PEMBROKE ROAD WALL REPLACEMENT
S 25TH AVENUE TO S 27TH AVENUE

Account No.: TBA

This bid is requesting that all bidders to submit bids for one or both of the options.

OPTION 1 – PRECAST CONCRETE WALL OPTION 2 – CONCRETE MASONRY UNIT/BLOCK WALL

Please Check below the Option that Applies to your Bid:

Option 1 Only _____ Option 2 Only _____ Both Options 1 & 2 _____

If this Proposal is accepted the undersigned Bidder agrees to complete all work under this contract within 60 CALENDAR DAYS after the effective date established in the Notice to Proceed. UNIT PRICE PREVAILS OVER TOTAL PRICE. All entries to this form must be typed or written in ink.

Payment to the CONTRACTOR shall be made on the basis of the Proposal bid items as full and complete payment for furnishing all materials, labor, tools and equipment, and for performing all operations necessary to complete the work included in the Contract Documents. Such compensation shall also include payments for any loss or damages arising directly or indirectly from the work, or from any discrepancies between the actual quantities of work and those shown in the Contract Documents, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the CITY.

The prices stated in the proposal include all costs and expenses for taxes, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the plans and specified herein. Unit prices used will be applied to the actual quantities furnished and installed in conformance with the Contract Documents.

The quantities for payment under the Contract shall be determined by actual measurement of the completed items, in place, ready for service and accepted by the CITY. A representative of the CONTRACTOR shall witness all field measurements.

OPTION 1 – PRECAST CONCRETE WALL

No.	Description	Qty.	Unit	Unit Price	Total
1.	Demolition and Site Clearing	1	LS		
2.	Mobilization: Lump sum price bid, full compensation for all mobilization/demobilization activities, including but not limited to any space required for staging, laydown, storage, parking, etc., and all other activities necessary to prepare to complete the contract work	1	LS		
3.	Maintenance of Traffic: As approved by FDOT to include all temporary signs, striping, barricades, concrete barrier wall, flag man complete in place. (Certified MOT plan to be provided by Contractor)	1	LS		
4.	Temporary Construction Chain Link Fence with Privacy Mesh	1,205	FT		
5.	Furnish & Install Precast Concrete Wall: Using the Duratek Precast Technologies Generation #1 Wall System, Smooth Finish, or approved equal, including but not limited to all foundation, footing, panels, columns, caps, trims, accessories, etc., and all other materials and activities necessary to complete the contract work .	1,205	FT		

6.	Furnish & Apply Primer and Paint to the New Wall (2 Colors)	1	LS		
7.	Furnish & Install Landscaping Mulch	263	CF		
8.	Restoration to private properties: Including but not limited to labor and materials to fill and sod, fences, walls, walls with rod irons, landscaping, irrigation, etc.	1	LS		
9.	Furnish & Install Wall's Neighborhood Identification Signage as per plan Sheet 9 attached	1	LS		
10.	Labor & Material to Relocate Metal Shed	1	LS		

OPTION 1 TOTAL BASE BID _____

OPTION 1 TOTAL BASE BID IN WRITING:

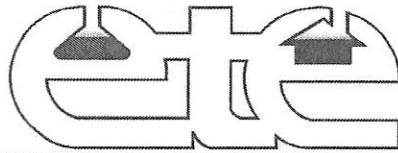
OPTION 2 – CONCRETE MASONRY UNIT/BLOCK WALL

No.	Description	Qty.	Unit	Unit Price	Total
1.	Demolition and Site Clearing	1	LS		
2.	Mobilization: Lump sum price bid, full compensation for all mobilization/demobilization activities, including but not limited to any space required for staging, laydown, storage, parking, etc., and all other activities necessary to prepare to complete the contract work	1	LS		
3.	Maintenance of Traffic: As approved by FDOT to include all temporary signs, striping, barricades, concrete barrier wall, flag man complete in place. (Certified MOT plan to be provided by Contractor)	1	LS		
4.	Temporary Construction Chain Link Fence with Privacy Mesh	1,201	FT		
5.	Labor & Material to Construct Concrete Masonry Unit/Block Wall: Including but not limited to all foundation, footing, columns, accessories, mortar, cement, stucco, etc., and all other materials and activities necessary to complete the contract work	1,201	FT		
6.	Furnish & Apply Primer and Paint to the New Wall (2 Colors)	1	LS		
7.	Furnish & Install Landscaping Mulch	491	CF		
8.	Restoration to Private Properties: Including but not limited labor and materials to fill and sod, fences, walls, walls with rod irons, landscaping, irrigation, etc.	1	LS		
9.	Furnish & Install Wall's Neighborhood Identification Signage as per plan Sheet 9 attached	1	LS		
10.	Labor & Material to Relocate Metal Shed	1	LS		

OPTION 2 TOTAL BASE BID _____

OPTION 2 TOTAL BASE BID IN WRITING:

CONTRACTOR NAME: _____



EASTCOAST TESTING & ENGINEERING, INC.

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Pompano Beach, Florida 33073

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West Palm Beach, Florida 33409

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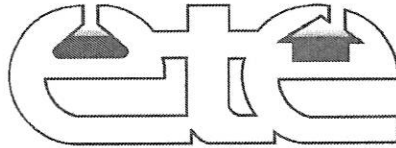
DECEMBER 17, 2014

**REPORT OF GEOTECHNICAL EXPLORATION &
ENGINEERING ANALYSIS - RECOMMENDATION
FOR**

CITY OF HOLLYWOOD

**PEMBROKE ROAD WALL REPLACEMENT
SOUTH 27th AVENUE TO SOUTH 25th AVENUE**

**CITY OF HOLLYWOOD
ENGINEERING DIVISION
2600 HOLLYWOOD BOULEVARD
ROOM #308
HOLLYWOOD, FLORIDA 33020
BROWARD COUNTY, FLORIDA**



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December 17, 2014

Report of Engineering Evaluation for: City of Hollywood

Project : Pembroke Road Wall Replacement

Location: South 25th Avenue to South 27th Avenue
Hollywood, Florida
Broward County, Florida

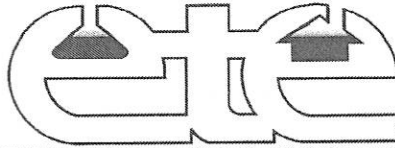
To Whom it May Concern;

As per your request EastCoast Testing & Engineering, Inc. performed the modified standard penetration test boring's at the above reference location as requested. The purpose of this investigation was to provide information concerning the site and subsurface conditions in order to provide site preparation and foundation design recommendations for support of the proposed construction. This report presents our findings and foundation recommendations.

We understand that plans and information with regards for this project consist of a new precast wall to replace the existing wall along the north side of Pembroke Road between South 25th Avenue and South 27th Avenue in Hollywood, Florida, Broward County, Florida. Elevations for the test boring's were not provided at the time of our subsurface exploration. Final elevation's for the proposed structure was not furnished.

STANDARD PENETRATION TEST BORINGS

The test boring location's were determined by our client and is indicated on the test boring report logs' and attached survey. A review of our test boring indicates the upper level of subsoils are comprised of fine-grained sands with little limestone fragments, concrete debris and silt, (topsoil) to a depth of approximately +/-1.0 feet below grade. Below this upper stratum were stratum's of very loose to loose fine-grained sands which continued to a depth of +/-6.0-8.0 feet below the existing surface grade elevation. Underlying these subgrade soils our borings disclosed layers of fine-grained sands, and limestone fragments with some/little calcareous silty fine-grained sands, (non-plastic) primarily in a very loose to a loose state of relative consolidation which extended to +/-12.0 feet below the land surface. From this depth we encountered limestone fragments with some/little calcareous silty fine-grained sands, (non-plastic) in a loose to a medium dense consolidated state to -15.0 feet below grade. These weathered limestone formation terminated our subsurface exploration at fifteen feet, maximum penetration.



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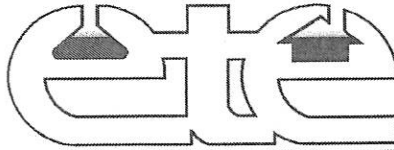
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Page #2. Lab #7003237
Pembroke Road Wall Replacement
Hollywood, Florida

The results of our subsurface study confirm that the site is favorable for shallow foundations using geotechnical considerations. Existing subsurface conditions can support construction designed for support for a net allowable soil bearing capacity of 2000 pounds per square foot after over-excavation, in-situ densification, backfilling and compaction. The proposed structure can be supported on shallow foundations. Detailed recommendations follow in the remaining sections of the report.

In order to prepare the site to support new construction designed for a net allowable soil bearing capacity of 2000 psf, we recommend the following procedures be implemented.

- 1. The proposed building pad areas and all new foundation elements shall be cleared and excavated to a minimum depth of 3.0 feet plus a horizontal distance of three feet outside the perimeter. Care should be taken so as to insure the complete removal of any deleterious materials encountered including any topsoil, construction debris, asphaltic concrete, concrete, organics, grass, rubble, vegetation, stumps, roots, foreign material, debris, silt's, clay's or muck.*
- 2. Once this has been inspected and approved by the engineer, compact the bottom of the excavated area with ten, (perpendicular) overlapping passes in each of two directions with a large single smooth drum vibratory roller, (10 metric tons or larger) until the bottom 24" of the excavation have been compacted in excess of 98% of the material's modified maximum dry density as per AASHTO T-180. Field density-moisture tests and/or cone penetrometer tests shall be performed to verify the resultant compaction effort prior to the next phase of construction. Densification shall continue until no further settlement can be visually discerned at the subgrade surface. Each pass of the roller should overlap the preceding pass by one half of the width of the vibratory drum. Maximum speed of the roller should be two feet per second. For optimum compaction efficiency we recommend that the soils be within +/-2% of optimum moisture at the time of densification.*
- 3. Once this has been achieved and verified by a geotechnical representative from this office or by the project engineer the proposed building pad area may be brought to construction grade utilizing clean granular fills. The construction fill may be placed in lifts not to exceed twelve inches in compacted thickness. Each lift should be compacted to a minimum density of 98% of the material's modified proctor density as per ASTM D-1557. Clean granular fills shall be construed to mean granular material containing no more than 5% by weight organic and clayey matter and no man-made debris. It shall be free of vegetation, foreign material, roots, fiber, branches, leaves, and should not contain any rock and gravel larger than 3 inches or 50% of the compacted layer thickness.*



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Page #3. Lab #7003237

Pembroke Road Wall Replacement

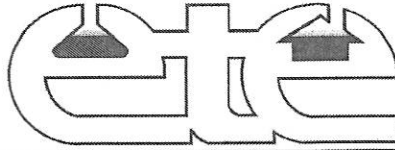
Hollywood, Florida

4. Suitable materials for use as backfill consist of the following; GW, (well-graded gravel, and well-graded gravel with sand) GP, (poorly graded gravel and poorly graded gravel with sand) SW, (well-graded sand) or SP, (poorly graded sand). Suitable materials excavated and stockpiled at the site may be reused for backfill within the foundation after tested for approval by the engineer. Following and during the clearing and excavation stage the area shall be witnessed by an inspector from this laboratory or by the engineer for approval prior to in-situ densification. The excavated surface and each 12" compacted lift of on-site or imported fill material within the footings and slab areas shall be tested to within 98% of the Soils Modified Maximum Dry Density as per ASTM Designation D-1557 and verified with field density-moisture relationships. No vibration shall take place in the vicinity of any existing structure as this may cause localized damage to nearby structures.

Footing embedment shall be of sufficient depth below the adjacent grade so as to comply with all local and area building codes. Minimum footing widths of 24" and 42" are recommended for continuous wall footings and individual column pads respectively, although they may not develop the full allowable bearing pressures. To assure a safety factor against bearing capacity failure, the foundation bottoms should be placed a minimum of 18 inches below the lowest adjacent grade. Foundation elements may be designed as isolated footings or as a monolithic type of foundation/slab system, as long as ample consideration is given to the increased shear stresses inherent in monolithic systems at the slab to footing interfaces. Surface compaction specifications shall be verified utilizing in place density tests at the frequency of one test per 100 lf of wall footing, and one test per column pad. Slab areas and undisturbed pad lifts may be tested at the frequency of two tests per 2500 sf., but in no case less than three per lift. Reinforcement for footings should be proportioned to meet the requirements of ACI 318, latest edition, and other applicable codes.

Slab-on-grade construction may be employed for the ground floor of the structure. Ground floor slabs can bear directly on the densified structural fill after the backfill and compaction operations have been completed. Proper joints shall be provided at the junctions of the slabs with the building walls and columns so that a small amount of independent movement can occur without causing damage. A modulus of subgrade value of 100 pounds per cubic inch (pci) may be used for ground floor slab design.

Foundations designed and constructed in accordance with the recommendations of this report are expected to sustain a maximum total settlement of 1 inch and differential settlements between adjacent footings of not more than 1/2 inch or approximately one-half of the total settlement. Distortions that occur along the wall footings due to differential settlement should not be more than one in 500.



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Page #4. Lab #7003237

Pembroke Road Wall Replacement

Hollywood, Florida

An impervious membrane should be installed between the underside of the floor slab and the soil substrate to serve as a barrier to moisture rises from the subgrade. Ordinarily, a 6-mil thick film of polyethylene is sufficient for this purpose. However, some floor coverings may have a comparatively sensitive tolerance to moisture flux that a thin polyethylene film cannot suppress. Under these conditions, other types of moisture membranes may need to be considered.

The natural ground water table was found at +/-11'0 at the time of our subsurface exploration. Fluctuation, however in the groundwater levels should be expected due to rainfall variations, seasonal climatic changes, construction activity and other on-site specific factors.

CONSTRUCTION PLAN & SPECIFICATIONS REVIEW

It is recommended that this office be provided the opportunity to make a general review of the foundation and earthwork plans and specifications prepared from the recommendations presented in this report.

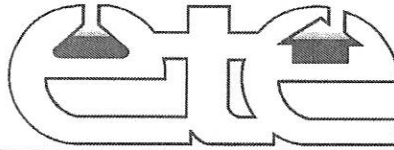
Our report has been written in a guideline recommendation format and is not appropriate for use as a specification-type format. It is recommended that this report not be made a part of the contract documents, however, it should be made available to prospective contractors for information purposes.

CONSTRUCTION RELATED SERVICES

We recommend the owner retain Eastcoast Testing & Engineering, Inc. to perform construction materials testing and observations on this site. Field tests and observations include foundation and pavement subgrades by performing quality assurance testing on the placement of compacted structural fills, and pavement courses. We can also provide concrete testing, pavement section testing, structural steel testing, general construction observation services, and Special Inspection services.

LIMITATIONS

Our geotechnical exploration study has been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering conclusions and practices. EastCoast Testing & Engineering, Inc., (ETE) is not responsible for any independent conclusions, opinions or recommendations made by others based on the data contained in this report.



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Page #5. Lab #7003237

Pembroke Road Wall Replacement

Hollywood, Florida

This report does not reflect any variations which may occur away from the soil borings. The discovery of any subsurface conditions which deviates from the data obtained during this geotechnical investigation should be reported to us for further analysis and evaluation.

The Standard Penetration Test ASTM D-1586

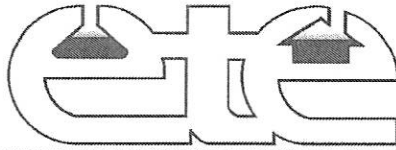
The Standard Penetration Test is the most commonly employed tool utilized to identify in-situ subsurface soil conditions. The "N" values obtained from the boring provide an accurate estimation of internal soil characteristics such as relative density, internal shear strength, angle of internal friction, and the approximate range of the soil's unit weight. These "N" values represent the resistance of a 2-inch diameter split spoon sampler driven by a 140-pound hammer free falling 30 inches. Each drive of the 24 inches long split spoon is divided into four six-inch increments. The second and third increments are totaled to produce the "N" value found on your report.

The Standard Penetration Test also allows for the recovery of soil samples which are returned to our laboratory and visually examined and classified. The SPT samples are available for laboratory testing if requested. Samples are generally held for 30-90 days unless otherwise directed by the client.

An approximate ground water table is obtained from the borehole upon completion of the drilling procedures. This water table is useful in the general evaluation of particular soil conditions, and may give the contractor some insight into what can be anticipated during construction. It should be noted that the ground water level will fluctuate seasonally. This level may also be affected by local draw-downs, soil conditions, and the watersheds contribution to the underlying aquifer. It should not be construed to be a measure of the soil's permeability, or of the de-watering characteristics of the site.

Although the standard penetration test is one of the most reliable methods used to identify soil characteristics and types, it may only represent a small fraction of the materials actually deposited at the site. As is common industry practice, we have assumed a uniformity of a profile between borings to provide a subsoil profile for engineering purposes. This profile is strictly based on the data obtained from the borings, and if unusual or varying conditions are found we should be notified immediately.

A test is expressly representative of the immediate location tested, and the reliability of the conclusions is a direct result of the quantity of tests performed. Any variation in location may reveal similarly some changes in the depth, thickness, texture, and conditions of the stratum encountered.



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Page #6. Lab #7003237
Pembroke Road Wall Replacement
Hollywood, Florida

Unless specifically stated otherwise, and specifically directed and prearranged by the client, all elevations are taken with respect to the existing ground surface at the time of testing. Boring locations are usually obtained in the field by pacing off distances and approximating right angles to landmarks and property corners. More precise locations may be obtained from on site surveys and placement of the boring locations by a Land Surveyor, Registered in the State of Florida. These services are provided at additional costs and are beyond the scope of this report.

The data presented herein was obtained for the specific purposes stated in this report, and should not be misconstrued to apply to any other circumstance, project, or ancillary use unless so specified and addressed by the engineer of record.

Thank you for using EASTCOAST TESTING AND ENGINEERING, INC., for your geotechnical needs. Should you need further assistance with this or any other project, please contact this office.

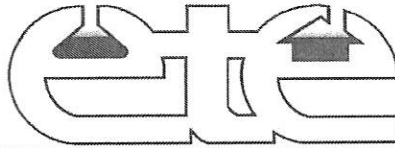
Respectfully Submitted;
EASTCOAST TESTING & ENGINEERING, INC.
Certification of Authorization #3425

M. A. Hai 12/17/2014

Mohammed A. Hai, P.E.
Senior Geotechnical Engineer
Florida Registration No. 59345

Craig Smith
Craig Smith, President

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**EASTCOAST TESTING & ENGINEERING, INC.**

4100 North Powerline Rd. - Suite G-1

Pompano Beach, Florida 33073

Broward (954) 972.7645 (SOIL) - Dade (954) 972.7645

4361 Okeechobee Blvd. - Suite A-5

West Palm Beach, Florida 33409

(954).972.SOIL

FACSIMILE #954-9718872

ESTABLISHED 1981

ETE@BELLSOUTH.NET

TEST BORING REPORT

CVO: _____ C.O.D.: _____ PO#: _____
 LABORATORY NUMBER: **7003237-A** OFFICE FAX #: **954-971-8872** BORING NUMBER: **1**
 CLIENT: **CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC WORKS** CUSTOMER #: _____
 PROJECT: **PEMBROKE ROAD WALL REPLACEMENT** CREW CHIEF: **H.E.**
 PROJECT LOCATION: **NORTH SIDE ROAD - FROM S. 25th AVENUE TO S. 27th AVENUE** DRILLER: **J.K.**
 BORING LOCATION: **W. OF S. 25th AVENUE - BETWEEN LOT #3 & #4, (AS SHOWN ON SURVEY)** DRILL RIG#: **H.H.**
 GROUND WATER: **+/-11'0"** DATE: **11/15/14** ELEV: **N/F** CASING: **N/A**

NOTE: SURVEY NOT GIVEN UNLESS NOTED: B.E.G: BELOW EXISTING GRADE LOCATIONS: APPROX UNLESS STAKED

DEPTH FEET	SAMPLE NUMBER	BORING NUMBER: 1	PAGE NUMBER: 1	DEPTH	N VALUES	HAND HAMMER BLOWS PER 6"
1	1	GRAY FINE-GRAINED SAND LITTLE ROOT & SILT, (TOPSOIL)		0.0'-1.0'		1
2	2	WHITE FINE-GRAINED SAND		1.0-8.0'	1	2
3						3
4					2	3
5						3
6					1	2
7						6
8					4	7
9	3	BROWN FINE-GRAINED SAND		8.0-12.0'		5
10					2	5
11						4
12					3	7
13	4	PALE BROWN LIMESTONE FRAGMENTS LITTLE CALCAREOUS		12.0-15.0'		22
14		SILTY FINE-GRAINED SAND, (NP)			16	35
15						40
16		BOTTOM OF BORING @ 15.0 FEET - NOTE: - HAND HAMMER				53

MODIFIED STANDARD PENETRATION TEST BORING:

BLOWS PER FOOT ON 2" O.D. SAMPLER WITH A 35 LB. HAMMER FALLING 30"

SOIL INVESTIGATION AND SAMPLING BY AUGER BORINGS: A.S.T.M. D 1452/STANDARD PENETRATION TEST: ASTM D1586. THE SAMPLES COLLECTED CONSTITUTE A MINUTE PERCENTAGE OF THE SUBSOILS AT THE SITE. AS A MUTUAL PROTECTION THE SOILS WILL BE STORED IN OUR LABORATORY FACILITIES FOR A MAXIMUM OF THREE MONTHS. THE OWNER, ARCHITECT AND/OR ENGINEER ARE ENCOURAGED TO VISUALLY INSPECT SAMPLES PRIOR TO PURCHASE OF PROPERTY AND DESIGN OF THE STRUCTURE OF PROPERTY.

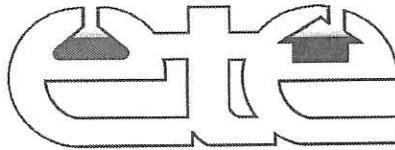
RESPECTFULLY SUBMITTED,
EASTCOAST TESTING & ENGINEERING, INC.,
CERTIFICATE OF AUTHORIZATION #3425

M. Hai 12/17/2014
MOHAMMED A. HAI, P.E.
SENIOR GEOTECHNICAL ENGINEER
FLORIDA REGISTRATION NO. 59345

Craig Smith
CRAIG SMITH, PRESIDENT

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FACSIMILE #954-9718872

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TEST BORING REPORT

CVO: _____ C.O.D.: _____ PO#: _____
 LABORATORY NUMBER: 7003237-B OFFICE FAX #: 954-971-8872 BORING NUMBER: 2
 CLIENT: CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC WORKS CUSTOMER #: _____
 PROJECT: PEMBROKE ROAD WALL REPLACEMENT CREW CHIEF: H.E.
 PROJECT LOCATION: NORTH SIDE ROAD - FROM S. 25th AVENUE TO S. 27th AVENUE DRILLER: J.K.
 BORING LOCATION: W. OF S. 25th AVENUE - BETWEEN LOT #1 & #2, (AS SHOWN ON SURVEY) DRILL RIG#: H.H.
 GROUND WATER: +/-11'0" DATE: 11/15/14 ELEV: N/F CASING: N/A

NOTE: SURVEY NOT GIVEN UNLESS NOTED: B.E.G: BELOW EXISTING GRADE LOCATIONS: APPROX UNLESS STAKED

DEPTH	SAMPLE	BORING NUMBER:	PAGE NUMBER:	DEPTH	N VALUES	HAND HAMMER
FEET	NUMBER	VISUAL SOIL CLASSIFICATION/AASHTO M145/ASTMD2487				BLOWS PER 6"
1	1	GRAY FINE-GRAINED SAND LITTLE CONCRETE DEBRIS	1	0.0'-1.0'	1	1 2
2	2	WHITE FINE-GRAINED SAND		1.0-8.0'	1	2 2
3					2	4 3
4					2	3 4
5					2	4 4
6					2	4 6
7					5	7 8
8					5	10 9
9	3	BROWN FINE-GRAINED SAND		8.0-10.0'	5	6 8
10					5	10 12
11	4	PALE BROWN FINE-GRAINED SAND		10.0-12.5'	5	12 10
12					5	11 9
13					5	10 12
14	5	PALE BROWN LIMESTONE FRAGMENTS SOME CALCAREOUS SILTY		12.5-15.0'	5	9 10
15		FINE-GRAINED SAND, (NP)				14 22
16		BOTTOM OF BORING @ 15.0 FEET - NOTE: - HAND HAMMER				

MODIFIED STANDARD PENETRATION TEST BORING:

BLOWS PER FOOT ON 2" O.D. SAMPLER WITH A 35 LB. HAMMER FALLING 30"

SOIL INVESTIGATION AND SAMPLING BY AUGER BORINGS, A.S.T.M. D 1452/STANDARD PENETRATION TEST-ASTM D1586. THE SAMPLES COLLECTED CONSTITUTE A MINUTE
 PERCENTAGE OF THE SUBSOILS AT THE SITE. AS A MUTUAL PROTECTION THE SOILS WILL BE STORED IN OUR LABORATORY FACILITIES FOR A MAXIMUM OF THREE MONTHS.
 THE OWNER, ARCHITECT AND/OR ENGINEER ARE ENCOURAGED TO VISUALLY INSPECT SAMPLES PRIOR TO PURCHASE OF PROPERTY AND DESIGN OF THE STRUCTURE OF PROPERTY

RESPECTFULLY SUBMITTED,
 EASTCOAST TESTING & ENGINEERING, INC.,
 CERTIFICATE OF AUTHORIZATION #3425

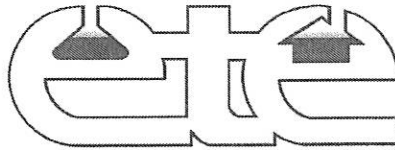
M. A. H. 12/17/2014

MOHAMMED A. HAI, P.E.
 SENIOR GEOTECHNICAL ENGINEER
 FLORIDA REGISTRATION NO. 59345

Craig Smith
 CRAIG SMITH, PRESIDENT

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TEST BORING REPORT

CVO: _____ C.O.D.: _____		PO#: _____	
LABORATORY NUMBER: 7003237-C		OFFICE FAX #: 954-971-8872	
CLIENT: CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC WORKS		BORING NUMBER: 3	
PROJECT: PEMBROKE ROAD WALL REPLACEMENT		CUSTOMER #: _____	
PROJECT LOCATION: NORTH SIDE ROAD - FROM S. 25th AVENUE TO S. 27th AVENUE		CREW CHIEF: H.E.	
BORING LOCATION: E. OF S. 27th AVENUE - BETWEEN LOT #7 & #8, (AS SHOWN ON SURVEY)		DRILLER: J.K.	
GROUND WATER: +/-11'0" DATE: 11/15/14 ELEV: N/F		DRILL RIG#: H.H.	
		CASING: N/A	
NOTE: SURVEY NOT GIVEN UNLESS NOTED: B.E.G: BELOW EXISTING GRADE LOCATIONS: APPROX UNLESS STAKED			
DEPTH	SAMPLE	BORING NUMBER: 3	PAGE NUMBER: 1
FEET	NUMBER	VISUAL SOIL CLASSIFICATION/AASHTO M145/ASTMD2487	DEPTH
1	1	GRAY FINE-GRAINED SAND LITTLE LESTONE, CONCRETE DEBRIS & SILT	0.0'-1.0'
2	2	WHITE FINE-GRAINED SAND	1.0-6.5'
3			
4			
5			
6			
7			
8	3	PALE BROWN LESTONE FRAGMENTS SOME CALCAREOUS SILTY	6.5-15.0'
9		FINE-GRAINED SAND, (NP)	
10			
11			
12			
13			
14			
15			
16			
BOTTOM OF BORING @ 15.0 FEET - NOTE: - HAND HAMMER			
MODIFIED STANDARD PENETRATION TEST BORING: BLOWS PER FOOT ON 2" O.D. SAMPLER WITH A 35 LB. HAMMER FALLING 30"			

SOIL INVESTIGATION AND SAMPLING BY AUGER BORINGS: A.S.T.M. D 1452/STANDARD PENETRATION TEST: ASTM D1586. THE SAMPLES COLLECTED CONSTITUTE A MINUTE PERCENTAGE OF THE SUBSOILS AT THE SITE. AS A MUTUAL PROTECTION THE SOILS WILL BE STORED IN OUR LABORATORY FACILITIES FOR A MAXIMUM OF THREE MONTHS. THE OWNER, ARCHITECT AND/OR ENGINEER ARE ENCOURAGED TO VISUALLY INSPECT SAMPLES PRIOR TO PURCHASE OF PROPERTY AND DESIGN OF THE STRUCTURE OF PROPERTY.

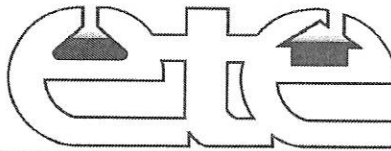
RESPECTFULLY SUBMITTED,
EASTCOAST TESTING & ENGINEERING, INC.,
CERTIFICATE OF AUTHORIZATION #3425

M. *AAH ai* 12/17/2014
MOHAMMED A. HAI, P.E.
SENIOR GEOTECHNICAL ENGINEER
FLORIDA REGISTRATION NO. 59345

Craig Smith
CRAIG SMITH, PRESIDENT

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TEST BORING REPORT

CVO:	C.O.D.:	PO#:
LABORATORY NUMBER: 7003237-D	OFFICE FAX #: 954-971-8872	BORING NUMBER: 4
CLIENT: CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC WORKS		CUSTOMER #:
PROJECT: PEMBROKE ROAD WALL REPLACEMENT		CREW CHIEF: H.E.
PROJECT LOCATION: NORTH SIDE ROAD - FROM S. 25th AVENUE TO S. 27th AVENUE		DRILLER: J.K.
BORING LOCATION: E. OF S. 27th AVENUE - BETWEEN LOT #1 & #2, (AS SHOWN ON SURVEY)		DRILL RIG#: H.H.
GROUND WATER: +/-11'0" DATE: 11/15/14 ELEV: N/F		CASING: N/A
NOTE: SURVEY NOT GIVEN UNLESS NOTED: B.E.G: BELOW EXISTING GRADE LOCATIONS: APPROX UNLESS STAKED		

DEPTH	SAMPLE	BORING NUMBER:	PAGE NUMBER:	DEPTH	N VALUES	HAND HAMMER
FEET	NUMBER	VISUAL SOIL CLASSIFICATION/AASHTO M145/ASTMD2487				BLOWS PER 6"
1	1	GRAY FINE-GRAINED SAND LITTLE SILT TRACE ROOT, (TOPSOIL)	1	0.0'-1.0'		3 2
2	2	WHITE FINE-GRAINED SAND		1.0-8.0'	2	4 5
3						7 5
4					4	6 5
5						7 7
6					5	7 7
7						7 4
8					2	3 10
9	3	PALE BROWN LIMESTONE FRAGMENTS SOME FINE-MEDIUM GRAINED SAND		8.0-15.0'		11 16
10					11	16 25
11						20 16
12					10	15 10
13						18 13
14					10	16 20
15						24 29
16		BOTTOM OF BORING @ 15.0 FEET - NOTE: - HAND HAMMER				

MODIFIED STANDARD PENETRATION TEST BORING: BLOWS PER FOOT ON 2" O.D. SAMPLER WITH A 35 LB. HAMMER FALLING 30"

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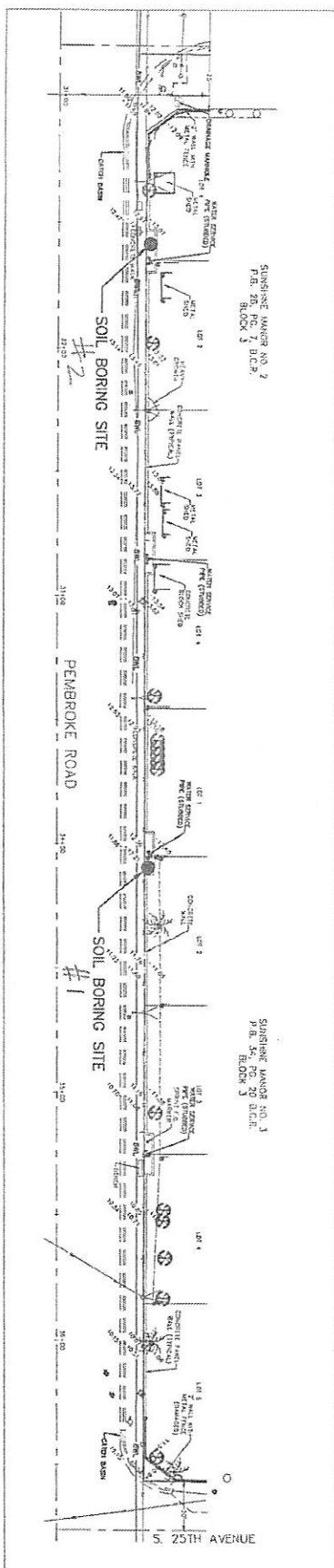
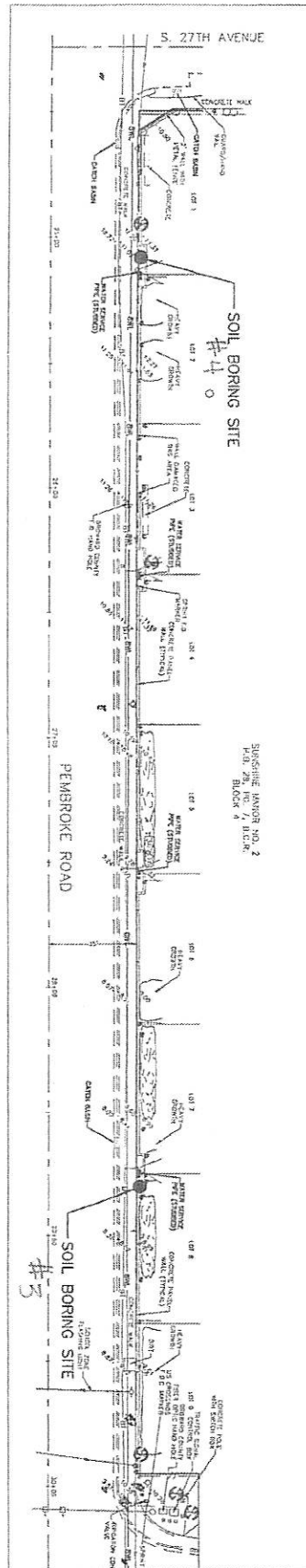
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FLORIDA REGISTRATION NO. 59345

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36%

SHEET

OF

PEMBROKE ROAD WALL REPLACEMENT

SCALE 1" = 20'
DESIGNED
DRAWN
ISSUE DATE

City of Hollywood, Florida
Department of Public Works
Engineering and Architectural
Services Division



NO.	DATE	REVISIONS



CITY OF HOLLYWOOD, FLORIDA

DEPARTMENT OF PUBLIC WORKS ENGINEERING AND ARCHITECTURAL SERVICES DIVISION

2600 Hollywood Blvd. • P. O. Box 229045 • Hollywood, Florida 33022-9045
Phone (954)921-3900 • Fax (954)921-3481 • www.hollywoodfl.org

DATE: December 26, 2014

ADDENDUM NUMBER 2

PROJECT TITLE: Pembroke Road Wall Replacement-South 25th Avenue to South 27th Avenue

PROJECT BID NO.: EN-14-014a

ALL BIDDERS BE ADVISED OF THE FOLLOWING ADDITIONAL INFORMATION/CLARIFICATION TO THE ABOVE REFERENCED PROJECT AS LISTED BELOW:

Item #1:

To clarify Bid Opening information as shown below:

- a) On the Notice to Bidders form from December 29, 2014, 10:00 a.m. to December 30, 2014, 9:00 a.m.
- b) In the Supplementary Conditions Section, on Page 00800-2, from December 29, 2014 to December 30, 2014.

ALL OTHER TERMS, CONDITIONS, AND SPECIFICATIONS SHALL REMAIN THE SAME.

THIS ADDENDUM SHALL BE ATTACHED TO THE CONTRACT DOCUMENTS AND THE RECEIPT OF THE SAME SHALL BE NOTED IN THE PROPOSAL IN THE SPACE PROVIDED.

Jonathan M. Vogt
City Engineer



Our Mission: We are dedicated to providing municipal services for our diverse community in an atmosphere of cooperation, courtesy and respect. We do this by ensuring all who live, work and play in the City of Hollywood enjoy a high quality of life.

"An Equal Opportunity and Service Provider Agency"



**CITY OF HOLLYWOOD
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & ARCHITECTURAL SERVICES DIVISION**

NOTICE TO BIDDERS

PROJECT NAME: Pembroke Road Wall Replacement from South 25th Avenue to South 27th Avenue

PROJECT BID NUMBER: EN-14-014a

NOTICE IS HEREBY GIVEN that the City Commission of the City of Hollywood, Florida, is advertising for sealed bids which shall be **submitted to the City Clerk's Office** (City Hall, 2600 Hollywood Boulevard, Room 221) of the City of Hollywood, Florida, **until Tuesday, December 30, 2014 at 9:00 am**, local time, at which time they will be opened and read publicly at the Department of Public Works, Engineering & Architectural Services Division Conference Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. **A pre-bid meeting will be held on Wednesday, December 17, 2014, at 9:00 am, local time**, at the Department of Public Works, Engineering & Architectural Services Division Conference Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. **Attendance at this pre-bid meeting is NOT required.**

The Bid Package and any other Contract documents may be obtained from the Department of Public Works, Engineering & Architectural Services Division, Room #308 at City Hall, 2600 Hollywood Blvd, Hollywood, Florida 33022. The first copy to all eligible bidders will be provided at no cost. Additional copies will be furnished upon request for a nominal fee. The bid package can also be downloaded at <http://www.hollywoodfl.org/Bids.aspx>. Questions shall be submitted in writing no later than **Monday, December 22, 2014** to Clarissa Ip, PE (cip@hollywoodfl.org) or Frank Leon, PE (fleon@hollywoodfl.org). The telephone number for general information is (954) 921-3900. It is the contractor's responsibility to periodically check the City's website for any changes to the contract during the bidding process.

Each bid must be accompanied by a Bid Security, in an amount no less than ten percent (10%) of the bid amount. Said security shall be in the form of a Certified Check or Cashier's Check on a solvent National or State Bank, or a bid bond executed by the Bidder and a qualified Surety, satisfactory and payable to the City of Hollywood, Florida.

A Cone of Silence is in effect with respect to this bid. The Cone of Silence prohibits certain communications between potential vendors and the City. For further information, please refer to Section 30.15(E) of the City's Code of Ordinances.

The City of Hollywood is strongly committed to ensuring the participation of local Hollywood vendors in the procurement of goods and services. Each bidder must carefully review Exhibit A within the attached Bid Package. For additional information about the City's Local Preference Ordinance, visit <http://www.hollywoodfl.org/index.aspx?nid=216> or contact The Procurement Department at 954-921-3345.

It will be the sole responsibility of the Bidder to deliver personally or by mail, his/her proposal to the City Clerk's Office at City Hall on or before the closing hour and date for the receipt of bids as noted above.

The City Commission reserves the right to reject any or all bids, to waive informalities and to accept or reject all or any part of any bid, as they may deem to be in the best interest of the City of Hollywood, Florida.

Dated this 11th Day of December, 2014

CITY OF HOLLYWOOD, FLORIDA

Jonathan Vogt, P.E.,
Deputy Director/City Engineer

- B. The estimated project schedule is provided below for informational purposes only:

Notice to Bidders:	Thursday, December 11, 2014
Pre-Bid Meeting:	Wednesday, December 17, 2014 at 9:00 am City Hall*, Room 308
Bid Opening:	Tuesday, December 30, 2014 at 9:00 am City Hall*, Room 308
Contract Awarded by City Commission Notice of Award:	Wednesday, January 21, 2015
Contract Execution/ Notice to Proceed:	Monday, February 9, 2015
Substantial Completion:	Monday, March 30, 2015
Contractual Completion:	Monday, April 13, 2015

*City Hall is located at 2600 Hollywood Boulevard, Hollywood, Florida 33022.

- C. The date of Substantial Completion of the project is the date when the construction is sufficiently completed in accordance with the contract documents, as modified by any change orders agreed to by the parties, so that the City of Hollywood can occupy or utilize the project for the use and purpose for which it was intended.

1.03 INSURANCE REQUIREMENTS:

All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida and satisfactory to the Owner. All companies shall have a Florida resident agent and be rated a minimum A-VI, as per A.M. Best Company's Key Rating Guide, latest edition.

The CONTRACTOR shall furnish certificates of insurance to the Risk Management Director for review and approval prior to the execution of this agreement. The Certificates shall clearly indicate that the CONTRACTOR has obtained insurance of the type, amount and classification required by these provisions, in excess of any pending claims at the time of contract award to the CONTRACTOR. No failure to renew, material change or cancellation of, the insurance shall be effective without a 30-day prior written notice to and approval by the Owner. The insurance required by Article 13 of the General Conditions shall be as follows:

- A. Comprehensive General Liability:

Prior to the commencement of work governed by this contract, the CONTRACTOR shall obtain General Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum:

1. Premises Operations
2. Products and Completed Operations
3. Blanket Contractual Liability
4. Personal Injury Liability
5. Expanded Definition of Property Damage

The minimum limits acceptable shall be: