Purchasing Dept.
3100 Main St.
Houston, TX 77002

Solicitation Amendment No. 001

To:	Date:
Prospective Proposers:	March 29, 2012
Project Title:	**Project No.:**
Southeast Campus Infrastructure Improvements	12-32

The solicitation for Southeast Campus Infrastructure is hereby amended as set forth herein.

1) Attachment No. 2, Price Proposal, in the original solicitation is hereby replaced with the "Revised" Attachment No. 2 (Price Proposal and Price Proposal II), attached, hereto and incorporated herein. This form must be returned as part of your proposal packet.

Acknowledgement of Amendment No. 1 by:	Date:

Company Name (Bidder/Offerer):

Signed by:

Name (Type or Print):	Title:

Purchasing Dept.
3100 Main St.
Houston, TX 77002

ATTACHMENT NO. 2
("Revised")

PRICE PROPOSAL I
FOR
Southeast Campus Parking Infrastructure Improvements

The Proposer/Contractor shall furnish all necessary resources and services necessary and required to provide Southeast Campus Parking Infrastructure Improvements, in accordance with the Project Manual and Architectural Drawings hereby incorporated and made a part of this RFCSP and the general terms and conditions of the sample contract for the prices listed below. Please provide a **Project Total Proposed Price** reflecting all project costs to successfully complete the Southeast Campus Parking Infrastructure Improvements. Work requirements will be specified in individual purchase orders issued by Houston Community College. **Please submit this form in separate, sealed envelope with your technical proposal and label it "Price Proposal".**

ITEM	DESCRIPTION OF WORK/ITEMS	Proposed Price
001	TOTAL PROJECT COST INCLUDING OVERHEAD AND PROFIT **(BASE)**	**$** _____
002	SIGNAGE ALLOWANCE	**$ 75,000.00**
003	CONTINGENCY (OWNER)	**$ 225,000.00**
004	ALTERNATE No. 01 DRAWING SHEET SE300, DETAIL 1, SHOWS AN EMPTY 1" COMMUNICATION CONDUIT FOR COMMUNICATION STUBBING OUT FROM THE LIGHT POLE BASE. ON SHEE SE201, DRAWING NOTE 3, STATES ALL LOCATIONS WHERE THE EMPTY 1" COMMUNICATION CONDUIT IS TO BE INSTALLED. AS AN ALTERNATE: PROVIDE PRICING TO RUN THE EMPTY 1" COMMUNICATION CONDUIT WITH PULL STRINGS FROM THE NOTED POLE LOCATIONS TO THE ELECTRICAL ROOM LOCATED ON THE FIRST FLOOR OF THE ANGELA MORALES BUILDING. LOCATION OF ELECTRICAL ROOM IS NOTED SE201 BY A PLAN DETAIL CALLOUT SYMBOL ON THE NORTHEAST CORNER OF THE ANGELA MORALES BUILDING. THE CONDUIT SHOULD STUB UP INSIDE THE ELECTRICAL ROOM THROUGH THE BUILDING SLAB. THIS ELECTRICAL ROOM IS THE SAME ROOM WHERE THE ENTIRE NEW SITE LIGHTING WIRING IS TERMINATED.	**$**_____

Total Proposed Price (Items 001-004): $_____

Note: Total proposed price must equal the total line item cost for items 001-004

Proposer's Maximum Project Duration in Calendar Days: _____

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ATTACHMENT NO. 2 (con'td)

PRICE PROPOSAL II

FOR
Southeast Campus Infrastructure Improvements

Section includes administrative and procedural requirements for unit prices.

Related Sections include:

1. Division 01 Section "Allowances" for procedures for using unit prices to adjust quantity allowances.
2. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
3. Division 01 Section "Quality Requirements" for general testing and inspecting requirements.

DEFINITIONS

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

PROCEDURES

Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PRODUCTS (Not Used)

EXECUTION

LIST OF UNIT PRICES

Purchasing Dept.
3100 Main St.
Houston, TX 77002

ITEM	DESCRIPTION OF WORK/ITEMS	Proposed Price
001	**CONCRETE PAVERS : UNIT PRICE NO. 1A:** COST TO: ADD ONE (1) SQUARE FOOT (SF) OF CONCRETE PAVERS ACCORDING TO PAVER DRAWING DETAIL AND ACCODING TO DIVISION 32 SECTION "UNIT PAVING". INCLUDES CONCRETE BASE, SAND BED AND ALL OTHER SHOWN DESIGN COMPONENTS. (UOM: Per Square Foot)	**$**_____
002	**CONCRETE PAVERS : UNIT PRICE NO. 1B:** CREDIT TO: DEDUCT ONE (1) SQUARE FOOT OF CONCRETE PAVERS ACCORDING TO PAVER DRAWING DETAIL AND ACCORDING TO DIVISION 32 SECTION "UNIT PAVING". INCLUDES CONCRETE BASE, SAND BED AND ALL OTHER SHOWN DESIGN COMPONENTS. (UOM: Per Square Foot)	**$**_____
003	**CONCRETE PAVEMENT : UNIT PRICE NO. 2A:** COST TO: ADD ONE (1) SQUARE YARD (SY) OF CONCRETE PAVEMENT AT THE THICKNESS SHOWN ON THE PLANS, INCLUDING SUBGRADE STABILIZATION ACCORDING TO CONCRETE PAVEMENT DETAILS AND DIVISION 31 SECTION "SUBGRADE STABILIZATION LIME" SETTING FORMS; AND INSTALLING REINFORCINGH STEEL ACCORDING TO DIVISION 03 SECTION "CONCRETE REINFORCEMENT" AND DIVISION 32 SECTIONS "PORTLAND CEMENT CONCRETE PAVEMENT AND "CONCRETE PAVEMENT JOINTS". (UOM: Per Square Yard)	**$**_____
004	**CONCRETE PAVEMENT : UNIT PRICE NO. 2B** CREDIT TO: DEDUCT (1) SQUARE YARD (SY) OF CONCRETE PAVEMENT AT THE THICKNESS SHOWN ON THE PLANS, INCLUDING SUBGRADE STABILIZATION ACCORDING TO CONCRETE PAVEMENT DETAILS AND DIVISION 31 SECTION "SUBGRADE STABILIZATION LIME" SETTING FORMS; AND INSTALLING REINFORCINGH STEEL ACCORDING TO DIVISION 03 SECTION "CONCRETE REINFORCEMENT" AND DIVISION 32 SECTIONS "PORTLAND CEMENT CONCRETE PAVEMENT AND "CONCRETE PAVEMENT JOINTS". (UOM: Per Square Yard)	**$**_____
005	**CONCRETE SIDEWALKS : UNIT PRICE NO. 2C:** COST TO: ADD ONE (1) SQUARE FOOT OF CONCRETE SIDEWALK AT THE THICKNESS SHOWN ON THE PLANS, SAND BEDDING ACCORDING TO SIDEWALK DETAILS AND DIVISION 32 SECTION "CONCRETE WALKS AND RAMPS".(Unit of Measure: Per Square Foot)	**$**_____
006	**CONCRETE SIDEWALKS : UNIT PRICE NO. 2C:** CREDIT TO: DEDUCT ONE (1) SQUARE FOOT OF CONCRETE SIDEWALKS AT THE THICKNESS SHOWN ON THE PLANS, SAND BEDDINGACCORDING TO SIDEWALKD DETAILS AND DIVISION 32 SECTION "CONCRETE WALKS AND RAMPS". (UOM: Per Square Foot)	**$**_____
007	**BENCHES : UNIT PRICE 3A:** COST TO: ADD AND INSTALL ONE (1) UNIT (BENCH) ACCORDING TO DIVISION 12 SECTION "SITE FURNISHINGS". (UOM: per UNIT)	**$**_____
008	**SEATS AND TABLES: UNIT PRICE NO. 3B** COST TO: ADD AND INSTALL 1 (ONE) UNIT (4 SEATS WITH TABLE) ACCORDING TO DIVISION 12 SECTION "SITE FURNISHINGS." (UOM: Per UNIT)	**$**_____

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ITEM	DESCRIPTION OF WORK/ITEMS	Proposed Price
009	**WASTE RECEPTACLES : UNIT PRICE NO. 3C** COST TO: ADD AND INSTALL (1) UNIT (WASTE RECEPTACLE) ACCORDING TO DIVISION 12 SECTION "SITE FURNISHINGS." PROVIDE INDIVIDUAL ADD PRICES FOR EACH TYPE SHOWN ON DRAWINGS. (UOM: per UNIT)	**$**_____
010	**SPHERE BOLLARDS: UNIT PRICE NO. 3D** COST TO: ADD AND INSTALL (1) UNIT(SPHERE BOLLARD) ACCORDING TO DIVISION 12 SECTION "SITE FURNISHINGS". (UOM: PER UNIT)	**$**_____
011	**SITE LIGHTING (A TYPE FIXTURE) : UNIT PRICE NO. 4A** COST TO: ADD FIXTURE, PROVIDE FOUNDATIO, WIRE AND INSTALL ONE (1) UNIT (A TYPE FIXTURE) ACCORDING TO DIVISION 26 SECTION "SITE LIGHTING", AND CONSTRUCTION DRAWINGS. INCLUDE ONE HUNDRED (100) FEET OF UNDERGROUND CONDUIT AND WIRING. (UOM: per UNIT)	**$**_____
012	**SITE LIGHTING (C TYPE FIXTURE) : UNIT PRICE NO. 4B** COST TO: ADD FIXTURE, PROVIDE FOUNDATION, WIRE, AND INSTALL ONE (1) UNIT (C TYPE FIXTURE) ACCORDING TO DIVISION 26 SECTION "SITE LIGHTING" AND CONSTRUCTION DRAWINGS. INCLUDE ONE HUNDRED (100) FEET OF UNDERGROUND CONDUIT AND WIRING. (UOM: per UNIT).	**$**_____
013	**SITE LIGHTING (L TYPE FIXTURE) : UNIT PRICE NO. 4D** COST TO: ADD FIXTURE, PROVIDE FOUNDATION, WIRE AND INSTALL ONE (1) UNIT (L TYPE FIXTURE) ACCORDING TO DIVISION 26 SECTION "SITE LIGHTING", AND CONSTRUCTION DRAWINGS. INCLUDE ONE HUNDRED FEET OF UNDERGROUND CONDUIT AND WIRING. (UOM: per UNIT)	**$**_____
014	**DECOMPOSED GRANITE : UNIT PRICE NO. 5A** COST TO: PROVIDE, PREP GROUND, AND INSTALL ONE (1) SQUARE FOOT OF DECOMPOSED GRANITE DETAILS IN CONSTRUCTION DRAWINGS. (UOM: per Square Foot)	**$**_____
015	**DECOMPOSED GRANITE : UNIT PRICE NO. 5B** CREDIT TO: DEDUCT NOT PREP GROUND, AND NOT INSTALL ONE (1) SQUARE FOOT OF DECOMPOSED GRANITE DETAILS IN CONSTRUCTION DRAWINGS. (UOM: per Square Foot)	**$**_____
016	**LANDSCAPE PLANTS : UNIT PRICE NO. 8A** COST TO: ADD ONE (1) PLANT OR ONE (1) PLANT CONTAINER IF STANDARD CONTAINER CONTAINS MULTIPLE PLANTS, INSTALL, IRRIGATE AND MAINTAIN FOR MAINTENANCE PERIOD PER DIVISION 32 SECTIONS "PLANTING" AND "OPERATION AND MAINTENANCE OF PLANTING" AND CONSTRUCTION DRAWING DETAILS. PROVIDE INDIVIDUAL ADD PRICES FOR EACH PLANT LISTED IN THE PLANT SCHEDULE. (UOM: Per CONTAINER).	**$**_____
017	**LANDSCAPE PLANTS : UNIT PRICE NO. 8B** CREDIT TO DEDUCT: ONE (1) PLANT OR ONE (1) PLANT CONTAINER IF STANDARD CONTAINER CONTAINS MULTIPLE PLANTS, INSTALL, IRRIGATE AND MAINTAIN FOR MAINTENANCE PERIOD PER DIVISION 32 SECTIONS "PLANTING" AND "OPERATION AND MAINTENANCE OF PLANTING" AND CONSTRUCTION DRAWING DETAILS. PROVIDE INDIVIDUAL DEDUCT PRICES FOR EACH PLANT LISTED IN THE PLANT SCHEDULE. (UOM: Per CONTAINER).	**$**_____

llewelyn-davies sahni

architecture + planning + design

Southeast Campus Parking Infrastructure Improvements
Project # 12-32

Addendum #1 – 03-27-2012

Proposal Form:

1. Attachment 2 in the Request for Competitive Sealed Proposal form has been revised. The revised document is available in the Procurement Operations section of the Houston Community College website. www.hccs.edu

Specifications:

1. The following specification sections have been replaced with the correct version for this project:
    a. 01 00 00 – Miscellaneous Requirements
    b. 01 20 00 – Project Meetings
    c. 01 31 00 – Project Administration
    d. 01 32 00 – Project Planning and Scheduling
    e. 01 32 20 – Photographic Documentation
    f. 01 35 23 – Project Safety Requirements
    g. 01 42 00 – Reference Standards
    h. 01 43 00 – Quality Assurance
    i. 01 43 39 – Site Mock-ups
    j. 01 45 00 – Quality Control
    k. 01 45 18 – Field Engineering
    l. 01 50 00 – Construction Facilities and Temporary Controls
    m. 01 52 40 – Construction Waste Management
    n. 01 70 00 – Contract Close-out
    o. 01 91 00 – General Commissioning Requirements
    p. 32 90 00 – Planting
    q. 32 91 19 – Landscape Grading

2. The following sections have been added to the specifications:
    a. 32 01 90 – Operation and Maintenance of Planting

b. 32 31 13 – Chain Link Fences and Gates

3. The following sections have been deleted from the specifications:
    a. 32 92 13 – Hydro-mulching

4. The following sections have individual revisions:
    a. 01 23 00 – Alternates
        i. Revision within this section is the description of Alternate No. 01.
    b. 01 27 00 – Unit Prices
        i. Revision within this section is the unit price numbers associated with each unit price. The numbers were revised to be in sequence.
    c. 31 63 29 – Drilled Concrete Piers and Shafts
        i. All references to unit pricing have been deleted.

Drawings:

1. Architectural
    a. Drawing Sheet AS1.00
        i. Central plant masonry enclosure has been deleted from the scope. Do not price.
        ii. Benches and waste receptacles have been added to the plaza areas on the east and west sides of the existing Learning HUB Building. Enlarged plan located on sheet AS6.05. Twenty (20) benches have been added in the east plaza area. Two (2) waste receptacles have been added to each of the two plazas for a total of four (4).
        iii. Two (2) curb ramps have been added to the south side of the existing workforce building. Enlarged plan and details of curb ramp are located on sheet AS6.05
    b. Drawing Sheet AS1.00B – Added Sheet
        i. Sheet has been added to explain particular phasing requirements to work around the operational calendar of the college.
    c. Drawing Sheet AS1.01
        i. Keynote 10 detail number is revised. Refer to all items noted keynote 10. total bench seating = sixteen (16)
        ii. Added keynote 19. Refer to all items noted keynote 19. total waste receptacles = 6
        iii. General note 18 added for description of seating panels for seating walls.
    d. Drawing Sheet AS1.02
        i. Keynote 10 detail number is revised. Refer to all items noted keynote 10. total bench seating = twenty (20)

ii. Added keynote 19. Refer to all items noted keynote 19. total waste receptacles = 6
iii. General note 18 added for description of seating panels for seating walls.

e. Drawing Sheet AS1.04
   i. Chain link fence added to scope. Specification was added for fencing details.
   ii. Landscape Island expanded to account for an existing tree to remain and addition of another tree that has changed planting location.

f. Drawing Sheet AS6.05
   i. Details of the central plant masonry enclosure have been deleted from the scope. Do not price.
   ii. Details of new curb ramps south of the existing workforce building have been added to scope
   iii. New benches have been added to scope in the east plaza of the existing learning HUB building.
   iv. New waste receptacles have been added to scope on the east and west plazas of the existing learning HUB building.

2. Electrical
   a. Drawing Sheet SE200
      i. Duct bank details added
      ii. Electrical room plan visible.
      iii. Pull box notes added.
   b. Drawing Sheet SE201
      i. Notes for boring locations revised. See drawing note 4.
   c. Drawing Sheet SE300
      i. One line diagram revised to show pull box.
   d. Provide pricing for the following:
      i. Provide two (2) 100a/3p 120/208v, 3phase, 4w + ground receptacle with watertight cap, equal to Hubbell HBL5100R9W-FW60100PC100, flush in concrete pedestal. Locations to be determined. Also in include 150 feet of 1-1/2" conduit, wiring and 2 new 100 amp breakers for installation in existing electrical panel. Include installation of all above items mentioned.
      ii. Provide three (3) sealed, in-ground flag pole light with lamp, spot distribution with 5 degree axial spread, bronze housing with 12"d round brass trim ring, 3/4" side entry, single fuse, 277v. (HOLOPHANE MODEL H910 B 100CM 277 MFL FLC5 34B BJB LP DF BZ). Include 150' of 1" conduit and wiring.

3. Civil
   a. Drawing Sheet C-4.00
      i. 3 additional light pole demolition locations noted.

ii. Note stating demolition contractor to have offices on site was deleted.
iii. Wheel stop removal note added.

b. Drawing Sheet C-5.00
   i. New parking area revised to show concrete construction in lieu of asphalt.
   ii. New curb at the southwest entry drive revised for more efficient entry area.
   iii. Detail added to show pavement replacement where saw cutting occurred for conduit installation in the existing parking area.

c. Drawing Sheet C-6.00
   i. Grading at new parking area and ramp areas revised.

d. Drawing Sheet C-9.00
   i. Pavement details revised to show concrete detail in lieu of asphalt.

4. Landscape
   a. Drawing Sheet L1.00
      i. Vine detail added for planting at landscape screen north of Felix Morales Building.
      ii. Plant schedule revised
      iii. Tree location revised in new parking area.
   b. Drawing Sheet L1.01
      i. New sheet for additional trees added to project scope. Trees are to be located east of the existing Learning HUB Building. Existing trees within the plaza area east of the Learning HUB shall be removed before new plant installation. These are the trees within the concrete paver area.

Purchasing Dept.
3100 Main St.
Houston, TX 77002

Solicitation Amendment No. 002

To:	Date:
Prospective Proposers:	April 05, 2012
Project Title:	Project No.:
Southeast Campus Infrastructure Improvements	12-32

The solicitation for Southeast Campus Infrastructure is hereby amended as set forth herein.

1) Attachment No. 2, Price Proposal I, is hereby replaced with the "Revision 2" Attachment No. 2.
2) Addendum #2 containing the following:
   01 21 00 Allowances / Descriptions & Details
   32 31 13 Chain Link Fence
   AS1.04 Addendum #2
   AS6.04 Addendum #2
   AS6.06 Addendum #2
   City of Houston Driveway Detail
   Geotechnical Report
   Specification TOC (Table of Content)
   All documents attached, hereto and incorporated herein.

   This form must be returned as part of your proposal packet.

Acknowledgement of Amendment No. 2 by:	Date:

Company Name (Bidder/Offerer):

Signed by:

Name (Type or Print):	Title:

Purchasing Dept.
3100 Main St.
Houston, TX 77002

ATTACHMENT NO. 2
("Revision 2")

PRICE PROPOSAL I
FOR
Southeast Campus Parking Infrastructure Improvements

The Proposer/Contractor shall furnish all necessary resources and services necessary and required to provide Southeast Campus Parking Infrastructure Improvements, in accordance with the Project Manual and Architectural Drawings hereby incorporated and made a part of this RFCSP and the general terms and conditions of the sample contract for the prices listed below. Please provide a **Project Total Proposed Price** reflecting all project costs to successfully complete the Southeast Campus Parking Infrastructure Improvements. Work requirements will be specified in individual purchase orders issued by Houston Community College. **Please submit this form in separate, sealed envelope with your technical proposal and label it "Price Proposal".**

ITEM	DESCRIPTION OF WORK/ITEMS	Proposed Price
001	TOTAL PROJECT COST INCLUDING OVERHEAD AND PROFIT **(BASE)**	**$** _____
002	SIGNAGE ALLOWANCE	**$ 75,000.00**
003	IRRIGATION ALLOWANCE	**$ 20,000.00**
004	CONTINGENCY (OWNER)	**$ 225,000.00**
005	ALTERNATE No. 01 DRAWING SHEET SE300, DETAIL 1, SHOWS AN EMPTY 1" COMMUNICATION CONDUIT FOR COMMUNICATION STUBBING OUT FROM THE LIGHT POLE BASE. ON SHEE SE201, DRAWING NOTE 3, STATES ALL LOCATIONS WHERE THE EMPTY 1" COMMUNICATION CONDUIT IS TO BE INSTALLED. AS AN ALTERNATE: PROVIDE PRICING TO RUN THE EMPTY 1" COMMUNICATION CONDUIT WITH PULL STRINGS FROM THE NOTED POLE LOCATIONS TO THE ELECTRICAL ROOM LOCATED ON THE FIRST FLOOR OF THE ANGELA MORALES BUILDING. LOCATION OF ELECTRICAL ROOM IS NOTED SE201 BY A PLAN DETAIL CALLOUT SYMBOL ON THE NORTHEAST CORNER OF THE ANGELA MORALES BUILDING. THE CONDUIT SHOULD STUB UP INSIDE THE ELECTRICAL ROOM THROUGH THE BUILDING SLAB. THIS ELECTRICAL ROOM IS THE SAME ROOM WHERE THE ENTIRE NEW SITE LIGHTING WIRING IS TERMINATED.	**$**_____

Total Proposed Price (Items 001-005): $_____

Note: Total proposed price must equal the total line item cost for items 001-005

Proposer's Maximum Project Duration in Calendar Days: _____

llewelyn-davies sahni

architecture + planning + design

Southeast Campus Parking Infrastructure Improvements
Project # 12-32

Addendum #2 – 04-04-2012

Proposal Form:

1. Attachment 2 in the Request for Competitive Sealed Proposal form has been revised to show new allowance of $20,000.00 for landscape irrigation. The revised document is available in the Procurement Operations section of the Houston Community College website. www.hccs.edu

Specifications:

1. The following sections have individual revisions:
    a. 32 31 13 – Chain Link Fences and Gates
        i. Product added within section– 2.4 Industrial Horizontal – Slide Gates
    b. 01 21 00 – Allowances.
        i. Allowance No. 3 added – $20,000.00 Landscape Irrigation
2. General note about section 02 41 13 – This section references section 31 10 00 Site Clearing. This has been mislabeled. The section is accounted for in the project manual as Section 03 11 00 0 – Site Clearing.
3. General note about all spec sections. The reference to submittals appears to have been mislabeled in some specification sections. If any specification section references section 01 33 00 Submittals refer to section 01 31 00 Submittals.

Geotechnical Report:

1. Geotechnical Report has been issued.

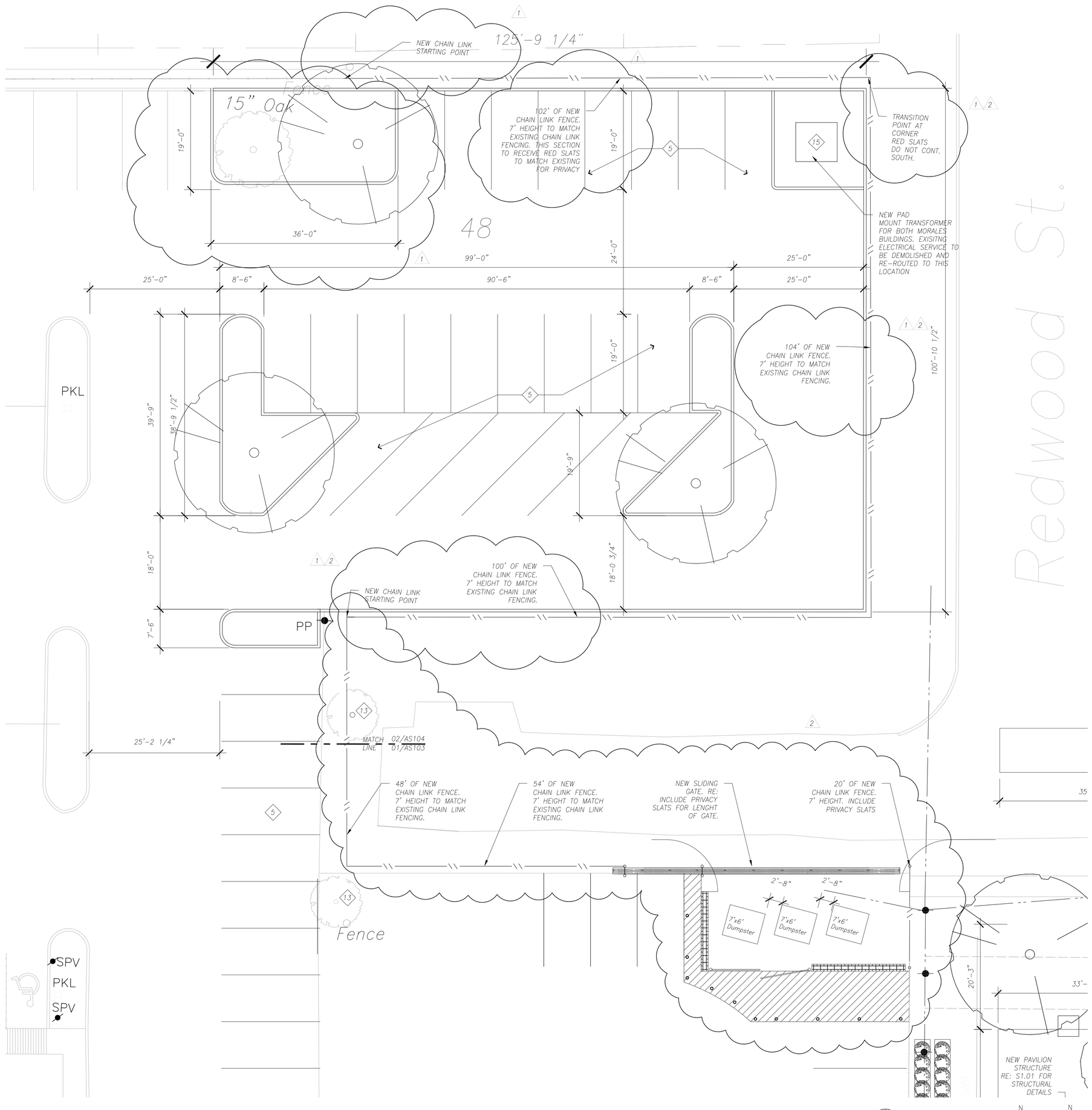
Drawings:

1. Architectural
    a. Drawing Sheet AS1.04

i. Additional 7 foot height chain link fence added to scope.
ii. Dumpster enclosure layout has been revised. See revised sheet AS6.04
iii. All new fence heights noted as 6 feet were changed to 7 feet.

b. Drawing Sheet AS6.04
   i. Dumpster enclosure layout has been revised. Structural drawings show the design intent of the foundation for the slab and walls. The structural drawings will be revised at a later date to reflect the new layout. The slab size for the new layout is 40'x15'. Masonry walls are no longer 10 feet in height and have been reduced to 8 feet.
   ii. New 35' driveway added for street access to revised dumpster enclosure. See attached City of Houston Driveway construction detail
   iii. Gate Hinge detail moved to detail designation 04
   iv. Dumpster enclosure masonry wall is now 8 foot in height.
   v. New rolling gate added to scope. Gate to have 40 foot clear opening. Chain link specification revised to include gate information.
   vi. Slatted fence elevation detail added.
   vii. Detail 17 revised to reflect elevations of new dumpster enclosure layout.
   viii. Additional 7 foot height chain link fence added.
   ix. Ten (10) 6 inch steel bollards added to scope. Two of the bollards should be removable to accommodate enclosure door swing. Re: detail 02

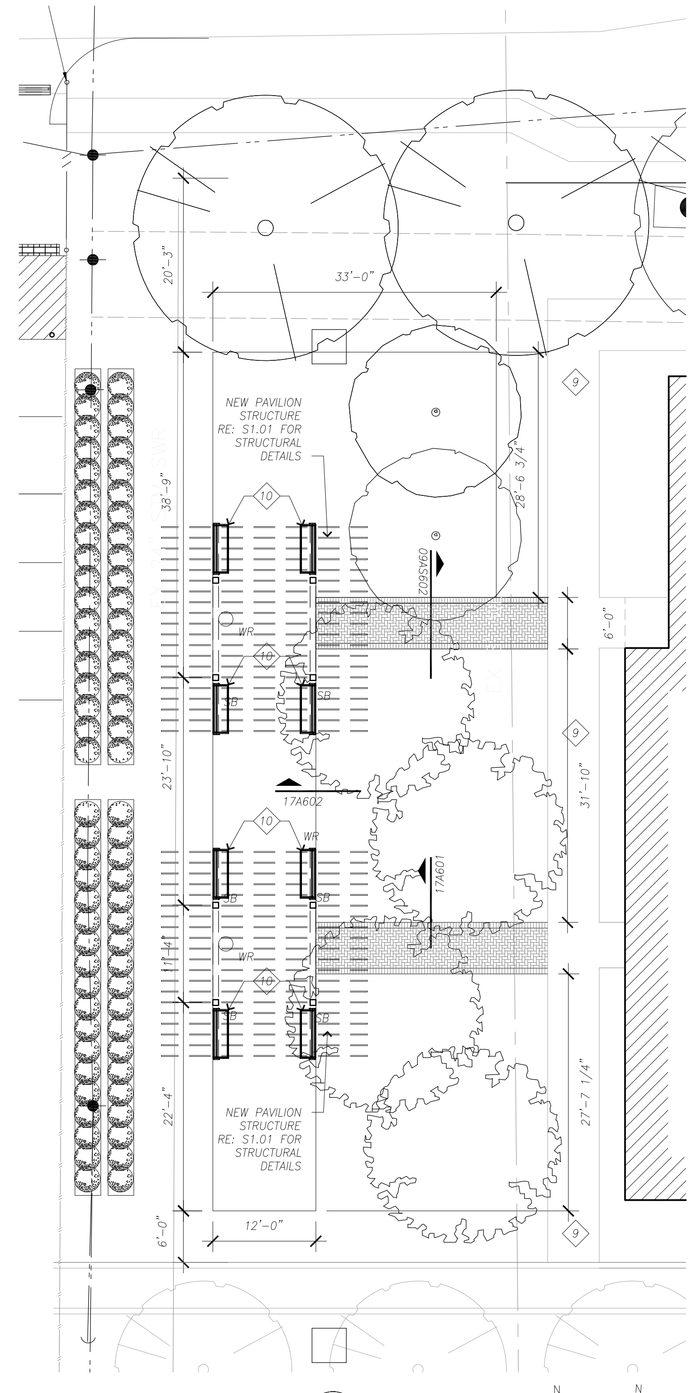
c. Drawing Sheet AS6.06
   i. Sheet added for pricing only.
   ii. Sheet includes foundation details for site lighting and foundations for flag poles.
   iii. Sheet includes location plan for flag poles to be relocated from the Felix Morales Building.



02 ENLARGED PLAN
1" = 10'

N PLAN NORTH

N TRUE NORTH



01 ENLARGED PLAN
1" = 10'

N PLAN NORTH

N TRUE NORTH

1 ADDENDUM #1 – 03-27-2012
1. NEW CHAINLINK FENCE ADDED TO SCOPE. SEE NOTES ON DRAWING FOR HEIGHTS AND LINEAR FOOTAGE. NEW SPECIFICATION ADDED FOR FENCE DETAILS.
2. PARKING ISLAND ENLARGED TO ACCOUNT FOR EXISTING TREE TO REMAIN NEW TREE. RE: LANDSCAPE DRAWINGS FOR SCHEDULE OF NEW TREES.

2 ADDENDUM #2 – 04-04-2012
1. ADDITIONAL CHAIN LINK FENCE ADDED TO SCOPE. SEE NOTES ON DRAWING FOR HEIGHTS AND LINEAR FOOTAGE.
2. DUMPSTER ENCLOSURE LAYOUT REVISED. RE: AS6.04
3. FENCE HEIGHTS PREVIOUSLY NOTED AS 6' HAVE BEEN CHANGED TO 7'
4. NEW ROLLING GATE ADDED. RE: AS6.04

AMENITY LEGEND

SEE SPECS FOR ADD'L INFO & INSTALLATION DETAILS

WR	WASTE RECEPTACLE
AR	ASH RECEPTACLE
SB	BENCH SEATING
BD	BOLLARDS

KEYED NOTES:

1. ROAD IMPROVEMENTS – RE: CIVIL
2. NEW CONCRETE PAVING – RE: CIVIL
3. NEW CONCRETE CURB – RE: CIVIL
4. NEW CONCRETE PAVERS
5. NEW PARKING STRIPING
6. NEW CURB RAMP
7. NEW CONCRETE PAVER WALKWAY
8. NEW CONCRETE WALKWAY
9. EXISTING PAVING TO REMAIN
10. NEW BENCH SEATING – RE: 02/AS603
11. PAVING DESIGN BY OTHERS
12. EXISTING STRUCTURE TO REMAIN
13. EXISTING TREES TO REMAIN
14. NEW DECOMPOSED GRANITE WALKWAY
15. NEW PAD MOUNTED TRANSFOMER – RE: MEP
16. RELOCATED INLET

GENERAL NOTES:

1) ALL ACCESSIBILITY INFORMATION AND LAYOUT INSIDE THE PROPERTY LINE IS LOCATED IN ARCHITECTURALS. ALL STRUCTURAL DESIGN BY CIVIL ENGINEER.
2) THE CONTRACTOR SHALL COORDINATE ALL UTILITIES BETWEEN DRAWING PACKAGES. IF DESCREPANCIES ARE FOUND, NOTIFY ARCHITECT PRIOR START OR BID ON WORK.
3) REFER TO TOPOGRAPHIC AND BOUNDARY SURVEYS PROVIDED BY CIVIL ENGINEER.
4) REFER TO CIVIL ENGINEERING DRAWINGS FOR PAVING AND UNDERGROUND WORK.
5) REFER TO CIVIL ENGINEERING DRAWINGS FOR FINAL GRADING.
6) REFERENCE LANDSCAPE AND IRRIGATION DRAWING SHEETS FOR LANDSCAPING AND IRRIGATION WORK.
7) REFERENCE SOILS REPORT – TO BE INCLUDED IN SUBMITTAL TO THE CITY OF HOUSTON FOR BUILDING PERMIT CONSTRUCT ALL SITE ELEMENTS PER SOILS REPORT RECOMMENDATIONS
8) THE CONTRACTOR SHALL VERIFY THE LOCATION & ELEVATION OF EXISTING FACILITIES PRIOR TO THE CONSTRUCTION OF PROPOSED FACILITIES.
9) THE CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE & PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. ALL MATERIALS, CONSTRUCTION & TESTING SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITY'S SPECIFICATIONS, LATEST PRINTING & AMENDMENTS THERETO.
10) THE CONTRACTOR WILL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
11) ALL SATISFACTORY EXCAVATED MATERIAL SHALL BE PLACED ON SITE. THE CONTRACTOR SHALL CLEAR & STRIP FILL AREA OF ALL VEGETATION PRIOR TO PLACING ANY FILL MATERIAL. FILL MATERIAL SHALL BE PLACED IN MAXIMUM 8" LIFTS & COMPACTED TO 95% STANDARD PROCTOR DENSITY WITHIN 2% OF OPTIMUM MOISTURE CONTENT & SHAPED TO DRAIN TOWARD INLETS & DITCHES AS SHOWN ON THE PLAN. UNLESS OTHERWISE SPECIFIED. RE: SOILS REPORT.
12) ALL UNSATISFACTORY & WASTE MATERIALS INCLUDING VEGETATION, ROOTS, CONCRETE & OTHER DEBRIS SHALL BE HAULED FROM THE PROJECT SITE BY THE CONTRACTOR.
13) THE CONTRACTOR SHALL PROVIDE BARRICADES OR OTHER DEVICES NECESSARY TO PROTECT THE PUBLIC FROM DAMAGE INCLUDING TRAFFIC CONTROL

HCC

Houston Community College System

Hccs-Construction Department
3100 Main, 12th Floor
Houston, Texas, 77002
Voice: 713.718.5168
reynaldo.pradia@hccs.edu

REGISTERED ARCHITECT JASON C. BAERNER 22301 STATE OF TEXAS

04-04-2012

Issue:

	ISSUE FOR BID AND CONSTRUCTION	03-09-2012
1	REVISED FOR ADDENDUM #1	03-27-2012
2	REVISED FOR ADDENDUM #2	04-04-2012

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Eastside Campus

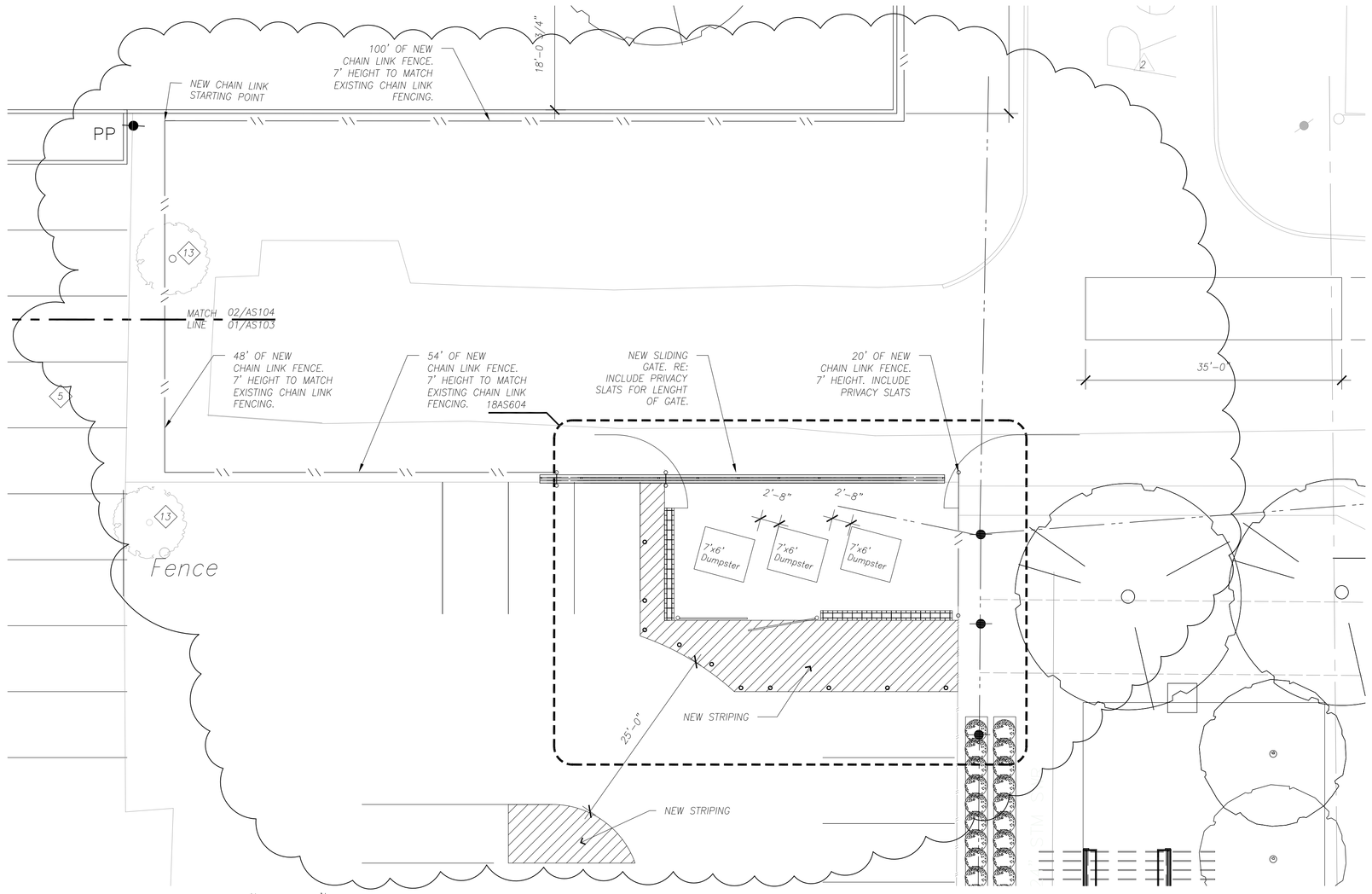
6815 Rustic
Houston, TX 77087

HCCS Project No.:	
A/E Project No.:	771
Drawn By:	RH
Checked By:	JB
CAD File:	---

ENLARGED PLANS

Scale: As Noted

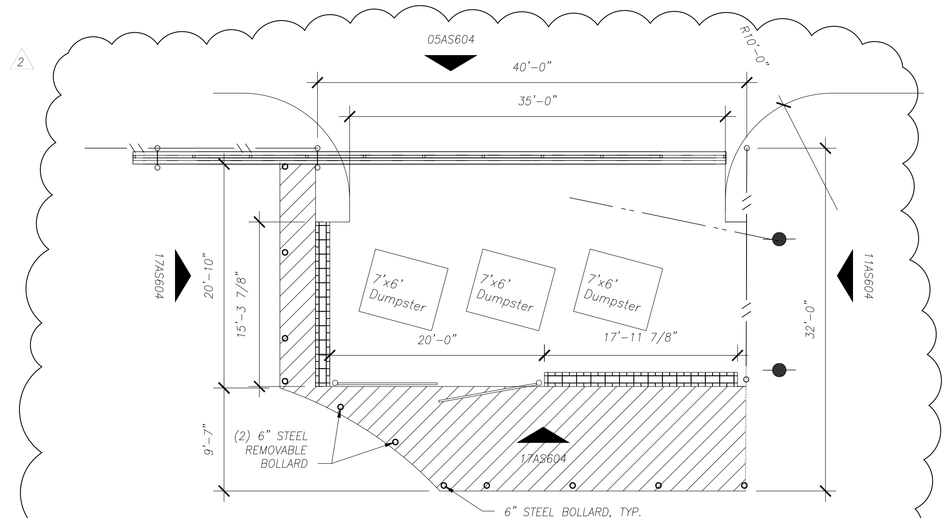
AS1.04



19 ENLARGED SITE PLAN
1" = 10'

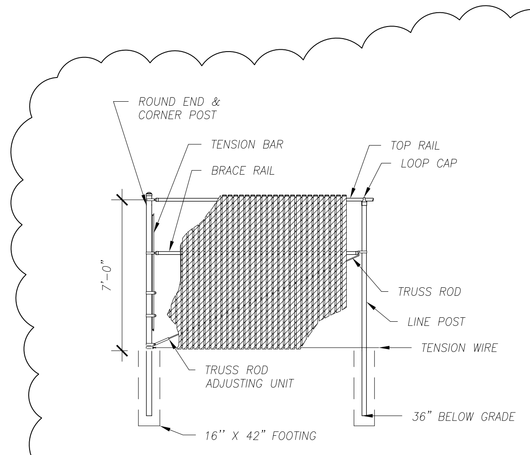
PLAN NORTH

TRUE NORTH

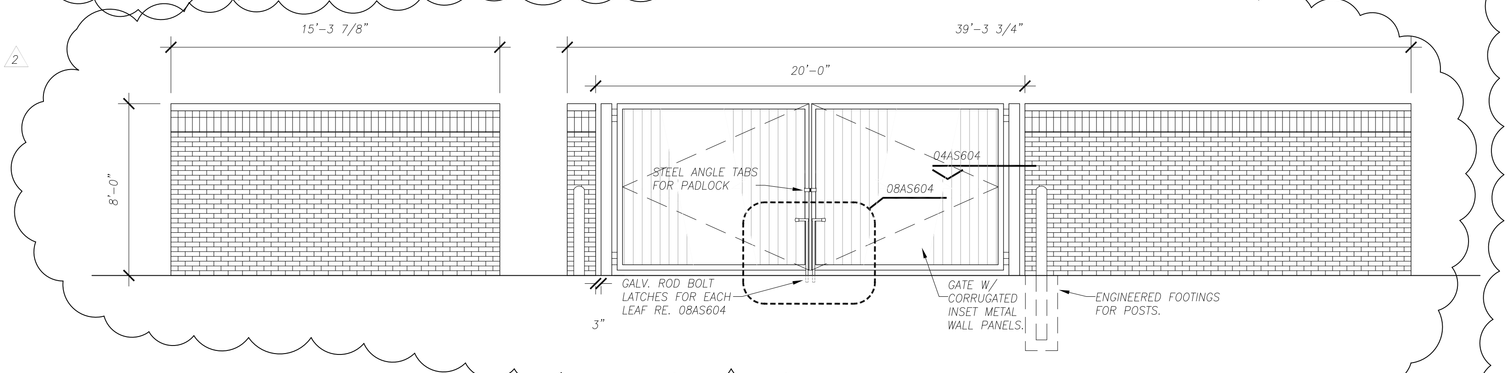


NOTES:
1. NEW CURB CUT AND 35' WIDE DRIVEWAY – DRIVEWAY TO BE CONSTRUCTED TO CITY OF HOUSTON STANDARDS. CIVIL DRAWINGS WILL BE REVISED AT A LATER DATE TO REFLECT DRIVEWAY ADDITION.
2. DRIVEWAY TO HAVE 10' RADIUS ON EACH END.
3. DEMOLISH EXISTING PAVING AND ASPHALT FOR DRIVEWAY AND NEW CONCRETE PAD FOR DUMPSTER ENCLOSURE.
4. NEW CONCRETE PAD FOR DUMPSTER ENCLOSURE – 40'X15' SEE STRUCTURAL FOR THICKNESS.
5. STRUCTURAL DRAWINGS SHOW IN INTENT OF PAD DETAILS AND WALL FOOTINGS. STRUCTURAL DRAWINGS WILL BE REVISED AT A LATER DATE TO REFLECT LAYOUT CHANGE FOR DUMPSTER ENCLOSURE

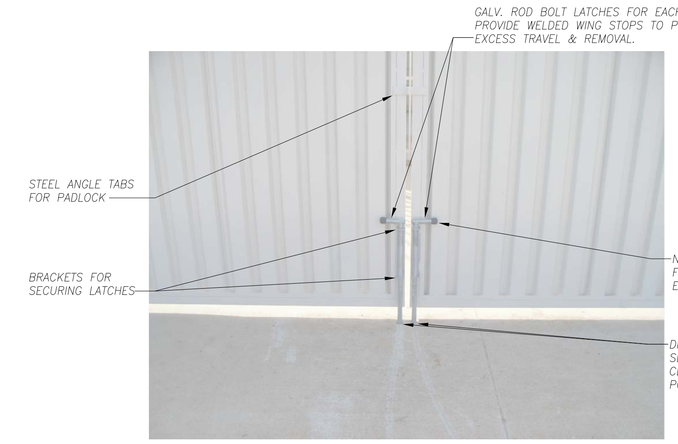
18 ENLARGED DUMPSTER ENCLOSURE PLAN
1/8" = 1'



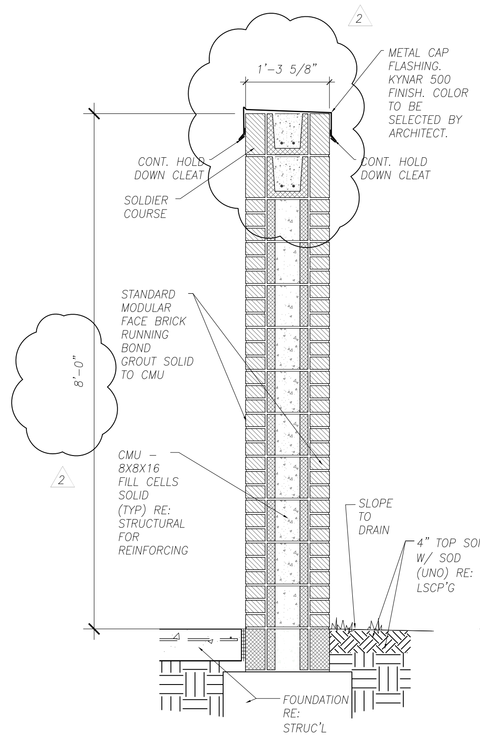
11 TYPICAL FENCE ELEVATION WITH SLATS
1/4" = 1'

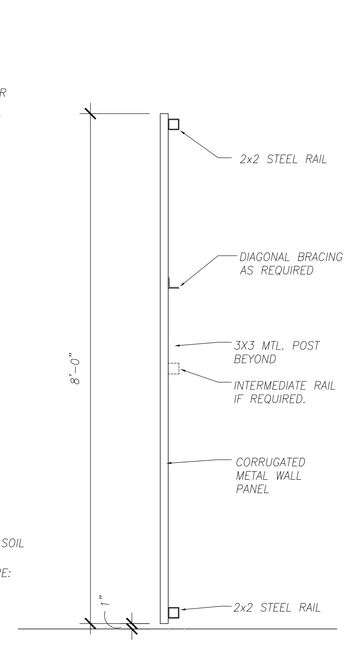


17 DUMPSTER ENCLOSURE ELEVATIONS
1/4" = 1'

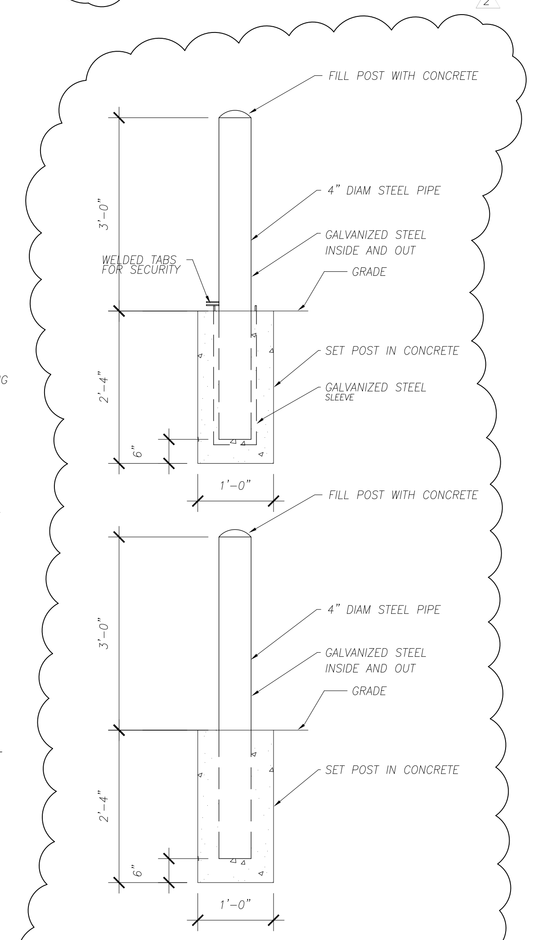


08 DUMPSTER DETAILS
N.T.S.

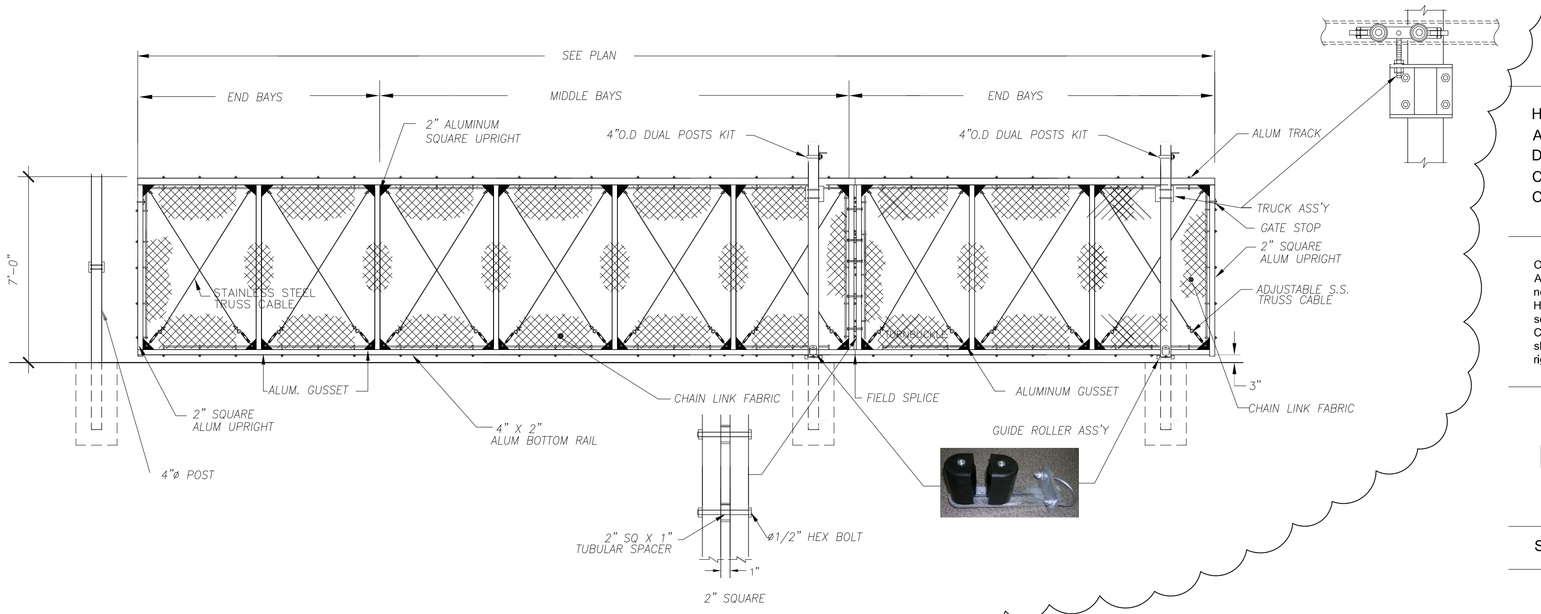




07 DUMPSTER SECTION DETAILS
3/4" = 1'

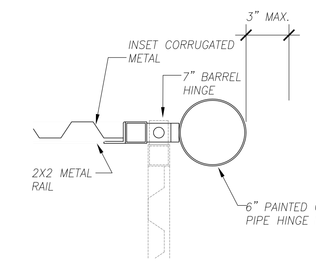


02 BOLLARD DETAILS
3/4" = 1'



05 ROLLING GATE - CHAIN LINK
1/4" = 1'

1 2 ADDENDUM #2 – 04-04-2012
1. REVISED DUMPSTER LAYOUT
2. NEW DRIVEWAY ADDED
3. GATE HINGE DETAIL MOVED TO DETAIL 04.
4. DUMPSTER WALL NOW 8' TALL
5. NEW ROLLING GATE ADDED
6. SLATTED FENCE DETAIL ADDED
7. DETAIL 17 REVISED TO REFLECT NEW LAYOUT
8. ADDITIONAL 7' CHAIN LINK FENCE ADDED.
9. STEEL BOLLARD DETAILS ADDED.



04 DUMPSTER GATE HINGE
1-1/2" = 1'

Houston Community College System

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3100 Main, 12th Floor
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Voice: 713.718.5168
reynaldo.pradia@hccs.edu

REGISTERED ARCHITECT JASON C. BAENEN 22301 STATE OF TEXAS

04-04-2012

Issue:

	ISSUED FOR BID AND CONSTRUCTION	03-09-2012
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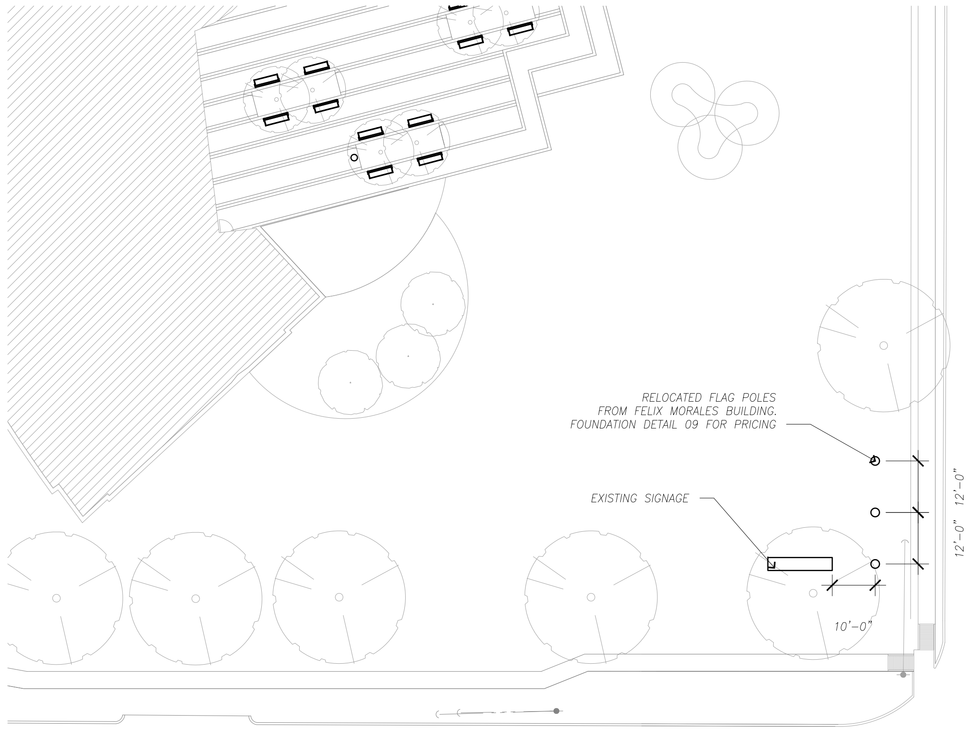
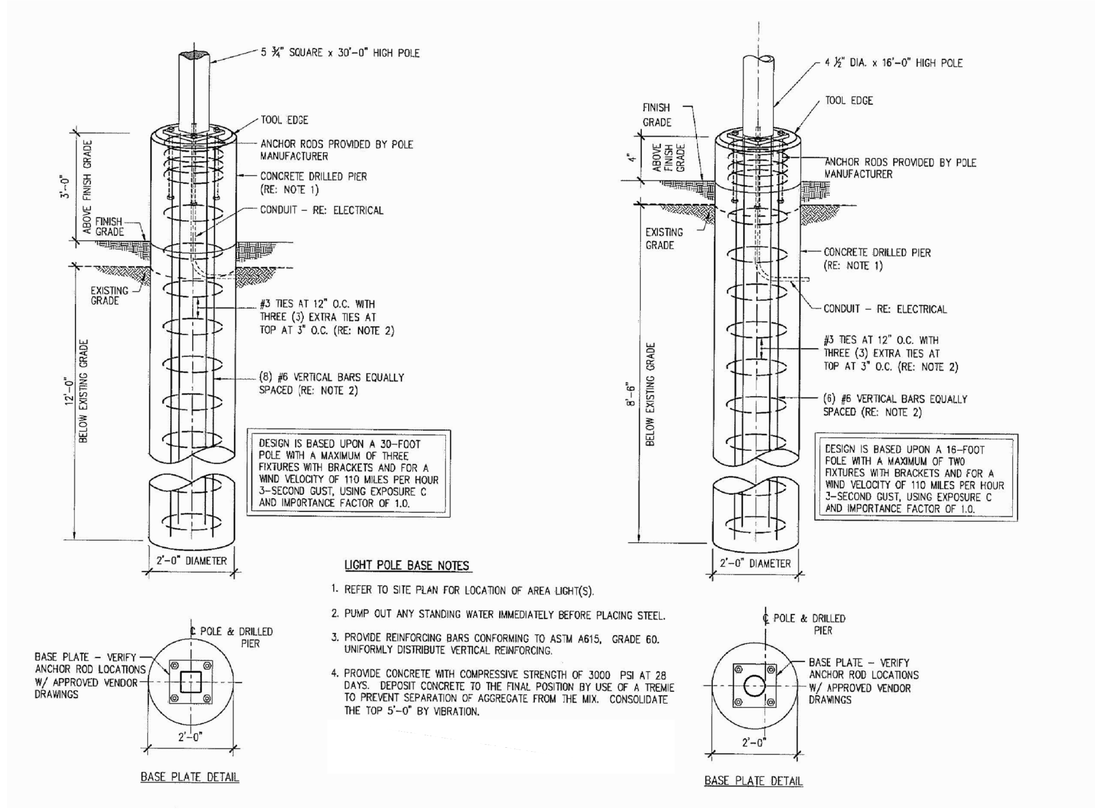
Scale: As Noted

AS6.04



12 FLAG POLE RELOCATION PLAN - NORTHWEST CORNER OF GARLAND ST AND RUSTIC ST.
1" = 20'

2 ADDENDUM #2 - 04-04-2012
1. THIS SHEET HAS BEEN ADDED FOR PRICING ONLY
2. LIGHT POLE FOUNDATION DETAILS FOR PRICING
3. LAYOUT FOR RELOCATED FLAG POLES
4. FLAG POLE FOUNDATION DETAILS FOR PRICING.



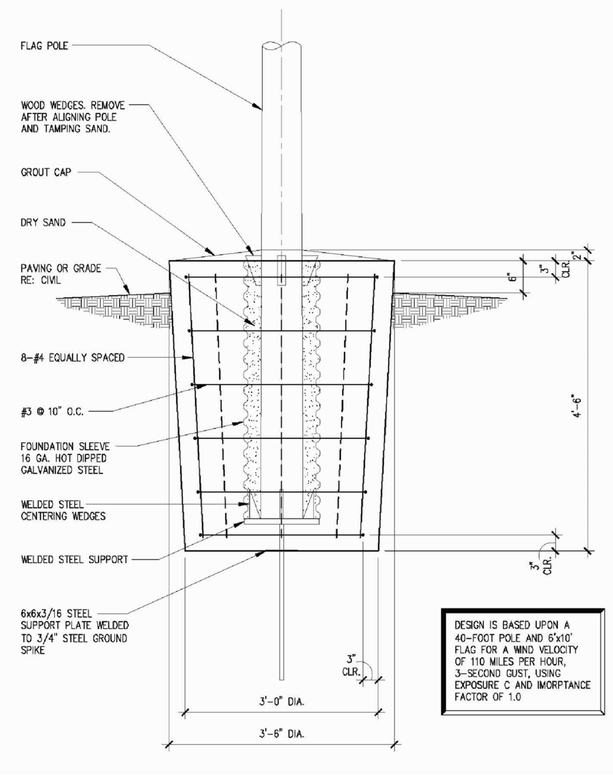
LIGHT POLE BASE NOTES

1. REFER TO SITE PLAN FOR LOCATION OF AREA LIGHT(S).
2. PUMP OUT ANY STANDING WATER IMMEDIATELY BEFORE PLACING STEEL.
3. PROVIDE REINFORCING BARS CONFORMING TO ASTM A615, GRADE 60. UNIFORMLY DISTRIBUTE VERTICAL REINFORCING.
4. PROVIDE CONCRETE WITH COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. DEPOSIT CONCRETE TO THE FINAL POSITION BY USE OF A TREME TO PREVENT SEPARATION OF AGGREGATE FROM THE MIX. CONSOLIDATE THE TOP 5'-0" BY VIBRATION.

FOR SITE LIGHTING A1, A2 AND A3

FOR SITE LIGHTING C1 AND L1

17 LIGHT POLE FOUNDATION DETAIL - FOR PRICING ONLY
NTS



FLAG POLE BASE NOTES:

1. REFER TO SITE PLAN FOR LOCATION OF FLAG POLE(S).
2. PUMP OUT ANY STANDING WATER IMMEDIATELY BEFORE PLACING STEEL.
3. PROVIDE REINFORCING BARS CONFORMING TO ASTM A615, GRADE 60. UNIFORMLY DISTRIBUTE VERTICAL REINFORCING.
4. PROVIDE CONCRETE WITH COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
5. A GEOTECHNICAL REPORT IS NOT AVAILABLE FOR REVIEW.

09 FLAG POLE FOUNDATION DETAIL - FOR PRICING ONLY
NTS

HCC

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reynaldo.pradia@hccs.edu

REGISTERED ARCHITECT JASON C. BAERNER 22301 STATE OF TEXAS
04-04-2012

Issue:

2 REVISED FOR ADDENDUM #2 04-04-2012

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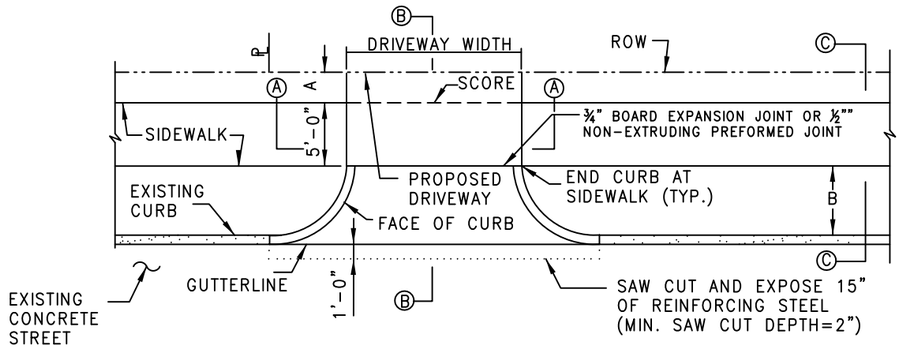
CAD File:	---

FOR PRICING INFORMATION ONLY

Scale: As Noted

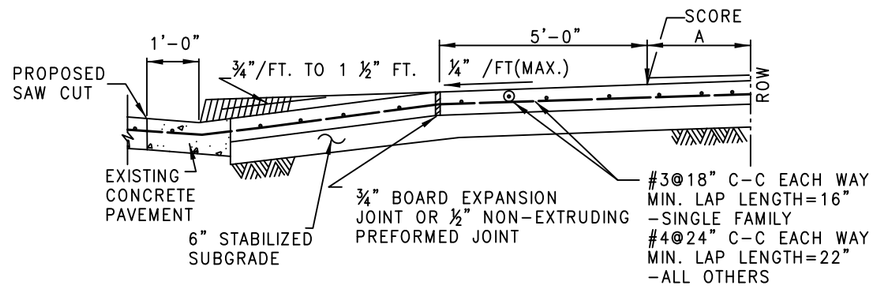
2

AS6.06



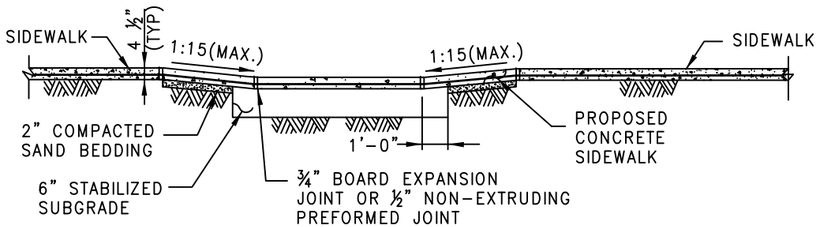
PLAN VIEW – DRIVEWAY

NTS



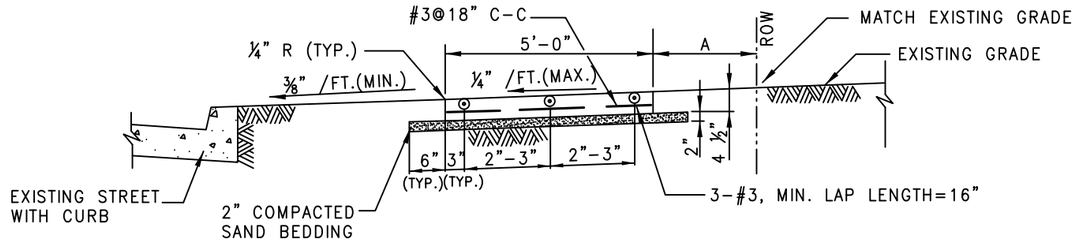
SECTION (B)
TYPICAL DRIVEWAY SECTION

NTS



SECTION (A)
PROPOSED SIDEWALK THROUGH DRIVEWAY
WITH EXCESSIVE ELEVATION DIFFERENCE
WITH EXISTING SIDEWALK

NTS



SECTION (C)
TYPICAL SIDEWALK SECTION

NTS

NOTES

1. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE A 5-FEET SIDEWALK, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER FOR A 4-FEET WIDE SIDEWALK.
2. DRIVEWAYS SHALL BE 6" THICK FOR SINGLE FAMILY USE AND 7" THICK FOR ALL OTHERS (I.E. COMMERCIAL, INDUSTRIAL, ETC.)
3. DRIVEWAYS AND SIDEWALKS SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE AND INCLUDE 5-1/2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
4. 6X6-W2.9 X W2.9 WELDED WIRE FABRIC MAY BE USED IN LIEU OF THE REINFORCING STEEL.
5. EXPANSION & CONSTRUCTION JOINTS ALONG SIDEWALKS SHALL BE ACCORDING TO DRAWING NO. 02752-02.
6. REFER CHAPTER 10 DESIGN REQUIREMENTS FOR A AND B.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

DRIVEWAY DETAIL
WITH 6" CURBED STREETS

(NOT TO SCALE)

APPROVED BY:	APPROVED BY:
CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2009	DWG NO: 02754-01B

COH

Geotechnical Engineering Report

Proposed Pavilions and Pavement Improvements

Houston Community College – Eastside Campus

Houston, Texas

April 2, 2012

Terracon Project No. 92125085

Prepared for:

Houston Community College
Houston, Texas

Prepared by:

Terracon Consultants, Inc.
Houston, Texas

April 2, 2012

Houston Community College
3100 Main Street
Houston, Texas 77002

Attn: Mr. Gregory Kieschnick
Senior Project Manager (Engineering)

Re: Geotechnical Engineering Report
Proposed Pavilions and Pavement Improvements
Houston Community College – Eastside Campus
Houston, Texas
Terracon Project No. 92125085

Dear Mr. Kieschnick:

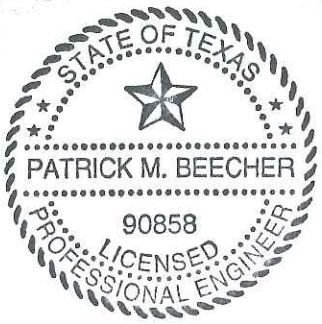
Terracon Consultants, Inc. (Terracon) is pleased to submit our Geotechnical Engineering Report for the project referenced above in Houston, Texas. We trust that this report is responsive to your project needs. Please contact us if you have any questions or if we can be of further assistance.

We appreciate the opportunity to work with you on this project and look forward to providing additional Geotechnical Engineering and Construction Materials Testing services in the future.

Sincerely,
Terracon Consultants, Inc.
(Texas Firm Registration No.: F-3272)

Sheetal V. Gordon, E.I.T.
Geotechnical Engineer

Patrick M. Beecher, P.E.
Senior Project Manager



Enclosures

Copies Submitted: Addressee: (3) Bound & (1) Electronic

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Geotechnical Engineering Report has been prepared for four new pavilions and a parking lot within the Houston Community College Eastside Campus which is located at 2524 Garland Street in Houston, Texas. One test boring, designated B-1, was drilled to a depth of about 20 feet in the area of an existing parking lot, along with four test borings, designated B-2 through B-5, to depths of about 20 feet within the areas of the proposed pavilions, and two test borings, designated B-6 and B-7, to depths of about 5 feet within the proposed pavement areas.

Based on the information obtained from our subsurface exploration, the sites can be developed for the proposed project. A summary of our findings and recommendations are provided below.

- Groundwater was not observed at borings B-1 through B-7 during or upon completion of drilling.

- Fill soils were observed underlying the surficial pavements at boring B-1 and at the ground surface at borings B-2 through B-7 and extended to depths that ranged from about one to 4½ feet below existing grade. Support of the foundation elements, flatworks, and pavements on or above the fill soils is discussed in this report. However, even with the recommended construction testing services, an inherent risk exists for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered.

- Expansive soils were observed at this site. This report provides recommendations to help mitigate the effects of soil shrinkage and expansion. However, even if these procedures are followed, some movement and distress in the structures should be anticipated.

- A shallow spread footing foundation system would be an appropriate foundation system to support the proposed pavilions provided the subgrade is prepared as described in this report.

- Rigid pavement sections vary from 5.0 to 7.0 inches of reinforced concrete with chemically treated subgrade.

This summary should be used in conjunction with the entire report for design purposes. Details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **"5.0 GENERAL COMMENTS"** should be read for an understanding of the report limitations.

GEOTECHNICAL ENGINEERING REPORT
PROPOSED PAVILIONS AND PAVEMENT IMPROVEMENTS
HOUSTON COMMUNITY COLLEGE – EASTSIDE CAMPUS
HOUSTON, TEXAS

Project No. 92125085
April 2, 2012

1.0 INTRODUCTION

Terracon is pleased to submit our Geotechnical Engineering Report for the construction of four new pavilions and a parking lot within the Houston Community College Eastside Campus which is located at 2524 Garland Street in Houston, Texas. One test boring, designated B-1, was drilled to a depth of about 20 feet in the area of an existing parking lot, along with four test borings, designated B-2 through B-5, to depths of about 20 feet within the areas of the proposed pavilions, and two test borings, designated B-6 and B-7, to depths of about 5 feet within the proposed pavement areas. This project was authorized by Mr. Gregory Kieschnick, Senior Project Manager (Engineering) for the Houston Community College, through an email dated March 9, 2012. The project scope was performed in general accordance with Terracon Document No. P92120337.Revision No. 1, dated February 29, 2012.

The purpose of this report is to describe the subsurface conditions observed at the seven test borings drilled for this project, analyze and evaluate the test data, and provide recommendations with respect to:

- Site and subgrade preparation;
- Foundation design and construction; and
- Pavement design guidelines.

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Project location	See Appendix A, Exhibit A-1, Site Location Plan.
Site layout	See Appendix A, Exhibit A-2, Boring Location Plan.
Proposed structures[1]	■ Four, one-story pavilions with a footprint area of approximately 400 square feet. ■ A new reinforced concrete parking lot, approximately 28,000 square feet in size, planned in the northern portion of the site.

Item	Description
Continued from Page 1	
Maximum loads (assumed)	■ **Columns**: 10 kips. ■ **Floor slab pressure**: 125 psf.
Finished floor elevation (assumed)	Within approximately one to two feet above existing grade.
Planned foundation system (assumed)	Shallow foundation system consisting of shallow spread footings.

1. We understand that only subsurface conditions are requested within the existing parking lot located to the northwest of the existing Angela Morales building.

2.2 Site Description

Item	Description
Site location	Houston Community College Eastside Campus located at 2524 Garland Street in Houston, Texas.
Existing conditions	Existing buildings, parking lot, canopies, and associated structures.
Current ground cover	Asphaltic concrete pavements at the location of boring B-1. Grass at the locations of borings B-2 through B-5. Gravel parking lot at the locations of borings B-6 and B-7.
Existing topography	Relatively level.

3.0 SUBSURFACE CONDITIONS

3.1 Geology

The site for the proposed construction is located on the Beaumont formation, a deltaic nonmarine Pleistocene deposit. The Beaumont formation is heterogeneous containing thick interbedded layers of clay, fine sand and silt.

The clay fraction is primarily composed of montmorillonite, illite, kaolinite, and finely ground quartz. The clay present in the formation has been preconsolidated by a process of desiccation. Numerous wetting and drying cycles have produced a network of small randomly oriented, closely-spaced joints within some depth zones. These small joints frequently have a shiny appearance and the clays are called slickensided in these cases. The joint pattern may have an influence on the construction and engineering behavior of the soil.

The coastal plain in this region has a complex tectonic geology, several major features of which are: Gulf Coastal geosyncline, salt domes, and major sea level fluctuations during the glacial stages, subsidence and geologic faulting activities. Most of these geologic faulting activities have ceased for millions of years, but some are still active. A geologic fault investigation and study of the site geology were beyond the scope of this project.

3.2 Typical Profile

The particular subsurface stratigraphy, as evaluated from our field and laboratory programs, is shown in detail on the Boring Logs in Appendix A. Conditions observed at each boring location are indicated on the individual Boring Logs. Stratification boundaries on the Boring Logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual. Details for each boring can be found on the Boring Logs in Appendix A of this report.

3.2.1 Existing Parking Lot Boring (B-1)

Boring B-1 was drilled through the existing parking lot located to the northwest of the existing Angela Morales building. The existing pavement section at the boring location was measured and consisted of approximately 3 inches of asphaltic concrete and about 6 inches of crushed stone material. Fill soils were observed underlying the pavements at boring B-1 and extended to a depth of about 3 feet. Native fat clays were observed underlying the fill soils and extended to the termination depths of the boring (approximately 20 feet below existing grade).

Based on our field and laboratory programs, engineering values for the subsurface conditions at boring B-1 can be summarized as follows:

Subsurface Soils					
Description	**Plasticity Index (%)**	**In-situ Moisture Content (%)**	**Moisture Content vs. Plastic Limit[1] (%)**	**Undrained Shear Strength[2] (psf)**	**Percentage of Fines[3] (%)**
Fill: Fat Clay	41	27	+6	1.75[4]	90
Fat Clay	35	20 to 26	+7	1,700	-

1. The difference between a soil sample's in-situ moisture content and it's corresponding plastic limit.
2. Based on unconfined compressive strength tests.
3. Percent passing the No. 200 sieve.
4. Pocket penetrometer readings in tons per square foot (tsf).

3.2.2 Pavilions and Pavement Borings (B-2 through B-7)

Fill soils were observed at the ground surface at borings B-2 through B-7 and extended to depths that ranged from about one to 4½ feet below existing grade (grade at the time of our field activities). The fill soils were underlain by lean clay and fat clay soils that extended to the termination depths of the borings (approximately 5 to 20 feet).

Based on our field and laboratory programs, engineering values for the subsurface conditions observed within borings B-2 through B-7 can be summarized as follows:

Subsurface Soils					
Description	**Plasticity Index (%)**	**In-situ Moisture Content (%)**	**Moisture Content vs. Plastic Limit[1] (%)**	**Undrained Shear Strength[2] (psf)**	**Percentage of Fines[3] (%)**
Fill: Lean Clay and Fat Clay	7 to 44	16 to 27	+2 to +9	900 to 1,300	67 to 89
Fat Clay	35 to 49	18 to 30	+1 to +6	800 to 3,200	86
Lean Clay	-	18	-	3,200	-

1. The difference between a soil sample's in-situ moisture content and it's corresponding plastic limit.
2. Based on unconfined compressive strength tests.
3. Percent passing the No. 200 sieve.

3.3 Groundwater

The borings were advanced using dry drilling techniques to their termination depths (approximately 5 to 20 feet below grade existing at the time of our field activities) in an effort to evaluate groundwater conditions at the time of our field program. Groundwater was not observed during or upon completion of drilling at borings B-1 through B-7. These groundwater measurements are considered approximate and short-term, since the borings were open for a short time period. On a long-term basis, groundwater may be present within the depths explored. Additionally, groundwater will fluctuate seasonally with climatic changes and should be evaluated prior to construction.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

The following recommendations are based upon the data obtained in our field and laboratory programs, project information provided to us, and on our experience with similar subsurface and site conditions.

4.1 Geotechnical Considerations

As stated previously, fill soils were observed underlying the surficial pavements at boring B-1 and at the ground surface at borings B-2 through B-7 and extended to depths that ranged from about one to 4½ feet below existing grade. Fill may be present at varying depths at other locations not explored during our field program. Support of the foundation elements, slab, flatworks, and pavements on or above fill soils is discussed in this report. However, even with the recommended construction testing services, and inherent risk exists for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill.

4.2 Earthwork

Construction areas should be stripped of all vegetation, existing pavement material, gravel, loose/soft topsoil, and other unsuitable debris/material. Proper site drainage should be maintained during construction so that ponding of surface runoff does not occur and cause construction delays and/or inhibit site access. Once final subgrade elevations have been achieved, the exposed subgrade should be carefully proofrolled with a 20-ton pneumatic roller or equivalent equipment, such as a fully loaded dump truck, to detect weak zones in the subgrade. Special care should be exercised when proofrolling areas containing fill soils to detect soft/weak areas within the fill soils. Weak areas detected during proofrolling, as well as zones of fill containing organic matter and debris, should be removed and replaced with soils exhibiting similar classification, moisture content, and density as the adjacent in-situ soils.

Subsequent to proofrolling, and just prior to placement of fill, the exposed subgrade within the construction area should be evaluated for moisture and density. If the moisture and/or density do not meet the criteria described in the **"4.2.1 Compaction Requirements"** section for on-site soils, the subgrade should be scarified to a minimum depth of 6 inches, moisture adjusted and compacted to at least 95 percent of the Standard Effort (ASTM D 698) maximum dry density.

On-site soils to be used at this site for grade adjustments should meet the following criteria.

Fill Type	USCS Classification	Acceptable Location for Placement
On-site soils	Varies	The on-site soils appear suitable for use as fill within the pavement areas, provided they are free of organics and debris.

4.2.1 Compaction Requirements

Item	Description
Fill lift thickness	The fill soils should be placed on prepared surfaces in lifts not to exceed 8 inches loose measure, with compacted thickness not to exceed 6 inches.
Compaction requirements	On-site soils should be compacted to at least 95 percent of the Standard Effort (ASTM D 698) maximum dry density and be moisture conditioned to between optimum and +4 percent of the optimum moisture content.

Prior to any filling operations, samples of the proposed borrow and on-site materials should be obtained for laboratory moisture-density testing. The tests will provide a basis for evaluation of fill compaction by in-place density testing. A qualified soil technician should perform sufficient in-place density tests during the filling operations to evaluate that proper levels of compaction, including dry unit weight and moisture content, are being attained

4.2.2 Wet Weather/Soft Subgrade Considerations

Construction operations may encounter difficulties due to wet and/or soft surface soils becoming a general hindrance to equipment, especially following periods of wet weather. If the wet/soft subgrade conditions present construction difficulties, one of the following measures may be considered: 1) removal and replacement with select fill, 2) chemical treatment of the soil to dry and improve the condition of the subgrade, or 3) drying by natural means if the schedule allows. Based on our experience with similar soils in this area, chemical treatment is the most efficient and effective method to increase the supporting value of wet and weak subgrade. Terracon should be contacted for additional recommendations if chemical treatment is planned due to soft and/or wet subgrade.

4.2.3 Grading and Drainage

All grades must provide effective drainage away from the structures during and after construction. Water permitted to pond next to the structures can result in distress in the structures. These greater movements can result in unacceptable differential floor slab movements, cracked slabs and walls, and roof leaks. The structure slab and foundation performances described in this report are based on effective drainage for the life of the structures and cannot be relied upon if effective drainage is not maintained.

Exposed ground should be sloped away from the structures for at least 10 feet beyond the perimeter of the structures. After structure construction and landscaping, we recommend verifying final grades to document that effective drainage has been achieved. Grades around the structures should also be periodically inspected and adjusted as necessary, as part of the structure's maintenance program.

Locate sprinkler mains and spray heads a minimum of 5 feet away from the structure line. Low-volume, drip style landscaped irrigation should not be used near the structures. Collect roof runoff in drains or gutters. Discharge roof drains and downspouts onto pavements and/or flatworks which slope away from the structures or extend down spouts a minimum of 10 feet away from structures.

Utility trenches are a common source of water infiltration and migration. All utility trenches that penetrate beneath the structures should be effectively sealed to restrict water intrusion and flow through the trenches that could migrate below the structures. We recommend constructing an effective clay “trench plug” that extends at least 5 feet out from the face of the structure exterior. The plug material should consist of clay compacted at a water content at or above the soils optimum water content. The clay fill should be placed to completely surround the utility line and be compacted in accordance with recommendations in this report.

4.3 Foundation System

Based upon the subsurface conditions observed during our field and laboratory programs, a shallow footing foundation system would be appropriate to support the structural loads of the proposed pavilions provided the subgrade is prepared as discussed in this report. Recommendations for this type of foundation system are provided in the following sections, along with other geotechnical considerations for this project.

4.3.1 Design Recommendations – Shallow Footings

Description	Column
Minimum embedment below existing grade[1]	48 inches
Allowable bearing pressures (individual footings)	Net dead plus sustained live load – 2,000 psf Net total load – 3,000 psf
Approximate total settlement[2]	Approximately one inch
Estimated differential settlement[3]	About ½ of total settlement
Allowable passive pressure[4]	1,000 psf (if considered)
Allowable frictional resistance[5]	250 psf
Uplift resistance[6]	Foundation Weight (150 pcf) & Soil Weight (120 pcf)

1. To extend through fill soils, such as observed at borings B-1 through B-7, and bear upon native undisturbed clays.

Description	Column

Continued from Page 7

2. This estimated post-construction settlement of the shallow footings is without considering the effect of stress distribution from adjacent foundations and assuming proper construction practices are followed. A clear distance between footings of one footing size of the larger of the two footings should not produce overlapping stress distributions and would essentially behave as independent foundations.
3. Differential settlements may result from variances in subsurface conditions, loading conditions and construction procedures. The settlement response of the footings will be more dependant upon the quality of construction than upon the response of the subgrade to the foundation loads.
4. The passive pressure along the exterior face of the footings should be neglected within the upper 3 feet due to surface effects and presence of fill soils and expansive soils unless pavement/flatwork is provided up to the edge of the structures.
5. To be utilized on the base of the footings.
6. Structural uplift loads on the shallow footings may be resisted by the weight of the foundation plus the weight of any soil directly above the foundation. The ultimate uplift capacity of shallow footings should be reduced by an appropriate factor of safety to compute allowable uplift capacity.

4.3.2 Foundation Construction Considerations – Shallow Footings

Excavations for shallow footings should be performed with equipment capable of providing a relatively clean bearing area. The bottom 6 inches of the foundation excavations should be completed with a smooth-mouthed bucket or by hand labor. The excavations should be neatly excavated and properly formed. Debris in the bottom of the excavation should be removed prior to steel placement. Water should not be allowed to accumulate at the bottom of the foundation excavations. To reduce the potential for groundwater seepage into the excavations and to minimize disturbance to the bearing area, we recommend that concrete and steel be placed as soon as possible after the excavations are completed. Excavations should not be left open overnight. The bearing surface of the shallow footings should be evaluated immediately prior to placing concrete.

4.3.3 Foundation Construction Monitoring

The performance of the foundation system for the proposed pavilions will be highly dependent upon the quality of construction. Thus, we recommend that fill pad compaction and foundation installation be monitored full time by an experienced Terracon soil technician under the direction of our Geotechnical Engineer. During foundation installation, the base should be monitored to evaluate the condition of the subgrade. We would be pleased to develop a plan for compaction and foundation installation monitoring to be incorporated in the overall quality control program.

4.4 Pavements

Based on the subsurface conditions, we anticipate that the pavement subgrade will generally consist of on-site medium to high plasticity clay fill soils. We recommend that the top 6 inches of the finished subgrade soils directly beneath the pavements be chemically treated. Chemical treatment will increase the supporting value of the subgrade and decrease the effect of moisture on subgrade soils. This 6 inches of treatment is a required part of the pavement design and is not a part of site and subgrade preparation for wet/soft subgrade conditions.

The on-site medium to high plasticity clay fill soils should be treated with lime at a rate of 6 to 7 percent lime by dry weight of soil, which is typically equivalent to about 30 to 35 pounds of lime per square yard per 6-inch depth. The actual amount of lime should be determined at the time of construction by the use of lime determination tests. The subgrade soils should be treated in accordance with TXDOT 2004 Standard Specification Item 260 for lime treated subgrade. Specifications for treated subgrade are presented in subsequent paragraphs.

We understand that a rigid pavement system is being considered for this project. Once the subgrade is properly prepared a rigid pavement system (consisting of reinforced concrete) may be considered for this project. Detailed traffic loads and frequencies were not available. However, we anticipate traffic will consist primarily of passenger vehicles in the parking areas and passenger vehicles combined with garbage and delivery trucks in the driveways.

Tabulated in the following table are the assumed traffic frequencies and loads used to design pavement sections for this project.

Pavement Area	Traffic Design Index	Description
Automobile Parking Areas	DI-1	Light traffic (Few vehicles heavier than passenger cars, no regular use by heavily loaded two axle trucks.) (EAL[(1)] < 6)
Driveways (Light Duty)	DI-2	Medium to light traffic (Similar to DI-1 including not over 50 loaded two axle trucks or lightly loaded larger vehicles per day. No regular use by heavily loaded trucks with three or more axles.) (EAL = 6-20)
Driveways and Truck Traffic Areas (Medium Duty)	DI-3	Medium traffic (Including not over 300 heavily loaded two axle trucks plus lightly loaded trucks with three or more axles and no more than 30 heavily loaded trucks with more than three axles per day.) (EAL = 21-75)

1 Equivalent daily 18-kip single-axle load applications.

Listed below are pavement component thicknesses, which may be used as a guide for pavement systems at the site for the traffic classifications stated herein. These systems were derived based on general characterization of the subgrade. Specific testing (such as CBR's, resilient modulus tests, etc.) was not performed for this project to evaluate the support characteristics of the subgrade.

Rigid Pavement System			
COMPONENT	**Material Thickness, Inches**		
	DI-1	**DI-2**	**DI-3**
Reinforced Concrete	5.0	6.0	7.0
Treated Subgrade	6.0	6.0	6.0

We recommend that waste dumpster areas be constructed of at least 7 inches of reinforced concrete pavement. The concrete pad areas should be designed so that the vehicle wheels of the collection truck are supported on the concrete while the dumpster is being lifted to support the large wheel loading imposed during waste collection.

Presented below are our recommended material requirements for the various pavement sections.

Reinforced Concrete Pavement - The materials and properties of reinforced concrete pavement shall meet applicable requirements in the ACI Manual of Concrete Practice. The Portland cement concrete mix should have a minimum 28-day compressive strength of 3,500 psi.

Reinforcing Steel - Reinforcing steel should consist of the following:
DI-1: #3 bars spaced at 18 inches or #4 bars spaced at 24 inches on centers in both directions.
DI-2: #3 bars spaced at 12 inches or #4 bars spaced at 18 inches on centers in both directions.
DI-3: #4 bars spaced at 18 inches on centers in both directions.

Control Joint Spacing - ACI recommendations indicate that control joints should be spaced at about 30 times the thickness of the pavement. Furthermore, ACI recommends a maximum control joint spacing of 12.5 feet for 5-inch pavements and a maximum control joint spacing of 15 feet for 6-inch or thicker pavements. Saw cut control joints should be cut within 6 to 12 hours of concrete placement.

Expansion Joint Spacing - ACI recommendations indicate that regularly spaced expansion joints may be deleted from concrete pavements. Therefore, the installation of expansion joints is optional and should be evaluated by the design team.

Dowels at Expansion Joints - The dowels at expansion joints should be spaced at 12-inch centers and consist of the following:
DI-1: 5/8-inch diameter, 12-inches long with 5-inch embedment.
DI-2: 3/4-inch diameter, 14-inches long with 6-inch embedment.
DI-3: 7/8-inch diameter, 14-inches long with 6-inch embedment.

Lime Treated Subgrade - Pavement subgrade that consists of medium to high plasticity clay fill soils should be treated with lime in accordance with TXDOT 2004 Standard Specifications Item 260. We recommend that approximately 6 to 7 percent lime by dry weight be used for estimating and planning. The actual quantity of lime should be determined at the time of construction based on laboratory testing conducted using bulk samples of the subgrade soils. The pulverization, mixing, and curing of the lime treated subgrade is of particular importance for the on-site clay soils. The subgrade should be compacted to a minimum of 95 percent of the Standard Effort (ASTM D 698) maximum dry density at a moisture content between optimum and 4 percent wet of the optimum moisture content.

Preferably, traffic should be kept off the treated subgrade for about 7 days to facilitate curing of the soil - chemical mixture; in addition, the subgrade is not suitable for heavy construction traffic prior to paving.

The pavement design methods described above are intended to provide structural sections with adequate thickness over a particular subgrade such that wheel loads are reduced to a level the subgrade can support. The support characteristics of the subgrade for pavement design do not account for shrink/swell movements of an expansive clay subgrade such as the soils encountered at this site. Thus the pavement may be adequate from a structural standpoint, yet still experience cracking and deformation due to shrink/swell related movement of the subgrade. Post-construction subgrade movements and some cracking of pavements are not uncommon for subgrade conditions such as those observed at this site. Reducing moisture changes in the subgrade is important to reduce shrink/swell movements. Although chemical treatment will help to reduce such movement/cracking, this movement/cracking cannot be economically eliminated.

Related civil design factors such as subgrade drainage, shoulder support, cross-sectional configurations, surface elevations and environmental factors which will significantly affect the service life must be included in the preparation of the construction drawings and specifications. Normal periodic maintenance will be required.

Long-term pavement performance will be dependent upon several factors, including maintaining subgrade moisture levels and providing for preventative maintenance. The following recommendations should be implemented to help promote long-term pavement performance:

- Site grading should be designed to drain away from the pavements, preferably at a minimum grade of 2 percent;
- The subgrade and the pavement surface should be designed to promote proper surface drainage, preferably at a minimum grade of 2 percent;
- Install joint sealant and seal cracks immediately;
- Extend curbs into the treated subgrade for a depth of at least 4 inches to help reduce moisture migration into the subgrade soils beneath the pavement section; and
- Place compacted, low permeability clayey backfill against the exterior side of the curb and gutter.

Preventative maintenance should be planned and provided for the pavements at this site. Preventative maintenance activities are intended to slow the rate of pavement deterioration, and consist of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Prior to implementing any maintenance, additional engineering observations are recommended to determine the type and extent of preventative maintenance.

5.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation construction, and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the boring performed at the indicated location and from other information discussed in this report. This report does not reflect variations that may occur across the site or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

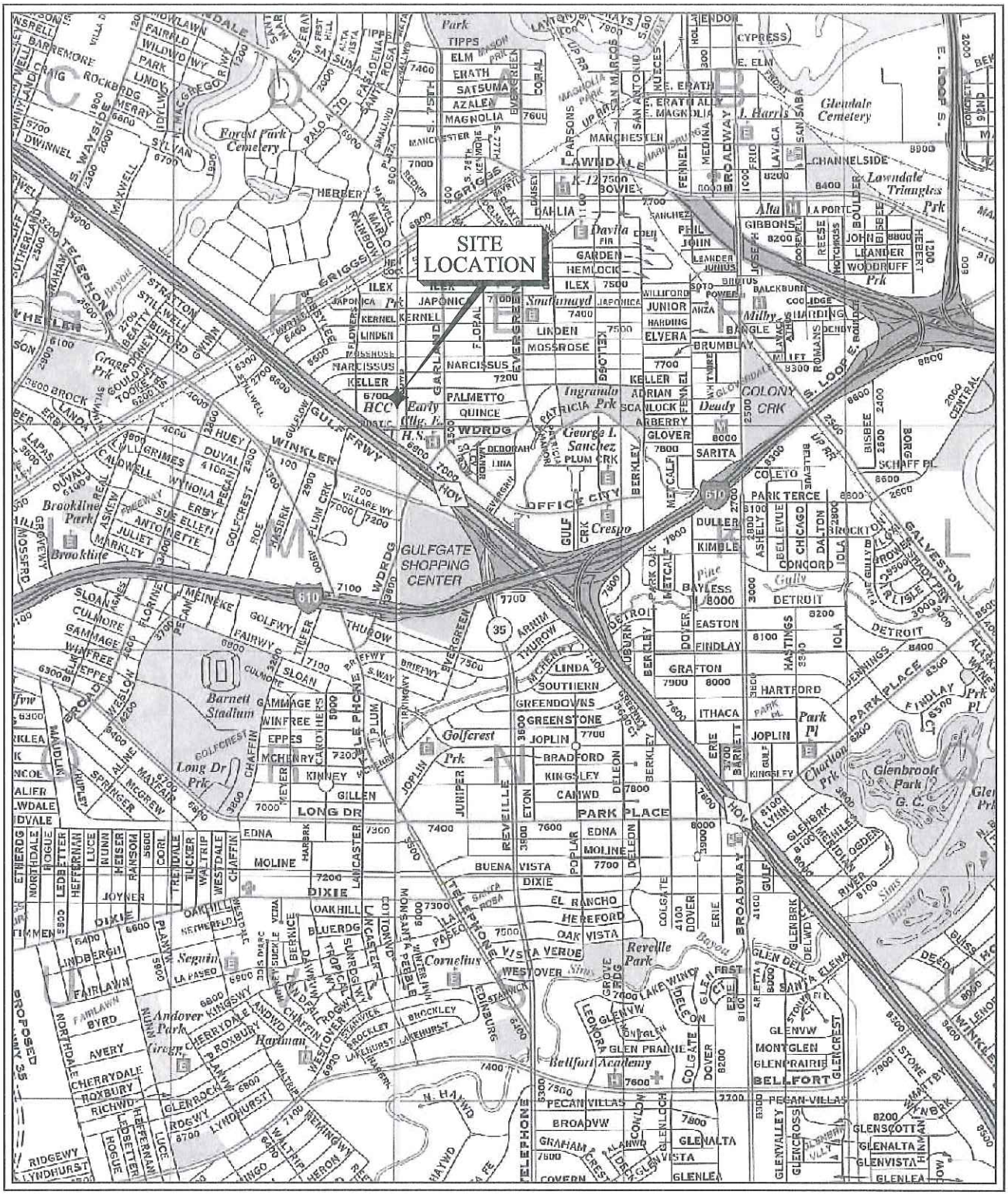
The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, and bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the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

For any excavation construction activities at this site, all Occupational Safety and Health Administration (OSHA) guidelines and directives should be followed by the Contractor during construction to insure a safe working environment. In regards to worker safety, OSHA Safety and Health Standards require the protection of workers from excavation instability in trench situations.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX A

FIELD EXPLORATION



SOURCE
2007 HARRIS COUNTY
KEY MAP
Page 535 - E

1/2 0 1/4 1/2

APPROX. SCALE 1"= 1/2 MILE

Project Mng.	SG
Drawn By:	RF
Checked By:	SG
Approved By:	PB

Project No.	92125085
Scale:	AS SHOWN
File No:	92125085
Date:	3/23/2012

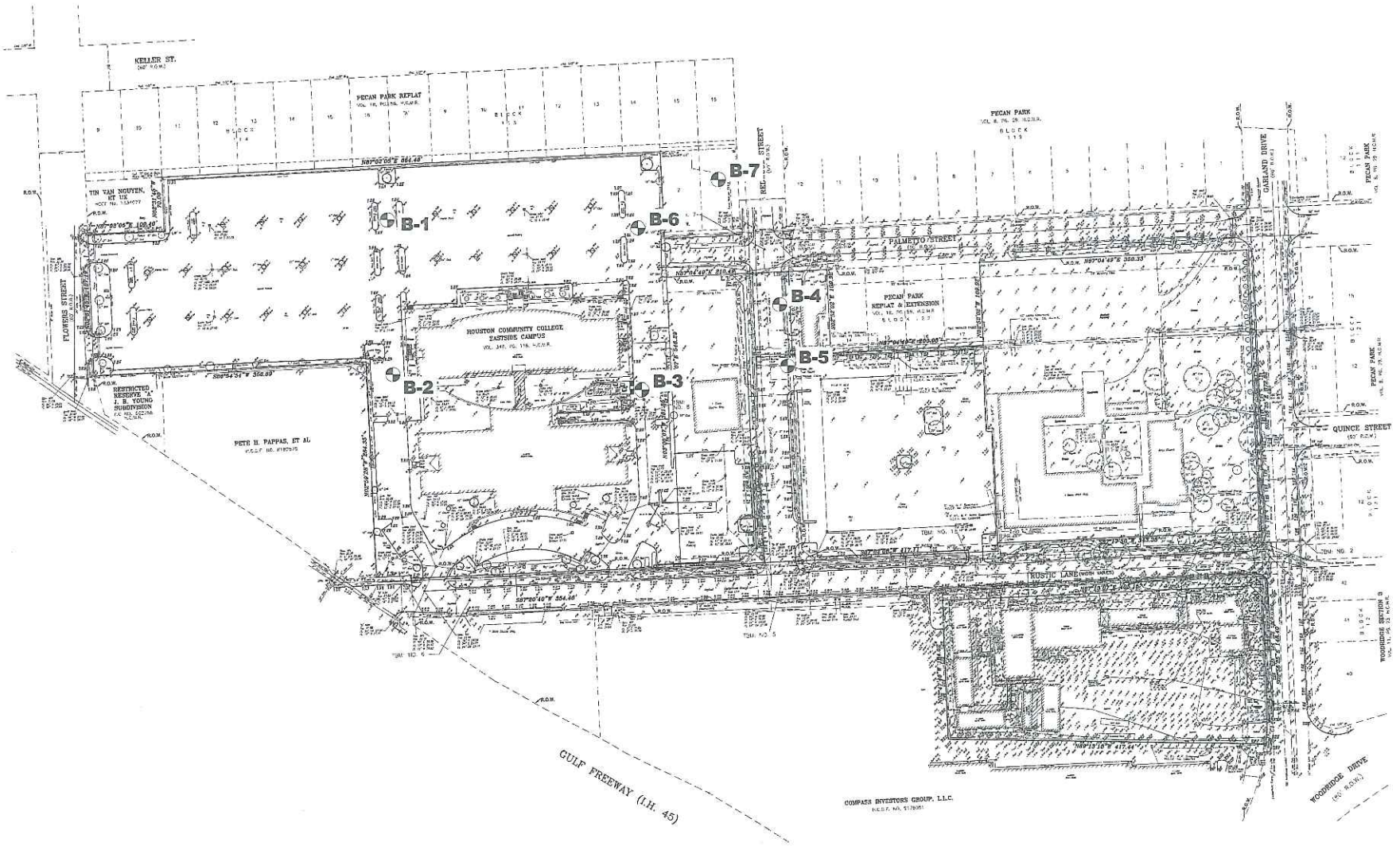
Terracon
Consulting Engineers & Scientists
11555 Clay Road Suite 100 Houston, Texas 77043
PH. (713) 690-8989 FAX. (713) 690-8787

SITE LOCATION PLAN

Proposed Pavilions and Pavement Improvements
Houston Community College - Eastside Campus
Houston, Texas

Exhibit

A-1



LEGEND
⊕ SOIL BORING LOCATIONS

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

Project Mng: SG	Project No. 92125085
Drawn by: RF	Scale: AS SHOWN
Checked by: SG	File Name: 92125085
Approved by: PB	Date: 3/23/2012

Terracon
Consulting Engineers & Scientists
11555 Clay Road Suite 100 Houston, Texas 77043
PH. (713) 690-8989 FAX. (713) 690-8787

BORING LOCATION PLAN

Proposed Pavilions and Pavement Improvements
Houston Community College - Eastside Campus
Houston, Texas

Exhibit A-2

Field Exploration Description

Subsurface conditions were evaluated by drilling seven test borings. One test boring, designated B-1, was drilled to a depth of about 20 feet in the area of an existing parking lot, along with four test borings, designated B-2 through B-5, to depths of about 20 feet within the areas of the proposed pavilions, and two test borings, designated B-6 and B-7, to depths of about 5 feet within the proposed pavement areas. The borings were drilled using truck-mounted drilling equipment at the approximate locations shown on the Boring Location Plan, Exhibit A-2 of Appendix A. The boring depths were measured from existing grade at the time of our field program. Upon completion of our field program, the borings were backfilled with soil cuttings and plugged with a concrete cylinder upon completion of drilling. Boring B-1, drilled through the existing asphaltic concrete pavement, was patched at the surface with an asphaltic concrete patch.

The Boring Logs, presenting the subsurface soil descriptions, type of sampling used, and additional field data, are presented on Exhibits A-4 through A-10 of Appendix A. The General Notes, which defines the terms used on the logs, are presented on Exhibit C-1 of Appendix C. The Unified Soil Classification System is presented on Exhibit C-2 of Appendix C.

Soil samples were recovered using open-tube samplers. Pocket penetrometer tests were performed on samples of cohesive soils to serve as a general measure of consistency. Samples were removed from samplers in the field, visually classified, and appropriately sealed in sample containers to preserve their in-situ moisture contents. Samples were returned to our laboratory in Houston, Texas.

Samples not tested in the laboratory will be stored for a period of 30 days subsequent to submittal of this report and will be discarded after this period, unless we are notified otherwise.

BORING LOG NO. B-1

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	0.8 **PAVEMENT** 3 inches asphaltic concrete and 6 inches crushed stone material		CH	ST		1.75	27		62	21	41	90			
	3.0 **FILL: FAT CLAY** gray			ST		2.25									
	FAT CLAY gray and tan, stiff to very stiff, with slickensides		CH	ST		2.25	20								
	- light gray and reddish brown below 6 feet	5		ST		3.25									
				ST		3.5	23	105	51	16	35		1.7	4	0
		10				2.25									
				ST		2.5	26								
		15													
				ST		4.25									
	20.0 Boring terminated at 20 feet.	20													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 20 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
3/16/2012

PROJECT NUMBER
92125085

EXHIBIT

A-4

BORING LOG NO. B-2

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FILL: FAT CLAY gray and tan		CH	ST		1.5	25		62	18	44				
	2.0														
	FAT CLAY gray and tan, medium stiff to very stiff		CH	ST		1.75									
		5		ST		2.0	22	106					1.4	15	0
	- light gray and reddish brown, with slickensides below 6 feet			ST		2.25									
				ST		2.0	29	93	70	24	46		0.8	3	0
		10		ST		2.25									
				ST		2.25									
		15													
				ST		4.5									
	20.0														
	Boring terminated at 20 feet.	20													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 20 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
3/16/2012

PROJECT NUMBER
92125085

EXHIBIT A-5

BORING LOG NO. B-3

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FILL: FAT CLAY gray and tan		CH	ST		1.5									
				ST		1.5	27	99	61	18	43	89	0.9	10	0
	4.0 **FAT CLAY** gray and tan, stiff to very stiff	5	CH	ST		1.5									
	- light gray and reddish brown, with slickensides below 6 feet			ST		2.0									
				ST		1.75									
		10		ST		2.5	30	97	73	24	49		1.3	3	0
				ST		2.5									
		15													
				ST		3.25									
	20.0 Boring terminated at 20 feet.	20													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 20 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
3/16/2012

PROJECT NUMBER
92125085

EXHIBIT

A-6

BORING LOG NO. B-4

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FILL: LEAN CLAY w/ SAND gray and tan, with sand pockets and calcareous nodules		CL	ST		1.0	23		33	15	18				
	2.5														
	FAT CLAY gray and tan, stiff to very stiff		CH	ST		1.75									
		5		ST		2.0	23	107				86	1.9	15	0
	- light gray and reddish brown below 6 feet			ST		2.25									
	- with slickensides below 8 feet			ST		2.25	21	111	60	20	40		2.2	15	0
		10		ST		2.5									
				ST		2.5									
		15													
				ST		2.25									
	20.0	20													
	Boring terminated at 20 feet.														

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 20 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

Terracon

DATE DRILLED 3/16/2012

PROJECT NUMBER 92125085

EXHIBIT A-7

BORING LOG NO. B-5

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FILL: LEAN CLAY w/ SAND gray and tan, with sand seams		CL	ST		1.75									
				ST		2.0	19	106	24	17	7		1.3	10	0
	4.5														
	LEAN CLAY w/ SAND gray and tan, very stiff, with sand pockets	5	CL	ST		2.25									
	6.0														
	FAT CLAY gray and tan, stiff to very stiff, with sand pockers		CH	ST		2.5	18	116					3.2	15	0
				ST		2.5									
		10		ST		2.25	26	102					1.7	4	0
				ST		2.25									
		15													
				ST		2.25									
	20.0														
	Boring terminated at 20 feet.	20													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 20 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
3/16/2012

PROJECT NUMBER
92125085

EXHIBIT

A-8

BORING LOG NO. B-6

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	1.0 **FILL: LEAN CLAY w/ SAND** gray, with sand pockets		CL	ST		4.5	16		43	14	29	67			
	FAT CLAY gray and tan, very stiff		CH	ST		4.5									
				ST		4.5									
	5.0	5													
	Boring terminated at 5 feet.														

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 5 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
3/16/2012

PROJECT NUMBER
92125085

EXHIBIT

A-9

BORING LOG NO. B-7

CLIENT:	**Houston Community College System Houson, Texas**	PROJECT:	**Proposed Pavilion and Pavement Improvements**
BORING LOCATION:	**See Boring Location Plan, Exhibit A-2**	SITE:	**HCC - Eastside Campus Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES: USCS SYMBOL	SAMPLES: TYPE	SAMPLES: SPT, BLOWS/FT	SAMPLES: CALIBRATED HAND PENETROM., TSF	TESTS: MOISTURE CONTENT, %	TESTS: DRY DENSITY, PCF	TESTS: LIQUID LIMIT, %	TESTS: PLASTIC LIMIT, %	TESTS: PLASTICITY INDEX	TESTS: MINUS #200 SIEVE, %	TESTS: COMPRESSIVE STRENGTH, TSF	TESTS: FAILURE STRAIN, %	TESTS: CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	1.0 **FILL: LEAN CLAY w/ SAND** gray, with sand pockets		CL	ST		1.5									
	FAT CLAY gray and tan, stiff to very stiff		CH	ST		1.75	21		51	16	35				
	5.0	5		ST		2.25									
	Boring terminated at 5 feet.														

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 5 feet.**

WATER LEVEL OBSERVATIONS	
▽	▼
▼	▼

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
3/16/2012

PROJECT NUMBER
92125085

EXHIBIT A-10

APPENDIX B

LABORATORY TESTING

Laboratory Testing

Soil samples were tested in the laboratory to measure their dry unit weight and natural water content. Unconfined compression tests were performed on selected samples and a calibrated hand penetrometer was used to estimate the approximate unconfined compressive strength of some cohesive samples. The calibrated hand penetrometer values have been correlated with unconfined compression tests and provides a better estimate of soil consistency than visual examination alone. Selected samples were also classified using the results of Atterberg Limits and grain size analysis testing. The test results are provided on the Boring Logs included in Appendix A and presented in the **"3.2 Typical Profile"** section of this report.

Descriptive classifications of the soils indicated on the Boring Logs are in general accordance with the enclosed General Notes and the Unified Soil Classification System. Also shown are estimated Unified Soil Classification Symbols. A brief description of this classification system is attached to this report. Classification of the soil samples was generally determined by visual manual procedures.

APPENDIX C

SUPPORTING DOCUMENTS

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon – 1-$^3/_8$" I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., unless otherwise noted	PA:	Power Auger
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling	N/E:	Not Encountered
WCI:	Wet Cave in	WD:	While Drilling		
DCI:	Dry Cave in	BCR:	Before Casing Removal		
AB:	After Boring	ACR:	After Casing Removal		

Water levels indicated on the Boring Logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

Unconfined Compressive Strength, Qu, psf	Standard Penetration or N-value (SS) Blows/Ft.	Consistency
< 500	<2	Very Soft
500 – 1,000	2-3	Soft
1,001 – 2,000	4-6	Medium Stiff
2,001 – 4,000	7-12	Stiff
4,001 – 8,000	13-26	Very Stiff
8,000+	26+	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Standard Penetration or N-value (SS) Blows/Ft.	Ring Sampler (RS) Blows/Ft.	Relative Density
0 – 3	0-6	Very Loose
4 – 9	7-18	Loose
10 – 29	19-58	Medium Dense
30 – 49	59-98	Dense
50+	99+	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other Constituents	Percent of Dry Weight
Trace	< 15
With	15 – 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75 mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other Constituents	Percent of Dry Weight
Trace	< 5
With	5 – 12
Modifiers	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1-10
Medium	11-30
High	30+

UNIFIED SOIL CLASSIFICATION SYSTEM

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

[A] Based on the material passing the 3-in. (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.

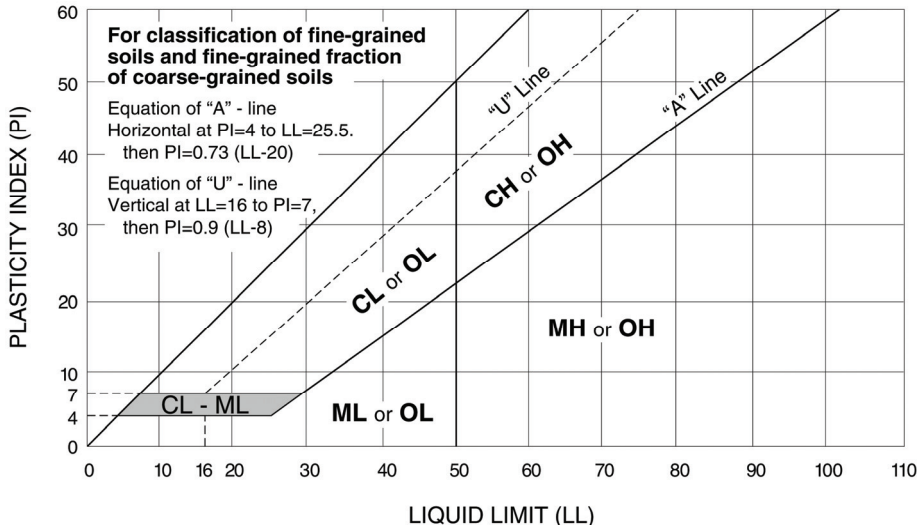


Exhibit C-2

1

SECTION 32 31 13 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Chain-Link Fences: Industrial.
2. Gates: Swing.

1.2 SUBMITTALS

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

B. Shop Drawings: Show locations, components, materials, dimensions, sizes, weights, and finishes of components. Include plans, gate elevations, sections, details of post anchorage, attachment, bracing, and other required installation and operational clearances.

C. Samples:

1. Galvanized steel wire for fabric.
2. Galvanized framing and accessories.

D. Maintenance Data: For galvanized chain link fence.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Emergency Access Requirements: Comply with requirements of authorities having jurisdiction for automatic gate operators serving as a required means of access.

C. Mockups: No mockups needed.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

A. General: 6'-0" and 7'-0". Comply with ASTM A 392, CLFMI CLF 2445, and requirements indicated below:

1. Steel Wire Fabric: Metallic wire with a diameter of 0.192 inch (4.88 mm)

    a. Mesh Size: 2 inches.
    b. Metallic (Zinc) Coating: ASTM A 392, Type II.
    c. Selvage: Twisted top and knuckled bottom.

2.2 INDUSTRIAL FENCE FRAMING

A. Posts and Rails: Comply with ASTM F 1043 for framing, ASTM F 1083 for Group IC round pipe, and the following:

1. Group: IA, round steel pipe, Schedule 40.
2. Fence Height: 6'-0" and 7'-0". See plans for noted heights.
3. Strength Requirement: Light industrial according to ASTM F 1043.
4. Coating for Steel Framing:

    a. Metallic coating.

2.3 TENSION WIRE

A. General: Provide horizontal tension wire at to and bottom of fence fabric.

B. Metallic-Coated Steel Wire: 0.177-inch- (4.5-mm-) diameter, marcelled tension wire complying with ASTM A 817 and ASTM A 824.

1. Metallic Coating: Type III, Zn-5-Al-MM alloy.

2.4 INDUSTRIAL HORIZONTAL-SLIDE GATES

2

a. General: Comply with ASTM F 1184 for single slide gate types.
   1) Slide assembly with dual track internal roller assemblies.
   2) Metal Pipe and Tubing: Aluminum. Comply with ASTM F 699 for materials and protective coatings.

b. Frames and Bracing: Fabricate members from square, aluminum tubing with outside dimension and weight according to ASTM F 1184 and the following:
   1) Gate Opening Width: 40 feet.
   2) Frame Members:
      a) Tubular Aluminum: 2 inches (50 mm) rectangular.
   3) Bracing Members:
      a) Tubular Aluminum: 2 inches (50 mm) rectangular.

c. Frame Corner Construction:
   1) Welded frame with panels assembled at corners with aluminum gussets. To be reinforced with stainless steel truss cables.

d. Extended Gate Posts and Frame Members: Extend gate posts and frame end members above top of chain-link fabric at both ends of gate frame 12 inches.

e. Track Assembly: Manufacturer's standard track, with overhead framing supports, bracing, and accessories, engineered to support size, weight, width, operation, and design of gate and roller assemblies.

f. Roller Guards: As required per ASTM F 1184 for Type II, Class 1 gates.

g. Hardware: Latches permitting operation from both sides of gate, and stops fabricated from galvanized steel. Fabricate latches with integral eye openings for padlocking; padlock accessible from both sides of gate.

2.5 FITTINGS

A. General: Comply with ASTM F 626.

B. Finish:

1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. (366 g /sq. m) zinc.

2.6 PRIVACY SLATS (FOR 7' HEIGHT FENCE SECTIONS ONLY)

a. Material: PVC, UV-light stabilized.

b. Color: As selected by Architect from manufacturer's full range.

2.7 CAST-IN-PLACE CONCRETE

A. Materials: Portland cement complying with ASTM C 150, Type I aggregates complying with ASTM C 33, and potable water.

1. Concrete Mixes: Normal-weight concrete with not less than 3000-psi (20.7-MPa) compressive strength (28 days), 3-inch (75-mm) slump, and 1-inch (25-mm) maximum size aggregate.

2.8 FENCE GROUNDING

A. Conductors: Bare, solid wire for No. 6 AWG and smaller; stranded wire for No. 4 AWG and larger.

1. Material above Finished Grade: Copper.
2. Material on or below Finished Grade: Copper.
3. Bonding Jumpers: Braided copper tape, 1 inch (25 mm) wide, woven of No. 30 AWG bare copper wire, terminated with copper ferrules.

B. Connectors and Grounding Rods: Comply with UL 467.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install chain-link fencing to comply with ASTM F 567 and more stringent requirements specified.

B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacing indicated, in firm, undisturbed soil.

C. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

1. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

D. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment.

E. Line Posts: Space line posts uniformly at 8' o.c.

F. Post Bracing and Intermediate Rails: Install according to ASTM F 567. Install braces at end and gate posts and at both sides of corner and pull posts.

G. Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing.

H. Top Rail: Install according to ASTM F 567.

I. Bottom Rails: Install, spanning between posts.

J. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 2 inches between finish grade or surface and bottom selvage, unless otherwise indicated.

K. Tie Wires: Attach wire per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

L. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.2 GROUNDING AND BONDING

A. Fence Grounding: Install at maximum intervals of 1500 feet (450 m) .

B. Fences within 100 Feet (30 m) of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet (225 m).

1. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches (150 mm) below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location.

C. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.

1. Connections: Make connections so possibility of galvanic action or electrolysis is minimized.

3.3 FIELD QUALITY CONTROL

A. Grounding-Resistance Testing: Engage a qualified independent testing agency to perform field quality-control testing.

END OF SECTION 32 31 13

SECTION 01 21 00 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

a. This Section includes administrative and procedural requirements governing the following:

1) Lump-sum allowances.
2) Contingency allowances.

b. See Division 01 Section "Unit Prices" for procedures for using unit prices.

c. See Division 01 Section "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.2 SELECTION AND PURCHASE

a. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

b. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

c. Purchase products and systems selected by Architect from the designated supplier.

1.3 SUBMITTALS

a. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

b. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

c. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 COORDINATION

a. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.5 LUMP-SUM ALLOWANCES

a. Allowance shall include cost to Contractor of specific products and materials **selected by Architect** under allowance and shall include taxes, freight, and delivery to Project site.

b. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials **selected by Architect** under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.6 CONTINGENCY ALLOWANCES

a. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

b. Contractor's related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

c. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

d. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.7 UNUSED MATERIALS

a. Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1) If requested by Architect, prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed by

Architect, deliver unused material to Owner's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

a. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

a. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

a. Allowance No. 01: Include Allowance for Exterior Signage - $75,000.00

1) Details for signage allowance, if used, will be provided for pricing by the Architect as needed.

b. Allowance No. 02: Include Allowance for Owner Contingency - $225,000.00

2

c. Allowance No. 03: Include Allowance for landscape irrigation - $20,000.00

1) Details for irrigation allowance, if used, will be provided for pricing by the Architect and Landscape Architect as needed.

END OF SECTION 01 21 00

Purchasing Dept.
3100 Main St.
Houston, TX 77002

Solicitation Amendment No. 003

To:	Date:
Prospective Proposers:	April 10, 2012
Project Title:	Project No.:
Southeast Campus Infrastructure Improvements	12-32

The solicitation for Southeast Campus Infrastructure is hereby amended as set forth herein.

I. **Proposal Due Date:**

The proposal due date is hereby extended from April 10, 2012 to April 12, 2011 @ 2:00 P.M. (Local Time).

Proposals will be publicly opened and read aloud at 2:30 P.M. (local time) on April 12, 2012 at 3100 Main Street, Seminar Room B.

II. **Specifications for Brick Selection:**

Brick selection for Dumpster Enclosure: Acme Brick Elgin Plant / Doeskin #15186021

Brick selection for Seating Walls: Acme Brick Elgin Plant / Twilight Rose Blend #151100125

This form must be returned as part of your proposal packet.

Acknowledgement of Amendment No. 003 by:	Date:

Company Name (Bidder/Offerer):

Signed by:

Name (Type or Print):	Title: