CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS
MANAGEMENT SERVICES

ADDENDUM NO. 3

PROJECT NAME: **WOLFF STADIUM BUILDING REPAIRS**

DATE: 12/19/13

ADDENDUM NO.3

This addendum should be included in and be considered part of the plans and specifications for the name of the project. The contractor shall be required to sign an acknowledgement of the receipt of this addendum and submit with their bid.

CIMS PROJECT NO.: **45-00026**

Architectural and Consultant changes, additions, and deletions to the Specifications and Drawings:

Note: Addenda Acknowledgement Form for Addendum 3 is attached herein. This form must be signed and submitted with the bid package.

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS
MANAGEMENT SERVICES

RECEIPT OF ADDENDUM NUMBER(S) **3** IS HEREBY ACKNOWLEDGED FOR PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF **WOLFF STADIUM BUILDING REPAIRS – 45-00026**

FOR WHICH BIDS WILL BE OPENED ON **TUESDAY, JANUARY 7, 2014 AT 2:00 P.M.**

THIS ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH THE BID PACKAGE.

Company Name: _____

Address: _____

City/State/Zip Code: _____

Date: _____

_____
Signature

_____
Print Name/Title

DATE: DECEMBER 19, 2013

ADDENDUM NO.: 3

PROJECT NO.: 0243-F.1

OWNER: CITY OF SAN ANTONIO
114 West Commerce
San Antonio, Texas 78205

PROJECT: WOLFF STADIUM BUILDING REPAIRS PROJECT
5757 Highway 90
San Antonio, Texas 78227

ARCHITECT: Chesney-Morales & Associates, Inc.
4901 Broadway Suite 250
San Antonio, Texas 78209

This addenda is generally separated into sections for convenience; however, all contractors, subcontractors, material men, and all other parties shall be responsible for reading this entire addendum. The failure to list an item or items in all affected sections of this addendum does not relieve any party affected from performing as per instructions, providing that the information is set forth one time any place in this addendum. The addendum forms a part of the Contract Documents, modifying and superseding where it is inconsistent with them. All other conditions of the Contract Documents remain unchanged.

ITEM 1 A Pre-Bid Conference was held on Friday, December 13, 2013 at 1:00 p.m. at Wolff Stadium, 5755 Highway 90, San Antonio, Texas 78227; the attached Agenda (provided by Chesney-Morales & Associates, Inc.) was presented at the Pre-Bid Conference; see hereto attached **EXHIBIT "A"**, 3 pages.

REGISTERED ARCHITECT
RICHARD G. MORALES
5106
STATE OF TEXAS

12/19/13

ITEM 2 CLARIFICATION: ADA review required correction of the location of one stall door on the handicap stall drawn in mens room 1.64. There were also dimension adjustments in the drawings to the centerline of the handicap toilets in the Suite level restrooms, 2.31 and 2.35. These dimension adjustments were approximately one inch or less. see hereto attached **Exhibit "B"**; one 24X36 sheet.

ITEM 3 A Pre-Bid Conference was held on Friday, December 13, 2013 at 1:00 p.m. at Wolff Stadium, 5755 Highway 90, San Antonio, Texas 78227; the following persons were in attendance at the Pre-Bid Conference; see hereto attached **EXHIBIT "C",** 2 pages.

ITEM 4 Specifications. Add specification section # 096566- Resilient Athletic Flooring. See hereto attached **EXHIBIT "D",** 4 pages.

ITEM 5 Add the following studies from (PSI) Professional Service Industries, Inc.;

a 1. Metal Roof Assesment, 10 pages
b 1. Indoor Air Quality Report, 29 pages
c 1. Lead Based Paint Survey, 36 pages
d 1. Asbestos Survey/Inspection services, 16 pages

See hereto attached **EXHIBIT "E"**

QUESTIONS FROM BIDDERS AND ANSWER BY CHESNEY-MORALES & ASSOCIATES, INC;

Question 1: Is form 025 already on the website?

ANSWER: ***Yes form 025 is available on the City of San Antonio website.***

Question 2: Will the performance calendar be adjusted if the work has to be scheduled around stadium activities.

ANSWER: ***No, scheduling needs to be factored in initially. Mission's schedule is on the website, we will also include a schedule in this addendum.***

Question 3: When is the contract to be awarded?

ANSWER: ***Tentatively it is to be approved by the Council January 30th, 2014. NTP would then be issued approximately the first week of February.***

Question 4: Is the contractor expected to pre-order long lead items before the contract is approved?

ANSWER: ***No, once you have the NTP you can then order, or else it is at your risk. We do want to begin working on submittals if possible with the awarded contractor so that long lead items can be ordered ASAP once the NTP is issued.***

Question 5: There are 29 areas of tripping repair noted on the Civil plan, can we get more specifics, what exactly are they, what is the repair in each location, ie grind down or fill.

ANSWER: ***Civil has reissued this page with photo's to document each location. On the drawing each location is keyed to one of two repair recommendations. This updated drawing will be issued as part of this addendum. See Exhibit F;one 8 1/2X 11 sheet and three 24X36 sheets.***

Question 6: Can we assume that we will not be doing all restrooms at once? Are they one by one, or maybe two at a time?

ANSWER: ***There will be a need for restrooms to be available, as there are a variety of activities that will be happening at the stadium. There are several smaller restrooms and then the four large restrooms on the Concourse level, two men's and two women's. If one of these larger men's and one of the larger women's can be available, the other smaller restrooms could be done simultaneously with the other set of larger men's and women's. When that group is finished and available then the two, one large men's and one large women's, could be completed. This would be one solution for staging and retaining a facility for ongoing activities at the Stadium.***

Question 7: Are you going to issue a schedule of events that we may need to work around?

ANSWER: ***We will include a schedule of events in this addendum, see Exhibit G; two 8 1/2X11 sheets. The Mission's Spring Schedule is also listed on their website.***

Question 8: Drawings indicate leaks in the Sprinkler System, are there specific locations? Will the specific locations be noted? Who is currently operating the sprinkler system?

ANSWER: ***We will not be detailing the specific leaks. No one is operating the sprinkler currently. General Contractor shall***

provide a complete, fully operational, irrigation system. The General Contractor will be responsible to insure there are no leaks and everything is fully operational.

Question 9: Will the toilets be using the same mounting systems? The carrier brace and bolting system is it the same so that it does not require completely re-anchoring to the cmu?

ANSWER: ***The toilets were chosen to match the same mounting system. There should be a unit price factored in as well just to account for the possibility of one being damaged or needing to be replaced during the construction phase.***

Question 10: What light fixtures do we specify for the administration building?

ANSWER: **Columbia Lighting, 2'X4' High Efficiency, Full Distribution Luminare. EPC24-2. Or comparable with approval from Architect. See Exhibit H; two 8 ½ X 11 sheets.**

Question 11: Are there as-builts of underground utilities as they relate to the sprinkler system? Any electrical to light poles etc...

ANSWER: **No we do not have any as-builts of underground utilities as they would relate to the sprinkler system.**

Question 12: Please confirm that the Base Bid on Form 020, Line 1, shall encompass all work, including work associated with Add Alternates 1,2,and 3.

ANSWER: ***The Base Bid on Form 020, Line 1, does not encompass the Add Alternates 1, 2, and 3. Those are to be separate line items so the owner can see a base price and then choose to add the additional items if the budget allows.***

Question 13: Please confirm that each Add Alternate shall list two (2) prices as identified.

ANSWER: ***Each Add Alternate only requires one price. There are two spaces, one is for the Add Alternate Bid amount in Words, the other space is for the amount in Numbers.***
Example: <u>One hundred thousand dollars $100,000.00</u>

Question 14: General Note 1 on Sheet IR-0 states that all PVC piping shall (1) remain, and (2) is known to contain leaks. For bidder uniformity, will CMA/COSA specify:

a. The number of pipe leaks noted during the system evaluation, or,
b. Modify Form 025 to include a unit rate for PVC pipe repair

or,

c. Include an allowance for PVC pipe repair.

ANSWER: ***We will not be detailing the specific leaks. General Contractor shall provide a complete, fully operational, irrigation system. The General Contractor will be responsible to insure there are no leaks and everything is fully operational. See Question 8 above.***

Specifically, there was not a formal evaluation preformed. The contractor needs to estimate for evaluating and providing a fully functional irrigation system.

Question 15: Would CMA identify the specific public/player locations that are relevant to Add Alt. #3, OR, is this whole project encompassed by either public or player locations? For example, are the Suite Level restrooms part of Add Alt. #3?

ANSWER: ***In the Drawing Set, Architectural Sheets A2.2 and A2.3, titled General Maintenance Upgrades-Alt #3, specify the work encompassed by Add Alt #3. There is work on these two sheets that is in the public areas and some that is in the player areas. These two sheets are the work to be considered as part of <u>Add Alt. #3.</u>***

The work on the Base Bid and on the Add Alt. #3 is not divided out by public and player areas. There is work in both areas for the Base Bid and work in both areas for the Add Alt. # 3. Only the work specified on the two sheets, A2.2 and A2.3 General Maintenance Upgrades-Alt #3, is to be bid as part of <u>Add Alt #3.</u>

Question 16: Please confirm that new wall hung plumbing fixtures match the existing hangers and supports. Sheet MP4 Note 3.3 refers to Division 15 in a few places but that is not included in the specs.

ANSWER: ***The toilets were chosen to match the same mounting system. There should be a unit price factored in as well just to account for the possibility of one being damaged or needing to be replaced during the construction phase.***

The Note 3.3 is a standard that is included in the MEP's general notes and does not apply to this project. MEP has reissued this sheet and removed that note for clarity. See Exhibit I; two 8 ½ X 11 sheets and one 24X 26 sheet.

Question 17: Has an LBP survey been done on the steel which will be sandblasted?

ANWER: ***Yes, PSI Engineering conducted a LBP survey and provided a report in the initial study of the facility dated May 23, 2013.***

We will include a copy of the report in this addendum. See Exhibit E (c1); ninety one 8 1/2X 11 sheets.

Question 18: Sheet S2-2 and S2-3 refer to Alternate Numbers 1, 2, and 4. Please confirm they have no bearing on the current work requirement.

ANSWER: ***There are only three (3) Add Alternates on this project. For clarity we have reissued Sheet A0.3 with this addendum. See Exhibit J; one 24 X36 sheet.***

The only pertinent information on drawing S2-2 and S2-3 is the two stair locations which are boxed in with a dashed line, and noted as 1/S3.1 and 5/S3.1. The base drawing is a derived from a copy of the original framing plan, so all notes and other information that is not contained in the dashed boxed areas refers to the original construction of the stadium.

END OF ADDENDUM NO. 3

EXHIBIT "A"

AGENDA

I. SUBJECT OF MEETING: PRE-BID CONFERENCE: Friday, December 13, 2013 at 1:00 p.m. at Wolff Stadium, 5755 Highway 90, San Antonio, Texas 78227..

II. PROJECT DESCRIPTION: PRE-BID PACKAGE

The work includes the minor improvements to Roof, Metal Stairs, ADA items, and Restrooms, as well as alternates of Sprinkler System, Parking Lot, and General Maintenance Upgrades at the Wolff Stadium.

III. INTRODUCTION

A. ARCHITECT

All Questions, addendum substations, and other contact must go through the Architect during the bid phase. There is to be no contact with City Staff during this time period, with the exception of SBEDA, Small Business Economic Development Advocacy.

Chesney-Morales & Associates, Inc.
4901 Broadway Suite 250
San Antonio, Texas 78209
(210) 828-9481
(210) 828-9719 (Fax)
Principal in Charge:
Richard G. Morales
e-mail: rgm@cma-architects.com
Project Manager: Janell Cottam
e-mail: jcottam@cma-architects.com

B. ROLES AND RESPONSIBILITY

a) Owner's Representative.

Owner Designated Representative:
Eric Vincent Reyna
City of San Antonio
Design & Development Assistant, City Architect's Office
Capital Improvements Management Services
114 W. Commerce Street 4th Floor
(210) 207-4131
(210) 207-2197 (Fax)

b) Primary contact for the Contractor.

Chesney Morales & Associates, Inc.
(210) 828-9481
Project Manager: Janell Cottam
e-mail: jcottam@cma-architects.com

IV. SCOPE OF WORK

A. Restrooms on Concourse and Mezzanine Level

a. Remove and replace all existing plumbing fixtures, plumbing locations will remain the same unless adjusted for ADA height.
b. Remove and replace all stall partitions
c. Remove and replace all ceiling grid and tile
d. Remove and replace all lighting fixtures
e. Remove and replace laminate at changing counters
f. Repaint all floor and walls.

B. Restrooms on Suite Level

a. Remove and replace all existing plumbing fixtures
b. Remove and replace all stall partitions
c. Remove and replace ceiling grid and tile
d. Remove and replace all lighting
e. Remove and replace tile on floor and wainscot
f. Repaint walls above tile wainscot

C. Roof Repairs – In Areas Indicated on Plan

a. Remove Fasteners and deteriorated sealant/clean and prep area
b. Install New Fasteners with Neoprene Washers
c. Install Sealant at Roof Penetrations, Fasteners, Rivets, Joints, and at open seams along low end of roof.
d. Damaged stucco/EIFS should be repaired at the front towers/flashing

D. Roof Repair – Specific Area noted on Plan

a. Leaking condensation line to be repaired in location indicated on plan
b. Remove rusted drip edge
c. Remove water damaged roof insulation
d. Install new galvanized drip edge
e. Apply sealant to joints, rivets and fasteners
f. Install new insulation and roofing membrane.

E. Exterior Metal Stairs

a. Remove paint, rust and debri from stairs.
b. Patch and make repairs to steel as per Engineers specifications
c. Paint and seal stairs as per drawings and specifications.
d. Repair and patch concrete and non-skid surfacing on treads and landings as indicated on plan.

F. Administration Building

a. Remove and replace ceiling grid and tile
b. Remove and replace lights and registers

G Dugout

a. Remove and replace exterior sheet flooring
b. Remove and replace wood slats on benches
c. Repaint metal bench frames

Alternates:

A. Modify Existing Lawn Sprinkler System

B. Parking Lot

a. Provide single course slurry seal and re-strip parking spaces along the Main drive and ADA parking space rows as per Civil Engineer drawings

C. Provide maintenance upgrade work in various public and players

locations as per drawings

V. **GENERAL INFORMATION**

Plans and Specifications are available for purchase at a cost of $100.00 from the offices of :
Chesney-Morales & Associates, Inc.
4901 Broadway Suite 250
San Antonio, Texas 78209
(210) 828-9481
(210) 828-9719 (Fax)

A. CRITICAL DATES

a. DEADLINE FOR QUESTION : **December 18th, 4pm**

b. SEALED BIDS DUE BY:
2:00pm CST, Tuesday, January 7th, 2014
Office of City Clerk, City Hall
100 Military Plaza, 2nd floor
San Antonio, Tx 78205

VI. PROJECT DURATION AND MILESTONES

a. Project is to be substantially completed on or before **120 calendar days.**
b. Restroom Renovations are to be completed by **Opening Day, April 1st, 2014.**
c. Contractor will need to schedule and coordinate work to coincide with events at the stadium as needed.

VII. QUESTIONS AND DISCUSSION FROM THE FLOOR

VIII. CONCLUSION OF MEETING

EXHIBIT "C"

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES

PRE-BID MEETING SIGN-IN SHEET

WOLFF STADIUM BUILDING REPAIRS – 45-00026

P.O. Box 839966 • San Antonio, Texas 78283-3966 • p 210-207-4131

LOCATION: Wolff Stadium Building — 5757 US-90 West — **DATE:** 12/13/2013
PURPOSE: Pre-Bid Meeting — SAT 78227 — **TIME:** 1:00 p.m.

NAME	ORGANIZATION	PHONE	EMAIL
Andrew Wallace	Tejas Premier	210-821-5858	andrew@tejaspremierbc.com
Samir Bhonsta	Tejas Premier	210-821-5858	Samir@tejaspremierbc.com
Henry Valenzuela	HJD Capital Const. Prime	210-681-0954	hvalenzuela@hjdcapital.com
Ron Gonzalez	SABINAL GROUP	210·226·3400	ron@sabinal-group.com
ANDREW GARZA	ASHER CONTRACTORS	210-426-1646	andrew@asherconTRACTORS.com
WALTER LAMAR	WC SOLUTIONS	210 296-8996	wlamar@wcsolutionstx.com
Randy Guzman	Davila Construction	210 889-0439	randy@davilaconstruction.com
RUDY DELACRUZ	CAPITAL Electric	210-559-3835	rdelacruz@HJDCapitalc.com
Mike Hurl	" "	210-557-7525	mhurl@hjdcapital.com
Billy Abbott	CGC	210-825-1133	bill@cgcgeneralcontractors.com
Jim Jarek	FRED CLARK ELECT	200-380 7538	
Robert J. BRENA	BRENA Const	210 317 0097	mbreda@SATX.rr.com
Justin Calvin	SpawGlass	210 669 8551	Justin.Calvin@spawglass.com
ERIC REYNA	COSA CIMS	210 207·4131	ERIC.REYNA@sanantonio.gov
Samuel J Cottam	Chesney Morales	210 828-9481	jcottam@cma-architects.com
Diana Vasquez	COSA - CIMS	210-207-5872	diana.vasquez@sanantonio.gov
David Palacios	COSA - CIMS	210-207-2099	david.palacios@sanantonio.gov

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES

PRE-BID MEETING SIGN-IN SHEET

WOLFF STADIUM BUILDING REPAIRS – 45-00026

P.O. Box 839966 • San Antonio, Texas 78283-3966 • p 210-207-4131

LOCATION: Wolff Stadium Building 5757 US-90 West SAT 78227
PURPOSE: Pre-Bid Meeting
DATE: 12/13/2013
TIME: 1:00 p.m.

NAME	ORGANIZATION	PHONE	EMAIL
Ryan Kennerly	MPS Construction	210-880-8434	rKennerly@mpscd.com
Bill Luker	MJC & Assoc.	690-9863	billemjcsa.com
Joshua Darst	Valla Construction Inc.	210 641-0258	Josh@Valla-inc.com
Richard Moraces	Chesney Moraces	828-9481	rgmoraces-architects.com
Joe Cucolo	Abe Contracting	210-412-2233	joe@abecontracting.com

EXHIBIT "D"

SECTION 096566 - RESILIENT ATHLETIC FLOORING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. The complete installation of sheet rubber flooring product as manufactured by Robbins, Inc. or approved equal, including adhesives, sheet rubber product, and gameline materials.

1.2 QUALITY ASSURANCE

A. Floor System Manufacturer Qualifications
   1. Manufacturer shall be an established firm experienced in field and have been in business for a minimum of ten (10) years.

B. Floor Contractor/ Installer Qualifications
   1. Flooring contractor shall be experienced in the flooring field and approved by manufacturer.
   2. Flooring contractor shall be factory-approved, trained and have completed at least five (5) projects of similar magnitude and complexity.
   3. Submit three (3) copies of supplier's recommendations for the correct preparation, finishing and testing of concrete subfloor surface to receive specified floor system.

1.3 SUBMITTALS

A. Manufacturer's Product Data: Submit three (3) copies.

B. Samples: Submit one (1) sample in thickness and texture desired.

C. Maintenance Literature: Submit three (3) copies of maintenance instructions.

D. Submit copy of completion certificate from manufacturer.

1.4 DELIVERY, STORAGE

A. Delivery of Materials
   1. Material shall not be delivered or installed until all masonry, painting, plastering, tilework, marble and terrazzo work are completed, and all overhead mechanical work, lighting, backstops, scoreboards are installed. Room temperature of at least 55 Degrees Fahrenheit and moisture content of concrete slab of three percent (3%) or less, and a vapor emission of three (3) pounds per 1,000 square feet or less.
   2. Area where materials are to be stored should be maintained at 55 Degrees Fahrenheit and under fifty percent (50%) relative humidity by the General Contractor.

1.5 JOB CONDITIONS

A. Schedule of Installation

3. Environmental temperatures must average a minimum of 65 Degrees Fahrenheit for one (1) full week preceding, throughout, and seventy-two (72) hours following application.
4. Do not install Sport Surface until all other trades except bleacher installation are completed.
5. After Sport Surface is installed, area is to be kept locked by General Contractor to allow curing time for the adhesive. No other trades are to be allowed on floor until it is accepted in writing by Owner or Owner's authorized agent.

1.6 GUARANTEE

A. Guarantee shall not cover damage caused in whole or in part by casualty, ordinary wear and tear, abuse, use for which material is not designated, faulty construction of the building, settlement of the building walls, failure of the other contractors to adhere to specifications, separation of the concrete slab and excessive dryness or excessive moisture from humidity, spillage, migration through the slab or wall, or any other source.

B. Manufacturer warrants the sport surface material to be free from manufacturing defects for a period of one (1) year. This warrant is in lieu of all other warranties, expressed or implied, including but not limited to any warranty of merchantability or fitness for a particular purpose, and of any other obligations on the part of manufacturer. In the event of breach of any warranty, the liability of Manufacturer shall be limited to repairing or replacing the sport surface material and system components supplied by Manufacturer and proven to be defective in manufacturer, and shall not include any other damages, either direct of consequential.

PART 2 - PRODUCTS

2.1 MATERIALS

A. **Durathon** Elite Track Sport Surface (or) approved equal:

1. Surface shall be dual-durometer rubber roll goods with track embossing, 1/2 inch thickness and color of choice.
   a. Typical physical properties of Durathon Elite Track are tested in accordance with ASTM testing methods. Test results are based on compound cured according to ASTM procedures. Actual manufactured product may vary.

Physical Property:	Standard:	Specification:
Hardness Shore A Upper/Low	ASTM D 2240	50/45 Shore A
Friction	IAAF Test	38.70%
Resistance to Fungi	ASTM D3273	Excellent
V.O.C. Compliance	ASTM D 5116	Pass
Critical Radiant Flux	ASTM E 648, NFPA 101	0.92 W/cm2, Class 1
Optical Density of Smoke	ASTM E 662	<450, Class 1
Color Stability		Good
Chemical Resistance		Good
UV Resistance		Good
Stain Resistance		Good
Light Reflection		Average

B. Adhesive:

Adhesive, a two component urethane, shall be approved by manufacturer, no substitutions. Use of any non-approved adhesive shall void warranty.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Rubber Sports Surface

1. Product should be unrolled and allowed to relax before cutting and fitting.

2. Mix two-component urethane adhesive according to manufacturers instructions. Use 1/16 inch notched trowel to spread adhesive.

3. Unroll product into freshly applied adhesive. End seams will be single cut, edge seams overlapped, then snapped into place to insure tight seam.

4. Roll the entire sport floor surface with a medium size steel roller to remove entrapped air. Wipe away adhesive that oozes between seams with wood alcohol.

5. All seam s must be weighted in place. Leave weight in place a minimum of twelve (12) hours.

B. Game-line painting should be in accordance with manufacturer's current procedures, using approved materials.

C. Perimeter molding: Install a rubber base, anchored to walls with base cement.

D. Clean up all unused materials and debris and remove same from the premises. Dispose of empty container in accordance with federal and local statutes.

END OF SECTION 096566

EXHIBIT "E"

psi Information To Build On
Engineering • Consulting • Testing

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Main Office (Admin. Bldg.) at First Base
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:

Field Observation	Deteriorated sealant at seams and joints. Neoprene washers on fasteners are deteriorated. Gutters full of debris.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$2,200

a1)

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Concessions at First Base
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:

Field Observation	Deteriorated sealant at seams and joints. Neoprene washers on fasteners are deteriorated. Damaged vent cover.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$1,200

Information To Build On
Engineering • Consulting • Testing

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Maintenance Bldg. at Outfield
Report By:	Professional Service Industries, Inc. (PSI)

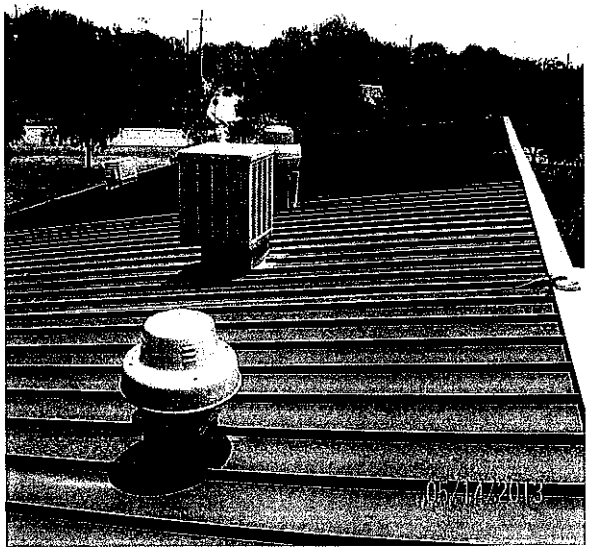
Existing Condition:

Field Observation	Deteriorated sealant at seams and joints. Neoprene washers on fasteners are deteriorated.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$3,500

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Concessions at Third Base
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:



Field Observation	Deteriorated sealant at seams, joints, and flashings. Neoprene washers on fasteners are deteriorated.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets, flashings. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$3,200

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Offices at Third Base
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:

Field Observation	Deteriorated sealant at seams, joints, and flashings. Neoprene washers on fasteners are deteriorated.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$2,500

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Built-Up Roof at Suites
Report By:	Professional Service Industries, Inc. (PSI)

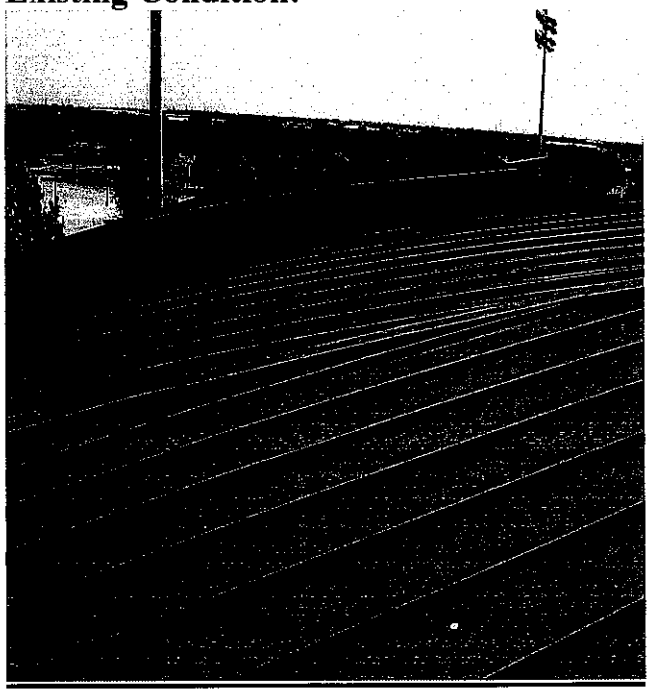
Existing Condition:

Field Observation	Deteriorated sealant at drip edge joints. Leaking HVAC condensation line at unit close to roof hatch.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at drip edge joints and rivets. Re-flash HVAC unit close to roof hatch.
Conceptual Cost Estimate	$4,500

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Overhang (Above Suites) at Home Plate
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:

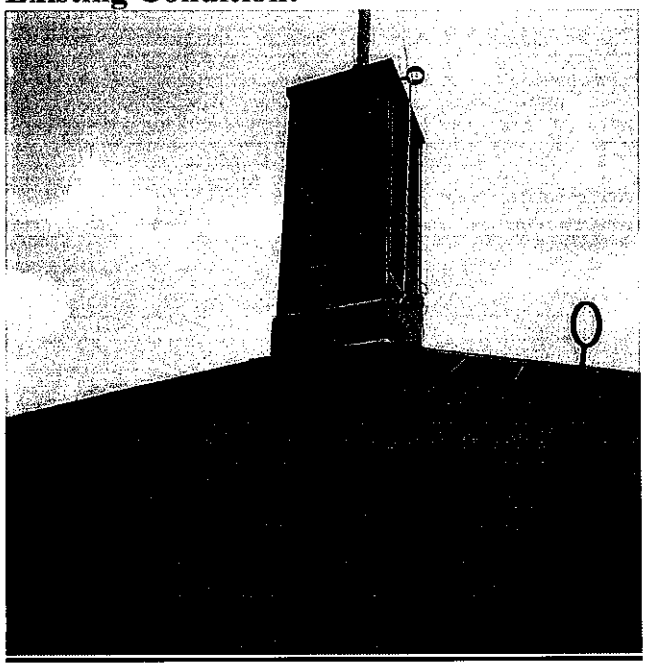


Field Observation	Roof appears to be in good condition.
Probable Cause of Damage	N/A
Remediation	No immediate needs at this time.
Conceptual Cost Estimate	N/A

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Left Tower at Entrance
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:

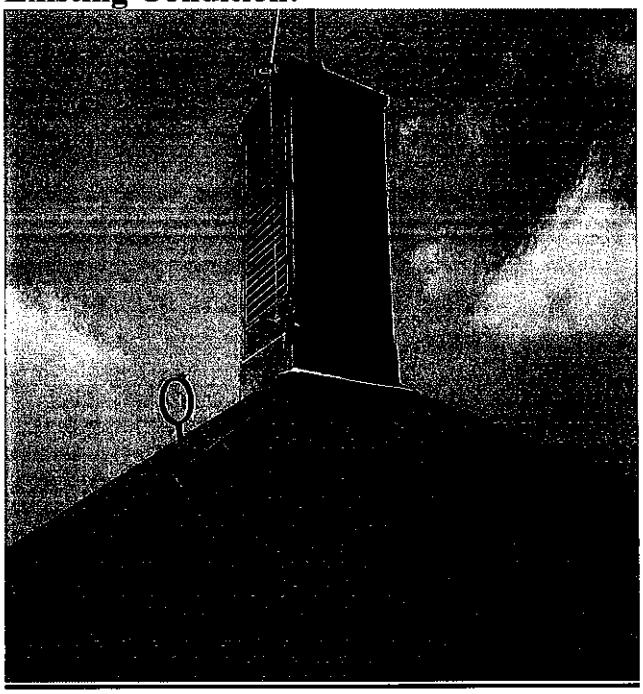


Field Observation	Deteriorated sealant at seams and joints. Neoprene washers on fasteners are deteriorated.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$2,500

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Right Tower at Entrance
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:

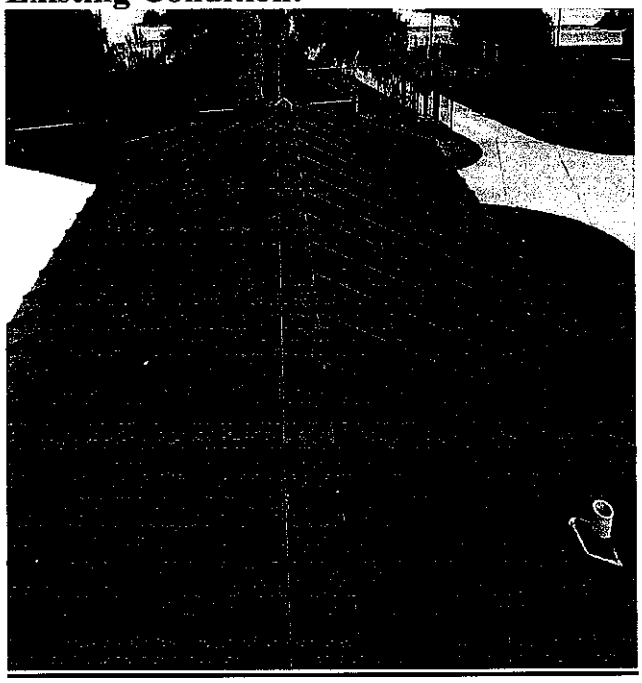


Field Observation	Deteriorated sealant at seams and joints. Neoprene washers on fasteners are deteriorated.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$2,500

Wolff Stadium Assessment
For the City of San Antonio
Assessment Summary

Date:	06/03/13
Stadium Location:	Metal Roof, Patio (VIP Area) at Third Base
Report By:	Professional Service Industries, Inc. (PSI)

Existing Condition:



Field Observation	Deteriorated sealant at seams and joints. Neoprene washers on fasteners are deteriorated.
Probable Cause of Damage	Age of facility and lack of maintenance.
Remediation	Install sealant at seams, joints, rivets. Replace fasteners with neoprene washers.
Conceptual Cost Estimate	$1,200

Information To Build On
Engineering • Consulting • Testing

May 29, 2013

Chesney Morales & Associates, Inc.
4901 Broadway, Suite 250
San Antonio, Texas 78209

Attn: Richard Morales, AIA

Subject: Indoor Air Quality Study Report
San Antonio Municipal Baseball Stadium
Nelson Wolff Field
San Antonio, Texas
PSI Project No: 0435-1412

Dear Mr. Morales

In accordance with our agreement dated May 10, 2013, Professional Service Industries, Inc. (PSI) has performed Indoor Air Quality study of the above referenced property. Please find an electronic copy of the final report attached.

Thank you for choosing PSI as your consultant for this project. If you have any questions, or if we can be of additional service, please call us at 210/616-2119.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Guy L. Roberts
MAC 1096

Enclosures

b1)

Information To Build On
Engineering • Consulting • Testing

INDOOR AIR QUALITY STUDY REPORT

For

SAN ANTONIO MUNICIPAL BASEBALL STADIUM
NELSON WOLFF FIELD
SAN ANTONIO, TEXAS

Prepared for

CHESNEY MORALES & ASSOCIATES
4901 BROADWAY, SUITE 250
SAN ANTONIO TEXAS 78209

Prepared by

Professional Service Industries, Inc.
7400 Blanco Road, Suite 257
San Antonio, Texas 78216
Telephone (210) 616-2119

PSI PROJECT NO. 0435-1412

May 29, 2013

Guy L. Roberts,
Mold Assessment Consultant 1096

INDOOR AIR QUALITY STUDY
REPORT

For

SAN ANTONIO MUNICIPAL BASEBALL STADIUM
NELSON WOLFF FIELD
SAN ANTONIO, TEXAS

Prepared for

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May 29, 2013

Guy L. Roberts,
Mold Assessment Consultant 1096

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1. EXECUTIVE SUMMARY

PSI has conducted an Indoor Air Quality (IAQ) Study at the San Antonio Municipal Baseball Stadium, at Nelson Wolff Field in San Antonio, Texas. The subject site consisted of eight buildings. The client requested a mold assessment prior to proposed renovation activities.

This survey was conducted at the request of Mr. Richard Morales, Architect, for Chesney Morales & Associates, on the basis of possible compromised indoor air quality (IAQ) resulting from previous moisture intrusion and concomitant fungal amplification.

The scope of the IAQ study was intended to address identifiable conditions within the areas of concern facility as it relates to the recognition, evaluation, and control of mold within the buildings. This assessment will provide data regarding potential fungal amplification, general condition of HVAC systems, and building moisture conditions. Some of the HVAC systems were not operating at the time of the assessment.

PSI recommends that following an HVAC study, efforts to control the relative humidity level should be undertaken to minimize the potential for future fungal amplification. During the renovation activities, additional recommendations include repair to the roof deck systems of the outlying buildings, including flashing around roof penetrations. If the source of the elevated relative humidity and water intrusion are not remediated, the potential for recurrence of fungal amplification will remain.

PSI recommends that the damaged materials should be removed, and if fungal amplification exceeds 25 contiguous square feet, a licensed mold remediation contractor should be used for remediation activities per Texas Mold Assessment and Remediation Rules (TAC 295).

2. INTRODUCTION

An IAQ study of the San Antonio Municipal Baseball Stadium buildings located at Nelson Wolff Field in San Antonio, Texas has been conducted by Professional Service Industries, Inc. (PSI) to investigate reports of perceived indoor air quality problems associated with moisture intrusions and "musty" odors. This survey was conducted on May 16, 2013 by Guy L. Roberts of PSI.

This survey was performed in response to concerns of occupant exposures to elevated airborne fungal spore counts from suspect fungal amplification sources.

The survey was generally conducted in three phases as follows:

- **Phase 1 - Initial Evaluation -** A preliminary evaluation was conducted by PSI which included interviews of the management and maintenance personnel providing information relative to potential exposure pathways. This data was used to focus the scope of work to be followed over the course of the sampling event.

- **Phase 2 – Physical Data Collection -** A sampling plan was developed by TDSHS licensed Mold Assessment Consultant. Measurements were made of temperature and relative humidity in the selected areas of the facility through the use of an electronic Extech™ humidity/temperature device. Physical data collection also included obtaining samples for total fungal spores in selected areas and comparative samples from the local outdoor environment.

- **Phase 3 - Project Report -** This report outlines the survey findings based on the testing results and field observations. The report also discusses other observations concerning the workplace as they impacted the sampling events. This report includes discussion of sampling methodology, locations, analytical methods, results, and conclusions.

2.1 AUTHORIZATION

Authorization to perform the study was given by a signed copy of an agreement between Chesney Morales & Associates and PSI. Access to the site was provided by Chesney Morales & Associates. PSI was escorted to the areas of concern by Mr. Daniel Pena during the study.

2.2 SITE DESCRIPTION

The subject site upon which this assessment was conducted is located at the San Antonio Municipal Baseball Stadium, Nelson Wolff Field buildings, in San Antonio, Texas.

2.3 PROJECT BACKGROUND

This study was conducted at the request of Mr. Richard Morales, Architect for Chesney Morales & Associates, on the basis of concerns of potential occupant exposures to elevated fungal spore concentrations and expressed concerns of "musty" odors and previous moisture intrusion.

2.4 PURPOSE AND SCOPE

The purpose of this IAQ study was to evaluate conditions within the buildings as it relates to the recognition, evaluation, and control of mold within the structures. This assessment provides

data regarding potential fungal amplification, general condition of HVAC systems, and building relative humidity conditions.

The assessment was completed in general accordance with the authorized scope of work.

3. ASSESSMENT ACTIVITIES

Field investigation and sampling activities were conducted on May 16, 2013, by Mr. Guy L. Roberts, Mold Assessment Consultant, under the supervision of John Langan, Environmental Department Manager. Prior to the commencement of assessment activities, the client provided site access to the areas within the buildings.

3.1 WALK-THROUGH EVALUATIONS

The walk through evaluations were conducted throughout the buildings to observe suspect areas with suspected fungal amplification issues. PSI was escorted during the walk through evaluation by Mr. Daniel Pena, maintenance supervisor for the Nelson Wolff Field.

There were no noticeable variations in temperatures and perceived humidity upon entry into the various areas of the building. Most of the air conditioner units were functioning.

Slight unusual or "musty' odors were encountered at the buildings. Areas of suspect visible mold amplification were observed at the portions of the buildings assessed.

3.2 PHYSICAL MEASUREMENTS/GENERAL COMFORT PARAMETERS

Areas were investigated using an electronic Extech™ humidity/temperature device for comparison of indoor comfort parameters with outside conditions. Moisture mapping in the vicinity of the suspect fungal growth area was performed using a Ryobi Moisture meter to determine the extent of moisture intrusion into the sheetrock substrate and on the plaster walls.

3.3 TOTAL AIRBORNE FUNGAL (MOLD) STRUCTURES (VIABLE AND NON-VIABLE)

Total Fungal Structures were collected using utilizing Air O Cell ™ spore traps that deposits the spores onto a slide where they are identified and enumerated microscopically. The Air O Cell ™ spore trap was connected to a sampling pump calibrated to flow at 15 liters per minute for a sampling period of ten (10) minutes, resulting in a total sample volume of 150 liters. An outdoor sample was also collected for comparison purposes.

The advantage to using this method is quick turn-around time from the laboratory, as the samples are evaluated microscopically and do not require incubation. Please note that spores including viable and non-viable spores are counted. In addition, fungal spores cannot be speciated using this method.

The air sample results are included in Table 1 in the Appendix. The sample results reveal that the total fungal spore concentrations measured in the indoor samples were significantly lower than what was measured in the outdoor samples, with the exception of the west office in building 1.

3.4 OUTSIDE AIR FUNGAL COUNT

For airborne samples, indoor levels and types were compared to the outdoor varieties with the best scenario being similar types but fewer spore counts in the indoor sample. Results for airborne total (viable and non-viable) fungi (mold) are expressed as fungal structures (spore counts) per cubic meter (counts/m^3).

3.5 SWAB/SURFACE SAMPLING

Surface samples for fungal structure identification by optical microscopic analysis were collected. A tape lift sampler was touched to the contaminated areas to be tested then transferred to a plastic case for shipping to the laboratory for analysis. Analysis of the swab samples can indicate the relative degree of contamination on surfaces and the type of fungi present.

All microbial samples were analyzed by PSI's Microbiological Laboratory located in Pittsburgh, PA. The laboratory successfully participates in the American Industrial Hygienists Association (AIHA), Environmental Microbiology Proficiency Analytical Testing Program (EMPAT) which measures the laboratory's proficiency in analyzing environmental microbiological samples. EMPAT is specifically for labs identifying microorganisms commonly detected in air, fluids, and surface samples during Fungal studies. EMPAT is a triennial performance based testing program. Samples may contain both pure and mixed cultures of fungi or bacteria. Laboratories participate to assess and improve their analytical skills. Proficiency in EMPAT is mandatory for labs seeking EMLAP accreditation.

4. DATA ANALYSIS & INTERPRETATION

Analysis and interpretation of the data generated during the field investigation is presented in the following sections. Where appropriate, the results are compared with regulatory limits, if available, or industry standard guidelines for the chemicals, compounds, and physical measures identified in this assessment. Summaries of the analytical results are provided in Table 1 and 2. Laboratory reports are provided in Appendix.

4.1 OBSERVATIONS

Upon entry, unusual and "musty" odors were noted, and the temperature and relative humidity were within the comfortable range, and was confirmed by instrument readings. The relative humidity was at or below 35% on the interior of the buildings, During the walkthrough of the building, various portions of the ceiling tile system were observed to have been affected by prior moisture intrusion.

The following section explores the physical measurements behind these observations in greater detail.

4.2 PHYSICAL MEASUREMENTS

1. TEMPERATURE

Measurement and recording of the air temperature is used to determine comfort level parameters associated with the indoor environment. The monitoring device was placed in each area and allowed to collect spot measurements while obtaining moisture meter readings and air samples. The American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE) provides guidance on comfort ranges for temperature depending on season. These numbers generally range from 68 to 76° F during the winter months and from 72 to 80° F during the summer months. The ranges are dependent on available humidity with the lower end of the temperature range coinciding with the higher humidities. The temperatures measured within the buildings were within this range.

2. RELATIVE HUMIDITY

Measurement and recording of the relative humidity is used to indicate comfort level parameters associated with the indoor air. Overly dry as well as overly humid air are both indicators of air quality provided by the HVAC system. The monitoring device was placed in the sampling areas for spot check measurements while collecting air sample and moisture meter readings. ASHRAE recommends maintaining the humidity between 30 and 70%, ideally between 40 and 60%. The relative humidity levels within the selected areas of the buildings were within the general range.

3. MOISTURE METER RESULTS

Utilizing a Ryobi Moisture Meter, PSI performed moisture testing on the substrates within the areas. PSI observed that no elevated moisture content measurements were observed.

4. AIRBORNE SAMPLE RESULTS

Air samples for total fungal spore analysis were collected from the following locations: the second level of the stadium at the east concession booth store room, the hallway by the visiting team entrance to the diamond, the west office in building 1, and outside the building. Airborne Hyphal Fragments, *pollen, Ascospores, Alternaria sp., Basidiospores, Curvularia sp., Unknown/Brown sp., Pithomyces sp., Epicoccum sp. and Smuts/Myxomycetes* were identified in lower or equal concentrations on the interior samples in comparison to the exterior sample. *Penicillium/Aspergillus sp.* were observed in the west office at building 1 in a higher concentration than the exterior sample. *Penicillium/Aspergillus sp.* are a primary colonizer, and known for easy aerosolization, with the potential to provoke allergic reaction in sensitive individuals, and Hyphal fragments are indicative of active growth.

As a control and for comparison, an exterior air sample was collected from outside the building. The outdoor air fungal concentrations were higher than what was measured in the indoor sample except those mentioned above, suggesting that these results are not considered acceptable for areas of the structure with normally functioning heating, ventilation and air-conditioning (HVAC) system.

5. CONCLUSIONS AND RECOMMENDATIONS

PSI has performed an IAQ study of the subject site in general accordance with Agreement between Chesney Morales and Associates and PSI. Based on the results of this assessment, the following conclusions and recommendations have been developed.

5.1 PHYSICAL MEASUREMENTS/GENERAL COMFORT PARAMETERS

Areas were investigated using the hand-held Extech™ humidity/temperature measuring device. The results indicate that the building was within the guidelines for temperature and relative humidity specified by the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), with the major exception of the east stairwell.

5.2 TAPE LIFT/SURFACE SAMPLING RESULTS

Numerous Hyphal Fragments and numerous *Stachybotrys sp.* were identified in tape lift sample collected from the wall in the customer service storage closet, which was observed to have had previous elevated humidity without return air ventilation. Numerous Hyphal Fragments and *Cladosporium sp.*, occasional *Basidiospores* and occasional *Smuts/Myxomycetes* were identified in the swab sample collected from the pipe insulation covering in the visiting team's locker room on the bottom level. Numerous Hyphal Fragments, numerous *Ulocladium sp.* and numerous *Stachybotrys sp.* were identified in tape lift sample collected from the ceiling tile in Mr. Long's office in building 3. No spores were detected in the 3rd level swab sample collected in the "Radio Soda Room" wall.

5.3 AIRBORNE TOTAL FUNGAL SPORE COUNT RESULTS

Air samples for total fungal spore analysis were collected from the 2nd stadium level east concession stand store room, the hallway leading to the stairs to the field from the visiting team's locker room, and Mr. Long's office in building 3. Airborne Hyphal Fragments, *pollen, Ascospores, Alternaria sp., Basidiospores, Curvularia sp., Unknown/Brown sp., Pithomyces sp., Epicoccum sp. and Smuts/Myxomycetes* were identified in lower or equal concentrations on the interior samples in comparison to the exterior sample. *Penicillium/Aspergillus sp.* were observed in the west office at building 1 in a higher concentration than the exterior sample. *Penicillium/Aspergillus sp.* are a primary colonizer, and known for easy aerosolization, with the potential to provoke allergic reaction in sensitive individuals, and Hyphal fragments are indicative of active growth.

.

5.4 RECOMMENDATIONS

Based on the methodologies described in this report, this assessment has provided sufficient information to determine that the air samples revealed elevated concentrations of fungal spores in comparison to the outside sample. PSI recommends that a Mold Remediation Protocol be prepared for use by a Texas DSHS licensed Mold Remediation Contractor to perform remediation.

PSI recommends that efforts to control elevated relative humidity be performed prior to remediation activity to prevent future fungal amplification. A study should be performed by qualified HVAC engineers to determine if dehumidification will reduce the potential for fungal growth.

Due to the identified elevated fungal spore counts, PSI recommends that materials that have a potential for fungal amplification be removed in accordance with design specifications set forth in a

Mold Remediation Protocol, and conducted by a licensed mold remediation contractor should be used for remediation activities per Texas Mold Assessment and Remediation Rules (TAC 295).

6. WARRANTY

3. INDOOR AIR QUALITY ASSESSMENT

The field observations, measurements, and research reported herein are considered sufficient in detail and scope to form a reasonable basis for an Indoor Air Quality Assessment of this property. The assessment, conclusions, and recommendations presented herein are based upon the subjective evaluation of limited data. They may not represent all conditions at the subject site as they reflect the information gathered from specific locations. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted industrial hygiene methodology and only for the site described in this report.

4. USE BY THIRD PARTIES

This report was prepared pursuant to the agreement PSI has with Chesney Morales & Associates. That contractual relationship included an exchange of information about the subject site that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than the Chesney Morales and Associates for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to PSI's agreement with Chesney Morales & Associates. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

5. UNIDENTIFIABLE CONDITIONS

This IAQ Study has been developed to provide the client with information regarding apparent conditions relating to the subject property. Although PSI believes that the findings and conclusions provided in this report are reasonable, the assessment is necessarily limited to the conditions observed and to the information available at the time of the work. Due to the nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of the assessment or which were not apparent at the time of our site work. The assessment is also limited to information available from the client at the time it was conducted. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. PSI does not accept responsibility for changes in the state of the art.

No other warranties are implied or expressed.

TABLE 1: AIRBORNE FUNGAL SPORE SAMPLE RESULTS

San Antonio Municipal Baseball Stadium
Nelson Wolff Field
San Antonio, Texas
May 16, 2013

Microscopic Screen of Spore Impaction Including Name (Genus/Species)	Outside Air Control Sample Spores/m³	Inside Air Sample Spores/m³	Visiting Team Locker Room/Dugout Air Sample Spores/m³	Warehouse Sample Spores/m³
Hyphal Fragments	190	40	33	73
Pollen Count	53	13	20	27
Ascospores	1,100	390	280	120
Aspergillus/Penicillium	40	13	ND	**1,300**
Basidiospores	260	67	110	33
Cladosporium	2,300	560	460	240
Drechslera/Bipolaris	13	7	7	**27**
Epicoccum	33	ND	7	20
Smuts/Myxomycetes	310	33	47	47
Unknown/brown	13	13	13	13
Alternaria sp.	87	20	53	20
Curvularia sp.	27	7	7	7
Nigrospora sp.	7	7	7	7
Chaetomium sp.	ND	ND	ND	ND
Pithomyces sp.	7	ND	ND	7
Cercospora sp.	13	ND	ND	ND
Ganoderma sp.	47	13	13	7
Torula sp.	7	13	ND	ND
Pestalotia sp.	7	ND	ND	7
Rusts	7	ND	ND	ND
Total Fungal Spores	**4,271**	**1,130**	**1,004**	**1,855**

ND –No fungal spores detected

TABLE 2: Surface Fungal Spore Sample Results

San Antonio Municipal Baseball Stadium
Nelson Wolff Field
San Antonio, Texas
May 16, 2013

Microscopic Screen & Spore Identification (includes viable & non-viable)	Wall Customer Service, Storage Rm.	Wall 2nd level Radio Soda Rm.	Pipe Insulation Visiting Team Locker Rm.	Ceiling Tile Bldg. 3 Mr. Long Office
Hyphal Fragments	4+	*NSD*	*4*	*4*
Aspergillus/Penicillium	*NSD*	*NSD*	*NSD*	*NSD*
Basidiospores	*NSD*	*NSD*	*1+*	*NSD*
Cladosporium	*NSD*	*NSD*	*4+*	*NSD*
Drechslera/Bipolaris	*NSD*	*NSD*	*NSD*	*NSD*
Epicoccum	*NSD*	*NSD*	*NSD*	*NSD*
Smuts/Myxomycetes	*NSD*	*NSD*	*1+*	*NSD*
Unknown/brown	*NSD*	*NSD*	*NSD*	*NSD*
Alternaria sp.	*NSD*	*NSD*	*NSD*	*NSD*
Curvularia sp.	*NSD*	*NSD*	*NSD*	*NSD*
Nigrospora sp.	*NSD*	*NSD*	*NSD*	*NSD*
Chaetomium sp.	*NSD*	*NSD*	*NSD*	*NSD*
Pithomyces sp.	*NSD*	*NSD*	*NSD*	*NSD*
Cercospora sp.	*NSD*	*NSD*	*NSD*	*NSD*
Ulocladium sp.	*NSD*	*NSD*	*NSD*	*4+*
Stachybotrys sp.	*4+*	*NSD*	*NSD*	*4+*

NSD = No spores detected

APPENDIX A - FIELD MEASUREMENTS
SAMPLE RESULTS & CHAIN OF CUSTODY

DIRECT EXAM SWAB/BULK/SURFACE REPORT

PSI, Inc
7400 Blanco Road
San Antonio, TX 78216

Attn: John Langan

DATE	
Reported:	5/20/13
Analyzed:	5/20/13
Received:	5/17/13
Sampled:	5/16/13

Work Order: 1305423
Project Number: 0435-1412
Project Name: Wolff Stadium

Analyst: JM

AIHA EMLAP #100373 **TEST METHOD: PSI-WI-621-838**

LAB NUMBER:	001A	002A	003A	004A
Client ID:	02	04	05	07
Location:	Wall, C.S. Storage Room	3rd Lvl, Wall Radio Soda Rm	Pipe Insulation, Visitor L.R.	Ceiling Tile, Bldg. 3, Mr. Long
Sample Condition:	Acceptable	Acceptable	Acceptable	Acceptable
Comments:	Please see last page	**No Spores detected**		Please see last page
Sample Description:	Surface	Surface	Surface	Surface
Hyphal Fragments	**4+**		**4+**	**4+**
Pollen				
Cladosporium sp.			**4+**	
Ascospores				
Basidiospores			**1+**	
Smuts/Myxomycetes			**1+**	
Peronospora/Oidium sp.				
Pen./Asp. Group				
Alternaria sp.				
Drechslera/Bipolaris				
Amerospores1				
Arthrinium sp.				
Curvularia sp.				
Stachybotrys sp.	**4+**			**4+**
Unknown/Brown2				
Torula sp.				
Ulocladium sp.				**4+**
Chaetomium sp.				
Pithomyces sp.				
Epicoccum sp.				
Fusicladium				
Clear Brown2				
Cercospora sp.				
Rusts				
Nigrospora sp.				

See final page for general and specific comments

DIRECT EXAM SWAB/BULK/SURFACE REPORT

PSI, Inc 7400 Blanco Road San Antonio, TX 78216 Attn: John Langan	DATE Reported: 5/20/13 Analyzed: 5/20/13 Received: 5/17/13 Sampled: 5/16/13	Work Order: 1305423 Project Number: 0435-1412 Project Name: Wolff Stadium Analyst: JM	

Specific Sample Comments:

001A:	**Stachybotrys conidiophores present.**
002A:	**No fungal spores detected.**
004A:	**Stachybotrys conidiophores present.**

General Report Comments:
1 = Amerospores are spores not divided into parts by septa.
2 = Colorless, Unknown/brown, clear brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
3 = Quantification of fungal spores are graded 1+ through 4+ with:
- 1+ = Occasional spores seen
- 2+ = Few spores seen
- 3+ = Moderate spores seen
- 4+ = Numerous spores seen

Results relate only to items tested.
This report may not be reproduced except in full, without written approval of PSI, Inc.
Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

Respectfully submitted, PSI, Inc.

Tim Voltz, Approved Signatory

SPORE TRAP REPORT

PSI, Inc
7400 Blanco Road
San Antonio, TX 78216

Attn: John Langan

DATE	
Reported:	5/20/13
Analyzed:	5/20/13
Received:	5/17/13
Sampled:	5/16/13

Work Order: 1305422
Project Number: 0435-1412
Project Name: Wolff Stadium

Analyst: JM

AIHA EMLAP #100373

TEST METHOD: PSI-WI-620-838

LAB NUMBER:	001A			002A			003A		
Client ID:	01			03			06		
Location:	Outside			2nd Lvl., E. Concession , Store			Visitor, Field Hallway		
Sample Condition:	Acceptable			Acceptable			Acceptable		
Comments:									
Detection Limit(spores/m^3):	7			7			7		
Hyphal Fragments	29	190		6	40		5	33	
Pollen	8	53		2	13		3	20	
Sample Description:	Air-O-Cell			Air-O-Cell			Air-O-Cell		
	raw ct.	spores/m^3	%	raw ct.	spores/m^3	%	raw ct.	spores/m^3	%
Cladosporium sp.	344	2300	54.09	84	560	49.70	69	460	46.00
Ascospores	162	1100	25.47	58	390	34.32	42	280	28.00
Basidiospores	39	260	6.13	10	67	5.92	16	110	10.67
Smuts/Myxomycetes	46	310	7.23	5	33	2.96	7	47	4.67
Peronospora/Oidium sp.	1	7	0.16						
Pen./Asp. Group	6	40	0.94	2	13	1.18			
Alternaria sp.	13	87	2.04	3	20	1.78	8	53	5.33
Drechslera/Bipolaris	2	13	0.31	1	7	0.59	1	7	0.67
Amerospores1									
Arthrinium sp.									
Curvularia sp.	4	27	0.63	1	7	0.59	1	7	0.67
Stachybotrys sp.									
Unknown/Brown2	2	13	0.31	2	13	1.18	2	13	1.33
Torula sp.									
Ulocladium sp.									
Chaetomium sp.									
Pithomyces sp.	1	7	0.16						
Epicoccum sp.	5	33	0.79				1	7	0.67
Fusicladium									
Clear Brown2									
Cercospora sp.	2	13	0.31						
Rusts									
Nigrospora sp.	1	7	0.16	1	7	0.59	1	7	0.67
Ganoderma sp.	7	47	1.10	2	13	1.18	2	13	1.33
Pestalotia sp.	1	7	0.16						
Background debris (1-5)[3]	3			3			3		
Sample Volume (liters)	150			150			150		
TOTAL SPORES/M^3	**636**	**4,271**	**100**	**169**	**1,130**	**100**	**150**	**1,004**	**100**

Total % may not equal 100 due to rounding.

PSI Information To Build On
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SPORE TRAP REPORT

PSI, Inc
7400 Blanco Road
San Antonio, TX 78216

Attn: John Langan

DATE	
Reported:	5/20/13
Analyzed:	5/20/13
Received:	5/17/13
Sampled:	5/16/13

Work Order:	1305422
Project Number:	0435-1412
Project Name:	Wolff Stadium
Analyst:	JM

AIHA EMLAP #100373

TEST METHOD: PSI-WI-620-838

LAB NUMBER:	004A		
Client ID:	08		
Location:	W. Office, Bldg. 1		
Sample Condition:	Acceptable		
Comments:			
Detection Limit(spores/m^3):	7		
Hyphal Fragments	11	73	
Pollen	4	27	
Sample Description:	Air-O-Cell		
	raw ct.	spores/m^3	%
Cladosporium sp.	36	240	13.09
Ascospores	18	120	6.55
Basidiospores	5	33	1.82
Smuts/Myxomycetes	7	47	2.55
Peronospora/Oidium sp.			
Pen./Asp. Group	192	1300	69.82
Alternaria sp.	3	20	1.09
Drechslera/Bipolaris	4	27	1.45
Amerospores1			
Arthrinium sp.			
Curvularia sp.	1	7	0.36
Stachybotrys sp.			
Unknown/Brown2	2	13	0.73
Torula sp.			
Ulocladium sp.			
Chaetomium sp.			
Pithomyces sp.	1	7	0.36
Epicoccum sp.	3	20	1.09
Fusicladium			
Clear Brown2			
Cercospora sp.			
Rusts			
Nigrospora sp.	1	7	0.36
Ganoderma sp.	1	7	0.36
Pestalotia sp.	1	7	0.36
Background debris (1-5)^3	4		
Sample Volume (liters)	150		
TOTAL SPORES/M^3	**275**	**1,855**	**100**

Total % may not equal 100 due to rounding.

SPORE TRAP REPORT

PSI, Inc 7400 Blanco Road San Antonio, TX 78216 Attn: John Langan	DATE Reported: 5/20/13 Analyzed: 5/20/13 Received: 5/17/13 Sampled: 5/16/13	Work Order: 1305422 Project Number: 0435-1412 Project Name: Wolff Stadium Analyst: JM	

Specific Sample Comments:

General Report Comments:
1 = Amerospores are spores not divided into parts by septa.
2 = Colorless, Unknown/brown, clear brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
3 = Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable. The higher the rating the more likelihood spores may be underestimated. A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

The reporting limit is one spore/item adjusted for volume.

Results relate only to items tested. Results are not corrected for blank data.
This report may not be reproduced except in full, without written approval of PSI, Inc.
Samples will be disposed of within thirty (30) days unless notified in writing by the client.
Results based on volume measurement provided by the client.
Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

Respectfully submitted, PSI, Inc.

Tim Voltz, Approved Signatory

1305422

CHAIN OF CUSTODY

1305423

Company/Branch San Antonio, TX

Project Manager: Guy Roberts

Phone#: 210.616.2119 Page 1 of 1

Address: 7400 Blanco Rd., Ste. 257

Email Address: guy.roberts@psiusa.com

FAX#: 210/342-9401

City, State, Zip: San Antonio, TX 78216

TAT: Standard: X Rush: Same Day (+50%) ___ Next Day (+50%) ___ Weekend (+125%) ___

Project: Wolff Stadium

Project #/P.O. #: 0435 -1412

Date/Time Sampled: 05/16/13

Project Address: San Antonio, TX

Environmental Conditions: Precipitation in the last 4 hours: Trace

Relative Humidity Inside/Outside: ___ % / 88 %

Temperature Inside/Outside: ___ °/ 73 °

Wind Conditions: S-12

Sample ID	Location Description	Sample Type	Total Volume / Area	Sample Media (If Applicable)	Please Specify Direct Exam or Culture for Swabs & Bulk
01	Outside	A	150 L		DE
02	Wall, C.S. Storage Rm	T	—		DE
03	2nd Lvl., E. Concession, Stores	A	150 L		DE
04	3rd Lvl., Wally Radio Booth Rm	S	—		DE
05	Pepsi Information, Visitor L.R.	S	—		DE
06	Visitor, Field Hallway	A	150 L		DE
07	Ceiling, Bldg. 3, Mr. Long	T	—		DE
08	W. Office, Bldg. 1	A	150 L		DE

Sample Types: AL = Allergenco BR = Burkard A = Zefon Air-O-Cell/Spore Trap AN = Anderson MM= Multi Mold T = Tape S = Swab B = Bulk //Please identify any other types of spore traps

1: Relinquished by: Guy Roberts Date: 050/16/13 Received by: [illegible] Date: 5/17/13

2: Relinquished by: ___ Date: ___ Received by: ___ Date: ___

Professional Service Industries, Inc.
850 Poplar Street
Pittsburgh, PA 15220
Phone: (412) 922-4000
Fax: (412) 922-7289
Email: Jack.Maake@Psiusa.com / Wayne.Dickerson@psiusa.com

Analysis performed is subject to PSI Terms & Conditions.

Rush service must be pre-arranged and is not available on all sample types.

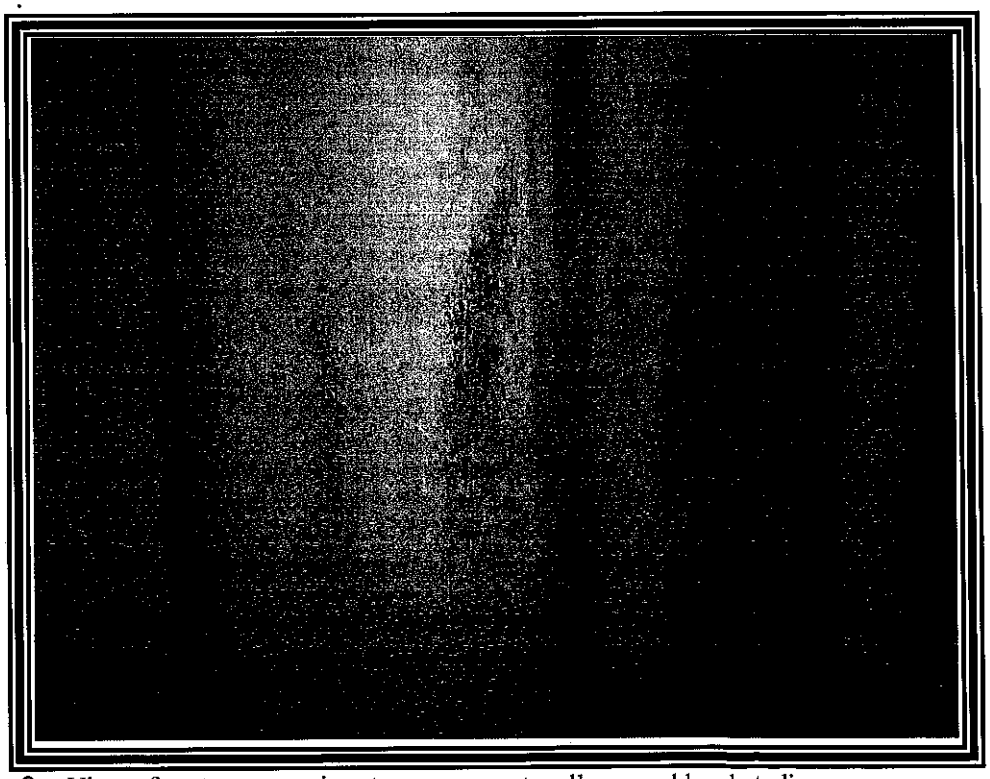
TABLE 1

Site Location Map

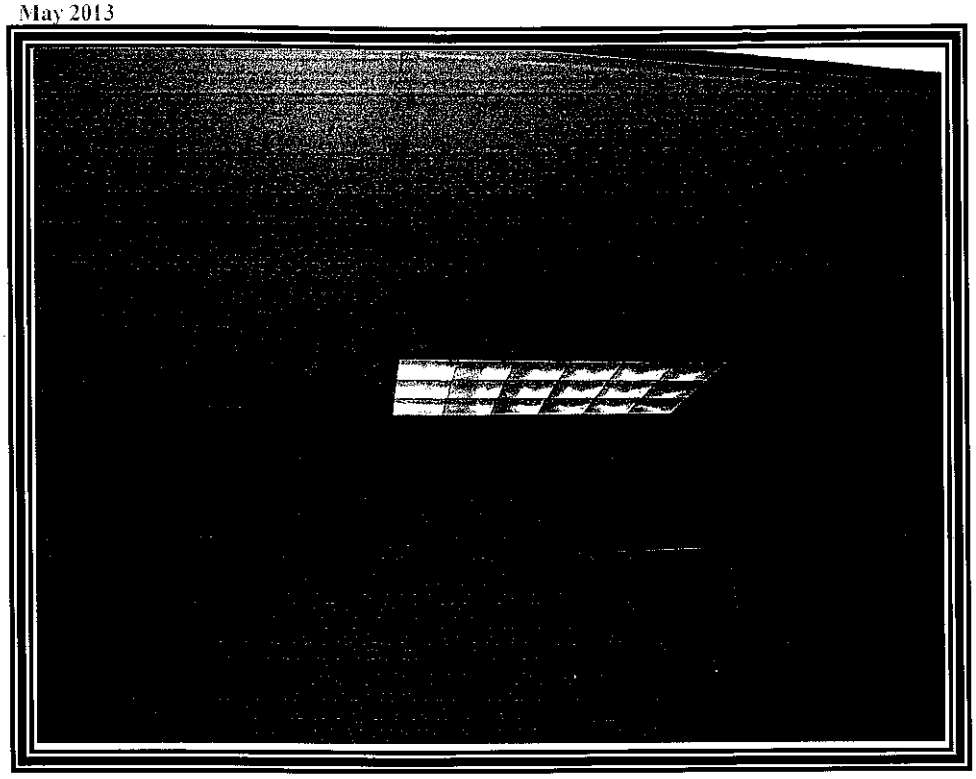
psi Information To Build On ***Engineering • Consulting • Testing*** **PSI, Inc.** **7400 Blanco Rd. Suite 257** **San Antonio, Texas 78216**	**PROJECT NAME:** **San Antonio Baseball Stadium** **Nelson Wolff Field** **San Antonio, Texas** **PROJECT NO.:435-1412**	**Site Plan** **2013**	

Photo Log

1. View of customer service store room south wall, ground level stadium.



2. View of customer service store room east wall, ground level stadium.



3. View of water damaged ceiling tile in building 3 office.

4. View of water damaged ceiling tile in building 2 office.

5. View of pipe insulation in the Visiting team locker room.

6. View of water damaged drywall above ceiling tile in building 3 office.

Information To Build On
Engineering • Consulting • Testing

LEAD-BASED PAINT SURVEY

For The

NELSON WOLFF STADIUM
5757 US HIGHWAY 90
SAN ANTONIO, TEXAS 78227

Prepared for

CHESNEY MORALES & ASSOCIATES
4901 BROADWAY, SUITE 250
SAN ANTONIO, TEXAS 78209

Prepared by

Professional Service Industries, Inc.
7400 Blanco Road, Suite 257
San Antonio, Texas 78216
Telephone (210) 616-2119

PSI PROJECT NO. 0435-1412

May 23, 2013

Katherine Moore
Project Manager

John Langan
Lead Risk Assessor
TDH Certification No:
2070377

c1)

Information To Build On
Engineering • Consulting • Testing

May 28, 2013

Chesney Morales & Associates
4901 Broadway, Suite 250
San Antonio, Texas 78209

Attn: Mr. Richard Morales

Re: Lead-Based Paint Survey
Nelson Wolff Field
San Antonio, Texas
PSI Project Number: 0435-1412

Dear Mr. Morales,

In accordance with our agreement, Professional Service Industries, Inc. (PSI) has performed a lead paint inspection at the above referenced project.

The results of this testing performed on May 13, 2013 can be found in the accompanying report.

We appreciate this opportunity to provide professional services for this project. If we can be of further assistance or if you have any questions concerning this report, please do not hesitate to call.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Katherine Moore
Project Manager
Environmental Services

TABLE OF CONTENTS

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2.0 INTRODUCTION 2

2.1 GENERAL INFORMATION 3
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APPENDICES

A Background Information on Lead and Lead-Based Paint
B Maps of Confirmed Lead-Based Paint Locations
C Certifications
D Glossary Definitions of Terms

1.0 Executive Summary

Professional Service Industries, Inc. (PSI) was retained by Chesney Morales & Associates to conduct lead-based paint surveys of the Nelson Wolff Stadium located at 5757 US Highway 90 in San Antonio, Texas. The inspection was performed under the direction of Mr. John Langan, a Texas Department of Health (TDH) Certified Lead Risk Assessor (Certificate No. 2070377). A brief summary of findings is contained in the following paragraphs.

An initial walk-through was conducted to determine the presence of accessible and/or exposed paint films. Coatings that were similar in general appearance and that appeared to have a similar painting history and substrates were grouped together for testing.

Following the walk-through, the inspector performed testing utilizing x-ray fluorescence (XRF). The 1997 Chapter 7 revisions to the U.S. HUD Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (June 1995) requires one test per testing combination unless otherwise directed. A testing combination is a unique combination of room equivalent, building component type, and substrate. Paint color is no longer a variable of testing combinations. Confirmation samples were not required hence no paint-chip samples were collected for this survey.

This survey did identify the presence of lead content above the "HUD standard" of 1.0 mg/cm^2 or 0.5 percent by weight in the areas screened for LBP.

2.0 INTRODUCTION

2.1 General Information

Professional Service Industries, Inc. (PSI) was retained by Mr. Richard Morales of Chesney Morales & Associates to conduct a lead-based paint survey of the Center for Nelson Wolff Stadium located at 5757 US Highway 90, in San Antonio, Texas. The survey was conducted on May 13, 2013. This report has been prepared for the exclusive use of Chesney Morales & Associates.

2.2 AUTHORIZATION

This survey was completed in accordance with the PSI Proposal No. 95625 and the attached General Conditions to perform this assessment for Consulting Services authorized by Chesney Morales & Associates.

2.3 PURPOSE

The purpose of the lead-based paint testing was to identify painted surfaces or other surface coatings that contain 1.0 mg/cm^2 lead or greater by XRF.

In 1978, the Consumer Product Safety Commission banned the sale of lead-based paint to consumers, and its application to areas where consumers have direct access to painted surfaces. Because of this ban, buildings painted prior to 1978 are suspected of containing leaded paint. However, testing has shown that leaded paint was used in many buildings painted after 1978 as well.

The information provided in this report can be used by Chesney Morales & Associates to make decisions regarding lead management and abatement strategies or the need for additional testing.

2.4 WARRANTY

The information contained in this report is based upon the data furnished by the client and observations and test results provided by PSI. These observations and results are time dependent, are subject to changing site conditions, and revisions to federal, state, and local regulations.

PSI warrants that these findings have been promulgated after being prepared in accordance with generally accepted practices in the lead-based paint testing and abatement industry. No other warranties are implied or expressed.

PSI also recognizes that raw field test data is usually not sufficient to make all abatement and management decisions and recommends that PSI be afforded an opportunity to review abatement specifications so test results may be properly interpreted and implemented.

3.0 METHODOLOGY

3.1 FIELD SURVEY - GENERAL

The scope of services for this project was based on the client provided minimum sampling protocol and the 1997 Revised HUD guidelines. This included the performance of painted surface testing, and the preparation of a report detailing where and at what concentrations lead was found.

An initial walk-through was conducted to determine the presence of paint films that were accessible and/or exposed in the buildings. Three samples per test combination were taken. Following the walk-through, the inspector performed XRF testing of each test combination utilizing a LPA-1 Radiation Monitoring Device.

3.2 XRF SAMPLE LOCATIONS

XRF readings were taken at the Nelson Wolff Stadium located at 5757 US Highway 90 in San Antonio, Texas. Components tested include the following:

Building 1

- Blue paint on a bollard with a concrete substrate
- Blue paint on bollard base with metal substrate
- Tan paint on exterior door frame with metal substrate
- Tan paint on exterior door frame with metal substrate
- White paint in interior door frame with metal substrate
- Tan paint in interior wall with metal substrate
- Tan paint on electrical box with metal substrate
- White paint on overhead roll-up door at concession stand with metal substrate
- Tan paint on roll-up door frame at concession stand with metal substrate
- Blue paint on interior door face with metal substrate
- Blue paint on interior door face with metal substrate
- Tan paint on chain link fence post with metal substrate
- Beige paint on chain link fence support post with metal substrate
- Black paint in I beams on the northwest side exterior with metal substrate
- Green paint on I beam on northwest side exterior with metal substrate
- Tan paint on interior I beam with metal substrate
- Tan paint on interior restroom wall with drywall substrate
- Blue paint on interior restroom door with metal substrate
- Blue paint on interior door face with metal substrate
- Blue paint on lockers with metal substrate
- White paint on interior wall with drywall substrate
- Blue paint on interior door face with metal substrate
- Blue paint on interior door frame with metal substrate

- Blue paint on exterior door frame with metal substrate
- Tan paint on roll-up door with metal substrate
- Tan paint on window frame with metal substrate
- Tan paint on southeast side roll-up door with metal substrate
- Tan paint on southeast side roll-up door frame with metal substrate
- Blue paint in interior door with metal substrate

Building 2

- Light blue paint on southwest side gate support with metal substrate
- Green paint on southwest side square tubing with metal substrate
- Blue paint on north side door face with metal substrate
- Blue paint on north side door frame with metal substrate
- Gray paint on south side exterior electrical box with metal substrate
- Blue paint on south side light shade with metal substrate
- Gray paint on south side electrical box door with metal substrate
- Gray paint on south side electrical box door with metal substrate
- Blue paint on south side window vent with metal substrate
- Black paint on south side ash tray with metal substrate
- Green paint on east side beam support with metal substrate
- Green floor support on the east side with metal substrate

Building 3

- Tan paint on east side exterior wall with metal substrate
- Light tan paint on east side exterior wall with metal substrate
- Blue paint on east side exterior door face with metal substrate
- Blue paint on east side exterior door face with metal substrate
- Blue paint on east side exterior window frame with metal substrate
- Tan paint on south side exterior wall with metal substrate
- Blue paint on east side interior door frame with metal substrate
- Blue paint on east side interior door face with metal substrate
- White paint in east side interior wall with drywall substrate
- Cream paint on east side interior bathroom with drywall substrate
- Blue paint on east side interior door face with metal substrate
- Blue paint on east side interior door frame with metal substrate
- Cream paint on mechanical room electrical box with metal substrate
- Tan paint on east side exterior wall with metal substrate
- Gray paint on east side floor with concrete substrate

Building 4

- Red paint on north side floor with concrete substrate
- Green paint on north side support beam with metal substrate
- Tan paint on north side bathroom wall with cinder block substrate
- Blue paint on north side door frame with metal substrate
- Blue paint on women's restroom door frame with metal substrate
- Blue paint on women's restroom door face with metal substrate
- Cream paint on north women's restroom wall with cinder block substrate
- Light blue paint on women's restroom floor with concrete substrate
- Tan paint on downstairs locker room wall with concrete substrate

- Blue paint on downstairs locker room door frame with metal substrate
- Gray paint on downstairs hand railing with metal substrate
- Light blue paint on men's locker room floor with metal substrate
- Cream paint on downstairs men's locker room wall with cinder block substrate
- Light blue paint on downstairs hallway wall with cinder block substrate
- Gray paint on downstairs storage room floor with concrete substrate
- Gray paint on downstairs stair well ADA support with metal substrate
- Cream hand rail on downstairs stair well with metal substrate
- Blue paint on west side fire pipe with metal substrate
- Gray paint on west side electrical room floor with metal substrate
- Gray paint on west side electrical equipment with metal substrate
- Light gray paint on west side electrical equipment with metal substrate
- Tan paint on west side wall with cinder block substrate
- White paint on north side concession roll-up door with metal substrate
- Blue paint on north side concession roll-up door frame with metal substrate
- Green paint on north side stair railing with metal substrate
- Green paint on north side stair steps with metal substrate
- Green paint on north side stair I beam support with metal substrate
- Green paint on north side 2nd floor hand rail with metal substrate
- Light green paint on 2nd floor frame of chain link fence with metal substrate
- Black paint on east side stairs with metal substrate
- Black paint on east side sitting area with metal substrate
- Green paint on east side railing support with metal substrate
- Gray paint on east side stair end with concrete substrate
- Tan paint on east side sky box wall with metal substrate
- Blue paint on 322 sky box door frame with metal substrate
- Blue paint on 322 sky box door face with metal substrate
- Cream paint on 3rd floor electrical room wall with cinder block substrate
- Gray paint on 3rd floor electrical box with metal substrate

<u>Building 5</u>

- Tan paint on 3rd floor NE exterior wall with plaster substrate
- Green paint on 3rd floor exterior handrail with metal substrate
- Blue paint on 3rd floor door facing at bathroom with metal substrate
- Blue paint on 3rd floor door frame with metal substrate
- Blue paint on 3rd floor stall bathroom interior with wood substrate
- Blue paint on 3rd floor bathroom door with metal substrate
- Blue paint on electrical box at 3rd floor bathroom with metal substrate
- Gray paint on 3rd floor level floor with concrete substrate
- Green paint on stair finish with metal substrate
- Green paint on handrail with metal substrate
- Black paint on pipe with metal substrate
- Red paint on clamp with metal substrate
- Blue paint on support beam with metal substrate

Building 6

- Green paint on SE exterior pipe with metal substrate
- Blue paint on SE exterior window frame with metal substrate
- Blue paint on SE exterior door facing with metal substrate
- Blue paint on SE exterior door seal with metal substrate
- Tan paint on SE exterior wall with a plaster substrate
- Blue paint on SE exterior support beam with metal substrate
- Blue paint on SE exterior handrail with metal substrate
- Blue paint on interior door face SE side with metal substrate
- Blue paint on interior door frame SE side with metal substrate
- Tan paint on interior wall SE side with plaster substrate
- Blue paint on SE side window frame with metal substrate
- Blue paint on SE side elevator door frame with metal substrate
- Blue paint on SE side elevator door facing with metal substrate
- Light blue paint on 2nd level floor with a concrete substrate
- Yellow paint on SE side wall with plaster substrate
- Blue paint on 2nd floor door facing with metal substrate
- Blue paint on 2nd floor door frame with metal substrate
- Blue paint on 2nd floor exterior door frame with metal substrate
- Green paint on 2nd floor exterior handrail with metal substrate
- Blue paint on 2nd floor concession stand door frame with metal substrate
- Gray paint on 2nd floor concession stand door facing with metal substrate
- Blue paint on 2nd floor interior elevator wall with plaster substrate
- Yellow paint on 3rd floor wall with plaster substrate
- Light blue paint on 3rd level floor with concrete substrate
- White paint on 3rd floor restroom wall with a drywall substrate
- Green paint on 3rd floor support pipe with metal substrate
- Green paint on 3rd floor support beam with metal substrate

Building 7

- Blue paint on exterior south door facing with metal substrate
- Blue paint on exterior south door frame with metal substrate
- Tan paint on exterior south wall with metal substrate
- Blue paint on south window frame with metal substrate
- Brown paint on south light cover with metal substrate
- Cream paint on interior wall with metal substrate
- Blue paint on interior wall with drywall substrate
- Blue paint on interior door facing with metal substrate
- Blue paint on maintenance room door facing with metal substrate
- Tan paint on interior restroom wall with drywall substrate
- Cream paint on interior wall with drywall substrate
- Cream paint on door sill with drywall substrate
- Blue paint on interior door facing with metal substrate
- Blue paint on interior door frame with metal substrate
- Blue paint on west side pipe with metal substrate

- Tan paint on north wall with metal substrate
- Tan paint on north side pipe with metal substrate
- Blue paint on entrance support with metal substrate
- Green paint on north entrance bike rack with metal substrate
- Dark green paint on north entrance bench with metal substrate
- Blue paint on handrail at north entrance with metal substrate
- Yellow paint on overhead at north entrance with metal substrate
- Blue paint on lamp post at north entrance with metal substrate

Building 8

- Black paint on north side handrail with metal substrate
- Black paint on north side lamp post with metal substrate
- Blue paint on north side fence support with meta substrate
- Tan paint on north side wall with wood substrate
- White paint on southeast wall on east side with wood substrate
- Black paint on east side door hinges with wood substrate

Building 9

- Tan paint on NW side wall with metal substrate
- Blue paint on fence support on NW side with metal substrate
- Tan paint on SW side roll-up door facing with metal substrate
- Blue paint on SW side roll-up door frame with metal substrate
- White paint on SW side roll-up door facing with metal substrate
- Tan paint on SW side bottom trim with metal substrate
- Tan paint on SW side middle wall with cement masonry unit substrate
- Gray paint on SW side door facing with metal substrate
- Blue paint on SW side exterior door facing with metal substrate
- Blue paint on SW side exterior door frame with metal substrate
- Light gray paint on south interior floor with concrete substrate
- Cream paint on interior wall trim with wood substrate
- Cream paint on interior wall with drywall substrate
- Mustard yellow paint on kitchen wall with drywall substrate
- Dark brown paint on kitchen wall with drywall substrate
- Gray paint on interior kitchen roll-up door facing with metal substrate
- Gray paint on kitchen roll-up door frame with metal substrate
- Blue paint on interior storage door facing with metal substrate
- Blue paint on exterior overhead door frame with metal substrate
- Cream paint on exterior roll-up door support with metal substrate
- Light blue paint on restroom floor with concrete substrate
- Cream paint on restroom wall with cement masonry unit substrate
- Blue paint on restroom stall wall with wood substrate
- Blue paint on restroom stall door with wood substrate
- Cream paint on restroom wall with cement masonry unit substrate
- Red paint on fire valve at rear of building with metal substrate
- Silver paint on fire valve at rear of building with metal substrate

- Tan paint on exterior rear wall with metal substrate
- White paint on SW roll-up door facing with metal substrate
- Blue paint on SW roll-up door frame with metal substrate
- Tan paint on SW exterior door frame with metal substrate
- Tan paint on SW exterior doo facing with metal substrate

The tests were taken using XRF equipment. Readings of 1.0 mg/cm^2 or greater are considered positive for lead content. The reading for each test location is presented in Appendix B.

4.0 FINDINGS

4.1 POSITIVE MATERIALS

A positive classification indicates that lead is present on the testing combination at or above the HUD standard. The "HUD standard" for lead in paint is 1.0 mg/cm^2 or 0.5 percent by weight. Concentrations of lead at or above the "HUD standard" were identified in the materials sampled below at the subject property.

Building 1

- Green paint on support base for I-beam NW exterior with metal substrate

Building 9

- Red paint on fire valve at the rear of the building with a metal substrate

APPENDICES

A Background Information on Lead and Lead-Based Paint
B Maps of Confirmed Lead-Based Paint Locations
C Certifications
D Glossary Definitions of Terms

APPENDIX A

Background Information on Lead and Lead-Based Paint

BACKGROUND ON LEAD

Lead-based paint is defined by the EPA and HUD as "paint or other surface coatings that contain lead in excess of 1.0 mg/cm^2 or 0.5% by weight."

The U.S. Department of Health and Human Services states that lead poisoning is the most common environmental threat of young children. Lead poisoning of young children can cause brain damage that interferes with the development of intelligence.

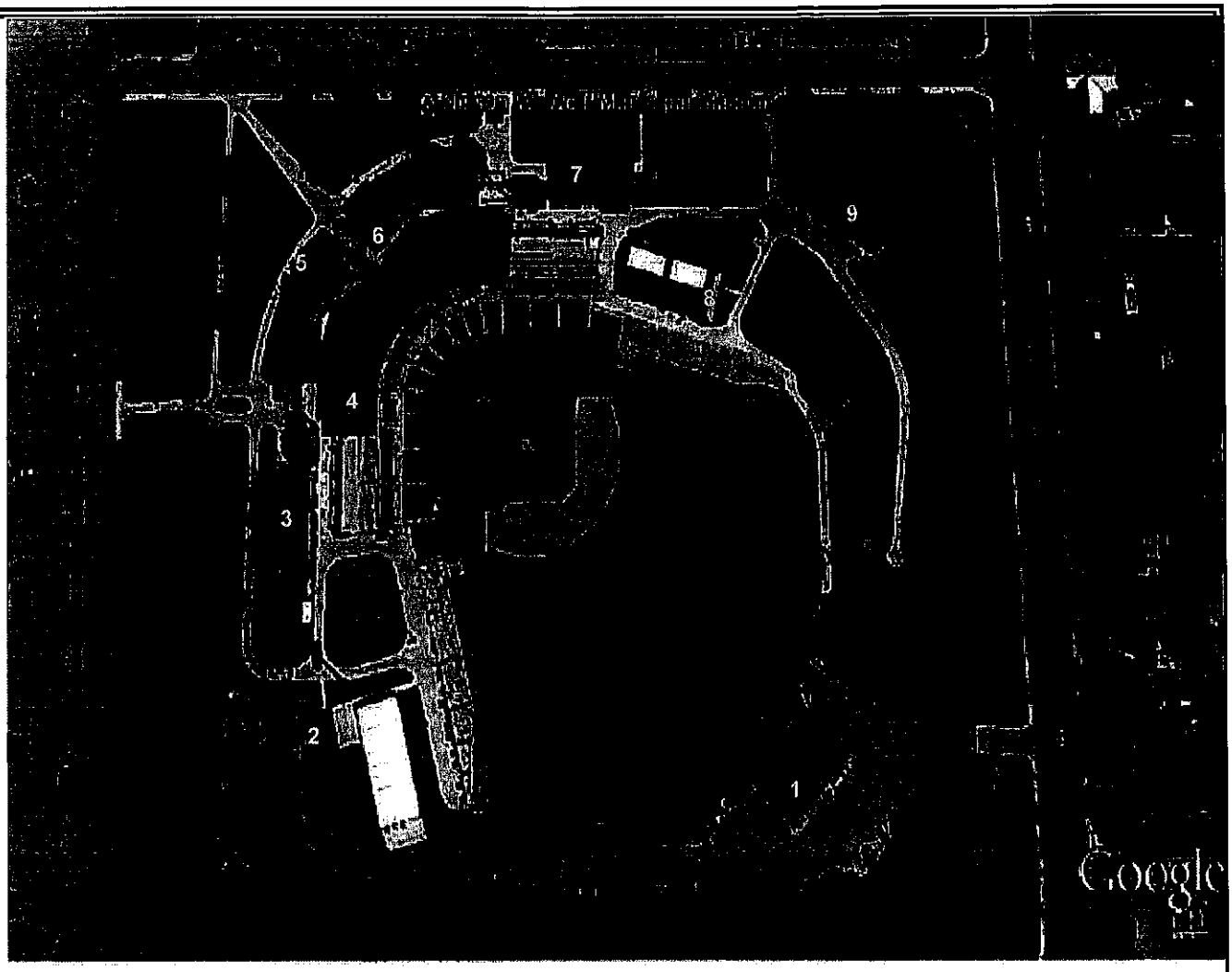
Paint with a high lead content was widely used until 1978 when the Consumer Product Safety Commission lowered the maximum legal lead content of house paint to 0.06% by weight. It is therefore estimated that more than 75% of homes built before 1980 contain significant amounts of lead. The primary source of lead exposure in children is dust. Paint chips that are swallowed, contaminated water, and utensils with lead coating also contribute to the problem.

The exposure of construction workers is a concern because of the high levels of airborne dust on construction projects and high lead concentrations of many commercial coatings. The U.S. Occupational Safety and Health Administration (OSHA) lead in construction standard 29CRF 1926.62 applies to the construction industry. Additionally, the OSHA standard applies to the disturbance of materials coated with any detectable levels of lead.

Lead-based paint hazards can be temporarily controlled using "in-place management". Interim control measures are intended to "reduce temporarily human exposure or likely exposure to lead-based paint hazards" as defined in Title X of the Housing and Community Development Act of 1992. Paint coatings can be maintained in good condition and managed in place until removal or renovation activities. Interim control measures are effective as long as they are carefully monitored, maintained, and periodically reevaluated.

APPENDIX B

Maps of Confirmed
Lead-Based Paint Locations



psi *Information To Build On* ***Engineering • Consulting • Testing*** **PSI, Inc.** **7400 Blanco Rd. Suite 257** **San Antonio, Texas 78216**	**PROJECT NAME:** **San Antonio Baseball Stadium** **Nelson Wolff Field** **San Antonio, Texas** **PROJECT NO.:435-1412**	**Site Plan** **2013**	

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	Lt Blue	gate support	SW	metal	0.4	Fair
2	green	square rail	SW	metal	0.0	Poor
3	Blue	Door Face	N	metal	0.0	Fair
4	Blue	Door frame trim	N	metal	0.3	good
5	grey	ext electrical Box	S	metal	-0.1	Good
6	Blue	shade thing	S	metal	-0.0	Fair
7	grey	electrical Box Door face	S	metal	-.1	Good
8	grey	electrical Box Door frame	S	metal	-0.1	good
9	Blue	window vent	S	metal	0.4	good
10	Black	Ash tray	S	metal	0.6	good
11	green	Support	E	metal	0.0	good
12	green	Floor Support	E	metal	-0.0	good

Project Name: Wolfe Stadium Project No.: 0435- 1412

Date: _____ Building ~~1~~ 2

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm²	Paint Condition
1	Blue	Fixture top	NW side	Concrete top	0.2	good
2	Blue	Fixture Bottom	NW Side	metal	0.7	good
3	tan	wall	NW side ext	Metal	0.3	good
4	tan	wall Frame	NW side ext	Metal	0.2	good
5	white	Door track	NW side	metal	0.6	Poor
6	tan	wall	Intior	metal	-0.0	
7	tan	electrical Box	Intior	metal	-0.0	good
8	white	Roll up Door	Intior	metal	-0.0	good
9	tan	Roll up Siding	Intior	metal	0.3	good
10	Blue	Door face	Intior	Metal	-0.0	poor
11	Blue	Door Frame	Intior	metal	0.4	good
12	tan	chain link support	Intior	metal	0.5	good
13	Badge	chain support Beam	Intior	metal	0.6	good
14	Black	Beams	Intior	metal	0.1	good
15	Green	Support	NW side	metal	-0.1	good
16	Green	support Base	NW side	metal	1.1	good
17	tan	support	Intior	metal	0.2	good
18	tan	Restroom wall		GWB	-.3	good
19	Blue	Restroom Door Frame	Intior	metal	0.2	good
20	Blue	Door Face	Intior	metal	-0.2	good
21	Blue	lockers	Intior	metal	0.3	good
22	white	wall	Intior	GWB	-0.1	
23	~~white~~ blue	Door face	Intior	metal	-0.0	good
24	Blue	Door frame	Intior	metal	-0.1	
25	Blue	extior Door Frame	extior	metal	-0.1	fair
26	tan	Drain Pipe	extior	metal	0.5	good
27	tan	window frame	extior	metal	-0.0	good
28	tan	metal roll up	Se side	metal	-0.0	good
29	tan	~~Ro~~ roll up Door Frame	Se side	metal	0.2	good
30	Blue	Intior Door	Se side Intior	metal	0.2	good

Project Name: Wolfe Stadium Project No.: 0435- 1412

Date:

Building ~~2~~ 1

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	tan	wall	ES ext	metal	0.0	good
2	Lt tan	wall	ES ext	metal	0.1	good
3	Blue	ext Door face	ES ext	metal	-0.1	good
4	Blue	ext Door trim	ES ext	metal	0.3	
5	Blue	window frame	ES ext	metal	-0.1	good
6	tan	wall	SS ext	metal	0.0	good
7	Blue	~~ext~~ Door Frame	ES	metal	-0.1	
8	Blue	Interior Door Frame	ES	metal	0.3	good
9	white	Interior wall	ES	GWB	0.0	
10	creme	Interior Baseboard	ES	GWB	-0.0	good
11	Blue	Interior Door Face	ES	metal	-0.7	
12	Blue	Door Frame	ES	metal	-0.0	
13	creme	electrical Box	Interior Mechanical Room	metal	0.3	good
14	tan	wall	ES exterior Side	metal	0.3	good
15	grey	Floor	ES	Concrete	-0.0	good
16						
17						
18						

Project Name: Wolfe Stadium Project No.: 0435- 1412

Date: _____

Building 3

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	~~Black~~ Red	Floor	N	Concrete	0.1	Fair
2	green	Support	N	metal	-.0	Fair
3	tan	Batroom wall	N	CMU	-.1	good
4	Blue	Door & Side	N	metal	-0.0	good
5	Blue	Door Frame	Womens Restroom	metal	0.3	good
6	Blue	Door face	N Women Restroom	metal	0.0	good
7	Creme	wall	N Womens Restroom	CMU	-0.2	good
8	Lt Blue	Floor	Womens Restroom Floor	concrete	-0.4	good -
9	tan	wall	DS locker Room	Concrete	-.2	good
10	Blue	Door Fram	DS locker Room	metal	0.4	good
11	Grey	hand rail	DS hand rail	metal	0.6	good
12	Lt Blue	Floor	Mens locker room	Concrete	-0.3	
13	creme	locker Room wall	DS mens	CMU	-.1	good
14	Lt Blue	Bottom wall	DS hallway	CMU	0.4	good
15	grey	DS Storage floor	DS Storage		0.0	good
16	Grey	ADA Support	DS stair wall	metal	-0.3	
17	Creme	hand rail	DS stair wal	metal	0.6	Poor
18	Blue	Fire Pipe	~~WS~~ WS	metal	0.4	good
19	grey	electrical Room Floor	WS	Concrete	-0.2	good
20	grey	electrical equip	WS	metal	-.1	good
21	lt grey	electrical equip	WS	metal	0.0	good
22	tan	wall	WS	CMU	0.2	good
23	white	Consession roll up	N	metal	0.3	good
24	Blue	Consession Frame	N	metal	0.0	Poor
25	green	stair rail	N	metal	0.1	good
26	Green	Stair Bottom	N	metal	0.3	good
27	green	stair I Beam	N	metal	-0.0	good
28	green	2nd hand rail	2nd Floor	metal	0.5	good
29	Lt green	Frame Chain Fence	2nd Floor	Metal	0.0	
30	Black	Stairs	E	Concrete	-0.0	
31	Black	Sitting area	Fence E	Metal	-0.0	
32	Green	Support for Railing	E	metal	0.0	Good
33	grey	stair ending	E	concrete	-0.1	good
34	tan	Sky Box wall	E	metal	-0.0	
35	Blue	311 Door frame	E	metal	-0.1	
36	Blue	311 Door	E	metal	-0.1	

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Building 4

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	tan	wall	3rd floor ext NE	Plaster	0.0	good
2	green	hand rail	3rd floor ext	metal	0.3	good
3	Blue	Bathroom Door Face	3rd floor ext	metal	-0.0	good
4	Blue	Door Frame	3rd floor ext	metal	-0.1	good
5	Blue	Bathroom stall	3rd floor Int	wood	0.2	
6	Blue	Bathroom Door	3rd floor Bathroom	metal	0.3	
7	blue	electrical Box	3rd floor Bathroom	metal	0.1	
8	grey	Floor	3rd floor Interior	concrete	-0.2	good
9	green	Stair finish	3rd floor stair	concrete	0.5	good
10	green	hand rail	3rd floor stair	metal	0.5	good
11	Black	Pipe	2nd floor stairwell	metal	0.3	good
12	Red	~~[illegible]~~ Clamp	2nd floor stair well	metal	0.6	good
Between 5,6 1	Blue	support	Between 5 and 6	Metal	0.1	good
4 continued	~~[illegible]~~	electrical Door	3rd floor	CMU	0.0	
	grey	electrical Box	3rd floor	metal	0.3	

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Building 5

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	green	Pipe	Se ext	metal	-.2	good
2	Blue	window Frame	Se ext	metal	-.1	good
3	Blue	Door Face	Se ext	Metal	-.5	good
4	Blue	Door Seal	Se ext	metal	-0.0	good
5	tan Plaster	Plaste	Se ext	Plaster	.2	good
6	Blue	Support	Se ext	metal	-.1	good
7	blue	hand rail	"	metal	0.4	good
8	Blue	Interior Door face	Se side	metal	-.4	good
9	blue	Door Frame Int	Se side	metal	-.2	good
10	tan	Intior wall		Plaster	0.0	good
11	Blue	window Frame	Se side	Metal	-.1	good
12	blue	elvetor Door Frame	Se side	metal	-.1	good
13	Blue	elvetor Door face	Se side	metal	-.1	good
14	Dk Blue	Second floor	2nd floor	Concrete	-.2	good
15	yellow	2nd floor wall	Se side	Plaster	-.1	good
16	Blue	Door Face	2nd floor	metal	0.2	good
17	Blue	Door Frame	2nd Floor	metal	-.2	good
18	Blue	Door Frame	2nd floor ext	metal	0.4	good
19	green	hand rail	2nd floor ext	metal	0.3	good
20	Blue	Conseson stand Frame	2nd floor ext	metal	0.0	good
21	grey	fall up stand	2nd floor ext	metal	0.3	fair
22	Blue	elvator wall	2nd floor Intior	Plaster	0.3	fair
23	Yellow	3rd floor wall	3rd floor	Plaster	-.2	good
24	lt blue	floor	3rd floor	Concrete	-.1	fair
	white	Restroom	3rd floor	Grub	-.2	good
	Green	Support Pipe	3rd floor	Metal	0.1	good
	green	Support Beam	3rd floor	metal	0.1	good

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Building 6

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	Blue	Door face	exterior South	metal	0.0	good
2	"	Door Frame	"	"	-.1	good
3	tan		South side	metal	0.3	good
4	Blue	windo frame	South	metal	-0.0	good
5	brown	light cover	South	metal	0.2	fair
6	Creame	inside wall	Intior wall		-.1	good
7	~~Creame~~ blue	sheet rock	"		-.2	
8	blue	Door face	Intior Door	Metal	-.1	good
9	blue	maint Door	Intior	Metal	-0.0	good
10	tan	Restroom wall	Intior restroom	GWB	-.2	good
11	Creame	Intior wall	South	GWB	-.1	
12	Creame	Door ~~frame~~ seal	South	GWB	-.1	good
13	Blue	Door ~~frame~~ face	Intior Door frame	metal	-0.0	good
14	Blue	Door frame	Intior Door frame	metal	-.2	good
15	Blue	Pipe	west side	Metal	0.3	good
16	tan	~~wal~~ wall	north side	Metal	-0.0	good
17	tan	Pipe	North	Metal	0.0	good
18						
19						
20						
entrance 1	Blue	entrance support	north entrance	Metal	-0.0	fair
2	green	Bike rack	north entrance	metal	0.6	good
3	DK green	bench	north entrance	metal	-0.0	good
4	Blue	hand rails	north entrance	metal	0.3	fair
5	Yellow	over head	"	metal	0.0	good
6	Blue	lamp Post	"	metal	0.1	good
7						

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Building 7

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	Black	hand rail	NS	metal	0.2	Good
2	Black	light Post	NS	Metal	-0.0	Good
3	Blue	Fence support	NS	metal	0.4	Good
4	~~Tan~~				0.3	
5	white	east s. wall	E side	Deck Board	-0.1	Good
6	~~white~~	Door hinges	E side	Deck Board	0.0	
7	black					
8						

Project Name: Wolfe Stadium Project No.: 0435- 1412

Date:

Building 8

Sample No.	Color	Building Component	Location	Sub-strate	XRF Result mg/cm^2	Paint Condition
1	tan	wall	NW	metal	0.3	good
2	Blue	Fence support	NW	metal	0.6	good
3	tan	Frame Rollup	SW	metal	0.3	good
4	Blue	Frame Roll-up	SW	metal	0.0	good
5	White	Roll up	SW	metal	0.0	good
6	tan	bottom trim	SW	metal	0.1	good
7	tan	middle wall		CMU	-0.1	good
8	grey	door face	SW	metal	0.0	good
9	blue	door ~~face~~ frame ~~exterior~~	SW exterior	metal	-0.1	
10	Blue	door face ext			0.4	
11	grey/white	Floor interior	SW interior	concrete	-0.1	good
12	creme	wall trim	S interior	wood	0.4	good
13	cream	wall	interior	GWB	-0.1	good
14	mustard	Kitchen wall	interior	GWB	0.1	good
15	DK Brown	Kitchen wall	interior	GWB	-0.1	good
16	grey	Kitchen rollup	trim interior	metal	-0.1	good
17	grey	Kitchen roll up	plate interior	metal	0.5	good
18	Blue	interior Door Face	interior storage	metal	0.1	good
19	Blue	overhead door frame	exterior	metal	-0.1	good
20	creme	rollup support	exterior	metal	-0.2	
21	Lt Blue	restroom Floor	Restroom	metal	-0.1	
22	Cream	restroom wall	Restroom	CMU	-0.1	good
23	Blue	Stall Frame	restroom	wood	0.0	
24	Blue	stall door	restroom	wood	0.1	good
25	Cream	restroom wall	restroom	CMU	0.2	good
26	Red	fire valve	Back of Building	metal	1.1	Fair
27	Silver	fire valve	"	metal	-0.1	Fair
28	tan	rear wall	rear of Building	metal	0.4	
29	white	rollup	SW S	Metal	-0.0	good
30	Blue	roll up frame	SW S	metal	0.2	good
31	tan	exterior frame	SW S	metal	0.2	good
		exterior floor	SW S	Concrete	-0.1	

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Building 9

APPENDIX D

Glossary Definitions of Terms

GLOSSARY OF TERMS

Abatement - a comprehensive process of eliminating exposure or potential exposure to lead paint and lead-containing soil and dust which must include testing, measures for worker protection, containment of dust and debris, cleanup and disposal of waste, and clearance testing.

Action Level - the point at which something needs to be done to correct or eliminate the presence of the hazard (e.g. lead).

Acute Effect - severe or immediate reaction, usually to a single large exposure.

Administrative Removal - is the temporary removal of workers prior to their reaching blood lead levels requiring medical removal in order to provide additional protection to both workers and employers.

Apparent Lead Concentration (ALC) - for direct reading XRFs, is the average of at least 3 XRF single cycle readings on a painted surface. For spectrum analyzers, the ALC is a single reading.

Atomic Absorption - is a method of measuring elements such as lead. The lead is vaporized at high temperature, usually several thousand degrees, and light of a very specific wavelength is shined through the vapor.

Biological Monitoring - is the analysis of person's blood and/or urine, to determine the level of a contaminant, such as lead, in the body.

Blank - a non-exposed sample of the medium used for testing, such as wipe or filter, which is analyzed like other samples to determine whether (1) samples are contaminated with lead before samples are collected (e.g., at the factory, or at the testing site), (2) the samples are contaminated after sample collection (e.g., during transportation to the laboratory or in the laboratory).

CFR - The Code of Federal Regulations - a codification of the regulations of the various Federal Agencies.

Characteristics - EPA has identified four characteristics of a hazardous waste: Ignitability; Corrosivity; Reactivity; and Toxicity. Any solid waste that exhibits one or more of these characteristics is classified as a hazardous waste under RCRA.

Chelation Therapy - the medical treatment in which a drug that is attracted to metals (such as lead) is infused into a patient's vein. The drug binds to the metal in the blood, and both are excreted by the kidney in urine.

Chronic Effect - a response to exposure which may take days, months or years to develop.

Corrected Lead Concentrations, CLC - the difference between the Apparent Lead Concentration (ALC) and the Substrate Equivalent Lead Concentration (SEL).

Common Area - a room or area that is accessible to all residents in a multi-family building (e.g., hallway, laundry room).

Containment - is a process for protecting the environment by controlling exposures to lead dust and debris created during abatement.

Detection Limit - the minimum amount of a component that a method can reliably measure.

Direct Reading XRF - is an x-ray Fluorescence analyzer which provides the operator with a display of an estimated lead concentration, usually calculated from the lead "K" x-ray intensity, but sometimes from the "L" x-ray intensity.

dl - stands for "deciliter." The prefix "deci-" means "one-tenth." One deciliter is roughly the same as about one tenth of a quart, or about 3.4 fluid ounces.

Dwelling Unit - refers to the room or group of rooms within residential premises used or intended for use by one family or house hold for living, sleeping, cooking and eating. "Dwelling Unit" includes a condominium.

Encapsulation - involves resurfacing or covering surfaces, and silling or caulking with durable materials, so as to prevent or control chalking, flaking lead-containing substances from becoming part of house dust or accessible to children. Painting or wallpapering is not considered to be encapsulation.

Engineering Controls - are measures implemented at the work site to contain, control and/or otherwise reduce worker exposure to, and environmental releases of, lead dust and debris.

EPA Identification Number - the unique number assigned by EPA to each generator or transporter of hazardous waste, and each treatment, storage, or disposal facility.

Final Inspection - inspection by a qualified inspector, industrial hygienist, or local public health official to determine whether abatement and cleanup are complete.

Generator - any entity who first creates a hazardous waste, or any person who first makes the waste subject to the Subtitle C regulation (e.g., imports a hazardous waste, initiates a shipment of a hazardous waste from a TSD, or mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container).

HEPA or High Efficiency Particle Air Filter - means a filter capable of filtering out particles of 0.3 microns or greater from a body of air at 99.97% efficiency or greater.

High Phosphate Detergent - detergent which contains at least 5% trisodium phosphate (TSP).

In-place Management - a series of recurrent actions to reduce the lead hazard until such time as abatement can be carried out. Usually involves paint stabilization and regular cleaning of the premises.

Intact Surface - refers to a surface with no loose paint.

Landfill - a disposal facility or part of a facility where solid or hazardous waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

Logbook - a notebook that accompanies each XRF analyzer, to record such information as daily performance, maintenance problems, and average reading time.

Manifest - the shipping document, EPA form 8700-22, used for identifying the quantity, composition, origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of treatment, storage, or disposal.

Medical Removal - the temporary removal of workers due to elevated blood levels as defined in the OSHA Lead Standard.

Micrograms - one millionth of a gram: g: The prefix "micro-" means "1/1,000,000 of" (one millionth of). Since there are 453 grams in one pound and 16 ounces in one pound, one gram equals 0.035 ounces. A microgram is equal to about 35/1,000,000 (thirty-five billionths) of an ounce.

Off-Site-Paint Removal - the removal of paint at a site away from the abatement project such as the stripping of lead paint from the surface of a component at the facilities of a commercial paint-stripping operation occurring in chemical tanks.

On-Site Paint Removal - the removal of lead-based paint down to the bare substrate usually through heat, chemical or mechanical means. The affected component remains in-place on the premises during this removal process.

Personal Samples (for sampling lead dust) - air samples collected from within the breathing zone of a worker, but outside the respirator.

Pigments - are chemicals which have color, or properties which affect color.

ppm - stands for "parts per million," meaning the weight of one part per weight of the total amount of material. For example, a lead concentration of 1 ppm expresses the ratio of one gram of lead dissolved into one million (1,000,000) grams of water.

Precision - the degree of variation in a series of successive measurements of the same phenomenon. Commonly measured by standard deviation.

Public Housing Agency (PHA) - any State, county, municipality, or other governmental entity or public body (or agency or instrumentality thereof) which is authorized to engage or assist in the development or operation of housing for low income families.

Random Testing - the process of performing an initial survey in representative sampling of units in a project.

RCRA - Resource Conservation and Recovery Act of 1976. What we commonly refer to as RCRA is an amendment to the Solid Waste Disposal Act of 1965. RCRA was amended in 1980 and most recently on November 8, 1984 by the Hazardous and Solid Waste Amendments.

Replacement - is a strategy of abatement which entails the removal of components such as windows, doors, and trim that have lead painted surfaces and installing new components free of lead paint.

SEL (Substrate Equivalent Lead Concentration) - for a direct reading XRF, the average of at least 3 XRF single cycle readings on an unpainted surface. For a spectrum analyzer, the difference between the instrument reading on a standard or reference material placed on the bare substrate and the known lead level in the standard.

Small Quantity Generator - as defined by EPA, a generator who produces less than 100 kg of hazardous waste per month (or accumulates less than 100 kg at any one time) or one who produces less than 1 kg of acutely hazardous waste per month (or accumulates less than 1 kg of acutely hazardous waste at any one time). State definitions of Small Quantity Generator may vary.

Sodium Sulfide - is a chemical used to test a paint sample qualitatively for lead; typical concentrations are from 6 to 10%. A positive test is characterized by a gray or black discoloration of the paint film cross section.

Spectrum Analyzer XRF - is a type of XRF analyzer which provides the operator with a plot of the energy and intensity of both "K" and "L" x-rays, as well as a calculated lead concentration.

Storage - the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed or, or stored elsewhere.

Substrate -a surface upon which paints or vanishes has been or may be applied. Examples of substrates include wood, plaster, metal, and drywall. Substrates may contain lead absorbed from paint or from other sources.

Substrate Effect - the returning of backscattered radiation from the paint, substrate or underlying material to the XRF analyzer. This radiation when counted as lead x-rays by an XRF contributes to SEL or bias. The inspector may have to compensate for this effect when using direct reading XRF analyzers.

TCLP - Toxicity Characteristic Leaching Procedure, is one of the tests for the determinations of whether a solid waste is classified as a hazardous substance.

Transporter - any person engaged in the off-site transportation of hazardous waste within the United Sates, by air, rail, highway, or water, if such transportation requires a manifest under 40 CFR Part 262.

Treatment - any method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize it, or render it non-hazardous or less hazardous, or to recover it, make it safer to transport, store or dispose of, or amenable for recovery, storage, or volume reduction.

TSD - acronym for treatment, storage, or disposal hazardous waste facility.

TSP - acronym for trisodium phosphate.

XRF Analyzer - an instrument which estimates lead concentration in milligrams per square centimeter (mg/cm^2) using the principal of x-ray fluorescent ("XRF"). Two types of XRF analyzers are used, direct readers and spectrum analyzers; the underlying principal are the same.

APPENDIX C

Certifications

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

PROFESSIONAL SERVICE INDUSTRIES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

David L. Lakey, M.D.
Commissioner of Health

License Number: 2110038

Control Number 6380

Expiration Date: 9/6/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE

Department of State Health Services certifies that

JOHN D LANGAN

is certified as a

Lead Risk Assessor

Certification No: 2070377

Control No: 6815

Expires: 2/27/2014

David L. Lakey, M.D.
Commissioner of Health

Certificate of Achievement

This is to certify that

Katherine Moore

PSI

on the 27th day of May, 2011 successfully completed the factory training for

RMD's LPA-1 Lead Paint Inspection System

including, but not limited to the topics of Radiation Safety, DOT Regulations, and the Proper Use of the Instrument.

Sia Afshari Product Manager RMD
44 Hunt St, Watertown, Massachusetts

Information To Build On
Engineering • Consulting • Testing

May 29, 2013

Mr. Richard Morales
Chesney Morales & Associates
4901 Broadway, Suite 250
San Antonio, Texas 78209

RE: Asbestos Survey/Inspection Services
San Antonio Municipal Baseball Stadium
Nelson Wolff Field
San Antonio, Texas
PSI Project No: 0435-1412

Dear Mr. Morales,

On May 15, 2013, Ms. Katherine Moore, a Texas Department of State Health Services licensed Asbestos Inspector (DSHS License No. 603067) with Professional Service Industries, Inc. (PSI) collected 75 bulk samples of suspect asbestos-containing materials (ACM) from the nine(9) buildings located at the San Antonio Municipal Baseball Stadium, Nelson Wolff Field in San Antonio, Texas. The suspect building materials consisted of drywall/ joint compound, 12"x12" floor tile and associated mastic, covebase and associated mastic, HVAC duct seam mastic, pipe insulation coating, float (leveling compound), and suspended ceiling tile system

No asbestos-containing material was identified from the suspect materials collected.

The bulk samples were collected in accordance with Texas DSHS regulations. The bulk samples collected were analyzed in PSI's laboratory using polarized light microscopy with dispersion staining (PLM/DS). Analytical results are included as an attachment. The analytical results and a description of the suspect ACBM is provided in the following table.

Building 1

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
01	12"x12" Floor Tile and Associated Mastic/Hall & Offices	Miscellaneous	Non-Friable	1-1,1-2,1-3	Floor Tile-NAD Mastic-NAD
02	Brown Covebase and Associated Mastic/Throughout	Miscellaneous	Non-Friable	1-4,1-5,1-6	Covebase-NAD Mastic-NAD
03	Drywall/Joint Compound Throughout	Miscellaneous	Non-Friable	1-7.1-8.1-9	Drywall-NAD Joint Cmpd.-NAD
04	2'x4' Ceiling Tile/Hall & Offices	Miscellaneous	Friable	1-10,1-11, 1-12	NAD
05	HVAC Duct Seam Mastic/Above Suspended Ceiling Tile	Miscellaneous	Non-Friable	1-13,1-14, 1-15	NAD

d1)

Building 2

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
31	2'x4' Ceiling Tile/Throughout	Miscellaneous	Friable	2-1,2-2,2-3	NAD

Building 3

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
06	Blue Covebase and Associated Mastic/Throughout	Miscellaneous	Non-Friable	3-1,3-2,3-3	Covebase-NAD Mastic-NAD
07	2'x4' Ceiling Tile/Throughout	Miscellaneous	Friable	3-4,3-5,3-6	NAD
08	Drywall/Joint Compound Throughout	Miscellaneous	Non-Friable	3-7,3-8,3-9	Drywall-NAD Joint Cmpd.-NAD
09	HVAC Duct Seam Mastic/Above Suspended Ceiling Tile	Miscellaneous	Non-Friable	3-10,3-11, ,3-12	NAD

Building 4

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
10	2'x4' Ceiling Tile/Women's Restroom by Entry	Miscellaneous	Friable	4-1,4-2,4-3	NAD
11	HVAC Duct Seam Mastic/Above Suspended Ceiling Tile	Miscellaneous	Non-Friable	4-4,4-5,4-6	NAD
12	White Covebase and Associated Mastic/Food Prep Room by concessions	Miscellaneous	Non-Friable	4-7,4-8,4-9	Covebase-NAD Mastic-NAD
13	Drywall/Joint Compound Food Prep Room by concessions	Miscellaneous	Non-Friable	4-10,4-11, 4-12	Drywall-NAD Joint Cmpd.-NAD
14	Pipe Coating/ Food Prep Room by concessions	Thermal System Insulation	Non-Friable	4-13,4-14, 4-15	NAD
15	Gray Covebase and Associated Mastic/Walkway below Locker Room	Miscellaneous	Non-Friable	4-16,4-17, 4-18	Covebase-NAD Mastic-NAD
16	Black Covebase and Associated Mastic/Medical Area	Miscellaneous	Non-Friable	4-19, 4-20, 4-21	Covebase-NAD Mastic-NAD

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
17	2'x4' Ceiling Tile/By Medical Area Office	Miscellaneous	Friable	4-22,4-23, 4-24	NAD
18	HVAC Duct Seam Mastic/Mechanical Room	Miscellaneous	Non-Friable	4-25,4-26, 4-27	NAD
19	Tan Covebase and Associated Mastic/Skyboxes	Miscellaneous	Non-Friable	4-28, 4-29, 4-30	Covebase-NAD Mastic-NAD
20	2'x2' Ceiling Tile/Skyboxes	Miscellaneous	Friable	4-31,4-32, 4-33	NAD

Building 5

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
28	Drywall/Joint Compound 3rd floor Restroom	Miscellaneous	Non-Friable	5-1,5-2,5-3	Drywall-NAD Joint Cmpd.-NAD
29	2'x4' Ceiling Tile/Mechanical Room, Utility Room	Miscellaneous	Friable	5-4,5-5,5-6	NAD
30	Pipe Coating/Mechanical Room, Utility Room	Thermal System Insulation	Non-Friable	5-7,5-8,5-9	NAD

Building 7

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
32	Drywall/Joint Compound East side Storage	Miscellaneous	Non-Friable	7-1,7-2,7-3	Drywall-NAD Joint Cmpd.-NAD
33	2'x4' Ceiling Tile/East side Storage	Miscellaneous	Friable	7-4,7-5,7-6	NAD
34	Pipe Coating/East side Storage	Thermal System Insulation	Non-Friable	7-7,7-8,7-9	NAD
35	Brown Covebase and Associated Mastic/Hall & Offices	Miscellaneous	Non-Friable	7-10,7-11, 7-12	Covebase-NAD Mastic-NAD
36	12"x12" Floor Tile and Associated Mastic/Hall & Offices	Miscellaneous	Non-Friable	7-13,7-14, 7-15	Floor Tile-NAD Mastic-NAD
38	HVAC Duct Seam Mastic/Above ceiling tile, Mechanical Room	Miscellaneous	Non-Friable	7-16,7-17, 7-18	NAD

Building 9

Homo. Area	Material Description/Location	Classification	Friable/ Non-Friable	Sample Numbers	Percent Asbestos
38	Drywall/Joint Compound Food Prep,, Concessions	Miscellaneous	Non-Friable	9-1,9-2,9-3	Drywall-NAD Joint Cmpd.-NAD
39	White Covebase and Associated Mastic/Food Prep., Concessions	Miscellaneous	Non-Friable	9-4,9-5,9-6	Covebase-NAD Mastic-NAD
40	2'x4' Ceiling Tile/Food Prep., Concessions	Miscellaneous	Friable	8-7,8-8,8-9	NAD

NAD = No Asbestos Detected
CH = Chrysotile

Professional Service Industries, Inc. (PSI) appreciates the opportunity to assist you with your renovation projects. If you should have any questions concerning the information provided, please do not hesitate to contact us at (210) 616-2119.

Respectfully submitted,

Professional Service Industries, Inc.

Katherine Moore
Asbestos Inspector
DSHS# 603067

Guy Roberts
Asbestos Individual Consultant
DSHS# 105465

Attachments: Warranty
Laboratory Results
Texas DSHS Licenses

Warranty

The field and laboratory results reported herein are considered sufficient in detail and scope to determine the presence of accessible and/or exposed suspect asbestos-containing building materials (ACBM) for the renovation activities in accordance with the authorized scope of services. Professional Service Industries, Inc. (PSI) warrants that the findings contained herein have been prepared in general accordance with accepted professional practices at the time of its preparation as applied by similar professionals in the community. Changes in the state of the art or in applicable regulations cannot be anticipated and have not been addressed in this report.

Test results are valid only for the materials tested. There is a distinct possibility that conditions may exist which could not be identified within the scope of the study or which were not apparent during the site visit. This inspection covered only those areas that were exposed and/or physically accessible to the inspector. The study is also limited to the information available from the client at the time it was conducted.

As directed by the client, PSI did not provide any service to investigate or detect the presence of moisture, mold or other biological contaminates in or around any structure, or any service that was designed or intended to prevent or lower the risk of the occurrence of the amplification of the same. Client acknowledges that mold is ubiquitous to the environment with mold amplification occurring when building materials are impacted by moisture. Client further acknowledges that site conditions are outside of PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or recurrence of mold amplification.

No other warranties are implied or expressed.

Information To Build On
Engineering • Consulting • Testing

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

TESTED FOR: PSI, Inc
7400 Blanco Road Suite 257
San Antonio, TX 78216
Attn: John Langan

Project ID: 0435-1412
Wolfe Stadium

Date Received: 5/16/2013 **Date Completed:** 5/20/2013 **Date Reported:** 5/20/2013

Analyst: PH **Work Order:** 1305403

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) *Analyst's Comment*	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
1-1	001A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Black, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-2	002A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Black, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-3	003A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Black, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-4	004A	(1) Brown, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-5	005A	(1) Brown, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-6	006A	(1) Brown, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-7	007A	(1) White, Drywall, Homogeneous	NO ASBESTOS DETECTED	10% Cellulose Fiber
		(2) White, Joint Compound, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-8	008A	(1) White, Drywall, Homogeneous	NO ASBESTOS DETECTED	10% Cellulose Fiber
		(2) White, Joint Compound, Homogeneous	NO ASBESTOS DETECTED	None Reported
1-9	009A	(1) White, Drywall, Homogeneous	NO ASBESTOS DETECTED	10% Cellulose Fiber
		(2) White, Joint Compound, Homogeneous	NO ASBESTOS DETECTED	None Reported

Quantitation is based on a visual estimation of the relative area of bulk sample components, unless otherwise noted in the "Comments" section of this report. The results are valid only for the item tested. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Method used: E.P.A. Method for the Determination of Asbestos in Bulk Building Materials (EPA / 600/R-93/116 July 1993). Polarized Light Microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos containing. Samples will be disposed of within 30 days unless notified in writing by the client. No part of this report may reproduced, except in full, without written permission of the laboratory. The reporting limit is 1% by weight. NVLAP Lab Code 101350-0.

Respectfully submitted,
PSI, Inc.

Cathy McNamee

Approved Signatory
Cathy McNamee

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) *Analyst's Comment*	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
1-10	010A	(1) White, Ceiling Tile, Homogeneous	NO ASBESTOS DETECTED	30% Cellulose Fiber 30% Fibrous Glass
1-11	011A	(1) White, Ceiling Tile, Homogeneous	NO ASBESTOS DETECTED	30% Cellulose Fiber 30% Fibrous Glass
1-12	012A	(1) White, Ceiling Tile, Homogeneous	NO ASBESTOS DETECTED	30% Cellulose Fiber 30% Fibrous Glass
1-13	013A	(1) White, Mastic, Homogeneous	NO ASBESTOS DETECTED	5% Wollastonite
1-14	014A	(1) White, Mastic, Homogeneous	NO ASBESTOS DETECTED	5% Wollastonite
1-15	015A	(1) White, Mastic, Homogeneous	NO ASBESTOS DETECTED	5% Wollastonite
2-1	016A	(1) White, Ceiling Tile, Homogeneous	NO ASBESTOS DETECTED	30% Cellulose Fiber 30% Fibrous Glass
2-2	017A	(1) White, Ceiling Tile, Homogeneous	NO ASBESTOS DETECTED	30% Cellulose Fiber 30% Fibrous Glass
2-3	018A	(1) White, Ceiling Tile, Homogeneous	NO ASBESTOS DETECTED	30% Cellulose Fiber 30% Fibrous Glass
3-1	019A	(1) Blue, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED NO ASBESTOS DETECTED	None Reported None Reported
3-2	020A	(1) Blue, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED NO ASBESTOS DETECTED	None Reported None Reported
3-3	021A	(1) Blue, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED NO ASBESTOS DETECTED	None Reported None Reported
3-4	022A	(1) White, Mastic, Homogeneous	NO ASBESTOS DETECTED	5% Wollastonite
3-5	023A	(1) White, Mastic, Homogeneous	NO ASBESTOS DETECTED	5% Wollastonite
3-6	024A	(1) White, Mastic, Homogeneous	NO ASBESTOS DETECTED	5% Wollastonite

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Respectfully submitted,
PSI, Inc.

Cathy McNamee

Approved Signatory
Cathy McNamee

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) *Analyst's Comment*	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
4-1	025A	(1) White, Ceiling Tile, Homogeneous	**NO ASBESTOS DETECTED**	30% Cellulose Fiber 30% Fibrous Glass
4-2	026A	(1) White, Ceiling Tile, Homogeneous	**NO ASBESTOS DETECTED**	30% Cellulose Fiber 30% Fibrous Glass
4-3	027A	(1) White, Ceiling Tile, Homogeneous	**NO ASBESTOS DETECTED**	30% Cellulose Fiber 30% Fibrous Glass
4-4	028A	(1) White, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	5% Wollastonite
4-5	029A	(1) White, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	5% Wollastonite
4-6	030A	(1) White, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	5% Wollastonite
4-7	031A	(1) White, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported
4-8	032A	(1) White, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported
4-9	033A	(1) White, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported
4-10	034A	(1) Off-White, Coating, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-11	035A	(1) Off-White, Coating, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-12	036A	(1) Off-White, Coating, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-13	037A	(1) Gray, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported
4-14	038A	(1) Gray, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported
4-15	039A	(1) Gray, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported
4-16	040A	(1) Black, Covebase, Homogeneous (2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED** **NO ASBESTOS DETECTED**	None Reported None Reported

Quantitation is based on a visual estimation of the relative area of bulk sample components, unless otherwise noted in the "Comments" section of this report. The results are valid only for the item tested. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Method used: E.P.A. Method for the Determination of Asbestos in Bulk Building Materials (EPA / 600/R-93/116 July 1993). Polarized Light Microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos containing. Samples will be disposed of within 30 days unless notified in writing by the client. No part of this report may reproduced, except in full, without written permission of the laboratory. The reporting limit is 1% by weight. NVLAP Lab Code 101350-0.

Respectfully submitted,
PSI, Inc.

Cathy McNamee

Approved Signatory
Cathy McNamee

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) *Analyst's Comment*	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
4-17	041A	(1) Black, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-18	042A	(1) Black, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-19	043A	(1) Off-White, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	5% Wollastonite
4-20	044A	(1) Off-White, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	5% Wollastonite
4-21	045A	(1) Off-White, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	5% Wollastonite
4-22	046A	(1) Tan, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-23	047A	(1) Tan, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-24	048A	(1) Tan, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
4-25	049A	(1) White, Ceiling Tile, Homogeneous	**NO ASBESTOS DETECTED**	30% Cellulose Fiber 30% Fibrous Glass
4-26	050A	(1) White, Ceiling Tile, Homogeneous	**NO ASBESTOS DETECTED**	30% Cellulose Fiber 30% Fibrous Glass
4-27	051A	(1) White, Ceiling Tile, Homogeneous	**NO ASBESTOS DETECTED**	30% Cellulose Fiber 30% Fibrous Glass
5-1	052A	(1) White, Coating, Homogeneous	**NO ASBESTOS DETECTED**	50% Cellulose Fiber
5-2	053A	(1) White, Coating, Homogeneous	**NO ASBESTOS DETECTED**	50% Cellulose Fiber
5-3	054A	(1) White, Coating, Homogeneous	**NO ASBESTOS DETECTED**	50% Cellulose Fiber
6-1	055A	(1) Tan, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
6-2	056A	(1) Tan, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported

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Respectfully submitted,
PSI, Inc.

Cathy McNamee

Approved Signatory
Cathy McNamee

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) *Analyst's Comment*	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
6-3	057A	(1) Tan, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-4	058A	(1) White, Coating, Homogeneous	NO ASBESTOS DETECTED	50% Cellulose Fiber
6-5	059A	(1) White, Coating, Homogeneous	NO ASBESTOS DETECTED	50% Cellulose Fiber
6-6	060A	(1) White, Coating, Homogeneous	NO ASBESTOS DETECTED	50% Cellulose Fiber
6-7	061A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-8	062A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-9	063A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-10	064A	(1) White, Leveling Compound, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-11	065A	(1) White, Leveling Compound, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-12	066A	(1) White, Leveling Compound, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-1	067A	(1) Brown, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-2	068A	(1) Brown, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-3	069A	(1) Brown, Covebase, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Yellow, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-4	070A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Black, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-5	071A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		(2) Black, Mastic, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-6	072A	(1) Gray, Floor Tile, Homogeneous	NO ASBESTOS DETECTED	None Reported
		No Mastic		

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Respectfully submitted,
PSI, Inc.

Cathy McNamee

Approved Signatory
Cathy McNamee

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) *Analyst's Comment*	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
9-1	073A	(1) White, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
9-2	074A	(1) White, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
9-3	075A	(1) White, Covebase, Homogeneous	**NO ASBESTOS DETECTED**	None Reported
		(2) Yellow, Mastic, Homogeneous	**NO ASBESTOS DETECTED**	None Reported

Report Notes: **(PT) Point Count Results**

Quantitation is based on a visual estimation of the relative area of bulk sample components, unless otherwise noted in the "Comments" section of this report. The results are valid only for the item tested. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Method used: E.P.A. Method for the Determination of Asbestos in Bulk Building Materials (EPA / 600/R-93/116 July 1993). Polarized Light Microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos containing. Samples will be disposed of within 30 days unless notified in writing by the client. No part of this report may reproduced, except in full, without written permission of the laboratory. The reporting limit is 1% by weight. NVLAP Lab Code 101350-0.

Respectfully submitted,
PSI, Inc.

Cathy McNamee

Approved Signatory
Cathy McNamee

1305403

CHAIN OF CUSTODY RECORD

psi Information To Build On
Engineering • Consulting • Testing

PROJECT NAME: Wolfe Stadium	REPORT TO: PSI	INVOICE TO: IOB
PROJECT NUMBER: 0435-1412	PROJECT MANAGER: John Langan	ADDRESS:
P.O. NUMBER:	ADDRESS: 7400 Blanco, Suite 257	CITY / STATE / ZIP:
REQUIRED DUE DATE (MM-DD-YY): Standard TAT	CITY / STATE / ZIP: San Antonio, TX, 78216	ATTENTION:
SAMPLES TO LAB VIA: FedEx	TELEPHONE: (210) 616-2119 FAX:	TELEPHONE:
NUMBER OF COOLERS/PACKAGES: 1	REPORT DATA VIA: ☐ VERBAL ☐ FAX ☐ EMAIL* ☐ U.S. MAIL	

LABORATORY SUBMITTED TO:

☒ 850 Poplar Street
Pittsburgh, PA 15220
412/922-4000

☐ OTHER _____

799771350845

LABORATORY USE ONLY	
ANALYTICAL DUE DATE	
REPORT DUE DATE	
PSI PROJECT NAME	
PSI PROJECT NUMBER	
PSI BATCH NUMBER	

RELINQUISHED BY DATE / TIME	ACCEPTED BY DATE / TIME	SEAL NUMBER
N. Moore 5/15/13	Sullivan 5/16/13 10:40a	

LABORATORY USE ONLY
FIELD SERVICES Y/N $
SHIPPING Y/N $

LABORATORY USE ONLY
SAMPLE CUSTODIAN: DATE / TIME:

PARAMETER LIST

SAMPLE IDENTIFICATION	DATE / TIME	AIR-A BULK-B DUST-D NOB-N PAINT-P SOIL-S VACUUM-V WASTE-X WATER-W WIPE-WP	LAB USE ONLY LAB NUMBER	NUMBER OF CONTAINERS	% Asbestos
1-1 to 9-3	5-15-13	B		75	X

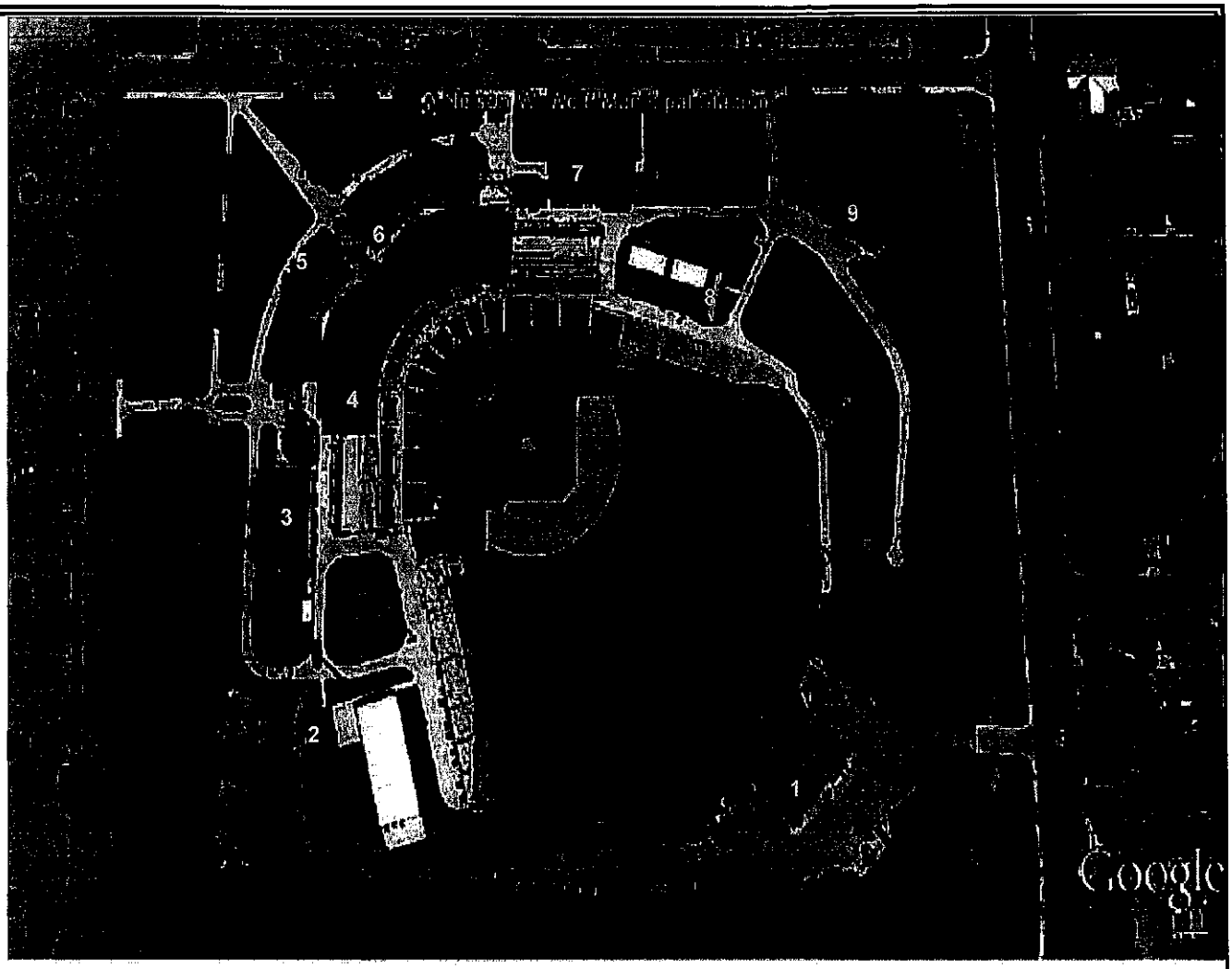
ADDITIONAL REMARKS: first positive stop please

*EMAIL ADDRESS: katherine.moore@psiesa.com

SAMPLER'S SIGNATURE: Katherine Moore

Your signature denotes agreement with the PSI General Conditions which are printed on the back side of this document.

PSI A-600-10 (7)



psi *Information To Build On* ***Engineering • Consulting • Testing*** **PSI, Inc.** **7400 Blanco Rd. Suite 257** **San Antonio, Texas 78216**	**PROJECT NAME:** **San Antonio Baseball Stadium** **Nelson Wolff Field** **San Antonio, Texas** **PROJECT NO.:435-1412**	**Site Plan** **2013**	

Texas Department of State Health Services

Asbestos Inspector

KATHERINE L MOORE

License No. 603067

Control No. 97189

Expiration Date: 1/9/2015

Texas Department of State Health Services

Asbestos Individual Consultant

GUY L ROBERTS

License No. 105465

Control No. 96199

Expiration Date: 11/3/2013

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

PROFESSIONAL SERVICE INDUSTRIES INC

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100047

Control Number: 96493

Expiration Date: 3/19/2014

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE

EXHIBIT "G"

Wolff Stadium Off-Season Facility Schedule

Updated 12.17.13

February 2014: Winter League Games are scheduled to be played each day during the month of February except Mondays.

No Winter League Games are scheduled for Mondays during the month of February.

Game times during the month of February are daily at 1:00 PM.

One (1)game is played per day during the Winter League.

February 20-23, 2014: Notre Dame Baseball Tournament with three (3) games played daily during this time.

Facility management will be requesting one set of restrooms remain open to accommodate the February schedule of events. Which set is still to be determined and with input from Contractor's schedule.

March 1, 2014: VIA Bus Rodeo should have minimal effect on restroom renovations but may require space in parking lot.

March 22, 2014: Standard Aero Company Picnic will more than likely require one set of restrooms to be made available. Which set is still to be determined and with input from Contractor's schedule.

April 10, 2014: Missions Baseball Opening Day.

Please see additional attachment for Mission Baseball's complete schedule.

MISSIONS™
SAN ★ ANTONIO

2014 SCHEDULE

APRIL

				3	4	5
6	7	8	9	10 7:05 PM	11 7:05 PM	12 7:05 PM
13 2:05 PM	14 7:05 PM	15 7:05 PM	16	17	18	19
20	21	22	23	24	25 7:05 PM	26 7:05 PM
27 2:05 PM	28 7:05 PM	29 7:05 PM	30 7:05 PM			

MAY

				1 7:05 PM	2 7:05 PM	3
4	5	6	7	8	9	10
11	12 7:05 PM	13 7:05 PM	14 11:05 AM	15 7:05 PM	16 7:05 PM	17 7:05 PM
18 2:05 PM	19 11:05 AM	20	21	22	23	24
25	26	27 7:05 PM	28 7:05 PM	29 7:05 PM	30 7:05 PM	31 7:05 PM

JUNE

1 2:05 PM	2	3	4	5	6	7
8	9	10	11 7:05 PM	12 7:05 PM	13 7:05 PM	14 7:05 PM
15 2:05 PM	16 7:05 PM	17 7:05 PM	18 7:05 PM	19 7:05 PM	20 7:05 PM	21 7:05 PM
22 2:05 PM	23	24	25	26	27	28
29	30					

JULY

		1	2 7:05 PM	3 7:05 PM	4 5:05 PM	5 7:05 PM
6 6:05 PM	7 7:05 PM	8	9	10	11	12
13 6:05 PM	14 7:05 PM	15 11:05 AM	16 7:05 PM	17	18	19
20	21 7:05 PM	22 7:05 PM	23 7:05 PM	24	25	26
27	28	29	30	31 7:05 PM		

AUGUST

				1 7:05 PM	2 7:05 PM	
3 6:05 PM	4	5	6	7	8	9
10	11	12 7:05 PM	13 7:05 PM	14 7:05 PM	15 7:05 PM	16 7:05 PM
17 6:05 PM	18	19	20	21	22	23 7:05 PM
24 6:05 PM	25 7:05 PM	26 7:05 PM	27 7:05 PM	28 7:05 PM	29 7:05 PM	30
31	1					

SEPTEMBER

TEXAS LEAGUE BASEBALL CLUBS

SOUTH DIVISION	NORTH DIVISION
CORPUS CHRISTI HOOKS *Houston Astros*	ARKANSAS TRAVELERS *Los Angeles Angels*
FRISCO ROUGHRIDERS *Texas Rangers*	NW ARKANSAS NATURALS *Kansas City Royals*
MIDLAND ROCKHOUNDS *Oakland Athletics*	SPRINGFIELD CARDINALS *St. Louis Cardinals*
SAN ANTONIO MISSIONS *San Diego Padres*	TULSA DRILLERS *Colorado Rockies*

- *Home Day Game*
- *Home Dollar Night*
- *Home Military Night*
- *Home Game*
- *Away Game*
- *Missions CARE Golf Tournament*

SAMISSIONS.COM™

DATES & TIMES SUBJECT TO CHANGE

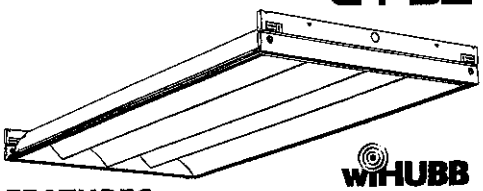
EXHIBIT "H"

Columbia LIGHTING

EPC24-2

2' × 4' High Efficiency, e•poc® Full Distribution Luminaire / 2-Lamp T5, T5HO, T8

e•POC



wiHUBB

PROJECT INFORMATION	
Wolff Stadium	2'x4' FIXTURE
Project Name	Type
EPC24-2-32G-SH-EHL -U-F0835	
Catalog No.	Date

FEATURES

- Both T5 and T8 optical systems available
- Full distribution provides controlled high angle light for visual comfort
- Advanced optical design produces high efficiencies
- Exclusive T8 EnergyMax® tuned 1.04 ballast factor ballast
- Step dimming options available for both T5 and T8 expand energy savings opportunities
- Low W/ft² ratio meets the most restrictive lighting power density codes
- Typically qualifies for EPAct tax deductions
- Unique frameless optics system allows easy access to lamps and electrical from below the ceiling
- Lens styles provide aesthetic alternatives
- Low profile housing fits in tight plenum spaces
- Available with exclusive wiHUBB technology preinstalled
  - Peer to peer, self-healing wireless mesh network
  - Integrated control system for 0-10VDC or step dimming, or On/Off

CONSTRUCTION
Luminaire housing, end caps, and reflectors are die-formed code-gauge cold-rolled steel. Frameless optics system hinges from either side for easy access to lamps and electrical components. Mechanical light trap prevents light leaks. Latches are spring loaded.

FINISH
All visible parts are custom formulated soft, non-glare high-reflectance white powder coat finish, painted after fabrication.

INSTALLATION
An access plate is furnished with each recessed fixture for fast wiring connections without the necessity to open the fixture or wireway.

BALLASTS
Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, magnetic or electronic ballasts. CEE NEMA Premium compliant.

SHIELDING
Lenses are high transmission extruded acrylic.

ELECTRICAL
Standard class "P", thermally protected, autoresetting HPF ballast, sound rated A. CEE NEMA Premium compliant. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

EMERGENCY
Field installation of battery packs requires use of remote test switch.

CEILING COMPATIBILITY
Luminaire is available to fit exposed grid ceilings, or hard ceilings when a flange kit is ordered. Some options may increase fixture depth.

CERTIFICATION
All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Recessed models without emergency options are IC labeled. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE **EPC24-232G-DL-E104U-PLUS35**

EPC 24 - 2 32 G - SH - - EHL U - F0835 -

MODEL
- **EPC** e•poc® Full Distribution Luminaire

NO. OF LAMPS
- **2** Two

CEILING TYPE
- **G** Grid
- **SM** Surface Mount

For hard ceilings use flange kit.

SHIELDING
- **DL** Delta Profile
- **SH** Shield Profile

AIR FUNCTION
- **Blank** Static
- **A** Air Return Side Slots

VOLTAGE
- **U** 120V-277V
- **347** 347V[2]

OPTIONS
- **C388** 3-Wire Flex
- **C488** 4-Wire Flex
- **C588** 5-Wire Flex
- **EL** Emergency Battery Pack
- **GLR** Fast Blow Fuse
- **GMF** Slow Blow Fuse
- **NYC** NYC Compliant
- **NYCU** NYC Compliant, Union Label
- **WIH** wiHUBB Enabled[5]

SIZE
- **24** 2' × 4'

LAMP TYPE
- **28** 4', T5: 28 Watt
- **32** 4', T8: 32, 30, 28, or 25 Watt
- **54** 4', T5HO: 54 or 51 Watt

BALLAST
- **E** Electronic T8, 0.88 Ballast Factor, Instant Start
- **ED** Electronic T8, T5, T5HO Dimming, Programmed Start[2]
- **ESD** Electronic T8, 0.88 Ballast Factor, Step Dimming, Programmed Start[1]
- **ELW** Electronic T8, 0.77 Ballast Factor, Low Wattage, Instant Start
- **EHL** Electronic T8, 1.18 Ballast Factor, High Wattage, Instant Start
- **E104** Electronic T8, 1.04 Ballast Factor, Instant Start (N/A 1-Lamp)[4]
- **ESD104** Electronic T8, 1.04 Ballast Factor, Step Dimming, Programmed Start[1,4]
- **EP104** Electronic T8, 1.04 Ballast Factor, Programmed Start[4]
- **EP** Electronic T5, T5HO, 1.0 Ballast Factor or T8, 0.88 Ballast Factor, Programmed Start
- **EP95** Electronic T5, 0.95 Ballast Factor, Programmed Start (N/A T5HO, 1-Lamp)
- **ESD95** Electronic T5, 0.95 Ballast Factor, Step Dimming, Programmed Start (N/A T5HO, 1-Lamp)
- **EP115** Electronic T5, 1.15 Ballast Factor, Programmed Start (N/A T5HO, 1-Lamp)
- **ESD115** Electronic T5, 1.15 Ballast Factor, Step Dimming, Programmed Start (N/A T5HO, 1-Lamp)
- **ESD80** Electronic T5HO, 0.80 Ballast Factor, Step Dimming, Programmed Start (2-Lamp 54W only)

LAMPS
- **F0730** 30K 75CRI T8 Lamps Installed
- **F0735** 35K 75CRI T8 Lamps Installed
- **F0741** 41K 75CRI T8 Lamps Installed
- **F0830** 30K 82CRI T8 Lamps Installed
- **F0835** 35K 82CRI T8 Lamps Installed
- **F0841** 41K 82CRI T8 Lamps Installed
- **PLUS30** 30K 82CRI 28W T8 Lamps Installed[3]
- **PLUS35** 35K 82CRI 28W T8 Lamps Installed[3]
- **PLUS41** 41K 82CRI 28W T8 Lamps Installed[3]
- **F0H830** 30K High Lumen T8 Lamps Installed
- **F0H835** 35K High Lumen T8 Lamps Installed
- **F0H841** 41K High Lumen T8 Lamps Installed
- **F5830** 30K 85CRI T5 or T5HO Lamps Installed
- **F5835** 35K 85CRI T5 or T5HO Lamps Installed
- **F5841** 41K 85CRI T5 or T5HO Lamps Installed
- **F5H830** 30K High Lumen T5 Lamps Installed
- **F5H835** 35K High Lumen T5 Lamps Installed
- **F5H841** 41K High Lumen T5 Lamps Installed

ACCESSORIES (ORDER SEPARATELY)
- **FK24** 2' × 4' Single Flange Kit
- **FKCR** Flange Kit Row Adaptor

Damp Label - standard

[1] Not compatible with T8 25, 28, or 30 watt energy savings lamps.
[2] Where available.
[3] Not recommended for use with step or full dimming.
[4] For e•poc *Plus*, order "-PlusXX" lamps under "Options."
[5] Not available with Surface Mount Ceiling Types

Protected by US Patents D603,999; D604,446; 7,901,105.
Protected by Canada Patent 136,279.
Additional Canada Patent Pending.
Specifications subject to change without notice.

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Hubbell Lighting, Inc.

PHOTOMETRIC DATA

Test **14980** Test Date **5/2/08**

LUMINAIRE DATA

Luminaire	**EPC24-228G-DL e•poc™ Troffer Recessed 2' x 4' 2-lamp with two opal delta lenses**
Ballast	**B228PU95S50D**
Ballast Factor	**0.95**
Lamp	**F28T5**
Lumens per Lamp	**2600**
Watts	**60**
Mounting	**Recessed**
Shielding Angle	**0° = 90 90° = 90**
Spacing Criterion	**0° = 1.27 90° = 1.34**
Luminous Opening in Feet	**Length: 3.86 Width: 1.88 Height: 0.00**

AVG. LUMINANCE (Candela/Sq. M.)

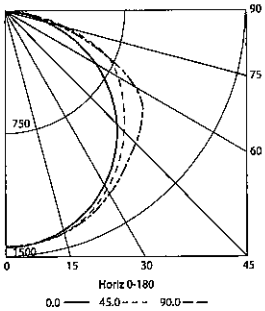
Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	2142	2142	2142	2142	2142
30	2114	2136	2175	2206	2220
40	2089	2120	2192	2279	2312
45	2073	2108	2211	2352	2417
50	2045	2095	2243	2476	2557
55	2004	2079	2325	2620	2723
60	1952	2068	2444	2753	2792
65	1874	2064	2587	2692	2671
70	1756	2116	2550	2468	2411
75	1582	2212	2321	2161	2103
80	1315	2093	1965	1811	1760
85	970	1583	1430	1259	1208

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50			0
RW	70	50	30	10	70	50	30	10	50	30	10	0
RCR 1	98	93	89	85	95	91	87	84	87	84	81	74
2	88	80	74	68	86	79	73	67	75	70	66	61
3	80	70	62	56	78	68	61	55	66	60	54	51
4	73	62	53	47	71	60	53	47	58	51	46	43
5	67	55	46	40	65	54	46	40	52	45	39	36
6	62	49	41	35	60	48	40	34	47	39	34	32
7	57	44	36	30	55	44	36	30	42	35	30	28
8	53	40	32	27	51	40	32	27	38	32	27	25
9	49	37	29	24	48	36	29	24	35	29	24	22
10	46	34	27	22	45	34	27	22	33	26	22	20

RCR = Room Cavity Ratio
RC = Effective Ceiling Cavity Reflectance **RW** = Wall Reflectance

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1143	22.0	24.4
0-40	1898	36.5	40.4
0-60	3529	67.9	75.2
0-90	4693	90.3	100.0
0-180	4693	90.3	100.0

ENERGY DATA

Total Luminaire Efficiency	**90.3%**
Luminaire Efficacy Rating (LER)	**74**
ANSI/IESNA RP-1-2004 Compliance	**Noncompliant**
Comparative Yearly Lighting Energy Cost per 1000 Lumens	**$3.24 based on 3000 hrs. and $0.08 per KWH**

Test **15035** Test Date **6/19/08**

LUMINAIRE DATA

Luminaire	**EPC24-232G-DL e•poc™ Troffer Recessed 2' x 4' 2-lamp with two opal shield lenses**
Ballast	**B232IUNV104-A**
Ballast Factor	**1.04**
Lamp	**F28T8**
Lumens per Lamp	**2750**
Watts	**56**
Mounting	**Recessed**
Shielding Angle	**0° = 90 90° = 90**
Spacing Criterion	**0° = 1.24 90° = 1.37**
Luminous Opening in Feet	**Length: 3.86 Width: 1.88 Height: 0.00**

AVG. LUMINANCE (Candela/Sq. M.)

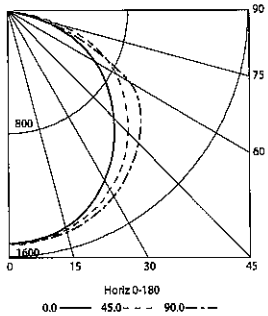
Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	2235	2235	2235	2235	2235
30	2165	2209	2290	2360	2376
40	2109	2184	2327	2453	2490
45	2073	2167	2352	2511	2559
50	2028	2148	2381	2580	2644
55	1978	2128	2423	2666	2752
60	1910	2109	2474	2756	2789
65	1832	2095	2555	2601	2534
70	1722	2099	2450	2246	2155
75	1565	2126	2132	1914	1840
80	1341	1999	1811	1649	1597
85	1055	1600	1430	1276	1225

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50			0
RW	70	50	30	10	70	50	30	10	50	30	10	0
RCR 1	95	90	86	83	92	88	85	82	85	82	79	72
2	86	78	72	67	83	76	71	66	73	69	64	60
3	78	68	61	55	76	67	60	54	64	58	53	50
4	71	60	52	46	69	59	52	46	57	50	45	42
5	65	53	45	39	63	52	45	39	51	44	39	36
6	60	48	40	34	58	47	40	34	46	39	34	31
7	56	43	36	30	54	43	35	30	41	35	30	27
8	52	39	32	27	50	39	32	27	38	31	26	24
9	48	36	29	24	47	36	29	24	35	28	24	22
10	45	33	26	22	44	33	26	21	32	26	21	20

RCR = Room Cavity Ratio
RC = Effective Ceiling Cavity Reflectance **RW** = Wall Reflectance

INDOOR CANDELA PLOT



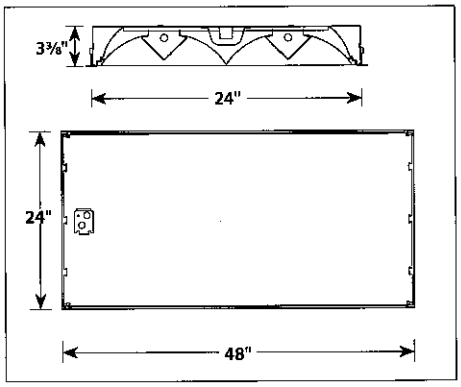
ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1198	21.8	24.9
0-40	1993	36.2	41.5
0-60	3680	66.9	76.6
0-90	4803	87.3	100.0
0-180	4803	87.3	100.0

ENERGY DATA

Total Luminaire Efficiency	**87.3%**
Luminaire Efficacy Rating (LER)	**89**
IESNA RP-1-2004 Compliance	**Non-Compliant**
Comparative Yearly Lighting Energy Cost per 1000 Lumens	**$2.70 based on 3000 hrs. and $0.08 per KWH**

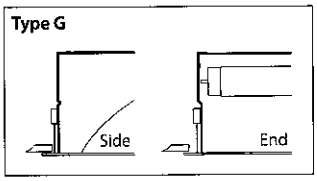
DIMENSIONAL DATA



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

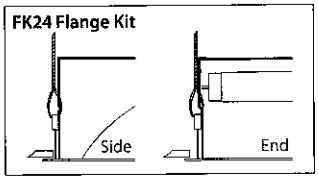
CEILING COMPATIBILITY

Type G



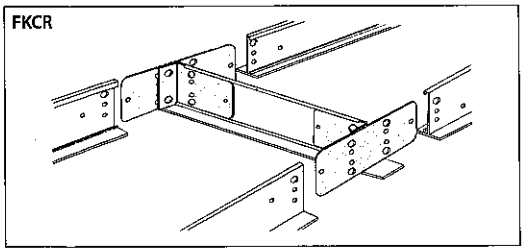
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

FK24 Flange Kit



For hard ceiling applications, order FK24 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.

FKCR



For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK24 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK24 & (1) FKCR)

Row cut out dimensions using FK24s & FKCR adapters:
Width 24⅜", Length [48" x (# in row)] + ⅜".
Example: (48" x 2) + ⅜" = 96⅜"

Flange kit cut out dimension for single unit only: 24⅜" x 48⅜"

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Hubbell Lighting, Inc.

EXHIBIT "I"

MECHANICAL/ELECTRICAL/PLUMBING SPECIFICATIONS

FOR

WOLFF STADIUM PHASE 1

5757 Highway 90
San Antonio, Texas 78227

FOR

CITY OF SAN ANTONIO

114 West Commerce
San Antonio, Texas 78205

MECHANICAL/ELECTRICAL/PLUMBING ENGINEER:

CLEARY ZIMMERMANN ENGINEERS

1344 South Flores Suite 101
San Antonio, Texas 78204
(210) 447-6100
(210) 447-6101 (Fax)

STATE OF TEXAS
RANDALL J. BARNHILL
101931
LICENSED
PROFESSIONAL ENGINEER

12/18/13

CLEARY ZIMMERMANN
ENGINEERS

Cleary Zimmermann Engineers
Texas Board of Professional Engineers
Registration # F-9357

ADDENDUM NO. 001

CLEARY ZIMMERMANN
ENGINEERS

DATE: December 18, 2013

PROJECT NAME: Wolff Stadium – Restroom Renovations

PROJECT NO.: CZ #13164

TO: All Prime Contract Bidders and all others to whom Drawings and Specifications have been issued by the Architect.

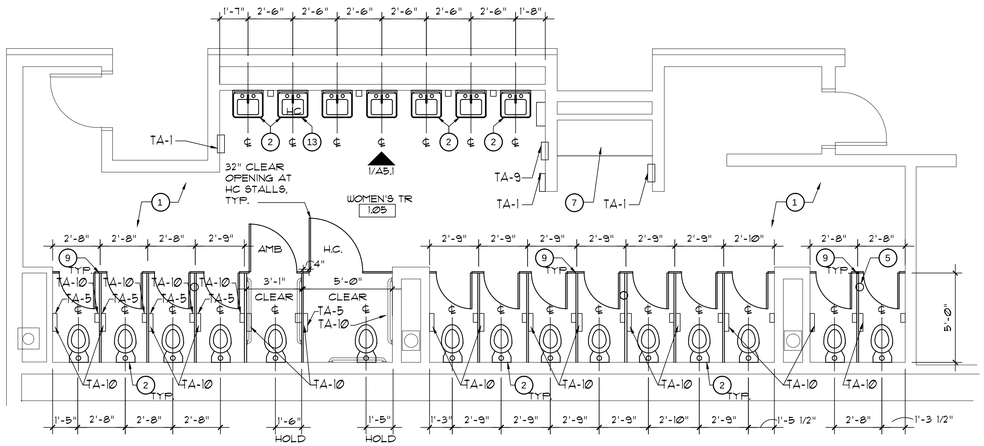
This Addendum forms a part of the Contract Documents. This addendum modifies and supplements the Contract Documents as follows for the above-mentioned project, and includes **one (1) page, zero (0) attachment(s), and one (1) revised drawing sheet(s).** All other provisions of the Documents remain unchanged.

CHANGES TO DRAWINGS:

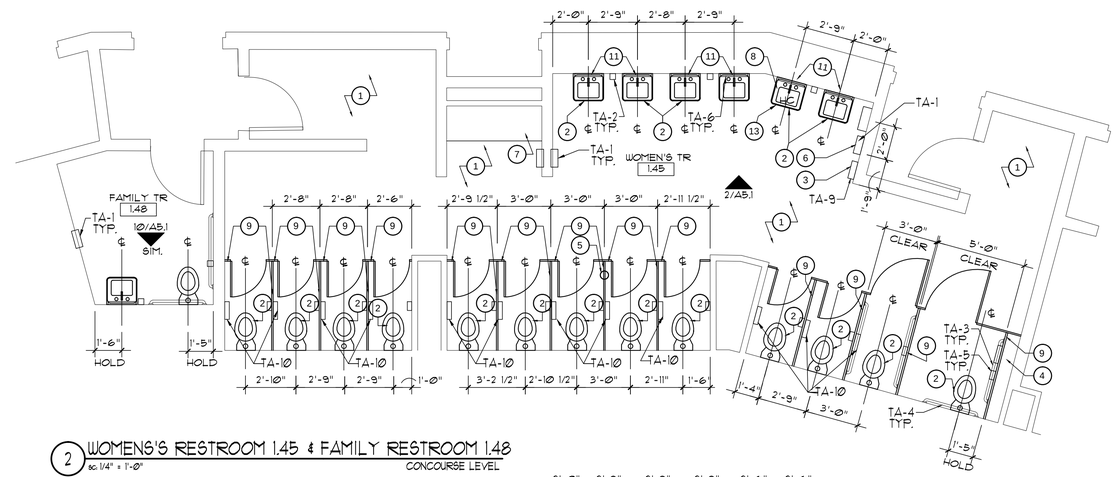
PLUMBING: (MT)

1. Sheet MP4
   a. Remove from specification Hanger and Support. Re: MP4

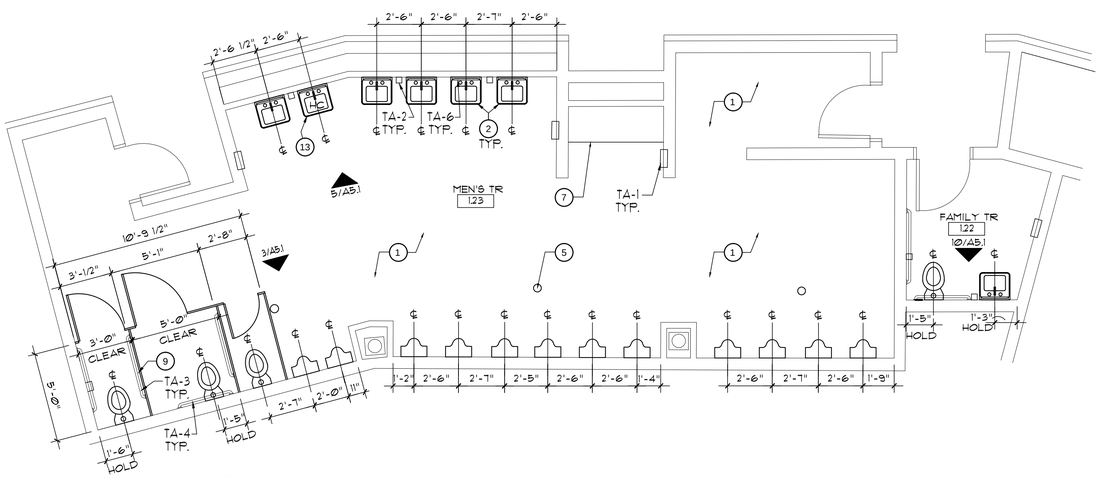
R:\13164\File\Addenda\ADDENDUM 001.docx



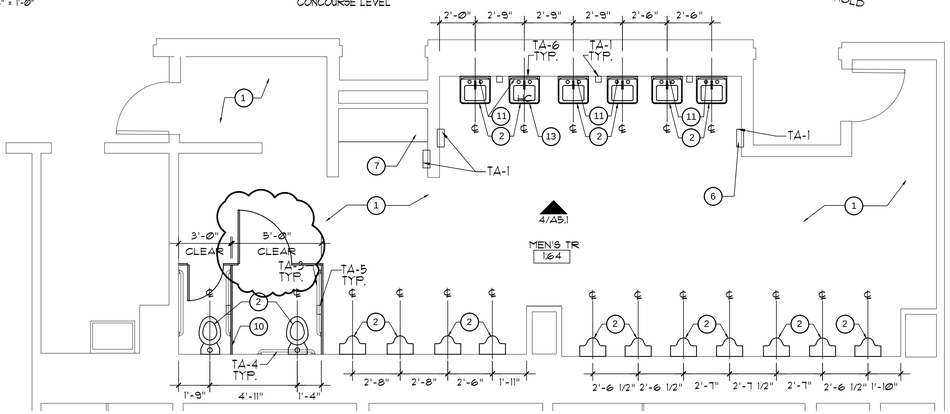
1 WOMEN'S RESTROOM 105
sc. 1/4" = 1'-0" CONCORSE LEVEL



2 WOMENS'S RESTROOM 1.45 & FAMILY RESTROOM 1.48
sc. 1/4" = 1'-0" CONCOURSE LEVEL



3 MENS'S RESTROOM 123 AND FAMILY RESTROOM 122
sc. 1/4" = 1'-0" CONCOURSE LEVEL



4 MEN'S RESTROOM 164
sc. 1/4" = 1'-0" CONCORSE LEVEL

ACCESSORIES SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MOUNTING HEIGHT
TA-1	PAPER TOWEL DISPENSER	PROVIDED BY OWNER	48" AFF. TO HIGHEST OPERABLE PART
TA-2	SOAP DISPENSER	PROVIDED BY OWNER	48" AFF. TO HIGHEST OPERABLE PART
TA-3	42" GRAB BAR	BOBRICK: B5806-42	36" AFF. TO CENTER LINE
TA-4	36" GRAB BAR	BOBRICK: B5806-36	36" AFF. TO CENTER LINE
TA-5	TOILET PAPER DISPENSER	PROVIDED BY OWNER	MOUNT ABOVE GRAB BAR MAXIMUM 48" TO TOP OF DISPENSER
TA-6	MIRROR	BOBRICK: B165 1830	40" AFF. TO BOTTOM OF MIRROR
TA-7	MIRROR	BOBRICK: 141F-0243660P	40" AFF. TO BOTTOM OF MIRROR
TA-8	ADA MIRROR	BOBRICK: B165 1836	46" AFF. TO BOTTOM OF MIRROR
TA-9	RECESSED TAMPON/ NAPKIN DISPENSER	BOBRICK: B37063	48" AFF. TO TOP OF DISPENSER
TA-10	SANITARY NAPKIN DISPOSAL	BOBRICK: B-254	30" AFF. TO TOP OF DISPOSAL

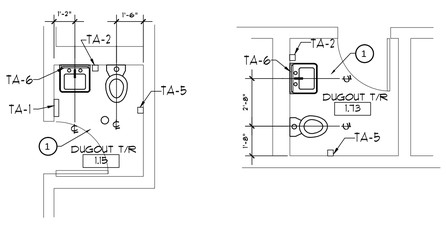
*PROVIDE BLOCKING FOR ALL WALL MOUNTED ITEMS AS PER MANUFACTURER'S RECOMMENDATIONS. REFER TO ADA MOUNTING REQUIREMENTS, SHEET A0-2

KEY NOTES - NEW WORK

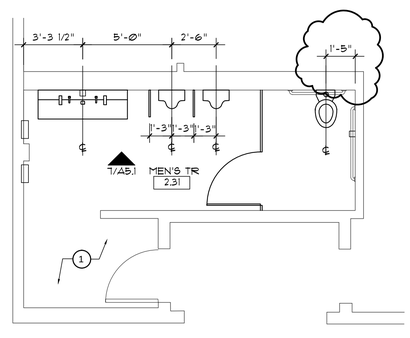
1. PAINT CONCRETE FLOORING AND BASE, REFER TO FINISH SCHEDULE
2. INSTALL NEW PLUMBING FIXTURES
3. INSTALL NEW WALL FIXTURES
4. INSTALL NEW CEILING TILE
5. INSTALL NEW DRAIN COVER
6. MODIFY EXISTING TRASH CAN AND MOUNT EXISTING PAPER TOWEL DISPENSER IN EXISTING RECESS, REFER TO DETAIL 4/A7.1
7. INSTALL NEW PLASTIC LAMINATE ON COUNTER
8. RELOCATE THE HANDICAP LAVATORY AS PER DRAWING FOR CLEAR FLOOR SPACE
9. INSTALL NEW TOILET PARTITIONS
10. INSTALL NEW TOILET PARTITIONS. RECONFIGURE AS DRAWN TO CREATE AN AMBULATORY STALL IN ADDITION TO A HANDICAP STALL
11. INSTALL NEW MIRROR, REFER TO FINISH SCHEDULE
12. PAINT ALL WALLS, REFER TO FINISH SCHEDULE
13. INSTALL PIPE INSULATION

GENERAL NOTES

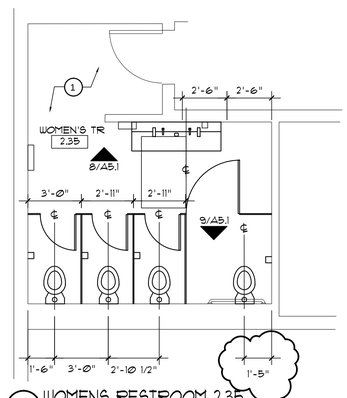
1. ALL EXISTING PLUMBING FIXTURES ARE TO BE REPLACED THROUGH-OUT FACILITY



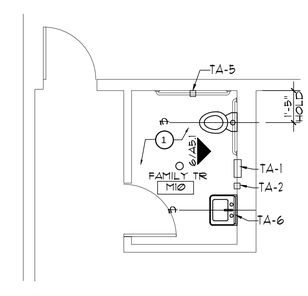
5 PRIVATE TOILET ROOMS
sc. 1/4" = 1'-0" DUGOUT



6 MEN'S RESTROOM 2.31
sc. 1/4" = 1'-0" SUITE LEVEL



7 WOMENS RESTROOM 2.35
sc. 1/4" = 1'-0"



8 FAMILY RESTROOM M10
sc. 1/4" = 1'-0" MEZZANINE LEVEL

TOILET ROOM NEW CONSTRUCTION PLAN

EXHIBIT B

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REGISTERED ARCHITECT RICHARD A. MORALES 5108 STATE OF TEXAS

DATE 11/11/2013

REVISIONS

NO	DATE	DESCRIPTION

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WOLFF STADIUM
BUILDING REPAIRS PROJECT
5757 US-90 W, SAN ANTONIO, TEXAS, 78227

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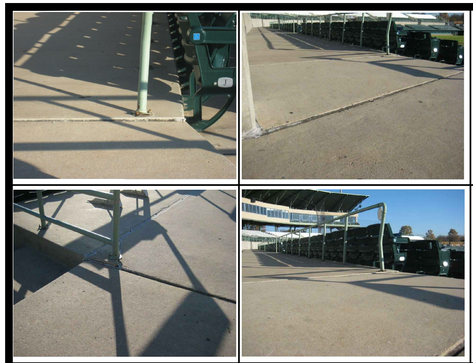

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DETAIL LOCATION 4-6
N.T.S

DETAIL LOCATION 7, 28-29
N.T.S

DETAIL LOCATION 8, 26-27
N.T.S

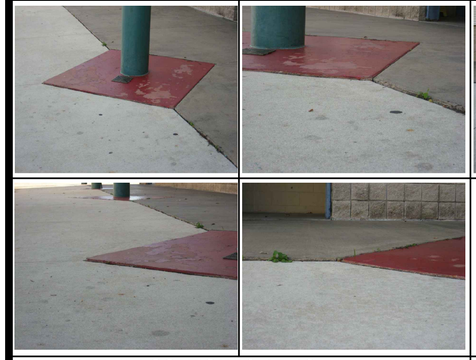
DETAIL LOCATION 9 , 25
N.T.S

DETAIL LOCATION 10, 11, 24
N.T.S

DETAIL LOCATION 12, 13, 14, 22, 23
N.T.S

DETAIL LOCATION 30-31
N.T.S

DETAIL LOCATION 15, 19, 21
N.T.S



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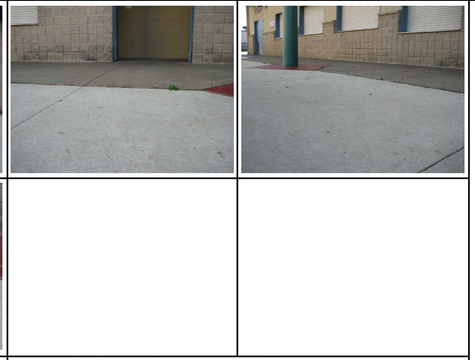

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12/2/13
STATE OF TEXAS
ROBERT A. COPELAND JR.
70868
LICENSED
PROFESSIONAL ENGINEER

REVISIONS

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SHEET
CONCRETE FLATWORK REPAIR PLAN
1 OF 2

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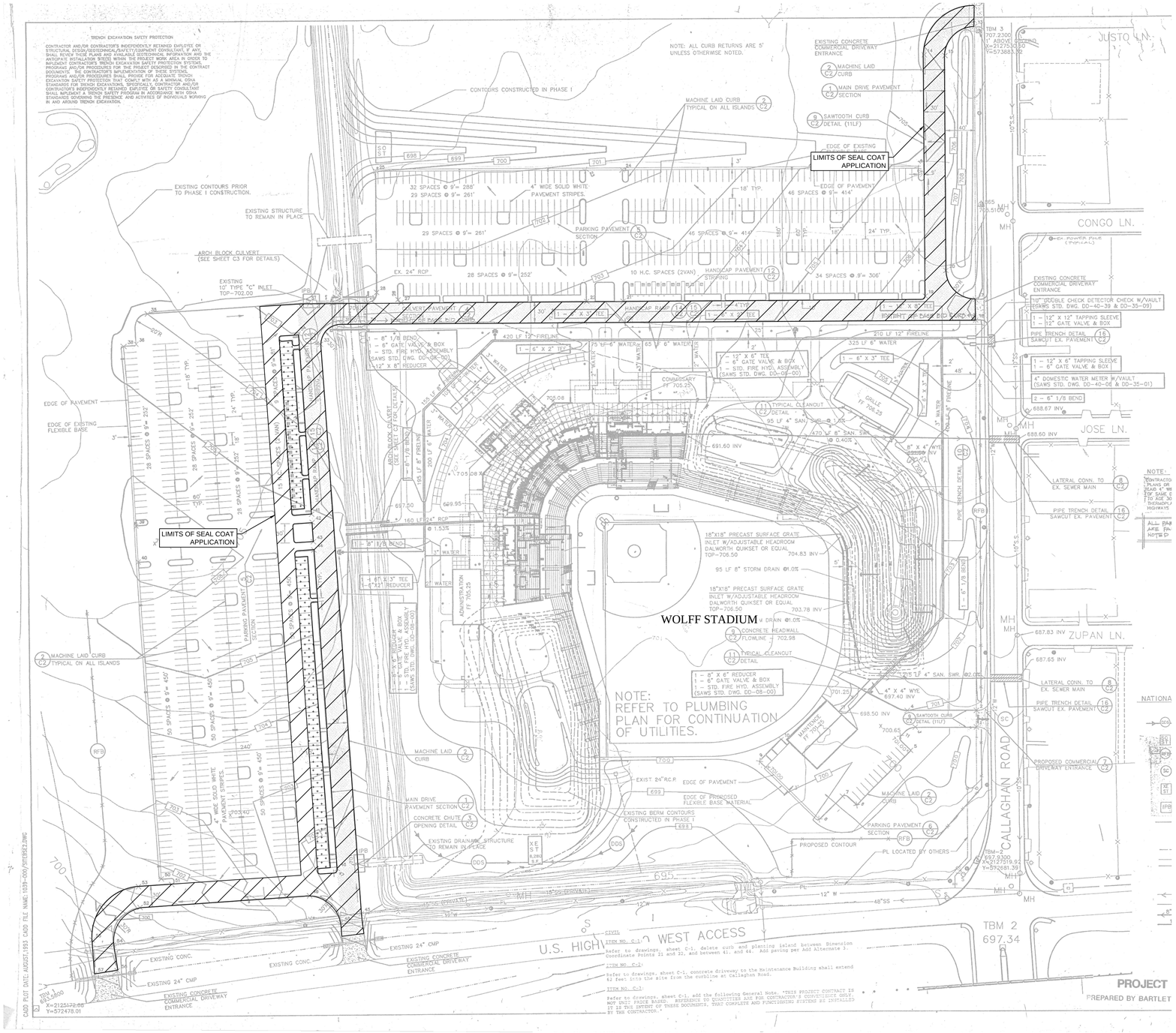

OVERALL SITE PLAN

NORTH

SCALE: 1" = 80'

80 0 40 80 160

PAVEMENT STRIPING

PHASE I

BASE BID/DRIVES:
DENOTES PRIMARY DRIVE AREAS TO BE APPLIED WITH ASPHALT SEAL COAT AND RE-STRIPE CENTERLINE PAVEMENT MARKINGS.

BASE BID/PARKING:
DENOTES ALTERNATE PARKING AREAS TO BE APPLIED WITH ASPHALT SEAL COAT AND RE-STRIPE TO EXISTING STALL WIDTH AND ADA MARKINGS.

DRIVES= 112,863

PARKING=13,537

CONSTRUCTION NOTE FOR SEALCOAT AND PAVEMENT MARKINGS:

1. FOR THE APPLICATION OF "SEALCOAT" TO THE LIMITS OF CONSTRUCTION THE CONTRACTOR SHALL FOLLOW THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION, ITEM 207.1 - SINGLE COURSE BITUMINOUS SLURRY SEAL. THIS SPECIFICATION WILL COVER APPLICABLE SPECIFICATIONS AND TEST METHODS, MATERIALS, EQUIPMENT REQUIREMENTS, CONSTRUCTION METHODS, AND MEASUREMENT/PAYMENT.

2. FOR THE INSTALLATION OF PAVEMENT MARKINGS THE CONTRACTOR SHALL FOLLOW THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION, ITEM 535.2 AND 535.4 - HOT APPLIED THERMOPLASTIC PAVEMENT MARKINGS - 4" WHITE AND 4" YELLOW LINE. THIS SPECIFICATION WILL COVER APPLICABLE SPECIFICATIONS AND TEST METHODS, MATERIALS, EQUIPMENT REQUIREMENTS, CONSTRUCTION METHODS, AND MEASUREMENT/PAYMENT. INCLUDED AS PART OF THIS SPECIFICATION IS THE CLEANING AND REMOVAL OF PAVEMENT MARKINGS AND MARKERS- ITEM 533. (NO SEPARATE PAY ITEM).

STATE OF TEXAS
ROBERT A. COPELAND JR.
70868
LICENSED
PROFESSIONAL ENGINEER
12/2/13

REVISIONS

NO	DATE	DESCRIPTION

CITY OF SAN ANTONIO
WOLFF STADIUM
BUILDING REPAIRS PROJECT
5757 US-90 W, SAN ANTONIO, TEXAS, 78227

Chesney Morales ARCHITECTS/PLANNERS & Associates, Inc.
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SHEET
PAVEMENT STRIPING PLAN
3 OF 3

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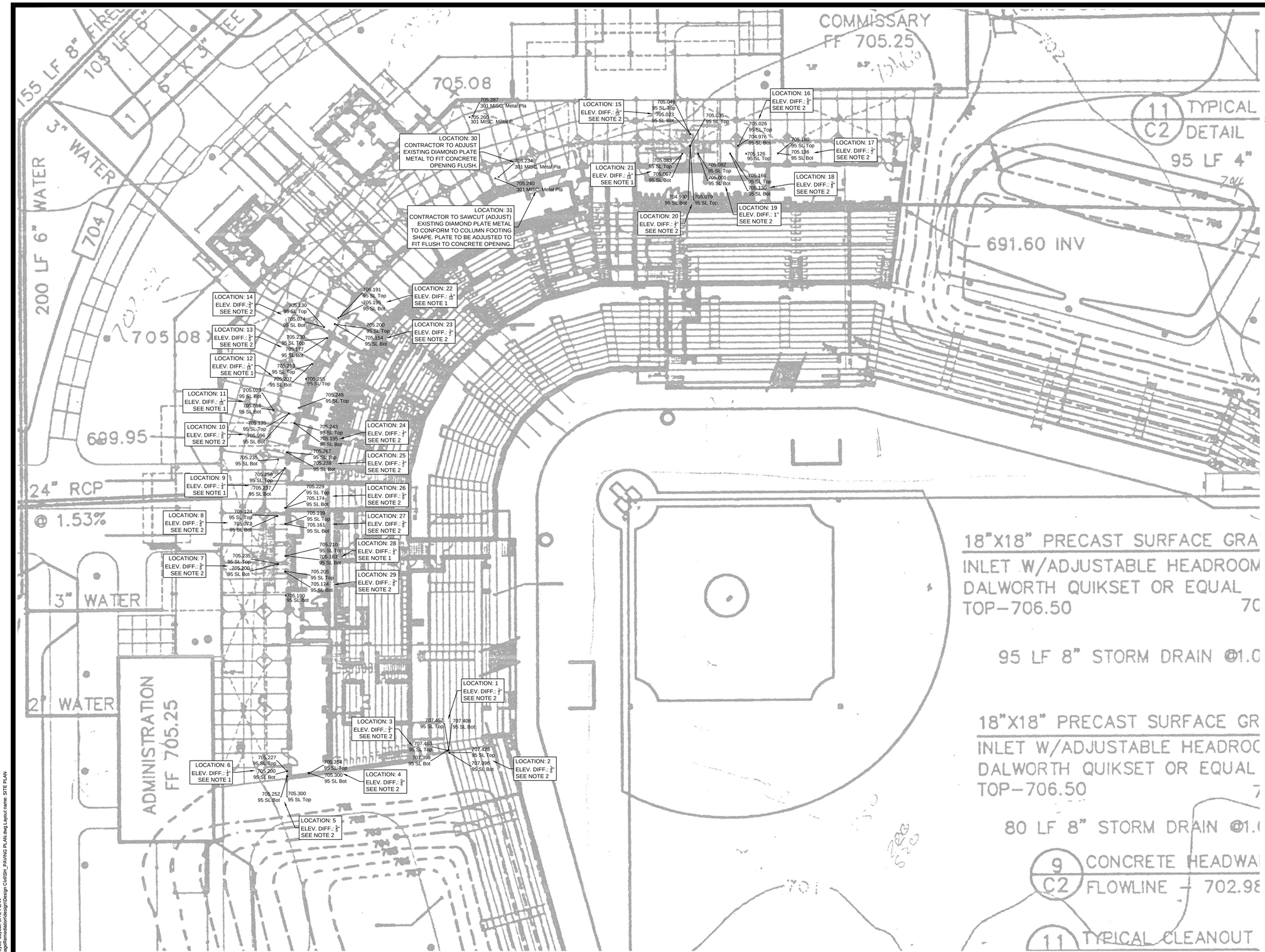

NORTH

SCALE: 1" = 20'

20 0 10 20 40

CONSTRUCTION NOTE 1:

1. CONTRACTOR TO CLEAN THE CONCRETE AREA SURROUNDING THE LOCATION TO BE LEVELED WITH THE APPROPRIATE CLEANING SOLVENTS TO REMOVE ANY BOND BREAKING CONTAMINANTS.
2. CONTRACTOR TO USE A SELF LEVELING NON-SLIP URETHANE FLOOR OVERLAY COMPOUND, CLOSELY MATCHING THE COLOR OF THE EXISTING CONCRETE, TO LEVEL UP THE WORK AREA. THE AREA TO BE COVERED WITH OVERLAY COMPOUND SHALL BE OUTLINED AND TAPED OFF PRIOR TO START OF TASK TO DETERMINE FULL AREA TO BE TRANSITIONED NOT TO EXCEED 100 SQUARE FEET IN TOTAL AREA.
3. THE EDGES OF THE AREA TO BE COATED SHALL BE TRANSITIONED TO MATCH THE EXISTING CONCRETE SURFACE ON ALL SIDES.
4. A TOTAL OF THREE APPLICATIONS WILL BE REQUIRED TO LEVEL UP THESE AREAS.

CONSTRUCTION NOTE 2:

1. CONTRACTOR TO CLEAN THE CONCRETE AREA SURROUNDING THE LOCATION TO BE LEVELED WITH THE APPROPRIATE CLEANING SOLVENTS TO REMOVE ANY BOND BREAKING CONTAMINANTS.
2. CONTRACTOR TO REMOVE ANY LOOSE CONCRETE FROM SURFACE AND CLEAN OUT ANY CRACKS WITHIN WORK AREA TO BE LEVELED. CONTRACTOR SHALL FILL CRACKS IN WITH A BONDING CONCRETE SLURRY MIX LEVELED TO EXISTING SURFACE. CONCRETE SHALL HAVE A 3000 P.S.I. STRENGTH IN 28 DAYS.
3. CONTRACTOR TO USE CONCRETE SAW TO CUT ½" DEEP KERF CUTS TO THE HIGH SIDE OF CONCRETE FOR A DISTANCE TO BE DETERMINED AT SITE BASED ON AMOUNT OF CONCRETE LEVELING REQUIRED. AFTER REMOVAL OF CUT AREA CONTRACTOR SHALL USE APPROPRIATE CONCRETE GRINDER TO LEVEL CONCRETE SURFACE TO EXISTING LOWER LEVEL. FINISHED SURFACE SHALL NOT EXCEED 1.0 % SLOPE IN ANY DIRECTION FROM CENTER OF WORK AREA TO MATCHING EXISTING CONCRETE SURFACE.
4. CONTRACTOR TO USE A SELF LEVELING NON-SLIP URETHANE FLOOR OVERLAY COMPOUND, CLOSELY MATCHING THE COLOR OF THE EXISTING CONCRETE, TO FINISH THE WORK AREA AFFECTED. THE AREA TO BE COVERED WITH OVERLAY COMPOUND SHALL BE OUTLINED AND TAPED OFF PRIOR TO START OF TASK TO DETERMINE FULL AREA TO BE TRANSITIONED NOT TO EXCEED 150 SQUARE FEET IN TOTAL AREA.

12/19/13
STATE OF TEXAS
ROBERT A. COPELAND JR.
70868
LICENSED
PROFESSIONAL ENGINEER

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1 OF 2

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SECTION 15050 - BASIC MECHANICAL MATERIALS AND METHODS

PART 1 – GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES THE FOLLOWING:
1. PIPING INSTALLATION INSTRUCTIONS COMMON TO MOST PIPING SYSTEMS.

PART 2 – EXECUTION

2.1 PIPING SYSTEMS – COMMON REQUIREMENTS
A. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY INDICATED OTHERWISE.
B. INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.
C. INSTALL PIPING AT INDICATED SLOPES.
D. INSTALL PIPING FREE OF SAGS AND BENDS.
E. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS.
F. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION.
G. INSTALL ESCUTCHEONS FOR PENETRATIONS OF WALLS, CEILINGS, AND FLOORS.
H. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR AND ROOF SLABS. STEEL SLEEVES TERMINATING 1"-2" AFF SHALL BE PROVIDED WITH FLOOR ANCHORS FOR ALL FLOOR PENETRATIONS. PROVIDE WATER TIGHT SEAL.
I. FIRE-BARRIER PENETRATIONS: MAINTAIN INDICATED FIRE RATING OF WALLS, PARTITIONS, CEILINGS, AND FLOORS AT PIPE PENETRATIONS. SEAL PIPE PENETRATIONS WITH FIRESTOP MATERIALS. REFER TO DIVISION 7 SECTION "THROUGH-PENETRATION FIRESTOP SYSTEMS" FOR MATERIALS.

2.2 PIPING CONNECTIONS
A. MAKE CONNECTIONS ACCORDING TO THE FOLLOWING, UNLESS OTHERWISE INDICATED:
1. INSTALL UNIONS, IN PIPING NPS 2 AND SMALLER, ADJACENT TO EACH VALVE AND AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT.
2. INSTALL FLANGES, IN PIPING NPS 2-1/2 AND LARGER, ADJACENT TO FLANGED VALVES AND AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT.
3. WET PIPING SYSTEMS: INSTALL DIELECTRIC COUPLING AND NIPPLE FITTINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS.

SECTION 15110 - VALVES

PART 1 – GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES GENERAL-DUTY VALVES:

1.2 SUBMITTALS
A. PRODUCT DATA: FOR EACH TYPE OF VALVE INDICATED. INCLUDE BODY, SEATING, AND TRIM MATERIALS, VALVE DESIGN, PRESSURE AND TEMPERATURE CLASSIFICATIONS, END CONNECTIONS, ARRANGEMENT, DIMENSIONS, AND REQUIRED CLEARANCES. INCLUDE LIST INDICATING VALVE AND ITS APPLICATION. INCLUDE RATED CAPACITIES, FURNISHED SPECIALTIES, AND ACCESSORIES.

PART 2 – EXECUTION

2.1 VALVE APPLICATIONS
A. SHUTOFF SERVICE: BALL, BUTTERFLY VALVES
B. BUTTERFLY VALVE DEAD-END SERVICE: SINGLE FLANGE (LUG) TYPE
C. THROTTLING SERVICE: GLOBE VALVES
D. PUMP-DISCHARGE CHECK VALVES:
1. NSF 2 AND SMALLER: BRONZE SWING CHECK VALVES WITH BRONZE DISK.
E. IF VALVES WITH SPECIFIED SWP CLASSES OR CWP RATINGS ARE NOT AVAILABLE, THE SAME TYPES OF VALVES WITH HIGHER SWP CLASSES OR CWP RATINGS MAY BE SUBSTITUTED.
F. SELECT VALVES, EXCEPT FOR WAFER TYPES, WITH THE FOLLOWING CONNECTIONS:
1. FOR COPPER TUBING, NPS 2 AND SMALLER: THREADED ENDS.
2. FOR COPPER TUBING, NPS 2-1/2 TO NPS 4: FLANGED ENDS EXCEPT WHERE THREADED VALVE-END OPTION IS INDICATED IN VALVE SCHEDULES BELOW.
3. FOR COPPER TUBING, NPS 5 AND LARGER: FLANGED ENDS.
4. FOR STEEL PIPING, NPS 2 AND SMALLER: THREADED ENDS.
5. FOR STEEL PIPING, NPS 2-1/2 TO NPS 4: FLANGED ENDS EXCEPT WHERE THREADED VALVE-END OPTION IS INDICATED IN VALVE SCHEDULES BELOW.
6. FOR STEEL PIPING, NPS 5 AND LARGER: FLANGED ENDS.
G. DOMESTIC, HOT AND COLD WATER VALVE SCHEDULE.
1. PIPE NPS 2 AND SMALLER:
a. BRONZE ANGLE VALVES: CLASS 150, BRONZE DISK.
b. BALL VALVES: TWO PIECE, FULL PORT, BRONZE WITH STAINLESS-STEEL TRIM, WITH SHORT NIPPLE AND UNION CONNECTION AT DOWNSTREAM SIDE (OUTLET)
c. BRONZE SWING CHECK VALVES: CLASS 150, BRONZE DISK.
d. BRONZE GLOBE VALVES; CLASS 150, BRONZE DISK.
2. PIPE NPS 2-1/2 AND LARGER:
a. IRON, SINGLE-FLANGE BUTTERFLY VALVES: 200 CWP, EPDM SEAT, DUCTILE-IRON DISK.
b. IRON SWING CHECK VALVES: CLASS 125, METAL NONMETALLIC-TO-METAL SEATS.
c. IRON GATE VALVES: CLASS 125, OS&Y.
d. IRON GLOBE VALVES: CLASS 125.

SECTION 15140 - WATER PIPING

PART 1 – GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES WATER PIPING INSIDE THE BUILDING.

PART 2 – PRODUCTS

2.1 PIPING MATERIALS
1. WATER PIPING LOCATED ABOVE THE BUILDING SLAB, SHALL BE TYPE "L" HARD DRAWN COMMERCIAL COPPER WATER PIPE. PIPING SHALL BE ASSEMBLED WITH WROUGHT COPPER JOINT FITTINGS AND HARD SOLDER.
2. DIELECTRIC INSULATING COUPLINGS SHALL BE PROVIDED BETWEEN FERROUS AND COPPER PIPING SYSTEMS.

PART 3 – EXECUTION

3.1 EXCAVATION
1. TRENCHES FOR ALL UNDERGROUND PIPING SYSTEMS SHALL BE EXCAVATED TO THE REQUIRED DEPTHS. IN THE CASE OF SEWER LINES, THE BOTTOM OF THE TRENCHES SHALL BE GRADED TO SECURE THE NECESSARY FALL. NEVER ALLOW THE SEWER LINES TO COME IN CONTACT WITH UNDERGROUND REFRIGERANT PIPING. SANITARY SEWER LINES OUTSIDE THE BUILDING SHOULD BE KEPT AS DEEP AS PRACTICABLE WITH A MINIMUM COVER OF 12". PROVIDE CLEAN WASHED SAND FILL 6" BELOW, ON TOP AND BOTH SIDES OF THE LINES, TAMPED TO MAXIMUM COMPACTION INSIDE THE TRENCH LOCATED INSIDE OR OUTSIDE THE BUILDING.
2. ALL TRENCH EXCAVATION REQUIRED ON THIS PROJECT SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS AS PART 1926, SUBPART P-EXCAVATIONS, TRENCHING AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS STANDARD AND INTERPRETATIONS.

3.2 JOINT CONSTRUCTION
A. SOLDERED JOINTS: USE ASTM B 813, WATER-FLUSHABLE, LEAD-FREE FLUX, ASTM B 32, LEAD-FREE-ALLOY SOLDER, AND ASTM B 828 PROCEDURE, UNLESS OTHERWISE INDICATED.

1

3.4 FIELD QUALITY CONTROL
A. INSPECT WATER PIPING AS FOLLOWS:
1. DO NOT ENCLOSE, COVER, OR PUT PIPING INTO OPERATION UNTIL IT HAS BEEN INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION.
2. REINSPECTION: IF AUTHORITIES HAVING JURISDICTION FIND THAT PIPING WILL NOT PASS TEST OR INSPECTION, MAKE REQUIRED CORRECTIONS AND ARRANGE FOR REINSPECTION.
B. TEST WATER PIPING AS FOLLOWS:
1. LEAVE NEW, ALTERED, EXTENDED, OR REPLACED WATER PIPING UNCOVERED AND UNCONCEALED UNTIL IT HAS BEEN TESTED AND APPROVED. EXPOSE WORK THAT WAS COVERED OR CONCEALED BEFORE IT WAS TESTED.
2. WATER PIPING SYSTEMS: WATER PIPING SYSTEMS SHALL BE PROPERLY TESTED TO A HYDROSTATIC PRESSURE OF ONE HUNDRED AND FIFTY POUNDS (150 PSI) PER SQUARE INCH GAUGE FOR A PERIOD OF NOT LESS THAN EIGHT HOURS. DURING THIS TEST PERIOD, ALL LEAKS IN PIPE, FITTINGS AND ACCESSORIES, IN THE PARTICULAR PIPING SYSTEM, WHICH IS BEING TESTED, SHALL BE STOPPED AND THE HYDROSTATIC TEST SHALL AGAIN BE APPLIED. THIS PROCEDURE SHALL BE REPEATED FOR AN ENTIRE EIGHT-HOUR PERIOD AND NO LEAKS CAN BE FOUND WHILE THE SYSTEM BEING TESTED IS SUBJECTED TO THE PRESSURE MENTIONED ABOVE.
3. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.

3.5 CLEANING
A. THE ENTIRE WATER PIPING SYSTEM UPON COMPLETION SHALL BE STERILIZED WITH A SOLUTION CONTAINING NOT LESS THAN 50 PARTS PER MILLION OF CHLORINE. THE STERILIZATION SOLUTION SHALL BE ALLOWED TO REMAIN IN THE SYSTEM FOR A PERIOD OF TWENTY-FOUR (24) HOURS, DURING WHICH TIME ALL VALVES AND FAUCETS SHALL BE OPENED AND CLOSED SEVERAL TIMES. AFTER STERILIZATION, THE SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAN WATER UNTIL THE RESIDUAL CHLORINE CONTENT IS NOT GREATER THAN 0.2 PARTS PER MILLION. THE STERILIZATION SOLUTION SHALL BE INTRODUCED INTO THE WATER SYSTEM THROUGH A 3/4" OPENING TO BE PROVIDED IN THE WATER MAIN ON THE HOUSE SIDE OF THE WATER METER AND SHALL BE AT THE PLUMBER'S EXPENSE.

SECTION 15150 - SANITARY WASTE AND VENT PIPING

PART 1 – GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES THE FOLLOWING SOIL AND WASTE, SANITARY DRAINAGE AND VENT PIPING INSIDE THE BUILDING:
1. PIPE, TUBE, AND FITTINGS.
2. SPECIAL PIPE FITTINGS.

PART 2 – PRODUCTS

2.1 PIPING MATERIALS
A. (SOLID-WALL) PVC PIPE: ASTM D 2665, SOLID-WALL DRAIN, WASTE, AND VENT.
1. PVC SOCKET FITTINGS: ASTM D 2665, SOCKET TYPE, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS.
B. CAST IRON PIPING SHALL BE THE FOLLOWING:
1. HUBLESS CAST-IRON SOIL PIPE AND FITTINGS (ASTM A 888 or CISPI 301); HEAVY DUTY, STAINLESS-STEEL COUPLINGS (CISPI 310) ; AND HUBLESS-COUPLING JOINTS.
C. PROVIDE INSULATION FOR 25/50 FLAME AND SMOKE DEVELOPED RATING IN ACCORDANCE WITH NFPA 255 ON ALL NON-PLENUM RATED PIPING INSTALLED IN A RETURN AIR PLENUM.

PART 3 – EXECUTION

3.1 PIPING INSTALLATION
A. HORIZONTAL WASTE AND SOIL PIPE SHALL BE GIVEN A GRADE OF 1/4" PER FOOT WHERE POSSIBLE.
B. INSTALL WALL PENETRATION SYSTEM AT EACH SERVICE PIPE PENETRATION THROUGH FOUNDATION WALL. MAKE INSTALLATION WATERTIGHT. WALL PENETRATION SYSTEMS ARE SPECIFIED IN DIVISION 15 SECTION "BASIC MECHANICAL MATERIAL AND METHODS."
C. DO NOT ENCLOSE, COVER, OR PUT PIPING INTO OPERATION UNTIL IT IS INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION.

3.2 HANGER AND SUPPORT INSTALLATION
A. PIPE HANGERS AND SUPPORTS ARE SPECIFIED IN DIVISION 15 SECTION "HANGERS AND SUPPORTS."

3.3 CONNECTIONS
A. CONNECT SOIL AND WASTE PIPING TO EXTERIOR SANITARY SEWERAGE PIPING. USE TRANSITION FITTING TO JOIN DISSIMILAR PIPING MATERIALS.

3.4 FIELD QUALITY CONTROL
A. DURING INSTALLATION, NOTIFY AUTHORITIES HAVING JURISDICTION AT LEAST 24 HOURS BEFORE INSPECTION MUST BE MADE. PERFORM TESTS SPECIFIED BELOW IN PRESENCE OF AUTHORITIES HAVING JURISDICTION.
B. REINSPECTION: IF AUTHORITIES HAVING JURISDICTION FIND THAT PIPING WILL NOT PASS TEST OR INSPECTION, MAKE REQUIRED CORRECTIONS AND ARRANGE FOR REINSPECTION.
C. SANITARY DRAINS: PIPES SHALL HAVE ALL OUTLETS TEMPORARILY PLUGGED. THE PIPES SHALL BE FILLED WITH WATER TESTING THE SYSTEM IN SECTION SUCH THAT NO SECTION SHALL BE TESTED WITH LESS THAN 10-FOOT (10') HEAD OF WATER. IF AFTER TWENTY-FOUR (24) HOURS, THE LEVEL OF THE WATER HAS BEEN LOWERED BY LEAKAGE, THE LEAKS MUST BE FOUND AND STOPPED BY THIS CONTRACTOR, AND THE WATER LEVEL SHALL AGAIN BE RAISED AND THE TEST REPEATED UNTIL AFTER TWENTY-FOUR HOUR RETENTION PERIOD THERE SHALL BE NO PERCEPTIBLE LOWERING OF THE WATER LEVEL OF THE SYSTEM BEING TESTED.

3.5 CLEANING
A. CLEAN INTERIOR OF PIPING. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES.
B. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION PERIOD TO AVOID CLOGGING WITH DIRT AND DEBRIS AND TO PREVENT DAMAGE FROM TRAFFIC AND CONSTRUCTION WORK.
C. PLACE PLUGS IN ENDS OF UNCOMPLETED PIPING AT END OF DAY AND WHEN WORK STOPS.

SECTION 15410 - FIXTURES

PART 1 – GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES SUPPORTS FOR PLUMBING FIXTURES.

PART 2 – EXECUTION

2.1 FIXTURE SUPPORTS
A. WATER CLOSET SUPPORTS:
1. COMBINATION CARRIER DESIGNED FOR MOUNTING HEIGHT OF WALL-MOUNTING, WATER-CLOSET TYPE FIXTURE. INCLUDE SINGLE OR DOUBLE, VERTICAL OR HORIZONTAL, HUB-AND-SPIGOT OR HUBLESS WASTE FITTING AS REQUIRED FOR PIPING ARRANGEMENT, FACEPLATES; COUPLINGS WITH GASKETS; FEET AND FIXTURE BOLTS AND HARDWARE MATCHING FIXTURE. INCLUDE ADDITIONAL EXTENSION COUPLING, FACEPLATE, AND FEET FOR INSTALLATION IN WIDE PIPE SPACE.
B. URINAL SUPPORTS:
1. TYPE I, URINAL CARRIER WITH FIXTURE SUPPORT PLATES AND COUPLING WITH SEAL AND FIXTURE BOLTS AND HARDWARE MATCHING FIXTURE FOR WALL-MOUNTING, URINAL-TYPE FIXTURE. INCLUDE STEEL UPRIGHTS WITH FEET.
2. ACCESSIBLE-FIXTURE SUPPORT: INCLUDE RECTANGULAR STEEL UPRIGHTS.
C. LAVATORY SUPPORTS:
1. TYPE II, LAVATORY CARRIERWITH CONCEALED ARMS AND TIE ROD FOR WALL-MOUNTING, LAVATORY-TYPE FIXTURE. INCLUDE STEEL UPRIGHTS WITH FEET.
2. ACCESSIBLE-FIXTURE SUPPORT: INCLUDE RECTANGULAR STEEL UPRIGHTS.

2.2 FIXTURE STOPS
A. MANUFACTURES: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: (UNLESS NOTED OTHERWISE ON DRAWINGS OR ON SCHEDULE).

RETAIN ONE OF THE THREE LISTS BELOW.

A. CHICAGO FAUCETS
B. McGUIRE MANUFACTURING Co. Inc.
C. T&S BRASS AND BRONZE WORKS, Inc.

1. DESCRIPTION: HEAVY DUTY CAST BRASS WITH COMPRESSION CARTRIDGE.

A. FINISH: CHROME PLATED
B. STEM: BRASS, FULL TURN
C. OPERATION: LOOSE KEY, UNLESS OTHERWISE INDICATED.
D. OUTLET; NPS 3/8, COMPRESSION
E. INLET SIZE; NPS 1/2, FEMALE THREAD

SECTION 15430 - PLUMBING SPECIALTIES

PART 1 – GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES PLUMBING SPECIALTIES.

1.2 SUBMITTALS
A. PRODUCT DATA: INCLUDE RATED CAPACITIES AND INDICATE MATERIALS, FINISHES, DIMENSIONS, REQUIRED CLEARANCES, METHODS OF ASSEMBLY OF COMPONENTS, AND PIPING AND WIRING CONNECTIONS FOR THE FOLLOWING:
1. BALANCING VALVES AND STRAINERS.
2. THERMOSTATIC WATER MIXING VALVES AND WATER TEMPERING VALVES.
3. WATER HAMMER ARRESTERS, AIR VENTS, AND TRAP SEAL PRIMER VALVES AND SYSTEMS.
4. HOSE BIBBS AND HYDRANTS.
5. BACKWATER VALVES, CLEANOUTS, FLOOR DRAINS, OPEN RECEPTORS, AND TRENCH DRAINS.
6. COMPLY WITH NSF 61, "DRINKING WATER SYSTEM COMPONENTS--HEALTH EFFECTS, SECTIONS 1 THROUGH 9," FOR POTABLE WATER PLUMBING SPECIALTIES.

PART 2 – EXECUTION

2.1 INSTALLATION
A. REFER TO DIVISION 15 SECTION "BASIC MECHANICAL MATERIALS AND METHODS" FOR PIPING JOINING MATERIALS, JOINT CONSTRUCTION, AND BASIC INSTALLATION REQUIREMENTS.
B. ON EACH COLD WATER SUPPLY LINE SERVING A FLUSH VALVE OR VALVES, AND ON HOT WATER LINES SERVING RESTROOM FIXTURES PROVIDE A MANUFACTURED WATER HAMMER PROTECTIVE DEVICE. THESE SHALL BE OF THE SIZE SCHEDULED ON THE DRAWINGS OR AS RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION AND INSTALLED IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-WH201. ON ALL OTHER COLD AND HOT WATER SUPPLIES PROVIDE AN AIR CHAMBER ONE SIZE LARGER THAN THE SUPPLY TO THE FIXTURE AND NOT LESS THAN 18" LONG. THESE AIR CHAMBERS SHALL BE LOCATED AT THE HIGH POINT TO THE SUPPLY CONNECTION TO THE FIXTURE. THESE AIR CHAMBERS SHALL HAVE A CAPPED TOP, SHALL BE CONSTRUCTED OF THE SAME MATERIAL AS THE PIPING SYSTEM IN WHICH THEY ARE INSTALLED, AND SHALL BE INSULATED IN THE SAME MANNER AS THE BALANCE OF THE PIPING SYSTEM IN WHICH THEY ARE INSTALLED.
C. THERMOSTATIC MIXING VALVES SHALL BE PROVIDED ON THE HOT WATER LINE SERVING ALL PREP AREA HAND SINKS AND RESTROOM LAVATORIES. INSTALL THERMOSTATIC MIXING VALVE IN AN ACCESSIBLE LOCATION, AS SHOWN ON THE DRAWINGS.
D. INSTALL TRAP SEAL PRIMER VALVES WITH OUTLET PIPING PITCHED DOWN TOWARD DRAIN TRAP A MINIMUM OF 1 PERCENT AND CONNECT TO FLOOR-DRAIN BODY, TRAP, OR INLET FITTING. ADJUST VALVE FOR PROPER FLOW.
E. AT EACH GROUP OF PLUMBING FIXTURES AND AT EACH PIECE OF EQUIPMENT, THERE SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR, FULL PORT BALL VALVES ON EACH AND EVERY PIPING SYSTEM SO THAT THESE GROUPS OF FIXTURES OR PIECES OF EQUIPMENT MAY BE ISOLATED FROM ACCESSIBLE LOCATIONS AS SHOWN ON PLANS. THIS CONTRACTOR SHALL FURNISH ACCESS DOORS REQUIRED FOR THESE VALVES.
1. ACCESS DOORS. THIS CONTRACTOR SHALL FURNISH AND INSTALL ANY ACCESS DOORS NOT FURNISHED BY THE GENERAL CONTRACTOR WHICH MAY BE REQUIRED TO PROVIDE CONVENIENT ACCESS TO VALVES OR OTHER APPURTENANCES (SHOKTROLS, TRAP PRIMERS, MECHANICAL EQUIPMENT AND DEVICES, ETC.) CONCEALED WITHIN WALLS OR CHASES OF THE BUILDING. SPECIFIC LOCATIONS OF ACCESS DOORS SHALL BE COORDINATED WITH THE ARCHITECT'S OFFICE BEFORE INSTALLATION. SITUATE THE FULL PORT BALL VALVES BEHIND THE DOOR SO AS NOT TO IMPEDE CLOSING THE DOOR WHEN THE VALVE IS SHUTOFF.
F. CLEAN-OUTS: THE SIZES OF CLEAN-OUTS SHALL BE IDENTICAL WITH THE SIZE OF THE SOIL OR WASTE LINES IN WHICH THEY ARE PLACED, EXCEPT WHERE CLEAN-OUTS LARGER THAN FOUR INCHES (4") IN DIAMETER WILL NOT BE REQUIRED. CLEAN-OUTS SHALL BE INSTALLED AS INDICATED ON PLANS. ALL CLEAN-OUTS LOCATED IN EXTERIOR LOCATIONS SHALL BE ENCASED IN 24" X 24" X 6" CONCRETE PAD UNLESS INSTALLED IN A CONCRETE WALK, DRIVE OR OTHER CONCRETE AREAS. ALL CLEAN-OUTS INSTALLED IN WALLS OR OTHER PAINTED SURFACES SHALL BE OF A TYPE FURNISHED IN PRIME COAT TO BE PAINTED ON THE JOB TO MATCH THE SURFACE IN WHICH THEY ARE INSTALLED. ALL COVER PLATES ON CLEAN-OUTS SHALL BE ATTACHED WITH VANDAL-PROOF SCREWS.
G. WHERE COPPER PIPE PASSES THROUGH SHEET METAL STUDS, USE CPVC INSERTS TO ISOLATE PIPE FROM THE STUDS. ALSO USE APPROVED TYPE POLYKEN ISOLATION TAPE AROUND THE CIRCUMFERENCE OF ALL COPPER WATER TUBING, WHERE STEEL PIPE SUPPORTS AND STEEL PIPE DAMPS WOULD COME IN CONTACT WITH COPPER TUBING. INSTALL TWO TO THREE WRAPS AT EACH PIPE SUPPORT.
H. INSTALL ESCUTCHEONS AT WALL, FLOOR, AND CEILING PENETRATIONS IN EXPOSED FINISHED LOCATIONS AND WITHIN CABINETS AND MILLWORK. USE DEEP-PATTERN ESCUTCHEONS IF REQUIRED TO CONCEAL PROTRUDING PIPE FITTINGS.

2.2 PROTECTION
A. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION PERIOD TO AVOID CLOGGING WITH DIRT AND DEBRIS AND TO PREVENT DAMAGE FROM TRAFFIC AND CONSTRUCTION WORK.
B. PLACE PLUGS IN ENDS OF UNCOMPLETED PIPING AT END OF EACH DAY OR WHEN WORK STOPS.

STATE OF TEXAS
RANDALL J. BARNHILL
101931
LICENSED PROFESSIONAL ENGINEER
12/17/13

REVISIONS		
NO	DATE	DESCRIPTION
1	12/17/13	ADDENDUM

CITY OF SAN ANTONIO
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EXHIBIT I

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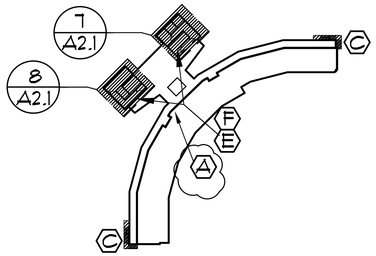
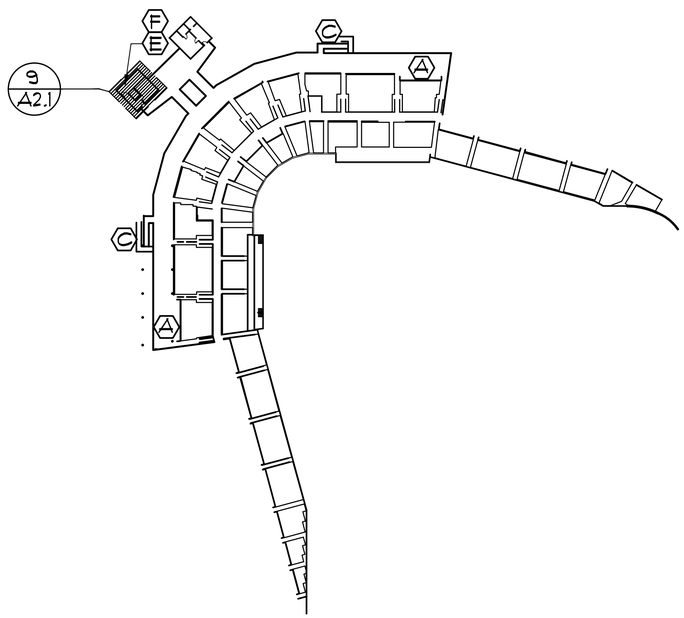
JOB NO: 1243F1
DATE: 11/11/13
DRAWN BY: RB
CHECKED BY: MT
SHEET
MP4

SCOPE OF WORK KEYNOTES

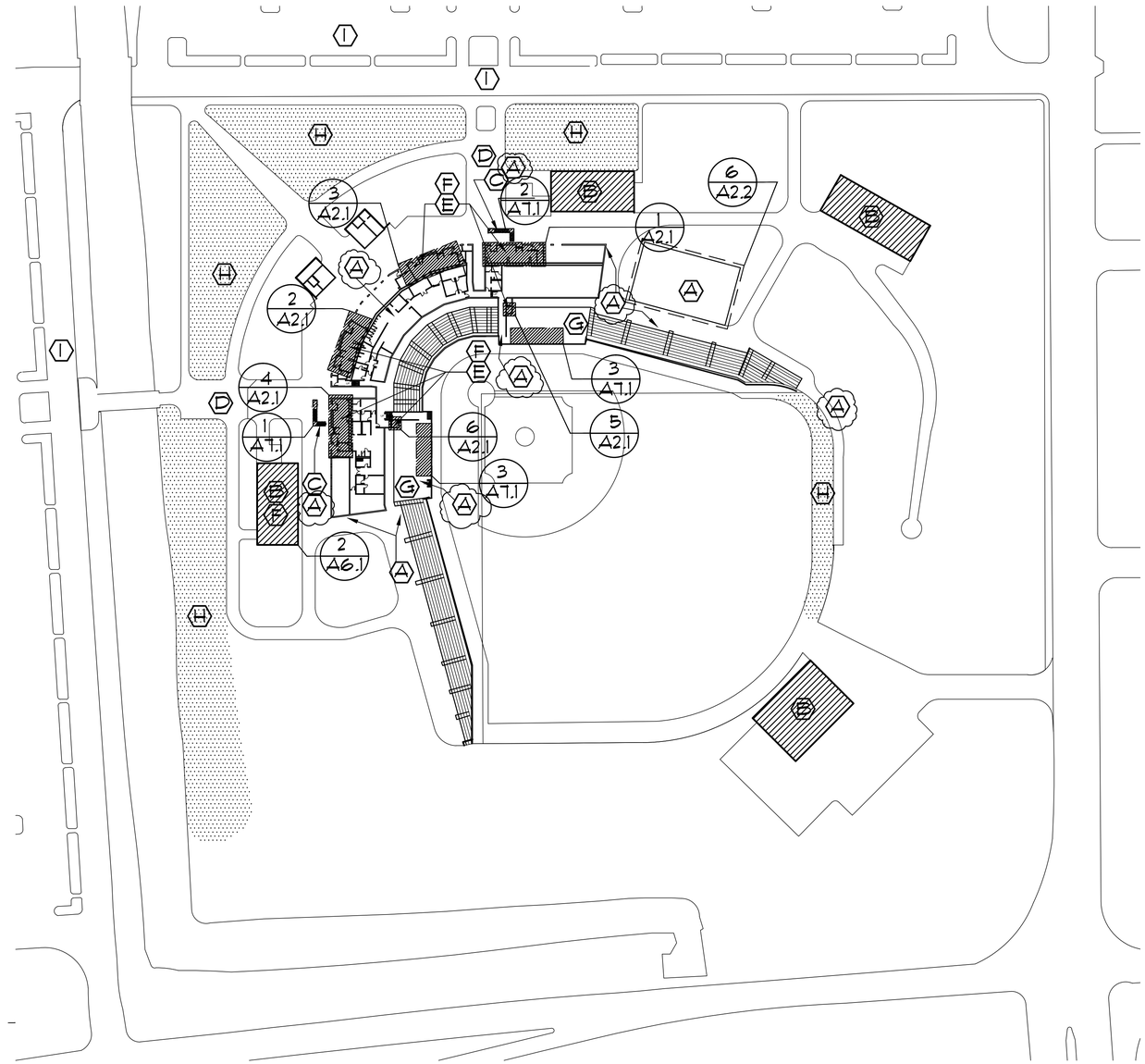
- (A) ADD ALT. #3, GENERAL MAINTENANCE UPGRADES, REFER TO SHEETS A2.2 AND A2.3
- (B) ROOF REPAIRS
- (C) METAL STAIR REPAIRS
- (D) TRIPPING HAZARD REPAIRS-REFER TO CIVIL DRAWINGS
- (E) PUBLIC RESTROOM UPGRADES & REPAIRS
- (F) CEILING TILE REPLACEMENT& NEW LIGHT FIXTURES
- (G) DOUGOUT FLOORING & RESTROOM UPGRADES & REPAIRS
- (H) ADD ALT. #1, SPRINKLER SYSTEM UPGRADES
- (I) ADD ALT. #2, SEAL COAT & RESTRIPE PARKING LOT



1 SUITE LEVEL
SCALE: 1/64" = 1'-0"



2 MEZZANINE LEVEL
SCALE: 1/64" = 1'-0"



3 CONCOURSE LEVEL
SCALE: 1/64" = 1'-0"

EXHIBIT J

SITE & KEY PLANS

KEY PLAN

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REGISTERED ARCHITECT RICHARD A. MORALES 6109 STATE OF TEXAS

DATE 11/11/2013

REVISIONS		
NO	DATE	DESCRIPTION

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DATE: 11/11/13
DRAWN BY: MSG
CHECKED BY: RGM

SHEET
A0.3