

RESOLUTION NO. 04-224

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, AWARDED THE MIAMI LAKEWAY NORTH PARKING AND DRAINAGE IMPROVEMENTS BID TO ACOSTA TRACTORS, INC. AND AUTHORIZING TOWN OFFICIALS TO FINALIZE THE CONSTRUCTION CONTRACT; AUTHORIZING TOWN OFFICIALS TO IMPLEMENT THE TERMS AND CONDITIONS OF THE AGREEMENT; AUTHORIZING THE TOWN MANAGER TO EXPEND BUDGETED FUNDS; AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT ON BEHALF OF THE TOWN; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Town of Miami Lakes (the "Town") Stormwater Master Plan includes capital improvement projects to provide additional drainage for Miami Lakeway North east from Ludlam Road to Miami Lakes Drive; and

WHEREAS, the Miami Lakeway North parking and drainage improvements project (the "Improvements") is the first phase of these capital improvement projects; and

WHEREAS, the Town publicly advertised bids for the Improvements, which were available to contractors on April 2, 2004; and

WHEREAS, six (6) bids were received and on April 29, 2004, bids were publicly opened; and

WHEREAS, the Town Manager recommends the selection of Acosta Tractors, Inc. ("Acosta") as the lowest bid; and

WHEREAS, the Town Council finds that approving the agreement with Acosta for the Improvements is in the best interest of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The foregoing Recitals are true and correct and are incorporated herein by this reference.

Section 2. Approval of Agreement. The bid for Miami Lakeway North parking and drainage improvements is awarded to Acosta Tractors, Inc. and the Town Manager and Town Attorney are authorized to finalize the construction contract utilizing a standard construction document in the form as previously approved by the Town Council.

Section 3. Authorization of Town Officials. The Town Manager and Town Attorney are authorized to take all actions necessary to implement the terms and conditions of the Agreement.

Section 4. Authorization of Fund Expenditure. The Town Manager is authorized to expend budgeted funds to implement the terms and conditions of the Agreement.

Section 5. Execution of Agreement. The Mayor is authorized to execute the Agreement on behalf of the Town.

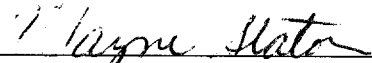
Section 6. Effective Date. This Resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this 11th day of May, 2004.

Motion to adopt by Collins, second by Slaton.

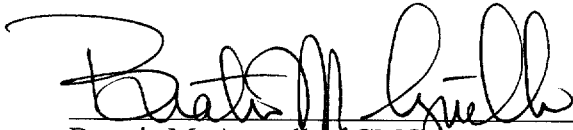
FINAL VOTE AT ADOPTION:

Mayor Wayne Slaton	<u>Yes</u>
Vice Mayor Roberto Alonso	<u>Yes</u>
Councilmember Mary Collins	<u>Yes</u>
Councilmember Robert Meador	<u>Yes</u>
Councilmember Michael Pizzi	<u>Yes</u>
Councilmember Nancy Simon	<u>Yes</u>
Councilmember Peter Thomson	<u>Yes</u>




Wayne Slaton
MAYOR

ATTEST:



Beatris M. Arguelles, CMC
TOWN CLERK

Approved as to form and legality for the use
and benefit of the Town of Miami Lakes only:



Weiss, Serota, Helfman, Pastoriza, Guedes
Cole & Boniske, P.A.
TOWN ATTORNEY

F:/702001/Resolutions/Approving Miami Lakeway N Improvements Contract

Res. # 04-224

■

***Executed
Contract Documents***

**Miami Lakeway North Drainage and
Parking Improvements Projects**

**Prepared for:
The Town of Miami Lakes**

© Kimley-Horn and Associates, Inc.
5100 NW 33rd Avenue, Suite 157
Fort Lauderdale, Florida 33303
May 2004
Project No. 044533024



**Kimley-Horn
and Associates, Inc.**

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Miami Lakeway North Drainage and
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5100 NW 33rd Avenue, Suite 157
Fort Lauderdale, Florida 33303
May 2004
Project No. 044533024

**SECTION 6
ADDENDUM ACKNOWLEDGEMENT FORM**

Addendum #

Date Received

Addendum # 1

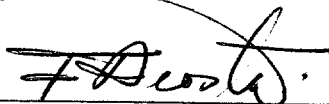
04/23/2004 @ 14:27

Addendum # 2

04/23/2004 @ 17:32

BIDDER:

Acosta Tractors, Inc
(Company Name)


(Signature)

Felix Acosta, President
(Printed Name & Title)

ADDENDUM NO. 1
TO CONTRACT DOCUMENTS

April 23, 2004

PROJECT TITLE: Town of Miami Lakes
Miami Lakeway North Parking and Drainage
Improvements (the "Project")

This addendum forms a part of the Contract Documents and modifies the original Contract Documents as noted. Acknowledge receipt of this Addendum in the space provided below. Failure to do so may subject the Proposer to disqualification.

Each Proposer must return the attached Addendum Acknowledgment form to the Owner upon receipt. The Acknowledgment Form shall be faxed to (305) 558-8511.

A. CONTRACT PLANS

- 1. Sheet E-2 – Electrical Site Plan and Details:
The location for the existing utility shed is not shown to scale. It is approximately 300 linear feet north of the proposed parking lot. The existing batting cages located between the utility shed and the proposed parking lot are to remain.
- 2. Sheet C-9 – Plan and Profile Sta. -21+00 to C-8 Canal-NW 64th Ave (Park Road East):
Change note in profile from "Backfill behind concrete headwall with clean fill" to "Backfill behind concrete headwall with rip-rap and cover with topsoil and sod".
- 3. Sheet C-9 – Plan and Profile Sta. -21+00 to C-8 Canal-NW 64th Ave (Park Road East):
Replace 30 linear feet of Type F Curb at the north end of the cul-de-sac with Drop Curb and change the sidewalk adjacent to this Drop Curb to 6" thick sidewalk from 4" thick sidewalk. See the attached sketch SFWMD-2 for details.
- 4. Sheet C-11 – Paving, Grading & Drainage Plan (Parking Area):
Change text for Structures C-1, C-2 and C-3 from "Type C Inlet, FDOT Index 200, 201 and 232" to "Pre-Cast Catch Basin with Hinged Grate, Miami-Dade SD 2.2, 2.3". On the north side of the parking lot, remove the sidewalk leading to the tennis courts. See the attached sketch SK-1 for details.
- 5. Sheet C-3, C-4 – Miami Lakeway North Plan and Profile:
Add 700 linear feet of Type F Curb or Drop Curb extending from station 21+00 to station 27+80 on the south side of Miami Lakeway North. Add 14 Concrete Flumes per the detail in attached sketch SK-2 in locations as determined by the Town during construction.

6. Roadway Base Bid Form "A"

Replace the existing Bid Form with the "Addendum #1 Revised" Bid Form. The following items were revised on the bid form: Bid Item 520-1 Concrete Curb and Gutter (Type F) or Drop Curb includes an additional 700 linear feet per item 5 above for a total of 4,200 linear feet, Bid Item 522-1 Concrete Sidewalk now reads "Concrete Sidewalk (4" Thick, 6" Thick at Driveways), and Bid Item 400-3 Class III Concrete with a quantity of 40 cubic yards for the concrete flumes per item 5 above has been added.

7. Parking Lot Base Bid Form "B"

Replace the existing Bid Form with the "Addendum #1 Revised" Bid Form. The following items were revised on the bid form: Bid Item 522-1 Concrete Sidewalk (4" Thick) was amended to 250 square yards.

8. Cul-de-Sac Bid Form "C"

Replace the existing Bid Form with the "Addendum #1 Revised" Bid Form. The following items were revised on the bid form: Bid Item 522-1 Concrete Sidewalk now reads "Concrete Sidewalk (4" Thick, 6" Thick at Driveways) and Bid Item 530-3 Riprap (Rubble) with a quantity of 20 tons per item 2 above was added.

9. Section 4 - Detailed Specifications - Roadway Division II

Add the attached supplemental specification "Section 550 - Chain Link Fences and Gates" to the Detailed Specifications.

B. QUESTIONS BY PROPOSERS

1. Question- Is this project a re-bid?

Response- No, it is bidding for the first time.

2. Question- Where is the schedule in the contract documents?

Response- Please see "Item 1.3 Term" on page 8 of the contract documents and "Section 102 Maintenance of Traffic" on page 33 of the contract documents.

3. Question- What is the cost estimate for the project?

Response- The cost estimate is approximately \$750,000.



Proposer Acknowledgement

04/23/04

Date

END OF ADDENDUM NO. 1

044533024
Addendum No. 1

**ADDENDUM NO. 2
TO CONTRACT DOCUMENTS**

April 27, 2004

PROJECT TITLE: Town of Miami Lakes
Miami Lakeway North Parking and Drainage
Improvements (the "Project")

This addendum forms a part of the Contract Documents and modifies the original Contract Documents as noted. Acknowledge receipt of this Addendum in the space provided below. Failure to do so may subject the Proposer to disqualification.

Each Proposer must return the attached Addendum Acknowledgment form to the Owner upon receipt. The Acknowledgment Form shall be faxed to (305) 558-8511.

The bid date will NOT be changed as a result of this Addendum.

A. CONTRACT PLANS

1. Sheet C-5 – Plan and Profile Sta. 31+50 to Sta 37+00:

Change the label on Structure S-13 from "Type P-6 Inlet" to "Type P-9 Inlet".

2. Sheet C-9 – Plan and Profile Sta. 21+00 to C-8 Canal-NW 64th Ave (Park Road East):
Change the label on Structure S-25 from "Type G Control Structure" to "Type D Control Structure".

3. Sheet C-12 – Roadway Construction Details:


Change the note for Item 5 on the Typical Paver Installation Detail to read "Drop Curb – See Detail This Sheet". An 8" x 24" Header Curb is not required.

4. Roadway Base Bid Form "A"

Replace the existing Bid Form with the "Addendum #2 Revisions" Bid Form. The following items were revised on the bid form: Added Bid Item 425-1-H "Concrete Headwall", changed the quantity of Bid Item 425-1 "Inlet (Curb-Type P-6)" from 4 Ea. to 3 Ea., changed the quantity of Bid Item 425-1 "Inlet (Curb-Type P-9)" from 4 Ea. to 5 Ea., changed the quantity of Bid Item 430-99 "Polyethylene Pipe Culvert (15" Pipe) from 100 linear feet to 300 linear feet, changed the quantity of Bid Item 433-70 "French Drain (15" Pipe) from 1,300 linear feet to 1,150 linear feet.

B. CLARIFICATIONS

1. The lengths for French Drain shown in the bid form include the 4' lengths of solid pipe at the ends of the exfiltration trench shown on the plans and any solid pipe located where French Drain crosses other utilities.



Proposer Acknowledgement

04/28/04

Date

END OF ADDENDUM NO. 2

**MIAMI LAKEWAY NORTH DRAINAGE AND PARKING
IMPROVEMENTS PROJECTS**

**FOR
THE TOWN OF MIAMI LAKES**

CONTRACT DOCUMENTS

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SECTION 3
PROPOSAL

MIAMI LAKEWAY NORTH DRAINAGE AND PARKING IMPROVEMENTS

Proposal of Acosta Tractors, Inc.
2419 W. 3 Court, Hialeah, FL 33010
Felix Acosta
305-887-4131
(name) (address) (contact person) (phone number)

to furnish all materials, equipment, and labor and to perform all work in accordance with the Contract Documents for:

"Miami Lakeway North Drainage and Parking Improvements"

TO: Town of Miami Lakes
6853 Main Street
Miami Lakes, Florida 33014
Attention: Town Clerk

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 interests in the Proposal of the contract to which the Work pertains; that this Proposal is made without connection or arrangement with any other person, company, or parties making Bids or Proposals and that the Proposal is in all respects fair and made in good faith without collusion or fraud.

The Bidder further declares that he has examined the geographic location and sites of the Work; that he has made sufficient investigations to fully satisfy himself that such sites are suitable for this Work; and he assumes full responsibility therefore; that he has examined the specifications for the Work and from his own experience or from professional advice that the specifications are sufficient for the Work to be done and he has examined the other Contract Documents relating thereto, including the Instructions to Bidders, Contract, Proposal, Detailed Scope of Work/Specifications, Qualification Statement, Public Entity Crime Form and Insurance requirements and he has read all addenda prior to the opening of Bids, and that he has satisfied himself fully, relative to all matters and conditions with respect to the Work to which this proposal pertains.

The Bidder proposes and agrees, if this Proposal is accepted, to timely execute a contract with the Town in the form attached and to furnish all necessary materials, all equipment, all necessary machinery, tools, apparatus, means of transportation, and labor necessary to complete the Work specified in the Proposal and Contract, and called for by the specifications and in the manner specified and to timely submit all required bonds and insurance certificates.

NOTE: THIS SCHEDULE OF BID ITEMS IS MERELY ILLUSTRATIVE OF THE MINIMUM AMOUNT/QUANTITY OF WORK TO BE PERFORMED UNDER THE CONTRACT. IN THE CASE OF ANY CONFLICT BETWEEN THIS SCHEDULE OF BID ITEMS AND THE DETAILED SPECIFICATIONS, THE DETAILED SPECIFICATIONS WILL PREVAIL.

The Bidder further proposes and agrees to comply in all respects with the time limits for commencement and completion of the Work as stated in the contract form.

The Bidder agrees to execute a contract and furnish the executed contract, all required bonds, insurance certificates, and other required information to Town within ten (10) ten calendar days after written notice of the award of contract. Failure on the part of the Bidder to timely comply with this provision shall give Town all rights and remedies set forth in the Instructions to Bidders.

The undersigned agrees to accept as full compensation therefore the total of the lump sum prices and extended unit prices items named in the following schedule. It is understood that the unit prices quoted or established for a particular item are to be used for computing the amount to be paid to the Contractor, based on the Work actually performed as determined by the contract and the Town. However, in utilizing the schedule, the Bidder agrees that in no event shall compensation paid to the Bidder under the contract exceed the dollar amount of the Bidder's proposal amount, as set forth in the attached proposal form.

It is intended that all Work to be performed under this Proposal shall commence approximately 30 days after contract execution.

In no event shall Town be obligated to pay for work not performed or materials not furnished.

Bidder's Certificate of Competency No. E184

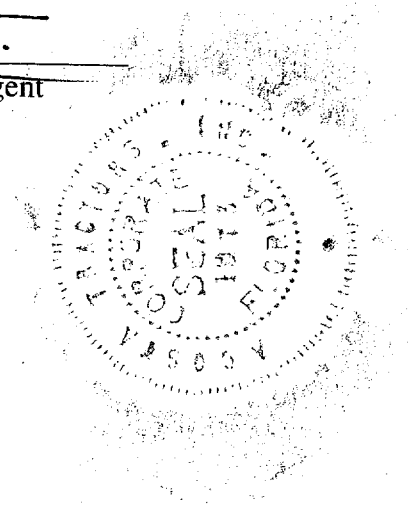
Bidder's Occupational License No. 30-1057389

WITNESS

Frank J. [Signature]
Living Cassio

By: [Signature]
Signature of Authorized Agent

(SEAL)



②

BID PROPOSAL

The following Base Bid Proposal is presented to assist the Town in evaluating the Bid. The Base Bid Amounts will include all items and quantities per the Bid Forms and as described in the Plans and Section 4 of the Bid Documents (Detailed Specifications). The Parking Lot Bid Amounts will include all work to the west of the NW 64th Avenue right-of-way and south of Station 21+00. The Cul-de-sac Bid Amounts will include all work within the right-of-way of NW 64th Avenue between Stations 21+00 and 23+00 with the exception of drainage structure and pipe installation and all work west of the NW 64th Avenue right-of-way and north of Station 21+00. The Roadway Bid Amounts will include all work not included in the Parking Lot Bid Amounts or the Cul-de-sac Bid Amounts. The Town reserves the right to select and award in any combination, the base bid items and the alternate bid items. A responsive submittal shall include completed base bid forms and alternate bid forms.

Any additional items are not included in the Contract, but shall be performed at the request of the Town Manager. Payment shall be made on the basis of Work actually performed and completed.

A. ROADWAY BASE BID AMOUNT \$ 655,400.00

B. PARKING LOT BASE BID AMOUNT \$ 143,677.25

C. CUL-DE-SAC BASE BID AMOUNT \$ 51,705.00

D. ROADWAY LANDSCAPING BID AMOUNT \$ 143,282.29

E. PARKING LOT LANDSCAPING BID AMOUNT \$ 52,779.65

F. CUL-DE-SAC LANDSCAPING BID AMOUNT \$ 1,813.00

G. ALTERNATE PAVEMENT SURFACE BID AMOUNT \$ 97,305.00

TOTAL BID (A+B+C+D+E+F+G) AMOUNT \$ 1,145,962.19

TOTAL BID AMOUNT (IN WORDS) One million one hundred

Forty-five thousand nine hundred & sixty-two
dollars with nineteen cents.

Taxpayer Identification Number: _____

BIDDER: Acosta Tractors, Inc.

(Company Name)

[Signature]

(Signature of Authorized Representative)

Felix Acosta, President

(Printed Name and Title)

A. ROADWAY BASE BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

<u>Base Bid Item No.</u>	<u>DESCRIPTION</u>	<u>Estimated Quantity</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>Value</u>
101-1	Mobilization	1	LS	\$ 21,560.00	\$ 21,560.00
102-1	Maintenance of Traffic	1	LS	\$ 19,900.00	\$ 19,900.00
104-10	Baled Hay or Straw	320	EA	\$ 8.35	\$ 2,672.00
104-11	Floating Turbidity Barrier	50	LF	\$ 7.25	\$ 362.50
110-1	Clearing and Grubbing	1	LS	\$ 33,335.00	\$ 33,335.00
120-1	Regular Excavation	180	CY	\$ 10.00	\$ 1,800.00
120-6	Embankment	180	CY	\$ 9.05	\$ 1,629.00
160-4	Type B Stabilization	6,400	SY	\$ 1.25	\$ 8,000.00
285-7	Limerock Base (8" Thick)	6,400	SY	\$ 6.15	\$ 39,360.00
331-2	Type S Asphalt Concrete	1,200	TN	\$ 75.00	\$ 90,000.00
400-3	Class III Concrete	40	CY	\$ 105.00	\$ 4,200.00
425-I-H	Concrete Headwall	1	EA	\$ 1,969.00	\$ 1,969.00
425-1	Inlets (Ditch Bottom - Type C)	8	EA	\$ 1,997.00	\$ 15,976.00
425-1	Inlets (Ditch Bottom - Type D Control Structure)	1	EA	\$ 6,919.00	\$ 6,919.00
425-1	Inlets (Curb - Type P-6)	3	EA	\$ 2,387.00	\$ 7,161.00
425-1	Inlets (Curb - Type P-9)	5	EA	\$ 1,969.00	\$ 9,845.00
425-1	Inlets (Gutter - Miami-Dade SD 2.2)	8	EA	\$ 1,809.00	\$ 14,472.00
425-2	Manholes	6	EA	\$ 2,263.00	\$ 13,578.00
425-5	Adjusting Manholes	5	EA	\$ 400.00	\$ 2,000.00
425-6	Adjusting Valve Boxes	6	EA	\$ 169.00	\$ 1,014.00
430-99	Polyethylene Pipe Culvert (12" Pipe)	400	LF	\$ 17.00	\$ 6,800.00
430-99	Polyethylene Pipe Culvert (15" Pipe)	300	LF	\$ 20.00	\$ 6,000.00
430-99	Polyethylene Pipe Culvert (24" Pipe)	250	LF	\$ 31.00	\$ 7,750.00

A. ROADWAY BASE BID FORM (CONTINUED)

430-99	Polyethylen Pipe Culvert (30" Pipe)	450	LF	\$ 37.00	\$ 16,650.00
433-70	French Drain (15" Pipe)	1,150	LF	\$ 59.00	\$ 67,850.00
433-70	French Drain (18" Pipe)	150	LF	\$ 64.00	\$ 9,600.00
433-70	French Drain (24" Pipe)	750	LF	\$ 76.00	\$ 57,000.00
520-1	Concrete Curb and Gutter (Type F) or Drop Curb	4,200	LF	\$ 12.00	\$ 50,400.00
520-2	Concrete Curb (Type D)	1,800	LF	\$ 10.00	\$ 18,000.00
520-3	Concrete Valley Gutter	500	LF	\$ 12.00	\$ 6,000.00
522-1	Concrete Sidewalk (4" Thick, 6" Thick at Driveways)	350	SY	\$ 25.50	\$ 8,925.00
700-11	Signage	17	EA	\$ 395.00	\$ 6,715.00
706-3	Retro-Reflective Pavement Markers	150	EA	\$ 4.25	\$ 637.50
710-25	Solid Traffic Stripe, Painted (White, 4")	700	LF	\$.30	\$ 210.00
711-3	Pavement Messages, Thermoplastic	2	EA	\$ 225.00	\$ 450.00
711-4	Directional Arrows, Thermoplastic	5	EA	\$ 89.00	\$ 445.00
711-33	Skip Traffic Stripe, Thermoplastic (White, 6")	50	LF	\$ 1.15	\$ 57.50
711-35	Solid Traffic Stripe, Thermoplastic (White, 6")	7,000	LF	\$ 1.15	\$ 8,050.00
711-35	Solid Traffic Stripe, Thermoplastic (White, 18")	150	LF	\$ 2.80	\$ 420.00
711-35	Solid Traffic Stripe, Thermoplastic (White, 24")	250	LF	\$ 4.25	\$ 1,062.50
711-36	Solid Traffic Stripe, Thermoplastic (Yellow, 6")	5,100	LF	\$ 1.15	\$ 5,865.00
711-36	Solid Traffic Stripe, Thermoplastic (Yellow, 18")	50	LF	\$ 2.80	\$ 140.00
W-1	Water Main Relocation	9	EA	\$ 3400.00	\$ 30,600.00
A-1	Allowances	1	LS	\$ 50,000	\$ 50,000

Bid Item Notes:

1. Bid Item 101-1 includes the construction of two (2) project signs that shall be displayed at approaches to the project area. The intent is that the signs will be freestanding. The sign shall display on both sides the project name, Town Logo, elected officials, engineer, and contact information. A detail of the sign is included in the plans.
2. Bid Item 110-1 includes the removal and disposal of all existing pavement as shown on the plans and as required for the project.
3. Bid Item 102-1 includes pedestrian access maintenance. All crosswalks and sidewalks shall remain open and free of obstructions. Temporary painting for roadways and crosswalks shall be maintained throughout the project.

B. PARKING LOT BASE BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

<u>Base Bid Item No.</u>	<u>DESCRIPTION</u>	<u>Estimated Quantity</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>Value</u>
101-1	Mobilization	1	LS	\$ 5,865.00	\$ 5,865.00
102-1	Maintenance of Traffic	1	LS	\$ 1,000.00	\$ 1,000.00
104-10	Baled Hay or Straw	30	EA	\$ 8.35	\$ 250.50
110-1	Clearing and Grubbing	1	LS	\$ 1,600.00	\$ 1,600.00
120-1	Regular Excavation	400	CY	\$ 10.00	\$ 4,000.00
120-6	Embankment	900	CY	\$ 9.05	\$ 8,145.00
160-4	Type B Stabilization	1,900	SY	\$ 1.25	\$ 2,375.00
285-7	Limerock Base (8" Thick)	1,900	SY	\$ 6.15	\$ 11,685.00
331-2	Type S Asphalt Concrete	160	TN	\$ 75.00	\$ 12,000.00
425-1	Inlets (Ditch Bottom - Type C)	3	EA	\$ 1,997.00	\$ 5,991.00
433-70	French Drain (15" Pipe)	300	LF	\$ 121.00	\$ 36,300.00
520-2	Concrete Curb (Type D)	900	LF	\$ 10.00	\$ 9,000.00
522-1	Concrete Sidewalk (4" Thick)	250	SY	\$ 20.50	\$ 5,125.00
550-2	Fencing, Type B	210	LF	\$ 20.00	\$ 4,200.00
550-4	Pull and End Post Assemblies	24	EA	\$ 97.25	\$ 2,334.00
550-76	Fence Gate - Type B (12' Width)	2	EA	\$ 475.00	\$ 950.00
550-76	Fence Gate - Type B (3' Width)	2		\$ 240.00	\$ 480.00
700-11	Signage	4	EA	\$ 412.00	\$ 1,648.00
706-3	Retro-Reflective Pavement Markers	1,050	EA	\$ 1.00	\$ 1,050.00
711-35	Solid Traffic Stripe, Thermoplastic (White, 24")	15	LF	\$ 4.25	\$ 63.75
711-36	Solid Traffic Stripe, Thermoplastic (Yellow, 6")	100	LF	\$ 1.15	\$ 115.00

B. PARKING LOT BASE BID FORM (CONTINUED)

715-1	Lighting and Electrical Service System	1	LS	\$19,500.00	\$19,500.00
A-1	Allowances	1	LS	\$10,000	\$10,000

Bid Item Notes:

1. Bid Item 101-1 includes the installation of temporary construction fence to secure the parking lot construction area.
2. Bid Item 110-1 includes the removal and disposal of all existing pavement as shown on the plans and as required for the project.
3. Bid Item 715-1 includes all necessary materials, all equipment, all necessary machinery, tools, apparatus, means of transportation, and labor necessary to complete the installation of the electrical and lighting system as described in the plans and specifications and approved by the plans. Upon completion of the work included in this task the lighting system shall be operable.

C. CUL-DE-SAC BASE BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

Base Bid Item No.	DESCRIPTION	Estimated Quantity	UNIT	Unit Price	Value
101-1	Mobilization	1	LS	\$ 4,225.00	\$ 4,225.00
102-1	Maintenance of Traffic	1	LS	\$ 1,500.00	\$ 1,500.00
104-10	Baled Hay or Straw	30	EA	\$ 8.35	\$ 250.50
110-1	Clearing and Grubbing	1	LS	\$ 2,970.00	\$ 2,970.00
120-1	Regular Excavation	0	CY	\$ 10.00	- 0 -
120-6	Embankment	50	CY	\$ 9.05	\$ 452.50
160-4	Type B Stabilization	1,000	SY	\$ 1.25	\$ 1,250.00
285-7	Limerock Base (8" Thick)	1,000	SY	\$ 6.15	\$ 6,150.00
331-2	Type S Asphalt Concrete	160	TN	\$ 75.00	\$ 12,000.00
425-5	Adjusting Manholes	1	EA	\$ 1,180.00	\$ 1,180.00
425-6	Adjusting Valve Boxes	3	EA	\$ 169.00	\$ 507.00
520-1	Concrete Curb and Gutter (Type F) or Drop Curb	450	LF	\$ 12.00	\$ 5,400.00
520-2	Concrete Curb (Type D)	200	LF	\$ 10.00	\$ 2,000.00
522-1	Concrete Sidewalk (4" Thick, 6" Thick at Driveways)	150	SY	\$ 25.50	\$ 3,825.00
530-3	Riprap (Rubble)	20	TN	\$ 170.00	\$ 3,400.00
700-11	Signage	3	EA	\$ 176.00	\$ 528.00
706-3	Retro-Reflective Pavement Markers	20	EA	\$ 4.25	\$ 85.00
711-35	Solid Traffic Stripe, Thermoplastic (White, 6")	30	LF	\$ 1.15	\$ 34.50
711-35	Solid Traffic Stripe, Thermoplastic (White, 24")	20	LF	\$ 4.25	\$ 85.00
711-36	Solid Traffic Stripe, Thermoplastic (Yellow, 6")	750	LF	\$ 1.15	\$ 862.50
A-1	Allowances	1	LS	\$5,000	\$5,000

D. ROADWAY LANDSCAPING BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

<u>Base Bid Item No.</u>	<u>DESCRIPTION</u>	<u>Estimated Quantity</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>Value</u>
575	St. Augustine Sod	15,218	SF	\$.33	\$ 5,021.94
580-2	Live Oak Tree (14' OA, 3" Cal)	23	EA	\$ 491.00	\$ 11,293.00
580-4	Purple Crinum Lily (7 Gal, 30"x30")	41	EA	\$ 41.25	\$ 1,691.25
580-5	Liropi (1 Gal., 18" Full)	1,622	EA	\$ 5.20	\$ 8,515.50
580-6	Wart Fern (1 Gal. 18" Full)	5,200	EA	\$ 7.55	\$ 39,260.00
580-7	Plumbago (3 Gal. 24"x24")	702	EA	\$ 10.30	\$ 7,230.60
580-8	Root Barrier (24" Deep)	3,500	LF	\$ 7.50	\$ 26,250.00
580-9	Root Pruning (per existing tree)	27	EA	\$ 115.00	\$ 3,105.00
580-10	Rainbird ESP 24 valve controller	1	EA	\$ 500.00	\$ 500.00
580-11	2" Rainbird Control Valve	10	EA	\$ 280.00	\$ 2,800.00
580-12	Rainbird 1800 series 12" pop up	365	EA	\$ 18.00	\$ 6,570.00
580-13	3" PVC Mainline	2,500	LF	\$ 3.90	\$ 9,750.00
580-14	PVC Sleeving	700	LF	\$ 3.60	\$ 2,520.00
580-15	Hoover 3HP centrifugal Pump with enclosure with clock start and enclosure.	1	EA	\$ 7,780.00	\$ 7,780.00
580-16	Sch 200 PVC lateral	4,500	LF	\$ 1.30	\$ 5,850.00
580-17	Fittings and wiring	1	LS	\$ 3,865.00	\$ 3,865.00
580-18	Febco backflow preventor	1	EA	\$ 280.00	\$ 280.00

E. PARKING LOT LANDSCAPING BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

<u>Base Bid Item No.</u>	<u>DESCRIPTION</u>	<u>Estimated Quantity</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>Value</u>
575	St. Augustine Sod	9,600	SF	\$.33	\$3,168.00
580-1	Gumbo Limbo Tree (14' OA, 3" Cal)	8	EA	\$250.00	\$2,000.00
580-2	Live Oak Tree (14' OA, 3" Cal)	1	EA	\$491.00	\$491.00
580-3	Pitch Apple Shrub (7 Gal, 30"x48")	80	EA	\$37.00	\$2,960.00
580-4	Liropi (1 Gal., 18" Full)	1,364	EA	\$5.25	\$7,161.00
580-5	Wart Fern (1 Gal. 18" Full)	243	EA	\$7.55	\$1,834.65
580-6	Root Barrier (24" Deep)	3,988	LF	\$7.50	\$29,910.00
580-7	2" Rainbird Control Valve	3	EA	\$280.00	\$840.00
580-8	Rainbird 1800 series 12" pop up	100	EA	\$18.00	\$1,800.00
580-9	Sch 200 PVC lateral	1,200	LF	\$1.30	\$1,560.00
580-10	Fittings and wiring	1	LS	\$1,055.00	\$1,055.00

F. CUL-DE-SAC LANDSCAPING BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

<u>Base Bid Item No.</u>	<u>DESCRIPTION</u>	<u>Estimated Quantity</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>Value</u>
575	St. Augustine Sod	3,800	SF	\$.33	\$1,254.00
580-1	Rainbird 1800 series 12" pop up	9	EA	\$18.00	\$162.00
580-2	Sch 200 PVC lateral	240	LF	\$1.30	\$312.00
580-3	Fittings and wiring	1	LS	\$85.00	\$85.00

G. ALTERNATE PAVEMENT SURFACE BID FORM

The following Bid Form is presented to assist the Town in evaluating the Bid. After award, the Town reserves the right to modify estimated quantities subject to the unit price, and eliminate line items if necessary. In the event of discrepancy or approved quantity change, the Unit Price for each item will govern. Payment shall be made for the items listed on the Bid Form on the basis of the Work actually performed and completed.

<u>Bid Item No.</u>	<u>DESCRIPTION</u>	<u>Estimated Quantity</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>Value</u>
A-2	Textured Asphalt Paving	1,300	SY	\$ 45.00	\$ 58,500.00
A-3	Clay Pavers	1,300	SY	\$ 29.85	\$ 38,805.00

Bid Item Notes:

1. Bid Item A-2 includes all necessary materials, all equipment, all necessary machinery, tools, apparatus, means of transportation, and labor necessary to complete the installation of an alternate pavement surface Textured Asphalt Paving as described in the Plans and Section 02760 of the Detailed Specifications within the areas labeled as "Optional Alternate Pavement Surface" in the Plans.
2. Bid Item A-3 includes all necessary materials, all equipment, all necessary machinery, tools, apparatus, means of transportation, and labor necessary to complete the installation of an alternate pavement surface Precast Concrete Pavers as described in the Plans and Section 526 of the Detailed Specifications within the areas labeled as "Optional Alternate Pavement Surface" in the Plans.

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we **Acosta Tractors, Inc.**
2419 West 3rd Court, Hialeah, FL 33010

as Principal, hereinafter called the Principal, and **Hartford Casualty Insurance Company**
200 Colonial Center Pkwy, #500, Lake Mary, FL 32746

a corporation duly organized under the laws of the State of **Indiana**

as Surety, hereinafter called the Surety, are held and firmly bound unto **Town of Miami Lakes, 6853 Main Street, Miami Lake, FL 33014**

as Obligee, hereinafter call the Obligee, in the sum of **Twenty Five Thousand and XX/100 Dollars (\$25,000.00)**

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has submitted a bid for **Miami Lakeway North Parking and Drainage Improvements**

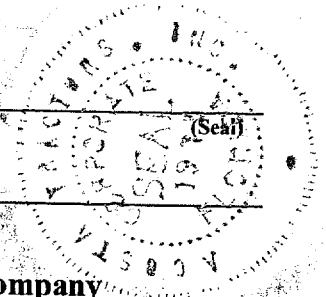
NOW, THEREFORE, if the Obligee shall accept the bid of the principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed **April 29, 2004.**

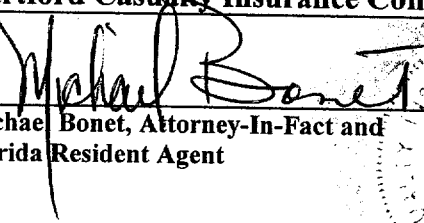
Witnesses:

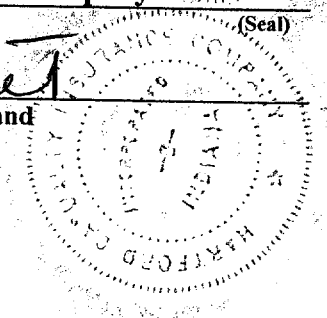
Acosta Tractors, Inc.

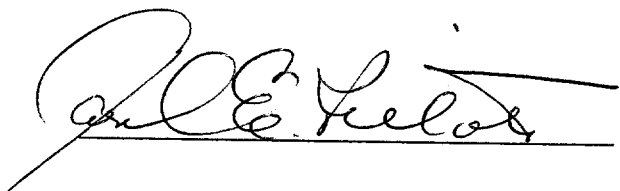
By: 



Hartford Casualty Insurance Company

By: 
Michael Bonet, Attorney-In-Fact and
Florida Resident Agent





<i>Principal's Name</i> Acosta Tractors, Inc.
<i>Principal's Mailing Address</i> 2419 W. 3 rd Court Hialeah, FL 33010
<i>Bond Number</i> N/A – Bid Bond



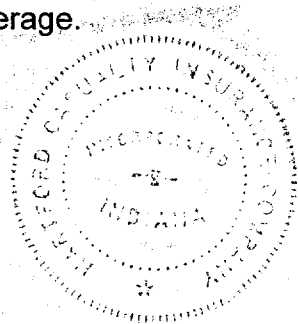
IMPORTANT NOTICE TO OBLIGEEES/POLICYHOLDERS – TERRORISM RISK INSURANCE ACT OF 2002

You are hereby notified that, under the recently enacted Terrorism Risk Insurance Act of 2002, effective November 26, 2002, we must make terrorism coverage available in your policy/bond. However, the actual coverage provided by your policy/bond for acts of terrorism, as is true for all coverages, is limited by the terms, conditions, exclusions, limits, other provisions of your policy/bond, any endorsements to the policy/bond and generally applicable rules of law.

Any terrorism coverage provided by this policy/bond is partially reinsured by the United States of America under a formula established by Federal Law. Under this formula, the United States will pay 90% of covered terrorism losses exceeding a statutorily-established deductible paid by sureties/insurers until such time as insured losses under the program reach \$100 billion. If that occurs, Congress will determine the procedures for, and the source of, any payments for losses in excess of \$100 billion.

You will not be required to pay a premium for terrorism coverage at this time. If, upon renewal of your policy/bond, a premium is going to be charged for terrorism coverage, we will provide you with notification of what that premium will be.

If you have a policy which includes Workers Compensation coverage for employees located in the State of New York, you will be receiving an additional notification regarding a premium charge, if any, that applies to terrorism coverage.



POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-4

690 ASYLUM AVENUE

HARTFORD, CONNECTICUT 06115

call: 888-266-3488 or fax: 860-757-5835

Agency Code: 21-220140

KNOW ALL PERSONS BY THESE PRESENTS THAT:

- Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast**, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited :

Thomas Riley, Michael A. Holmes, Gerald J. Arch, James F. Murphy, Susan Bohm, G.W. Fitch, Michael A. Bonet, Shawn A. Burton
of
Fort Lauderdale, FL

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on September 12th, 2000, the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Paul A. Bergenholtz

Paul A. Bergenholtz, Assistant Secretary

Colleen Mastroianni

Colleen Mastroianni, Assistant Vice President

STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

On this 25th day of October, 2002, before me personally came Colleen Mastroianni, to me known, who being by me duly sworn, did depose and say: that she resides in the County of Hartford, State of Connecticut; that she is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that she knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that she signed her name thereto by like authority.



CERTIFICATE

Scott E. Paseka

Scott E. Paseka
Notary Public

My Commission Expires October 31, 2007

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of April 29, 2004.

Signed and sealed at the City of Hartford.



Yves Cantin

Yves Cantin, Assistant Vice President

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID C9
ACOST-6

DATE (MM/DD/YYYY)
05/17/04

PRODUCER
Brown & Brown, Inc.
5900 N. Andrews Ave. #300
P.O. Box 5727
Ft. Lauderdale FL 33310-5727
Phone: 954-776-2222 Fax: 954-776-4446

INSURED

Acosta Tractors, Inc.
2419 West 3rd Court
Hialeah FL 33010

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Travelers Property & Casualty	
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> 2,500 Deductible GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	DTC0808X1207IND03	11/13/03	11/13/04	EACH OCCURRENCE	\$ 1000000
	DAMAGE TO RENTED PREMISES (Ea occurrence)				\$ 300000	
					MED EXP (Any one person)	\$ 5000
					PERSONAL & ADV INJURY	\$ 1000000
					GENERAL AGGREGATE	\$ 2000000
					PRODUCTS - COMP/OP AGG	\$ 2000000
					Emp Ben.	1000000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	DT810808X1207TIL03	11/13/03	11/13/04	COMBINED SINGLE LIMIT (Ea accident)	\$ 1000000
					BODILY INJURY (Per person)	\$
					BODILY INJURY (Per accident)	\$
					PROPERTY DAMAGE (Per accident)	\$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT	\$
					OTHER THAN EA ACC	\$
					AUTO ONLY: AGG	\$
	EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$				EACH OCCURRENCE	\$
					AGGREGATE	\$
						\$
						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below				WC STATU-TORY LIMITS	OTH-ER
					E. L. EACH ACCIDENT	\$
					E. L. DISEASE - EA EMPLOYEE	\$
					E. L. DISEASE - POLICY LIMIT	\$
A	OTHER Leased/Rented Equi	QT660961X6321TIL03	11/13/03	11/13/04	Max Item	100,000
					Yr Limit	200,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
Project: Miami Lakeway North Drainage & Parking Improvements.

CERTIFICATE HOLDER

MIAMILA

Town of Miami Lakes
6843 Main Street
Miami Lakes FL 33014

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE


ACORD CERTIFICATE OF LIABILITY INSURANCE		OP ID G2 ACOST-6	DATE (MM/DD/YYYY) 04/27/04
PRODUCER Brown & Brown, Inc. 5900 N. Andrews Ave. #300 P.O. Box 5727 Ft. Lauderdale FL 33310-5727 Phone: 954-776-2222 Fax: 954-776-4446		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED Acosta Tractors, Inc. 2419 West 3rd Court Hialeah FL 33010		INSURERS AFFORDING COVERAGE	NAIC #
		INSURER A: Travelers Property & Casualty	
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> 2,500 Deductible GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	DTC0808X1207IND03	11/13/03	11/13/04	EACH OCCURRENCE \$ 1000000
					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300000
					MED EXP (Any one person) \$ 5000
					PERSONAL & ADV INJURY \$ 1000000
					GENERAL AGGREGATE \$ 2000000
					PRODUCTS - COMP/OP AGG \$ 2000000
					Emp Ben. 1000000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	DT810808X1207TIL03	11/13/03	11/13/04	COMBINED SINGLE LIMIT (Ea accident) \$ 1000000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC AGG \$
	EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below				WC STATUTORY LIMITS OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Leased/Rented Equi	QT660961X6321TIL03	11/13/03	11/13/04	Max Item 100,000 Yr Limit 200,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER <div style="text-align: right; margin-right: 20px;">TOWN001</div> Town of Miami Lakes 6853 Main Street Miami Lakes FL 33014	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE
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ACORD™ CERTIFICATE OF LIABILITY INSURANCE

YMM2S6E7

DATE (MM/DD/YYYY)
04/27/2004

PRODUCER
Risk Transfer Holdings
301 E. Pine Street
Suite 350
Orlando, FL 32801

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Sunshine Staff Leasing, Inc. dba Presidion Solutions I, Inc.
Sunshine Companies III, Inc. dba Presidion Solutions IV, Inc.
4400 PGA Blvd.
10th Floor
Palm Beach Gardens, FL 33410

INSURERS AFFORDING COVERAGE

NAIC #

INSURER A: First Commercial Insurance Company
INSURER B:
INSURER C:
INSURER D:
INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE	\$
					DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
					MED EXP* (Any one person)	\$
					PERSONAL & ADV INJURY	\$
					GENERAL AGGREGATE	\$
					PRODUCTS - COMP/OP AGG	\$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	\$
					BODILY INJURY (Per person)	\$
					BODILY INJURY (Per accident)	\$
					PROPERTY DAMAGE (Per accident)	\$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT	\$
					OTHER THAN AUTO ONLY: EA ACC	\$
					AGG	\$
	EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE RETENTION \$				EACH OCCURRENCE	\$
					AGGREGATE	\$
						\$
						\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below OTHER	17603-0	07/01/2003	07/01/2004	X WC STATU-TORY LIMITS	OTH-ER
					E.L. EACH ACCIDENT	\$ 1,000,000
					E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
					E.L. DISEASE - POLICY LIMIT	\$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
 Coverage is extended to the leased employees of alternate employer (Florida Operations Only): Acosta Tractors, Inc. 52042 Effective 8/06/2001
DISCLAIMER: This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

CERTIFICATE HOLDER

CANCELLATION

Town of Miami Lakes
6853 Main Street
Miami Lakes, FL 33014

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE



AC# 0524953

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L0208120316

DATE	BATCH NUMBER	LICENSE NBR
08/12/2002	200046123	CUC057441

The UNDERGROUND UTILITY & EXCAVATION CO
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2004

ACOSTA, FELIX FRANCISCO
ACOSTA TRACTORS INC
2419 WEST 3RD COURT
HIALEAH FL 33010

JEB BUSH
GOVERNOR

DISPLAY AS REQUIRED BY LAW

KIM BINKLEY-SEYER
SECRETARY

AC# 0949871

STATE OF FLORIDA

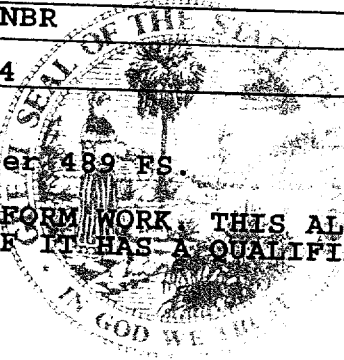
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L03061900721

DATE	BATCH NUMBER	LICENSE NBR
06/19/2003	200481473	QB0018774

The BUSINESS ORGANIZATION
Named below IS QUALIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2005
(THIS IS NOT A LICENSE TO PERFORM WORK. THIS ALLOWS
COMPANY TO DO BUSINESS ONLY IF IT HAS A QUALIFIER.)

ACOSTA TRACTORS INC
2419 WEST 3RD COURT
HIALEAH FL 33010



JEB BUSH
GOVERNOR

DISPLAY AS REQUIRED BY LAW

DIANE CARR
SECRETARY

MIAMI-DADE COUNTY
TAX COLLECTOR
140 W. FLAGLER ST.
14th FLOOR
MIAMI, FL 33130

2003
MUNICIPAL CONTRACTOR'S
OCCUPATIONAL LICENSE
MIAMI-DADE COUNTY - STATE OF FLORIDA
PURSUANT TO DADE COUNTY CODE SEC. 10-24
EXPIRES SEPT. 30, 2004

2004

FIRST-CLASS
U.S. POSTAGE
PAID
MIAMI, FL
PERMIT NO. 231

LICENSE NO. 30-1057389
BUSINESS NAME / LOCATION CC NO: E184

IS HEREBY LICENSED TO DO
BUSINESS AS A CONTRACTOR
AS SPECIFIED HEREON.

ACOSTA TRACTORS INC
2419 W 3 CT
OWNER :ACOSTA TRACTORS INC

SEE BACK OF LICENSE FOR
A LIST OF NON-PARTICIPATING
MUNICIPALITIES

SPECIALTY ENGINEERING CONTRCT

Licensee must
register in the city
where work is to
be done.

DO NOT FORWARD

ACOSTA TRACTORS INC
2419 W 3 CT
HIALEAH FL 33010

PAYMENT RECEIVED
MIAMI-DADE CNTY TAX
COLLECTOR:

09/29/2003
00260000068
000200.00



FIRST-CLASS
U.S. POSTAGE
PAID
MIAMI, FL
PERMIT NO. 231

105738-9
BUSINESS NAME / LOCATION
ACOSTA TRACTORS INC
2419 W 3 CT
33010 HIALEAH

THIS IS NOT A BILL-DO NOT PAY

RENEWAL
LICENSE NO. 105738-9
C C # E184

OWNER
ACOSTA TRACTORS INC
Sec. Type of Business
106 SPECIALTY ENGINEERING CONTRCT

WORKERS
10

THIS IS AN OCCUPATIONAL
TAX ONLY. IT DOES NOT
PERMIT THE LICENSEE TO
VIOLATE ANY EXISTING
REGULATORY OR ZONING
LAWS OF THE COUNTY OR
CITIES. NOR DOES IT
EXEMPT THE LICENSEE
FROM ANY OTHER LICENSE
OR PERMIT REQUIRED BY
LAW. THIS IS NOT A
CERTIFICATION OF THE
LICENSEE'S QUALIFICA-
TION.

DO NOT FORWARD
ACOSTA TRACTORS INC
2419 W 3 CT
HIALEAH FL 33010

PAYMENT RECEIVED
MIAMI-DADE COUNTY TAX
COLLECTOR:

09/29/2003
00260000067
000045.00

SEE OTHER SIDE

MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT
111 N.W. 1st STREET, SUITE 1510
MIAMI, FL 33128 (305) 375-2705

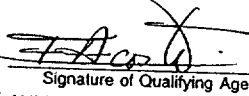
BUSINESS
CERTIFICATE OF COMPETENCY
EXPIRES ON 09/30/2005
ACOSTA TRACTORS INC

C.C. NO.: E184
Q.A.: ACOSTA FELIX
S.S. NO.: 264-33-4402
QUALIFYING AGENT (Q.A.) MUST SUPERVISE, DIRECT AND CONTROL ALL WORK
"Property of Miami-Dade Building Code Compliance Office"

CONTRACTOR
TRADE:
ENGINEERING
CATEGORY(S):
PIPE LINE ENG
PAVING ENGINEERI

PLACE
PHOTO
HERE

FOLD HERE



Signature of Qualifying Agent
HERMINIO GONZALEZ, P.E.
Secretary Construction Trades Qualifying Board

MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT
111 N.W. 1st STREET, SUITE 1510
MIAMI, FL 33128 (305) 375-2705

PERSONAL
CERTIFICATE OF ELIGIBILITY
EXPIRES ON 09/30/2005

ACOSTA FELIX
SS#: 264-33-4402

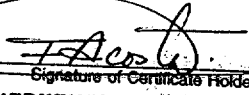
Certificate Not Valid For Contracting
"Property of Miami-Dade Building Code Compliance Office"

TRADE:
ENGINEERING
SKILL: ELIGIBLE

CATEGORY(S):
PIPE LINE ENG
PAVING ENGINEERI

PLACE
PHOTO
HERE

FOLD HERE



Signature of Certificate Holder
HERMINIO GONZALEZ, P.E.
Secretary Construction Trades Qualifying Board

NOTICE OF INTENT TO AWARD

TO: Acosta Tractors, Inc.
Contractor

2419 W 3rd Court, Hialeah, FL 33010
Address

ATTN: Felix Acosta, President
Name and Title

PROJECT: Miami Lakeway North Drainage and Parking Improvements Projects (the
"Project")
Town of Miami Lakes

Gentlemen:

This is to advise that the Town of Miami Lakes intends to award the Contract for the above
referenced Project as a result of your Bid of: One Million Eighty Seven Thousand Four
Hunderd Sixty Two Dollars and Nineteen Cents (\$1,087,462.19) submitted to the Town of
Miami Lakes (Owner) on _____, 2004 (Date).

Six (6) sets of the Contract Documents for this Project are attached. Each set contains an
unexecuted Contract and the requirement for providing the Performance and Payment Bonds for
the Project. Please execute all copies of the Contract and attach a copy of the Performance and
Payment Bonds to each Contract and return to our office within ten (10) consecutive days for final
execution by the Owner.

Your attention is invited to the provision whereby your Bid Security shall be forfeited in the
event the Contract with satisfactory Performance and Payment Bonds attached is not executed
and delivered to the Owner and all other requirements of the Invitation to Bid met within ten (10)
consecutive calendar days from _____, 2004 (Date).

Sincerely yours,

By: _____
R. Russell Barnes, III, P.E.

AGREEMENT ("CONTRACT")

BETWEEN OWNER AND CONTRACTOR

THIS CONTRACT is dated as of the 18th day of May in the year 2004 (which shall be the Effective Date of the Contract) by and between the Town of Miami Lakes (hereinafter called "OWNER" or "TOWN") and Acosta Tractors, Inc. hereinafter called "CONTRACTOR").

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK. CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Provide labor and equipment required to construct parking and drainage improvements within the Town of Miami Lakes. Work shall include the installation of curb and gutter, catchbasins, manholes, pipe, exfiltration trench, stabilized subgrade, limerock base, asphalt, concrete sidewalk, lighting, landscaping, irrigation, striping, and signage and the raising of existing manholes and valves. Utilization of these services will require close coordination with the Town and Engineer.

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

**TOWN OF MIAMI LAKES
MIAMI LAKEWAY N DRAINAGE AND PARKING IMPROVEMENTS
(the "Project")**

Article 2. ENGINEER. The Project has been designed by the following:

ENGINEER

Kimley-Horn and Associates, Inc.
5100 N.W. 33rd Avenue, Suite 157
Fort Lauderdale, FL 33309

who is hereinafter called "ENGINEER" and who will assume all duties and responsibilities and will have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME.

- 3.1 This Contract shall be effective upon execution by both parties and shall continue for a term of 180 days. At its sole discretion, the OWNER shall have an option to renew this Contract upon the same terms and conditions (the "Option"). This Option may be exercised at the sole discretion of the Town Manager. Such extension shall be effective upon receipt of a written notice from the Town Manager to the CONTRACTOR received no later than 30 days prior to the date of termination.
- 3.2 The CONTRACTOR shall initiate work on the Project upon execution of this Agreement. The Contractor shall complete all Work, except for the roadway striping and landscape installation by August 16, 2004. Roadway striping and landscape installation shall be completed by September 15, 2004.
- 3.3. Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Contract and that OWNER will suffer financial loss and other damages if the Work is not substantially or finally complete within the time specified in paragraph 3.2 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not substantially or finally complete on time. CONTRACTOR acknowledges and agrees that the actual delay damages which OWNER will suffer in the event of delay in achieving Substantial Completion or Final Completion of the Work are difficult, if not impossible, to determine and that the liquidated damages described herein are a fair and reasonable estimate of the delay damages which the OWNER is expected to suffer in the event of such delay. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree, that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER Two Thousand Five Hundred and 00/100 dollars (\$2,500.00) for each day that expires after the time specified in Paragraph 3.2 for completion. Liquidated damages shall be deducted from the CONTRACTOR's Final Application for Payment. However, if at the time of the CONTRACTOR's Final Application for Payment, CONTRACTOR is owed insufficient amounts to fully cover the deduction for liquidated damages, then CONTRACTOR shall pay any amount due within 10 days of written demand by OWNER.

Article 4. CONTRACT PRICE.

- 4.1 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents and the Schedule of Values. For all Unit Price Work, an amount equal to the sum of the established Unit Price for each separately identified item in the Bid Form, times the actual accepted quantity of that item will be paid for each separate work authorization. The maximum

contract amount of the contract is as follows:

Contract Price \$1,087,462.19
Contract Price (in words) One Million Eighty Seven Thousand Four Hundred
Sixty Two Dollars and 19/100

Article 5. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1. Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, on or before the 28th day of each month during construction as provided below. The Application for Payment shall be in AIA format. All progress payments will be on the basis of the progress of the Work measured by the Schedule of Values provided in paragraph 14.01 of the General Conditions and the requirements of the Contract Documents.

5.1.1 Prior to Substantial Completion, progress payments will be in an amount equal to: 90% of the Work completed and 90% of materials and equipment not incorporated in the Work but delivered and suitably stored, less in each case the aggregate of payments previously made.

5.1.2 Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the Contract Price, less such amounts as ENGINEER shall determine in accordance with paragraph 14.02.B.5 of the General Conditions.

5.2. Final Payment. Upon Final Completion and acceptance of the Work in accordance with paragraph 14.07.B.1 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.07.B.1.

Article 6. INTEREST. Not Applicable

Article 7. CONTRACTOR'S REPRESENTATIONS.

In order to induce OWNER to enter into the Contract, CONTRACTOR makes the following representations:

7.1. CONTRACTOR has thoroughly and to its full satisfaction familiarized himself

with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work. CONTRACTOR has: (a) examined the Contract Documents, Project Specifications and Drawings thoroughly to its full satisfaction and has undertaken the responsibility to determine, within the scope of CONTRACTOR's competence as a licensed General Contractor, that the Project Specifications and Drawings are fit and proper for the performance of the Work and to the best of CONTRACTOR's knowledge are: (i) free from material errors, omissions, and/or inconsistencies; and (ii) are in compliance with applicable laws, statutes, building codes, ordinances, rules and regulations, recognizing however, that CONTRACTOR is not responsible for the design of the Project; (b) visited the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work; (c) examined the Project Site to its full satisfaction, including any existing work or improvements in place, and has determined that the same are fit and proper to receive the Work in their present condition and CONTRACTOR waives all claims that same are not in accordance with all data and information with respect to the Project as specified in the Drawings and Project Specifications and/or as provided by OWNER and Engineer; (d) familiarized himself with federal, state and local laws, ordinances, rules, policies, and regulations that may in any manner affect cost, progress or performance of the Work; (e) studied and carefully correlated CONTRACTOR's observations with the Contract Documents; and (f) at CONTRACTOR's own expense, made or obtained any additional examinations, investigations, explorations, tests and studies, and obtained any additional information and data which pertain to the physical conditions (surface, sub-surface and underground facilities) at or contiguous to the Project or otherwise which may affect cost, progress, performance or furnishing of the Work and which CONTRACTOR deems necessary to determine its Contract Price for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

- 7.2. CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.
- 7.3. CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in paragraph 7.2 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

- 7.4. CONTRACTOR has correlated and considered the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents and in reaching the Contract Price and Contract Time.
- 7.5. CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR. CONTRACTOR shall not rely on any conflicts, errors or discrepancies that CONTRACTOR knew or should have known exist in the Contract Documents as a basis for a claim for an extra to the Contract Price or Contract Time.

Article 8. CONTRACT DOCUMENTS.

The Contract Documents that comprise the entire Contract between OWNER and CONTRACTOR are attached to this Contract, made a part hereof and consist of the items listed in the general conditions and the following:

- 8.1. This Contract (pages 1 to 7, inclusive)
- 8.2. Exhibits to this Contract
- 8.3. Performance and Payment Bonds
- 8.4. Notice of Intent to Award
- 8.5. General Conditions (pages 1 to 42, inclusive)
- 8.6. Supplementary Conditions (pages 1 to 17, inclusive, and all Exhibits to the Supplementary Conditions)
- 8.7. Specifications as included in this package and as referenced
- 8.8. Drawings bearing the following general title:
Miami Lakeway North Drainage and Parking Improvements
- 8.9. Addenda
- 8.10. CONTRACTOR'S Bid
- 8.11. Documentation submitted by CONTRACTOR prior to Notice of Intent to Award
- 8.12. Any Modifications, including Change Orders, duly delivered after execution of the Contract.
- 8.13. Advertisement for Bids.

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Section 1 of the General Conditions).

Article 9. MISCELLANEOUS

- 9.1. Terms used in this Contract which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- 9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3. OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.
- 9.4. This Contract may be executed in counterparts.
- 9.5. Should there be any action brought to enforce the terms of this Contract, the prevailing party shall be entitled to recovery of attorney's fees (including paralegal fees) incurred through mediation, arbitration, or the appellate processes.
- 9.6. The OWNER shall retain the ownership of all shop drawings and design drawings once payment therefore is made.
- 9.7. OWNER and CONTRACTOR hereby knowingly, irrevocably, voluntarily and intentionally waive any right either may have to a trial by jury in respect to any action or proceeding based upon the Contract Documents or arising out of, under, or in connection with the Work or the Project.
- 9.8. This Contract shall be governed by the laws of the State of Florida. Venue for any legal proceedings filed under this contract shall be in Miami-Dade County.
- 9.9. If any provision of this Contract or any Authorization under this Contract or the application thereof to any person or situation shall to any extent, be held invalid or unenforceable, the remainder of the is Contract, and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable shall not be affected thereby, and shall continue in

full force and effect, and be enforced to the fullest extent permitted by law.

9.10 Whenever either party desires to give notice to the other, it must be given by hand delivery or written notice, sent by certified United States mail, with return receipt requested or a nationally recognized private mail delivery service, addressed to the party for whom it is intended, at the place last specified.

9.11 Contractor shall abide by the applicable provisions of Chapter 119, Florida Statutes (Public Records).

IN WITNESS WHEREOF, the parties hereto have signed 6 copies of this Contract. At least one counterpart each has been delivered to OWNER, CONTRACTOR, and ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on OWNER'S behalf.

OWNER
Town of Miami Lakes

CONTRACTOR
Acosta Tractors, Inc.

ADDRESS
6853 Main Street
Miami Lakes, FL 33014

ADDRESS
2419 West 3rd Court
Hialeah, FL 33010

BY Wayne Slaton

BY Felix Acosta

Wayne Slaton
Print Name
Mayor
Title

Felix Acosta
Print Name
President
Title

WITNESS Beatriz M. Guillot

WITNESS [Signature]

(CORPORATE SEAL)

(CORPORATE SEAL)

**This is the *front page* of the performance/payment bond issued in compliance with
Florida Statute Chapter 255.05**

Surety Name: Hartford Casualty Insurance Company
200 Colonial Center Parkway, Suite #500
Lake Mary, FL 32746
800-824-1732

Bond Number: 21BCSCM9749

Contractor Name: Acosta Tractors, Inc.
2419 West 3rd Court
Hialeah, FL 33010
305-887-4131

Owner Name: Town of Miami Lakes, Florida
6853 Main Street
Miami Lakes, FL 33014

Project Number: N/A

Project Description: Miami Lakeway North Drainage & Parking Improvements Projects

Project Address: State of Florida, County Miami-Dade, Town of Miami Lakes

Legal Description of Property: Miami Lakeway North Drainage & Parking
Improvements Projects

**This is the *front page* of the bond. All other pages are subsequent regardless of the
pre-printed numbers.**

PERFORMANCE BOND

Bond No. 21BCSCM9749

KNOW ALL MEN BY THESE PRESENTS: that Acosta Tractors, Inc. 2419 W. 3rd Court,
Hialeah, FL 33010 as Principal, hereinafter called Contractor, and

Hartford Casualty Insurance Company as Surety, hereinafter
called Surety, are held and firmly bound unto the Town of Miami Lakes, Florida, as obligee,

hereinafter called Owner, in the amount of One Million Eighty Seven Thousand Four Hundred
Sixty Two Dollars and Nineteen Cents (\$ 1,087,462.19) for the payment whereof Contractor and
Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and
severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated May 18TH, 2004, entered into a
contract with Owner for Miami Lakeway North Drainage and Parking Improvements Projects,
Contract No. ML -, Town of Miami Lakes in accordance with the Drawings and Specifications
prepared by Kimley-Horn and Associates, Inc., which contract is by reference made a part hereof,
and is hereinafter referred to as the Contract.

044533024

PFB-1

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or
2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of one (1) year from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

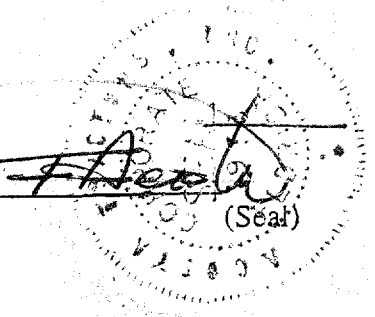
This bond is issued in compliance with Section 255.05, Florida Statutes (1987), as may be amended. A claimant, except a laborer, who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 45 days after beginning to furnish labor, materials, or supplies for the prosecution of the Work, furnish the Contractor with a notice that he intends to look to the bond for protection. A claimant who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 90 days after performance of the labor or after complete delivery of the materials or supplies, deliver to the Contractor and to the surety written notice of the performance of the labor or delivery of the materials or supplies and of the nonpayment. No action for the labor, materials, or supplies may be instituted against the Contractor or the surety unless both notices have been given. No action shall

be instituted against the Contractor or the surety on the bond after 1 year from the performance of the labor or completion of delivery of the materials or supplies.

Signed and sealed this 18th day of July, 2004.

ACOSTA TRACTORS, INC.

Principal



Witness

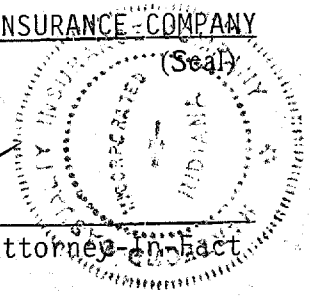
[Signature]

PRESIDENT

Title

HARTFORD CASUALTY INSURANCE COMPANY

Surety



Witness

Caesario Sanchez

Michael Bonet

Title Michael Bonet, Attorney-in-fact

PAYMENT BOND

Bond No. 21BCSCM9749

KNOW ALL MEN BY THESE PRESENTS: that Acosta Tractors, Inc. at 2419 West 3rd Court, Hialeah, Florida 33010 as Principal, hereinafter called Contractor, and Hartford Casualty Insurance Company as Surety, hereinafter called Surety, are held and firmly bound unto the Town of Miami Lakes, Florida, as Obligee, hereinafter called Owner, in the amount of One Million Eighty Seven Thousand Four Hundred Sixty Two Dollars and Nineteen Cents (\$ 1,087,462.19) for the payment whereof

Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated May 18TH, 2004, entered into a contract with Owner for Miami Lakeway North Drainage and Parking Improvements Project, Contract No. ML - Town of Miami Lakes in accordance with the Drawings and Specifications prepared by Kimley-Horn and Associates, Inc. which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

044533024
PYB-1

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer.
 - b. After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - c. Other than in a State Court of competent jurisdiction in and for the County or other political subdivision of the State in which the Project, or any part thereof, is

044533024

PYB-2

situated, or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvements, whether or not claim for the amount of such lien be presented under and against this bond.
5. This bond is issued in compliance with Section 255.05, Florida Statutes (1987), as may be amended. A claimant, except a laborer, who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 45 days after beginning to furnish labor, materials, or supplies for the prosecution of the Work, furnish the Contractor with a notice that he intends to look to the bond for protection. A claimant who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 90 days after performance of the labor or after complete delivery of the materials or supplies, deliver to the Contractor and to the surety written notice of the performance of the labor or delivery of the materials or supplies and of the nonpayment. No action for the labor, materials, or supplies may be instituted against the Contractor or the surety unless both notices have been given. No action shall be instituted against the Contractor or the surety on the bond after 1 year from the performance of the labor or completion of delivery of the materials or supplies.

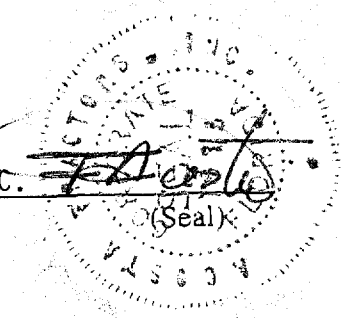
Signed and sealed this 18th day of July, 2004.



Witness

ACOSTA TRACTORS, INC.
Principal

PRESIDENT.
Title



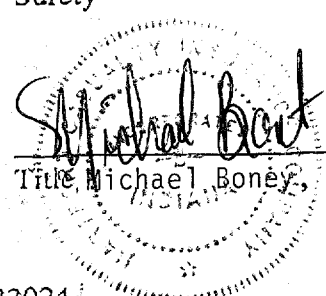
Caesar's Agency

Witness

HARTFORD CASUALTY INSURANCE COMPANY
Surety (Seal)

Michael Boney

Title Michael Boney, Attorney-In-Fact



<i>Principal's Name</i> ACOSTA TRACTORS, INC.
<i>Principal's Mailing Address</i> 2419 West 3 rd Court Hialeah, FL 33010
<i>Bond Number</i> 21BCSCM9749



IMPORTANT NOTICE TO OBLIGEES/POLICYHOLDERS – TERRORISM RISK INSURANCE ACT OF 2002

You are hereby notified that, under the recently enacted Terrorism Risk Insurance Act of 2002, effective November 26, 2002, we must make terrorism coverage available in your policy/bond. However, the actual coverage provided by your policy/bond for acts of terrorism, as is true for all coverages, is limited by the terms, conditions, exclusions, limits, other provisions of your policy/bond, any endorsements to the policy/bond and generally applicable rules of law.

Any terrorism coverage provided by this policy/bond is partially reinsured by the United States of America under a formula established by Federal Law. Under this formula, the United States will pay 90% of covered terrorism losses exceeding a statutorily-established deductible paid by sureties/insurers until such time as insured losses under the program reach \$100 billion. If that occurs, Congress will determine the procedures for, and the source of, any payments for losses in excess of \$100 billion.

You will not be required to pay a premium for terrorism coverage at this time. If, upon renewal of your policy/bond, a premium is going to be charged for terrorism coverage, we will provide you with notification of what that premium will be.

If you have a policy which includes Workers Compensation coverage for employees located in the State of New York, you will be receiving an additional notification regarding a premium charge, if any, that applies to terrorism coverage.



POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD
BOND, T-4
690 ASYLUM AVENUE
HARTFORD, CONNECTICUT 06115

call: 888-266-3488 or fax: 860-757-5835

Agency Code: 21-220140

KNOW ALL PERSONS BY THESE PRESENTS THAT:

- Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast**, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited :

Thomas Riley, Michael A. Holmes, Gerald J. Arch, James F. Murphy, Susan Bohm, G.W. Fitch, Michael A. Bonet, Shawn A. Burton
of
Fort Lauderdale, FL

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on September 12th, 2000, the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Paul A. Bergenholtz

Paul A. Bergenholtz, Assistant Secretary

Colleen Mastroianni

Colleen Mastroianni, Assistant Vice President

STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

On this 25th day of October, 2002, before me personally came Colleen Mastroianni, to me known, who being by me duly sworn, did depose and say: that she resides in the County of Hartford, State of Connecticut; that she is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that she knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that she signed her name thereto by like authority.



CERTIFICATE

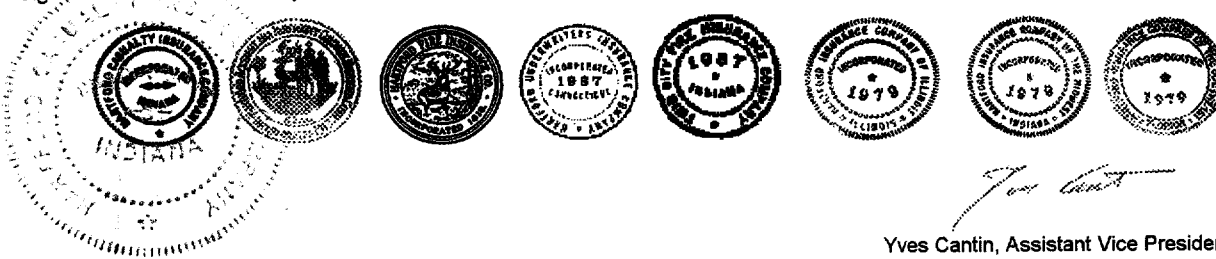
Scott E. Paseka

Scott E. Paseka
Notary Public

My Commission Expires October 31, 2007

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of

Signed and sealed at the City of Hartford.



Yves Cantin
Yves Cantin, Assistant Vice President

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that Acosta Tractors, Inc. 2419 W. 3rd Court,

Hialeah, FL 33010 as Principal, hereinafter called Contractor, and

Hartford Casualty Insurance Company as Surety, hereinafter called Surety, are held and firmly bound unto the Town of Miami Lakes, Florida, as obligee,

hereinafter called Owner, in the amount of One Million Eighty Seven Thousand Four Hundred Sixty Two Dollars and Nineteen Cents (\$ 1,087,462.19) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated _____, 2004, entered into a contract with Owner for Miami Lakeway North Drainage and Parking Improvements Projects, Contract No. ML - _____, Town of Miami Lakes in accordance with the Drawings and Specifications prepared by Kimley-Horn and Associates, Inc., which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or
2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of one (1) year from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

This bond is issued in compliance with Section 255.05, Florida Statutes (1987), as may be amended. A claimant, except a laborer, who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 45 days after beginning to furnish labor, materials, or supplies for the prosecution of the Work, furnish the Contractor with a notice that he intends to look to the bond for protection. A claimant who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 90 days after performance of the labor or after complete delivery of the materials or supplies, deliver to the Contractor and to the surety written notice of the performance of the labor or delivery of the materials or supplies and of the nonpayment. No action for the labor, materials, or supplies may be instituted against the Contractor or the surety unless both notices have been given. No action shall

be instituted against the Contractor or the surety on the bond after 1 year from the performance of the labor or completion of delivery of the materials or supplies.

Signed and sealed this ____ day of _____, 2004.

Principal (Seal)

Witness

Title

Surety (Seal)

Witness

Title

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that Acosta Tractors, Inc. at 2419 West 3rd Court, Hialeah, Florida 33010 as Principal, hereinafter called Contractor, and Hartford Casualty Insurance Company as Surety, hereinafter called Surety, are held and firmly bound unto the Town of Miami Lakes, Florida, as Obligee, hereinafter called Owner, in the amount of One Million Eighty Seven Thousand Four Hundred Sixty Two Dollars and Nineteen Cents (\$ 1,087,462.19) for the payment whereof

Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated _____, 2004, entered into a contract with Owner for Miami Lakeway North Drainage and Parking Improvements Project, Contract No. ML - , Town of Miami Lakes in accordance with the Drawings and Specifications prepared by Kimley-Horn and Associates, Inc. which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer.
 - b. After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - c. Other than in a State Court of competent jurisdiction in and for the County or other political subdivision of the State in which the Project, or any part thereof, is

situated, or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvements, whether or not claim for the amount of such lien be presented under and against this bond.
5. This bond is issued in compliance with Section 255.05, Florida Statutes (1987), as may be amended. A claimant, except a laborer, who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 45 days after beginning to furnish labor, materials, or supplies for the prosecution of the Work, furnish the Contractor with a notice that he intends to look to the bond for protection. A claimant who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 90 days after performance of the labor or after complete delivery of the materials or supplies, deliver to the Contractor and to the surety written notice of the performance of the labor or delivery of the materials or supplies and of the nonpayment. No action for the labor, materials, or supplies may be instituted against the Contractor or the surety unless both notices have been given. No action shall be instituted against the Contractor or the surety on the bond after 1 year from the performance of the labor or completion of delivery of the materials or supplies.

Signed and sealed this _____ day of _____, 2004.

Principal (Seal)

Witness

Title

Surety (Seal)

Witness

Title

NOTICE TO PROCEED

TO: Acosta Tractors, Inc.
Contractor

2419 W 3rd Court
Street Address

Hialeah, FL 33010
City, State, Zip

ATTN: Felix Acosta, President
Name and Title

PROJECT: Miami Lakeway North Drainage and Parking Improvements (the "Project")
Town of Miami Lakes

Gentlemen:

One executed copy of your Contract for the above Project has been forwarded to you through the Engineer. The Commencement date is _____, 2004. Completion date shall be _____, 2004.

Your attention is invited to the provision whereby you shall start to perform your obligations under the Contract Documents on the Commencement date. Said date shall begin the Contract Time.

The Engineer in charge of the Work for the Town of Miami Lakes will be:

R. Russell Barnes, III, P.E.

Kimley-Horn and Associates, Inc.
5100 N.W. 33rd Avenue, Suite 157
Fort Lauderdale, FL 33309
954-739-2233

Sincerely yours,

R. Russell Barnes, III, P.E.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By



AMERICAN CONSULTING
ENGINEERS COUNCIL



**National Society of
Professional Engineers**
Professional Engineers in Private Practice



AMERICAN SOCIETY OF
CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

This document has been approved and endorsed by

The Associated General



Contractors of America

Construction Specifications Institute



These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1996 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC User's Guide (No. 1910-50). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1996 Edition).

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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Consulting Engineers Council
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers
345 East 47th Street, New York, NY 10017

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the

Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases,

steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

49. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The

use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. Day

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. Furnish, Install, Perform, Provide

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. **CONTRACTOR's Review of Contract Documents:** Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. **Preliminary Schedules:** Within ten days after the Effective Date of the Agreement (unless otherwise specified

in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and
3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

C. *Evidence of Insurance:* Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.

2.06 *Preconstruction Conference*

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

3.02 *Reference Standards*

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids),

except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

3.05 Reuse of Documents

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05 *Reference Points*

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and property

monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous

Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing

in this paragraph 4.06.E shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.

B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements

of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 Certificates of Insurance

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

5.04 CONTRACTOR's Liability Insurance

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. 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.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and sub-contractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be

correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.05 OWNER's Liability Insurance

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

A. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and sub-contractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work

at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.07 Waiver of Rights

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion

pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

B. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required

of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. CONTRACTOR shall supervise, inspect, 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. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 Labor; Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with

any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 Substitutes and "Or-Equals"

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

1. "Or-Equal" Items: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under

paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly

required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

C. *Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. *Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. *ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

F. *CONTRACTOR's Expense:* CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or

entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor

or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 Patent Fees and Royalties

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits

and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 *Laws and Regulations*

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

6.10 *Taxes*

A. 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 place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not

unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work

Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 Safety and Protection

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. 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 persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and

responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 Safety Representative

A. CONTRACTOR shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

A. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample

submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

D. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop

Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. *ENGINEER's Review*

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. *Resubmittal Procedures*

1. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.18 *Continuing the Work*

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except

as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 CONTRACTOR's General Warranty and Guarantee

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or
2. normal wear and tear under normal usage.

B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

1. observations by ENGINEER;
2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;
4. use or occupancy of the Work or any part thereof by OWNER;
5. any acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by OWNER.

6.20 Indemnification

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from

and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and
2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

ARTICLE 7 - OTHER WORK

7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and
2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.02 *Replacement of ENGINEER*

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations

and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

8.06 Insurance

A. OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08 Inspections, Tests, and Approvals

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 Limitations on OWNER's Responsibilities

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 Evidence of Financial Arrangements

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 OWNER'S Representative

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02 Visits to Site

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another

representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Clarifications and Interpretations

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 Authorized Variations in Work

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 Rejecting Defective Work

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.07 Shop Drawings, Change Orders and Payments

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

9.08 Determinations for Unit Price Work

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

9.09 Decisions on Requirements of Contract Documents and Acceptability of Work

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

9.10 Limitations on ENGINEER's Authority and Responsibilities

A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority

or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change

Directive, a Claim may be made therefor as provided in paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER, and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full-time at the Site. Payroll costs for employees not employed full-time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable,

and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

B. Costs Excluded: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be

considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR's Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.02 Cash Allowances

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allow-

ances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE;
CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claims to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee:* The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;

b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no

fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

12.03 *Delays Beyond CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by

Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04 Delays Within CONTRACTOR's Control

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 Delays Beyond OWNER's and CONTRACTOR's Control

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 Delay Damages

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or
2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given

to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and
3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER 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, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

13.05 OWNER May Stop the Work

A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop

the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 Correction Period

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or 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, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If 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, OWNER may have the defective Work corrected or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that

item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *OWNER May Correct Defective Work*

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In

connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of 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 OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. 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 a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests,

revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Written Amendment or Change Orders;
- c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or
- d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. *Reduction in Payment*

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

- a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;
- b. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;
- c. there are other items entitling OWNER to a set-off against the amount recommended; or
- d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld.

OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 *CONTRACTOR's Warranty of Title*

A. 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 OWNER no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibility.

ties pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.05 Partial Utilization

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose 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 conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

14.06 Final Inspection

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. Application for Payment

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. Review of Application and Acceptance

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

14.08 Final Completion Delayed

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER 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 paragraph 5.01, 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 CONTRACTOR to ENGINEER 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.

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 OWNER May Suspend Work

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.

15.02 OWNER May Terminate for Cause

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate

the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

C. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.03 *OWNER May Terminate For Convenience*

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of

engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *CONTRACTOR May Stop Work or Terminate*

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will 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.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will 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 day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

TOWN OF MIAMI LAKES

ADVERTISEMENT FOR BIDS

The Town of Miami Lakes (the "Town") will be accepting bids for Miami Lakeway North Parking and Drainage Improvements (the "Project"). Sealed Bids **must** be received by the Town of Miami Lakes at 6853 Main Street, Miami Lakes, Florida by 3:00 P.M. on April 29, 2004, at which time bids will be publicly opened and read aloud for the furnishing of all materials, labor, equipment and supplies necessary for:

**TOWN OF MIAMI LAKES
MIAMI LAKEWAY NORTH PARKING AND DRAINAGE IMPROVEMENTS**

The nature and scope of this Project is:

Provide labor and equipment required to construct parking and drainage improvements within the Town of Miami Lakes. Work shall include the installation of curb and gutter, catchbasins, manholes, pipe, exfiltration trench, stabilized subgrade, limerock base, asphalt, concrete sidewalk, lighting, landscaping, irrigation, striping, and signage and the raising of existing manholes and valves. Utilization of these services will require close coordination with the Town and Engineer.

Bid Documents may be examined during regular business hours at Town Hall, 6853 Main Street Miami Lakes, FL 33014 (305-364-6100.) Any further inquiries regarding the Project may be directed to Russell Barnes at Kimley Horn and Associates, Town Engineer, at (954) 739-2233. A pre-bid meeting will be held on April 19th at 2:00 P.M. in the Town Hall Conference Room.

Pursuant to subsection (t) "Cone of Silence" of Section 2-11.1 "Conflict of Interest and Code of Ethics Ordinance" of Miami Dade County, public notice is hereby given that a "Cone of Silence" is imposed concerning this purchase. The "Cone of Silence" prohibits communications concerning RFP's, RFQ's or Bids, until such time as the Town Manager makes a written recommendation to the Town Council concerning the transaction. Procedures regarding the cone of Silence can be found in the Request for Proposal, or Request for Qualifications.

The Town reserves the right to waive any irregularities and to reject any and all bids.

Beatris M. Arguelles, CMC
Town Clerk

044533024

AB-1

SUPPLEMENTARY CONDITIONS

1.01 GENERAL:

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 edit.) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect. If there is a conflict between the Contract, General Conditions (No. 1910-8, 1996 edit.) and these Supplementary Conditions, the terms of the Supplementary Conditions shall control.

The Contractor shall note physically by cross out or cross reference notations all changes in the General Conditions called for in the Supplementary Conditions before submitting his Bid.

ARTICLE 1 - DEFINITIONS - Page 6

SC-1.01.A

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 edit.) have the meanings assigned to them in the General Conditions, unless otherwise indicated.

Amend paragraph SC-1.01.A.28 by replacing the terminology Notice of Award with Notice of Intent to Award.

Amend paragraph SC-1.01.A.42 by replacing it with the following paragraph:

Subcontractor – An individual or entity having a direct contract with CONTRACTOR. Sub-Subcontractor is an individual or entity having a direct contract with any Subcontractor for the performance of a part of Work at the Project.

ARTICLE 5 - BONDS AND INSURANCE - Page 15

SC-5.01

Amend paragraph 5.01.C by adding the following language at the end of the paragraph:

Any additional costs shall be borne by the Contractor.

SC-5.04

Add the new paragraphs immediately after paragraph 5.04 of the General Conditions.

The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law:

5.04.A.1 and 5.04.A.2 Workers' Compensation, etc. under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:

1. Comprehensive General Liability:
 - (a) Coverage to include Premise/Operations, Broad Form Property Damage, Contractual and Personal Injury, and XCU (where applicable).

 2. Limits:
 - (a) General Aggregate \$1,000,000
 - (b) Each Occurrence \$1,000,000
 - (c) Personal Injury \$1,000,000

 3. Coverage is to be written on an "occurrence" basis.

 4. Owners and Contractors Protection:
 - (a) Bodily Injury:

Annual Aggregate	\$2,000,000
Each Occurrence	\$1,000,000

 - (b) Property Damage:

Annual Aggregate	\$2,000,000
Each Occurrence	\$1,000,000

 5. Worker's Compensation shall be in accordance with the provisions of the laws of the State of Florida.
- 5.04.A.6 Comprehensive Automobile Liability:
- (a) Coverage to include all owned, hired, non-owned vehicles, and/or trailers and other equipment required to be licensed.
 - (b) Limits:

Combined Single Limit	\$1,000,000
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- 5.04.B.1 Umbrella:
 (a) Limits:
 Aggregate \$1,000,000
 (b) Cover all claims arising out of the contractor's operations or premises, anyone directly or indirectly employed by the Contractor or Subcontractor, and the Contractor's obligations under indemnification under this Contract.

5.04.B.8 The Town of ~~Bay Harbor Islands~~ ^{miami lakes}, shall be included as a named insured party under the Contractors Liability Insurance. The following paragraph is required to appear unaltered on the Certificate of Insurance.

^{miami lakes}
 "The Town of ~~Bay Harbor Islands~~, Florida is hereby named Additional Insured under the terms of this policy."

5.04.B.9 A thirty (30) day Notice of Cancellation is required and must be stated on the Certificate of Insurance.

5.04.B10 The Certificate of Insurance shall be issued to the Town of ~~Bay Harbor Islands~~ ^{miami lakes}, Florida at the following address:

~~Town of Bay Harbor Islands~~ ^{TOWN OF MIAMI LAKES}
~~9665 Bay Harbor Terrace~~ ^{4853 main street}
~~Bay Harbor Islands, Florida 33154~~ ^{MIAMI LAKES, FL 33014}

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES - INDEMNIFICATION - Page 18

SC-6.01

Add the new paragraphs immediately after paragraph 6.01.B of the General Conditions.

The Contractor shall perform all work in compliance with all applicable safety codes. A competent English-speaking superintendent will be on the job at all times during working hours, and will be subject to call during off-duty hours for emergency situations. The superintendent shall have overall charge of the work with complete authority regarding the Contractor's workmen, equipment and material purchases. The superintendent shall have complete authority to act on behalf of the Contractor. This person must be sufficiently qualified and have read and understood the Drawings, Specifications and all Contract Documents.

SC-6.02

Modify paragraph 6.02.B to allow work on Saturday per the following new paragraph added immediately after paragraph 6.02.B of the General Conditions.

There shall be no undue noise created at the Project site, whether by workers arriving at the sites or by actual construction work, before 7:00 a.m. or after 6:00 p.m. Monday through Friday and Saturday before 9:00 a.m. or after 6:00 p.m. No work shall be performed on Sunday or legal holidays as defined by the Town. There are no public sanitary facilities nearby the work sites, and the Contractor must therefore make arrangements for portable sanitary facilities as authorized by the Town.

SC-6.06

Amend paragraph 6.06.A by replacing the last sentence of the paragraph with the following sentence:

CONTRACTOR shall not be required to employ any Subcontractor, supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection, except as required by 6.06.B and the Instruction to Bidders.

Amend paragraph 6.06.B by adding the words "Instructions to Bidders" before Supplementary Conditions where ever it appears.

Amend paragraph 6.06.B by deleting the following sentence from the paragraph:

CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed.

Amend paragraph 6.06.B by adding the following language at the end of the last sentence of the paragraph:

nor does such acceptance create a contractual relationship between the OWNER and any subcontractor, supplier, individual or entity.

SC-6.09

Amend paragraph 6.09.C by replacing the first sentence of the paragraph with the following sentence:

Changes in Laws or Regulations which become effective after the time of opening of Bids (or, on the Effective Date of the Contract if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times.

Add the new paragraphs immediately after paragraph 6.09.C. of the General Conditions:

All vehicles used in connection with the Contractor's operations will be required to pay regular tolls to use the Broad Causeway, and to have identification signs.

SC-6.11

Amend paragraph 6.11.A.2 by adding the following language at the end of the last sentence:

, as set forth on the Resident Complaint Resolution Protocol attached hereto and made a part of the Contract Documents.

Add the new paragraphs immediately after paragraph 6.11.B. of the General Conditions:

Adjacent residents must have access to their driveways at all times. All barricades and warning signs for any traffic lane closures will be provided and maintained by the Contractor. Cost of all barricades and signs shall be the responsibility of the Contractor. Any off-duty officers as may be required in the maintenance of traffic shall be provided by the Contractor at the Contractor's expense.

SC-6.12

Amend paragraph 6.12.A by replacing the first sentence of the paragraph with the following sentence:

CONTRACTOR shall maintain in a safe place at the Project one record copy of all Drawings, Project Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, AsBuilts, and written

interpretations and clarifications in good order and annotated to show changes made during construction.

SC-6.13

Amend paragraph 6.13.A.3 by replacing it with the following paragraph:

other property at the Project or adjacent thereto, including, but not limited, to trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in course of construction.

SC-6.20

Amend the paragraphs 6.20.A.1 and 6.20.A.2 by replacing them with the following paragraph.

To the fullest extent permitted by Laws and Regulations, the Parties agree that in consideration of the first \$10,000.00 dollars to be paid by Owner to Contractor hereunder and other specific consideration, the receipt and sufficiency of which is hereby acknowledged, the Contractor shall indemnify, defend and hold harmless the OWNER and ENGINEER and their consultants, agents, officers and employees, and the elected officials of the Owner, from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professional and court and arbitration costs) arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is implied by Law and Regulations regardless of the negligence of any such party.

Amend paragraphs 6.20.B by replacing it with the following paragraph:

In any and all claims against OWNER or ENGINEER or any of their consultants, agents or employees by any CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the

indemnification obligation under paragraph 6.20 shall not be limited in any way, by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor or other person or organization under workers compensation act, disability benefit acts or other employee benefit acts.

ARTICLE 8 - OWNER'S RESPONSIBILITIES - Page 26

SC-8.02

Amend paragraph 8.02.A by replacing it with the following paragraph:

In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer whose status under the Contract Documents shall be that of the former ENGINEER.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION - Page 27

SC-9.03

Amend paragraph 9.03.A by adding the following language at the end of the paragraph:

The ENGINEER will provide a Resident Project Representative for this Project with duties, responsibilities and limitations of authority as outlined in Exhibit "B" attached at the end of these Supplementary Conditions. The Resident Project Representative will not be a full time Representative, but will work such periods of time so as to cover the project in accordance with Exhibit "B".

SC-9.05

Amend paragraph 9.05.A by deleting the following sentence from the end of the paragraph:

If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefore as provided in paragraph 10.05.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS - Page 29

SC-10.01

Amend paragraph 10.01.A by replacing the first sentence of the paragraph with the following sentence:

Without invalidating the Contract and without notice to any Surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, a Work Change Directive, or a Field Directive.

Amend paragraph 10.05.D by adding the following sentence at the end of the paragraph:

Adherence to the terms of paragraph 10.05 is a condition precedent to bringing any further action in litigation, arbitration or any other dispute resolution forum.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCE; UNIT PRICE WORK - Page 30

SC-11.01

Amend paragraph 11.01.A.1 by deleting the word Saturday from the last sentence of the paragraph.

Delete paragraph 11.01.A.4 in its entirety.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES -

SC-12.01.C

Amend paragraph 12.01.C.2.a. by replacing the entire sentence with the following sentence:

for costs incurred under paragraph 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 10 percent;

SC-12.01.C

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SC-8

Modify paragraph 12.01.C.2.c. to change the fee as follows in the first sentence:

Will be paid a fee of 10 percent of the costs incurred by such Subcontractor under paragraph 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

SC-12.06.B

Amend paragraph 12.06.B by replacing the entire paragraph with the following paragraph:

Contractor will not be entitled to any adjustment in the Contract Price for delays extended general conditions, extended overhead, loss of productivity, acceleration or any damages or other compensation whatsoever in the event of any delays in the progress of the Work on account of hindrances or delays from any cause whatsoever. Such causes of delay include but are not limited to differing site conditions, difficulty in acquiring building permits, limited access to the Project, failure to approve plans and shop drawings on time, delays caused by governmental action, inaction or regulation, subsurface conditions, material shortages or delay in delivery of materials. It is the specific intent hereunder that an extension of time will be the sole and exclusive remedy for delay of any type. However, if occasioned by an act of God, or by any act or omission on the part of the OWNER such act, hindrance or delay may entitle the CONTRACTOR to an extension of time in which to complete the Work which shall be determined by the ENGINEER, provided that the CONTRACTOR will give notice as provided herein. The foregoing limitations on adjustments to Contract Price also apply to any causes of delay which affect any subcontractor, materialman, supplier or laborer on the Project. In no event, if any such events of delay occur, shall any subcontractor, materialman, supplier or laborer be entitled to additional compensation for delays including claims for extended general conditions, extended overhead and the like against the OWNER or Engineer.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK - Page 34

SC-13.04

Amend paragraph 13.04.A by replacing it with the following paragraph:

If any Work is covered contrary to the Technical Specifications, Drawings or Contract Documents, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

Amend paragraph 13.04.B by adding the following language at the end of the second sentence:

,or direct payment if remaining Contract funds are not sufficient.

SC-13.09

Amend paragraph 13.09.C by adding the following language at the end of the first sentence:

, or direct payment if remaining Contract funds are not sufficient.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION - Page 36

SC-14.02.A.2

Amend paragraph 14.02.A.2 by deleting the existing paragraph and replacing it with the following paragraph:

With each Application for Payment, the CONTRACTOR shall include a Partial Waiver Upon Progress Payment or Statutory Waiver and Final Release, as appropriate from each and every materialman, supplier and or laborer ("Potential Lienor") who has provided labor, services or materials for the Project. Contractor shall submit its own Statutory Waiver and Partial Release of Lien or Statutory Waiver and Final Release of Lien, as appropriate, with each Application for Payment. Moreover, CONTRACTOR shall ensure that no construction liens, or any encumbrances in the nature thereof or any other encumbrances whatsoever (including equitable lien claims), shall be filed or maintained by the CONTRACTOR or by any Potential Lienor in connection with any Work for which OWNER has made payment or for which payment is not yet due. As a condition precedent to the receipt of each progress payment from the OWNER, CONTRACTOR must furnish the Partial Waiver Upon Progress Payment Statutory Waiver and Final Release from each Potential Lienor, in the form prescribed by OWNER and/or ENGINEER, together with a Contractor's Affidavit and Partial Release, in the form prescribed by the OWNER and/or ENGINEER. Further, as a condition precedent to the receipt of the final payment, the

CONTRACTOR shall provide OWNER with a Statutory Waiver and Final Release from each Potential Lienor in the form prescribed by OWNER and/or the ENGINEER, together with a Contractor's Affidavit and Final Release. Each Release given to the OWNER shall waive and release any lien rights of the Potential Lienor to the extent payment is made with respect to any Work performed through the date of the Release. For any Potential Lienor who has served a Notice to Owner and/or Notice to Contractor, but who has not provided labor, services or materials during the period of time covered by an Application for Payment, the CONTRACTOR shall provide a Zero Dollar Release in the form prescribed by OWNER and/or ENGINEER. CONTRACTOR shall comply with all requirements of Florida Statutes, Chapter 713. CONTRACTOR agrees to indemnify, defend and hold the OWNER harmless from and against any and all liens or other claims whatsoever filed against the OWNER or the OWNER'S property by any Potential Lienor for worked performed or materials or services furnished in connection with the Work for which CONTRACTOR has been paid or for which payment is not yet due at the time the Lien is recorded. In the event a Claim of Lien is recorded against the OWNER'S property, the CONTRACTOR shall cause the same to be satisfied within ten (10) days following the date of recordation of the Claim of Lien, or in the alternative, shall cause the Claim of Lien to be transferred to a Bond. In the event any Liens are not cleared of record within ten (10) days of recordation, OWNER shall have the right to settle, satisfy, or transfer such Lien to a Bond at CONTRACTOR'S sole cost and expense and OWNER may offset any such cost against the next payment due to CONTRACTOR, or CONTRACTOR shall make a direct payment if remaining Contract funds are not sufficient. OWNER shall not be limited to and is entitled to all other remedies available at law or in equity. The provisions of this paragraph shall be deemed an independent covenant of the CONTRACTOR and shall be effective with respect to all Work performed and materials and services furnished under the Contract Documents, Change Orders or any other agreement for work with respect to the Project.

SC-14.02.D.1.b

Amend paragraph 14.02.D.1.b by deleting the existing paragraph and replacing it with the following:

Liens have been recorded in connection with the Work or the Project.

SC-14.07

Amend paragraph 14.07.A.1 by replacing it with the following paragraph:

044053024

SC-11

After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operation instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in paragraph 6.12), final releases, final affidavits, Asbuilts, and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

Amend paragraph 14.07.A.2 by adding the following language at the end of the first sentence:

or claims made against the Bonds provided by CONTRACTOR under the Contract Documents.

Delete paragraph 14.07.A.3 in its entirety.

SC-14.09

Amend paragraph 14.09.A.1 by replacing it with the following paragraph:

a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens or Claims against the Bonds, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION - Page 40

SC-15.03

Delete paragraph 15.03.A.3 in its entirety.

Delete paragraph 15.03.A.4 in its entirety.

SC-15.04

Amend paragraph 15.04.A. by deleting the last sentence of the paragraph.

EXHIBIT "B"

A LISTING OF THE DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF THE RESIDENT PROJECT REPRESENTATIVE

ENGINEER shall furnish a Resident Project Representative (RPR), assistants and other field staff to assist ENGINEER in observing performance of the Work of the Contractor.

Through more extensive on-site observations of the Work in progress and field checks of materials and equipment by the RPR and assistants, ENGINEER shall endeavor to provide further protection for OWNER against design defects and deficiencies in the Work; but, the furnishing of such services will not make ENGINEER responsible for or give ENGINEER control or supervisory control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs, or responsibility for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

The duties and responsibilities of the ENGINEER and RPR are limited to those of ENGINEER in ENGINEER's agreement with the OWNER and in the construction Contract Documents, and are further limited and described as follows:

A. General

RPR is ENGINEER's agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

B. Duties and Responsibilities of RPR

1. Schedules: Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.
2. Conferences and Meetings: Attend meetings with CONTRACTOR, such as pre-construction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

3. Liaison:

- a. Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent and assist in understanding the intent of the Contract Documents; and assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operation affect OWNER's on-site operations.
- b. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.

4. Shop Drawings and Samples:

- a. Record date of receipt of Shop Drawings and samples.
- b. Receive samples which are furnished at the site by CONTRACTOR, and notify ENGINEER of availability of samples for examination.
- c. Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by ENGINEER.

5. Review of Work, Rejection of Defective Work, Inspections and Tests:

- a. Conduct on-site observations of the Work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
- b. Report to ENGINEER whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- c. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to ENGINEER appropriate details relative to the test procedures and startups.

- d. Accompany visiting inspectors representing OWNER, public or other agencies having jurisdiction over the Project, record the results of these inspections and report to ENGINEER.
6. Interpretation of Contract Documents: Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by ENGINEER.
7. Modifications: Consider and evaluate CONTRACTOR's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.
8. Records:
- a. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
 - b. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.
 - c. Record names, addresses and telephone numbers of all CONTRACTORS, subcontractors and major suppliers of materials and equipment.
9. Reports:
- a. Furnish ENGINEER periodic reports as required of progress of the Work and of CONTRACTOR's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.

- b. Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.
 - c. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to ENGINEER Change Orders, Work Directive Changes, and Field Orders.
 - d. Report immediately to ENGINEER and OWNER upon the occurrence of any accident.
10. Payment Requests: Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values. Work completed and materials and equipment delivered at the site but not incorporated in the Work.
11. Certificates, Maintenance and Operation Manuals: During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the Work.
12. Completion:
- a. Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
 - b. Conduct final inspection in the company of ENGINEER, OWNER and CONTRACTOR and prepare a final list of items to be completed or corrected.
 - c. Observe that all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance.

C. Limitations of Authority

Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by ENGINEER.
2. Shall not exceed limitations of ENGINEER's authority as set forth in the Contract Documents.
3. Shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR's superintendent.
4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
6. Shall not accept Shop Drawings or sample submittals from anyone other than Contractor.
7. Shall not authorize OWNER to occupy the Project in whole or in part.
8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.

SECTION 7
ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA }
 } SS:
COUNTY OF MIAMI-DADE }

I, the undersigned, hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the Town of Miami Lakes, its elected officials, and _____ or its design consultants, as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: *[Signature]*
Title: President

Sworn and subscribed before this

28 day of April, 2004

[Signature]
Notary Public, State of Florida

Marite Jimenez
(Printed Name)

My commission expires: 06/19/06



Marite Jimenez
MY COMMISSION # DD127251 EXPIRES
June 19, 2006
BONDED THRU TROY FAIR INSURANCE, INC.

SECTION 8
NON-COLLUSIVE AFFIDAVIT (CONTINUED)

ACKNOWLEDGMENT

State of Florida)
) SS:
County of Miami-Dade

BEFORE ME, the undersigned authority, personally appeared to me well known and known by me to be the person described herein and who executed the foregoing Affidavit and acknowledged to and before me that Felix Acosta executed said Affidavit for the purpose therein expressed.

WITNESS, my hand and official seal this 28 day of April, 2004.

My Commission Expires: 06/19/06



Marite Jimenez
MY COMMISSION # DD127251 EXPIRES
June 19, 2006
BONDED THRU TROY FAIR INSURANCE, INC

Marite Jimenez
Notary Public State of Florida at Large

**SECTION 9
SWORN STATEMENT ON PUBLIC ENTITY CRIMES
SECTION 287.133(3)(a), FLORIDA STATUTES**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to the Town of Miami Lakes
by Felix Acosta, President
[print individual's name and title]
for Acosta Tractors, Inc.
[print name of entity submitting sworn statement]

whose business address is

2419 W. 3 COURT
Hiialeah, FL 33010

and (if applicable) its Federal Employer Identification Number (FEIN) is 59-1454861

(If the entity has no FEIN, include the Social Security Number of the individual

signing this sworn statement: _____)

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)9g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or the United States, including, but not limited to, any bid or contract for goods and services to be provided to any public entity or an agency or political subdivision of any other state or of the United States involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction or a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand than an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
- a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents

who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an entity.

6. Based on information and belief, the statement that I have marked below is true in relation to the entity submitting this sworn statement. **[Indicate which statement applies.]**

Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, not any affiliate of the entity, has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

This entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. **[attach a copy of the final order]**

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA

STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

F. Acosta
Signature of Entity Submitting Sworn Statement

Sworn to and subscribed before me this 28 day of April, 2004.

Personally known Felix Acosta

OR produced identification _____ Notary Public - State of Florida

(type of identification)

My commission expires 06/19/06



Marite Jimenez
MY COMMISSION # DD127251 EXPIRES
June 19, 2006
BONDED THRU TROY FAIR INSURANCE, INC.

(Printed, typed or stamped commissioned name notary public)

Marite Jimenez

**SECTION 10
SUPPLEMENT TO BID/TENDER FORM
THIS FORM MUST BE SUBMITTED WITH BID FOR BID TO BE DEEMED RESPONSIVE.**

QUALIFICATION STATEMENT

The undersigned guarantees the truth and accuracy of all statements and the answers contained herein.

1. Please describe your company in detail.

We're Engineering Contractors
performing Paving, drainage, water &
Sewer.

2. The address of the principal place of business is:

2419 W. 3 Court
Hialeah, FL 33010

3. Company telephone number:

305-887-4131

4. Number of employees:

approx. 35 Employees.

5. Number of employees assigned to this project:

The required for proper
work-force.

6. Company Identification numbers for the Internal Revenue Service:

FEIN # 59-1454861

7. Miami-Dade County and Town of Miami Lakes Occupational License Number, if applicable, and expiration date

occupational
license # 30-1057389 exp. 09/30/04.

8. How many years has your organization been in business?

31 years.

9. What similar engagements is your company presently working on?

Paving, Drainage,
Water & Sewer.

10. Have you ever failed to complete any work awarded to you? If so, where and why?

No. N/A

11. Give names, addresses and telephone numbers of three individuals, corporations, agencies, or institutions for which you have performed work:

11.1. Alex Remos 21011 Johnson St., 954-442-9120
(name) (address) (phone #)

11.2. Boul De La Sierra 2635 W. 81 St 305-557-2444
(name) (address) (phone #)

11.3. Jerry McDonald, 400 State Rd. 7, 954-584-3060
(name) (address) (phone #)

12. List the following information concerning all contracts in progress as of the date of submission of this bid. (In case of co-venture, list the information for all co-ventures.)

<u>NAME OF PROJECT</u>	<u>OWNER</u>	<u>TOTAL CONTRACT VALUE</u>	<u>CONTRACTED DATE OF COMPLETION</u>	<u>% OF COMPLETION TO DATE</u>
1 - FEMA/DORM Multiple Award Indefinite QTY for Drainage & Paving	Miami-Dade County DERM	\$ 7,500,000.00	N/A	73 %
2 - South Kendall Shopping Center	South Kendall Invest, LLC	\$ 1,447,673.00	07/2004	82.6 %
(Continue list on insert sheet, if necessary.)				
3 - Town Center ONE	Town Center One LLC	\$ 321,370.00	06/2004	46.4 %

13. Has the Bidder or his or her representative inspected the proposed project and does the Bidder have a complete plan for its performance?

Yes

14. Will you subcontract any part of this work? If so, give details including a list of each subcontractor(s) that will perform work in excess of ten percent (10%) of the contract amount and the work that will be performed by each such subcontractor(s).

Yes. - VITA & SON Landscaping, Corp.
They will perform landscaping work.
- APAC, Southeast Inc.
They will perform the paving work.

The foregoing list of subcontractor(s) may not be amended after award of the contract without the prior written approval of the Contract Administrator, whose approval shall not be unreasonably withheld.

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

All equipment necessary for the performance of the proposed project is owned and available for the work.

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

None

17. What equipment will you rent for the proposed work?

None

18. State the name of your proposed project manager and give details of his or her qualifications and experience in managing similar work.

Felix Acosta with 20 years Exp. as President & Project manager.

19. State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business and the address of the place of business. (If a corporation, state the name of the president and secretary. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under the trade name.)

Acosta Tractors, Inc
2419 W. 3 COURT
HIWALEAH, FL 33010

19.1 The correct name of the Bidder is:

Acosta Tractors, Inc

19.2. The business is a (Sole Proprietorship) (Partnership) (Corporation).

Corporation.

- 19.3. The names of the corporate officers, or partners, or individuals doing business under a trade name, are as follows:

Felix Acosta, President
Alex Ros, Vice-President
Mayra Acosta, Sec. -Tres.

- 19.4. List all organizations which were predecessors to Bidder or in which the principals or officers of the Bidder were principals or officers.

N/A

- 19.5. List and describe all bankruptcy petitions (voluntary or involuntary) which have been filed by or against the Bidder, its parent or subsidiaries or predecessor organizations during the past five (5) years. Include in the description the disposition of each such petition.

N/A

- 19.6. List and describe all successful Bid, Performance or Payment Bond claims made to your surety(ies) during the last five (5) years. The list and descriptions should include claims against the bond of the Bidder and its predecessor organization(s).

N/A

- 19.7. List all claims, arbitrations, administrative hearings and lawsuits brought by or against the Bidder or its predecessor organization(s) during the last five (5) years. The list shall include all case names; case, arbitration or hearing identification numbers; the name of the project over which the dispute arose; and a description of the subject matter of the dispute.

NAME

RELATIONSHIPS

N/A

F. Acosta

Signature of Entity Submitting Supplement Form

Sworn to and subscribed before me this 28 day of April, 2004.

Personally known Felix Acosta

OR produced identification _____ Notary Public – State of Florida

(type of identification)

My commission expires 06/19/06



Marite Jimenez
MY COMMISSION # DD127251 EXPIRES
June 19, 2006
BONDED THROUGH TROY FAIN INSURANCE, INC.

(Printed, typed or stamped commissioned name notary public)

Marite Jimenez

**SECTION 4
DETAILED SPECIFICATIONS
MIAMI LAKEWAY NORTH PARKING AND DRAINAGE IMPROVEMENTS**

TECHNICAL SPECIFICATIONS INDEX

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DIVISION I
SPECIAL PROVISIONS
FOR
Miami Lakeway North Parking and Drainage Improvements
IN
THE TOWN OF MIAMI LAKES

It is the intent of these Contract Documents that Division I, II and III of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" dated 2000 be used as the basis for the work as amended by the following Supplemental Technical Specification. Where such wording refers to the State of Florida and its Department of Transportation and Personnel, such wording is hereby replaced with wording which provides proper substitute terminology; thereby making such Standard Specifications for Roads and Bridge Construction, Standard Technical Specifications of the Town of Miami Lakes.

It is the intent to include Division I of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" as referenced above as a supplement to the General Conditions for this Contract.

Further the applicable portions of the Town of Miami Lakes Code and Florida Building Code shall apply to the project.

Supplemental Technical Specifications that pertain to the pertinent items of construction are located in Division II.

SECTION 01020

ALLOWANCES

PART 1 SCOPE OF WORK

1.01 DEFINITION

- A. Included in the contract sum is an allocation account for unforeseen conditions, potential construction changes and quantity adjustments, and additional work that the Town may deem necessary if ordered and authorized by the Town in accordance with the contract documents.

1.02 ALLOWANCE ACCOUNT

- A. Monies in the allocation account will be used on issuance of change orders, over run of unit bid items provided such over runs are pre-approved in writing by the Town, and off duty police officers.
- B. At the closeout of the contract, monies remaining in the allowance account will be credited to the Town by change order.

1.03 SELECTION OF PRODUCTS UNDER ALLOWANCES

- A. Engineer's Duties:
 - 1 Consult with the Contractor in consideration of products and supplier or installers or changes in quantities of bid items.
 - 2. Make selection in consultation with the Owner. Obtain Owner's written decision, designating:
 - a. Product, model and/or class of materials.
 - b. Accessories and attachments.
 - c. Supplier and installer as applicable.
 - d. Cost to Contractor, delivered to the site or installed, as applicable.
 - e. Warranties
 - f. Quantities
 - 3. Transmit Owner's decision to the Contractor.
 - 4. Prepare change orders.

B. Contractor's Duties:

1. Assist Engineer and Owner in determining qualified suppliers, quantities or subcontractor.
2. Obtain proposals from a minimum of three (3) suppliers and/or subcontractors when requested by Engineer.
3. Make appropriate recommendations for consideration of the Engineer.
4. Notify Engineer promptly of:
 - a. Any reasonable objections Contractor may have against any supplier, or party under consideration for installation.
 - b. Any effect on the construction schedule anticipated by selection under consideration.

1.04 CONTRACTOR RESPONSIBILITY FOR PURCHASE, DELIVERY AND INSTALLATION

- A. On notification of selection, execute purchase agreement with designated suppliers and/or subcontractors.
- B. Arrange for and process shop drawings, product data and samples, as required.
- C. Make all arrangements for delivery.
- D. Upon delivery, promptly inspect products for damage or defects.
- E. Submit claims for transportation damage.
- F. Install and finish products in compliance with requirements of referenced specification sections, including restoration.

1.05 ADJUSTMENT OF COSTS

- A. Should the net cost be more or less than the specified amount of the allowance, the contract sum will be adjusted accordingly by change order. Should work be changed by change order:
 1. The amount of the change order will recognize any changes in handling costs at the site, equipment, labor, installation costs, overhead, profit, and other expenses caused by the change order.
 2. For products specified under a unit cost in the change order schedule of values, the unit cost shall apply to the additional quantities actually used.

- B. Submit any claims for anticipated additional costs at the site, or other expenses caused by the selection under the allowance, prior to execution of the work.
- C. Failure to submit claims within the designated time will constitute a waiver of claims for additional costs.
- D. At contract closeout, reflect all approved changes in contract amounts in the final statement of accounting.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 MEASURE AND PAYMENT

- A. The cost shall include a fixed amount per the Bid Form.
- B. Use of the allocation account shall be for unforeseeable conditions, for construction changes and for availability adjustments, if ordered and authorized by the Town. At the closeout of contract, monies remaining in the contingency allowance will be credited to the Owner by change order. For payments for off-duty police officers, The Town will reimburse the direct cost for off-duty police officers if the off-duty police officer is required by Town ordinance or is requested by the Town.
- C. The fixed amount is indicted as a lump sum under Allowance pay item A-1.

END OF SECTION

DIVISION II

SECTION 102

MAINTENANCE OF TRAFFIC

PART 1 GENERAL

1.01 SUMMARY

It is the intent of these specifications that Division I, II and III of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" dated 2000 be used as the basis for the work as amended by the General Conditions, Supplementary Conditions, Special Provisions, and the following Supplemental Technical Specification which pertains to the pertinent items of construction.

A. 1.02 SUPPLEMENTAL TECHNICAL SPECIFICATION

Article 102-1.1 Description This section is expanded to include the following:

Due to the proximity of the project area to Miami Lakes Middle School, it is the Town's intent that all major construction activities take place during the summer recess. The last day of school prior to the summer recess is June 9, 2004. The first day of school after the summer recess is August 16, 2004. Therefore, the work in parking lot on the school property, the work in the Miami Lakeway right-of-way and the work in the NW 64th Street right-of-way adjacent to the school property shall be substantially completed before August 16, 2004.

Between June 9, 2004 and August 16, 2004, traffic on Miami Lakeway North may be limited to one-way eastbound and/or detoured around the construction area. Construction activities within school property shall be completed during this time when school is not in session. The Contractor shall provide access to properties adjacent to the construction area at all times.

Before June 9, 2004 and after August 16, 2004, the Contractor shall maintain two-way traffic on Miami Lakeway North between the hours of 8:00 am to 10:00 am and 3:00 pm to 5:00 pm. One-way traffic eastbound and/or a detour around the construction area will be allowed at other times. The Contractor shall provide access to properties adjacent to the construction area at all times.

Two weeks prior to any construction, the Contractor shall provide a maintenance of traffic plan and a written schedule to the Engineer showing anticipated construction activity, timing, location, and anticipated disruptions due to occur. The maintenance of traffic plan and schedule shall be updated every two weeks during construction. The original schedule and updates shall be provided to the Engineer no later than noon each Friday for use, by the Engineer and Town, in assisting the Contractor to inform the residents of pending disruptions. However, this does not relieve the Contractor of any and all reasonable communications with the affected property owners.

The Contractor may be asked to attend meetings with the Property Owners and offer his opinions during the course of the meeting, but the Town/Engineer will chair the meeting.

Article 102-2.7 Town of Miami Lakes Ordinance No. 02-19 – Add the following article at the end of the section:

The Town of Miami Lakes has adopted Ordinance No. 02-19. This Ordinance is titled “Obstructions of Public Streets, Highways, etc.” and requires that off-duty officers be provided to direct traffic on any public road within the Town where construction activities impede the flow of traffic and threatens public safety during the regular weekday rush hours. This Ordinance defines rush hour as the hours between 6:30 a.m. to 9:30 a.m. and 3:00 p.m. and 6:30 p.m. All provisions of this Ordinance are in place as part of this contract. Copies of Ordinance No. 02-19 are available at Town Hall or can be accessed at the Towns web site.

Article 102-4.1 Where Required – This sub-article is amended to include:

Except as delineated in the Contract Documents, traffic may be detoured only upon approval of the Town and the Florida Department of Transportation (for State Roads).

PART 2 MATERIALS

Materials shall be per the previously referenced FDOT “Standard Specifications for Roads and Bridge Construction”.

PART 3 EXECUTION

Execution shall be per the previously referenced FDOT “Standard Specifications for Roads and Bridge Construction”.

All cost for work, materials, permits and incidental costs as specified above are to be included in the cost of other bid items. The direct cost for off-duty police officers as required under Town Ordinance 02-19 will be paid for under the Allowance Bid Item.

END OF SECTION

SECTION 02760

TEXTURED ASPHALT PAVING

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes
 - 1. Requirements for the proper installation of textured asphalt pavement using StreetBond HW Surfacing System (High Performance Surfacing System for Wet Climatic Zones).
- B. Related Sections
 - 1. Section 110 Clearing and Grubbing
 - 2. Section 160 Stabilizing
 - 3. Section 200 Limerock Base
 - 4. Section 331 Type S Asphalt Concrete

1.02 REFERENCES

American Society for Testing and Materials

- 1 ASTM D-4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Tester
- 2 ASTM D-4060 Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
- 3 ASTM D-2697 Standard Test Method for Volume of Nonvolatile Matter in Clear or Pigmented Coatings

1.03 SUBMITALS

- A. Install StreetPrint Pavement Texturing using only certified Level I or Level II applicators. Submit documentary evidence of such certification to the Engineer prior to beginning work. Do not begin installation prior to receiving the Engineer's approval.
- B. Test results showing that surfacing materials has the following properties:
 - 1. Adhesion (PLI) To an Asphalt substrate (ASTM D-4541) Result: Cohesive failure of asphalt prior to adhesive failure.
 - 2. Taber Abrasion H-10(Dry Wear Index) (ASTM D-4060). Maximum of 0.98 grams/1000 cycles after 7 days cure.
 - 3. Solids by Volume (%) (ASTM D-2697). Minimum = 24 +/-2%.

1.04 DEFINITIONS

- A. **"Textured Asphalt Pavement"** shall be described as "StreetPrint Pavement Texturing" or "StreetPrint" on the drawings and documents related to the project.

- B. **“Authorized StreetPrint Applicator”** is a contractor licensed by Integrated Paving Concepts Inc., (Tel. 800-688-5652), and shall have a foreman, supervisor or lead hand on site who has successfully completed a StreetPrint Level I or Level II Accreditation Training Program.
- C. **“StreetPrint Pavement Texturing”** is defined as a proprietary finishing system, which treats the surface of Hot Mix Asphalt Concrete (HMA) by imprinting fully compacted asphalt pavement with "grid style" or other styles of depressions to replicate, in relief, the concrete grout depressions common to hand-laid brick or cobblestone, or any other design as shown on the drawings or described in the specifications, and coating the imprinted asphalt surface using the StreetBond HW Surfacing System.
- D. **“Imprinting Hot Mix Asphalt”** is defined as pressing flexible templates into hot, *fully-compacted*, Hot Mix Asphalt to create the appearance of grout lines or patterns in the asphalt surface.
- E. **“StreetBond HW Surfacing System”** is defined as multiple applications of premium coating material StreetBond SP150E.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. **“StreetBond SP150E Coating Material”** refers to a high performance premium coating material consisting of epoxy modified acrylic polymers blended with sand and aggregate, and specially formulated by Integrated Paving Concepts, Inc. (Tel. 800-688-5652), for application on asphalt surfaces, to provide a durable, long lasting color and texture to the asphalt surface.
- B. **“StreetBond Colorant”** is a highly concentrated, high quality, UV stable pigment blend designed to be added to StreetBond SP150E coating system to provide color to the coating. The colors to be used shall be shown on the drawings. The same StreetBond Colorant shall be used in each SP150E coating layer applied to the asphalt surface. One pint of colorant shall be used with one pail of StreetBond coating material.

2.02 EQUIPMENT

- A. **Templates** shall be manufactured from flexible, woven wire rope cut and welded into the patterns, as detailed on the drawings, and used for imprinting Hot Mix Asphalt.
- B. **Reciprocating Infra-Red Heater** is equipment specifically designed to apply heat to the asphalt surface to make the upper portion of the asphalt surface pliable enough to accept the imprint of the template. The heating equipment used shall allow continuous monitoring of the surface temperature to ensure the asphalt does not over heat and burn. Equipment that is specifically excluded from this section and shall not be used for reheating of the asphalt is any form of direct flame heaters.
- C. **Vibratory Plate Compactor** – shall be used for pressing the wire templates into the heated asphalt to create the specified pattern.
- D. **Spray Equipment** – shall be capable applying the coating material to the asphalt surface in a controlled thin film.

PART 3 – EXECUTION

3.01 PREPARATION

- A. **Hot Mix Asphalt Concrete Paving (HMA)** shall conform with the requirements of the Florida Department of Transportation “Standard Specifications for Roads and Bridge Construction” dated 2000 including gradation and compaction requirements. Asphalt thickness and width shall be as per the drawings. The placement of the asphalt shall be carried out with regard for the imprinting process to avoid visible seams. The HMA shall be fully compacted prior to imprinting of the templates.
- B. **Heating and Imprinting of Asphalt and Application of Coating** The Contractor shall follow the latest StreetPrint Application Procedures as issued by Integrated Paving Concepts Inc.
- C. **Surface Preparation Prior to Coating** The asphalt surface shall be free of dirt, debris, oil or anything that will adversely affect the adhesion of the new coating system. All loose material on the asphalt surface shall be removed by mechanical brooming, or blowing clean using a backpack blower or compressed air. Any difficult to remove dirt shall be removed using a Pressure Washer. Prior to applying the coatings, the asphalt surface shall be completely dry.

3.02 CONSTRUCTION

- A. **Layout and Imprinting** Layout and imprinting of the pattern into the surface of the HMA shall be as per the drawings.
- B. **Heating of Asphalt** The upper portion of the asphalt surface shall be heated using reciprocating infra red re-heating equipment to make the upper portion of the asphalt surface pliable enough to accept the imprint of the template. Overheating of the asphalt shall not be permitted. Direct flame heaters shall not be allowed for the purpose of heating the asphalt. Hot air portable heaters may only be used for heating isolated areas. The temperature of the asphalt surface shall be regularly monitored during the reheating process. The asphalt pavement shall be adequately heat soaked (softened) to a depth of at least ½ inch, without burning the asphalt. The asphalt surface temperature shall not exceed 300°F. If during the re-heating process the surface is overheated and begins to emit black smoke, the contractor shall stop work immediately. The damaged surface area shall be removed by milling the upper 1” and replaced by a partial depth patch with the topmost layer matching the existing surface layer mix and binder. Patching and all work associated with the repair effort shall be at no cost to the Owner.
- C. **Surface Imprinting** Templates shall be pressed fully into the heated asphalt surface using vibratory plate compactors.
- D. **Coating Installation** The StreetBond HW Surfacing System shall be installed by applying at least four thin layers of StreetBond SP150E coating material to the asphalt surface. Each application of coating material shall be allowed to dry completely before applying the next layer. The color of the coating system shall be as per the drawings. Each layer of the coating system shall consist of the same color.

The coating application shall be spray applied and broomed to work the material into the asphalt surface. Subsequent applications shall be sprayed and rolled, using a 1” to 1½” nap roller or sprayed and broomed. The contractor shall use StreetPrint recommended spray equipment.

Total coverage area of combined coating materials shall not be more than 150 square feet per pail of StreetBond SP150E coating.

The Contractor shall apply the StreetBond HW Surfacing System only when the air temperature is at least 50°F and rising, and will not drop below 50°F within 8 hours of application of the coating material. There should be no precipitation expected within 2 hours after applying the final layer of StreetBond SP150E.

3.03 QUALITY CONTROL

- A. **StreetPrint** All StreetPrint projects shall have on site a foreman, supervisor or lead hand who is registered with Integrated Paving Concepts, Inc., as a Level 1 or Level II Accredited StreetPrint Installer.
- B. **Protection From Traffic** No traffic shall be allowed onto the coated surface until the coating has completely dried and has cured as set out in the manufacturer's instructions.
- C. **Utility Cuts** All utility, traffic loop detector, and other items requiring a cut and installation under the asphalt surface shall be completed prior to installation of stamped patterned asphalt treatment.
- D. **Stamping Depth** Upon completion, the patterned area shall be checked for proper depth of print, by taking random samples. 98% of the stamped area shall have an imprint depth of 3/8 inch. If any sample areas have an imprint depth that is less than 3/8 inch, those areas shall be re-heated and re-stamped prior to applying the coatings.
- E. **Coating Thickness** The total thickness shall be monitored by measuring the volume of material used per unit area. For this project an average coverage area for the combined coating layers shall be 150 square feet coated per 5 gallon pail of StreetBond SP150E material used. The Contractor shall provide proof of material usage.

PART 4 – MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. **Textured Asphalt** The quantity to be paid will be the area in square yards of stamped asphalt pavement, measured in place, completed and accepted. No deduction will be made for the area(s) occupied by manholes, inlets, drainage structures, or by any public utility appurtenances within the area.

4.02 PAYMENT

- A. Price and payment will be full compensation for all work specified in the Section, the quantity, determined as provided above, will be paid for at the contract unit price per square yard.

END OF SECTION

SECTION 02810
IRRIGATION

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, and equipment necessary to perform the irrigation work, complete as specified to insure the system is operational.
- B. The completed and proper construction of the landscape irrigation system including, but not limited to:
 - 1. All piping, including mains, laterals, fittings, connections, tees, risers, clamps, and swing joints.
 - 2. All control, ball, globe, pressure reducing, quick coupling and other valves, including valve boxes, markers, connections, operators and other accessories.
 - 3. Complete automatic control system, including controllers and control-wiring connections.
 - 4. Coordinate and provide electrical connection with service panel.
 - 5. Connections of piping to the supply sources utilizing meters provided by the owner.
 - 6. All excavation, site-work, relocation or replacement of utilities, backfill and restoration of all disturbed areas.
 - 7. Provide a complete and operable system for the irrigation of all landscape areas on the project site. These specifications are intended to include all items obviously necessary and requisite for the proper irrigation of the project. This in no way relieves the Contractor of his responsibility to furnish any additional labor, materials and equipment required for a proper system.
 - 8. Adjust any system components to work with existing and proposed landscaping.
 - 9. Supply, deliver, store, and protect all equipment and materials including pipe and fittings, valves, controllers, wire, and all other component parts necessary for the installation of a fully automatic irrigation system as indicated in these specifications.
- C. Complete sod restoration in all areas that are trenched or damaged during the installation of the irrigation system upon completion of the project.

1.02 DESCRIPTION OF SYSTEM

This system has been designed as a typical block valve type Rainbird 1800 series (or equal) sprinklers, along with one Hoover, 3HP centrifugal pump (or equal) each with a Rainbird model A ESP-24LX, clock start irrigation controller (or equal) enclosed in a single fiberglass housing unit supplied by Hoover (or equal).

- A. The water source for this system shall be from the canal to the north of the property. The general contractor will be responsible for permitting through the appropriate agencies.
- B. Contractor shall be required to install sleeves as necessary. Contractor shall jack and bore all

sleeves as required to accommodate existing facilities.

1.03 QUALITY ASSURANCE

- A. All applicable ANSI, AWWA, and ASTM Standards and Specifications, and all applicable building codes and other public agencies having jurisdiction upon the work.
- B. The Contractor shall be responsible for constructing the system in complete accordance with all local codes, ordinances and laws. Any modification made to conform with said codes, laws, and ordinances shall be completed at the Contractor's expenses with no additional compensation allowed.
- C. Protection of Existing Plants and Site Conditions: The Contractor shall take necessary precautions to protect site conditions to remain. Should damages occur, Contractor shall repair the damage to its original condition at his own expense. The Contractor shall not trench through the roots of any existing tree or palm.
- D. The Contractor shall not trench through the roots of any existing tree or palm. The Contractor shall use a 5' radius from the center of the palms as a guide for all palm trees and a 6" radius per inch caliper (measured at 4½" DBH) for all trees on site.
- E. Permits and Fees: Obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Inspection required by local ordinances during the course of construction shall be arranged as required. On completion of the work, satisfactory evidence shall be furnished to Architect to show that all work has been installed in accordance with the ordinances and code requirements.
- F. The Contractor shall provide full 100% coverage (head to head) in all irrigated areas and shall be responsible for additional heads and components as required. "Head to head" means that each irrigation head sprays to the other heads immediately adjacent.
- G. Workmanship: All work shall be installed by skilled personnel, proficient in the trades required, in a neat, orderly, and responsible manner with recognized standards of workmanship. The Contractor should have installed at least five projects of similar magnitude and demonstrated ability in the installation of sprinkler irrigation systems of this type.

1.04 SUBMITTALS

- A. Submit Shop Drawings of irrigation system equipment indicating all details required for the proper construction including, but not limited to, fittings, materials and connectors.
- B. Submit the manufacturer's product data for the irrigation system equipment indicating all details required for the proper construction including, but not limited to, fittings, materials and connectors.

1.05 CHANGES AND ADDITIONAL WORK

- A. The owner reserves the right to adjust the number and location of sprinkler heads and other equipment in order to provide for any modifications which might become necessary.

1.06 GUARANTEE

- A. The irrigation system shall be guaranteed for a minimum of one calendar year from the time of final acceptance in accordance with the General Conditions. An inspection by the owner and contractor shall be made at the beginning and end of the guarantee period.

1.07 QUALITY AND GRADE OF REPLACEMENT

- A. Replacement material shall be of the same quality and grade as that of the material to be replaced.
- B. Replacements shall be guaranteed for a period equal to the originally specified guarantee. This guarantee period shall begin at time of final acceptance.
- C. Final payment to the Contractor shall not relieve guarantee obligations.

1.08 RECORD DRAWINGS

- A. After completion of installation, furnish complete as-built reproducible showing locations of all valves and piping to scale, with dimensions where required or necessary, to show vertical and horizontal dimensions measured from permanent/fixed objects (buildings, street lights, sidewalks, etc.) affecting but not limited to the mainline pipe, controller locations, remote control valves, and quick-coupling valves. The Drawings shall also indicate and show approved substitutions of size, material and manufacturer's name and catalog number. All piping shall be dimensioned and drawn to scale. Remote control valves and isolation valves shall have two (2) measurements from fixed objects. Provide two copies of the as-built drawings and one Mylar set, as well as electronic format.

PART 2 – MATERIALS

2.01 PIPE

- A. PVC: All pipe shall be Polyvinyl Chloride (PVC) Schedule 40 PVC pipe, swing joints & fittings only, no exceptions. All pipes shall be new and free from defects and shall be continuously marked indicating size, schedule, type and Department of Commerce Standard Reference. Pipe shall be furnished in standard length of twenty (20) feet.
- B. Galvanized Steel Pipe: Pipe installed above grade for the backflow preventor shall be Schedule 40 Galvanized steel.
- C. PVC Sleeves: Pipes routed under pavement and sidewalks shall be sleeved in Polyvinyl Chloride (PVC) Schedule 40, pipe unless noted otherwise on the Plans or in these Specifications. All pipes shall be new and free from defects and shall be continuously marked indicating size, schedule type, and Department of Commerce Standard Reference. Pipe shall be furnished in

standard length of twenty (20) feet.

- D. Thrust Blocks: Thrust Block shall be installed for any solvent weld mainline 4" or greater and all bell and o-ring mainline. Thrust blocks must be formed against a solid, hand-excavated trench wall undamaged by mechanical equipment. They shall be constructed of concrete, and the space between the pipe and trench shall be filled to the height of the outside diameter of the pipe. They shall occur at any change in direction of the mainline pipe. All thrust blocks shall be approved prior to backfilling.

2.02 PIPE FITTINGS

- A. All PVC fittings shall be Dura fittings (or equal). The cleaner primer and solvent cement shall be as recommended by the pipe fitting manufacturer PVC cleaner and Oatey/Medium PVC cement blue rain-r-shine. Where adapters are used between threaded and slipped pipes or valves, they shall be only female PVC threaded to socket coupling adapters. No male threaded PVC fittings are to be used, with the exception of street ELS and riser adapter.
- B. Galvanized steel pipe shall have threaded standard, 150 pound galvanized malleable fittings.
- C. All sprinkler heads shall be connected to the supply line as shown on the enclosed detail.
- D. All sprinkler heads shall be connected to the supply line with Rainbird fittings unless indicated otherwise in the Specifications.

2.03 PRIMER

- A. Primer shall be a PVC High Etch Primer. This primer shall have a color tint to aid in visual inspection.

2.04 SPRINKLER HEADS

- A. Pop-up Spray Heads shall be used along all roadside landscape beds where irrigation is specified. Pop-up Spray Heads (12"): The sprinkler shall be Rainbird 1800 series series pop up spray heads and nozzles according to coverage or approved equal meeting the following criteria:
 - 1. The sprinkler shall be of the fixed spray type designed in-ground installation. The sprinkler shall be capable of covering a 5-6 feet radius at 30 P.S.I. and deliver up to .50 G.P.M.
 - 2. The nozzle shall be comprised of one (1) or more orifices at two (2) radius ranges and shall be adjustable from on to full off. The nozzle shall elevate 3 to 6 inches when in operation. Retraction shall be achieved by a heavy-duty stainless steel spring. The nozzle piston shall have a smooth external surface operation in a resilient guide. A riser wiper shall be included in the sprinkler for continuous operation under the presence of sand and other foreign material.
 - 3. Nozzles for spray heads shall be MPR - pressure-compensating type.
 - 4. Coverage shall be either full or part circle. The part circle coverage shall be available in arcs of 90, 120, 180, 240, and 270 degrees or adjustable part circle. Also included shall be

special patterns including an end strip and center strip nozzle configuration. Nozzle delivery shall be such as to allow partial circle patterns to match full circle patterns in precipitation rates.

5. The body of the sprinkler shall be constructed of non-corrosive duty Cyclac. A filter screen shall be in the nozzle piston. All sprinkler parts shall be removable through the top of the unit by removal of a threaded cap.

2.05 IRRIGATION CONTROL WIRE

- A. All irrigation control, wire from the controller to the electric valve shall be UL approved PE irrigation control wire, single conductor insulated utilizing low density high molecular weight polyethylene insulation suitable for operating at 600 volts and conductor temperatures up to 60 degrees Celsius. The conductor shall be soft drawn, bare copper meeting the requirements or ASTM Specification B-3 or B-8. Temperature rating shall be from -55 degrees to +60 degrees C. Thickness of insulation for conductor size 14 AWG through 8 AWG solid shall be 3/64 inches. AWG size for wire shall be in accordance with the manufacturer's specifications based upon a relationship between the number of valves and their distance from the controller. Control will be stranded, gauge sized to conditions.

2.06 WIRE CONNECTORS

- A. All splices in irrigation control wire shall be accomplished using Toro ST-03 UL Snap-Tite connectors and PT-S5 sealer or 3M DBY Direct Bury Splice Kit. All splices shall occur within value boxes, a meter or equal. Splices should be designed into the system and minimize additional splices in the field. Show all splices on the as-built drawings. Control wire to be color coded and tagged at each zone valve, junction box and controller.

2.07 CONDUIT

- A. Gray conduit shall be PVC, UL approved. Size as required by code. Conduit shall be utilized only where sleeving for main line is necessary (i.e., under sidewalk, driveways, pavement, etc.)

2.08 RISERS

- A. Along all roadway medians, risers shall be installed. Riser shall be 18" risers (Rainbird RISER-18 series). Nozzels shall be according to plans. Pipe shall be ½-inch PVC Schedule 80 with a top cap. Risers shall be driven 30" into the ground. Risers in medians shall be a minimum of 1.5' from back of curb.

2.09 AUTOMATIC CONTROL VALVES

- A. Zone Valves shall be electrically activated remote control valve Rainbird PESB series or approved equal (size as required). Valves shall be constructed with stainless steel trim, normally close with manual bleed plug and manual control (cross handle on 1-1/2" and 2" models; screw driver adjustment on 1" model) or equal. Solenoid shall be 3.5 watt, 24 volt AC with tamper proof molded coil and twisting wire. Diaphragm shall be of rubber material. Tri-Act solenoid porting shall prevent a continuous flow of water through the ports during operation. Inlet port to solenoid shall be filtered with self-flushing stainless steel screen, removable from outside of valve body for maintenance. Valves according to sizes of lines. All parts shall be serviceable without removing valve from the line. Valve shall have no external plumbing or tubing that can be installed at any angle without affecting valve operation.

2.10 BALL VALVES

- A. U.S. manufactured brass ball valves on mains and where all manual valves are used, with the exception of raised mains in excess of 3", no PVC manual valves. Rainbird zone valves shall be sized to accommodate sizes of lines. Valves are to have quick disconnect union ends for maintenance/modification of piping system. They shall be installed in a value box with cover.
- B. Bottom of all valve boxes will be on a 6" bed of pea gravel.

2.11 PAINT

- A. Paint for risers, Rebar and visible pipe shall be Flat Black waterproof paint or Pittsburgh Paint "Vista Green" as directed by owner.

2.12 CONTROL SYSTEM

- A. Each control system shall be Rainbird: ESP-LX Plus (24) zone (or approved equal). Controller to be housed within pump enclosure.
- B. Accessories:
 - 1. Flow Meters: The flow meters shall be interchangeable types as manufactured by Netafim, Inc. or approved equal. One flow meter with pulse indicator and master valve feature shall be installed at each connection or tap into the existing water line source. Flow meters shall be installed in a valve box, with porous material to promote drainage. Flow meters shall be wired to the V2 controller.
 - 2. The Netafim flow meters must be sized correctly to work accurately. Use the following

- flow rate / meter combinations: Up to 65 gpm – 2” size
3. Rain Switch: The rain switch shall be manufactured by Hunter, Model mini click rain sensor, or approved equal.
 4. Back-up Power Supplies: Each field unit shall each have a nickel-cadmium battery backup system in case of power loss or failure. The battery shall be Nickel-Cadmium 9-volt capacity and manufactured by Varta, Duracell or equal.
 5. Training and Manuals: Refer to the heading "Training and Manuals", under part 3, Section F or these Specifications.

2.13 BACKFILL

- A. Backfill material shall be clean fill, and completely free from any rock over 1” in diameter or other material which will damage the pipe if it comes in contact with it. If material from excavation is not acceptable, then clean sand must be used.
- B. Provide clean sand fill around each sprinkler head.
- C. Coordinate with section 02215

PART 3 – EXECUTION

3.01 GRADES

- A. It shall be the responsibility of the Contractor to provide the final grading so the final level conforms to surrounding grades and is at the proper elevation with relation to walks, paving, drain structures and other site conditions, unless indicated otherwise on the Plans.

3.02 PREPARATION

- A. Layout of Mains and Laterals: Layout sprinkler main lines and perform line adjustments and site modification to lateral lines prior to excavation.
- B. Valve Location: Locate valves to assure ease of access for maintenance and that no physical interference with other elements of the project exist. Align valves parallel to each other in manifold systems.
- C. Furnish temporary support adequate protection and maintenance of all underground and surface utilities, structures, drains, sewers, and other obstructions encountered in the progress of the utilities’ work.
- D. Where the grade or alignment of proposed pipe is obstructed by existing utility structures such as conduit, ducts, pipe branch connections to sewer mains, main drains, water services, the Contractor shall notify the owner immediately.
 1. No deviation from the required line or grade shall be made without the written direction of

the Owner.

3.03 PIPE INSTALLATION

- A. The Contractor shall stake out the location of each run of pipe and valves prior to trenching.
- B. Excavation shall include all materials encountered in the excavation of trenches for pipe installation. The trench shall be of sufficient width and depth for installation of the pipe as indicated herein. The Contractor shall cause minimum disturbance to all existing conditions. No pavement shall be cut without the owner's permission.
 - 1. Contractor shall abandon any old irrigation components found below grade during the installation of the new irrigation system. The Contractor shall remove and discard any old irrigation components above grade.
- C. Trenches shall be made wide enough to allow a minimum of 6 inches between parallel pipe lines. Parallel lines shall not be installed directly over one another. No lines shall be installed directly over another. Trenches for pipelines shall be made of sufficient depths to provide the minimum cover from finish grade as follows:
 - 1. All lateral line pipes shall have a minimum cover of 12 inches.
 - 2. All main line pipes shall have a minimum cover of 24 inches
 - 3. Allow for sufficient width of excavating and working in trenches made in soft soil.
- D. The pipe and fittings shall be carefully inspected before installation of the trench. All rocks over 1 inch diameter and unsuitable bearing materials shall be removed from trench in strict accordance with the manufacturer's recommendations.
 - 1. Solvent welded joints shall be made only on clean, dry, square cut, smooth pipe sections. Fittings shall be "dry" tested for proper size before solvent is applied. The assembly shall proceed in strict accordance with recommended procedures furnished by the manufacturer.
 - 2. Solvent welded pipe sections shall be "snaked" from side to side in the trench to prevent joint rupture due to thermal contraction.
 - 3. Pipe openings shall be plugged during construction to prevent entrance of foreign materials.
- E. Place pipe to be installed under roadways, sidewalks, or other hardscape areas in Schedule 40 PVC sleeve, which has an outside diameter of not less than one inch larger than the outside diameter of the pipe or the combined diameter of pipes installed. Extend sleeve at least 24" beyond edge of pavement and 5' for uncurbed pavement, and stabilize for construction. Verify locations with other Contractors and notify the Architect immediately of any conflicts.
- F. Backfill shall be carefully placed to avoid pipe dislocation. Backfill material shall be free of rocks, stumps, roots and other unsuitable material. Backfill shall be placed in 6" lifts and shall be thoroughly compacted. Backfill under pavement or sidewalks shall be compacted to 98% of maximum AASHTO T 180 density. The surface of backfilled trenches shall be even with the surrounding ground surface.

3.04 CONTROL SYSTEM

- A. Accessories: NOTE – ALL WIRE SHALL BE INSTALLED IN UL APPROVED GRAY PVC CONDUIT, except under the following conditions:
1. When the conduit is exposed to ultra violet light, such as from the sun, then that exposed portion shall be rigid, threaded, heavy walled galvanized pipe.
 2. When the use of PVC conduit is restricted by local, state or federal code, then the wire shall be installed in the type of conduit required by code. NO DIRECT BURIAL WIRE INSTALLATIONS SHALL BE ALLOWED. ALL SPLICES SHALL BE TWISTED AND INSULATED FROM MOISTURE, ARE TO OCCUR IN VALVE BOXES ONLY AND ARE TO ULTIMATELY BE RECORDED IN THE AS-BUILT DRAWINGS.
 - a. Rain Switch: The rain switch shall be installed at each field unit at the location indicated on the Plans. It shall be installed in a location that is out of range of the sprinklers and away from trees or overhanging objects which might affect accumulation of rain in the rain cup. Install as recommended by the manufacturers' specifications. Submit shop drawings on exact location and installation of rain switch.
 - b. Backup Power Supplies: The back-up power supply for the field unit shall be at the same location as the field unit itself. Install as recommended by the manufacturer's specifications.
- B. Training and Manuals: The Contractor, through the manufacturer, shall:
1. Provide proper training to the City of South Miami maintenance staff on the use, operation and maintenance of the system.
 2. Provide technical and general information sheets and operating manuals for all equipment.
 3. All manuals, technical information sheets and general information sheets shall be in duplicate and separately bound.
- C. The Contractor shall pay all start-up fees for factory technicians.

3.05 CONTROL WIRE INSTALLATION

- A. Install control wires at least 24" below finish grade and lay to the side of the main line. Provide a minimum of 24 in. of looped wire slack at valves and snake wires in trench to allow for contraction of wires. Tie color-coded wires in bundles at 10-ft. intervals.
- B. All underground splices shall be made at electric valves in valve boxes. Splices shall utilize Toro ST-03 UL Snap-Tite connectors and PT-S5 Sealer or 3M DBY direct burial splice kit.

3.06 AUTOMATIC VALVES

- A. All automatic valves shall be installed in a valve box and shall be arranged for easy adjustment and removal. A union shall be installed on the downstream side. The flow adjustment feature of each valve shall be utilized to balance operating pressures throughout the system.
- B. A valve actuator shall be installed on each valve. Follow manufacturer recommendations for installation instructions.

3.07 BALL VALVES

- A. Ball valves shall be installed at all roadway crossings, in accordance with local codes, and arranged in valve box for easy adjustment and operation.

3.08 VALVE BOXES

- A. Valve boxes shall be installed flush with grade and shall contain a minimum of six inches of pea gravel under the valve itself. All at grade boxes are to be constructed of plastic as per specifications, with the exception of quick coupler boxes. Quick coupler boxes are to be 10" round and can be constructed out of plastic materials. Thrust blocks will be used at all pipe fitting directional changes. Contractor shall insure percolation through the box.

3.09 TESTING AND INSPECTION

- A. The Contractor shall notify Owner 72 hours in advance of testing,
- B. Cleaning and pressure testing: Flush irrigation system with water to clear lines of foreign materials after system assembly is complete and prior to installation of sprinkler heads. Cap and plug outlets and fill lines with water. System shall pass AWWA's leakage test. Joints, tees, elbows, caps and connections shall be left uncovered during this test. Main line sections of solid unbroken pipe should be buried at intervals adequate to secure stabilization of pipe runs when pressurized. If necessary, repair leaks and retest assembly until satisfactory. Install sprinkler heads after approval of test results.
- C. Final inspection shall be made when the complete system is in place, operable, and all repairs, additions, adjustments, and other work is complete. At such time, the Contractor shall adequately demonstrate the proper operation of the system, shall show the system's complete

conformance with the specifications, and demonstrate that the irrigation system gives proper and adequate coverage of all landscaped areas.

- D. Acceptance by the owner in no way removes the Contractor of his responsibility to make further repairs, corrections and adjustments to eliminate any deficiencies which may later be discovered. Moreover, the Contractor shall fully honor the one-year warranty outlined herein

END OF SECTION

SECTION 02900

PLANTING

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. The work to be done under this section consists of furnishing all labor, machinery, tools, apparatus, means of transportation, supplies, equipment, materials, services and incidentals necessary to construct and complete the work as indicated on the plans and in the specifications, as well as all other related responsibilities, including all changes and repairs incident thereto.
- B. The work shall include, but not be limited to, furnishing material, root pruning and tree/palm relocations where required, layout, protection to the public, maintenance of traffic, excavation, installation, backfilling, fertilizing, mulching, staking and guying where required, watering, pruning, sodding, weeding, mowing, cleanup, maintenance and guarantee.
- C. Quantities and Locations: The Landscape Architect reserves the right to adjust the number and locations of the designated types and species to be used at any of the locations shown in order to provide for any modifications which might become desirable to the owner.
- D. Investigation of Subsurface Conditions: The Contractor shall be responsible for making on site surface and subsurface investigations and examinations as he or she chooses in order to become familiar with the character of the existing material and the construction conditions under which he or she will work. These investigations and examinations shall be included in the bid. The Contractor shall not receive separate, additional compensation for this work.
- E. Excavation Related to Inadequate Drainage: Some or all work areas may contain existing materials such as, but not limited to, concrete, peat layer, limerock, and it may even be compacted. This material and any compacted material may interfere with adequate vertical drainage and/or proper plant survival and growth. Removal of this material, in order to have adequate vertical drainage, is part of the scope of work for the project. Therefore, the subsurface investigations and examinations are necessary in order to determine the extent of removal and excavation required above and beyond the minimum requirements indicated in these specifications, under the heading of "Excavation of Plant Holes", which is in PART 3. Compensation for any removal and excavation required above and beyond the minimum requirements indicated, including any additional planting soil needed in order to fill the larger excavated area, shall be included in the bid. The Contractor shall not receive separate, additional compensation for this work.
- F. No separate, additional compensation will be granted because of any unusual difficulties which may be encountered in the execution of any portion of the work, including traffic control and maintenance of traffic.
- G. The plans are not complete unless accompanied by the specifications.

1.02 QUALITY ASSURANCE

- A. The owner shall have the right, during any phase of the work operations, to reject any and all work and materials, which do not meet the requirements of the plans and specifications. Rejected work and materials shall be immediately removed from the project area and replaced with acceptable work and material within seven (7) calendar days or as approved by the owner.
- B. Standards:
1. Authority for Nomenclature, Species, Etc.:
 - a. All plant material shall conform to the names given in "Standardized Plant Names," 1942 edition, prepared by the American Joint Committee on Horticultural Nomenclature. Names of varieties not included therein conform generally with names accepted in the South Florida nursery trade.
 2. Grade Standards:
 - a. All plant material shall be nursery grown and shall comply with all required inspections, grading standards and plant regulations as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, Part 1 and Part 2", or with any superseding specifications that may be called for on the plans or in the TSP and as established by the Turfgrass Producers Association of Florida, Inc. All plants not listed in the "Grades and Standards for Nursery Plants," shall conform to a Florida No. 1 as to: (1) health and vitality, (2) condition of foliage, (3) root system, (4) freedom from pest or mechanical damage, and (5) heavily branched and densely foliated according to the accepted normal shape of the species or sport.
 - b. Exception to "Grades and Standards": Any section of Florida Department of Agriculture's "Grades and Standards" which allows nails or spikes in the trunks of trees or palms shall be excluded from these specifications. These specifications prohibit nails and spikes in trunks.
 - c. All plant material shall be free of noxious weeds both above and below ground, including nut grass.
- C. Requirements for Various Plant Designations:
1. Balled and Burlapped (B&B) and Wire Balled and Burlapped (WB&B) Plants:
 - a. Only burlap and other wrapping materials made of natural, biodegradable materials shall be used.
 - b. These plants shall be properly protected until they are planted. The plant shall be handled only by both the trunk and rootball at the same time and not by the trunk only. Any B&B or WB&B plant which shows evidence of having been handled by a method other than the method outlined above, and resulting in damage to the plant such as a cracked or broken rootball or the roots that have been loosened within the ball, shall be rejected.

c. For plants grown in soil of a loose texture, which does not readily adhere to the root system, especially in the case of large plant material, wired B&B plants shall be used. For WB&B plants, before the plant is removed from the hole, hog wire with approximately 1- to 1½-inch openings or a Kerr's wire basket (Vermeer standard, caretree standard, caretree truncated or clegg) shall be placed around the burlapped ball and looped and tensioned until the burlapped ball is substantially packaged by the tightened wire netting, such as to prevent disturbing of the loose soil around the roots during handling.

2. Container-Grown Plants (CG):

- a. Any Container-Grown (CG) plants which have become "pot bound" or "root bound" for which the top system is out of proportion (larger) to the size of the container, will not be accepted.
- b. CG plants shall not be removed from the can until immediately before planting, and with all due care to prevent damage to the root system.

3. Specimen Plants (Florida Fancy):

- a. When specimen or Florida Fancy plants are called for, they will be labeled as such on the plans.

D. Inspections:

- 1. Inspection at the growing site does not preclude the right of rejection at the project site.
- 2. Inspections shall be requested in writing 48 hours in advance by the Contractor.
- 3. The fact that the owner has not made an early inspection and discovery of faulty work or of work omitted, or of work performed which is not in accordance with the contract requirements, shall not bar the owner from subsequently rejecting such work.
- 4. The owner's on-site observations or inspections shall be only for the purpose of verifying that plans and specifications are being implemented properly. The owner's on-site observations or inspections are not for safety on or off the job site. Also, these on-site observations or inspections are not intended to take charge, direct, run, or manage the implementation of the plans and specifications or take charge, direct, run or manage the implementation of the plans and specifications or take charge, organize or manage the Contractor while performing the scope of work indicated in the plans and specifications.

1.03 DELIVERY, HANDLING, STORAGE AND SUBMITTALS

A. Delivery and Handling:

1. Movement of nursery stock shall comply with all Federal, State, and local laws, regulations, ordinances, codes, etc.
2. The Contractor shall be responsible for protecting plant material from adverse environmental conditions during all phases of delivery and storage. Further, the Contractor shall be responsible for protecting plant material from any and all damage, theft, or deterioration of health or appearance during all phases of delivery and storage.
3. Transport materials on vehicles large enough to allow plants to not be crowded and damaged. Plants shall be covered to prevent wind damage during transit.

B. Submittals:

1. Written request for approval to substitute a material's plant designation (B&B, WB&B, CG, etc.), type, grade, quality, size quantity, etc., due to the non-availability of the material specified shall be submitted within 14 calendar days after the pre-construction conference. Approval shall be given by the owner before the material is delivered and installed on the project.
2. Any request for the approval of "or equal" shall be in writing. Requests shall be submitted within 14 calendar days after the pre-construction conference. Approval shall be given by the owner before the material is delivered and installed on the project.
3. Submit prints of shop drawings for any special conditions not covered in the details indicated. This shall be for approval by the owner before they are installed on the project.
4. If requested by the owner, submit a written schedule of sources or suppliers of all materials for inspection and approval by the owner before they are delivered and installed on the project.
5. Submit a letter from the approved sources or suppliers guaranteeing and certifying that all *Cocos nucifera* "Green Maypan" or *Phoenix dactylifera* "Medjool" are true to their species.
6. Submit a sample and analysis of all planting soil types for approval by the owner before the material is delivered and installed on the project.
7. Submit a sample certification and analysis of mulch for approval by the owner before the material is delivered and installed on the project.
8. Submit copies of the manufacturer's specifications or analysis for all fertilizer including data substantiating that proposed materials comply with specified requirements. This shall be for approval by the owner before the material is delivered and installed on the project.
9. Submit prints of shop drawings for all staking and guying methods to be used if the ones indicated in the plans, specifications or other referenced documents are not to be implemented. The owner's approval will be required on all shop drawings of staking and guying methods before they are implemented in the project.
10. Submit on an as needed basis, a schedule of spraying and dusting materials to be used to control pests and disease infestation, the reason for their use and the method to be used to apply the materials and the method of application before it is delivered and used on the project. Also, if requested by the owner, the Contractor shall furnish documentation that

the implementation of these control measures for pests and disease infestation is in strict compliance with all Federal and local regulations, and manufacturer's labeling.

1.04 SUBSTITUTIONS

- A. When the specified type, grade, quality, size, quantity, etc., of a material is not available, the Contractor shall submit a written request, to the owner, of a substitution along with written, documented proof that the specified (B&B, WB&B, CG, etc.) type, grade, quality, size, quantity, etc. of a material is not available. The Landscape Architect shall approve all substitutions before they are delivered and installed. Do not deliver and install any material which is anticipated to be a substitute before it has been submitted in writing and approved as a substitute by the owner. Also, any changes, if any, to the contract amount because of an approved substitute, shall be established in writing between the Town and the Contractor before the material substitute is delivered and installed on the project.

1.05 GUARANTEE

- A. The guarantee shall not begin until the day final acceptance of installation is given.
- B. All landscape elements and plant material, shall be guaranteed for 365 days from the time of final acceptance.
- C. The guarantee shall be null and void for plant material which is damaged or dies as a result of "Acts of God" limited to hail, freeze, lightning, sustained winds that reach hurricane force (75 MPH) measured ten feet above the ground, and lethal yellowing, providing the plant was in a healthy growing condition prior to these "Acts of God".
- D. An inspection may be made at the end of, but prior to the last day of the guarantee period.
- E. Florimulch: If Florimulch is used in the installation, a written statement must be submitted prior to the installation of the mulch, that guarantees there will not be any germination of Melaleuca seed which may be present in the mulch.

1.06 REPLACEMENT

- A. The guaranteeing of plant material shall be construed to mean the complete and immediate replacement of plant material within 10 calendar days if it is:
 - 1. Not in a healthy growing condition and thus renders it below the minimum quality indicated in the specifications.
 - 2. There are questions to its ability to survive after the end of the guarantee period that would render it below the minimum quality indicated in the specifications.
 - 3. It is dead.
 - 4. The contractor shall be responsible to replace all material stolen from site until final acceptance of installation, unless acceptance in stages is agreed upon by owner in advance at time of contract signing.

- B. The 10 calendar days may be extended due to seasonal conditions, availability, preparation time such as root pruning, etc., only if approved by the owner in advance. The extended time shall be negotiated between all parties concerned, but must receive final approval by the owner.
- C. Size, Quality and Grade:
 - 1. Replacement plant material shall be of the same species, quality and grade as that of the original specifications of the plant to be replaced. The size of the replacement shall not be necessarily be the same size as the original specified plant at its initial planting. If the plants of like species, size, grade are larger than originally planted, then the replacement shall match this larger size. In no case shall replacements be smaller than the original size.
 - 2. Replacements shall be guaranteed for a period equal to the originally specified guarantee. This guarantee period shall begin at time of acceptable replacement.
 - 3. The Contractor shall be responsible for watering the replacement for 42 calendar days after planting.
 - 4. A sum sufficient to cover estimated costs of possible replacements, including material and labor, traffic control and protection, will be retained by the owner and paid to the Contractor after all replacements have been made and approved by the Landscape Architect, though final payment to the Contractor shall not relieve he or she of the guarantee obligations.

1.07 PLAN AND SPECIFICATION INTERPRETATION

- A. On the plans, figured dimensions shall govern over scaled dimensions. If any error or discrepancy is found in the plans and specifications, the Contractor shall refer the same to the owner for an interpretation and decision. The owner shall have the right to correct apparent errors or omissions in the plans and specifications and to make such interpretations as he or she may deem necessary for the proper fulfillment of the intent of the plans and specifications.

1.08 UNIT PRICES

- A. Bidder shall furnish to the owner a unit price breakdown for all materials as itemized in the bid sheets. The owner may, at their discretion, add to or delete from the materials utilizing the unit price breakdown submitted to and accepted by the owner. Unit prices shall be valid for one year from approval of contract or for the duration of the project, whichever is greater.

PART 2 – MATERIALS

2.01 PLANT MATERIAL

- A. All plant material shall be no less than Florida No. 1, or better, at the time of installation and final acceptance.
- B. Habit of Growth: All plant material shall have a habit of growth that is normal for that species and shall be sound, healthy, vigorous and free from insects, plant diseases and injuries.

C. Measurement of Trees, Palms, Shrubs & Ground Cover:

1. Trees, Shrubs and Ground Cover:

- a. Rootball: Requirements for the measurement of rootball diameter and depth shall comply with requirements as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, Part 1 and Part 2" and as listed herein.

CALIPER	MINIMUM BALL DIAMETER	MINIMUM ROOTBALL DEPTH
1" – 1.5"	16"	75% of diameter
1.5" – 1.75"	20"	65% of diameter
1.75" – 2"	22"	65% of diameter
2" – 2.5"	24"	65% of diameter
2.5" – 3.5"	26"	65% of diameter
3.5" – 4"	28"	65% of diameter
4" – 4.5"	30"	60% of diameter
4.5" – 5"	32"	60% of diameter
5" – 5.5"	34"	60% of diameter
5.5" or more	Increase in proportion	Up to 48", then decrease in proportion for larger size diameter

- b. Height: The height of plant material shall be measured from finish grade and continue up to where the main mass of the plant uniformly ends. The height shall not include any singular or isolated parts of the plant, such as leaves, shoots, branches, limbs or fronds, which extend out beyond the main mass of the plant.
- c. Width: The width of plant material shall be measured from one side of where the main mass uniformly ends and continue to the other side of where the main mass of the plant uniformly ends. The width shall not include any singular or isolated parts of the plant, such as leaves, shoots, branches, limbs or fronds, which extend out beyond the main mass of the plant.
- d. Caliper: The caliper of tree trunks shall be measured three feet (3') above the ground unless another method of measurement is indicated otherwise on the plans.

2. Palms: Requirements for the measurement of clear trunk, clear wood, gray wood, rootball diameter and depth shall comply with requirements as set forth in Palm Measurement Detail.

- D. All sizes shown for plant material on the plans are to be considered as minimums. All plant material must meet or exceed these minimum requirements for height, spread, etc. as indicated on the plans. When plant sizes are specified as a range of size, installed material shall average the mean of the range specified.

- E. Die-Back and Leaf-Drop: Plant material showing signs of die-back or leaf-drop will not be accepted and must be removed from the project immediately if so directed by the owner. Therefore, any plant material with tendencies toward leaf-drop or die-back must be root pruned early enough to provide a sound network of hair roots prior to relocation.
- F. Mechanical Destruction of Foliage: Mechanical destruction of foliage resulting from root pruning shall not effect more than 10% of the total foliage prior to planting on the project. Loss of foliage caused by seasonal change will be accepted.
- G. Spanish Moss: If Spanish Moss (*Tillandsia useoides*) exists on plant material, it shall be completely removed prior to planting on the project.
- H. Palms:
 - 1. Before Transporting: See "Delivery and Handling" for requirements related to wrapping of root balls.
 - 2. Remove a minimum of fronds from the crown of the palms to facilitate transporting and handling. Tying of palms shall be at the option of the Contractor.
 - 3. To reduce head volume, Palm fronds may be taper-trimmed by not more than one-third (1/3).
 - 4. Palms with burn marks and frond boots on trunk will not be accepted. Frond boots shall be removed unless specified to remain.
 - 5. Palms showing cable or chain marks and equipment scars shall be rejected.
- I. Plant material shall not be accepted when the ball of earth surrounding its roots has been cracked, broken or otherwise damaged.
- J. Root pruning of plant material, when required by the owner, shall be done a minimum of four (4) weeks or for a period as determined by the owner, prior to planting at the project. Prior to root pruning, the Contractor shall give 48-hour advance notice to the owner advising of the date to root prune any plant material. This shall allow for any inspections during or after the root pruning, if necessary.

2.02 SOD

- A. Sod shall be the species shown on the plan. The quality grade shall be standard. NOTE: Quality grade shall be based on the standards of sod quality grades as established by the Turfgrass Producers' Association of Florida, Inc. The sod shall be well matted with roots and of firm, tough texture having a compact top growth and heavy root development. The allowable weed content shall be as follows:
 - Standard – No casually visible broadleaf weeds, no obvious patches of weeds and no more than 2% of any other grass or weed in the total canopy.
- B. Sod sections shall be strong enough to support their own weight and retain their size and shape when suspended vertically from a firm grasp on the upper 10% of the section. Sod shall be

relatively free of thatch, up to one-half (1/2") inch allowable (uncompressed). The soil embedded in the sod shall be a clean earth free of stones and debris.

- C. Mowing: The sod shall have been mowed at least three times with a lawn mower with final mowing not more than seven (7) days prior to the sod being cut for placement.
- D. Cutting: Sod shall not be harvested when moisture content (excessively dry or wet) may adversely affect its survival. After approval of source, mow and rake as necessary to remove excessive top growth and debris. Cut sod with sod cutters, retaining native soil mat of sufficient thickness to withstand handling. The sod shall be provided in commercial pad sizes measuring not less than 12" x 24" and shall be live, fresh and uninjured at the time of planting. It shall be machine cut at a uniform sort thickness of 1 1/4" - 1 1/2", ±1/4" at time of cutting. Measurement for thickness shall exclude top growth and thatch. The sod shall be live, fresh and uninjured at the time of planting.
- E. Delivery: Deliver sod on pallets with root system protected from exposure to wind and sun. Deliver sod in quantities capable of being planted within 48 hours of cutting. It shall be planted within 48 hours after being cut and shall be shaded and kept moist from the time it is cut until it is planted.
- F. Handling: Handle sod in a manner to prevent dislodging native soil mat. Tearing of sod shall be prohibited.

2.03 COMPOST MATERIAL

- A. Compost shall be composed primarily of thoroughly decomposed vegetative matter with no more than 40% by volume or weight of non-vegetative materials such as glass or plastic. Particle size of 3/8" or less, bulk density of 20 - 30 lbs.; moisture content 25% - 35%, and water holding capacity 100%.
- B. The Contractor shall submit a sample of the material and as analysis of the composition of the materials (percent of each) for review and approval of the owner.

2.04 TOPSOIL AND SAND

- A. Topsoil for use in preparing soil for backfilling plant pits shall be forty percent (40% muck and sixty percent (60%) sand and be fertile, friable, and of a loamy character, without mixture of subsoil materials, and obtained from a well-drained, arable site. Topsoil for use in preparing soil for backfilling of individual tree pits with Palms only shall be twenty percent (20% muck and eighty percent (80%) sand. It shall contain three (3) to five (5) percent decomposed organic matter and shall be free from heavy clay, coarse sand, stones, lime, lumps, plants, roots or other foreign materials, or noxious weeds. It shall not contain toxic substances, which may be harmful to plant growth. PH range shall be 5.0 to 7.0 inclusive.
- B. Sand shall be coarse, clean, well draining native sand. Contractor shall submit results of soil tests for topsoil and sand proposed for use under this contract for approval by the Owner.

- C. Coordinate with sections 02200 and 02215.

2.05 WATER

- A. The Contractor is responsible to ascertain the location and accessibility of a potable water source. The Contractor is responsible for distribution of water to the areas of planting. If there is no source of potable water available at the job site approved for use, then the Contractor shall be responsible for bringing in a water truck or tank for hand watering. If during the planting, water availability previously agreed to, is curtailed, the Contractor shall notify, in writing within 24 hours, the owner of the condition and, if the Contractor deems necessary, his or her intent to cease work until water is restored. For plants already installed prior to cut-off of water availability, the Contractor shall continue to be responsible for providing water as required by specifications.

2.06 WEED BARRIER CLOTH

- A. Weed barrier cloth shall be a woven, needle-punched polypropylene, 28 mil thickness, 22 x 11 substrate, with combined substrate and fiber weight of 4.8 ounces per square yard, 25 gallons per square foot per minute permeability, 2500 carbon arc hours UV protection, Pro 5 Weed Barrier by DeWitt or equal (1-800-888-9669).

2.07 FERTILIZER

- A. Submit copies of the manufacturer's specifications or analysis of all fertilizer for approval, and/or the labeling required by the Florida Department of Agriculture.
- B. Type of Fertilizer:
 1. Palms: LESCO 13-3-13 Palm Special or equal.
 2. Trees, Shrubs, Groundcover & Sod: Shall be a granular fertilizer having an analysis of 6-6-6 derived from the following sources:

Total Nitrogen:		6.0%
Derived from activated sludge urea-form, sulfur-coated urea and potassium nitrate	0.75%	
Ammoniac	0.00%	
Water soluble	5.00%	
Water insoluble	0.25%	
Phosphoric Acid		6.0%
Derived from triple super phosphate		
Water soluble potash		6.0%

Derived from Sulfate of Potash Magnesium, Potassium Nitrate, Sulfate of Potash, and activated sludge

Total Magnesium:		2.41%
Water soluble: Derived from Sulfate of Potash Magnesium	2.41%	
Total Manganese		0.77%
Derived from Manganous Oxide		
Total Boron		0.02%
Derived from Sodium Borate		
Total Copper		0.07%
Derived from Copper Oxide		
Total Zinc		0.08%
Derived from Zinc Oxide		
Total Iron		1.00%
Derived from Iron Oxide and Ferrous Sulfate		
Total Chlorine		2.00%

- C. Composition and Quality: All fertilizer shall be uniform in composition and dry. Granular fertilizer shall be free flowing and delivered in unopened bags. All bags, containers or boxes shall be fully labeled with the manufacturer's analysis.
- D. All shall comply with the State of Florida fertilizer laws.

2.08 STAKING AND GUYING

- A. Staking and guying shall not be attached to the plant material with nails. Any method of staking and guying, other than those indicated in the details, shall receive approval from the owner prior to their installation. Refer to the heading "Setting of Plants", which is in PART 3 of these specifications, for additional information.
- B. The Contractor is responsible for performing all staking and guying in accordance with all applicable regulation, ordinances and code requirements from the appropriate local jurisdiction the project is located in.

2.09 MULCH

- A. Mulch shall be 100% Double Shredded Eucalyptus Mulch, Grade A.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Prior to the work, carefully inspect the site conditions and verify that all such work and site conditions are suitable for this installation to properly commence.
- B. Start of work shall imply acceptance of the site conditions.
- C. Utilities (overhead and underground)
 - 1. The work area may have existing utilities, such as, but not limited to, irrigation, phone, water and sewer, CATV, traffic signals, electrical, and storm sewer. The location of some of these existing utilities have been indicated on the plans. However, no guarantee is implied that the plans are accurate or complete. It shall be the responsibility of the Contractor to verify the location of all such utilities, structures, etc., by hand excavation or other appropriate measures before performing any work that could result in damage or injury to persons, utilities, structures or property. The Contractor shall call Sunshine State One Call and other appropriate agencies to determine the locations of existing utilities. The Contractor shall make a thorough search of the site for utilities, structures, etc., before work is commenced in any particular location. The Contractor is responsible for any and all claims resulting from the damage caused by him.
 - 2. Should utilities, structures, etc., be encountered which interfere with the work, the owner shall be consulted immediately in order for a decision to be made on the relocation of the work so it will clear the obstruction.
 - 3. The Contractor shall not purposefully disrupt or disconnect any type of utility whatsoever without first obtaining the written permission of the owner. Requests for disconnection must be in writing and received by the owner at least 72 hours prior to the time of the requested interruption.

3.02 GRADES

- A. It shall be the responsibility of the Contractor to provide the final grading so the final level for planting areas conforms to surrounding grades and is at the proper elevation with relation to walks, paving, drain structures and other site conditions, unless indicated otherwise on the plans.
- B. Plant Areas Next to Pavement: All planting areas next to or in pavement areas, such as, but not limited to, curbs, roads drives, walks, terraces, decks and slabs shall be set so that the top of the mulch is one-inch (1”) below the top of the pavement area or as indicated otherwise on the plans, and the top of sod is one-inch (1”) below top of pavement area, measured from the top of pavement to the top of grass blades after mowing.

3.03 HERBICIDE TREATMENT

- A. In all areas infected with weed and/or grass growth, a systemic herbicide, such as "Roundup", shall be applied per manufacturer's rates. When it has been established where work will be done,

the systemic herbicide shall be applied in accordance with manufacturer's labeling to kill all noxious growth. Contractor shall schedule his work to allow more than one application to obtain at least 98% kill of undesirable growth. Once the existing vegetation is dead, excavate and haul to a legal dumpsite the vegetation and the top two-inches (2") of existing soil/sand. The Contractor shall exercise extreme care to prevent damage to desirable existing growth. If necessary, the Contractor shall conduct a test to establish suitability of product and applicator to be used on this project, prior to execution of the full application.

3.04 PREPARATION

- A. Staking Plant Locations: Stake or mark plant material locations prior to plant hole excavation, based on information from the plans.
- B. Spacing of Ground Cover and Shrubs: The location of a planting bed (shrub or groundcover) next to another bed, walkway, structure, etc., shall have the plants along the perimeter spaced so that the plants can mature properly without growing into the other bed, walkway, structure, etc.
- C. Sub-surface Conditions: Some or all work areas may be compacted and/or contain existing material such as limerock which may interfere with adequate vertical drainage and/or proper plant survival and growth and therefore removal of this material is part of the scope of work for the project. The Contractor shall be responsible for insuring adequate drainage in these areas and shall remove this existing material, as required, by such means as augering, drilling or rototilling. Therefore, the Contractor shall be required to perform additional excavation on the holes for all palms and trees. This additional excavation shall be to a depth beyond the required excavation depth indicated below for the holes, in order to insure proper vertical drainage necessary for plant survival and growth. For this required additional excavation, refer to the detail on the plans entitled "Drainage Hole Detail for All Palms and Trees".
- D. The Contractor shall remove all existing concrete, asphalt concrete and rocks over four inches in diameter, above and below grade in planting pits, from areas to be landscaped.
- E. Excavation of Plant Holes:
 - 1. General:
 - a. Excavation of plant holes shall be roughly cylindrical in shape with the sides approximately vertical. The owner reserves the right to adjust the size and shape of the plant hole and the location of the plant in the hole to compensate for unanticipated structures or unanticipated factors which are a conflict.
 - b. The excess excavated material from the plant holes shall not be used to backfill around the plant material. Such material shall be disposed of off site to a location as directed by the owner.
 - 2. Trees and Palms:
 - a. Depth of hole shall be equal to the rootball depth plus eight (8") inches, unless further

depth is required to provide adequate drainage as per 3.04C.

- b. Diameter of hole shall be as following:

ROOTBALL DIAMETER	HOLE DIAMETER
12" or less	Ball diameter + 12"
13" – 24"	Ball diameter + 18"
25" – 60"	Ball diameter + 24"
61" or greater	Ball diameter + 35"

3. Shrubs:

a. Singular Plants:

- 1) Depth of hole shall be equal to the rootball depth plus eight (8") inches.
- 2) Diameter of hole shall be as following equal to the rootball plus 12" inches.

b. Mass Planting (two or more together) Planted 24 Inches on Center or Less:

- 1) Depth shall be equal to the rootball depth plus eight (8") inches.
- 2) Diameter: Shrub material in mass shall not be planted in individual holes but rather in one continuous hole or excavation for the entire mass.

c. Mass Planting (two or more together) Planted 30 Inches on Center or More:

- 1) Depth and diameter of hole shall be same as for singular plants as indicated in item a., above.

4. Ground Cover Masses:

a. Container Material:

- 1) Depth shall be equal to the rootball depth plus six (6") inches.
- 2) Diameter: Ground cover material in mass shall not be planted in individual holes but rather in one continuous hole or excavation for the entire mass, all at a depth of three (3") inches more than the depth of the rootball.

b. Rooted Cuttings:

- 1) Depth of prepared soil bed shall be six (6") inches.

5. Sod:

- a. Excavation, Backfilling, and Final Grading: Areas where sod is to be planted have three-inch (3") blanket of prepared planting soil placed prior to planting. Refer to note 3B of "Planting & Coordination of Irrigation Installation Notes" for preparation

of planting soil for sod areas. Remove stones, sticks, rubbish, and other extraneous matter. All rough areas and voids shall be eliminated during final grading in order to have a smooth and even grade.

3.05 INSTALLATION

A. Setting of Plants:

1. Plant material shall be planted at their natural and original planting level prior to their placement on this project. When lowered into the hole, the plants shall rest on the prepared hole bottom such that the surface roots at the top of the rootball are level or slightly below the level of the surrounding final grade after settlement. The practice of plunging, burying or planting any plant material such that the surface roots at the top of the rootball are below the level of the surrounding final grade, will not be permitted unless it is indicated otherwise in these specifications, details or it is approved in writing by the owner prior to such action being taken. The plants shall be set straight or plumb or normal to the relationship of their growth prior to transplanting. The owner reserves the right to realign any plant material after it has been set.
2. *Roystonea sp.* and *Cocos sp.*, if approved by the owner, may be set deeper than the depth of their original growing condition in order to lessen the necessity for support or bracing. For such deeper planting, however, it will be required that the underlying soil be friable. The clear trunk requirements set forth in the plant list shall be maintained from the finished grade and not from the previous grade of the palm tree before it was planted.
3. Plant material too large for hand handling, if moved by winch or crane, must be thoroughly protected from chain, rope or cable marks, girdling, bark slippage, limb breakage and any other damage that might occur by improper handling or negligence.

B. Backfilling: Use soil prepared as described in section 2.04. Backfill the bottom two-thirds (2/3) of the planting hole and firmly tamp and settle by watering as backfilling progresses. After having tamped and settled the bottom two-thirds (2/3) of the hole, thoroughly puddle with water and fill remaining one third of the hole with planting soil, tamping and watering to eliminate air pockets.

C. Installation of Sod:

1. Placement of sod: The sod shall be moist and shall be placed on a moist bed of soil as outlined in note 3B of "Planting & Coordination of Irrigation Installation Notes". Pitch forks shall not be used in handling sod and dumping from vehicles shall not be permitted. The sod shall be carefully placed by hand, edge to edge in rows at right angles to the slope, commencing at the base of the area to be sodded and working upward. The sod shall be immediately pressed firmly into contact with a 500 pound hand roller or any other equipment approved by the owner that will produce a 90 pound per square inch compression grading. The rolling operation shall provide a sure and even surface and insure knitting without displacement of sod or deformation of the surfaces of the sodded area. Hand tamp those areas inaccessible to the roller. The edges of the sodded area shall be staggered in a corresponding manner providing the offset along the edge does not exceed six (6") inches. All vertical edging adjacent to sodded areas shall be tamped so as to produce a feather edge.

2. On slopes having a ratio greater than one in three, peg the installed sod into place with not less than two stakes per square yard.
 3. Sanding: If, in the opinion of the owner, the sod bed, after planting, is in need of an application of sandy top-dressing for reasons of irregularities or shrinking joints, the Contractor shall immediately perform this function at no additional cost.
- D. Application of Fertilizer:
1. Royal Palms: 10 pounds per palm
 2. Shrubs and Groundcovers: 10 pounds per 1,000 square feet of bed, spread evenly throughout the bed.
 3. Sod: 10 pounds per 1,000 square feet of sod area.
 4. Existing trees and Palms to be transplanted: Root-prune trees prior to transplanting. Drench root ball once per week with a soluble fertilizer having a 20-20-20 analysis at manufacturer's recommended rate. One month after transplanting, add one (1) pound of 6-6-6 fertilizer per inch of trunk caliper to trees, and one (1) pound of LESCO 13-3-13 fertilizer per inch of trunk for palms.
- E. Apply fertilizer to sod one (1) week after planting. Apply fertilizer to shrub, groundcover beds, palms and trees three (3) weeks after planting.
- F. Fertilizer for large trees and palms that require five (5) pounds or more of fertilizer shall have the fertilizer placed as follows:
- G. Place fertilizer evenly spaced at the edge of the root ball into holes poked in the soil to a depth that allows the fertilizer to be poured below the root zone of adjacent shrubs and grass, to avoid burning of these plants.
- H. Water plants and sod thoroughly two days prior to applying fertilizer, and wash fertilizer off plant leaves immediately after fertilizing.
- I. The Contractor shall install DeWitt Weed Barrier cloth in all shrub and groundcover beds. Refer to Coordination of Planting & Irrigation Installation in the plans.
- J. Mulch: Within 24 hours after planting, planted areas must be mulched as called for in these TSP. The mulch shall be uniformly applied to a depth of approximately three inches, or other depth as indicated otherwise, over all shrub and ground cover areas, (except Wedelia) and in three-foot (3') diameter circles around trees and palms in sod areas and any other areas indicated on the plans. Keep mulch back one (1") inch from trunks or stems.
- K. Staking and Guying:
1. As indicated on the details.
 2. The contractor shall remove and dispose of materials when it is determined that sufficient time has elapsed for the plants roots to stabilize the plant, and as approved by the owner.
- L. Watering After Planting:

1. Initially, water the plant material to develop uniform coverage and deep water penetration of at least six inches. Avoid erosion, puddling, and washing soil away from plant roots.
2. Provide continuous watering of plant material and sod after planting in order to achieve optimum growth conditions to establish plants. Water shall be applied as necessary and the amount of water and frequency of watering shall be based on the specific needs of each plant type, the time of year, amount of rainfall and other environmental conditions it is exposed to. This watering shall begin after the plant is planted and continue until final acceptance or for a minimum of sixty (60) consecutive calendar days, whichever is greater in time. All trees and palms shall be hand-watered during this period. Do not rely on the irrigation system to achieve this task. It cannot deliver the volume of water required, without flooding areas beyond where water is needed and/or over-watering other landscape material. Shrubs and ground cover may be watered by using the irrigation system. Supplemental watering of shrubs by hand may be required during the establishment period, at no additional cost. *New sod* shall be hand-watered on top immediately after placing and rolling, and once daily for one (1) week afterwards.
3. If there is no source for water available at the project, then the Contractor shall be responsible for supplying water for hand watering by means of a truck or tank.
4. Canopy watering of existing, transplanted trees may be required at the discretion of the owner, using misting heads on PVC risers to cover entire canopy. Operate by hand or on a time clock to spray as required to keep soil at root ball from getting too wet.

M. Pruning and Thinning:

1. The amount of general pruning and thinning shall be limited to the minimum necessary to remove dead or injured twigs and branches and to compensate for the loss of roots as a result of transplanting operations. Pruning and thinning shall be done in such a manner as not to change the natural habit or shape of a plant. The owner shall be contacted prior to performing any major pruning and thinning. The owner may elect to be present during any pruning and thinning.
2. All broken or damaged roots shall be cut off smoothly.
3. "Hat racking" shall only be allowed at the written approval and direction of the owner.

N. Weeding:

1. In the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, they shall be removed. This condition shall apply during the construction, maintenance and guarantee periods.
2. If necessary, the plant material, mulch, sand and/or planting soil shall be replaced as needed to eliminate weeds or undesirable vegetation at the expense of the Contractor.

O. Removal of Plant Material: All plant material to be removed shall be removed completely, including the rootball, from the job or as directed by the owner. The remaining hole shall be filled with suitable material or planting soil as directed by the owner.

P. Existing Plant Material To Be Relocated:

1. All existing plant material to be relocated shall be root pruned a minimum of six (6) weeks or for a period as determined by the owner prior to relocation. Palms may be exempt from root pruning. Consult plans for instructions.
2. Watering shall be done for two weeks prior to root pruning at a rate of two- to three-inches (2" – 3") to the root zone each week. Watering shall continue on a weekly basis at the same amount of water during the root regeneration period. See Section 3.05.D.6 for fertilizer application rates for watering during root regeneration period. Water plant to be relocated thoroughly three (3) days before transplanting, even if root pruning was not required.
3. Root pruning shall be accomplished by digging a trench at least two-thirds (2/3) of the way around the trunk, a minimum of 24" deep. This trench shall be located by the owner in the field and will be approximately 50% larger than nursery grown stock. All exposed roots shall be cut off smoothly, with sharp instruments.
4. A mixture of 30% silica sand and 70% mulch shall be used to refill the trench, within 24 hours after root pruning.
5. Staking and guying of trees after root pruning shall be provided during the root regeneration period.
6. Plant material which is in soil of a loose texture, which does not readily adhere to the root system, especially in the case of large plants or trees, shall have the rootball wrapped in burlap and then wired, if directed by the owner. For wire, hog wire shall be used and it shall be placed around the rootball before the plant is removed from the hole for relocation. The wire shall be looped and tensioned until the burlapped ball is substantially packaged by the tightened wire netting formed by the hog wire, so as to prevent disturbance of the loose soil around the roots during handling.
7. To aid in relocation or to reduce shock, tops of plant material shall be pruned to lessen the head volume to an amount equal to the new reduced root system resulting from root pruning. Interior sucker growth shall be removed first, followed by selective pruning of branches. Pruning shall not destroy form of tree. For palms, remove all but those fronds that are growing in a position above horizontal. All cuts shall be flush. No stubs allowed. This shall be done in a manner complying with sound and standard horticultural practices. Notice shall be given to the owner 48 hours before this task is carried out. The owner may elect to be present during this operation.
8. "Hat racking" shall only be allowed at the written approval and direction of the owner, and only when necessary to transplant trees where obstructions limit the size that can be moved through streets.
9. Contractor shall provide watering as required to assure that a continuous moisture level required to promote new root growth during the root pruning period of six (6) weeks.
10. Due to the negligence by Contractor, the dollar amount estimated for the value of the destroyed trees shall be deducted from the contract price.
11. Stripping of Leaves: For certain species, the owner may direct that the leaves be stripped from the branches just prior to moving the tree, or may require spraying the leaves with an approved wilt-proofing material, to prevent drying out during transplanting.
12. When most or all of the vegetative cover has been removed during the top pruning process, cover by spraying, all the exposed trunk and limb surfaces with white, diluted paint, to prevent sun-scalding of the exposed limbs. This shall be done within six (6) hours after pruning.

13. Fertilize and mulch as directed in Section 3.05D, E, F, G and H of these specifications.
14. The Contractor is responsible to provide sufficient water for continuous healthy regeneration for a period of 60 days after transplanting.

3.06 CLEANUP

- A. Disposal of Waste: All waste and other objectionable material created through planting operations and landscape construction shall be removed completely on a daily basis from the job or as directed by the owner. Any paved areas including curbs and sidewalks which have been strewn with soil, sod waste, fertilizer or other waste shall be thoroughly swept. The owner is not required to supply areas or facilities for storage or removal of waste on-site.
- B. Excess Fill: All excess fill shall be removed and disposed of from the project at no additional cost to the owner. Excess fill shall be disposed of as directed.

3.07 COMPLETION AND FINAL ACCEPTANCE OF PLANTING

- A. Upon written notice from the Contractor of the presumptive completion, as defined below, of the entire project, the owner, along with other appropriate parties, will make an inspection within 48 hours after the written notice. If all construction provided for and contemplated by the plans and TSP, is found to be completed in accordance with the plans and TSP, such inspection shall constitute the final inspection. The Contractor shall be notified in writing of final acceptance as of the date of the final inspection.
- B. If, however, the inspection mentioned in paragraph A, above discloses any work, in whole or in part, as being unsatisfactory, final acceptance shall not be given the Contractor. The owner and/or the owner will give to the Contractor the necessary instructions or "punch lists" for correction of same, and the Contractor shall have up to 10 calendar days from the date such instructions or "punch lists" to correct the work are received.
- C. Upon correction of work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the owner or their representative shall make the final acceptance and notify the contractor in writing of this final acceptance as of the date of this final inspection. At completion of the punch list, contractor shall certify that all work above and below ground has been completed in accordance with the plans, addenda and specifications and that the owner can rely on this document as being a true and accurate statement to the best of the contractor's knowledge.
- D. Completion of the work shall mean the full and exact compliance and conformity with the provisions expressed or implied in the plans and specifications including any and all "punch lists" which may be issued outlining certain items of work which were found unsatisfactory or require completion or corrective action.
- E. Final acceptance shall not be given until all construction provided for and indicated in the plans and specifications is inspected by the owner and found to be completed in accordance with the plans and specifications.

- F. Final acceptance shall not be official until acknowledged in writing by the owner.

3.08 RESPONSIBILITY PRIOR TO FINAL ACCEPTANCE

- A. The guarantee shall not begin until the day final acceptance is given.
- B. Certain responsibilities prior to final acceptance: The following is a partial list of certain responsibilities. There are other responsibilities indicated elsewhere in the plans and specifications.
 - 1. The Contractor is responsible for the entire project prior to final acceptance.
 - 2. The Contractor is responsible for safety on and off the job site.
 - 3. The Contractor is responsible for maintenance of traffic as per FDOT Standards.
- C. Maintenance Prior to Final Acceptance:
 - 1. Maintenance shall begin immediately after each plant is planted and continue until final acceptance except for the watering indicated in the paragraph below. This watering shall begin as indicated and shall continue until completed, even if the indicated period goes beyond the time of final acceptance.
 - 2. Plant maintenance shall include watering, pruning, weeding, cultivating, repair of erosion, mulching, tightening and repairing of guys, stakes, braces, etc., replacement of sick or dead plants, resetting plants to proper grades or upright position, maintenance of the watering saucer, litter removal, and all other care needed for proper growth of the plants. Mowing and edging shall be done at least every fourteen (14) days and the irrigation system shall be checked at each mowing cycle and report and repairs required to responsible Contractor or the owner.
 - 3. Immediately after planting, each plant shall be watered and the watering period shall continue until final acceptance or for a minimum of 42 consecutive calendar days, whichever is greater in time. Refer to the section entitled "Watering" for additional requirements.
 - 4. All plant material shall be weeded once a week. In the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, the weeds shall be removed as directed by the owner. If necessary, the plant material, mulch, sand and/or planting soil shall be replaced as needed to eliminate weeds or undesirable vegetation at the expense of the Contractor.
 - 5. Insecticides and Fungicides:
 - a. Contractor shall apply all insecticides and fungicides as needed, for complete control of pests and diseases. The materials and methods shall be in accordance with highest standard horticultural practices and as recommended by the County Agent, and approved by the owner, prior to implementation.
 - b. When a chemical is being applied, the person using it shall have in their possession, a specimen label and the Material Safety Data Sheet. Also, the chemical shall be applied as indicated on the said labeling. Only products approved by the Federal

- Environmental Protection Agency shall be used. No products containing 2-4D shall be used.
- c. The spraying of insecticides and other such chemicals are to be confined to the individual plant. Spraying techniques which may introduce the material being sprayed beyond the immediate area of the individual plant, is strictly prohibited.
 - d. The implementation of control measures for pests and disease infestations shall be in strict compliance with all federal and local regulations. Upon request, the Contractor shall furnish documentation of such compliance.
 - e. All insecticides shall be applied by an operator licensed pursuant to Chapter 487 of the Florida Statutes. The operator shall have the license/certification in their possession when insecticides are being applied.
6. Sod: After the sod has been laid, tamped and top-dressed, all areas and parts of areas which fail to show uniform growth and health, shall be resodded, repeatedly if necessary, until all sodded areas are covered with a satisfactory lawn. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, tamping, re-fertilizing, and re-sodding by the Contractor at his or her expense.
 7. Protection: Planted trees and plants shall be protected against trespassing and damage. If any plants become damaged or injured, they shall be treated or replaced as directed and in compliance with the specifications at no additional cost to the Town. No work shall be done within or over planting areas or adjacent to plants without proper safeguards and protection.
 8. Keep sidewalks, curbs and gutters, drainage structures, driveways, parking areas, streets, terraces, decks and pavers free of plant cuttings, debris and stains.
 9. Material rejected during the course of construction shall be removed within ten (10) working days and replaced before an inspection for completion will be scheduled.
 10. If the Contractor fails to perform maintenance consistent with these specifications, as determined by owner then owner may perform any necessary maintenance and backcharge the Contractor for labor and materials.
- D. Survival and Conditions: The Contractor shall be responsible for the proper maintenance and the survival and condition of all landscape items from the time a landscape item is installed until final acceptance.
- E. Replacement: Replacement of plant material shall be the responsibility of the Contractor including the possible replacement of plant material resulting from removal by theft or vandalism or acts of negligence on the part of others. All plant material shall be alive and in good growing condition for each specific kind of plant at the time of final acceptance.
- F. Rating: The rating of plant material according to Florida Grades and Standards shall be equal to or better than that called for on the plans and in these specifications at the time of final acceptance.

END OF SECTION

SECTION 15100

PIPING, MANUAL VALVES AND MISCELLANEOUS APPURTENANCES

PART 1 – GENERAL

1.01 SCOPE

- A. This section includes all piping, miscellaneous piping appurtenances, and valves involved with the storm water pump station. All the major and small piping, miscellaneous piping appurtenances, and manual valves shall be provided, installed and tested complete, as described in this section, relevant other sections, and as shown on the drawings.

1.02 RELATED SECTIONS

- A. Submersible Stormwater Pump – Section 12100

1.03 REFERENCES

- A. Florida Department of Transportation (FDOT) “Standard Specifications for Roads and Bridge Construction” dated 2000
- B. ANSI/ASTM D2466 - Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
- C. ANSI/AWWA C504 - Rubber Seated Butterfly Valves.
- D. ANSI/AWWA C508 - Swing-Check Valves for Waterworks Service, 2 through 24 in NPS.
- E. ASTM D1785 - Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
- F. ASME/ANSI B16.5-1996 – Pipe Flanges and Flanged Fittings.
- G. ASME B31.3 – Process Piping.
- H. ASTM A312 – Seamless and Welded Austenitic Stainless Steel Pipe.
- I. ASTM D2774 - Standard Practice for Underground Installation of Thermoplastic Pressure Piping.
- J. ASTM D2837 - Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.
- K. ASTM D2855 - Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
- L. ASTM D3139 - Joints for Plastic Pressure Pipes using Flexible Elastomeric Seals.

M. ASTM D3350 - Standard Specification for Polyethylene Plastics Pipe and Fittings Materials

N. ASTM A53 – Welded and Seamless Steel Pipe.

1.04 SUBMITTALS

A. Product Data: Provide data on pipe fittings, valves, and accessories.

B. Manufacturer's Certificate: Certify that pipe, fittings, and valves meet or exceed respective ANSI and/or AWWA Standards.

1.05 PROJECT RECORD DOCUMENTS

A. Accurately record actual locations of piping mains, valves, connections, and invert elevations.

1.06 QUALITY ASSURANCE

A. Valves: Manufacturer's name and pressure rating marked on valve body.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store valves in shipping containers with labeling in place.

PART 2 – PRODUCTS

2.01 GENERAL

A. Although they may not be specifically shown on the drawings or called for elsewhere in the Technical Provisions, the CONTRACTOR shall include in his bid price the cost of all fittings, piping supports, and miscellaneous appurtenances needed to provide a secure, workable pipe and valve system. Equipment suction and discharge piping and other exposed piping shall be supported by reinforced concrete pedestals, piers, adjustable pipe supports, thrust restraints, hangers, and tie rods as called for on the drawings as necessary to insure a stable installation. Adjustable pipe supports or piers shall be arranged to relieve attached equipment of all strain due to the weight of the pipe, fittings, valves, and the contents of the pipe.

2.02 PIPE

A. High density polyethylene pipe and fittings – HDPE poly pipe.

1. This specification covers requirements for DRISCOPEX™ 4100 high-density polyethylene pipe and fittings for potable water distribution and transmission mains as manufactured by Performance Pipe a division of Chevron Phillips Chemical Company LP, or equal. Pipe will be SDR 17 or as otherwise noted on the plans.

2. Materials used for the manufacture of polyethylene pipe and fittings shall be PE 3408 high density polyethylene meeting cell classification 345464C per ASTM D 3350; and shall be listed in the name of the pipe and fitting manufacturer in PPI (Plastics Pipe Institute) TR-4 with a standard grade HDB rating of 1600 psi at 73°F. The manufacturer shall certify that the materials used to manufacture pipe and fittings meet these requirements.
 3. Polyethylene pipe shall be manufactured and tested in accordance with AWWA C906 and shall be so marked.
 4. Polyethylene fittings and custom fabrications shall be molded or fabricated by the approved pipe manufacturer. Butt fusion outlets shall be made to the same outside diameter, wall thickness and tolerances as the mating pipe. All fittings and custom fabrications shall be pressure rated for the same internal pressure rating as the mating pipe. Reduced pressure-rated (de-rated) fabricated fittings are prohibited.
 5. Molded fittings shall be manufactured and tested in accordance with ASTM D 3261 and shall be so marked. Molded fittings shall be tested in accordance with AWWA C906.
 6. Polyethylene flange adapters shall be made with sufficient through-bore length to be clamped in a butt fusion-joining machine without the use of a stub-end holder. The sealing surface of the flange adapter shall be machined with a series of small v-shaped grooves (serrations) to promote gasketless sealing, or restrain the gasket against blowout.
 7. Flange adapters shall be fitted with back-up rings that are pressure rated equal to or greater than the mating pipe. The back-up ring bore shall be chamfered or radiused to provide clearance to the flange adapter radius. Back-up rings will be constructed of epoxy coated steel suitable for salt water application. All flanged connections will have a full face neoprene flange gasket. Bolts will be 316 stainless steel.
 8. The manufacturer must certify that samples of the manufacturer's production pipe have been tested, in accordance with ASTM D-2837, and validated in accordance with the latest revisions of PPI TR-3.
- B. Stainless Steel Pipe: ANSI/ASTM A312, Schedule 10S
- C. Poly Vinyl Chloride (PVC) Pipe: PVC pipe and fittings shall be schedule 40 or 80 pipe as indicated with socket solvent welded fittings in accordance with ASTM D-1785. Sizes shall be nominal pipe size (NPS) designation as shown on the drawings.
1. Flanges shall be rated for 150 psi and bolt tongue requirements provided on flange body. Flange bodies larger than 12" shall be fiberglass reinforced. Dimension shall be compatible with HDPE flange adapters.
- D. PVC Drain Pipe: PVC drain pipe shall be PVC sewer pipe and fittings, ASTM D-2729. Size shall be nominal pipe size (NPS) as shown on the drawings.

- E. Steel Tubing: Steel tubing for instrument air, sizes 1-inch and smaller, shall be seamless austenitic stainless, grade TP 316L conforming to ASTM MA-632.
- F. Furnish Swagelok 316 stainless steel compression fittings, or equal. Designation as shown on the drawings.

2.03 VALVES

A. Manual Butterfly Valves

Valves shall be lug style resilient seat butterfly type suitable for insertion between ANSI Class 150 LB flanges. The valve body shall be constructed of epoxy coated ductile iron body, aluminum bronze disc, Monel 400 shaft and pins, EPDM seat, and gear and handwheel operator suitable for submerged salt water service. The epoxy coating for the valve and gear box shall be as follows:

- 1st coat – 4 to 6 mils Dimet No. 9HS
- 2nd coat – 4 to 6 mils Americoat No. 385
- 3rd coat – 4 to 6 mils Americoat No. 450 HS

Valves shall be Series 200 as manufactured by Center Line and supplied by Total Technology, Inc., or equal.

B. Check Valve

1. The rubber flapper swing check valve shall have a heavily constructed ductile iron body and cover, and suitable for submerged salt water service. The body shall be long pattern design (not wafer), with integrally cast-on end flanges. The flapper shall be Buna-N having an “O” ring seating edge and be internally reinforced with steel.
2. Flapper to be captured between the body and the body cover in a manner to permit the flapper to flex from closed to full open position during flow through the valve. Flapper shall be easily removed without need to remove valve from line. Check valves to have full pipe size flow area. Seating surface to be on a 45° angle requiring the flapper to travel only 35° from closed to full open position, for minimum head loss and non-slam closure. Cover bolts shall be 316 stainless steel.
3. Buna-N flapper (hi-strength coated fabric-coated both sides with 70 Duro) which creates an elastic spring effort, molded internally, to assist the flapper to close against a slight head to prevent slamming.
4. Valve to be supplied with external backflow device.
5. Materials of construction shall be certified in writing to conform to ASTM specifications as follows:

Body and Cover: Ductile Iron, ASTM A563 GR65-45-12

Interior and Exterior Paint: Fusion Bonded Epoxy, AWWA C550

6. Valve to be APCO Series 100 rubber flapper swing check valve, as manufactured by Valve & Primer Corporation or equal.

C. Air Release Valves

Series 140 Air & Vacuum Valves

- a. The air and vacuum valve shall be fabricated out of 316 stainless steel. Air and vacuum valves shall be designed to allow large quantities of air to escape out of the orifice when the stormwater pump starts and to close water tight when the liquid enters the valve. The air and vacuum valves shall also permit large quantities of air to enter through the orifice when the pump stops, to break the vacuum. The discharge orifice area shall be equal or greater than the inlet of the valve.
- b. The valve shall consist of a body, cover, baffle, float and seat. The seat shall be compression molded Buna-N, fastened to the valve cover, without distortion, for tight shut-off and easy removal or replacement, if necessary. The float shall be stainless, designed to withstand a minimum of 1000 psi. The float shall be center guided for positive shut-off into the seat.
- c. All materials of construction shall be certified in writing to conform to ASTM specifications as follows:

Body, cover	316 SS	ASTM CF 8M
Baffle (1/2", 1" & 2")	316 SS	ASTM CF 8M
Baffle (3")	316 SS	ASTM CF 8M
Float	316 SS	ASTM CF 8M
Seat	Buna-N	

- d. Valve to be APCO Series 140 Air & Vacuum Valves, as manufactured by Valve & Primer Corporation, or equal.

D. Thermo Plastic Valves - Designation as shown on the drawings.

Ball valves 1/2"-3" - All thermo plastic ball valves sizes 1/2" - 3" shall be a one-piece capsule, (same material as pipe) with Teflon seats and Viton seals. True-Union ball valves shall be socket welded and rated 150 psi at 120 degrees F. True-Union ball valve must carry a 2-year guarantee, as manufactured by Chemtrol Nibco or equal.

Check Valves 1/2"-3" - All thermo plastic check valves sizes 1/2"-3" shall be of a True-Union design with two-way blocking capability and of ball checking type. Ball check valve shall be designed with a one-piece capsule (same material as pipe), with an elastomeric uniseat/seal for tight shut-off under pressure. The same seal shall function as both the ball seat and the union seal. Ball check valves shall be rated 150 psi at 120 degrees F. The valve must carry a 2-year guarantee, as manufactured by Asahi/America Inc., or equal.

Multiport Ball Valves - All thermo plastic multiport ball valves sizes 1/2"-3" shall be of molded construction (same material as pipe) with True-Union ends on the left and right ports. Carriers must thread into body in order to provide blocking capabilities in off position. Teflon seats backed with Viton and Viton valve seals, as manufactured by Asahi/America Inc., or equal.

2.03 PRESSURE GAUGE

- A. Pressure gauges will be 4-1/2" dial face liquid filled bourdon tube type rated at 1% accuracy. The bourdon tube case will be 316 stainless steel. Each pressure gauge will be equipped with a glass face and suitable for exterior use. Range of the gauge will be 0 to 30 feet of water.

2.04 CONCRETE VAULTS

- A. All concrete vaults shall be constructed as shown on the plans and per FDOT Standard Index 200. Vaults shall be complete with aluminum hatch covers, pipe supports, openings and drains.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Where applicable, ream pipe and tube ends and remove burrs.
- B. Remove scale and dirt, on inside and outside, before assembly.
- C. Prepare pipe connections to equipment with flanges or unions.

3.02 STEEL PIPE FABRICATION

- A. Field Joints

Flanged joints shall be provided at all connections to valves, equipment, and specialties, and at the locations indicated on the Drawings. To facilitate installation, additional field welded joints may be provided. Additional field joints shall be kept to a minimum and their location shall be acceptable to the Engineer.

- B. Flanged Joints

The diameter and drilling of flanges furnished in the piping shall be coordinated with the flanges for the valves and other equipment to be installed in the piping and conform to the standards specified herein. Blind flanges shall conform in diameter, drilling, and thickness to the flanges to which they attach and shall be reinforced as required to produce an airtight joint.

- C. Threaded joints

Pipe threads shall conform to ANSI/ASME B1.20.1, NPT, and shall be full and cleanly cut with sharp sides. Not more than three threads at each pipe connection shall remain exposed after installation. Ends of pipe shall be reamed, after threading and before assembly, to remove all burrs.

Threaded joints shall be made up with teflon threaded tape applied to all male threads.

D. Welded joints

All welds shall be sound and free from embedded scale or slag, shall have tensile strength across the weld not less than that of the thinner of the connected sections, and shall be airtight. Butt welds shall be used for all welded joints in line pipe assemblies.

All welding shall be in accordance with the Process Piping Code", ANSI B31.3-1996.

Welders for all piping shall be qualified per ASME Code Section IX for welding carbon steel and stainless steel piping, positions 2G and 5G. All welders will be required to present current qualification papers.

The Engineer shall have the right to perform any additional inspection of shop or field welds, at not additional cost to the Contractors, provided the welds pass the inspection. The Contractor shall repair all welds that fail inspection and burden the cost of retesting of any failed welds.

E. Pickling

After shop fabrication, all stainless steel pipe, fittings, and appurtenances shall be completely immersed for a minimum of 15 minutes in a pickling solution of 6 percent nitric acid and 3 percent hydrofluoric acid at 140 F. Parts shall be free from iron particles or other foreign material. A complete neutralizing operation, by immersion in a continuous fresh water bath, shall be required after the pickling operation. Passivate to uniform finish free of defects and scratches or pipe will be rejected.

F. Pipe Supports, Anchors, And Hangers

Pipe supports, anchors, and hangers shall be fabricated in accordance with the requirements of the pipe support section and the details indicated on the Drawings and shall be furnished and installed complete with all concrete bases, anchor bolts and nuts, plates, rods, and other accessories required for proper installation. Where the details must be modified to fit the piping and structures, all such modifications shall be acceptable to the Engineer.

G. Inspection and Testing

Inspection and testing by an independent laboratory will not be required at the fabricating or coating shop; however, the pipe manufacturer shall furnish an affidavit of compliance certifying that all materials used and work performed comply with the specified requirements. Affidavits shall be furnished in accordance with the submittal section.

H. Handling

Pipe, fittings, specials, and appurtenances shall at all times be handled and stored in a manner that will ensure installation in sound, undamaged condition. Handling methods and equipment used shall prevent damage to the coating and shall include the use of wide canvas slings and wide padded skids. Bare cables, chains, hooks, metal bars, or narrow skids shall not be used.

I. Flanged Joints

Care shall be taken in bolting flanged joints so that there is no restraint on the opposite end of the piece which would prevent pressure from being evenly and uniformly applied to the gasket. The pipe or fitting must be free to move in any direction while bolting. Bolts shall be gradually tightened, each in turn, at a uniform rate of gasket compression around the entire flange.

Special care shall be taken when connecting to equipment to ensure that piping stresses are not transmitted to the equipment flanges by the connected piping. All such piping shall be permanently supported so that accurate matching of bolt holes and uniform contact over the entire surface of flanges are obtained before installation of any bolts in those flanges. In addition, equipment connection piping shall be free to move parallel to its longitudinal centerline while the bolts are tightened. Equipment shall be leveled, aligned, and wedged in position to fit the connecting piping. Equipment shall not be grouted until the initial fitting and alignment of the pipe so that the equipment may be shifted on its foundation if necessary to properly install the connecting piping. Each piece of equipment shall be grouted before final bolting of the connecting piping. After final alignment and bolting, the equipment connections shall be tested for applied piping stresses by loosening the flange bolts which, if the piping is properly installed, should result in no movement of the piping relative to the equipment or opening of the equipment connection joints.

J. Cleaning

All pipelines shall be clean and free of dirt, rocks, debris, or other foreign material of any kind when placed in service.

The interior of all pipe and fittings shall be thoroughly cleaned of all foreign matter, grease, oil, or other hydrocarbons before being installed and shall be kept clean until the work has been accepted.

K. Drawings and data

Drawings, specifications, and other data showing complete details of the fabrication, construction, verification that pickling will be performed, weld locations, and installation of pipe, fittings, specials, and connections, together with complete data covering all materials proposed for use, shall be submitted in accordance with the submittals section.

3.03 HIGH DENSITY POLYETHYLENE PIPE JOINING

A. HEAT FUSION JOINING

Joints between plain end pipes and fittings shall be made by butt fusion. Joints between the main and saddle branch fittings shall be made using saddle fusion. The butt fusion and saddle fusion procedures used shall be procedures that are recommended by the pipe and fitting Manufacturer. The Contractor shall ensure that persons making heat fusion joints have received training in the Manufacturer's recommended procedure. The Contractor shall maintain records of trained personnel, and shall certify that training was received not more than 12 months before commencing construction. External and internal beads shall not be removed.

B. Branch Connections

Branch connections to the main shall be made with saddle fittings or tees. Polyethylene saddle fittings shall be saddle fused to the main pipe as specified above.

C. Fusion Quality

The Contractor shall ensure the field set-up and operation of the fusion equipment, and the fusion procedure used by the Contractor's fusion operator while on site. Upon request by the Owner, the Contractor shall verify field fusion quality by making and testing a trial fusion. The trial fusion shall be allowed to cool completely; then test straps shall be cut out and bent strap tested in accordance with ASTM D 2657. If the bent strap test of the trial fusion fails at the joint, the field fusions represented by the trial fusion shall be rejected. The Contractor at his expense shall make all necessary corrections to equipment, set-up, operation and fusion procedure, and shall re-make the rejected fusions.

3.04 SURFACE CONDITIONS

A. Inspection

1. Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this work may properly commence.
2. Verify that all equipment may be installed in accordance with all pertinent codes and regulations, the original design, shop drawings, and the reference standards.

B. Discrepancies

1. In the event of discrepancy, immediately notify the Engineer.
2. Do not proceed with installation in area of discrepancy until all such discrepancies have been fully resolved.

3.05 PIPE INSTALLATION

- A. All pipe line trenching, bedding and backfilling shall comply with Florida Department of Transportation (FDOT) "Standard Specifications for Roads and Bridge Construction" dated 2000 and as shown on the drawings. Prior to commencement of trenching, the Contractor shall call "Sunshine" at 1-800-432-4770 with reference to utilities located in the area of construction. No section of pipe shall bear on rock or on placed blocking. Unless otherwise approved by the Engineer, all excavations shall be dewatered to permit dry joints. Removal and disposal of trench water, if required, shall comply with the applicable provisions of FDOT Specifications and applicable statutes and local ordinances.
- B. All pipe installation shall be in accordance with ASTM D 2774 and manufacturer's recommendations. One plain-end connection of fabricated directional fittings (elbows, tees, etc.) shall be butt fused to the end of a pipe length. The remaining fitting connections shall be made in the trench using butt fusion or other connection means as shown. Flange connections shall be assembled, and tightened in accordance with the manufacturer's instructions. Handling, lifting, moving or lowering of all HDPE fabricated fitting that is connected to more than one pipe length is prohibited. The installing contractor at his expense shall correct fitting damage caused by such improper handling.
- C. Flange connections shall be installed in accordance with the manufacturer's recommended procedure. Flanges shall be centered and aligned to the mating component before assembling and tightening bolts. Bolt threads shall be lubricated, and flat washers should be used under the nuts. Bolts shall be evenly tightened according to the tightening pattern and torque step recommendations of the manufacturer. At least 1 hour after initial assembly, flange connections shall be re-tightened following the tightening pattern and torque step recommendations of the manufacturer. The final tightening torque shall be as recommended by the manufacturer.

- D. The Contractor shall be solely responsible for making all excavations in a safe manner. The Contractor shall conform to the requirements of the Florida Trench Act which incorporates OSHA Standards 29CFR 1926.650, Subpart P, as the States safety standards.
- E. Take all precautions necessary to insure that pipe, valves, fittings, and other accessories are not damaged in unloading, handling, and installation. Examine each piece of material just prior to installation to determine that no damage has occurred. Remove any damaged material from the site and replace with undamaged material. When lifting with slings, only wide fabric choker slings capable of safely carrying the load shall be used to lift, move, or lower pipe and fittings. Wire rope and chain are prohibited. Slings shall be of sufficient capacity for the load, and shall be inspected before use.
- F. Exercise care to keep foreign material and dirt from entering pipe during storage handling and installation. Close ends of in-place at the end of any work period to preclude the entry of animals and foreign material.
- G. Use only those tools specifically intended for cutting and fusion bonding the size and material and type pipe involved.
- H. The quantities to be paid for under this Section shall be the actual quantities installed complete, measured in the units shown per the Bid Form, tested and accepted.
- I. Payment for all piping and fittings shall be at the contract Unit Price and shall include, but not limited to, location and coordination of all existing utilities prior to construction, furnishing and installing all materials, conformance with Trench Safety Act, piping, clearing, grubbing, excavation, dewatering, bedding, trench restoration, compaction, excavation and disposal of undesirable material, pressure and leakage testing, flushing, survey layout, and record drawings. No extra payment shall be made if muck, debris or other materials are encountered in the excavation as specified.
- J. Payment shall be made under Stormwater Pump Station pay items PS-8 through 19.

3.06 RESTORATION OF EXISTING SURFACES

- A. All concrete and pavement disturbed by the operations required under this Section shall be restored as indicated on the Roadway Typical Section Drawing and/or Specifications for consistency throughout the Community Enhancement Project.
- B. Measurement and Payment for all surface restoration will be included as part of the corresponding roadway pay items

3.07 VALVE INSTALLATION

- A. Install valves with operator stems in the vertical plane through the pipe axis and perpendicular to the pipe axis. Locate valves where shown on Drawings. Thoroughly clean before installation. Check valves for satisfactory operation.
- B. Manufacturer's authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.
- C. Manufacturer shall also make customer service available directly from the factory in addition to authorized representatives for assistance during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.
- D. The quantities to be paid for under this Section shall be the actual quantities installed complete, measured in the units shown per the Bid Form, tested and accepted.
- E. Payment for all valves shall be at the contract Unit Price and shall include, but not necessarily be limited to, furnishing and installing of valves, restraining devices, testing, flushing, and record drawings.
- F. Payment shall be made under Stormwater Pump Station pay items PS-2 through 4.

3.08 VAULT INSTALLATION

- A. Installation of all concrete vaults shall comply with Florida Department of Transportation (FDOT) "Standard Specifications for Roads and Bridge Construction" dated 2000 and as shown on the drawings. Prior to commencement of trenching, the Contractor shall call "Sunshine" at 1-800-432-4770 with reference to utilities located in the area of construction. Unless otherwise approved by the Engineer, all excavations shall be dewatered to permit dry joints. Removal and disposal of trench water, if required, shall comply with the applicable provisions of FDOT Specifications and applicable statutes and local ordinances. Locate vaults where shown on Drawings.
- B. The quantities to be paid for under this Section shall be the actual quantities installed complete, measured in the units shown per the Bid Form, tested and accepted.
- C. Payment for all vaults shall be at the contract Unit Price and shall include, but not necessarily be limited to, location and coordination of all existing utilities prior to construction, furnishing and installing all materials, conformance with Trench Safety Act, concrete vaults, aluminum hatch covers, clearing, grubbing, excavation, dewatering, bedding, trench restoration, compaction, excavation and disposal of undesirable material, testing, and record drawings. No extra payment shall be made if muck, debris or other materials are encountered in the excavation as specified.
- D. Payment shall be made under Stormwater Pump Station pay items PS-5 through 7.

3.09 PIPE PENETRATIONS

- A. Use sleeves where pipes, valve stem extensions, or equipment parts pass through poured in place concrete or masonry walls or slabs. Sleeves shall be PVC. Extend vertical sleeves through slabs 1-inch above top surface.
- B. Where new pipe must penetrate concrete wall on non-water bearing concrete structures, drill penetration in neat, workmanlike manner, install pipe, grout in place with non-shrink grout, and refinish surface to match adjacent.

3.10 FIELD QUALITY CONTROL

- A. If tests indicate Work does not meet specified requirements, remove work, replace, and retest at no cost to Owner.

END OF SECTION

SECTION 15200

WATER MAIN RELOCATION

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. The work specified in this Section consists of providing all labor, personnel, materials, tools, equipment and services necessary to relocate existing water mains that are impacted by proposed stormwater improvements. The work shall also include furnishing temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers and other obstructions encountered in the progress of the work.

1.02 RELATED SECTION

- A. Florida Department of Transportation “Standard Specifications for Roads and Bridge Construction” dated 2000
- B. Section 15100 – Piping, Manual Valves and Miscellaneous Appurtenances

1.03 SUBMITTALS

- A. Submittals for the various types of pipe and fittings will be provided.
- B. Record drawings shall be submitted in accordance with the specifications.
- C. The manufacturer shall furnish a sworn affidavit that the pipe, fittings and lining furnished under the Contract comply with all applicable provisions of the ANSI and/or AWWA Standards.
- D. Reports on pressure tests, leakage tests and bacteriological tests shall be submitted by the Contractor as applicable.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Contractor is required to have available onsite at all times materials necessary for a complete working water main relocation. Materials shall include, but not be limited to, pipe, fittings, restraining devices, and appurtenances for a complete and accepted water main relocation.
- B. During shipment, delivery, and installation of pipe accessories, handle in a manner as to ensure a sound undamaged condition. Metal slings or chains are unacceptable, and shall not be used to lift or move pipe and accessories.
- C. Exercise particular care not to injure pipe coatings.

1.05 JOB CONDITIONS

- A. The Contractor is required to have available onsite at all times personnel, materials, and equipment necessary for a complete water main relocation as specified so that the construction process is not delayed. Contract time delays associated with the water main relocation or other construction activities that require the water main to be relocated and crew stand-by time will not be allowed or approved for water main relocations.
- B. Field verify utility dimensions prior to preparation of layout and installation of water main relocations.
- C. The Contractor shall coordinate with the Owner before any shutdown or any interruption in service takes place or if any large amount of water will be used for flushing or disinfection.

PART 2 – PRODUCTS

2.01 DUCTILE IRON PIPE (DIP)

- A. Ductile Iron Pipe and joint devices shall be restrained push-on type, Thickness Class 52, in accordance with ANSI/AWWA C151/A21.51, ANSI/AWWA C111/A21.11 -90, ANSI/AWWA C115/A21.15.
- B. The external surfaces of buried water main piping shall be coated with an asphaltic coating approximately 1 mil thick in accordance with ANSI/AWWA C151/A21.51. All water pipe fittings shall be lined with cement mortar and seal coated in conformance with ANSI/AWWA C104/A21.4-95.
- C. The pipe or fitting manufacturer must supply a certificate attesting to the fact that the applicator met the requirements of this specification, and that the material used was as specified, and that the material was applied as required by the specification.

2.02 PIPE JOINTS

- A. Maximum tap sizes for corporation stops (AWWA thread) in ductile iron pipe shall be 1-1/4 inches for 4-inch diameter pipe and 1-1/2 inches for larger pipe sizes.
- B. Mechanical Joint
 - 1. Mechanical joints shall conform to ANSI/AWWA Standard C111/A21.11. Gaskets shall be neoprene. Bolt holes for mechanical joints shall be equally spaced, and shall straddle the vertical centerline. Glands shall be of ductile iron construction.

2. The proper number of gaskets, glands, bolts, and nuts, all conforming to ANSI/AWWA C111/A21.11 shall be furnished. The gaskets and joint accessories shall be shipped in suitable protective containers.

C. Restrained Push-On Joints

1. Restrained joint pipe shall be Ductile Iron manufactured in accordance with the requirements of ANSI/AWWA C151/A21.51. Push-on joints for such pipe shall be in accordance with ANSI/AWWA C111/A21.11. Pipe shall be Thickness Class 52.
2. Restrained joint pipe shall be U.S. Pipe TR FLEX pipe or approved equal. Restraint of field cut pipe shall be provided with U.S. Pipe TR FLEX GRIPPER Ring, TR FLEX pipe field weldment or approved equal.

D. Restrained Push-On Joints (Single Gasket)

1. Restrained joints in pipe and fittings shall be of the single gasket push-on type, and shall conform to all applicable provisions of ANSI/AWWA Standards C111/A21.11, except that the gaskets shall be vulcanized styrene butadiene rubber, and the following requirements:
2. The restraining components, when not cast integrally with the pipe and fittings, shall be ductile iron or a high strength non-corrosive alloy steel.
3. Tee head bolts and hexagonal nuts for all restraining joints in pipe and fittings shall be U.S. Steel COR-TEN or approved equal, dimensions, and threading as specified in ANSI/AWWA Standard C111/A21.11, except that the length of the bolts shall meet the requirements for the restrained joint design.
4. Each thrust-resistant joint, and the pipe and fittings of which it is a part, shall be designed to withstand the axial thrust from an internal pipeline pressure of at least 150 psi at bulkhead conditions without reduction because of its position in the pipeline nor for support from external thrust blocks.
5. Restrained push-on joint pipe and fittings shall be capable of being deflected after assembly. During deflection, all components in the restrained system shall be in contact to provide an equal force on all contact areas.

2.03 DUCTILE IRON FITTINGS

- A. Pipe fittings shall be ductile iron pressure class 350 psi and shall be cement lined. Linings shall be the same as for the pipe.
- B. All fittings shall be mechanical joint with Megalug Retainer Glands as manufactured by EBBA Iron, Inc., TR Flex restrained joint fittings as manufactured by U.S. Pipe, restraining rod system, or equal. All bolts and hex nuts shall be U.S. Steel COR-TEN or approved equal.

- C. Where restraining rods are utilized, restraining tie rods shall be tied back to include a full 20' section of D.I.P. on both sides of each fitting as identified on the construction drawings. Restraining rods shall be 304 stainless steel.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. **Trench Excavation:** Pipe line trenching, bedding and backfilling shall comply with FDOT Specifications and as shown on the drawings. Prior to commencement of trenching, the Contractor shall call "Sunshine" at 1-800-432-4770 with reference to utilities located in the area of construction. In general, water distribution lines shall have not less than 36" of cover and bell holes shall be hand dug to permit proper joint making. No section of pipe shall bear on rock or on placed blocking. Unless otherwise approved by the Engineer, all excavations shall be dewatered to permit dry joints. Removal and disposal of trench water, if required, shall comply with the applicable provisions of FDOT Specifications and applicable statutes and local ordinances.
- B. **Trench Safety:** The Contractor shall be solely responsible for making all excavations in a safe manner. The Contractor shall conform to the requirements of the Florida Trench Act which incorporates OSHA Standards 29CFR 1926.650, Subpart P, as the States safety standards. Trenches shall be properly sheeted and braced where necessary. Where wood sheeting or certain designs of steel sheeting are used, the sheeting shall be cut off at a level 36" above the top of the installed pipe and that portion below that level shall be left in place. If interlocking steel sheeting of a design approved by the Engineer is used, it may be removed providing removal can be accomplished without disturbing the bedding or alignment of the pipe. Any damage to the pipe bedding, pipe or alignment of the constructed main caused by removal of sheeting shall be cause for rejection of the affected portion of the work.
- C. **Pipelaying:** All pipe installation shall conform to AWWA C-600. Pipe shall not be rolled or pushed into the trench from the bank. Before pipe is lowered into the trench, it shall be thoroughly inspected by the Contractor as necessary to insure sound conditions and eliminate the possibility of leakage or bursting under test pressure and it shall be swabbed or brushed to insure that no dirt or foreign matter will be in the finished line. Pipes, valves, fittings and other materials showing defects shall not be used for construction and shall be removed from the construction site immediately. All dead ends shall be plugged or capped, anchored and held in place with restrained joints as required. Except while work is in progress, all pipe openings shall be suitably plugged to prevent entrance of water or any foreign matter. Material deemed unstable for providing adequate support for pipe shall be removed to a depth necessary to establish a firm foundation for the pipe and replaced by suitable material. All pipe installation shall conform to the following standard separation for Water/Sewer conflicts:
 - 1. Sanitary Sewers (including laterals and reuse water lines), force mains, and storm

sewers should cross under water mains whenever possible. Sanitary sewers, force mains and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18" between the invert of the upper pipe and the crown of the lower pipe whenever possible.

2. Where sanitary sewers, force mains and storm sewers must cross a water main with less than 18" vertical distance, both the sewer and the water main shall be constructed of ductile iron pipe (DIP) at the crossing. (DIP is not required for storm sewers) sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be mechanically restrained. A minimum vertical clearance of 6" must be maintained at all crossings.
 3. All crossings shall be arranged so that the sewer pipe joint and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).
 4. Where a new pipe conflicts with an existing pipe with less than 18" vertical clearance, the new pipe shall be constructed of DIP (except storm sewers) and the new pipe shall be arranged to meet the crossing requirements above.
 5. A minimum horizontal separation of 10 feet shall be maintained between any type of sewer and water main in parallel installations whenever possible.
 6. In cases where it is not possible to maintain a 10 feet horizontal separation, the water main must be laid in a separate trench or on an undisturbed earth self located on one side of the sewer or force main at such an elevation that the bottom of the water main is at least 18" above the top of the sewer.
 7. Where it is not possible to maintain a vertical distance of 18" in parallel installations, the water main shall be constructed of DIP and the sewer or the force main shall be constructed of DIP (except storm sewers) with a minimum vertical distance of 6". The water main should always be above the sewer. Joints on the water main shall be located as far apart as possible from joints on the sewer or force main (staggered joints).
- D. **Joints:** All joints shall be suitable for the type of pipe being jointed and shall be made in accordance with manufacturer's recommendations.
- E. **Mechanical Joints:** Mechanical joints shall be of the stuffing box type. The gland, followed by the rubber gasket, shall be placed over the plain end of the pipe, which is inserted into the socket. The gasket is then pushed into position so that it is evenly seated in the socket. The gland shall be moved into position against the face of the socket, bolts inserted and made finger-tight. Bolts shall be tightened by a ratchet wrench suitable for the size of pipe being connected alternately, bottom, then top, etc., until the joint is completed.
- F. **Compression Pipe Joints:** Compression joints shall be a rubber seal joint, made pressure tight by a molded rubber gasket and lubricated to facilitate assembly. The joint shall be

made tight by inserting the plain end into the bell after lubrication. Joints shall be made up as recommended by the manufacturer.

- G. **Flanged Joints:** Flanged joints shall be made with rubber gaskets. Bolts shall have rough square heads and hexagonal nuts and made to American Standard rough dimensions and shall be recommended size trimmed. Bolts shall be recommended size for the diameter of the pipe being jointed and shall be tightened as to distribute evenly the stress in the bolts and bring the pipe into alignment.
- H. **Fittings:** Applicable portions of these specifications shall apply to installation of fittings. Reaction of restrained joints shall be applied at bends and tees and where changes in pipe diameter occur at reducers or in fittings. Restrained joints shall be used in lieu of thrust blocks.
- I. **Connection to Existing System:** The Contractor shall make proper arrangements with the Owner of the system for compliance with the regulations for connection to any existing distribution system. Taps-in and connection to existing mains will be made in strict accordance with the requirements of the Owner and the Engineer.

3.02 TESTING

- A. **Pressure Tests:** After pipe has been adequately backfilled, all laid pipes shall be subjected to hydrostatic pressure testing as specified. Care shall be taken to insure that all air has been removed from the pipe previous to pressure tests. The Contractor shall provide such means of venting the pipe as are required. Any material or installation proving defective shall be replaced by the Contractor.
- B. **Leakage Test:** After the main has been brought up to test pressure, it shall be held at this pressure and make up water shall be carefully measured by use of displacement meter or by pumping water from a vessel of known volume. The pipe line shall be walked and all visible joints inspected for leakage and movement of pipe. All visible leaks shall be repaired. Should any section of pipe line disclose joint leakage greater than that permitted, the Contractor shall at his own expense, locate and repair the defective joints until leakage is within the permitted allowance. The leakage test shall be conducted in accordance with AWWA Specification C-600, latest revision and as specified.
- C. **Sterilization of Complete Pipeline:** Before the final acceptance of complete pipeline, the piping must be disinfected as specified, and all requirements of the County and State of Florida DEP shall be satisfied. Satisfactory bacteriological test results from the agencies shall be forwarded to the Engineer. Sampling shall be witnessed by the Engineer.

3.03 RESTORATION

- A. **Trench Backfill:** Trenches or excavations shall not be backfilled until the installed pipeline and other structures have been inspected and written approval given by the Engineer. The trench shall then be backfilled in accordance with the applicable provisions of FDOT Specifications.

- B. **Restoration of Surface and/or Structures:** The Contractor shall coordinate all utility work with performance of the roadway construction and, unless required otherwise because of following roadway work, the Contractor shall restore and/or replace paving, curbing, sidewalks, fences, sod, survey points and other disturbed surfaces to a condition equal to that before the work was begun and to satisfaction of the Engineer, and shall furnish all labor and materials incidental thereto. Relative to restoration of surfaces and/or structures, the Contractor shall comply with the applicable provisions of FDOT Specifications and requirements of all governing agencies, including Town, County and State.

3.04 MEASUREMENT AND PAYMENT

- A. The quantities of water main relocations to be paid for under this section shall include all required labor and equipment per each water main relocation completely installed and accepted. Contract time delays and construction crew stand-by time will not be allowed or approved for water main relocations.
- B. Payment for all piping, fittings and accessories for each water main relocation shall be at the contract unit price for each water main relocation and shall include, but not limited to, personnel, contract time, location and coordination of all proposed and existing utilities prior to construction, furnishing and installing all materials, conformance with Trench Safety Act, piping, restraining devices, clearing, grubbing, excavation, dewatering, bedding, trench restoration, compaction, excavation and disposal of undesirable material, pressure and leakage testing, flushing, and record drawings.
- C. Payment shall be made under Water Main Relocation pay item W-1.

END OF SECTION

SECTION 300

PRIME AND TACK COAT FOR BASE AND SURFACE COURSE

PART 1 GENERAL

1.01 SUMMARY

It is the intent of these specifications that Division I, II and III of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" dated 2000 be used as the basis for the work as amended by the General Conditions, Supplementary Conditions, Special Provisions, and the following Supplemental Technical Specification which pertains to the pertinent items of construction.

1.02 SUPPLEMENTAL TECHNICAL SPECIFICATION

Article 300-9 – Basis of Payment - Delete the text of this article and insert the following:

No separate payment will be made for prime coat and tack coat materials but the cost of same, including furnishing, heating, hauling and applying (including sand or screening covering where required), shall be included for payment in the contract unit price either per ton or per square yard of base or asphalt pavement or in the unit price for pothole repair.

PART 2 MATERIALS

Materials shall be per the previously referenced FDOT "Standard Specifications for Roads and Bridge Construction".

PART 3 EXECUTION

Execution shall be per the previously referenced FDOT "Standard Specifications for Roads and Bridge Construction".

END OF SECTION

SECTION 425

INLETS, MANHOLES AND JUNCTION BOXES

PART 1 GENERAL

1.01 SUMMARY

It is the intent of these specifications that Division I, II and III of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" dated 2000 be used as the basis for the work as amended by the General Conditions, Supplementary Conditions, Special Provisions, and the following Supplemental Technical Specification which pertains to the pertinent items of construction.

1.03 SUPPLEMENTAL TECHNICAL SPECIFICATION

Article 425-8.1 New Structures Delete the last sentence and insert the following:

Such prices and payments also shall include all backfilling around the structures; the disposal of surplus material; furnishing and placing of all gratings, meter/valve boxes, frames and covers; and any other necessary fittings.

Article 425-6.8 Adjusting Existing Structures – Replace the last sentence of the first paragraph as follows and delete the text of the entire second paragraph:

The materials and construction methods for this work shall conform to the requirements specified above and shall also meet the standards and requirements of the utility company that owns the structure that will be adjusted.

PART 2 MATERIALS

Materials shall be per the previously referenced FDOT "Standard Specifications for Roads and Bridge Construction".

PART 3 EXECUTION

Execution shall be per the previously referenced FDOT "Standard Specifications for Roads and Bridge Construction".

END OF SECTION

SECTION 526

PRECAST CONCRETE PAVERS (ROADWAY)

PART 1 GENERAL

1.01 SUMMARY

It is the intent of these specifications that Division II and III of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" dated 2000 be used as the basis for the work as amended by the General Provisions, and the following Supplemental Technical Specification which pertains to the pertinent items of construction.

1.04 SUPPLEMENTAL TECHNICAL SPECIFICATION

The following new Section is inserted after Section 525:

Article 526-1 Description.

The work specified in this Section consists of installation of precast concrete pavers (roadway) in accordance with these specifications, and in conformity with the lines, grades, dimensions, and notes shown in the plans.

Article 526-2.2 Delivery, Storage, and Handling of Materials.

The materials shall be delivered to the site in the manufacturer's original containers with the manufacturer's name and address and product identification clearly labeled. Store materials in the original containers, protected from direct contact with ground and the elements. Precast Concrete Pavers contaminated with organic or inorganic material will be rejected. Handle pavers in such a manner as to avoid chipping and breakage.

The Contractor shall deliver a sample of either one pallet or 200 sf., which ever is greater, of each concrete paver type used in the project to the Town of Miami Lakes. Delivery of these materials is to be made to the City's storage facility located at Miami Lakes Park, Miami Lakes, Florida (8:0 AM to 4:30 PM). The Contractor is to coordinate the delivery with the Engineer a minimum of 48 hours prior to the delivery date. The costs associated with supplying the materials, coordination and delivery are to be included in the cost of Precast Concrete Pavers (Roadway).

Article 526-2.3 Materials and Installation (Roadway):

Contractor to stabilize the subgrade, install base material, and lay asphalt pavement and 1" bedding sand to the proper depths and grades as shown in the plans utilizing means and methods as described in the plans and specifications. Pavement surface to be clean and free of all loose material, dust, dirt, caked clay, and other foreign material.

Protect precast concrete paving work in hot weather during installation. Provide a windbreak and artificial shade. Do not install pavers in wet weather or while pavers are damp.

All pavers shall be as listed below or equal, minimum 5000 psi per design per ASTM c-140 with the unit tested in the horizontal position.

1. 3-1/8 " depth Georgia Appian-Stone pavers in red color.
Dimensions:
 Square Unit: 5-1/2" x 5-1/2" x 3-1/8" deep
 Rectangular Unit: 5-1/2" x 8-1/4" x 3-1/8" deep
By Paver Systems, Inc. or approved equal.
Contact Allen Abrahamson at 1-800-226-0004.

The Installation of the Precast Concrete Paver shall be as follows:

- A. Spread the bedding sand, conforming to ASTM C-144-66T, evenly over the base course and screed to plan thickness, not to exceed a thickness of 1.5". Do not disturb the screed sand. Place sufficient sand to stay ahead of the laid roadway paver stone. Do not use the bedding sand to fill depressions in the base course.
- B. Lay 5-1/2" x 8-1/4" roadway paver stones in a herringbone pattern with a soldier course of 5-1/2" x 5-1/2" pavers outlining each paver field. Cut all pavers with motor driven saw equipment to provide clean, sharp, unchipped edges. Cut units to provide patterns shown and to fit in adjoining work neatly. Use full units without cutting wherever possible.
- C. Joints between the roadway pavers, on average, will be between 1/16" and 1/8" wide.
- D. Fill gaps at the edge of the paved area with cut or edge roadway pavers.
- E. Use a low amplitude vibrator cable of 150 psi with 75-100 hz frequency to vibrate and compact roadway pavers into bedding sand.
- F. Vibrate the roadway pavers, sweeping dry joint sand into the joints and vibrating, until the joints are full. Do not vibrate within 3 ft. of the unrestrained edges of the roadway pavers.
- G. At the end of each day, all work within 3 ft. of laying face be left fully compacted, with sand-filled joints.
- H. Sweep of the excess sand.

- I. Leave a final surface elevation of roadway pavers of 1/8" to 1/4" above adjacent drainage structures.
- J. Do not permit the final surface elevation of the pavers deviate more than 3/8" under a 10 ft. straightedge.
- K. Protect all completed work from vehicular traffic.

PART 2 MATERIALS

Materials shall be per the previously referenced FDOT "Standard Specifications for Roads and Bridge Construction".

PART 3 EXECUTION

Execution shall be per the previously referenced FDOT "Standard Specifications for Roads and Bridge Construction".

END OF SECTION

SECTION 550

CHAIN LINK FENCES AND GATES

PART 1 GENERAL

1.01 SUMMARY

It is the intent of these specifications that Division I, II and III of the Florida Department of Transportation "Standard Specifications for Roads and Bridge Construction" dated 2000 be used as the basis for the work as amended by the General Conditions, Supplementary Conditions, Special Provisions, and the following Supplemental Technical Specification which pertains to the pertinent items of construction. This section shall replace Section 550 of the "Standard Specifications for Road and Bridge Construction".

1.02 REFERENCES AND CODES

- A. Florida Department of Education, office of Educational Facilities – State Requirements for Educational Facilities – 1999 (SREF).
- B. Florida Building Code (FBC)
- C. American Society for testing and Materials (ASTM) Publications:
 - 1. A123-89a Specification for Zinc (hot Dipped Galvanized Coatings on Iron and steel Products.
 - 2. A392-96 Specification for Zinc-coated Steel Chain Link Fence Fabric.
 - 3. A569-/A Specification for steel, carbon, Hot rolled sheet and Strip commercial Quality.
 - 4. B6-95a Specification for Zinc.
 - 5. F1083-96 Specification for Pipe, steel, Hot-dipped Zinc-coated welded, for fence structures.

1.03 QUALITY ASSURANCE

- A. Products made of aluminum, aluminized, or otherwise treated with aluminum to any significant extent shall not be used.

1.04 SUBMITTALS

- A. Submit complete shop drawings for each rolling gate for approval before fabrication.

1.05 SITE CONDITIONS

A. Security:

1. At the beginning and before the end of the work day, project site shall have all safety hazards removed or isolated by mesh type barricades creating a continuous fence perimeter.
2. At the Board's discretion, when a continuous perimeter fence cannot be maintained, Contractor shall provide a properly licensed security guard until a continuous fence perimeter is restored.

1.06 WARRANTY

- A. Warrant for 1 year after substantial completion. Apply warranty to materials, quality of work, and hardware. Work, material and hardware shall be free from defects and structurally sound during the warranty period. Defective material, improper work, and other substandard conditions documented by the Board within the warranty period shall be corrected at no cost to the Board.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Chain Link Fences and Gates:

1. Allied Tube and Conduit, Fence Division.
2. Cyclone Fence Division of USX Corp.
3. Reeves Southeastern Corp.

B. Gate Hardware:

1. Hinges:
 - a. Semmerling Manufacturing, No.'s 1746, 1747, and 1747.
 - b. Southeastern Wire, No.'s 422405, 422406, and 422407.

2.02 MATERIALS

A. Fence posts shall comply with one of the following:

1. Type 1 ASTM F1083 steel, schedule 40 pipe, hot dipped galvanized after forming according to ASTM A123 with galvanized coating with weighing 1.8 oz. per square ft. minimum.
2. Cold-rolled steel complying with ASTM A569/A, hot-dipped galvanized with a minimum of 1.0 oz/sq.ft. of ASTM B6 high grade and special grade zinc, a chromate conversion coating weighing a minimum of 30 micrograms/sq.in. And a clear organic coating 0.5 mills thick.

B. Size posts according to the following line, corner, end, and pull post table.

	<u>LINE</u>	<u>POSTS</u>	<u>CORNER, END, AND PULL POSTS</u>	
Height	4'	6' 8' 10' 12'	4'	
Pipe Size	2" NOM	2.5 NOM	3" NOM	4" NOM
Wall Thickness	0.45"	0.154"	0.203"	0.226"
Spacing O.C.	10'	10'	na	na
Footing Depth	2'-0"	2'-6"	3'-0"	

C. Provide tops for posts to exclude moisture.

1. Loop top: Provide on line posts.
2. Dome Top: Provide on corner, end, pull, and gate posts.

D. Bracing: Install horizontal bracing at every end, corner, gate, and pull post. Bracing shall be 1-5/8" outside diameter, approximately 2.27 lb. per foot hot dipped galvanized steel pipe complete with hot dipped galvanized steel pipe complete with hot dipped truss rods, turnbuckles, bolts, washers, and nuts. Braces shall be Type 1, ASTM F1083 steel schedule 40 pipe, hot dipped galvanized after forming according to ASTM A123 with galvanized coating weighing 1.8 oz. per square 11' minimum.

E. Top and Bottom Rail: Install to run continuously between line, corner, gate, pull, and end posts at permanent fencing fences. Railing shall be 1 5/8" outside diameter 2.27 lb. per foot (minimum wt.) hot dip galvanized steel pipe on all fences. Top and bottom rail shall be Type 1 ASTM F1083 steel schedule 40 pipe, is hot dipped galvanized after forming according to ASTM A123 with galvanized coating weighing 1.8 oz. per sq ft. minimum.

F. Mid Rail:

1. Install to run continuously between line, corner, gate, pull, and end posts. Railing shall be 1-5/8" outside diameter 2.27 lb. per foot (approximate wt.) hot dip galvanized steel pipe. Mid rail shall be Type 1 ASTM F1083 steel schedule 40 pipe, hot dipped galvanized after forming according to ASTM A123 with galvanized coating weighing 1.8 oz. per square foot. Minimum.
2. Install mid-rail on all fences 8 feet high or greater.
3. Install mid-rail at the 1/2 way point on the fence and be level and consistent the entire length of the fence.

G. Fabric and Fastenings:

1. Fabric: Chain linked, No.9 gage, steel wire, hot dip galvanized after weaving, complying with ASTM A392, Class 2, woven in 2 inch mesh with top and bottom selvage knuckled for 4 foot and 6 foot fabric. 8 foot, 10 foot, and 12 foot fabric shall have top and bottom selvages knuckled.
2. Fabric Tie Wire: No.9 gage, steel alloy wire ties, galvanized, for attachment to line posts.
3. Stretcher Bars:
 - a. 3/16" x 3/4" minimum hot dip galvanized steel, two inches shorter than full height of fabric.
 - b. Provide one stretcher bar for each gate post and end post and two bars for each corner or pull post.
4. Bands, Ties, and Clips:
 - a. At Line Posts:
 - 1) No. 9 gage, steel alloy, galvanized, tie wire.
 - 2) Tie fabric to line posts at top, bottom, and intermediately at 14 inch centers.
 - b. At End, Corner, Pull and Gate Posts:
 - 1) Galvanized steel bands attaching fabric and stretcher bars to posts.
 - 2) Locate bands at top, bottom, and intermediately at 14 inch centers.
 - c. At Top Rails:
 - 1) No. 9 gage, steel alloy, galvanized, tie wire.
 - 2) Tie fabric to top rails at 24 inch centers.

H. Gates, All Heights.

SINGLE GATE

Width	0' to 6'	6' to 12'	13' to 18'
Pipe Size	3" NOM	4" NOM	6" NOM
Hinges	2 heavy duty Industrial	3 heavy duty industrial	4 heavy duty industrial
Sch 40	0.203"	0.226"	6-5/8" NOM

DOUBLE GATES

Width	6' to 12'	12' to 26'	26' to 36'
Pipe Size	4" NOM	4" NOM	6" NOM
Hinges	2 heavy duty Industrial	3 heavy duty industrial	4 heavy duty industrial
Sch 40	0.203"	0.226"	6-5/8" NOM

GATE FRAMEWORK 4', 6', 8', 10', and 12' HIGH FENCE

Pipe Size	2" NOM
Wall Thickness	0.145"

1. Gate frames shall be 2 inches NOM type 1, ASTM F1083 steel schedule 40 pipe, hot dipped galvanized coating weighing 1.8 oz. per sq. ft. minimum.
2. Assemble by welding.
3. Coat all welds with a suitable cold galvanizing compound.
4. Gate heights shall match adjacent fencing, unless specified otherwise.
5. Provide hinges, latches, stops, and keepers.
6. Gates over 4 feet wide must be sufficiently trussed and braced to prevent sagging.

I. Gate Hardware:

1. Hinges: Malleable iron and hot dip galvanized according to ASTM A123. Hinges shall be ball and socket, offset type to allow gates to swing back parallel with the fence line.
2. Latches, all heights:
 - a. Malleable iron, hot dip galvanized, readily lockable with padlock(s). Padlocks with chains will be provided by the Board.
 - b. Latches for single gates, up to 15 feet wide, shall be single gate latch assembly.
3. Latches for double gates in openings 18 feet to 30 feet wide shall be heavy duty, galvanized, malleable iron gates stops with steel pipe sleeves anchored in concrete and arranged to engage plunger of hatch at the center(s) of the opening(s). Latch and plunger shall not be removable without tools.
4. Keepers: Construct keeper of rust proof material and which automatically engage the gate leaf and hold it in the open position until manually released.
5. Stops: Hot dip galvanized, set in concrete.
6. Handicapped Accessibility: Provide heavy-duty lever type gate hardware or weather proof push bar in place of latches.
7. Miscellaneous Fittings: Malleable iron or pressed steel. Ferrous materials shall be hot dipped galvanized.

- J. Bollards: Type 1 ASTM F1083 steel schedule 40 pipe, hot dipped galvanized after forming according to ASTM A123, with galvanized coating weighing 1.8 oz. per sq. ft. minimum. Construct bollards of galvanized steel, fill with concrete, and place on the traffic side of the fabric unless otherwise specified. Post dimensions for bollards shall be twice the diameter of the end post on the adjacent fence. Likewise, the footer dimensions shall be double the dimensions specified for end posts.

PART 3 EXECUTION

3.01 PREPARATION

- A. **Underground Clearances:** Before starting obtain underground clearances from utility companies, A/E, and site staff to minimize damage to underground piping, cables, or structures.

3.02 INSTALLATION

- A. **Alignment:**
 - 1. Install fencing and gates plumb, level, and aligned with all abutting fencing according to the manufacturer's instructions and approved shop drawings.
 - 2. Top of fabric line shall be straight and level, with the bottom 2 inches above \pm 1 inch.
- B. **Footings:** Provide a stable base for the post, mechanically fixed to the post, and stabilized in the surrounding earth to adequately support the post, fence fabric and gates.
- C. **Bracing:**
 - 1. Pull post bracing is to be provided every 200 lineal feet of straight fencing to construct the pull post array for proper fabric stretching.
 - 2. Install bracing in both directions from corner and pull posts.
- D. **Fabric and Fasteners:**
 - 1. Hog rings are allowed only as specified by the Board and be No.12 gage galvanized steel.
 - 2. Attach all stretcher bars by bands and be 2 inches shorter than the fabric and spaced so that there are no protruding ends that can be bent.
 - 3. If these tolerances can not be maintained, Contractor shall contact the Board immediately by before proceeding.
- E. **Pointed Surfaces:**
 - 1. At non-agricultural educational plants, barbed or purposely sharpened edges are not allowed from the highest grade level up to 6'-0" (minimum) of fence height.
 - 2. Complete minimum height from the highest grade elevation next to the fence line.
 - 3. All fabric and tie wire terminal ends shall be knuckled and turned away from the traffic side of fences.
 - 4. Assemble all galvanized drip points, bolts, truss rods, posts, and hardware so that they have their sharp edges directed away from the traffic side of the fence.
 - 5. All hardware including, but not limited to, brace bands, tension bands, and stretcher tum buckles shall have rounded edges.
 - 6. Remove hardware with sharp or pointed surfaces or edges and replace at no cost to the Board.
- F. **Gates:**
 - 1. All gates next to the building shall open in the direction of building egress and be able to be secured in their open and closed positions.
 - 2. No gate may reduce or restrict a building egress dimension in its open position.
 - 3. Gates shall be installed complete with hinges, latches, keepers, and stops and be level and plumb in their closed position and locked with a M-DCPS provided lock.

4. Perimeter fence gates opening on a public sidewalk shall open inward to avoid disrupting the public right of way.

G. Fence Posts:

1. Install initially above the finished fence height and then cut level throughout the fence line between the corner posts.
2. Install post caps when the footings have been set to prevent the accumulation of moisture in the post.
3. All posts shall be installed level and plumb.

H. Footings:

1. Set posts in 3,000 psi concrete consisting of not less than six bags of cement per cubic yard of sand. Rod or vibrate concrete in earth compacted or water saturated and allowed to settle.
2. Footing diameters shall be not less than four times the diameter of the post. Slope the top of the footing a minimum of 1 inch to the surrounding grade to shed water.
3. When posts are installed in asphalt, pour concrete to 2 inches below grade, slope, and back fill with well-tamped Type I asphaltic concrete to match existing surface.
4. Posts should be set in concrete in its entire underground length from grade level to the recommended depth then raised 6 inches until the concrete has fully cured.
5. Install footings on all posts except for temporary fencing.

I. Fence Removal:

1. Includes the unearthing, disassembly, collection, and disposal of all existing fence posts, fabric, hardware, footers, keepers, stops, and debris accumulated along the fence line.
2. Holes and surface irregularities created by the fence removal shall be filled to prevent tripping hazards.

J. Temporary Fencing:

1. 6'-0" No. 11 gage or greater fabric tied to 2 inches or greater driven in posts with No.11 gage steel alloy ties.
2. Gates and gateposts shall be constructed and installed according to the specifications for permanent fencing, except for top, bottom, and mid-rails.

K. Baffles:

1. Double baffles shall be constructed of 2 end posts, 3 line posts, and a fabric panel.
2. Set end posts in the fence line 6 feet apart.
 - a. One line post shall be set at the midpoint between those end posts as a divider.
 - b. The 2 remaining line posts hold the baffle fabric.
 - c. They are set 2 feet inside the fence line 10 feet apart and are connected by top rail.
 - d. End posts and line posts shall match those specified for the fence line.
3. Construct single baffles of 2 end posts, 2 line posts, and a fabric panel. Set end posts in the fence line 3 feet apart. The 2 line posts hold the baffle fabric. They are set 2 feet inside the fence line 7 feet apart and connected by top rail.
 - a. End posts and line posts shall match those specified for the fence line.

3.03 ADJUSTING AND CLEANING

- A. Clean up: At the completion of each day's work, remove from the site and premises, all debris, surplus materials, and salvaged fencing not wanted by the Board.

END OF SECTION