Justice Center Program Description

Lower Level Spaces

Isolated Holding Cells for Males, Females and Juveniles w/ Control Room
Secured vehicle Sallyport
Bailiff Security Control Room, Offices, Squad Room, Locker Rooms and Break Room
Mail Room
Janitorial and Maintenance Storage/Supply Rooms

1st Floor Spaces

Building Security
2 District or CCL Courtrooms, 1 Associate Courtroom, w/ Chambers & Support Spaces
Jury Assembly for 736 spaces
County Clerk
District Clerk
Cafeteria w/ Deli

2nd Floor Spaces

4 District or CCL Courtrooms, 2 Associate Courtrooms, w/ Chambers & Support Spaces
Law Library
District Attorney

3rd Floor Spaces

6 District or CCL Courtrooms, 2 Associate Courtrooms, w/ Chambers & Support Spaces
2 Shelled Courtrooms w/ Chambers and Support Spaces
Grand Jury Meeting Space w/ Support Spaces

JE DUNN CONSTRUCTION

May 27, 2009

Mr. Don Brady, Director
Fort Bend County Facilities Management and Planning
1402 Band Road
Rosenburg, Texas 77471

Re: Fort Bend County Justice Center
Rosenburg, Texas

Dear Mr. Brady,

Attached, please find our Final GMP pricing for providing construction services for the new Fort Bend County Justice Center, connector tunnel to the jail, and related site improvements. Our GMP is based on the Final GMP documents, dated March 30, 2009 as provided by PGAL Architects.

Included in this revised submission is our updated GMP pricing incorporating subcontractor pricing and changes from the Permit Set documents. We have also included a list of alternates and VE options, a list of documents on which we based our GMP pricing, a list of allowances, a detailed set of qualification and clarifications, and a project schedule.

JE Dunn is honored to be a participant in the process to deliver the new justice center for Fort Bend County and looks forward to discussing the details of this document with you.

Upon review of this information, should you have any questions or comments, please feel free to contact me.

Sincerely,

Joseph Kummer
Assistant Vice President

CC: Dan Bernhard
Bruce Crocombe
Doug Combes
David Andrews

ATLANTA
AUSTIN
CHARLOTTE
COLORADO SPRIN
DALLAS
DENVER
DES MOINES
FORT WORTH
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KANSAS CITY
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NASHVILLE
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PORTLAND

3500 S. GESSNER, SUITE 200, HOUSTON, TX 77063 | **TEL** > 713.521.4664 | **FAX** > 713.521.2356 | www.jedunn.com

GUARANTEED MAXIMUM PRICE
CHANGE ORDER
for
PROJECT NO. SOQ#08-078
FORT BEND COUNTY COURTS FACILITY

TO: Fort Bend County Commissioners Court
301 Jackson St., Suite 719
Richmond, Texas 77469
Attn: Robert Hebert, PH.D., County Judge
Facsimile Number: (281) 341-8609

Gentlemen:

In accordance with Article 4.1 of the Construction Management Agreement dated August 26, 2008, Project No. SOQ#08-078, Fort Bend County Courts Facility, the undersigned offers to provide all services, labor and material to perform in accordance with Contract Documents construction of the Project described in the Final GMP Documents prepared by PGAL in accordance with Exhibit D and the Construction Management Agreement, for a Guaranteed Maximum Price of $58,485,991.

The undersigned guarantees the material completion of the Work on or before the Date of Material Completion which shall be 670 Calendar days from the execution of this document, receipt of all required permits and a full Notice to Proceed.

The undersigned guarantees the final completion of the Work on or before the Date of Final Completion which shall be 60 calendar days following the date of Material Completion.

The Guaranteed Maximum Price of $58,485,991 is comprised of the following components:

1.	Estimated Cost of the Work	$52,068,052
2.	Construction Manager's Contingency (includes Construction and Design Contingency)	$1,000,000
3.	Construction Manager's Fee	$1,322,925
4.	Construction Manager's Maximum Construction Overhead Costs	$4,095,014
	TOTAL (Guaranteed Maximum Price)	$58,485,991

This proposed GMP Change Order is based on the Final GMP Document Submittal and the revisions thereto by Construction Document Change Orders, entered into prior to the date of this proposal, in accordance with the assumptions stated in Exhibit D and the Construction Management Agreement.

The proposed GMP Change Order is based on the preparation by the Architect and addition to the Construction Management Agreement by Construction Document Change Order of Construction Documents embodying revisions of the Final GMP Document Submittal described in Exhibit D which lists the most recent drawings, specifications, and other documents which describe the proposed revisions.

The Estimated Cost of the Work includes the allowances listed in Exhibit E and each allowance notes whether the allowance covers furnish and delivery or furnish, delivery and installation. The Estimated Cost of the Work (but not the

Construction Manager's Contingency or Fee) is subject to increase to the extent Actual Cost for the Work covered by allowances ‹ceeds the amount set forth in Exhibit E.

The GMP Estimate Summary and Detail is attached as Exhibit A.

Alternates and VE Options Accepted by the Owner and incorporated in this agreement is attached as Exhibit B.

A Construction Budget is attached as Exhibit C.

The list of Permit Set Documents as issued by the Architect is attached as Exhibit D.

The list of Allowances included in the GMP is attached as Exhibit E.

The GMP is based upon Qualifications, Clarifications and Exclusions as listed in Exhibit F.

A Design Completion Schedule is attached as Exhibit G.

A Project Progress Schedule is attached as Exhibit H.

The Project Staff Plan is attached as Exhibit I.

The General Conditions Breakdown is attached as Exhibit J.

A Shop Drawing Approval Schedule is attached as Exhibit K.

The concurrence of the Architect to Exhibits G and K is attached as Exhibit L.

The RFI's upon which the GMP is based are attached as Exhibit M.

The Constructability Review which is not a part of this agreement or the GMP pricing is attached as Exhibit N.

Each of Exhibits A through M are part of this Proposed GMP Change Order and are incorporated herein by reference.

The Dates of Material and Final Completion and the Guaranteed Maximum Price are subject to adjustment in the manner provided by the Construction Management Agreement.

This offer is submitted as the proposed GMP Change Order pursuant to Article 4.1 of the Construction Management Agreement. The terms of the Construction Management Agreement are incorporated herein by reference.

The undersigned agrees that this proposed GMP Change Order, together with the Notice of Acceptance, shall constitute an amendment to the Construction Management Agreement for the performance by the undersigned of the Work for the above-stated compensation in accordance with the Project Progress Schedule and within the time specified for the Dates of Substantial and Final Completion in accordance with the Contract Documents and shall constitute an amendment to the Construction Management Agreement by Change Order, if approved and agreed upon by the Owner.

We have visited the Site and familiarized ourselves with the conditions under which the Work described in the Contract Documents is to be performed and correlated our observations with the requirements of the Contract Documents, including the requirements set forth in Exhibit D.

DATED: May 27, 2009.

RECOMMENDED FOR OWNER'S ACCEPTANCE:

DAVID L. ANDREWS

Supervising Architect – Pierce Goodwin Alexander & Linville

By:

Douglas R. Combes
Sr. Vice President

Construction Manager – JE Dunn South Central, Inc.

By: _____

Donald G. Brady
Director, Fort Bend County Facilities Management and Planning

_____

APPROVED:

Owner
County of Fort Bend Commissioners Court

BY: _____ June 2, 2009
Robert E. Hebert, County Judge

ATTEST

BY: _____
Dianne Wilson, County Clerk

Date: 6-2-09

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in an amount not to exceed $ 58,485,991, plus $_____ in Reimbursable Expenses, to accomplish and pay the obligation of Fort Bend County in the foregoing matter.

_____
Robert Ed Sturdivant, County Auditor

Ft. Bend County Justice Center

FINAL GMP
May 26, 2009

Table of Contents

Project: **Fort Bend County Justice Center**
City: **Richmond, TX**

Exhibit A
Estimate Detail

5/27/09

CostCode	Description	Sub Name	Final GMP total	Comments
01000	**General Conditions**	GC	4,095,014	
01099	**Cleanup**	JE Dunn Self-Perform	713,963	
02220	**Selective Demolition**	JE Dunn Self-Perform	10,570	
02250	Crib/Shtpls/Underpinning	Schnabel	885,630	
02300	Earthwork	Schramme	1,254,342	
02360	Soil Treatment	Bugtime	5,955	
02399	**Traffic Control**	JE Dunn Self-Perform	39,926	
02399	Erosion Control	Environmental Allies	21,195	
02500	Site Utilities	Schramme	638,633	
02740	Asphalt	Hayden	27,421	
02760	Pavement Marking	Rows and Rows	8,035	
02820	Fences & Gates	Astro Fence	97,524	
02900	Landscaping	Pampered Lawns	267,038	
02999	Tunnel Sod at existing Jail	Pampered Lawns	3,217	
03300	**Cast-In-Place Concrete**	JE Dunn Self-Perform	9,134,074	
03400	Precast Concrete	Not Applicable	0	
03999	**Hoisting for Tunnel work**	JE Dunn Self-Perform	203,000	
04200	Unit Masonry	Lucia	3,204,600	
05099	Steel Erection	Empire	768,491	
05100	Struct Mtl Framing	Sanco LTD / Southern	1,590,971	
05700	Ornamental Metal	Hoffa Inc.	56,580	
06199	**Misc-Rough Carpentry**	JE Dunn Self-Perform	625,427	
06220	SubC-Millwork	Howard McKinney	3,312,524	
07100	Waterproofing	Chamberlin	1,069,832	
07255	Spray Fireproofing	Fireproof Contractors	277,243	
07500	Membrane Roofing	Chamberlin	1,338,016	
08100	SubC-Mtl Door Supl (& Frames)	American Door/Versatrack	924,071	
08330	Coiling Doors	Holliday Door	34,626	
08400	Glass & Glazing	Admiral	766,582	
08600	Skylights	United Skys	153,086	
09200	Lath & Plaster	Baker Triangle	16,680	
09250	Gypsum Drywall	Baker	2,233,922	
09300	Tile	Sigma	266,993	
09399	Stone Countertops	Commercial Stone Group	240,061	
09400	Terrazzo	National Terrazzo	182,379	

Project: **Fort Bend County Justice Center**
City: **Richmond, TX**

Exhibit A
Estimate Detail

5/27/09

CostCode	Description	Sub Name	Final GMP total	Comments
09510	Acoustical Ceiling	Applied Finishes	479,366	
09650	Resilient Flooring	Architectural Floors	839,615	
09670	Polished Concrete	API	28,164	
09699	Access Flooring	Allied Interiors	55,789	
09900	Painting&Wall Cvr	R&M	515,143	
10160	Toilet Compartments	PBJ Specialties	21,950	
10199	**Specialties Installation**	JE Dunn Self-Perform	17,678	
10199	Tower Clock	Verdin Company	20,115	
10200	Louvers & Vents	Nystrom	13,380	
10350	Flagpoles	Kronberg's	6,755	
10440	Interior Signs	Intex United	231,880	
10500	Lockers	Longhorn	8,016	
10520	Fire Prot. Specialties	PBJ Specialties	13,821	
10538	Canopies	Avadek	57,716	
10670	Stair Nosings	Specialized Building Systems	25,060	
10800	Toilet and Bath Accessories	PBJ Specialties	47,266	
	Electronic Projection Screens	PBJ Specialties	62,730	
11161	Dock Levelers	Overhead Door	5,100	
11190	Detention Equipment	CCC Group Inc.	867,300	
11400	Food Service Equipment	Preferred Food Service	102,560	
12510	Blinds and Shades	Windo-Shade	14,835	
13199	Electronic Security	Metroplex Control Systems	1,698,366	
13199	Dome Structure	McCarty	265,000	
14200	Elevators	Schindler	1,194,457	
14999	Wheelchair Lifts	Home Elevator	304,062	
15300	Fire Protection	SAFE / Standard	652,297	
15400	Plumbing	Kilgore	1,423,630	
15500	HVAC	Graves	5,556,869	
16000	Electrical	E3	5,673,579	
16199	Telecom	ieSmartSystems	585,425	
30200	Design Contingency		500,000	
35000	CM Contingency		500,000	
	Addendum 1 Allowance for Various Subs		218,000	

Project: **Fort Bend County Justice Center**
City: **Richmond, TX**

Exhibit A
Estimate Detail

5/27/09

CostCode	Description	Sub Name	Final GMP total	Comments
	Subguard/Sub Bonds @ 1.25%		595,541	As a cost of the work, this includes a lump sum amount based on 1.25% for Subguard in lieu of approximately 1.5% for sub bonds. Bond Costs removed from above line items.
	Additional Preconstruction Costs		93,978	As a cost of the work, this includes 3 months of additional preconstruction for period beyond 2/20/09 Draft GMP for additional estimating costs.
		Sub-Totals	57,163,066	
		Fee	1,629,147	
		Deduct CM fee on JE Dunn Self-Perform work	-306,222	
			58,485,991	
			58,485,991	

Fort Bend County Justice Center Final GMP	5/27/09	
2/20/09 Draft GMP - Total Costs including Site, Courthouse, Tunnel and Garage for 1/5/09 Documents	$57,939,652	
Owner Alternates incorporated into the 3/30/09 Documents:		
Alt # 3 - Landscaping and Hardscape Sidewalks to North Side of Ring Road	$88,190	Alternate included in Final GMP Documents with Changes to scope noted below
Alt # 4 - Provide Concrete Parking area at North Side of Ring Road	$196,320	Alternate included in Final GMP Documents with Changes to scope noted below
JE Dunn Alternates incorporated into the 3/30/09 Documents:		
Alt # 6 - Trees and Lawns within Right of Way of Ring Road	$0	Deleted by Owner during 5/1/09 review of Final GMP Draft
JE Dunn Value Engineering incorporated into 3/30/09 Documents:		
Delete Epoxy grout for tile except at Cafeteria and Basement Level Showers	$0	Deleted by Owner during 5/1/09 review of Final GMP Draft
Eliminate Cooling Tower Basin Heaters	($10,609)	
Delete requirement to center Sprinkler Heads	($56,516)	VE pricing adjusted below for Courtrooms and Lobby
Delete Parking Garage and associated work	($2,630,574)	Pricing adjusted below based on scope meeting with Owner's D/B Garage contractor
USG Eclipse with USG DX grid in lieu of Armstrong Cirrus with Armstrong Prelude XL grid	($50,100)	
Change Elevators # 1 & 2 from Traction to Hydraulic	($77,050)	
Install Semi-Recessed Sprinkler Heads in lieu of Concealed Heads at certain areas	($10,000)	VE pricing adjusted below based on scope
Paint Central Plant Chilled Water Piping	$6,200	
Allow 2" Thermax sheet exterior Duct Insulation in lieu of Phenolic	($70,000)	
Allow Blanket Wrap Insulation at lateral Roof Drains in lieu of "hard" Insulation	($16,000)	
Total Costs for 2/20/09 GMP based on submitted costs	**$55,309,513**	
3/30/09 Final GMP - Scope Changes between 2/20/09 GMP and 3/30/09 Documents		
Increase CM & Design Contingency each from $200K to $500K each	$600,000	Per Owner Request
Additional Scope for Garage per 4/7/09 Spreadsheet	$135,468	
Add 4th Level Garage Security not included in 4/7/09 Spreadsheet	$24,701	
3 months of additional Pre-Construction costs from Draft GMP to Final GMP	$93,978	
Earthwork and Utilities		
North Side of Ring Road Changes	$21,726	
North Side of Garage Changes	$4,794	
Natural Gas Line & Meter at Courthouse Site	$6,688	
Natural Gas Line at Existing Jail/Tunnel	$20,000	Allowance for Gas Line, Demo and Rework to surface Landcape & Hardscape - Gas line routing is not shown

Temp Pump for Sanitary Sewer tie-in at Ransom Road	$21,730	
Garage Pad Fill - Cut from Basement and compacted by Others	($19,030)	
Stabilized Fill at Retaining Wall Footings	$0	Deleted by Architect per 5/8/09 Email
Piping from French Drain piping to Base Drain W'proofing connectors and sump pumps	$14,214	
Delete temporary detour road and use Ring Road for detour during tunnel work at Ransom Rd	($50,000)	Offered as VE to Owner on 5/14/09
Erosion Control		
North Side of Ring Road Changes	$1,520	
Pavement Markings	$60	
Landscaping & Irrigation		
Changes per Plans	$25,009	
North Side of Ring Road Changes	$9,689	
North Side of Ring Road Changes - Site Furnishings	($3,140)	
Relocate Trees as Noted	$0	Trees to be relocated by Owner as discussed during 5/1/09 review of Final GMP Draft
Irrigation at the South, West and North sides of the Garage	$5,640	Not shown on plans - Discussed during 5/26/09 review of Final GMP
Cast-In-Place Concrete		
Changes per Plans - Structural	$11,770	
Site Concrete changes including added sandblasting	$7,650	
Site Concrete - Added sidewalks and paving North of Ring Road	$39,284	
Relocation of Historical Marker at Exist. Jail (including new concrete pad)	$5,000	Allowance
Demo & Exp Joints - Ground Level at Tunnel Connection to Exist. Jail	$8,900	
Allowance for 24 each Pipe Bollards	$16,800	Not shown on plans - Discussed during 5/1/09 review of Final GMP Draft
Masonry		
Elevator & Mech Room Changes	$19,400	
Basement Level Changes	$23,000	
Basement Level Changes - Type Q CMU wall changed back to Type P CMU wall	($18,250)	Per Architect direction during 5/1/09 review of Final GMP Draft, excluding metal studs or drywall previously required at Type P.
Anchor Spec Changes	$47,000	
Structural Steel Fabrication & Erection		
Changes per Plans	$13,320	
Rough Carpentry		
Window Rough Opening blocking	$52,632	
Add Plywood behind added Zodiaq wainscot	$7,958	
Add Plywood behind Courtroom Monitors	$3,468	
Courtroom Platforms	$112,136	Remove from Millwork

Fort Bend County Justice Center Final GMP	5/27/09	
Millwork		
Courtroom Platforms	($123,910)	Moved to Rough Carpentry
Sculpture Cabinet (Not Detailed)	$5,200	Allowance
Flat paneling vs Raised paneling in Courtrooms	($8,270)	Needs to be further clarified
Wood Door Casing Changes	$25,522	
Security Desk and Entry Screening Changes	$11,417	
Lobby Columns wainscot changed from wood paneling to Zodiaq	($3,480)	
Lobby Information Desk Changes	$2,923	
Jury Assembly - Added Door and Window Casings; Workstation Upgrades	$15,330	
Courtrooms - Added wood treads and veneered risers at platforms	$5,483	
Waterproofing	$0	Allowance for Skin Constructability Review comments
Bentonite added at Structural changes	$5,916	
North Side of Ring Road Changes - Caulking	$1,275	
Additional SAF Details	$15,300	
Added Base Drain to the waterproofing system at the Basement and Tunnel Walls	$44,343	
Additional Security Sealants	$24,480	
Fireproofing & Spray Insulation		
Added Spray Insulation to Basement Walls around Conditioned Space	$55,802	
Color of Spray Insulation at Celing and Walls in Basement - Black vs. Tan	$0	Tan approved by Architect during 5/1/09 review of Final GMP Draft
Roofing		
Roofing at parapet walls carried from roof to coping flashing	$33,915	Not shown but needed - Not included in 2/20/09 Draft GMP
5 Year Roof and Wall Bond	$66,606	
Change Roofing sub to attain 5 Year Roof and Wall Bond	$70,167	
HM Doors & Frames, Wood Doors, Hardware - Furnish and Install		
Plan Changes	$24,812	
Overhead Doors	($1,662)	
Glass & Glazing		
Added Door Glass	$47,170	
Plaster		
Deleted Ext Plaster at backside of Clock Tower	($9,695)	
Drywall		
Misc Plan Changes	$32,246	
Tile		
Lath & Scratch Coat at Walls	$0	Deleted by Architect during 5/1/09 review of Final GMP Draft

Restrooms Changes - Cut tile base changed to Cove Base; Accents and Patterns added	$34,937	
Quarry Tile base added at Cafeteria	$1,675	
Material type changed at walls behind Judge's Bench	$10,934	
Stone & Solid Surface Countertops		
Lobby Columns wainscot changed from wood paneling to Zodiaq	$53,054	
Change S2 - Zodiaq Vela Brown to Silestone Coffee Brown	($17,916)	Includes changing lobby column wainscoting
S2 for Courtroom Tops changed to ST1 - Zodiaq Vela Brown to Zodiaq Rosso Verona	$11,973	
Acoustical		
Plan Changes	($24,255)	
Acoustical Wall Panels in Courtrooms	$171,195	Moved from Painting
Resilient Flooring		
Add Floor Patterns to MCT	$6,273	
Misc Flooring Changes	$22,012	
Painting - Plan Changes	$15,300	
Acoustical Wall Panels in Courtrooms	($171,195)	Moved to Acoustical
Access Floor - Added Jury Assembly Room	$1,893	
Specialties		
Lockers - Added	$516	
Fire Extinguishers and Cabinets	$3,583	
Updated requirements for Toilet Accessories	$2,346	
Added Electronic Projection Screens	$89,531	Includes structural supports not yet designed
Kynar finish on Architectural Louvers	$2,000	Added by Architect per 5/12/09 Email
Change flagpole sub and include signed and sealed calc's to meet 110 mph wind loading	$1,090	
Change surface mounted exterior stair nosings to cast-in-place	$2,275	
Detention Equipment		
Plan Changes	$15,504	
Steel Plate Detention Walls at Holding Cells	$9,690	Not specifed but needed - Not included in 2/20/09 Draft GMP
Detention Glass changes	$7,600	
Food Service Equipment	($22,552)	
Electronic Security		
Misc Changes	($18,147)	
Delete Plenum rated cable	($13,462)	Added Conduit noted below in Electrical
Add Endura/Pelco IP Based Security System	$262,204	
Security system equipment and upgrades at Exist Jail for tie-in to Tunnel	$27,319	
Elevators & Escalators		
Add control of Elevators 3, 5, 6, 7 & 8 from Security Control Room	$24,490	
Change Escalator steps from 24" to 40" width	$17,940	

Change Vertical Platform Lifts from hydraulic drive to screw drive system	($24,701)	Change approved by Architect per 5/12/09 Email
Fire Sprinkler		
Concealed Heads only at Jury Assembly and Courtrooms	$3,213	Adjusts VE pricing based on identified areas
Plumbing		
Misc Changes	$19,309	
HVAC		
Ductwork Changes at Basement	$40,024	
Ductwork Changes throughout the Building	$33,854	
Grilles, Damper and Fans Changes throughout the Building	$32,794	
Insulation Changes	$4,080	
Roof Piping Changes	$10,200	
York Equipment Changes VE	$0	Engineers rejected the VE Proposal
Test & Balance	($70,000)	Work to be contracted by the Owner as per 5/1/09 review of Final GMP Draft
Electrical		
Conduit for Electronic Security system	$76,646	Plenum rated cable deduct noted above in Security
One-Line Diagram Changes including adding Bussman Power Module Switches	$50,222	
Site Lighting Changes including SP & SR Fixtures + SQ Bollards	$109,889	
Lighting Changes throughout the Building	$37,689	
Power Changes throughout the Building	$18,507	
Courtroom Changes including power for added Projection Screens	$28,858	
IT/Comm Rm Changes including Starline Busway and Added Bus Power units	$24,061	
Fire Alarm System Changes	$13,791	
Raceways and associated work for all systems tied to the Tunnel from the Exist. Jail	**$50,000**	Allowance
Judges' Chambers Intercom System	$20,000	Allowance
Telecom		
Added Equipment Cabinets	$11,319	
Change Cable from Panduit to Belden	$15,009	
Patch Panel Inserts and other changed materials to Belden	$33,719	
Added Fiber Management Trough	$10,440	
Additional Comm Rm UPS Systems	$20,400	
Tunnel and Tunnel to Existing Jail Telecom not yet shown	$10,000	Allowance
MEP		
Constructability Review Allowance	$0	
Foundation and Structural Steel Supports for Cooling Towers and other Equipment	$38,415	Per WPM Sketch dated 5/7/09 and subsequent emails with PGAL

Fort Bend County Justice Center Final GMP	5/27/09	
4/20/09 Addendum # 1		
Structural & Architectural	$218,000	ALLOWANCE
Added Elevator Hoist Beams and Guide Rail supports		
Additional Steel Grating and Misc		
Lobby Ceiling Changes		
Waterproof Roof Pedestals w/SST flashing wrap around pipe columns		
Added "Skirt" at Metal Roof (A7.79)		
Other Structural & Architectural Changes not noted above		
Elevator Pit depth changes & Additional concrete beams	$21,500	
Overhead Doors - Deleted 14 each Int. Fire Doors	($117,730)	
Fire Sprinkler - Add additional Heads at Lobby	$8,177	Separate piping and valving not included; This is not indicated in the Documents as being required to satisfy code.
HVAC		
Smoke Evac System in Basement	$60,098	
Electrical		
Site Telecom Conduit Changes	$1,543	
Delete OH Fire Doors	($2,970)	
Smoke Evac System in Basement	$7,882	
5/21/09 Email from PGAL - Change Spec 0271500-2.1.A.1 & 0271500-2.2.B.1	($20,000)	Allowance
5/21/09 Email from PGAL regarding City of Richmond Public Works & Engineeering Comments		
Earthwork & Utilities changes	$105,000	Allowance
Paving changes	$21,930	
Sub-Total Scope Changes between 2/20/09 GMP and 3/30/09 Documents	$3,052,980	
Sub-Total Costs for 3/30/09 GMP Documents	$58,362,493	
Net General Conditions and Fee Adjustments	$123,498	
Total Costs for 3/30/09 GMP Documents	$58,485,991	

Fort Bend County Justice Center
Revisions to JE Dunn Parking Garage credit based on Garage Contractor's Scope

4/7/09

Security	Wiring from Courthouse to Garage	$72,320
	Wiring and Equipment in the Garage	IN ABV
	Garage contractor must have rough-in/conduit within the Garage	By Garage GC
Telecomm	Pull wire and connect to Garage contractor elevator controller	$6,240
Fire Sprinkler	Fire line from Central Plant to Garage	$12,500
	Garage contractor to provide gph needs for verification of CH pump size	By Garage GC
Electrical	Conduits for Power, Fire Alarm, Security and Telecom from Courthouse to Garage	$14,408
	Power and Fire Alarm wiring from Courthouse to Garage	IN ABV
	Tie-In Main power, Emergency power and Fire Alarm panels at Garage	IN ABV
	Remove temporary power service at Garage	IN ABV
	Temporary electric panel and service	By Garage GC
	Garage contractor to provide all rough-in, wiring and equipment for power, lighting and fire alarm	By Garage GC
	Garage contractor to verify equipment and loads conform with Courthouse design	By Garage GC
Sitework	Changes reflected on Final GMP drawings will be reflected in the Final GMP	N/A
	Removal of casting beds for tilt-up by Garage contractor	By Garage GC
Signage	Interior and Exterior (If applicable - No Ext. signage for Garage shown on Courthouse drawings)	By Garage GC
Touch Up	Paint Touch-Up upon turnover to County at Courthouse completion	5,000
	Final Clean / Pressure Wash upon turnover to County at Courthouse completion	25,000
	Sub-Total	135,468
	JE Dunn 2/20/09 GMP Deduct for Parking Garage	(2,630,574)
	Total Deduct for Parking Garage	**(2,495,106)**

*** This is based upon our best understanding of information provided during the 4/1/09 Coordination Meeting.
A preliminary civil plan was available but no other Garage design drawings were provided for review.

Exhibit B

Value Engineering and Alternates Accepted by Owner and included in GMP Pricing

Accepted Owner Requested Alternates

Alt # 3 - Landscaping and Hardscape Sidewalks to North Side of Ring Road

Alt # 4 - Provide Concrete Parking area at North Side of Ring Road

Accepted JE Dunn Alternates

None

Accepted JE Dunn Value Engineering

Eliminate Cooling Tower Basin Heaters

Delete requirement to center Sprinkler Heads

Delete Parking Garage and associated work

USG Eclipse with USG DX grid in lieu of Armstrong Cirrus with Armstrong Prelude XL grid

Change Elevators # 1 & 2 from Traction to Hydraulic

Install Semi-Recessed Sprinkler Heads in lieu of Concealed Heads at certain areas

Paint only Central Plant Chilled Water Piping

Allow 2" Thermax sheet exterior Duct Insulation in lieu of Phenolic

Allow Blanket Wrap Insulation at lateral Roof Drains in lieu of "hard" Insulation

EXHIBIT C
BUDGET FORMAT

GMP				
Division	Name	Units	Unit Cost	Cost
01	General Requirements			$ 1,621,484
02	Site Work			$ 3,259,486
03	Concrete			$ 9,337,074
04	Masonry			$ 3,204,600
05	Metals			$ 2,416,042
06	Woods & Plastics			$ 3,937,951
07	Thermal / Moisture Prot.			$ 2,685,091
08	Doors & Windows			$ 1,878,365
09	Finishes			$ 4,858,112
10	Specialties			$ 463,637
11	Equipment			$ 1,037,690
12	Furnishings			$ 14,835
13	Special Construction			$ 265,000
14	Conveying System			$ 1,498,519
15	Mechanical			$ 7,632,796
16	Electrical			$ 5,673,579
17	Security Electronics & Communications			$ 2,283,791
	General Conditions			$ 4,095,014
	Construction Contingency			$ 500,000
	Fee			$ 1,322,925
	Design Contingency			$ 500,000
Total Construction	Final GMP			$58,485,991
Owner's Disbursements	Preconstruction Agreement			$ 156,630
Subtotal				$58,642,621
Total Project				

Exhibit D

Contract Documents

1. Drawings as prepared by Pierce Goodwin Alexander & Linville (PGAL) (Architect) listed below.
2. Specifications as prepared by Pierce Goodwin Alexander & Linville (PGAL) (Architect), Volumes I and II, dated 3/30/09.
3. Signage and Graphics Program and Message Schedule as prepared by The Douglas Group and transmitted by Pierce Goodwin Alexander & Linville (PGAL) (Architect) dated 01/05/09.
4. JE Dunn Proposal Addendum No. 1 dated 01/15/09.
5. JE Dunn Proposal Addendum No. 2 dated 01/21/09.
6. JE Dunn Proposal Addendum No. 3 dated 01/27/09.

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C1.30	Existing Survey	12/08/08
C2.10	Site Layout Plan	3/30/09
C2.12	Horizontal Control Plan	3/30/09
C2.20	Clearing and Grubbing Plan	3/30/09
C2.30	Demolition Plan	3/30/09
C2.40	Site Grading Plan	3/30/09
C2.42	Enlarged Grading and Drainage Plan Main Entrance	3/30/09
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C2.46	Enlarged Flag Pole Area Site & Grading Plans	3/30/09
C2.48	Enlarged North Parking Plan	3/30/09
C2.50	Drainage Area Map Proposed Conditions	3/30/09
C2.52	Storm Drain Data Table	12/08/08
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C2.66	Plan & Profile Ransom Road Sanitary Sewer & Truck Dock Forcemain	3/30/09
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C2.71	Plan & Profile Ransom Road Sanitary Sewer	3/30/09
C2.72	Tunnel/Access Demolition Plan	3/30/09
C2.74	Tunnel/Access Improvement Plan	12/08/08
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C3.23	City of Richmond Detail R-3	12/08/08
C3.24	City of Richmond Detail R-4	12/08/08
C3.25	City of Richmond Detail R-5	12/08/08
C3.26	City of Richmond Detail R-6	12/08/08
C3.27	City of Richmond Detail R-7	12/08/08
C5.00	Overall Retaining Wall Layout	12/08/08
C5.01	Retaining Wall A Plan & Profile	12/08/08
C5.02	Retaining Wall A Typical Section	12/08/08
C5.03	Retaining Wall B Plan & Profile Sheet 1 of 2	12/08/08
C5.04	Retaining Wall B Plan & Profile Sheet 2 of 2	12/08/08
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C5.12	Misc. Details Sheet 2 of 3	12/08/08
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L3.00	Irrigation Mainline Plan	3/30/09
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S3.12	Building Elevations Steel and CMU Lintels	3/30/09
S3.13	Exterior Building Sections	3/30/09
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S5.11	Beam Schedule	3/30/09
S5.12	Beam Schedule	3/30/09
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S5.21	Post Tensioned Schedule	3/30/09
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SG0.00	Garage 3D View	1/5/09
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SG2.02A	Garage level 2 Framing Plan – Alternate #2	3/30/09
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SG4.01	Concrete Details	3/30/09
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A0.22	Finish Schedule	3/30/09
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ES2.03B	Level 3 Floor Plan "B"	3/30/09
ES2.04A	Lower Roof Plan "A"	3/30/09
ES2.04B	Lower Roof Plan "B"	3/30/09
ES2.06	Tunnel Level Floor Plan	3/30/09
ESG2.01	Garage 1st Level Floor Plan	3/30/09
ESG2.02	Garage 2nd Level Floor Plan	3/30/09
ESG2.03	Garage 34d Level Floor Plan	3/30/09
ESG2.04 ALT	Garage 4th Level Floor Plan	3/30/09
ES3.00	Enlarged Scale Floor Plans	3/30/09
ES3.01	Enlarged Scale Floor Plans	3/30/09
ES4.01	Detail Sheet	3/30/09
ES4.02	Detail Sheet	3/30/09
ES5.01	Video Surveillance System Diagram	3/30/09
ES5.02	Electronic Security System Block Diagram	3/30/09
ES5.03	Access Control System Diagram	3/30/09
T0.01	Communications Legend, Abbrev. & Symbols	3/30/09
T2.00	Communications Lower Floor Plan	3/30/09
T2.01	Communications First Floor Plan	3/30/09
T2.01A	Communications Enlarged First Floor Plan	3/30/09
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T2.01C	Communications Enlarged First Floor Plan	3/30/09
T2.02	Communications Second Floor Plan	3/30/09
T2.02A	Communications Enlarged Second Floor Plan	3/30/09
T2.02B	Communications Enlarged Second Floor Plan	3/30/09
T2.02C	Communications Enlarged Second Floor Plan	12/08/08
T2.03	Communications Third Floor Plan	3/30/09
T2.03A	Communications Enlarged Third Floor Plan	3/30/09
T2.03B	Communications Enlarged Third Floor Plan	3/30/09
T2.03C	Communications Enlarged Third Floor Plan	3/30/09
T3.01	Communications Enlarged Floor TR & MER Rooms	3/30/09
T3.01.1	Communications Enlarged Floor TR & MER Rooms	3/30/09
T4.01	Communications Outlet Elevations & Details	3/30/09
T5.01	Communications Single Line & Riser Diagrams	3/30/09
FS1.1	Foodservice Equipment Plan	3/30/09
FS1.2	Foodservice Plumbing Mechanical Plan	1/5/09
FS1.3	Foodservice Electrical Plan	1/5/09
FS2.1	Foodservice Equipment Elevations	3/30/09
FS3.1	Foodservice Equipment Details	1/5/09
EG1.00	Justice Center/County Jail Site Plan	1/5/09
EG2.00	Justice Center Lower Lever	1/5/09
EG2.01	Justice Center Floor 1	1/5/09
EG2.02	Justice Center Floor 2	1/5/09
EG2.03	Justice Center Floor 3	1/5/09
EG2.04	Justice Center Floor 4 (Roof)	1/5/09
EG2.06	Justice Center County Jail Tunnel Lower Level	12/08/08
EG2.07	County Jail Tunnel Grade	12/08/08
EGG2.01	Justice Center Garage Level 1 (Blue)	12/08/08
EGG2.02	Justice Center Garage Level 2 (Red)	12/08/08
EGG2.03	Justice Center Garage Level 3 (Green)	12/08/08
EGG2.04	Justice Center Garage Level 4 (Purple) (Roof)	12/08/08

Exhibit D

Contract Documents

Page	Description	Date
D1.00	Detention: Symbols, Terms Index	3/30/09
D1.01	Detention: Anchorage Details Setting Diagrams	3/30/09
D2.00	Lower Level Floor Plan	1/5/09
D2.00A	Lower Level Floor Plan	3/30/09
D2.00B	Lower Level Floor Plan	3/30/09
D2.00C	Lower Level Floor Plan	1/5/09
D2.01	Level 1 Floor Plan	12/08/08
D2.02	Level 2 Floor Plan	12/08/08
D2.03	Level 3 Floor Plan	12/08/08
D2.06	Detention Tunnel Floor Plans	3/30/09
D3.00	Detention: Door, Frame, WDW Elevations	3/30/09
D3.01	Detention: Details 1-19	12/08/08
D3.02	Detention: Details 20-38	12/08/08
D3.03	Detention: Details 39-57	12/08/08
D3.04	Detention: Details 58-78	12/08/08
D3.05	Detention: Details 79-99	12/08/08
D4.00	Detention: Furniture/Accessories	3/30/09

END OF CONTRACT DOCUMENTS LIST

JE DUNN CONSTRUCTION

FORT BEND COUNTY JUSTICE CENTER
Richmond, Texas

LIST OF ALLOWANCES
May 26, 2009

All allowances are included as lump sum allowances including Material, Labor, Installation, Storage, and Freight unless noted otherwise. The allowances carried are as follows:

a.	Monument Sign Foundations	$ 9,000
b.	Sign EXT.07 Foundations	$ 10,500
c.	Gas Line relocation at Tunnel (Including Landscape & Hardscape Demo & Rework	$ 20,000
d.	Hydro-excavation of utilities along Ransom Road.	$ 9,000
e.	Cab Finishes for Elevators 1 and 2	$ 60,000
f.	Relocation of Historical Marker at Existing Jail	$ 5,000
g.	24 each Pipe Bollards	$ 16,800
h.	Raceways and associated work for all systems tied to the Tunnel from Exist. Jail	$ 50,000
i.	Tunnel and Tunnel to Existing Jail Telecom not yet shown	$ 10,000
j.	Structural & Architectural changes included in Addendum 1, as noted in the Summary of Changes included in Exhibit A	$218,000
k.	Judges' Chambers Intercom System complete	$ 20,000
l.	Sculpture Cabinet at Lobby Level 1	$ 5,200
m.	Change Spec 271500 to Belden IBDN System 3600 & Belden Datatwist 3613 cable (in lieu of Belden System 4800 LX & Belden Gigaflex 4813LX cable)	$ (20,000)
n.	City of Richmond Public Works and Engineering Comments for earthwork and utilities per PGAL email dated 5/21/09	$105,000

JE DUNN CONSTRUCTION

FORT BEND COUNTY JUSTICE CENTER
Richmond, Texas

LIST OF QUALIFICATIONS AND CLARIFICATIONS
May 26, 2009

General Project Information

The Final GMP estimate is based on the following:

0.1 Construction Documents and RFI's attached to this GMP as Exhibits D & M.
0.2 Project consists of a new three story Justice Center plus basement level, detached Central Plant and new Tunnel from the existing Jail Building to the Justice Center.
0.3 Allowances are listed in Exhibit E.
0.4 Our price is based on working hours between 7 a.m. to 7 p.m. Monday thru Friday, with Saturdays being a make-up day for weather. Concrete pours and other work may require early morning or late evening hours beyond the normal hours. We will work with the Owner to keep them informed of work occurring before and after normal working hours.
0.5 With regards to the handicapped accessibility requirement of the Federal Fair Housing Act and other relevant provision of Texas Law, JE Dunn South Central, Inc. specifically excludes the responsibility to ascertain that the contract documents are in accordance with laws, codes, statutes, etc., and exclude any costs related to the lack of design compliance with the contract documents.
0.6 Our price is based on JE Dunn South Central, Inc. carrying a contractor controlled insurance program (CCIP) and providing insurance per our CCIP standard requirements.
0.7 Wind loads on S1.00 are assumed to be for the structure only. Wind loads and design pressure criteria for specific work is included, as defined within each specification.
0.8 We have included Subguard on subcontractors and material suppliers at a lump sum amount of $595,541 equaling approximately 1.25% of their contract value in lieu of individual subcontractor bonds at approximately 1.5%.
0.9 We will notify the Owner and the Architect of any code compliance issues actually found as they are recognized.
0.10 The GMP includes several categories of work that JE Dunn will be self-performing on a lump sum basis in accordance with the Agreement.

Our pricing excludes the following:

0.11 Provisions for air rights.
0.12 The responsibility for the documents to meet local, state, and federal codes (except for specific specifications requiring the contractor/subcontractor to submit an engineered design).
0.13 The cost for building permit expeditor.
0.14 Costs for and obtaining temporary and permanent utility easements.

0.15 Preconstruction costs included in Exhibit A of the Construction Management Agreement have not been included in the GMP and it is assumed any remaining balance of unpaid Preconstruction costs will be paid in full separate from this GMP. We have included 3 months of additional Preconstruction Costs ($93,978) for the time between our 2/20/09 Draft GMP and the anticipated start date of Early June 2009, based upon the work involved with pricing the new documents.

1. GENERAL CONDITIONS

1.1 This GMP pricing is valid until June 5, 2009 after which the pricing will need to be confirmed in order to be valid.

1.2 We anticipate the project taking 22 months to complete. This requires that building permits, construction documents and the notice to proceed are issued when required to allow the work to start as shown in our construction schedule on a continuous basis.

1.3 This GMP assumes JE Dunn will have use of all areas north of Ring Road between the new Tax Assessor's office and the existing Precinct One offices for use in material laydown, office and storage trailers, excavation stockpile, etc.

1.4 This GMP assumes JE Dunn will be allowed use of the access road west of the tunnel (adjoining the existing jail), a portion of the existing jail parking lot and the west entrance area of the existing jail during construction of the tunnel south of Ransom Road to facilitate excavation equipment, concrete trucks and placement, scaffolding for the above-grade connectors and other required staging. Use of this road will not be needed for the entire 22 month construction duration; The timing and duration of this use will be coordinated with the Owner.

1.5 The Guaranteed Maximum Price is for the total project only. Individual line item amounts are not guaranteed and may increase or decrease within the overall GMP as the project progresses.

1.6 We have included a design contingency of $500,000 to be used to cover the cost impact of scope or other changes required due to incomplete, erroneous or uncoordinated documents. The GMP does not include other funds or provisions to address these issues and the total scope and cost of the project will need to be maintained in order to maintain the GMP.

1.7 The GMP includes a construction contingency of $500,000 to be utilized by the Construction Manager with the Owner's approval for construction related issues as needed during the construction process. Issues for which this contingency may be used include, but are not limited to: expediting, temporary protection, overtime, shiftwork, scope gaps, subcontractor failures, low estimates, weather protection, escalation, cost overruns and other circumstances that may arise or that may not be quantifiable prior to creation of the GMP. This contingency is not intended to be used for changes in the scope of the work or to cover errors or omissions in the construction documents. Any contingency remaining at the conclusion of the project will be treated as savings and returned to the Owner in accordance with the contract.

1.8 We exclude redesign costs for Value Engineering. All accepted Value Engineering, Alternates or other changes shall be fully coordinated and incorporated into the For Construction documents by the Design Team.

1.9 All provisions requiring compensation from the Construction Manager to the Designers are excluded. The GMP assumes that CAD files for all contract documents will be provided to the Contractor and Subcontractors free of cost upon notice to proceed. It has been agreed that Subcontractors will sign the Architect's Release Agreement to obtain these files.

1.10 No Owner Furnished-Contractor Installed equipment is indicated or included. Also excluded is any installation of materials or work which may be supplied by vendors employed directly by the Owner.

1.11 Schedules of value shall be submitted for billing purposes only and shall not be used as a basis for change orders.

1.12 The GMP assumes the design team has coordinated the design to allow for proper fit and access for all work.

1.13 The GMP includes overhead coordination for construction incorporating Mechanical, Plumbing, HVAC and Electrical work on a single set of coordination drawings. These drawings will also indicate major architectural and structural features and access doors. The overhead coordination drawings shall be reviewed in an overhead coordination meeting which shall be attended by the general contractor, the MEP subcontractors, the Architect, the Engineer and the Owner. At the conclusion of the meeting all parties shall approve the overhead coordination drawings. Coordination drawings will incorporate the specified ceiling heights and required clearances to the extent practical. Other procedures for overhead coordination included in the documents are excluded.

1.14 The GMP includes temporary provisions in accordance with Section 01 50 00 only as applicable for JE Dunn use.

1.15 The GMP relies upon the plans and specifications as a complete and coordinated design. As construction manager, we have indicated any inconsistencies we discovered in the clarifications and/or constructability review comments. We rely on specifications to indicate type and quality of materials and drawings to indicate locations and quantities. In case of conflicts, the following precedence is assumed – Qualifications & Clarifications, CM at Risk Agreement dated 9/4/08, Specifications, Drawings. Specific details and enlarged plans supersede general plans. When specifications describe items that do not appear on the drawings these items are hereby excluded as inapplicable. References to intent and similar provisions shifting design responsibility are excluded as we are only able to ascertain the designer's intent to the extent it is reflected on clear coordinated documents.

1.16 The GMP includes corrections that have been made on the plans, specifications and addendums due to constructability comments but does not include provisions based upon constructability comments not yet corrected in the documents. Responses on the constructability review itself are considered for reference only as they would be impossible to adequately coordinate and communicate to all subcontractors and suppliers without corrected documents.

1.17 The GMP assumes that the Architect and Consultants have reviewed and found acceptable all of the listed manufacturers and or products included in the specifications and the documents have been coordinated to reflect any of these items.

1.18 All on-site testing will be paid for by the Owner, except those items specifically listed in Specification 014529-1.7G. All expedited cylinder breaks required to expedite the project shall be paid for by the Owner. Contractor shall be responsible for retesting costs due to fault of contractor for failure of initial tests. Contractor shall provide factory or historical materials testing as specified in the specific specification sections for particular products. All inspections or monitoring by special inspectors, geotechnical engineer and any other agencies shall be paid for by the Owner as specified in Specification 014529-1.4.A.

1.19 Colors selections shall be made prior to the project start. Color approvals shall be made upon receipt of all pertinent submittals, with the exterior approvals separate from the interior approvals.

1.20 RFI's responses shall be received within a reasonable time unless the schedule requires an expedited response. Normally this will be 3 days.

1.21 All submittal approval times shall be 14 calendar days beginning on the date sent by Contractor to Architect and ending on the date received back by Contractor from Architect. Contractor and Architect agree to expedite shipment of submittals to achieve this time frame. Architect, Consultants' & Owner's review shall be incorporated into one returned submittal by the Architect. Contractor and Architect shall work together to prioritize these so submittal times can be expedited or extended as needed.

1.22 The GMP assumes punchlists and partial occupancy will be performed by area to facilitate orderly inspection, turnover and occupancy of the project. The GMP is based on a 22 month construction schedule from notice to proceed to (substantial) material completion. This schedule will begin once the GMP is approved, For Construction documents are received, building permits are in place and a notice to proceed is received allowing construction to commence.

1.23 The GMP assumes the recommendations included in the Geotechnical Report have been evaluated and incorporated into the specifications to the extent appropriate by the Engineer.

1.24 Surveys, as required by the specifications, shall be submitted to Architect for review and recording by others.

1.25 The Garage is excluded. The Garage Contractor will partially excavate the basement level to an elevation no lower than 77.0 in any area, to utilize soils for the Garage pad. Any work associated with the Garage that will be performed by JE Dunn is defined in Exhibit A. The Coordination of the Garage design with the design for work included in this GMP shall be the responsibility of the Design/Build Garage Contractor and PGAL (and their consultants and engineers).

2. DEMOLITION

Our pricing excludes the following

2.1 Asbestos or hazardous materials removal.
2.2 Salvage for reuse or storage any demolished materials or plants/trees.
2.3 LEED Documentation of material disposal.
2.4 New or reworked precast panels at the connection between the Tunnel and the Existing Jail. It is assumed that the panels are sufficiently designed and installed to be cut for the new door opening and frame without rework or replacement of the existing precast panels or skin elements.

3. SITEWORK

Our pricing includes the following:

3.1 We have assumed that all excavations are suitable to use as structural and non-structural backfill. The specifications for the earthwork call for overexcavation & imported select fill and do not coincide with the geotechnical report which states that the onsite excavations can be used for backfill. We have included no overexcavation, import of select fill or stabilized sand.
3.2 We have assumed that the water table is at an elevation approximately 35 - 40 feet below existing grade based upon the geotechnical report. As a result we have assumed no groundwater dewatering or other subsurface systems will be required.
3.3 Water filled plastic traffic barriers will be used in lieu of concrete barriers.
3.4 Hydro-excavation to expose utilities in right of way at Ransom Road is included for utilities indicated in the Documents.
3.5 Shoring systems for the tunnel excavation will, in whole or in part, remain in place permanently. The shoring systems is a soldier pile and lagging system; The entire system will remain in place after construction, except the (approx.) top 4' of the piles will be removed.
3.6 The french drains at the Tunnel and Basement will be connected at approximately every 20' to the bentonite base drain system. The french drains for the tunnel will be connected to the sump pumps located at each end and at the midpoint of the tunnel. The french drain system for the Basement will be connected to the duplex pumps shown on Sheet P3.01. It is assumed that the design of the pumps is sufficient to provide proper drainage for these french drain systems and all other systems connected to the pumps.

Our pricing excludes the following:

3.7 The Storm drainage Trunk line south of Ring Road is by others. The GMP assumes this trunk line installation shall be completed prior to JE Dunn beginning mass excavation of the building basement areas or coordinated with JE Dunn to not impact the work. The curb inlets along and adjacent to either side of Ring Road are by others.
3.8 Permanent Dewatering systems.

3.9 Shoring or earth retention systems around the building basement walls (we have included shoring for portions of the tunnel excavation).
3.10 Imported select fill; GMP pricing assumes suitable back fill material for grading, walls, foundations, slabs and all other areas shall be available from on-site excavations as per the Soils Report.
3.11 Lime and/or cement stabilized fill material at any areas except under the paving areas as shown. We have not included stabilized fill at any other foundations or slabs based upon reusing suitable backfill material from onsite excavations.
3.12 Contaminated soil excavation and haul off.
3.13 Removal of unsuitable soils or rock, and any other structures or utilities unless specifically identified in the documents.
3.14 Sidewalk at either side of the perimeter of Ring Road (noted to be by others).
3.15 Dumpster enclosures as none are shown.
3.16 Tap fees to be paid by Owner.
3.17 Site retaining walls subdrainage, underslab subdrainage, landscaping subdrainage or plaza deck subdrainage as none is shown in the drawings.
3.18 Termite treatment under the garage, tunnel and entry.
3.19 Water meter on the fire line.
3.20 Temporary Detour Road for work affecting Ransom Road. Ring Road shall be used as a temporary detour road.
3.21 Engineering and costs for a new traffic plan associated with using Ring Road as the temporary detour road.

4. LANDSCAPING

Our pricing includes the following:

4.1 Existing soil to be used for topsoil.

Our pricing excludes the following:

4.2 Trees and Lawns within the Right of Way of Ring Road. This includes all landscaping and irrigation between the sidewalks and Ring Road and along the west side of the existing detention pond.
4.3 Relocation of trees shall be by others.

5. CONCRETE WORK

Our pricing includes the following:

5.1 Allowance for Monument Sign Foundation of $9,000 (2 EA at $4,500.)
5.2 Allowance for sign type EXT.07 foundation of $10,500 (7 EA at $1,500.)

5.3 Allowance of $5,000 for relocation of and new pad for the Historical Marker approximately located at the corner of Ransom Road and the west driveway adjacent to the existing Jail building.
5.4 Pan slab soffits shall have a Class "D" finish, except at areas exposed to public view which shall receive a Class "C" finish.
5.5 All vertical wall surfaces will have a class "B" finish.
5.6 PT system for the building shall be an encapsulated system.
5.7 Reference Detail 7, 7A/S3.07 and the associated notes - Beam 2 & 4 shall be designed to be self-supporting so as not to require backshoring. Formwork for these beams shall be stripped and shored based on the same requirements as other portions of the elevated slabs. Beam 3 (Pour strip) shall be a Non PT beam as shown on 3/S3.07.

Our pricing excludes the following:

5.7 Precast Stairs at front entry plaza. We have included the plaza and steps as cast-in-place.
5.8 Concrete Testing by Owner.

6. MASONRY

Our pricing includes the following:

6.1 Water-repellant mortar admixture at CMU specified to receive integral water repellant.
6.2 CMU walls in the basement noted as Type P shall be changed back to Type Q as shown on the 1/05/09 Permit Documents, except the metal studs and drywall at the Type Q partitions are not included.

Our pricing excludes the following:

6.3 Masonry Sealer – This spec duplicates Water Repellants specified in Division 7 (which is included in our GMP).

7. STRUCTURAL STEEL/STEEL FABRICATIONS

Our pricing includes the following:

7.1 Cast-in-place exterior stair nosings at locations shown to receive nosings. Interior nosings shall be integral with the metal pan stairs.

Our pricing excludes the following:

7.2 AISC or City of Houston certifications for fabricators or erectors. No proposals were received from subs or vendors with these certifications.

8. ORNAMENTAL METAL

Our pricing includes the following

8.1 24 each Pipe bollards as an Allowance of $16,800.

9. ROUGH CARPENTRY

Our pricing includes the following:

9.1 Blocking as shown.
9.2 All plywood backing as shown.
9.3 Blocking behind the courtroom monitors that is not shown.

10. FINISH CARPENTRY

Our pricing includes the following:

10.1 All cabinets and countertops that have not been labeled as wood, stone or solid surface were priced as plastic laminate.
10.2 The millwork sculptured cabinet at the 1st Lobby level is included as an Allowance of $5,200.

11. ARCHITECTURAL WOODWORK

Our pricing includes the following:

11.1 Judges benches were priced with bullet resistant material directly in front of the Judge's bench at the section parallel to the courtroom only (approx. 4'-5" length).

12. BUILDING INSULATION

Our pricing includes the following:

12.1 K-13 Sprayed insulation at the underside of the Level 1 courthouse slabs and beams (above unoccupied space) and the walls in the basement adjacent to conditioned spaces, as shown. Tan color is included.

13. WATERPROOFING

Our pricing includes the following:

13.1 40 mil self-adhered asphalt flashing as specified in Specification 042000. Specification 071311 SAF is not included, as this specification conflicts with 042000.
13.2 Silicone exterior caulking at shelf angles and control joints of cast stone.
13.3 Base drain system for bentonite waterproofing is included. Solid piping and sump pumps that would tie-in to this system are not designed or shown and are not included in the GMP.

Our pricing excludes:

13.4 Flood testing of bentonite waterproofing as this is not recommended by the manufacturer.
13.5 Caulking of cast stone-cast stone joints not associated with an exterior opening or control joint, per RFI response.
13.6 Site and exterior concrete sealants shall be 2 part, self-leveling urethane in lieu of specified non-sag silicone sealants, as previously agreed upon.

14. ROOFING

Exclusions:

14.1 Roof Hatches or roof access ladders – none shown.

15. FIREPROOFING

16. HOLLOW METAL DOORS AND FRAMES

17. WOOD DOORS

18. COILING DOORS

Our pricing includes the following:

18.1 Segmented view lites on the service doors at the Central Plant.

19. FINISH HARDWARE

Our pricing includes the following:

19.1 Specification 0871000 – 2.1.A.1 This specification pertains to Building Codes and Accessibility Statutes, of which the ability to comply with this specification depends upon the hardware selected by the Architect for all affected openings.

20. GLASS, GLAZING, STOREFRONT, AND SKYLIGHTS

Our pricing includes the following:

20.1 A skylight system by United Sky, proposed equal to the mfr's listed in the specifications.
20.2 Skylight dimensions and configurations are based on the structural drawings. We could find no dimensions for these on the Architectural drawings.
20.3 Segmented glass barrel vaults in lieu of bent glass per the RFI response.
20.4 Standard color two coat Kynar finish on all skylights. Non Exotic/ Non Metallic color to be selected.
20.5 A Pyrolylic Low E coating on skylight glass in the absence of any Low E performance data or product reference.
20.6 Vistawall storefront system in manufacturer's standard colors/finish.
20.7 1 (one) operable window at the south side of Level 2 for access to the adjacent lower roof.

21. DRYWALL

Our pricing includes the following:

21.1 Moisture resistant gypsum board as backer for ceramic tile at restrooms and Cementitious backer board at Basement Level shower walls.

22. CERAMIC & STONE TILE & TOPS

Our pricing includes the following:

22.1 Epoxy grout at all tile.
22.2 Threshold at doors are priced as a marble threshold.
22.3 Crack suppression membrane at all floor tile.
22.4 S2 Solid Surface specified on Sheet A0.23 is included as Silestone Coffee Brown.
22.5 ST1 Stone specified on Sheet A0.23 is included as Zodiaq Rosso Verona.

Our pricing excludes the following:

22.6 Responsibility for slip resistance of tile. The products are specified by the Architect and it is understood that the Architect has verified the selected products will meet the appropriate requirements.
22.7 Grout sealer not included since epoxy grout is included per 22.1 above.
22.8 Lath and scratch coat at wall tile.

23. **ACOUSTICAL CEILINGS**

24. **TERRAZZO FLOORS**

Our pricing includes the following:

24.1 We have assumed a design with 4 colors. We will work with the Architect to achieve an acceptable and workable pattern/design.

25. **RESILIENT TILE & BASE**

Our pricing includes the following:

25.1 MCT tile flooring per the finish schedule.
25.2 4" high rubber base per the finish schedule.

26. **CARPET AND FLOORING**

27. **PAINTING AND WALL FINISHES**

Our pricing excludes the following:

27.1 Field Painting MEP equipment or piping, except as noted under Section 40 of these Qualifications and Clarifications.
27.2 Responsibility for slip resistance of floor sealers. The Architect shall confirm products specified for concrete sealer and finish coat (Section 097950-3.2C) meet slip resistance requirements.

28. **SPECIAL WALL SURFACING**

29. **TOILET PARTITIONS**

Our pricing includes the following:

29.1 Pricing is based on all toilet partitions to be floor mounted per Note TA-09/A4.03, not ceiling hung per Spec section 102113-1 Section 1.2A.1. Specification was not changed in the Final GMP documents

30. **SIGNAGE**

Our pricing excludes the following:

30.1 DVD players or CPU units for the LCD monitors because the documents are not clear on who is to furnish these items.

31. **TOILET AND BATH ACCESSORIES**

32. **DETENTION EQUIPMENT**

33. **LOUVERS AND VENTS**

Our pricing includes the following:

33.1 Louvers to have a Kynar finish per the documents.

34. **ACCESS FLOOR**

Our pricing includes the following:

34.1 Carpet tiles to be furnished and installed by flooring subcontractor as opposed to being provided by access flooring subcontractor.
34.2 Responsibility for slip resistance of access flooring. The products are specified by the Architect and it is understood that the Architect has verified the selected products will meet the appropriate requirements.
34.3 TecCrete access flooring in lieu of ConCore by Tate Access Floors.

35. **EXTERIOR CLOCK**

36. **FLAGPOLES**

Our pricing includes the following:

36.1 Flagpoles are have a 30' exposure designed to meet 110 mph wind load.

37. **HORIZONTAL LOUVER BLINDS**

38. **ELEVATORS**

Our pricing includes the following:

38.1 A $60,000 interior upgrade allowance (total) for elevators 1 and 2. All other cabs are standard finish.
38.2 Schindler requires accelerated payment (example: 35% of $1,194,457 with order submittal). This GMP assumes the Owner will make this payment to JE Dunn who will in turn make payment to Schindler. This payment shall be for Engineering. Materials will not be billed until they are on-site.
38.3 Vertical platform lifts will utilize manufacturer's ACME standard screw drive power system in lieu of the specified hydraulic drive system.

Our pricing excludes the following:

38.4 Requirements, certifications or required inspection from the Texas Department of Licensing and Regulation approval per Rule 68.31 for wheelchair lifts. RFI responses indicate that it's anticipated that TDLR will waive any requirements not addressed or contrary to the specifications.

39. FIRE PROTECTION

Our pricing includes the following:
39.1 Fire Extinguisher types, labels and locations shall be as specified and shown by the Architect, in order to satisfy code requirements.

Our pricing excludes the following:

39.2 Painting of fire sprinkler piping and labeling beyond that required by NFPA #13.
39.3 Factory Mutual requirements.
39.4 FM-200 Systems.
39.5 Any sprinkler under the roof canopy.
39.6 Galvanized pipe on the sprinkler pre-action and dry systems.
39.7 Separate piping and valves for sprinkler heads at the Lobby, whereby Fire Doors were deleted.

40. HVAC

Our pricing includes the following:

40.1 Roof pipe supports to be per 5/M6.03 with bottom of pipe/duct at 24" above roof. This conflicts with Note 8 on M2.04 A&B.
40.2 Cooling Tower foundation and supports per Walter P. Moore design dated 5/7/09, transmitted by PGAL via Email.

Our pricing excludes the following:

40.3 Test and Balance shall be contracted by the Owner.
40.4 Painting of any piping, insulation or ductwork except finish paint of chilled water piping inside the Central Plant and primer coat on all other chilled water piping.
40.5 Heat tracing on any piping, exposed or otherwise.
40.6 Galvanic Protection on any piping.
40.7 Additional structural changes to the building frame in order to support equipment and piping.
40.8 Architectural louver fronting or backing the dampers above the catwalk and as indicated by note 2 on Drawings M2.04 A and B. (We do have architectural louvers on the Roof side of the Note 1 openings)
40.9 Commissioning.

41. PLUMBING

41.1 Additional structural changes to the building frame in order to support equipment and piping.

42. ELECTRICAL

Our pricing includes the following:

42.1 MC Cable is used in areas allowed by code.
42.2 An Allowance of $50,000 is included for Conduits, raceways and all associated work necessary to run these systems from the Tunnel to the required locations within the Existing Jail. This work is not designed.
42.3 An Allowance of $20,000 is included for the Judges' Chambers Intercom System.

Our pricing excludes the following:

42.2 Additional structural changes to the building frame in order to support equipment and piping.
42.3 Insect control fan referenced on E3.10, note 6. None found in the drawings. Final GMP documents have not deleted the E3.10 note.
42.4 Sound masking systems as none are shown.
42.5 Costs for permanent transformers and other Utilities provided equipment, if any.

43. AUDIO VISUAL SYSTEMS

Our pricing includes the following:

43.1 Projection screens in the Courtrooms as shown.

Our pricing excludes the following:

43.2 All tack boards, chalkboards, monitors, audio systems and other work shown but not specified. This work is assumed to be by Owner's vendors/subcontractors if required.

44. TECHNOLOGY ENGINEERING SYSTEMS

Our pricing includes the following:

44.1 Typical work area outlets will be as noted on T0.01 with 2 cable drops (one phone and one data). This note on T0.01 references back to Detail 6/T4.01, which shows two data and one phone outlet. We have 2 drops and outlets per the note on T0.01 and similar to 10/T4.01 with a phone vs. blank outlet.

Our pricing excludes the following:

44.2 Networking equipment, workstation devices, computers, terminals, telephones and similar equipment.

44.3 Innerduct as all coax and fiber optic cabling will have armored shielding.

44.4 4" Conduits shown on the Electrical "E" & Communications "T" drawings from the property lines to MER 10044 are assumed to be empty with pull strings for wiring and connections to be by others.

44.5 Any work or materials for the tunnel, garage, central plant, or site not shown. We have included no wiring or connections to or within the existing jail, if required.

44.6 New equipment at the existing Jail to support the systems shown for the Tunnel.

45. SECURITY

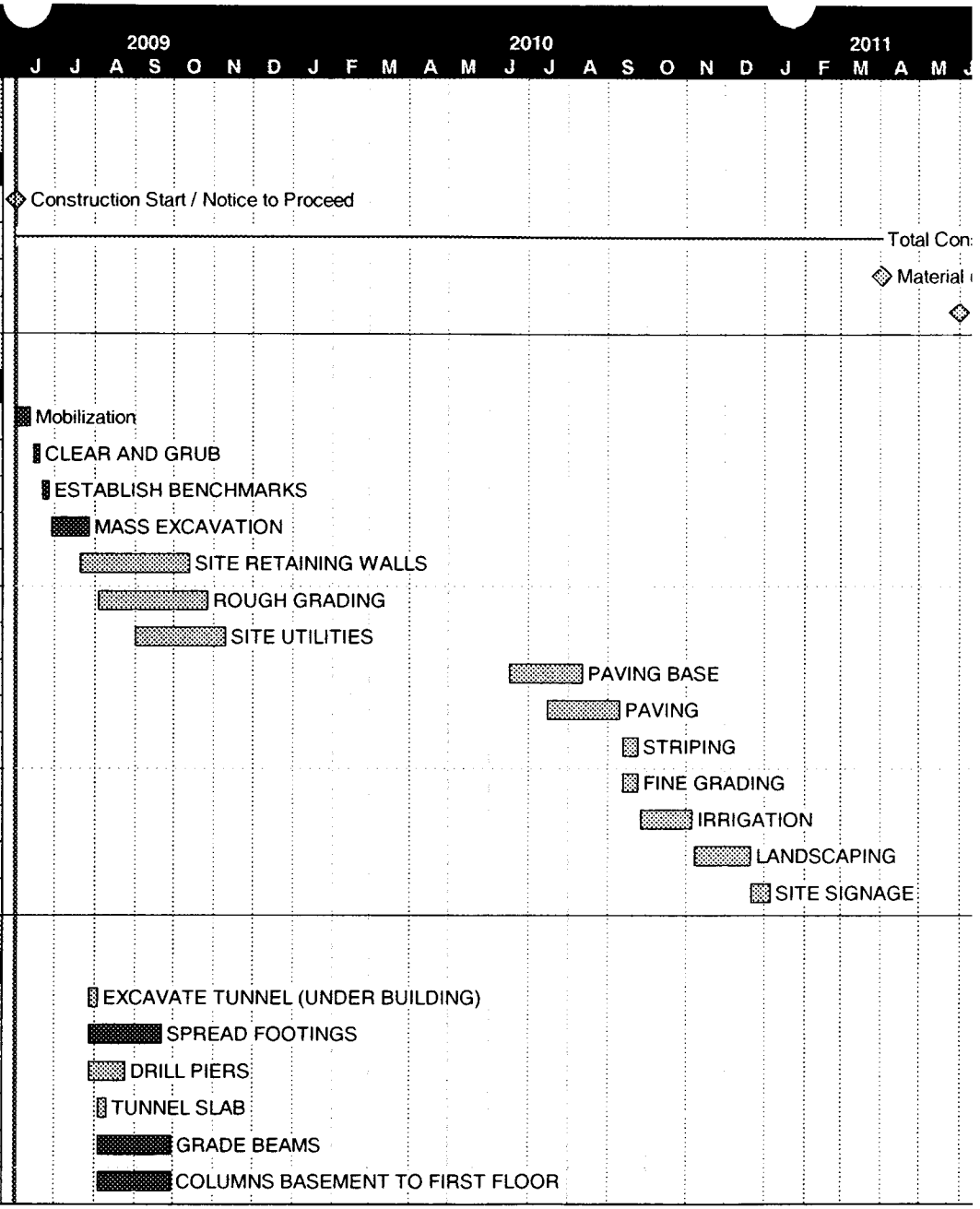
End of Qualifications and Clarifications

Exhibit G

Design Completion Schedule
Assuming a 6/1/09 NTP

Issuance of Final Addendum to Construction Documents	4/20/09
Submission of final Constructability/Design Review Comments	5/8/09
Design modifications due to Constructability/Design Review Comments	6/15/09
Issuance of final signage/graphics design	6/15/09
Initiation of 3rd Party Structural Peer Review (upon NTP)	6/1/09*
Completion of 3rd Party Structural Peer Review	6/29/09
Design Modifications due to 3rd party Peer Review (if required)	7/27/09

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
	Construction			
	General			
1280	Construction Start / Notice to Proceed	0	01JUN09 *	
1710	Total Construction Duration - CAL. DAYS	670 *	01JUN09	01APR11
1770	Material (Substantial) Completion	0		01APR11
1775	Final Completion	0		31MAY11
	Sitework			
1500	Mobilization	10	01JUN09	12JUN09
1720	CLEAR AND GRUB	5	15JUN09	19JUN09
1730	ESTABLISH BENCHMARKS	5	22JUN09	26JUN09
1735	MASS EXCAVATION	20	29JUN09	27JUL09
1736	SITE RETAINING WALLS	60	21JUL09	13OCT09
1740	ROUGH GRADING	60	04AUG09	27OCT09
1750	SITE UTILITIES	50	01SEP09	10NOV09
1760	PAVING BASE	40	17JUN10	12AUG10
1780	PAVING	40	16JUL10	10SEP10
1790	STRIPING	10	13SEP10	24SEP10
1800	FINE GRADING	10	13SEP10	24SEP10
1810	IRRIGATION	30	27SEP10	05NOV10
1820	LANDSCAPING	30	08NOV10	21DEC10
1840	SITE SIGNAGE	10	22DEC10	05JAN11
	Foundations			
2000	EXCAVATE TUNNEL (UNDER BUILDING)	5	28JUL09	03AUG09
2040	SPREAD FOOTINGS	40	28JUL09	22SEP09
2070	DRILL PIERS	20	28JUL09	24AUG09
2005	TUNNEL SLAB	5	04AUG09	10AUG09
2050	GRADE BEAMS	40	04AUG09	29SEP09
2100	COLUMNS BASEMENT TO FIRST FLOOR	40	04AUG09	29SEP09



Start date	01JUN09
Finish date	31MAY11
Data date	01JUN09
Run date	19MAY09
Page number	1A
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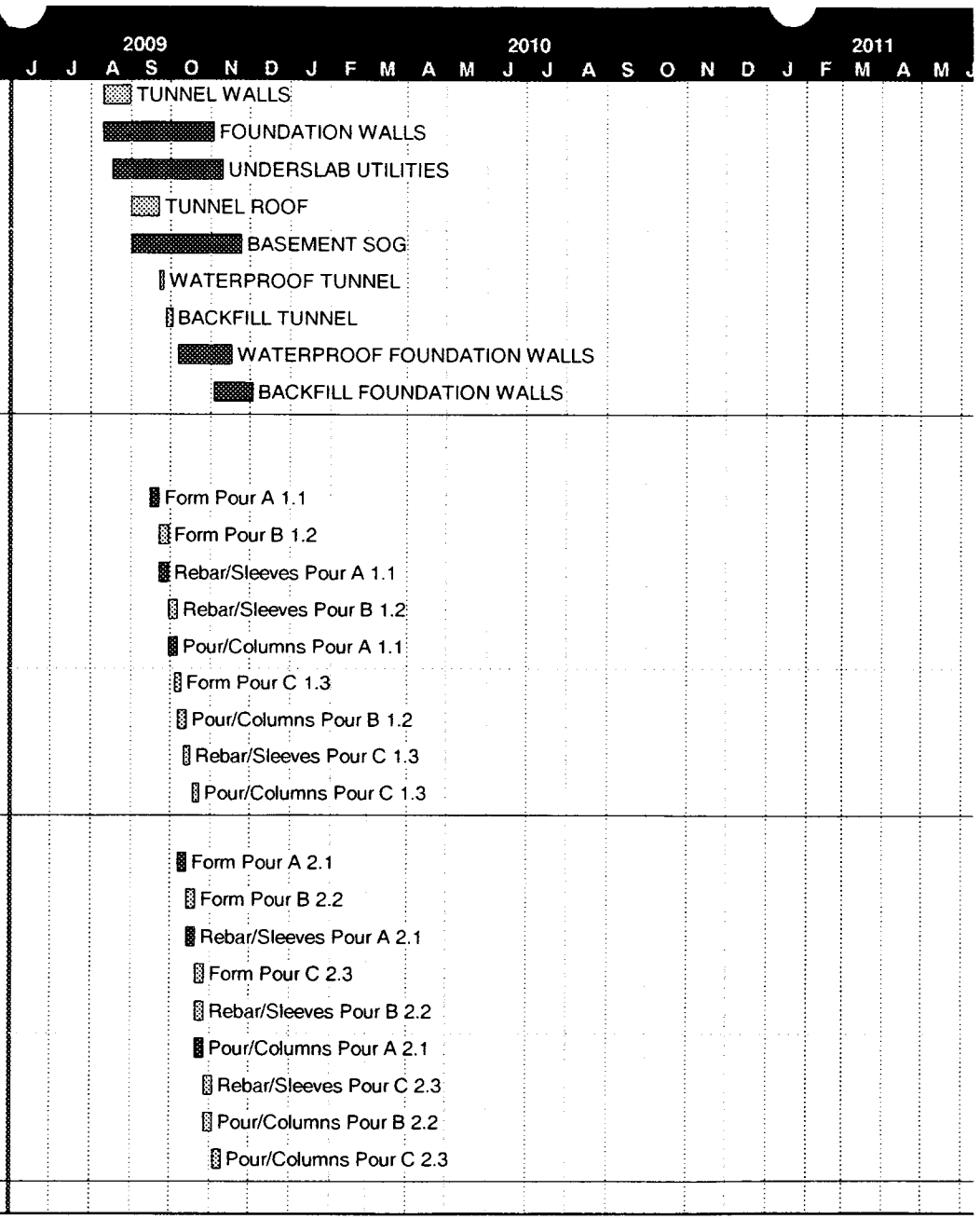
PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
2010	TUNNEL WALLS	15	11AUG09	31AUG09
2060	FOUNDATION WALLS	60	11AUG09	03NOV09
2080	UNDERSLAB UTILITIES	60	18AUG09	10NOV09
2030	TUNNEL ROOF	15	01SEP09	22SEP09
2090	BASEMENT SOG	60	01SEP09	24NOV09
2035	WATERPROOF TUNNEL	3	23SEP09	25SEP09
2036	BACKFILL TUNNEL	5	28SEP09	02OCT09
2120	WATERPROOF FOUNDATION WALLS	30	07OCT09	17NOV09
2130	BACKFILL FOUNDATION WALLS	20	04NOV09	03DEC09
Structure				
West 1st Floor				
3000	Form Pour A 1.1	5	16SEP09	22SEP09
3010	Form Pour B 1.2	5	23SEP09	29SEP09
3040	Rebar/Sleeves Pour A 1.1	5	23SEP09	29SEP09
3050	Rebar/Sleeves Pour B 1.2	5	30SEP09	06OCT09
3070	Pour/Columns Pour A 1.1	5	30SEP09	06OCT09
3020	Form Pour C 1.3	5	05OCT09	09OCT09
3080	Pour/Columns Pour B 1.2	5	07OCT09	13OCT09
3060	Rebar/Sleeves Pour C 1.3	5	12OCT09	16OCT09
3090	Pour/Columns Pour C 1.3	5	19OCT09	23OCT09
West 2nd Floor				
4000	Form Pour A 2.1	5	07OCT09	13OCT09
4010	Form Pour B 2.2	5	14OCT09	20OCT09
4030	Rebar/Sleeves Pour A 2.1	5	14OCT09	20OCT09
4020	Form Pour C 2.3	5	21OCT09	27OCT09
4040	Rebar/Sleeves Pour B 2.2	5	21OCT09	27OCT09
4060	Pour/Columns Pour A 2.1	5	21OCT09	27OCT09
4050	Rebar/Sleeves Pour C 2.3	5	28OCT09	03NOV09
4070	Pour/Columns Pour B 2.2	5	28OCT09	03NOV09
4080	Pour/Columns Pour C 2.3	5	04NOV09	10NOV09
West 3rd Floor				



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Finish date	31MAY11
Data date	01JUN09
Run date	19MAY09
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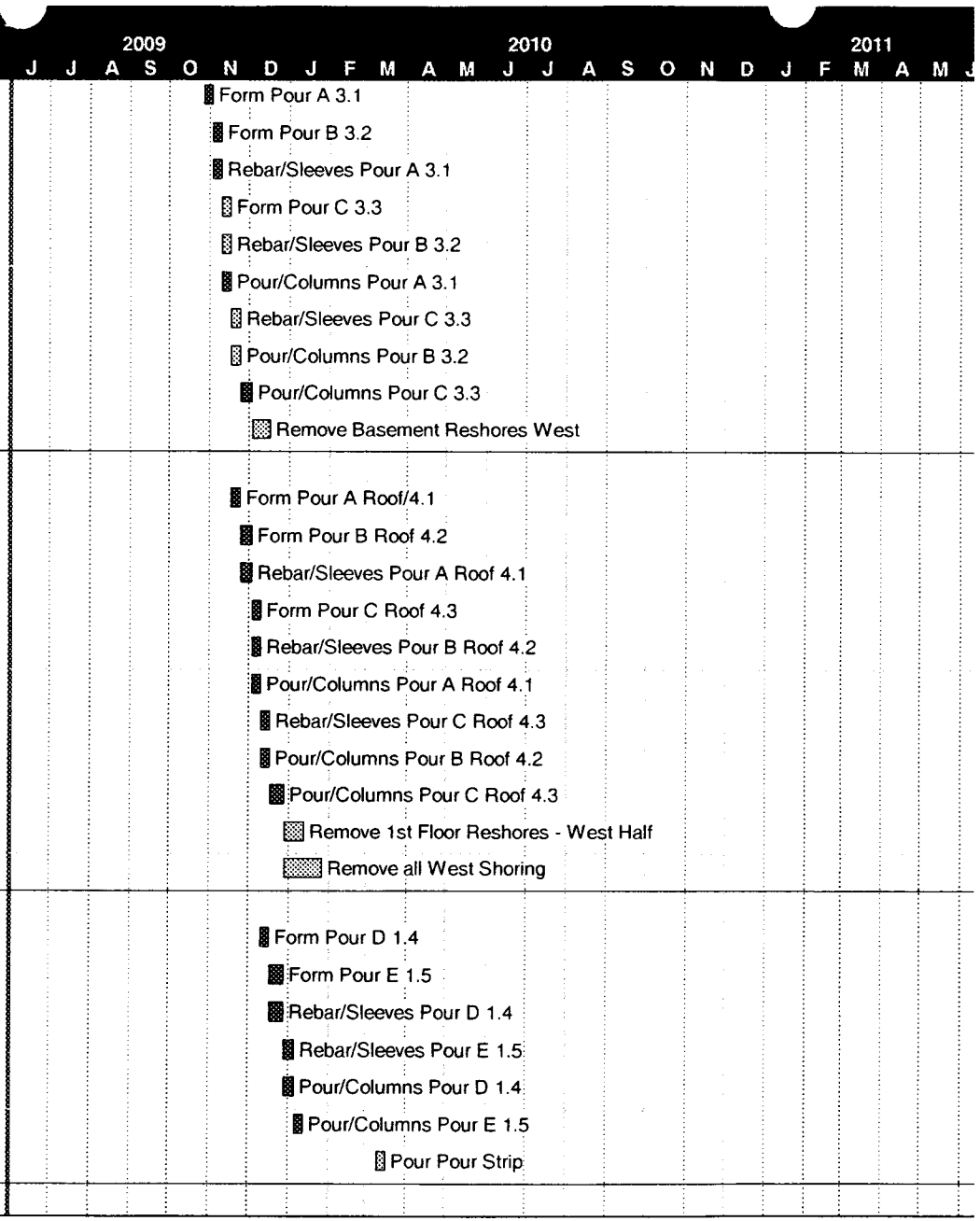
PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
5000	Form Pour A 3.1	5	28OCT09	03NOV09
5010	Form Pour B 3.2	5	04NOV09	10NOV09
5030	Rebar/Sleeves Pour A 3.1	5	04NOV09	10NOV09
5020	Form Pour C 3.3	5	11NOV09	17NOV09
5040	Rebar/Sleeves Pour B 3.2	5	11NOV09	17NOV09
5060	Pour/Columns Pour A 3.1	5	11NOV09	17NOV09
5050	Rebar/Sleeves Pour C 3.3	5	18NOV09	24NOV09
5070	Pour/Columns Pour B 3.2	5	18NOV09	24NOV09
5080	Pour/Columns Pour C 3.3	5	25NOV09	03DEC09
5090	Remove Basement Reshores West	10	04DEC09	17DEC09
West Roof				
6000	Form Pour A Roof/4.1	5	18NOV09	24NOV09
6010	Form Pour B Roof 4.2	5	25NOV09	03DEC09
6030	Rebar/Sleeves Pour A Roof 4.1	5	25NOV09	03DEC09
6020	Form Pour C Roof 4.3	5	04DEC09	10DEC09
6040	Rebar/Sleeves Pour B Roof 4.2	5	04DEC09	10DEC09
6060	Pour/Columns Pour A Roof 4.1	5	04DEC09	10DEC09
6050	Rebar/Sleeves Pour C Roof 4.3	5	11DEC09	17DEC09
6070	Pour/Columns Pour B Roof 4.2	5	11DEC09	17DEC09
6080	Pour/Columns Pour C Roof 4.3	5	18DEC09	28DEC09
6090	Remove 1st Floor Reshores - West Half	10	29DEC09	12JAN10
6100	Remove all West Shoring	20	29DEC09	26JAN10
East 1st Floor				
4500	Form Pour D 1.4	5	11DEC09	17DEC09
4510	Form Pour E 1.5	5	18DEC09	28DEC09
4530	Rebar/Sleeves Pour D 1.4	5	18DEC09	28DEC09
4540	Rebar/Sleeves Pour E 1.5	5	29DEC09	05JAN10
4560	Pour/Columns Pour D 1.4	5	29DEC09	05JAN10
4570	Pour/Columns Pour E 1.5	5	06JAN10	12JAN10
4580	Pour Pour Strip	5	10MAR10	16MAR10
East 2nd Floor				



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Run date	19MAY09
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Page count	14A
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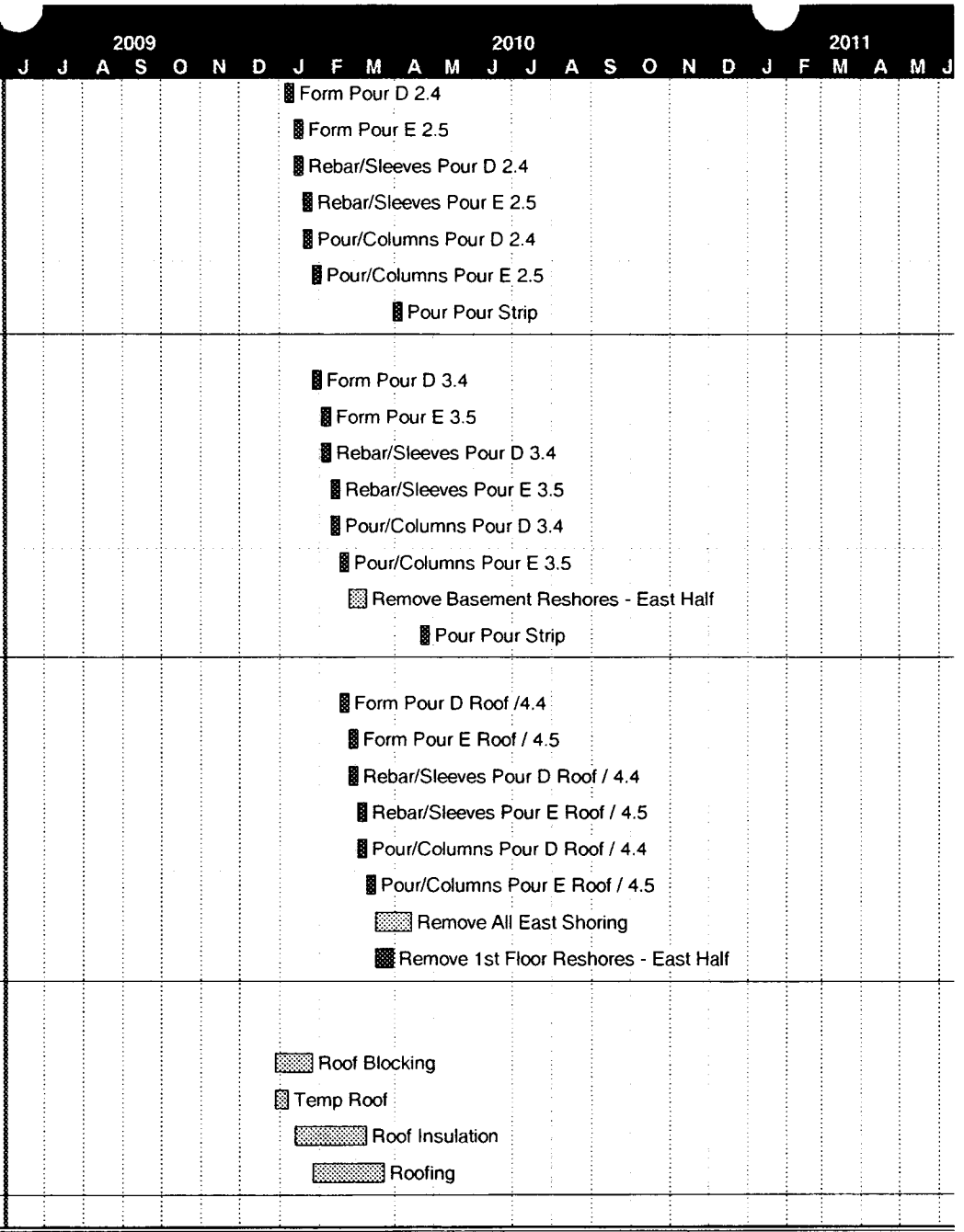
PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
5500	Form Pour D 2.4	5	06JAN10	12JAN10
5510	Form Pour E 2.5	5	13JAN10	19JAN10
5530	Rebar/Sleeves Pour D 2.4	5	13JAN10	19JAN10
5540	Rebar/Sleeves Pour E 2.5	5	20JAN10	26JAN10
5560	Pour/Columns Pour D 2.4	5	20JAN10	26JAN10
5570	Pour/Columns Pour E 2.5	5	27JAN10	02FEB10
5580	Pour Pour Strip	5	31MAR10	06APR10
East 3rd Floor				
6500	Form Pour D 3.4	5	27JAN10	02FEB10
6510	Form Pour E 3.5	5	03FEB10	09FEB10
6530	Rebar/Sleeves Pour D 3.4	5	03FEB10	09FEB10
6540	Rebar/Sleeves Pour E 3.5	5	10FEB10	16FEB10
6560	Pour/Columns Pour D 3.4	5	10FEB10	16FEB10
6570	Pour/Columns Pour E 3.5	5	17FEB10	23FEB10
6590	Remove Basement Reshores - East Half	10	24FEB10	09MAR10
6580	Pour Pour Strip	5	21APR10	27APR10
East Roof				
7500	Form Pour D Roof /4.4	5	17FEB10	23FEB10
7510	Form Pour E Roof / 4.5	5	24FEB10	02MAR10
7530	Rebar/Sleeves Pour D Roof / 4.4	5	24FEB10	02MAR10
7540	Rebar/Sleeves Pour E Roof / 4.5	5	03MAR10	09MAR10
7560	Pour/Columns Pour D Roof / 4.4	5	03MAR10	09MAR10
7570	Pour/Columns Pour E Roof / 4.5	5	10MAR10	16MAR10
7580	Remove All East Shoring	20	17MAR10	13APR10
7590	Remove 1st Floor Reshores - East Half	10	17MAR10	30MAR10
Enclosure				
West Roof				
9540	Roof Blocking	20	29DEC09	26JAN10
9550	Temp Roof	7	29DEC09	07JAN10
9560	Roof Insulation	40	13JAN10	09MAR10
9570	Roofing	40	27JAN10	23MAR10
East Roof				



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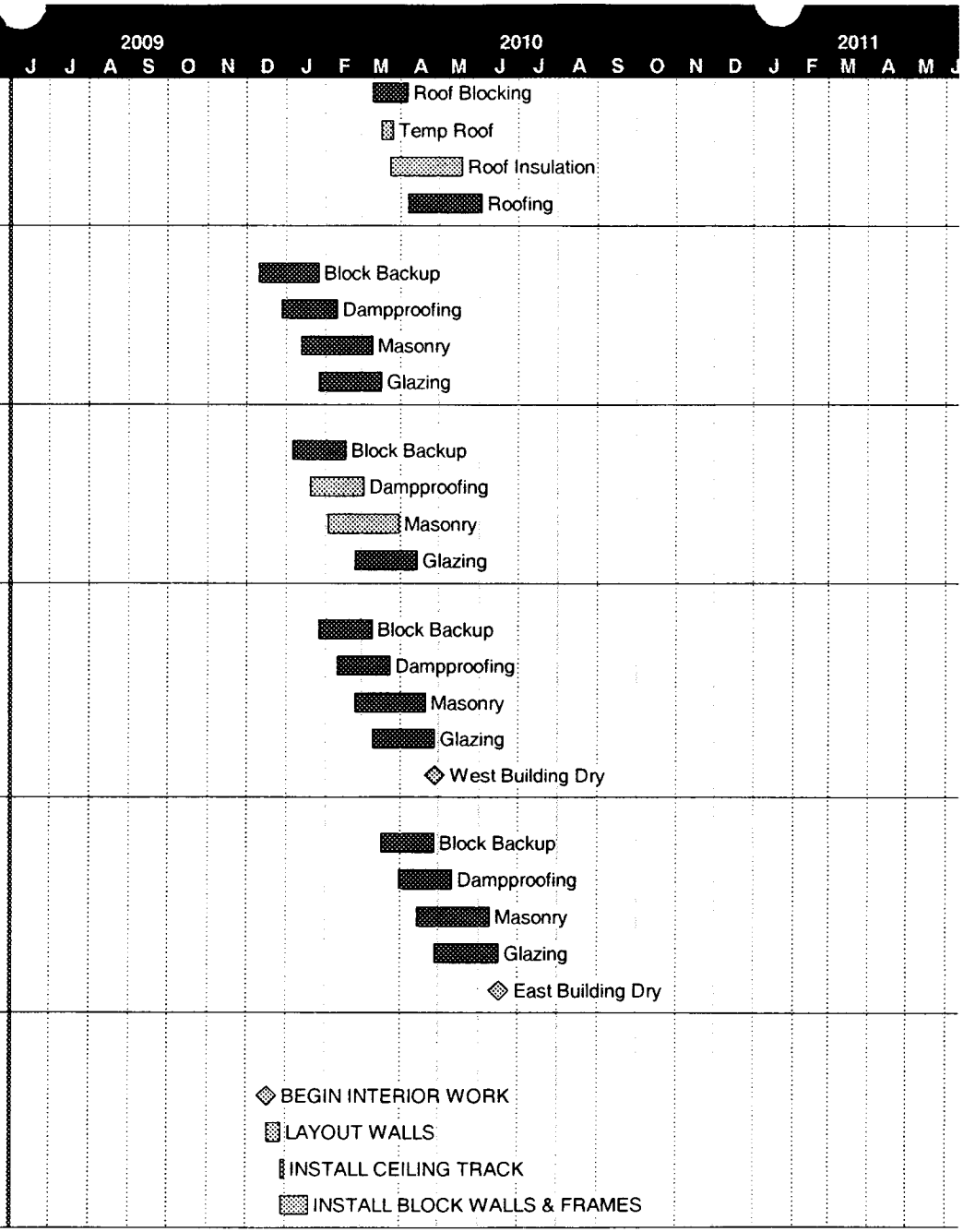
Page number	4A
Page count	14A

PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
9700	Roof Blocking	20	10MAR10	06APR10
9710	Temp Roof	7	17MAR10	25MAR10
9720	Roof Insulation	40	24MAR10	18MAY10
9730	Roofing	40	07APR10	02JUN10
West Elevation				
2140	Block Backup	30	11DEC09	26JAN10
2150	Dampproofing	30	29DEC09	09FEB10
2160	Masonry	40	13JAN10	09MAR10
2170	Glazing	35	27JAN10	16MAR10
South Elevation				
8000	Block Backup	30	06JAN10	16FEB10
8010	Dampproofing	30	20JAN10	02MAR10
8020	Masonry	40	03FEB10	30MAR10
8030	Glazing	35	24FEB10	13APR10
North Elevation				
9000	Block Backup	30	27JAN10	09MAR10
9010	Dampproofing	30	10FEB10	23MAR10
9020	Masonry	40	24FEB10	20APR10
9030	Glazing	35	10MAR10	27APR10
9040	West Building Dry	0		27APR10
East Elevation				
9500	Block Backup	30	17MAR10	27APR10
9510	Dampproofing	30	31MAR10	11MAY10
9520	Masonry	40	14APR10	09JUN10
9530	Glazing	35	28APR10	16JUN10
9580	East Building Dry	0		16JUN10
Interior				
Basement				
10000	BEGIN INTERIOR WORK	0	18DEC09	
10010	LAYOUT WALLS	5	18DEC09	28DEC09
10020	INSTALL CEILING TRACK	3	29DEC09	31DEC09
10030	INSTALL BLOCK WALLS & FRAMES	15	29DEC09	19JAN10



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Data date	01JUN09
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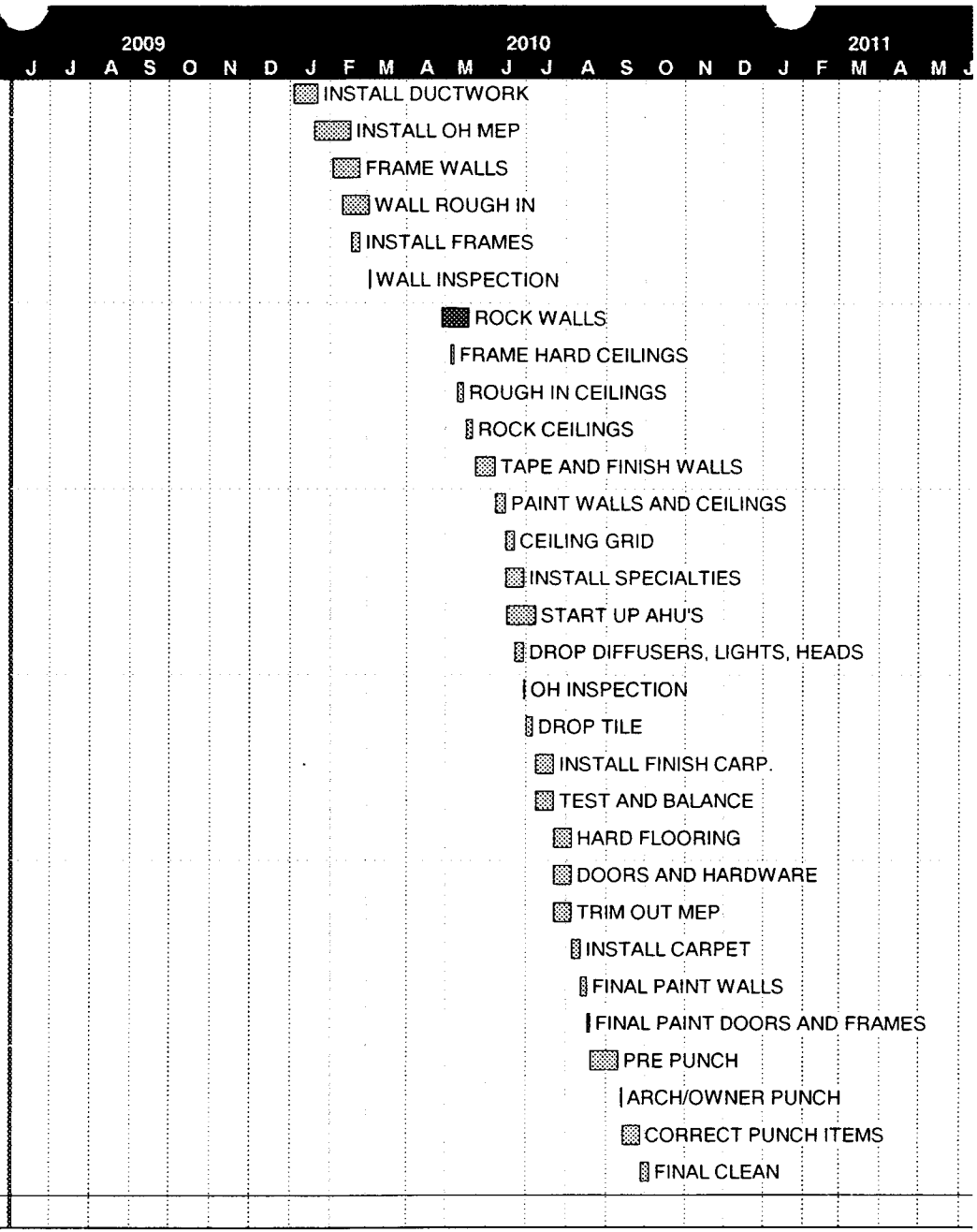
PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
- Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
10040	INSTALL DUCTWORK	15	04JAN10	22JAN10
10050	INSTALL OH MEP	20	20JAN10	16FEB10
10060	FRAME WALLS	15	03FEB10	23FEB10
10080	WALL ROUGH IN	15	10FEB10	02MAR10
10070	INSTALL FRAMES	5	17FEB10	23FEB10
10090	WALL INSPECTION	1	03MAR10	03MAR10
10100	ROCK WALLS	15	28APR10	18MAY10
10110	FRAME HARD CEILINGS	3	05MAY10	07MAY10
10120	ROUGH IN CEILINGS	5	10MAY10	14MAY10
10130	ROCK CEILINGS	5	17MAY10	21MAY10
10140	TAPE AND FINISH WALLS	10	24MAY10	07JUN10
10150	PAINT WALLS AND CEILINGS	6	08JUN10	15JUN10
10160	CEILING GRID	5	16JUN10	22JUN10
10180	INSTALL SPECIALTIES	10	16JUN10	29JUN10
10190	START UP AHU'S	15	17JUN10	08JUL10
10200	DROP DIFFUSERS, LIGHTS, HEADS	5	23JUN10	29JUN10
10210	OH INSPECTION	1	30JUN10	30JUN10
10250	DROP TILE	3	01JUL10	06JUL10
10170	INSTALL FINISH CARP.	10	09JUL10	22JUL10
10260	TEST AND BALANCE	10	09JUL10	22JUL10
10220	HARD FLOORING	10	23JUL10	05AUG10
10230	DOORS AND HARDWARE	10	23JUL10	05AUG10
10240	TRIM OUT MEP	10	23JUL10	05AUG10
10270	INSTALL CARPET	5	06AUG10	12AUG10
10280	FINAL PAINT WALLS	3	13AUG10	17AUG10
10290	FINAL PAINT DOORS AND FRAMES	2	18AUG10	19AUG10
10300	PRE PUNCH	15	20AUG10	10SEP10
10310	ARCH/OWNER PUNCH	1	13SEP10	13SEP10
10320	CORRECT PUNCH ITEMS	10	14SEP10	27SEP10
10330	FINAL CLEAN	5	28SEP10	04OCT10
1st Floor West Side				



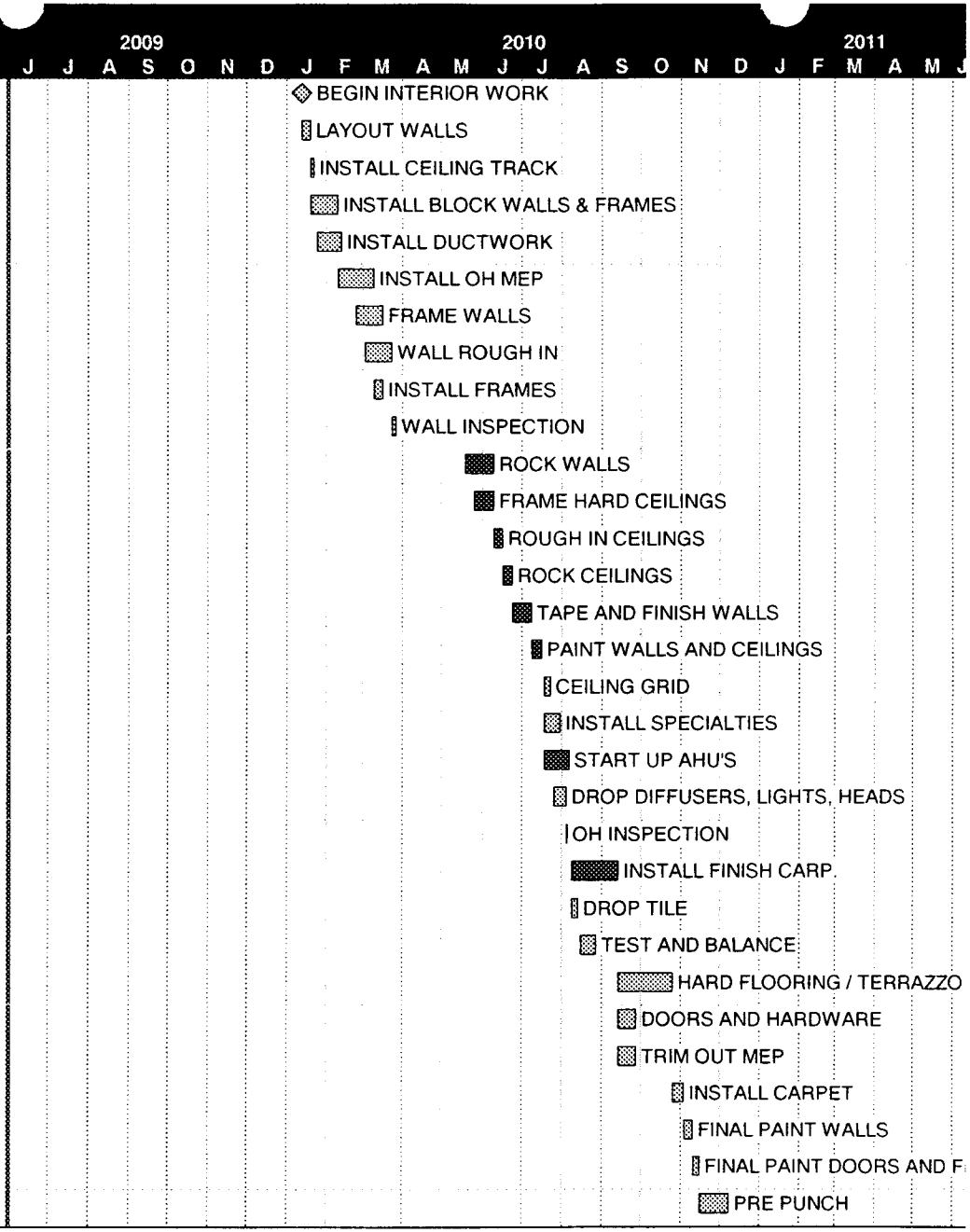
Start date	01JUN09
Finish date	31MAY11
Data date	01JUN09
Run date	19MAY09
Page number	6A
Page count	14A

PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
11000	BEGIN INTERIOR WORK	0	13JAN10	
11010	LAYOUT WALLS	5	13JAN10	19JAN10
11020	INSTALL CEILING TRACK	3	20JAN10	22JAN10
11030	INSTALL BLOCK WALLS & FRAMES	15	20JAN10	09FEB10
11040	INSTALL DUCTWORK	15	25JAN10	12FEB10
11050	INSTALL OH MEP	20	10FEB10	09MAR10
11060	FRAME WALLS	15	24FEB10	16MAR10
11080	WALL ROUGH IN	15	03MAR10	23MAR10
11070	INSTALL FRAMES	5	10MAR10	16MAR10
11090	WALL INSPECTION	3	24MAR10	26MAR10
11100	ROCK WALLS	15	19MAY10	09JUN10
11110	FRAME HARD CEILINGS	10	26MAY10	09JUN10
11120	ROUGH IN CEILINGS	5	10JUN10	16JUN10
11130	ROCK CEILINGS	5	17JUN10	23JUN10
11140	TAPE AND FINISH WALLS	10	24JUN10	08JUL10
11150	PAINT WALLS AND CEILINGS	6	09JUL10	16JUL10
11160	CEILING GRID	5	19JUL10	23JUL10
11180	INSTALL SPECIALTIES	10	19JUL10	30JUL10
11190	START UP AHU'S	15	19JUL10	06AUG10
11200	DROP DIFFUSERS, LIGHTS, HEADS	8	26JUL10	04AUG10
11210	OH INSPECTION	1	05AUG10	05AUG10
11170	INSTALL FINISH CARP.	25	09AUG10	13SEP10
11250	DROP TILE	5	09AUG10	13AUG10
11260	TEST AND BALANCE	10	16AUG10	27AUG10
11220	HARD FLOORING / TERRAZZO	30	14SEP10	25OCT10
11230	DOORS AND HARDWARE	10	14SEP10	27SEP10
11240	TRIM OUT MEP	10	14SEP10	27SEP10
11270	INSTALL CARPET	7	26OCT10	03NOV10
11280	FINAL PAINT WALLS	5	04NOV10	10NOV10
11290	FINAL PAINT DOORS AND FRAMES	3	11NOV10	15NOV10
11300	PRE PUNCH	15	16NOV10	08DEC10



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Finish date	31MAY11
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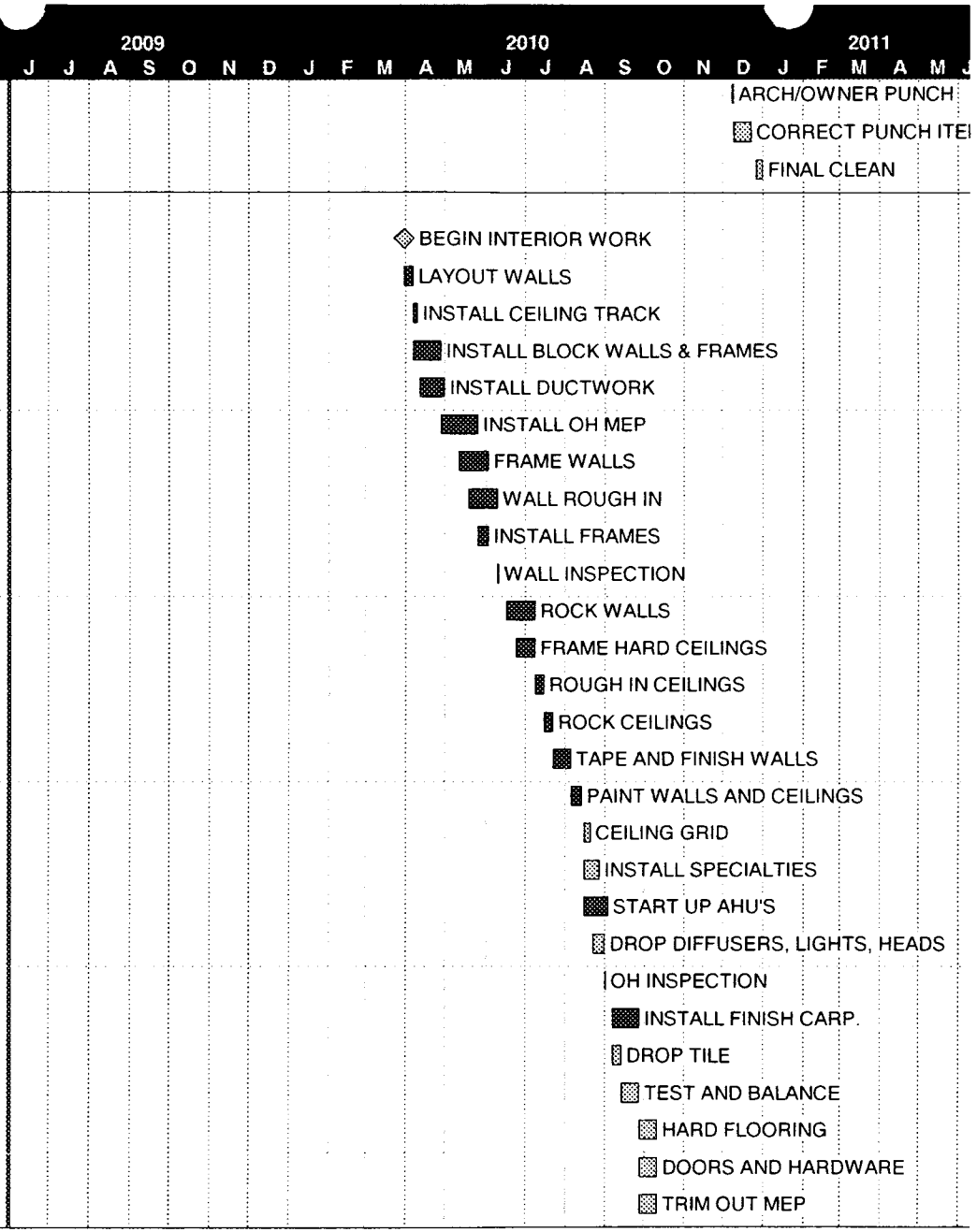
Run date	19MAY09
Page number	7A
Page count	14A

PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
11310	ARCH/OWNER PUNCH	1	09DEC10	09DEC10
11320	CORRECT PUNCH ITEMS	10	10DEC10	23DEC10
11330	FINAL CLEAN	5	27DEC10	31DEC10
1st Floor East Side				
12000	BEGIN INTERIOR WORK	0	31MAR10	
12010	LAYOUT WALLS	5	31MAR10	06APR10
12020	INSTALL CEILING TRACK	3	07APR10	09APR10
12030	INSTALL BLOCK WALLS & FRAMES	15	07APR10	27APR10
12040	INSTALL DUCTWORK	15	12APR10	30APR10
12050	INSTALL OH MEP	20	28APR10	25MAY10
12060	FRAME WALLS	15	12MAY10	02JUN10
12080	WALL ROUGH IN	15	19MAY10	09JUN10
12070	INSTALL FRAMES	5	26MAY10	02JUN10
12090	WALL INSPECTION	1	10JUN10	10JUN10
12100	ROCK WALLS	15	17JUN10	08JUL10
12110	FRAME HARD CEILINGS	10	24JUN10	08JUL10
12120	ROUGH IN CEILINGS	5	09JUL10	15JUL10
12130	ROCK CEILINGS	5	16JUL10	22JUL10
12140	TAPE AND FINISH WALLS	10	23JUL10	05AUG10
12150	PAINT WALLS AND CEILINGS	6	06AUG10	13AUG10
12160	CEILING GRID	5	16AUG10	20AUG10
12180	INSTALL SPECIALTIES	10	16AUG10	27AUG10
12190	START UP AHU'S	15	16AUG10	03SEP10
12200	DROP DIFFUSERS, LIGHTS, HEADS	7	23AUG10	31AUG10
12210	OH INSPECTION	1	01SEP10	01SEP10
12170	INSTALL FINISH CARP.	15	07SEP10	27SEP10
12250	DROP TILE	5	07SEP10	13SEP10
12260	TEST AND BALANCE	10	14SEP10	27SEP10
12220	HARD FLOORING	10	28SEP10	11OCT10
12230	DOORS AND HARDWARE	10	28SEP10	11OCT10
12240	TRIM OUT MEP	10	28SEP10	11OCT10



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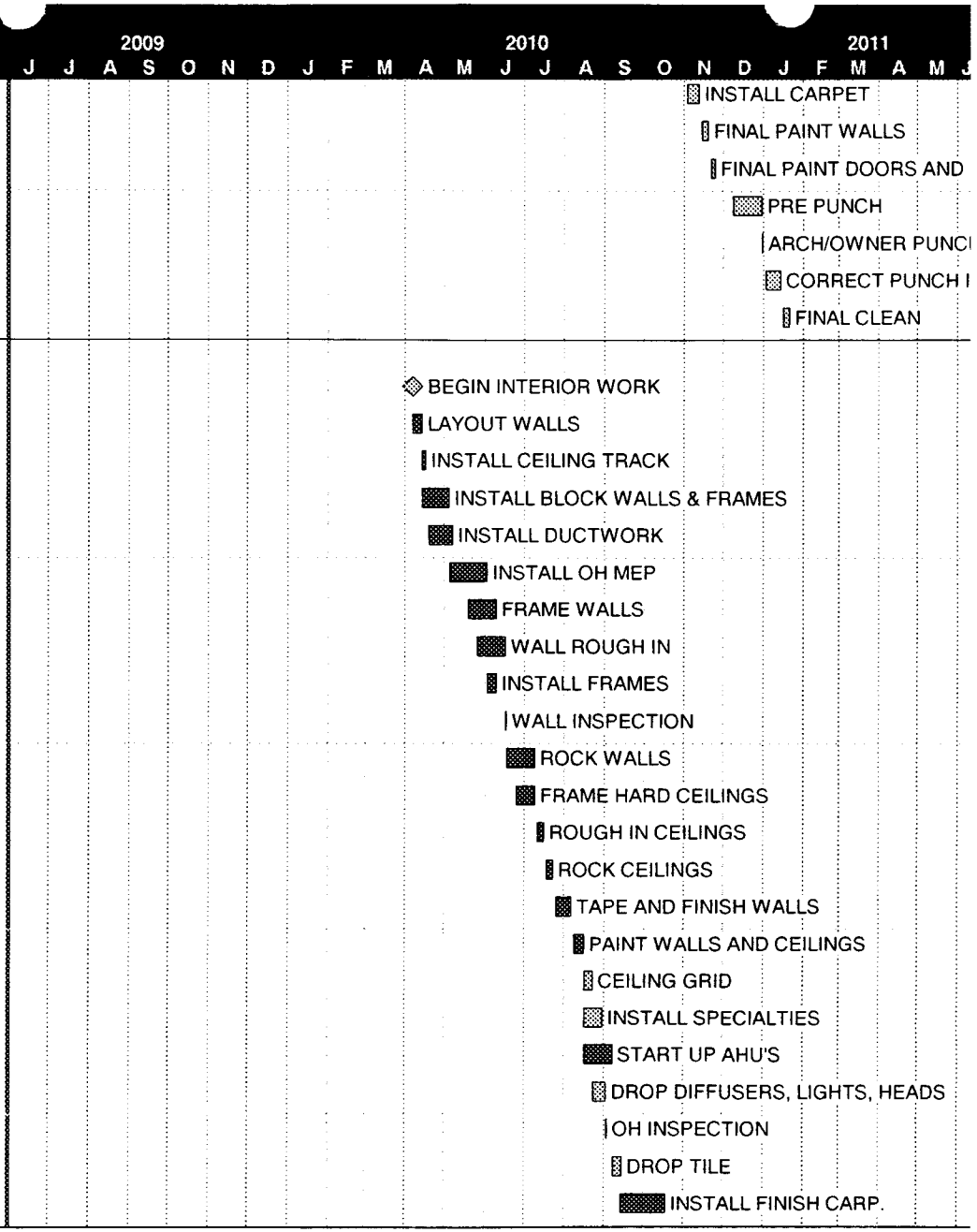
PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
12270	INSTALL CARPET	7	04NOV10	12NOV10
12280	FINAL PAINT WALLS	5	15NOV10	19NOV10
12290	FINAL PAINT DOORS AND FRAMES	3	22NOV10	24NOV10
12300	PRE PUNCH	15	09DEC10	30DEC10
12310	ARCH/OWNER PUNCH	1	31DEC10	31DEC10
12320	CORRECT PUNCH ITEMS	10	03JAN11	14JAN11
12330	FINAL CLEAN	5	17JAN11	21JAN11
2nd Floor West Side				
13000	BEGIN INTERIOR WORK	0	07APR10	
13010	LAYOUT WALLS	5	07APR10	13APR10
13020	INSTALL CEILING TRACK	3	14APR10	16APR10
13030	INSTALL BLOCK WALLS & FRAMES	15	14APR10	04MAY10
13040	INSTALL DUCTWORK	15	19APR10	07MAY10
13050	INSTALL OH MEP	20	05MAY10	02JUN10
13060	FRAME WALLS	15	19MAY10	09JUN10
13080	WALL ROUGH IN	15	26MAY10	16JUN10
13070	INSTALL FRAMES	5	03JUN10	09JUN10
13090	WALL INSPECTION	1	17JUN10	17JUN10
13100	ROCK WALLS	15	18JUN10	09JUL10
13110	FRAME HARD CEILINGS	10	25JUN10	09JUL10
13120	ROUGH IN CEILINGS	5	12JUL10	16JUL10
13130	ROCK CEILINGS	5	19JUL10	23JUL10
13140	TAPE AND FINISH WALLS	10	26JUL10	06AUG10
13150	PAINT WALLS AND CEILINGS	6	09AUG10	16AUG10
13160	CEILING GRID	5	17AUG10	23AUG10
13180	INSTALL SPECIALTIES	10	17AUG10	30AUG10
13190	START UP AHU'S	15	17AUG10	07SEP10
13200	DROP DIFFUSERS, LIGHTS, HEADS	8	24AUG10	02SEP10
13210	OH INSPECTION	1	03SEP10	03SEP10
13250	DROP TILE	5	08SEP10	14SEP10
13170	INSTALL FINISH CARP.	25	14SEP10	18OCT10



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PR03-Fortbend C...

JE Dunn Construction
Fort Bend County Justice Center, Richmond, TX
EXHIBIT H - CONSTRUCTION SCHEDULE

Early bar
Progress bar
Critical bar
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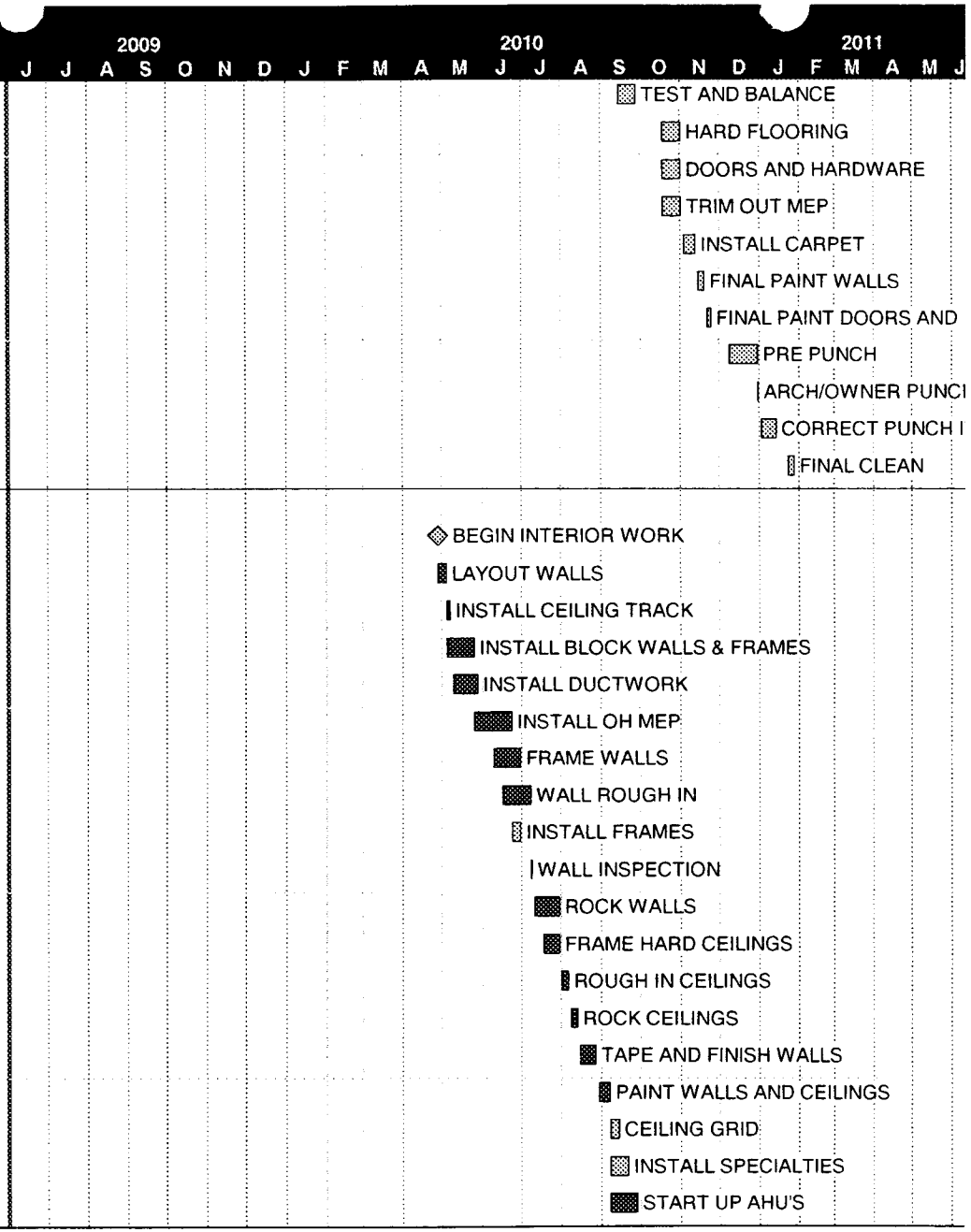
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
13260	TEST AND BALANCE	10	15SEP10	28SEP10
13220	HARD FLOORING	10	19OCT10	01NOV10
13230	DOORS AND HARDWARE	10	19OCT10	01NOV10
13240	TRIM OUT MEP	10	19OCT10	01NOV10
13270	INSTALL CARPET	7	04NOV10	12NOV10
13280	FINAL PAINT WALLS	5	15NOV10	19NOV10
13290	FINAL PAINT DOORS AND FRAMES	3	22NOV10	24NOV10
13300	PRE PUNCH	15	09DEC10	30DEC10
13310	ARCH/OWNER PUNCH	1	31DEC10	31DEC10
13320	CORRECT PUNCH ITEMS	10	03JAN11	14JAN11
13330	FINAL CLEAN	5	24JAN11	28JAN11
2nd Floor East Side				
14000	BEGIN INTERIOR WORK	0	28APR10	
14010	LAYOUT WALLS	5	28APR10	04MAY10
14020	INSTALL CEILING TRACK	3	05MAY10	07MAY10
14030	INSTALL BLOCK WALLS & FRAMES	15	05MAY10	25MAY10
14040	INSTALL DUCTWORK	15	10MAY10	28MAY10
14050	INSTALL OH MEP	20	26MAY10	23JUN10
14060	FRAME WALLS	15	10JUN10	30JUN10
14080	WALL ROUGH IN	15	17JUN10	08JUL10
14070	INSTALL FRAMES	5	24JUN10	30JUN10
14090	WALL INSPECTION	1	09JUL10	09JUL10
14100	ROCK WALLS	15	12JUL10	30JUL10
14110	FRAME HARD CEILINGS	10	19JUL10	30JUL10
14120	ROUGH IN CEILINGS	5	02AUG10	06AUG10
14130	ROCK CEILINGS	5	09AUG10	13AUG10
14140	TAPE AND FINISH WALLS	10	16AUG10	27AUG10
14150	PAINT WALLS AND CEILINGS	6	30AUG10	07SEP10
14160	CEILING GRID	5	08SEP10	14SEP10
14180	INSTALL SPECIALTIES	10	08SEP10	21SEP10
14190	START UP AHU'S	15	08SEP10	28SEP10



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PR03-Fortbend C...

JE Dunn Construction
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EXHIBIT H - CONSTRUCTION SCHEDULE

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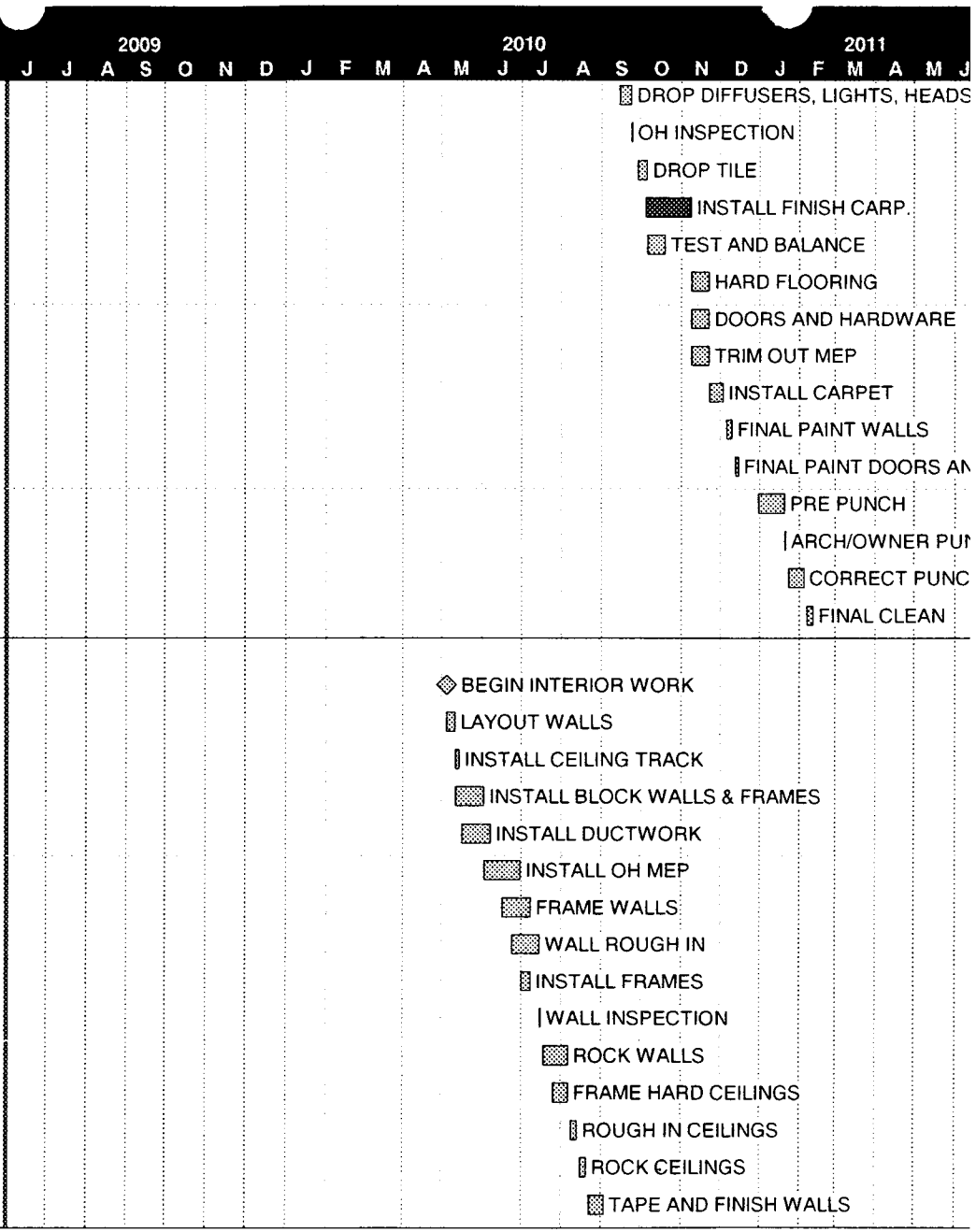
Finish milestone point

Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
14200	DROP DIFFUSERS, LIGHTS, HEADS	7	15SEP10	23SEP10
14210	OH INSPECTION	1	24SEP10	24SEP10
14250	DROP TILE	5	29SEP10	05OCT10
14170	INSTALL FINISH CARP.	25	05OCT10	08NOV10
14260	TEST AND BALANCE	10	06OCT10	19OCT10
14220	HARD FLOORING	10	09NOV10	22NOV10
14230	DOORS AND HARDWARE	10	09NOV10	22NOV10
14240	TRIM OUT MEP	10	09NOV10	22NOV10
14270	INSTALL CARPET	7	23NOV10	03DEC10
14280	FINAL PAINT WALLS	5	06DEC10	10DEC10
14290	FINAL PAINT DOORS AND FRAMES	3	13DEC10	15DEC10
14300	PRE PUNCH	15	31DEC10	20JAN11
14310	ARCH/OWNER PUNCH	1	21JAN11	21JAN11
14320	CORRECT PUNCH ITEMS	10	24JAN11	04FEB11
14330	FINAL CLEAN	5	07FEB11	11FEB11
3rd Floor West Side				
15000	BEGIN INTERIOR WORK	0	05MAY10	
15010	LAYOUT WALLS	5	05MAY10	11MAY10
15020	INSTALL CEILING TRACK	3	12MAY10	14MAY10
15030	INSTALL BLOCK WALLS & FRAMES	15	12MAY10	02JUN10
15040	INSTALL DUCTWORK	15	17MAY10	07JUN10
15050	INSTALL OH MEP	20	03JUN10	30JUN10
15060	FRAME WALLS	15	17JUN10	08JUL10
15080	WALL ROUGH IN	15	24JUN10	15JUL10
15070	INSTALL FRAMES	5	01JUL10	08JUL10
15090	WALL INSPECTION	1	16JUL10	16JUL10
15100	ROCK WALLS	15	19JUL10	06AUG10
15110	FRAME HARD CEILINGS	10	26JUL10	06AUG10
15120	ROUGH IN CEILINGS	5	09AUG10	13AUG10
15130	ROCK CEILINGS	5	16AUG10	20AUG10
15140	TAPE AND FINISH WALLS	10	23AUG10	03SEP10



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JE Dunn Construction
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EXHIBIT H - CONSTRUCTION SCHEDULE

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Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
15150	PAINT WALLS AND CEILINGS	6	07SEP10	14SEP10
15160	CEILING GRID	5	15SEP10	21SEP10
15180	INSTALL SPECIALTIES	10	15SEP10	28SEP10
15190	START UP AHU'S	15	15SEP10	05OCT10
15200	DROP DIFFUSERS, LIGHTS, HEADS	8	22SEP10	01OCT10
15210	OH INSPECTION	1	04OCT10	04OCT10
15250	DROP TILE	5	06OCT10	12OCT10
15260	TEST AND BALANCE	10	13OCT10	26OCT10
15170	INSTALL FINISH CARP.	30	26OCT10	08DEC10
15220	HARD FLOORING	10	09DEC10	22DEC10
15230	DOORS AND HARDWARE	10	09DEC10	22DEC10
15240	TRIM OUT MEP	10	09DEC10	22DEC10
15270	INSTALL CARPET	7	23DEC10	03JAN11
15280	FINAL PAINT WALLS	5	04JAN11	10JAN11
15290	FINAL PAINT DOORS AND FRAMES	3	11JAN11	13JAN11
15300	PRE PUNCH	15	14JAN11	03FEB11
15310	ARCH/OWNER PUNCH	1	04FEB11	04FEB11
15320	CORRECT PUNCH ITEMS	10	07FEB11	18FEB11
15330	FINAL CLEAN	5	21FEB11	25FEB11
3rd Floor East Side				
16000	BEGIN INTERIOR WORK	0	26MAY10	
16010	LAYOUT WALLS	5	26MAY10	02JUN10
16020	INSTALL CEILING TRACK	3	03JUN10	07JUN10
16030	INSTALL BLOCK WALLS & FRAMES	15	03JUN10	23JUN10
16040	INSTALL DUCTWORK	15	08JUN10	28JUN10
16050	INSTALL OH MEP	20	24JUN10	22JUL10
16060	FRAME WALLS	15	09JUL10	29JUL10
16080	WALL ROUGH IN	15	16JUL10	05AUG10
16070	INSTALL FRAMES	5	23JUL10	29JUL10
16090	WALL INSPECTION	1	06AUG10	06AUG10
16100	ROCK WALLS	15	09AUG10	27AUG10

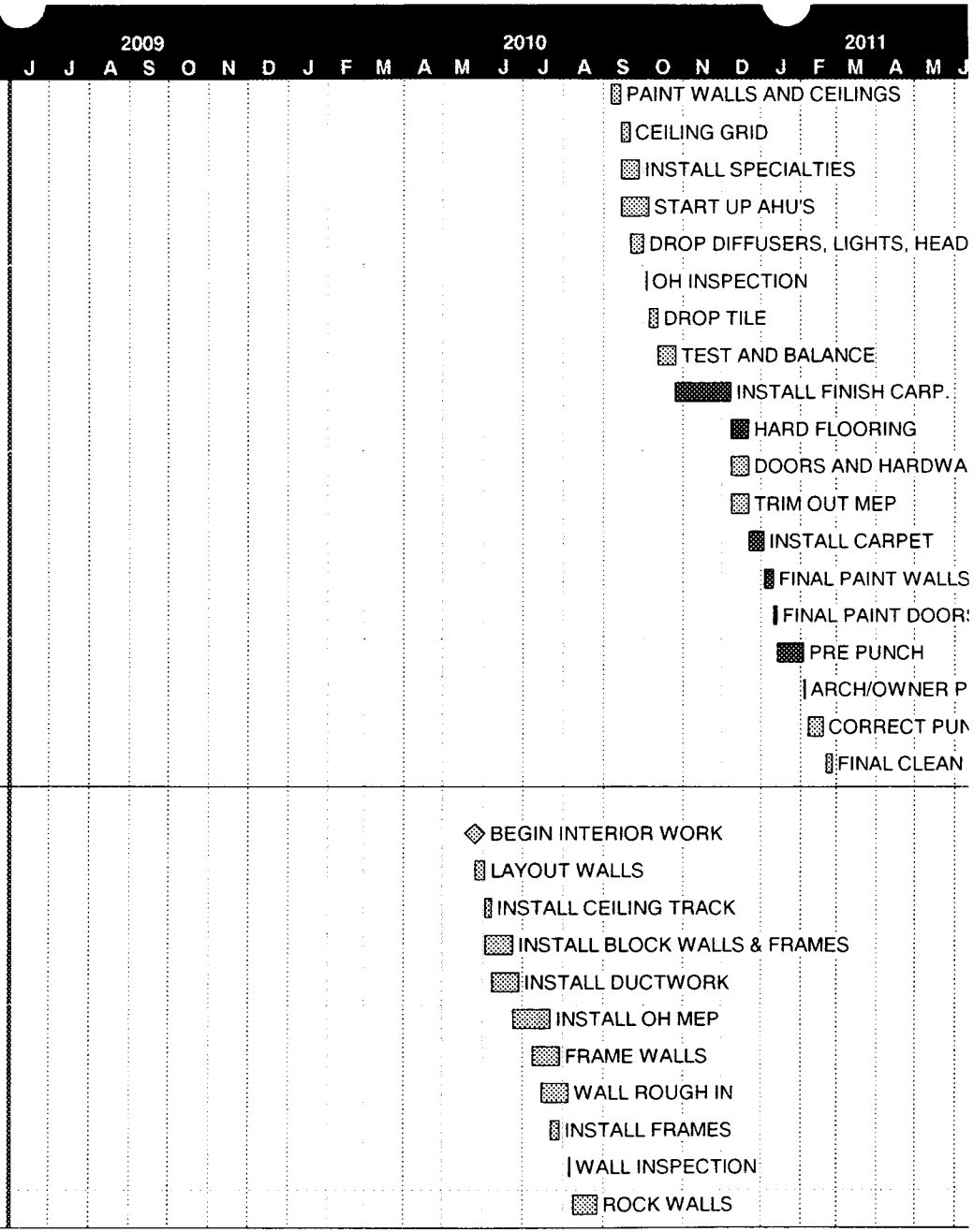

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EXHIBIT H - CONSTRUCTION SCHEDULE

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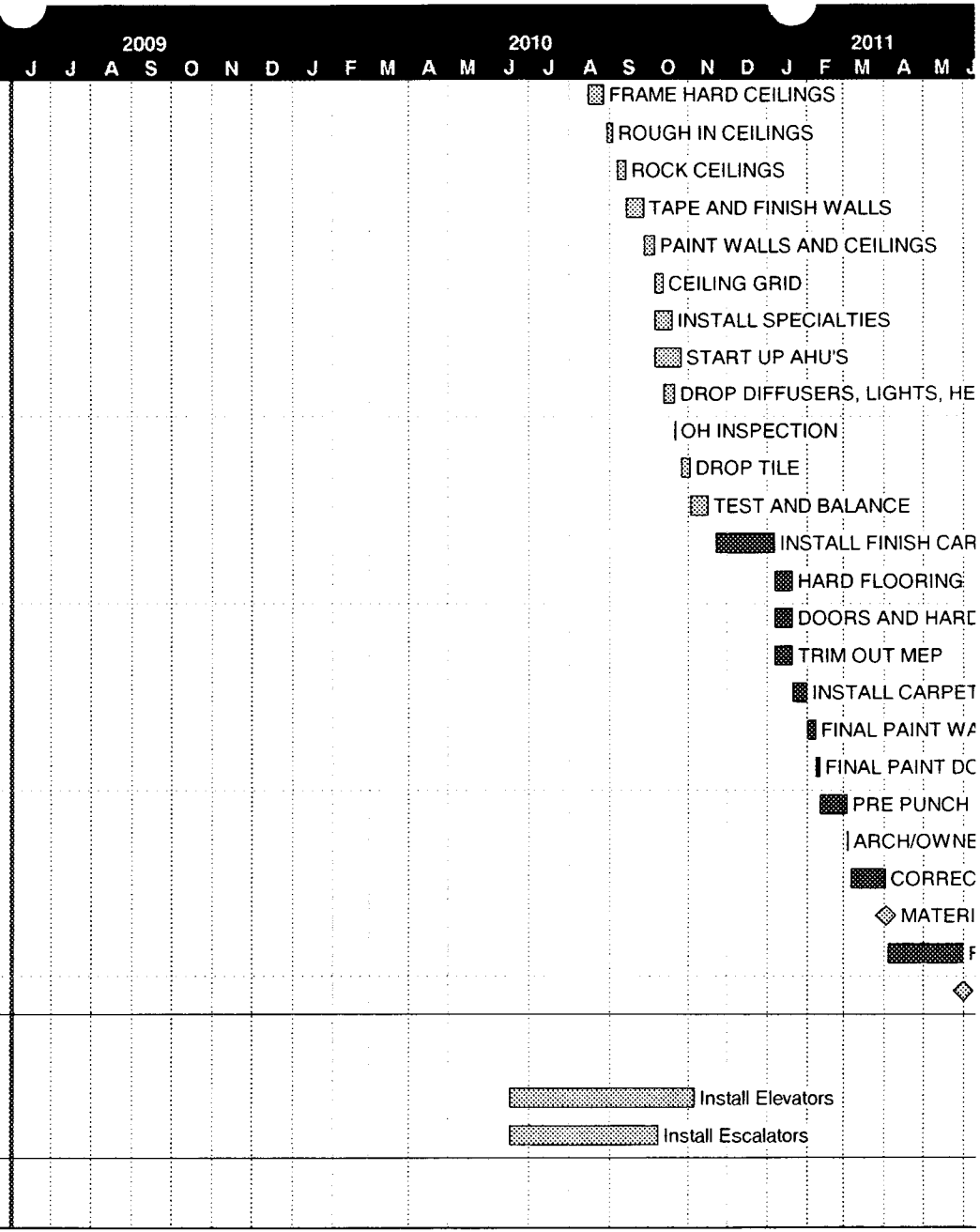
Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
16110	FRAME HARD CEILINGS	10	16AUG10	27AUG10
16120	ROUGH IN CEILINGS	5	30AUG10	03SEP10
16130	ROCK CEILINGS	5	07SEP10	13SEP10
16140	TAPE AND FINISH WALLS	10	14SEP10	27SEP10
16150	PAINT WALLS AND CEILINGS	6	28SEP10	05OCT10
16160	CEILING GRID	5	06OCT10	12OCT10
16180	INSTALL SPECIALTIES	10	06OCT10	19OCT10
16190	START UP AHU'S	15	06OCT10	26OCT10
16200	DROP DIFFUSERS, LIGHTS, HEADS	7	13OCT10	21OCT10
16210	OH INSPECTION	1	22OCT10	22OCT10
16250	DROP TILE	5	27OCT10	02NOV10
16260	TEST AND BALANCE	10	03NOV10	16NOV10
16170	INSTALL FINISH CARP.	30	23NOV10	06JAN11
16220	HARD FLOORING	10	07JAN11	20JAN11
16230	DOORS AND HARDWARE	10	07JAN11	20JAN11
16240	TRIM OUT MEP	10	07JAN11	20JAN11
16270	INSTALL CARPET	7	21JAN11	31JAN11
16280	FINAL PAINT WALLS	5	01FEB11	07FEB11
16290	FINAL PAINT DOORS AND FRAMES	3	08FEB11	10FEB11
16300	PRE PUNCH	15	11FEB11	03MAR11
16310	ARCH/OWNER PUNCH	1	04MAR11	04MAR11
16320	CORRECT PUNCH ITEMS	20	07MAR11	01APR11
16340	MATERIAL (SUBSTANTIAL) COMPLETION	0		01APR11
16330	FINAL CLEAN / FINAL PUNCH	42	04APR11	31MAY11
16350	FINAL COMPLETION	0		31MAY11
Elevators & Escalators				
17000	Install Elevators	100	17JUN10	05NOV10
17010	Install Escalators	80	17JUN10	08OCT10
GARAGE (BY OTHERS)				



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Fort Bend County Justice Center, Richmond, TX
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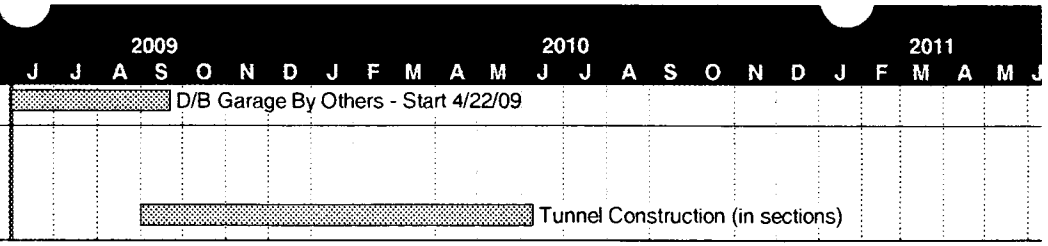
Act ID	Description	Dur. 5d/Wk	Early Start	Early Finish
18100	D/B Garage By Others - Start 4/22/09	84	01JUN09	22SEP09
Tunnel				
19100	Tunnel Construction (in sections)	195	01SEP09	09JUN10



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3153810														
					TOTAL	$1,671,457		% of time		10320		Charge to jobs	Estimating	Estimating Ra Through
Estimator:					Jobsite			on Job	rate/week		Comm	Rate (less than 1 year)	Rate (more than 1 year)	6-10
Job: Ft. Bend County Justice Center					Supervision						Equip	Thru 6-09	Thru 6-09	
Estimate #:					General Superintendent			5.00%	4295		220	4800	4,130	4295
Location: Richmond, Texas					Senior Superintendent			105.00%	3338		4620	3705	3,210	3338
Duration:					Superintendent			105.00%	2673		4620	2987	2,570	2673
Weeks	95.28				Assistant Superintendent			0.00%	1872		0	2040	1,800	1872
Months	22				Superintendent Trainee			0.00%	1622		0	1760	1,560	1622
Ground Up					Sr Project Manager			105.00%	4285		4620	3927	3,420	3557
Area	279,011 sf				Project Manager			0.00%	2766		0	3052	2,660	2766
GENERAL CONDITIONS PER MONTH	185,245				Assistant Project Manager			105.00%	2059		4620	2204	1,980	2059
GENERAL CONDITIONS PER WEEK	42,782				Field Engineer & Rodman			35.00%	1581		0	1720	1,520	1581
					Quality Assurance			20.00%	1872		880	2080	1,800	1872
Budget	57,727,539				Administrative Assistant			100.00%	1290		0	1400	1,240	1290
Raw Lbr	1,869,306				Senior Project Coordinator			0.00%	1414		0	1560	1,360	1414
					Project Coordinator			0.00%	1165		0	1240	1,120	1165
					Senior Estimator			0.00%	3453		0	3840	3,320	3453
					Estimator			0.00%	2496		0	2800	2,400	2496
					Assistant Estimator			0.00%	1789		0	1960	1,720	1789
					Commissioning			0.00%	5408		0	5200	5,200	5408
					Safety Engineer			100.00%	1581		4400	1720	1,520	1581
Add Travel					Scheduler			5.00%	2538		220	2800	2,440	2538
					Engineers Services (MEP, Fire)			30.00%	2538		1320	2800	2,440	2538
					Project Executives (Officers)			30.00%	4285		1320	4800	4,120	4285
					LABOR	LABOR		MAT'L	MAT'L		SUB	SUB		19580
		QTY.	UNIT		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		TOTAL
Supervision & Administration													lbr burden	% of cost
01101	General Superintendent	5	WK		4,295	21,476		0	0		0	0	0	0.04%
01101	Senior Superintendent	100	WK		3,338	333,840		0	0		0	0	0	0.65%
01101	Superintendent	100	WK		2,673	267,280		0	0		0	0	0	0.52%
01101	Assistant Superintendent	0	WK		1,872	0		0	0		0	0	0	0.00%
01101	Superintendent Trainee	0	WK		1,622	0		0	0		0	0	0	0.00%
01120	Sr Project Manager	100	WK		4,285	428,480		0	0		0	0	0	0.83%
01120	Project Manager	0	WK		2,766	0		0	0		0	0	0	0.00%
01122	Assistant Project Manager	100	WK		2,059	205,920		0	0		0	0	0	0.40%
01120	Field Engineer & Rodman	34	WK		2,371	80,621		0	0		0	0	0	0.16%
01122	Quality Assurance	19	WK		1,872	35,568		0	0		0	0	0	0.07%
01122	Administrative Assistant	105	WK		1,290	135,408		0	0		0	0	0	0.26%
01122	Senior Project Coordinator	0	WK		1,414	0		0	0		0	0	0	0.00%
01122	Project Coordinator	0	WK		1,165	0		0	0		0	0	0	0.00%
01121	Senior Estimator	0	LS		3,453	0		0	0		0	0	0	0.00%
01120	Estimator	0	WK		2,496	0		0	0		0	0	0	0.00%
01120	Assistant Estimator	0	WK		1,789	0		0	0		0	0	0	0.00%
01120	Commissioning	0	WK		5,408	0		0	0		0	0	0	0.00%
01120	Safety Engineer	95	WK		1,581	150,176		0	0		0	0	0	0.29%
01121	Scheduler	5	WK		2,538	12,688		0	0		0	0	0	0.02%

01121	**Engineer Services (MEP, BIM)**	29	WK	2,538	73,590	0	0	0	0	73,590		0	0.14%
01121	**Project Executives (Officers)**	29	WK	4,285	124,259	0	0	0	0	124,259		0	0.24%
01104	Security Services	0	LS	0	0	0	0	0	0	0		0	0.00%
01106	Testing	0	LS	0	0	0	0	0	0	0		0	0.00%
	Oper. Personnel	0	WK	0	0	0	0	0	0	0		0	0.00%
01123	Preconst. Services	0	LS	0	0	0	0	0	0	0		0	0.00%
01123	Third Party Consultants	1	LS	0	0	0	0	0	0	0		0	0.00%
01124	**Document Reproduction**	1	LS	0	0	0	0	30000	30,000	30,000		0	0.06%
01124	**Shop Drawing Reproduction**	1	LS	0	0	0	0	5000	5,000	5,000		0	0.01%
01125	**Travel**	44	MO	0	0	0	0	3625	159,500	159,500		0	0.31%
011251	**Postage**	22	MO	0	0	750	16,500	0	0	16,500		0	0.03%
01127	Relocation Expenses	0	LS	0	0	30000	0	0	0	0		0	0.00%
011262	Delivery Service	0	WK	0	0	70	0	0	0	0		0	0.00%
011241	**As Built Documents**	1	LS	0	0	1500	1,500	0	0	1,500		0	0.00%
011251	**Mileage**	7620.8	LS	0	0	0.585	4,458	0	0	4,458		0	0.01%
011252	Parking	0	DYS	0	0	7.5	0	0	0	0		0	0.00%
01132	**Drug Testing**	1	LS	0	0	0		2000	2,000	2,000		0	0.00%
01199	Misc-Supervision & Admin.	1	LS	0	0	0	0	0	0	0		0	0.00%
	Labor Burden on Supervision	0	$$	0	0	0.0000	0	0	0	0	1,671,457	0	
											0		
Temporary Facilities											1,671,457		
											41.01%		
01201	**Field Office**	22	MO	0	0	1350	29,700	0	0	29,700		0	0.06%
	Field Office - Owner	22	MO	0	0	450	9,900	0	0	9,900			
01201	**Field Office Set Up**	3	LS	0	0	1500	4,500	0	0	4,500		0	0.01%
	Field Office Set Up	1	LS	0	0	1500	1,500	0	0	1,500			
01202	**Project Fence**	3028	LF	0	0	0	0	7.3	22,104	22,104		0	0.04%
01203	Temp. Walkways - Class A	0	LF	0	0	80	0	0	0	0		0	0.00%
01204	Temp. Roads & Parking	0	SF	0	0	2.00	0	0	0	0		0	0.00%
01205	**Project Signs**	1	LS	0	0	0	0	3000	3,000	3,000		0	0.01%
01206	**Drinking Water**	95.26	WK	0	0	50	4,763	0	0	4,763		0	0.01%
01207	Toilets (2)	110	MO	0	0	190	20,900	0	0	20,900		0	0.04%
01208	**Photos**	22	MO	0	0	150	3,300	0	0	3,300		0	0.01%
01209	Temp. Protection	1	LS	0	0	0	0	0	0	0		0	0.00%
01210	**FLD. Offc. Supply**	22	MO	0	0	1000	22,000	0	0	22,000		0	0.04%
012101	FLD. Offc. Equipment	22	MO	0	0	0	0	0	0	0		0	0.00%
012101	**Fax**	1	LS	0	0	275	275	0	0	275		0	0.00%
012101	**Copier**	22	MO	0	0	300	6,600	0	0	6,600		0	0.01%
012101	Computer (laptop)	0	EA	0	0	1875	0	0	0	0		0	0.00%
012101	DSL Monthly Cost (<7 people)	0	mo	0	0	80	0	0	0	0		0	0.00%
012101	DSL Installation	0	LS	0	0	500	0	0	0	0		0	0.00%
012101	Switch, Router, UPS (for DSL)	0	LS	0	0	1375	0	0	0	0		0	0.00%
012101	T1 Monthly Cost (7+ people)	22	MO	0	0	800	17,600	0	0	17,600		0	0.03%
012101	**T1 Installation**	1	LS	0	0	500	500	0	0	500		0	0.00%
012101	**Switch, Router, Server, UPS (T1**	1	LS	0	0	7050	7,050	0	0	7,050		0	0.01%
01220	Layout Building	1	LS	0	0	0	0	0	0	0		0	0.00%
01221	Layout Int. Partitions	1	LS	0	0	0	0	0	0	0		0	0.00%
01222	**Engineering Supplies**	1	LS	0	0	5000	5,000	0	0	5,000		0	0.01%
01223	**Survey Services**	1	LS	0	0	0	0	5000	5,000	5,000		0	0.01%
01224	CM Layout	1	LS	0	0	0	0	0	0	0		0	0.00%

01230	Barricade/Guardrails	1	LS	0	0	0	0	0	0	0	0	0.00%
01231	Temp. Ladders & Stairs	1	EA	0	0	0	0	0	0	0	0	0.00%
01233	Overhead Protection	1	LS	0	0	0	0	0	0	0	0	0.00%
01234	Temp. Dry Sheet	1	LS	0	0	0	0	0	0	0	0	0.00%
01235	General Safety & Maintenance	1	LS	0	0	18450	18,450	0	0	18,450	0	0.04%
01240	Office Janitorial	22	MO	0	0	0	0	440	9,680	9,680	0	0.02%
01241	Dumpster	0	EA	0	0	450	0	0	0	0	0	0.00%
01242	Street Cleaning	1	LS	0	0	0	0	0	0	0	0	0.00%
01243	Daily Clean Up	95.26	WK	0	0	0	0	0	0	0	0	0.00%
012431	Final Clean Up Building	279,011	SF	0	0	0	0	0	0	0	0	0.00%
012431	Final Clean Up - Garage	0	SF	0	0	0	0	0.07	0	0	0	0.00%
012431	Job Meetings and Cerimony Expense	1	ls	0	0	0	0	10000	10,000	10,000	0	0.02%
01260	Partnering Sessions	1	LS	0	0	0	0	5000	5,000	5,000	0	0.01%
01299	Misc.-Temp. Facilities	1	LS	0	0	0	0	0	0	0	0	0.00%
Personnel Hoisting				**USE JOBSITE EQUIPMENT TAB TO CALCULATE JOBSITE EQUIPMENT**								
01310	Hoist Personnel Freight Rental	22	MO	0	0	0	0	0	0	0	0	0.00%
01311	Base Construction	0	LS	0	0	0	0	0	0	0	0	0.00%
01310	Crane Rental	22	MO	0	0	0	0	0	0	0	0	0.00%
01311	Base Construction	0	LS	0	0	0	0	0	0	0	0	0.00%
01313	Gates Platforms Brackets	0	EA	0	0	0	0	0	0	0	0	0.00%
01315	Hoist Up Down	0	LF	0	0	0	0	0	0	0	0	0.00%
01315	Crane Up Down	0	LF	0	0	0	0	0	0	0	0	0.00%
01316	Hoist-Oper.	95.26	WK	0	0	0	0	0	0	0	0	0.00%
01318	Crane -Oper.	22	MO	0	0	0	0	0	0	0	0	0.00%
01399	Misc.-Hoisting (Pers./Matl.)	1	LS	0	0	0	0	0	0	0	0	0.00%
Temporary Utilities												
01401	Telephone Service (4 lines)	22	MO	0	0	600	13,200	0	0	13,200	0	0.03%
	Phone Hook up (4 lines)	1	LS	0	0	1000	1,000	0	0	1,000	0	0.00%
01402	Water Billings	22	MO	0	0	75	1,650	0	0	1,650	0	0.00%
01403	Gas Utility Billings	22	MO	0	0	0	0	0	0	0	0	0.00%
01404	Electricity Billings - Field Offices Only	279,011	SF	0	0	$ 0.13	35,208	0	0	35,208	0	0.07%
01404	Electricity Billings	22	MO	0	0	0	0	0	0	0	0	0.00%
	Electricity Billings	22	MO	0	0	0	0	0	0	0	0	0.00%
01405	Temp. Util. Services	1	LS	0	0	4000	4,000	0	0	4,000	0	0.01%
01406	Temp. HVAC/Filters	1	LS	0	0	0	0	0	0	0	0	0.00%
01499	Misc.-Temp. Utilities	1	LS	0	0	0	0	0	0	0	0	0.00%
Equipment Rental												
01501	Small Equip. Rental	1	LS	0	0	28,500	28,500	0	0	28,500	0	0.06%
01502	Warehouse Del. Trucks	22	LS	0	0	0	0	0	0	0	0	0.00%
01503	Pickup Trucks	22	MO	0	0	0	0	0	0	0	0	0.00%
01503	Pickup Trucks	22	MO	0	0	0	0	0	0	0	0	0.00%

01503	Fuel Oil Gas Pickup Trucks	24	MO	0	0	150	3,600	0	0	3,600		0	0.01%
01504	1 or 2 Ton Trucks (Flatbed)	22	MO	0	0	0	0	0	0	0		0	0.00%
01505	Boom Truck	22	MO	0	0	0	0	0	0	0		0	0.00%
01506	Radio's/Repeater/Cell Phone	1	LS	0	0	19580	19,580	0	0	19,580		0	0.04%
01599	Misc.-Equip. Rental	1	LS	0	0	0	0	0	0	0		0	0.00%
	Permits, Bonds & Insurance												
01601.01	Permits	1	LS	0	0	0.0000	0	114650	114,650		Calculated on Recap	0	0.22%
01602.1	Bldrs. Risk/DIC Insurance	1	LS	0	0	0	0	521550	521,550		Calculated on Recap	0	1.01%
01613	Wind Premium	0	LS	0	0	0	0	0	0		Calculated on Recap	0	0.00%
01615.01	Flood Premium	0	LS	0	0	0	0	0	0		Calculated on Recap	0	0.00%
01616	Terrorist	1	LS	0	0	0	0	0	0		Calculated on Recap	0	0.00%
01617	OCP Insurance	1	LS	0	0	0	0	0	0		Calculated on Recap	0	0.00%
01618	AGC Dues	1	LS	0	0	5795	5,795	0	0		Calculated on Recap	0	0.01%
01699	Liability Insurances	1	LS	0	0	0.0000	0	608475	608,475		Calculated on Recap	0	1.18%
	P & P Bond	1	LS	0	0	0	0	423105	423,105	423,105		0	0.82%
	Labor Burden on Field	0	$$	0.265	0	0.0000	0	0	0	0		0	
	Total				1,869,306		287,029		1,919,064	4,075,400	4075399.896		
521,550													
					1,869,306		287,029		1,919,064	4,075,400			
										7.88%			7.86%
						cost	51,700,000						

2,401,825
4.65%

Exhibit I

ıte	Through 6-11	% of gc
	4467	0.53%
	3472	8.19%
	2780	6.56%
	1947	0.00%
	1687	0.00%
	3699	10.51%
	2877	0.00%
	2142	5.05%
	1644	1.98%
	1947	0.87%
	1341	3.32%
	1471	0.00%
	1211	0.00%
	3591	0.00%
	2596	0.00%
	1860	0.00%
	5624	3.68%
	1644	0.31%
	2639	
	2639	
	4456	

1.81%
3.05%
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0.74%
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3.91%
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0.12%
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	2.81%
	12.80%
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	0.00%
	0.00%
	0.00%
	0.14%
	14.93%
	10.38%
	99.72%

JE DUNN CONSTRUCTION

Exhibit J
PROJECT COST MATRIX

In each of the spaces marked with an "x", excluding Cost of the Work, enter the total monthly amount for that item, the unit measure and the number of units involved

Project No.

Office Expense	Total Quantity	Unit	Monthly Rate				TOTAL
			In Pre-Const. Services	In Construction Services	Cost of Work	By Others	
CM Field Office, Furniture & Furnishings	22	MO		$1,907.41			$41,963.00
Office Supplies - Preconst.	2		$495.00				$990.00
Office Supplies	22	MO		$1,000.00			$22,000.00
Field Office Equipment & Maintenance (Temporary Fence)	22	MO		$1,843.38			$40,554.40
Owner/Arch Office, Equipt & Utilities for all Trailers only	22	MO		$2,375.37			$52,258.10
Jobsite Radios/Beepers	22	MO		$890.00			$19,580.00
Copy Machine & Maintenance - Preconst.	2	MO	$2,209.00				$4,418.00
Copy Machine & Maintenance	22	MO		$300.00			$6,600.00
Computers, Usage, Software & Maintenance - Pre			with precon labor				$0.00
Computers, Usage, Software & Maintenance (network)	22	MO		$1,143.18			$25,150.00
Fax Machine & Service	22	MO		$12.50			$275.00
Field Office Telephone	22	MO		$645.45			$14,200.00
Long Distance - Preconst.	2		$275.00				$550.00
Long Distance				with telephone			$0.00
Office Janitorial	22	MO		$440.00			$9,680.00
Postage & Expressage - Preconst.	2	MO	$137.50				$275.00
Postage & Expressage	22	MO		$750.00			$16,500.00
Plans & Specifications (6 sets per bid pkg.)	22	MO		$1,363.64			$30,000.00
Scheduling Expenses	22	MO		$576.73			$12,688.00
Construction Photos & Supplies	22	MO		$150.00			$3,300.00
Job Travel	22	MO		$366.27			$8,058.00
Job Meetings & Ceremony Expense	22	MO		$454.55			$10,000.00
Partnering Sessions	22	MO		$227.27			$5,000.00
Construction Trade Training Program	22	MO		$263.41			$5,795.00
Record Drawings	22	MO		$295.45			$6,500.00
Advertising (for bids)					x		$0.00
Messenger/Runner/Courier					x		$0.00
Audit				$0.00			$0.00
Records Storage				$0.00			$0.00
Public Information Program				$0.00			$0.00

JE DUNN CONSTRUCTION

Testing, Inspection & Quality Control			In Pre-Const. Services	In Construction Services	Cost of Work	By Others	TOTAL
Testing Laboratory Services						x	$0.00
Soils Testing & Inspection						x	$0.00
Concrete Testing & Inspections						x	$0.00
QC/QA Manager	22	MO		$1,616.73			$35,568.00
Taxes/Insurance/Fees			**In Pre-Const. Services**	**In Construction Services**	**Cost of Work**	**By Others**	**TOTAL**
Building Permits	22	MO		$5,211.36			$114,650.00
Special Permits, Licenses, Fees (not required per City)				$0.00			$0.00
Utility Connection Permits (not available from City)				$0.00			$0.00
Operational Permits						x	$0.00
Easements						x	$0.00
Impact Fees (not available from City)				$0.00			$0.00
Worker's Compensation Insurance				included with labor			$0.00
Builder's Risk Insurance	22	MO		$23,706.82			$521,550.00
Insurance Deductibles				$0.00			$0.00
Owner's Protective Insurance				Need limit requirements			$0.00
Liability & Property Insurance for Project	22	MO		$27,657.95			$608,475.00
Miscellaneous Insurance				$0.00			$0.00
Sales, Use and Gross Receipts Taxes				Exempt			$0.00
Performance & Payment Bonds	22	MO		$19,232.05			$423,105.00
Construction Management Labor			**In Pre-Const. Services**	**In Construction Services**	**Cost of Work**	**By Others**	**TOTAL**
Payroll Tax Fringes			included in labor	included in labor			$0.00
Worker's Compensation Insurance			included in labor	included in labor			$0.00
Pre-const. Management Labor	2	MO	$28,209.17				$56,418.34
Const. Management Labor	22	MO		$41,454.53			$911,999.60
Safety Officer	22	MO		$6,917.09			$152,176.00
General Conditions Labor	22	MO		$38,079.73			$837,754.00
Fees			**In Pre-Const. Services**	**In Construction Services**	**Cost of Work**	**By Others**	**TOTAL**
CM Fees (Separately proposed)							$0.00
Legal Fees				$0.00			$0.00
Construction Equipment & Tools			**In Pre-Const. Services**	**In Construction Services**	**Cost of Work**	**By Others**	**TOTAL**
Levels and Transits	22	MO		$1,295.45			$28,500.00
Field Engineer	7.85	MO		$10,270.17			$80,620.80
Layout Crew				with Field Engineer			$0.00
Engineering Equipment				with levels and transits			$0.00
Engineering Supplies	7.85	MO		$636.94			$5,000.00
Layout/Batter boards					x		$0.00
Licensed Survey Layout	22	MO		$227.27			$5,000.00
Site Surveys & Soils Reports						x	$0.00

EXHIBIT J
WAGE RATES AND LABOR COST

SCHEDULE OF STAFF RATES FOR 2008/2009

Should services be required of any of the below listed staff positions, JE Dunn South Central will be reimbursed at the corresponding rate:

Project Executive	$120.00 per hour
Director of Preconstruction Services	$120.00 per hour
Chief Estimator	$103.00 per hour
Senior Estimator	$ 96.00 per hour
Estimator	$ 70.00 per hour
Estimator Trainee	$ 49.00 per hour
Administrative Assistant	$ 35.00 per hour
Senior Project Manager	$ 99.00 per hour
Project Manager	$ 77.00 per hour
Assistant Project Manager	$ 56.00 per hour
Field/Office Engineer	$ 43.00 per hour
MEP/BIM Personnel	$ 70.00 per hour
Senior Project Coordinator	$ 39.00 per hour
Project Coordinator	$ 31.00 per hour
Commissioning	$130.00 per hour
Safety Engineers	$ 43.00 per hour
Quality Assurance Personnel	$ 52.00 per hour
General Superintendent	$120.00 per hour
Senior Superintendent	$ 93.00 per hour
Superintendent	$ 75.00 per hour
Assistant Superintendent	$ 51.00 per hour
Superintendent Trainee/Foreman	$ 44.00 per hour

The above rates include wages, taxes, fringe benefits, vacation, training and DPE, and are good from June 1, 2008, through June 30, 2009, and will be escalated four percent (4%) annually.

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description					
Test Reports	01815 - Testing, Adjusting, and Balancing (TAB) Of Mechanical Systems	1.3A	**Test Reports:** 1. Submit test report forms fro review minimum 90 days prior to requesting final review by A?/E. 2. Furnish six individually bond copies of test data. Neatly type and arrange data. Include with the data the date tested, personnel present, weather conditions, nameplate record of test instrument and list all measurements taken, both prior to and after any corrections are made to the system. Record all failures and corrective action taken to remedy incorrect situation. 3. A/E will retain one copy. Remaining copies will be returned for inclusion in operation and maintenance manuals. Refer to section 15052. 4) Submit draft copies of report for review prior to final acceptance of project. Provide final copies for A/E and for inclusion in operating and maintenance manuals.	5/30/2010	5	14	14	7/2/2010
Drawings	01815 - Testing, Adjusting, and Balancing (TAB) Of Mechanical Systems	1.3B	Include a set of reduced drawings with air outlets and equipment identified to correspond with data sheets and including thermostat locations.	6/15/2010	5	14	14	7/18/2010
Qualification Data	024119 - Selective Structure Demolition	1.4A	**Qualification Data:** For Demolition Firm	[redacted]	5	14	7	6/1/2009
Submittal Schedule	024119 - Selective Structure Demolition	1.4B	**Schedule of Selective Demolition Activities** : Indicate the following: 1. Detailed sequence of selective demolition and removal of work, with starting and ending dates for each activity. Ensure owner's and other tenants' on-site operations are uninterrupted. 2. Interruption of utility services. Indicate how long utility services will be interrupted. 3. Coordination for shutoff, capping, and continuation of utility services.		5	14	7	6/1/2009
Inventory Submittal	024119 - Selective Structure Demolition	1.4C	**Inventory**: After selective demolition is complete, submit a list of items that have been removed and salvaged.		5	14	7	6/1/2009
Design Calculations	031000 - Concrete Formwork	1.6A	**Design Calculations:** Submit for record calculations of all concrete formwork and the shoring plan sealed by a registered engineer in the state where the project is located.	6/6/2009	5	14	7	7/2/2009
Drawings	031000 - Concrete Formwork	1.6B	**Formwork Drawings:** Formwork Drawings, prepared under the supervision and sealed by a registered professional engineer in the state where the project is located, shall be submitted for Owners record and shall be reviewed by the Engineer for conformance to structural layout only. Such shop drawings shall indicate types of materials, sizes, lengths, connection details, design allowance for construction loads, anchors form ties, shores, braces, construction joints, reveals, camber, openings, formwork coatings and all other pertinent information.	6/6/2009	5	14	7	7/2/2009
Drawings	031000 - Concrete Formwork	1.6C	**Pan Form Drawings:** The Contractor shall submit pan shop drawings for Engineer's review and approval. Approval will be for coatings and all other pertinent information.	6/6/2009	5	14	7	7/2/2009
Plan	031000 - Concrete Formwork	1.6D	**Shoring Plan:** Submit drawings to indicate the number of levels of shoring, proposed time and sequence of formwork and shore removal, minimum concrete strength for stripping of forms and shore removal, assumed construction loads, amount and layout of shores (specify whether backshores or reshores), and length of time shores are to be left in place. This plan shall be strictly followed by the Contractor. Shoring plans are to be submitted for Owner's record only and will not be reviewed or returned.	6/6/2009	5	14	7	7/2/2009
Shop Drawings	032000 - Concrete Reinforcement	1.5A	**Shop Drawings**: Submit shop drawings for all reinforcing steel and related accessories for the Engineer's approval. Shop drawings shall show arrangement and layout, bending and assembly diagrams, bar schedules, stirrup spacing, splicing and laps of bars and shall be prepared in accordance with CRSI Standards. Submit details for steel templates that are to be used when placing dowels for columns, plinths, or pilasters out of foundation elements or for placing anchor bolts for structural steel members.	6/6/2009	5	14	7	7/2/2009
Certificates	032000 - Concrete Reinforcement	1.5B	**Mill Certificates:** Submit mill certificates for all reinforcement signed by Contractor and producer for record.	6/6/2009	5	14	7	7/2/2009
Product Data	032000 - Concrete Reinforcement	1.5C	**Product Data:** Submit manufacturer's product data with application and installation instructions for proprietary materials and items, including mechanical splices, dowel bar substitute systems, and dowel bar sleeves.	6/6/2009	5	14	7	7/2/2009
Technical Reports	032000 - Concrete Reinforcement	1.5D	International Conference of Building Official (ICBO) Technical Reports: Submit technical reports of approval from ICBO for mechanical splice and dowel bar substitute systems.	6/6/2009	5	14	7	7/2/2009
Product Data	033000 - Cast-In-Place Concrete	1.7A	**Product Data:** Submit manufacturer's product data with application and installation instructions for proprietary materials and items, including admixtures, patching compounds, epoxies, grouts, waterstops, joint systems, curing compounds, dry-shake finish materials, hardeners, sealers and others as requested by Architect/Engineer.	6/6/2009	5	14	7	7/2/2009
Samples	033000 - Cast-In-Place Concrete	1.7B	**Samples:** Submit samples of materials specified if requested by Architect/Engineer, including names, sources and descriptions.	6/6/2009	5	14	7	7/2/2009
Mix Designs	033000 - Cast-In-Place Concrete	1.7C	**Mix Designs:** Submit mix designs and the Concrete Mix Design Submittal Form located at the back of this specification section for each class of concrete that is to be provided for the project as specified herein. Submit the Qualifying test data that supports each mix design as required herein. For any concrete mix that contains fly ash, submit evidence of satisfactory performance of the mix on past projects using the same percentage level of fly ash replacement with identical sources of materials.	6/6/2009	5	14	7	7/2/2009
Certificates	033000 - Cast-In-Place Concrete	1.7D	**Material and Mill Certificates:** Provide material and mill certificates as specified herein and in the Testing Laboratory section of the Specifications. The Manufacturer and contractor shall sign the material and mill certificates certifying that each material item complies with specified requirements. Provide certification from admixture manufactures that chloride ion content complies with specified requirements.	6/6/2009	5	14	7	7/2/2009
Drawings	033000 - Cast-In-Place Concrete	1.7E	**Construction joints:** Submit drawings of proposed construction joint locations in concrete for slab on grade, foundations, and walls. Submit any additional or changed reinforcing that is required at construction joints that differs from that shown on the drawings.	6/6/2009	5	14	7	7/2/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Description	Item	Description					
Pour Sequence	033000 - Cast-In-Place Concrete	1.7F	Pour Sequence for Mat Foundation: Submit proposed pour sequence for mat foundations.	6/6/2009	5	14	7	7/2/2009
Submittal	033000 - Cast-In-Place Concrete	1.7G	Minutes of preinstallation conference.	6/6/2009	5	14	7	7/2/2009
Surveys	033000 - Cast-In-Place Concrete	1.7H	**Surveys:** Submit report certifying that all anchor rods and reinforcing dowels into columns above are in their proper location prior to placing of concrete.	6/6/2009	5	14	7	7/2/2009
Product Data	033300 - Architectural Concrete	1.5A	**Product Data:** For each type of product indicated.	6/6/2009	5	14	7	7/2/2009
Mix Designs	033300 - Architectural Concrete	1.5B	**Design Mixtures**: For each concrete mixture. Submit alternate design mixtures when characteristics of	6/6/2009	5	14	7	7/2/2009
Shop Drawings	033300 - Architectural Concrete	1.5C	**Formwork Shop Drawings:** Show formwork construction including form-facing joints, rustications, construction and contraction joints, form joint-sealant details, form tie locations and patterns, inserts and embedments, cutouts, cleanout panels, and other items that visually affect cast-in-place architectural concrete.	6/6/2009	5	14	7	7/2/2009
Placement Schedule	033300 - Architectural Concrete	1.5D	**Placement Schedule:** Submit concrete placement schedule before start of placement operations. Include locations of all joints including construction joints.	6/6/2009	5	14	7	7/2/2009
Samples	033300 - Architectural Concrete	1.5E	**Samples:** For each of the following materials: 1. Form-facing panel. 2. Form ties. 3. Form liners. 4. Coarse and fine-aggregate gradations. 5. Chamfers and rustications.	6/6/2009	5	14	7	7/2/2009
Samples	033300 - Architectural Concrete	1.5F	**Samples for Verification:** Architectural concrete Samples, cast vertically, approximately 18 by 18 by 2 inches (450 by 450 by 50 mm), of finishes, colors, and textures to match design reference sample. Include Sample sets showing the full range of variations expected in these characteristics.	6/6/2009	5	14	7	7/2/2009
Qualification Data	033300 - Architectural Concrete	1.5G	**Qualification Data:** For manufacturer and testing agency.	6/6/2009	5	14	7	7/2/2009
Material Test Reports	033300 - Architectural Concrete	1.5H	**Material Test Reports:** For the following, from a qualified testing agency, indicating compliance with requirements: 1. Aggregates: Include service record data indicating absence of deleterious expansion of concrete due to alkali-aggregate reactivity.	6/6/2009	5	14	7	7/2/2009
Submittal	033300 - Architectural Concrete	1.5I	Minutes of preinstallation conference.	6/6/2009	5	14	7	7/2/2009
Shop Drawings	033800 - Post - Tensioned Concrete	1.6B	**Shop Drawings/Field-Placing Drawings:** Submit for review and approval. Drawings shall include but not be limited to the following: 1. Tendon layout, including dimensions, which locates the tendons in the horizontal plane. Detail horizontal curvature of tendons at block-outs, openings and anchorages, and show all openings in slabs and beams. Clearly designate each tendon. 2. Tendon profiles showing support heights and locations, and any required support steel. Show clearly the location of each tendon and the method of support. 3. Details of reinforcement around stressing pockets, closures and openings, including bursting reinforcement, and any interference with tendons. Coordinate with mild reinforcing steel drawings as required 4. Details of anchorages, the positive connection between the anchorage and sheathing, pocket formers, couplers, and other related hardware. 5. Details of the method for sealing the anchorage recesses after the tendon stressing tails have been removed. 6. Clearance requirements for the hydraulic equipment and the dimensions of any stressing pockets required. 7. Sequence of construction, including installation, pouring and stressing sequences. Show all	6/6/2009	5	14	7	7/2/2009
Manufacturer's Data	033800 - Post - Tensioned Concrete	1.6C	**Manufacturer's Data:** Submit for review and approval. 1. Sample hardware, including but not limited to: Anchorage system, coated strand, wedges, pocket formers, and other sub-assemblies required for complete installation including all accessories required to complete the system. Submit evidence of approval by the International Conference of Buildings Officials (ICBO) or other agencies of equal stature. 2. Post-tensioning system brochures. 3. Complete post-tensioning procedure, including but not limited to: Stressing system, method of determining anchor force, method of determining tendon slack, and method of cutting off excess strand after anchorage. 4. Mill Certificates: Submit certified mill reports of post-tensioning steel immediately upon shipment indicating compliance with specified requirements for all material that is to bedelivered to the project. 5. Equipment Calibration: Submit certification of the calibration of all ram and gauge sets to the Architect/Engineer as specified herein. 6. Certifications and other data as may be further required to demonstrate compliance with other items in this section.	6/6/2009	5	14	7	7/2/2009
Calculations	033800 - Post - Tensioned Concrete	1.6D	**Calculations:** 1. Submit calculations showing all engineering required to fully design the post-tensioning system, including friction loss calculations, bursting reinforcement calculations, numberof prestressing tendons, anchorage and coupling systems, tendon supports, and tendon stressing procedures, as required to fully comply with the final force and tendon profiles as shown on the structural drawings. The design shall be in accordance with the requirements of ACI 318. Submit tendon manufacturer's data that documents the wobble and curvature friction coefficients used in the friction loss calculations. Clearly show on the shop drawings the values of wobble and curvature coefficients used in the design. 2. Post-Tensioning Supplier shall secure the services of a qualified professional engineer, licensed in the state where the project is located, to provide the design as specified above. Calculations shall be signed and sealed by the professional engineer and shall be submitted to Architect/Engineer for Owner's record only. 3. Review of shop drawings and calculations by the Architect/Engineer will not relieve the Post-Tensioning Supplier of responsibility for final design as specified here	6/6/2009	5	14	7	7/2/2009

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Records	033800 - Post - Tensioned Concrete	1.6E	**Stressing Records**: The contractor shall provide the appropriate cooperation and access to the Owner's Testing Laboratory to allow them to measure, record, and clearly report the following information. In the absence of a Testing Laboratory representative, the post-tensioning installer shall measure, record, report and submit the information described below. Submit records to the Architect/Engineer for approval within 24 hours after stressing. 1. Floor, pour and tendon identification numbers. For walls, indicate wall location. 2. Calculated elongation and actual measured elongation for each jacking point, and totals for each tendon. 3. Stressing ram number, initial and final gauge load reading during stressing for each tendon. 4. Date of stressing operation and signature of the Contractor's stressing personnel and inspector witnessing the operation. 5. Range of allowable elongations for jacking force or a measure of the deviation of the measured elongations from the calculated elongations. Deviations that do not comply with the specified tolerances shall be noted for the Architect/Engineer to review. 6. Obvious irregularities or stress loss during anchoring procedures. 7. Required and actual concrete strength at time of jacking.	6/6/2009	5	14	7	7/2/2009
Record Drawings	033800 - Post - Tensioned Concrete	1.6F	**Record Drawings:** The Contractor shall provide record drawings to the Owner, in care of the Architect/Engineer, of any approved changes from the contract documents. Form of record drawings may be legible marked-up prints of contract drawings, or separate drawings of same Scale.	6/6/2009	5	14	7	7/2/2009
Submittal	033800 - Post - Tensioned Concrete	1.6G	**Review**: 1. After review, shop drawings/field-placing drawings and data shall not be changed nor shall construction operations be deviated from, unless resubmitted under a cover letter delineating such change and reapproved. 2. Review of details and construction operations will not relieve the Contractor of his responsibility for completing the work successfully in accordance with the contract drawings and specifications.	6/6/2009	5	14	7	7/2/2009
Product Data	0420000 - Unit Masonry	1.6A	**Product Data:** For each type of product indicated.	6/13/2009	5	14	30	8/1/2009
Shop Drawings	0420000 - Unit Masonry	1.6B	**Shop Drawings:** For the following: 1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes. 2. Reinforcing Steel: Detail bending and placement of unit masonry reinforcing bars. Comply with ACI315, "Details and Detailing of Concrete Reinforcement". Show elevations of reinforced walls. 3. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.	6/13/2009	5	14	30	8/1/2009
Samples	0420000 - Unit Masonry	1.6C	**Samples for Initial Selection:** For the following: 1. Colored mortar. 2. Weep holes/vents	6/13/2009	5	14	30	8/1/2009
Samples	0420000 - Unit Masonry	1.6D	**Samples for Verification:** For each type and color of the following: 1. Face brick, in the form of straps of five (5) or more bricks. 2. Burnished face concrete masonry units (CMU) 3. Pigmented mortar. Make Samples using same sand and mortar ingredients to be used on Project.	6/13/2009	5	14	30	8/1/2009
Qualifications Data	0420000 - Unit Masonry	1.6E	**Qualification Data:** For testing agency.	6/13/2009	5	14	30	8/1/2009
Mockup - List of Materials	0420000 - Unit Masonry	1.6F	**List of Materials Used in Constructing Mockups:** List generic product names together with manufacturers, manufacturers' product names, model numbers, lot numbers, batch numbers, source of supply, and other information as required to identify materials used. Include mix proportions for mortar and grout and source of aggregates. 1. Submittal is for information only. Neither receipt of list nor approval of mockup constitutes approval of deviations from the Contract Documents unless such deviations are specifically brought to the attention of Architect and approved in writing.	6/13/2009	5	14	30	8/1/2009
Material Certificates	0420000 - Unit Masonry	1.6G	**Material Certificates:** Include statements of material properties indicating compliance with requirements including compliance with standards and type designations within standards. Provide for each type and size of the following: 1. Masonry units. a. Include material test reports substantiating compliance with requirements. b. For masonry units used in structural masonry, include data and calculations establishing average net-area compressive strength of units. 2. Cementitious materials. Include brand, type, and name of manufacturer. 3. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.4. Grout mixes. Include description of type and proportions of ingredients. 5. Reinforcing bars. 6. Joint reinforcement. 7. Anchors, ties, and metal accessories.	6/13/2009	5	14	30	8/1/2009

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Mix Designs	0420000 - Unit Masonry	1.6H	**Mix Designs:** For each type of mortar and grout. Include description of type and proportions of ingredients. 1. Include test reports, per ASTM C 780, for mortar mixes required to comply with property specification. 2. Include test reports, per ASTM C 1019, for grout mixes required to comply with compressive strength requirement.	6/29/2009	5	14	14	8/1/2009
Statement	0420000 - Unit Masonry	1.6I	**Statement of Compressive Strength of Masonry:** For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined according to Tables 1 and 2 in ACI 530.1/ASCE 6/TMS 602.	6/29/2009	5	14	14	8/1/2009
Procedures	0420000 - Unit Masonry	1.6J	**Cold-Weather Procedures**: Detailed description of methods, materials, and equipment to be used to comply with cold-weather requirements	6/29/2009	5	14	14	8/1/2009
Product Data	047210 - Cast Stone	1.5A	**Product Data:** 1. Manufacturer's specifications and other data needed to prove compliance with specified requirements. 2. Manufacturer's installation instructions.	8/31/2009	5	14	60	11/18/2009
Samples	047210 - Cast Stone	1.5B	**Samples:** For each specified color and texture, two (2) samples, minimum size six (6) inches square for panel material, 12 inches long for moldings, representing actual color and texture of products to be installed. Include samples for inclusion in sample panel(s) specified in Section 04 20 00.	8/31/2009	5	14	60	11/18/2009
Shop Drawings	047210 - Cast Stone	1.5C	**Shop Drawings:** Indicate size, material and finish. Show locations and installation procedures. Include details of joints, attachments and clearances.	8/31/2009	5	14	60	11/18/2009
Design Details	047210 - Cast Stone	1.5D	**Supplementary Design Details:** The general design is presumed adequate to permit compliance with the specified performance, except the contractor is responsible to determine, furnish and install all additional blocking and bracing not shown on the drawings, but required to resist wind loads and all other building code requirements. Provide engineering calculations to supplement the general design. Calculations shall bear the seal of a Registered Professional Engineer, licensed in the State of Texas.	8/31/2009	5	14	60	11/18/2009
Product Data	050510 - Tamper-Proof Metal Fasteners	1.5B	**Product Data:** Submit for each type of tamper-proof fastener. Indicate materials, finish, head design, strength, corrosion resistance, and installation/removal methods.	10/16/2009	5	14	14	11/18/2009
Samples	050510 - Tamper-Proof Metal Fasteners	1.5C	**Samples:** Submit four (4) samples of each type of tamper-proof fastener proposed for use.	10/16/2009	5	14	14	11/18/2009
Product Data	051200 - Structural Steel Framing	1.6A	**Product Data:** Submit producer's or manufacturer's specifications and installation instructions for following products; include laboratory test reports and other data to show compliance with specifications (including the specified standards): 1. Structural steel (each type), including certified copies of mill reports covering chemical and physical properties. 2. High-strength bolts (each type), including nuts and washers, including certified copies of mill reports covering physical and chemical properties. 3. Shrinkage-resistant grout. 4. Unfinished bolts and nuts. 5. Welding electrodes (each type). 6. Structural steel primer paint. 7. Shear studs. 8. Direct tension indicators.	7/1/2009	5	14	90	10/18/2009

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Shop Drawings	051200 - Structural Steel Framing	1.6B	1. Definitions: a. Shop Drawings: Drawings of the individual structural steel shipping pieces that are to be produced in the fabrication shop. b. Erection Drawings: Field-installation or member-placement drawings that are prepared by the Fabricator to show the location and attachment of the individual shipping pieces.c. Erection-Bracing Drawings: Drawings that are prepared by the Erector to illustrate the sequence of erection, any requirements for temporary supports and the requirements for raising, bolting, and/or welding. These drawings are in addition to and separate from the Erection Drawings. 2. Shop Drawings: Submit for review and approval shop drawings prepared under the supervision of and sealed by, for connection design only, a professional engineer licensed in the state where the project is located, including complete details and schedules for fabrication and assembly of structural steel members. In lieu of placing a seal on the shop drawings, the licensed professional engineer responsible for the design of the connections may submit a letter that is sealed attesting that the connection design engineer has reviewed the shop drawings and that the connections shown on the shop drawings conform to the design by the engineer. The Engineer reserves the right to reject all shop drawings not complying with the above requirements. Structural steel shop drawings shall include the following minimum information: a. Include details of cuts, connections, camber, holes, and other pertinent data. Indicate welds by standard AWS symbols, and show size, length, and type of each weld. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify the type of high-strength bolted connection (slip-critical, direct-tension, or bearing connections). Holes, flange cuts, slots and openings shall be made as required by the structural drawings, all of which shall be properly located by means of templates. b. Provide setting drawings, templates, and directions for installation of anchor bolts and other anchorages to be installed by others. 3. Erection Drawings: Submit for review and approval complete erection drawings showing field-installation and member-placing instructions for locating and attaching the individual shipping pieces. 4. Erection-Bracing Drawings: Submit for record purposes only complete erection-bracing drawings to illustrate the sequence of erection, any requirements for temporary supports and the requirements for raising, bolting, and/or welding. 5. Preliminary Connection Review with Steel Fabricator: The fabricator shall submit for	7/1/2009	5	14	90	10/18/2009
Calculations	051200 - Structural Steel Framing	1.6C	**Calculations:** The fabricator's engineer shall submit complete design calculations showing all information as specified in Part 2Connections. The Engineer reserves the right to reject all shop drawings submitted without complete design calculations.	7/1/2009	5	14	90	10/18/2009
Surveys	051200 - Structural Steel Framing	1.6D	Surveys: 1. Initial Survey: Submit report of discrepancies noted during the initial survey. Submit proposed measures to correct or compensate for these discrepancies. 2. Final Survey: Submit a report certifying compliance with specified tolerances.	7/1/2009	5	14	90	10/18/2009
Test Reports	051200 - Structural Steel Framing	1.6E	Test Reports: Submit copies of reports of tests conducted on all material and on shop and field bolted and welded connections. Include data on type's) of tests conducted and test results. See	7/1/2009	5	14	90	10/18/2009
Qualifications Data	051200 - Structural Steel Framing	1.6F	**Qualification Data:** 1. Submit qualification data for firms and persons specified in Article 1.04 "Qualifications" to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified. 2. Submit Welding Procedure Specifications (WPS) in accordance with ANSI/A WS Dl.l for all welded joints. Submit test reports showing successful passage of qualification tests for all non-pre qualified WPSs. 3. Provide certification that welders to be employed in work have satisfactorily passed AWS qualification tests as specified in section 1.05-B. If	7/1/2009	5	14	90	10/18/2009
Substitutions	051200 - Structural Steel Framing	1.6G	**Substitutions:** 1. Substitutions for the member sizes, type(s) of steel connection details or any other modifications proposed by the Contractor will be considered by the Architect/Engineer only under the following conditions: a. That the request has been made and accepted prior to the submission of shop drawings. All substitutions shall be clearly marked and indicated on the shop drawings as a substitute. b. That there is a substantial cost advantage or time advantage to the Owner; or that the proposed revision is necessary to obtain the required materials or methods at the proper times to accomplish the work in the time scheduled. c. That sufficient sketches, engineering calculations, and other data have been submitted to facilitate checking by the Architect/Engineer, including cost reductions or savings in time to complete the work. d. In no case shall such revisions result in additional cost to the Owner.	7/1/2009	5	14	90	10/18/2009

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Activity	Spec Section	Activity	Description					
Product Certification:	052123 - Steel Roof Decking	1.6A	**Product Certification:** Submit manufacturer's specifications and installation instructions for each type of deck specified. Also submit a certificate of product compliance with SDI Standards as specified.	7/1/2009	5	14	90	10/18/2009
Shop Drawings	052123 - Steel Roof Decking	1.6B	**Shop Drawings:** Submit detailed shop drawings showing type of deck, complete layout, attachment details, closures, edge strips, supplementary framing, and all other accessories. The shop drawings shall be sealed by the same registered professional engineer who seals the calculations.	7/1/2009	5	14	90	10/18/2009
Calculations	052123 - Steel Roof Decking	1.6C	**Calculations:** The steel deck manufacturer shall submit design calculations sealed by a registered professional engineer in the state where the project is located verifying compliance with the specifications for all load and span conditions shown on the drawings. Calculations that show the deck attachment procedure and pattern meets the specified design criteria shall also be submitted.	7/1/2009	5	14	90	10/18/2009
Insurance Certification	052123 - Steel Roof Decking	1.6D	**Insurance Certification:** Assist Architect and Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire, windstorm, and extended coverage insurance.	7/1/2009	5	14	90	10/18/2009
Welding Certificate	052123 - Steel Roof Decking	1.6E	**Welding Certificates:** Submit Copies of certificates for welding procedures and personnel.	7/1/2009	5	14	90	10/18/2009
Product Data	052123 - Steel Roof Decking	1.5A	**Product Data:** For each type of cold-formed metal framing product and accessory indicated.	7/1/2009	5	14	90	10/18/2009
Shop Drawings	052123 - Steel Roof Decking	1.5B	**Shop Drawings:** Show layout, spacings, sizes, thicknesses, and types of cold-formed metal framing; fabrication; and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details, and attachment to adjoining work. 1. For cold-formed metal framing indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.	7/1/2009	5	14	90	10/18/2009
Product Data	055000 - Metal Fabrications	1.4A	**Product Data**: For the following: 1. Paint products.	7/2/2009	5	14	120	11/18/2009
Shop Drawings	055000 - Metal Fabrications	1.4B	**Shop Drawings**: Detail fabrication and erection of each metal fabrication indicated. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items. 1. Provide templates for anchors and bolts specified for installation under other Sections.	7/2/2009	5	14	120	11/18/2009
Welding Certificate	055000 - Metal Fabrications	1.4C	**Welding Certificates**: Copies of certificates for welding procedures and personnel.	7/2/2009	5	14	120	11/18/2009
Qualifications Data	055000 - Metal Fabrications	1.4D	**Qualification Data:** For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.	7/2/2009	5	14	120	11/18/2009
Product Data	055100 - Metal Stairs	1.5A	**Product Data:** For metal stairs and the following: 1. Prefilled metal-pan stair treads. 2. Nonslip aggregates and nonslip-aggregate finishes.	7/2/2009	5	14	120	11/18/2009
Shop Drawings	055100 - Metal Stairs	1.5B	**Shop Drawings**: Show fabrication and installation details for metal stairs. Include plans, elevations, sections, and details of metal stairs and their connections. Show anchorage and accessory items. Provide templates for anchors and bolts specified for installation under other Sections.	7/2/2009	5	14	120	11/18/2009
Welding Certificate	055100 - Metal Stairs	1.5C	**Welding Certificates:** Copies of certificates for welding procedures and personnel.	7/2/2009	5	14	120	11/18/2009
Qualifications Data	055100 - Metal Stairs	1.5D	**Qualification Data:** For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.	7/2/2009	5	14	120	11/18/2009
Product Data	055210 - Pipe and Tube Railings	1.5A	**Product Data:** For the following: 1. Manufacturer's product lines of mechanically connected railings. 2. Grout, anchoring cement, and paint products.	7/2/2009	5	14	120	11/18/2009
Shop Drawings	055210 - Pipe and Tube Railings	1.5B	**Shop Drawings:** Include plans, elevations, sections, details, and attachments to other work. 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.	7/2/2009	5	14	120	11/18/2009
Samples	055210 - Pipe and Tube Railings	1.5C	**Samples for Initial Selection:** For products involving selection of color, texture, or design, including mechanical finishes on stainless steel	7/2/2009	5	14	120	11/18/2009
Samples	055210 - Pipe and Tube Railings	1.5D	**Samples for Verification:** For each type of exposed finish required. 1. Sections of each distinctly different linear railing member, including handrails, top rails, posts, and balusters. 2. Fittings and brackets.	7/2/2009	5	14	120	11/18/2009
Mill Certificates	055210 - Pipe and Tube Railings	1.5E	**Mill Certificates:** Signed by manufacturers of stainless-steel products certifying that products furnished comply with requirements.	7/2/2009	5	14	120	11/18/2009
Welding Certificate	055210 - Pipe and Tube Railings	1.5F	**Welding Certificates**	7/2/2009	5	14	120	11/18/2009
Qualifications Data	055210 - Pipe and Tube Railings	1.5G	**Qualification Data:** For professional engineer and testing agency.	7/2/2009	5	14	120	11/18/2009
Product Test Reports	055210 - Pipe and Tube Railings	1.5H	**Product Test Reports:** Based on evaluation of comprehensive tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935	7/2/2009	5	14	120	11/18/2009

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Product Data	061000 - Rough Carpentry	1.5A	**Product Data:** For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details. 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664. 3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site. 4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.	11/22/2009	5	14	7	12/18/2009
Research/Evaluation Report	061000 - Rough Carpentry	1.5B	**Research/Evaluation Reports:** For the following, showing compliance with building code in effect for Project: 1. W wood-preservative-treated wood 2. Fire-retardant-treated wood.	11/22/2009	5	14	7	12/18/2009
Product Data	061600 - Sheathing	1.4A	**Product Data:** For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details. 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained. 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Include physical properties of treated materials. 3. For fire-retardant treatments specified to be High-Temperature (HT) type, include physical properties of treated plywood both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5516. 4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to	11/22/2009	5	14	7	12/18/2009
Research/Evaluation Report	061600 - Sheathing	1.4B	**Research/Evaluation Reports:** For the following, showing compliance with building code in effect for Project: 1. Preservative-treated plywood. 2. Fire-retardant-treated plywood.	11/22/2009	5	14	7	12/18/2009
Product Data	064100 - Interior Architectural Woodwork	1.4A	**Product Data:** For each type of product indicated, including cabinet hardware and accessories and finishing materials and processes.	1/29/2010	5	14	90	5/18/2010
Product Data	064100 - Interior Architectural Woodwork	1.4B	**Product Data:** For panel products, high-pressure decorative laminate, adhesive for bonding plastic laminate, cabinet hardware and accessories, and finishing materials and processes.	1/29/2010	5	14	90	5/18/2010
Shop Drawings	064100 - Interior Architectural Woodwork	1.4C	**Shop Drawings:** Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.1. Show details full size.2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.3. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, soap dispensers, and other items installed in architectural woodwork.4. Show veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and sequence within the flitch for each leaf.	1/29/2010	5	14	90	5/18/2010
Samples	064100 - Interior Architectural Woodwork	1.4D	**Samples for Initial Selection:** 1. Shop-applied transparent finishes. 2. Shop-applied opaque finishes. 3. Plastic laminates.	1/29/2010	5	14	90	5/18/2010
Samples for Verification	064100 - Interior Architectural Woodwork	1.4E	**Samples for Verification:** 1. Lumber with or for transparent finish, not less than 5 inches wide by 24 inches long, for each species and cut, finished on 1 side and 1 edge. 2. Veneer leaves representative of and selected from flitches to be used for transparent-finished woodwork. 3. Veneer-faced panel products with or for transparent finish, 12 by 24 inches, for each species and cut. Include at least one face-veneer seam and finish as specified. 4. Plastic laminates, 8 by 10 inches, for each type, color, pattern, and surface finish, with 1 sample applied to core material and specified edge material applied to 1 edge. 5. Corner pieces as follows: a. Cabinet-front frame joints between stiles and rails, as well as exposed end pieces, 18 inches high by 18 inches wide by 6 inches deep. b. Miter joints for standing trim. 6. Exposed cabinet hardware and accessories, one unit for each type and finish	1/29/2010	5	14	90	5/18/2010

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Product Certification:	064100 - Interior Architectural Woodwork	1.4F	**Product Certificates**: For each type of product, signed by product manufacturer.	1/29/2010	5	14	90	5/18/2010
Woodwork Quality	064100 - Interior Architectural Woodwork	1.4G	**Woodwork Quality Standard Compliance Certificates:** AWI Quality Certification Program certificates.	1/29/2010	5	14	90	5/18/2010
Qualifications Data	064100 - Interior Architectural Woodwork	1.4H	**Qualification Data:** For Fabricator.	1/29/2010	5	14	90	5/18/2010
Product Data	064216 - Wood Panels	1.4A	**Product Data:** Submit data on fire retardant treatment materials and application instructions by item and location when specified in this Section	1/29/2010	5	14	90	5/18/2010
Shop Drawings	064216 - Wood Panels	1.4B	**Shop Drawings:** Indicate materials, surface graining elevations of sheet paneling, fastening methods, joining methods, and interruptions to other work, to minimum scale of 1-1/2 inch to 1 ft. Include plan of panel number sequencing. 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. Include	1/29/2010	5	14	90	5/18/2010
Samples	064216 - Wood Panels	1.4C	**Samples:** 1. Submit two samples of finished paneling, 8 x 10 inch in size illustrating wood grain and specified finish. Include three unique samples indicating representative wood features from front, back and middle of veneer flitch. 2. Submit two samples of wood trim, 12 inches long.	1/29/2010	5	14	90	5/18/2010
Certification	064216 - Wood Panels	1.4D	**Certification:** Submit copy of fabricators letter of certification from AWI.	1/29/2010	5	14	90	5/18/2010
Product Data	071150 - Bituminous Dampproofing	1.4A	**Product Data:** 1. Manufacturer's specifications and other data needed to prove compliance with specified requirements. 2. Manufacturer's installation instructions.	6/15/2009	5	14	14	7/18/2009
Manufacturer's Technical Product Data	071300 - Below Grade Waterproofing	1.5A	Submit manufacturer's technical product data, installation instructions, and recommendations for each waterproofing material required. Include data substantiating that materials comply with requirements.	6/15/2009	5	14	14	7/18/2009
Manufacturer's Certifications	071300 - Below Grade Waterproofing	1.5B	Manufacturer's certification that applicator is approved by manufacturer.	6/15/2009	5	14	14	7/18/2009
Sample Warranty	071300 - Below Grade Waterproofing	1.5C	Submit a sample warranty identifying the terms and conditions stated in warranty.	6/15/2009	5	14	14	7/18/2009
Product Data	071311 - Self-Adhering Sheet Waterproofing	1.5A	**Product Data:** Include manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties of waterproofing.	6/15/2009	5	14	14	7/18/2009
Shop Drawings	071311 - Self-Adhering Sheet Waterproofing	1.5B	**Shop Drawings:** Show locations and extent of waterproofing. Include details for substrate joints and cracks, sheet flashings, penetrations, inside and outside corners, tie-ins with adjoining waterproofing, and other termination conditions.	6/15/2009	5	14	14	7/18/2009
Samples	071311 - Self-Adhering Sheet Waterproofing	1.5C	**Samples:** For the following products: 1. 12-by-12-inch square of waterproofing and flashing sheet.	6/15/2009	5	14	14	7/18/2009
Installer Certificates	071311 - Self-Adhering Sheet Waterproofing	1.5D	**Installer Certificates:** Signed by manufacturers certifying that installers comply with requirements.	6/15/2009	5	14	14	7/18/2009
Product Test Reports	071311 - Self-Adhering Sheet Waterproofing	1.5E	**Product Test Reports:** From a qualified independent testing agency indicating and interpreting test results of waterproofing for compliance with requirements, based on comprehensive testing of current waterproofing formulations.	6/15/2009	5	14	14	7/18/2009
Sample Warranty	071311 - Self-Adhering Sheet Waterproofing	1.5F	**Sample Warranty**: Copy of special waterproofing manufacturer's warranty stating obligations, remedies, limitations, and exclusions before starting waterproofing	6/15/2009	5	14	14	7/18/2009
Product Data	071900 - Water Repellants	1.4A	**Product Data:** Provide details of product description, tests performed, limitations to coating, and chemical properties including percentage of solids.	6/15/2009	5	14	14	7/18/2009
Manufacturer's Installation Instructions	071900 - Water Repellants	1.4B	**Manufacturer's Installation Instructions:** Indicate special procedures and conditions requiring special attention; cautionary procedures required during application.	6/15/2009	5	14	14	7/18/2009
Manufacturer's Certificate	071900 - Water Repellants	1.4C	**Manufacturer's Certificate:** Certify that Products meet or exceed specified requirements.	6/8/2009	5	14	21	7/18/2009
Product Data	072100 - Building Insulation	1.4A	**Product Data:** For each type of product indicated.	6/8/2009	5	14	21	7/18/2009
Samples for Verification	072100 - Building Insulation	1.4B	**Samples for Verification:** Full-size units for each type of exposed insulation indicated.	6/8/2009	5	14	21	7/18/2009
Product Test Reports	072100 - Building Insulation	1.4C	**Product Test Reports:** Based on evaluation of comprehensive tests performed by a qualified testing agency, for insulation products.	6/8/2009	5	14	21	7/18/2009
Research/Evaluation Report	072100 - Building Insulation	1.4D	**Research/Evaluation Reports:** For plastic insulation.	6/8/2009	5	14	21	7/18/2009
Product Data	074130 - Exterior Metal Wall Panels	1.5A	**Product Data:** Include manufacturer's product specifications, standard details, certified product test results, and general recommendations, as applicable to materials and finishes for each component and for total panel assemblies.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	074130 - Exterior Metal Wall Panels	1.5B	**Shop Drawings:** Show layouts of panels, details of corner conditions, joints, panel profiles, supports, anchorages, trim, flashings, closures, and special details. Distinguish between factory and field-assembled work.	8/31/2009	5	14	90	12/18/2009
Samples for Verification	074130 - Exterior Metal Wall Panels	1.5C	**Samples for Verification:** Provide sample panels 12 inches (300 mm) long by actual panel width, in the profile, style, color, and texture indicated. Include clips, caps, battens, fasteners, closures, and other exposed panel accessories	8/31/2009	5	14	90	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Qualifications Data	074130 - Exterior Metal Wall Panels	1.5D	**Qualification Data:** For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified	8/31/2009	5	14	90	12/18/2009
Product Test Reports	074130 - Exterior Metal Wall Panels	1.5E	**Product Test Reports**: Indicate compliance of manufactured wall panel assemblies and materials with performance and other requirements based on comprehensive testing of current products.	8/31/2009	5	14	90	12/18/2009
Product Data	075520 - SBS-Modified Bituminous Membrane Roofing	1.5A	**Product Data:** For each type of roofing product specified. Include data substantiating that materials comply with requirements.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	075520 - SBS-Modified Bituminous Membrane Roofing	1.5B	**Shop Drawings:** Include plans, sections, details, and attachments to other work, for the following: 1. Base flashings, cants, and membrane terminations. 2. Tapered insulation, including slopes. 3. Crickets, saddles, and tapered edge strips, including slopes.	8/31/2009	5	14	90	12/18/2009
Samples for Verification	075520 - SBS-Modified Bituminous Membrane Roofing	1.5C	**Samples for Verification:** Of the following products: 1. 12-by-12-inch (300-by-300-mm) square of modified bituminous, granule surfaced cap sheets, of color specified.2. 12-by-12-inch (300-by-300-mm) square of roofing insulation.3. 12-by-12-inch (300-by-300-mm) square of walkway pads.4. Six (6) insulation fasteners of each type, length, and finish.	8/31/2009	5	14	90	12/18/2009
Installer Certificates	075520 - SBS-Modified Bituminous Membrane Roofing	1.5D	**Installer Certificates**: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install specified roofing system and is eligible to receive the standard roofing manufacturer's warranty	8/31/2009	5	14	90	12/18/2009
Manufacturer Certificates	075520 - SBS-Modified Bituminous Membrane Roofing	1.5E	**Manufacturer Certificates**: Signed by roofing system manufacturer certifying that the roofing system complies with requirements specified in the "Performance Requirements" Article. Upon request, submit evidence of complying with requirements.	8/31/2009	5	14	90	12/18/2009
Qualifications Data	075520 - SBS-Modified Bituminous Membrane Roofing	1.5F	**Qualification Data:** For firms and persons specified to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.	8/31/2009	5	14	90	12/18/2009
Product Test Reports	075520 - SBS-Modified Bituminous Membrane Roofing	1.5G	**Product Test Reports:** Based on evaluation of tests performed by manufacturer and witnessed by a qualified independent testing agency, indicate compliance of components of roofing system with requirements based on comprehensive testing of current product compositions. 1. Indicate compliance of bulk roofing asphalt materials delivered to Project with requirements. Include quantity and statistical and descriptive data for each product. Submit certificate with each load before it is used. 2. Include continuous log showing time and temperature for each load of bulk bitumen, indicating date obtained from manufacturer, where held, and how transported before final heating and application on roof.	8/31/2009	5	14	90	12/18/2009
Research/Evaluation Report	075520 - SBS-Modified Bituminous Membrane Roofing	1.5H	**Research/Evaluation Reports:** Evidence of roofing system's compliance with building code in effect for Project from a model code organization acceptable to authorities having jurisdiction.	8/31/2009	5	14	90	12/18/2009
Maintenance Data	075520 - SBS-Modified Bituminous Membrane Roofing	1.5I	**Maintenance Data:** For roofing system to include in the maintenance manuals specified in Division 01.	8/31/2009	5	14	90	12/18/2009
Warranty	075520 - SBS-Modified Bituminous Membrane Roofing	1.5J	**Warranty:** Sample copy of standard roofing manufacturer's warranty stating obligations, remedies, limitations, and exclusions of warranty.	8/31/2009	5	14	90	12/18/2009
Inspection Reports	075520 - SBS-Modified Bituminous Membrane Roofing	1.5K	**Inspection Report:** Copy of roofing system manufacturer's inspection report of completed roof installation.	8/31/2009	5	14	90	12/18/2009
Product Data	076100 - Prefinished Metal Roofing	1.5A	**Product Data:** For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	076100 - Prefinished Metal Roofing	1.5B	**Shop Drawings:** Show fabrication and installation layouts of metal roofing, including plans, elevations, expansion joint locations, and keyed details. Distinguish between shop and field-assembled work. Include the following:1. Details for forming metal roofing, including seams and dimensions.2. Details for joining and securing metal roofing, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.3. Details of termination points and assemblies, including fixed points.4. Details of expansion joints, including showing direction of expansion andcontraction.5. Details of roof penetrations.6. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, andcounterflashings.7. Details of special conditions.8. Details of connections to adjoining work.9. Detail the following accessory items, at a scale of not less than 1-1/2 inches per12 inches (1: 10):	8/31/2009	5	14	90	12/18/2009
Calculations	076100 - Prefinished Metal Roofing	1.5C	**Calculations:** 1. Engineering calculations defining cladding loads on all roof areas based on specified building codes, allowable clip loads and required number of fasteners to secure the panel clips to the designated substructure. 2. Uplift loads on clip fasteners with full recognition of prying forces and eccentric clip loading. Calculate holding strength of fasteners in accordance with submitted test data provided by fastener manufacturer based on length of embedment and properties of materials.	8/31/2009	5	14	90	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Samples	076100 - Prefinished Metal Roofing	1.5D	**Samples:** 1. Color charts or samples from the manufacturer's standard line of Kynar 500 or Hylar 5000 finishes for Architect's selection. 2. One (1) foot long sample of coated panel, including clips and fasteners.	8/31/2009	5	14	90	12/18/2009
Certification	076100 - Prefinished Metal Roofing	1.5E	**Certifications:** 1. Letter of certification from manufacturer that installer is in compliance and meets specified requirements. 2. Letter of certification from manufacturer that panels have been produced in accordance with strictest applicable standards to ensure quality. 3. Certified test results by a recognized testing laboratory or manufacturer's laboratory (witnessed by a professional engineer) in accordance with specified performance test methods for each panel system.	8/31/2009	5	14	90	12/18/2009
Test Reports	076100 - Prefinished Metal Roofing	1.5F	**Testing Reports:** Showing metal panels have been tested in accordance with specified performance testing requirements.	8/31/2009	5	14	90	12/18/2009
Warranty	076100 - Prefinished Metal Roofing	1.5G	**Warranty:** Manufacturer's warranty as specified.	8/31/2009	5	14	90	12/18/2009
Manufacturer's Acknowledgement Letter	076200 - Sheet Metal Flashing and Trim	1.5A	**Manufacturer's Acknowledgement Letter:** Follow Division 01 Section "Submittal Procedures".	8/31/2009	5	14	90	12/18/2009
Product Data	076200 - Sheet Metal Flashing and Trim	1.5B	**Product Data:** For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	076200 - Sheet Metal Flashing and Trim	1.5C	**Shop Drawings:** Show layouts of sheet metal flashing and trim, including plans and elevations. Distinguish between shop and field-assembled work. Include the following:1. Identify material, thickness, weight, and finish for each item and location inProject.2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.3. Details for fastening, joining, supporting, and anchoring sheet metal flashing and trim, including fasteners, clips, cleats, and attachments to adjoining work.4. Details of expansion-joint covers, including showing direction of expansion and contraction.	8/31/2009	5	14	90	12/18/2009
Samples for Initial Selection	076200 - Sheet Metal Flashing and Trim	1.5D	**Samples for Initial Selection**: For each type of sheet metal flashing and trim indicated with factory-applied color finishes. 1. Include similar Samples of trim and accessories involving color selection.	8/31/2009	5	14	90	12/18/2009
Samples for Verification	076200 - Sheet Metal Flashing and Trim	1.5E	**Samples for Verification:** For each type of exposed finish required, prepared on Samples of size indicated below: 1. Sheet Metal Flashing: 12 inches long. Include fasteners, cleats, clips, closures, and other attachments. 2. Trim: 12 inches long. Include fasteners and other exposed accessories. 3. Accessories: Full-size Sample.	8/31/2009	5	14	90	12/18/2009
Product Data	078120 - Cementitious Sprayed Fire-Resistive Materials	1.5A	**Product Data:** For each fire-resistive product specified.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	078120 - Cementitious Sprayed Fire-Resistive Materials	1.5B	**Shop Drawings:** Structural framing plans indicating the following: 1. Locations and types of surface preparations required before applying sprayed fire-resistive material. 2. Extent of sprayed fire-resistive material for each construction and fire-resistance rating, including the following: a. Applicable fire-resistive design designations of a qualified testing and inspecting agency acceptable to authorities having jurisdiction. b. Minimum thicknesses needed to achieve required fire-resistance ratings of structural components and assemblies. c. Designation of restrained and unrestrained conditions based on definitions in ASTM E 119, Appendix X3 as determined by a qualified professional engineer.	10/30/2009	5	14	30	12/18/2009
Installer Certificates	078120 - Cementitious Sprayed Fire-Resistive Materials	1.5C	**Installer Certificates:** Signed by manufacturer certifying that installers comply with specified requirements.	10/30/2009	5	14	30	12/18/2009
Qualifications Data	078120 - Cementitious Sprayed Fire-Resistive Materials	1.5D	**Qualification Data:** For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.	10/30/2009	5	14	30	12/18/2009
Compatibility and Adhesion Test Reports	078120 - Cementitious Sprayed Fire-Resistive Materials	1.5E	**Compatibility and Adhesion Test Reports:** For primers and other coatings applied to structural steel. Provide reports from a qualified independent testing and inspecting agency engaged by Contractor. Confirm that primers and coatings proposed for application in shop or field are compatible with fire-resistive material. Instruct laboratory to determine compatibility according to requirements specified in "Quality Assurance" Article.	10/30/2009	5	14	30	12/18/2009
Product Data	078160 - Intumescent Fireproofing	1.4A	**Product Data:** Manufacturer's data sheets on each product to be used, including: 1. UL Design Listings for specific applications required. 2. Storage and handling requirements and recommendations. 3. Field application manual.	10/30/2009	5	14	30	12/18/2009
Samples	078160 - Intumescent Fireproofing	1.4B	**Samples:** Two (2) sets of samples representing anticipated texture and finish.	10/30/2009	5	14	30	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Certification	078160 - Intumescent Fireproofing	1.4C	**Certification**: Obtain and submit certification by authority having jurisdiction that fireproofing products are acceptable.	10/30/2009	5	14	30	12/18/2009
Installer Certificates	078160 - Intumescent Fireproofing	1.4D	Installer's qualification statement indicating installer is approved by the manufacturer as an installer.	10/30/2009	5	14	30	12/18/2009
Product Data	078413 - Penetration Firestopping	1.4A	**Product Data**: For each type of product indicated.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	078413 - Penetration Firestopping	1.4B	**Shop Drawings:** For each through-penetration firestop system, show each type of construction condition penetrated, relationships to adjoining construction, and type of penetrating item. Include firestop design designation of qualified testing and inspecting agency that evidences compliance with requirements for each condition indicated. 1. Submit documentation, including illustrations, from a qualified testing and inspecting agency that is applicable to each through-penetration firestop system configuration for construction and penetrating items. 2. Where Project conditions require modification to a qualified testing and inspecting agency's illustration for a particular through-penetration firestop condition, submit illustration, with modifications marked, approved by throughpenetration firestop system manufacturer's fire-protection engineer as anengineering judgment or equivalent fire-resistance-rated assembly.	10/30/2009	5	14	30	12/18/2009
Through-Penetration Fire stop System Schedule	078413 - Penetration Firestopping	1.4C	**Through-Penetration Firestop System Schedule:** Indicate locations of each through penetration firestop system, along with the following information:1. Types of penetrating items.2. Types of constructions penetrated, including fire-resistance ratings and, where applicable, thicknesses of construction penetrated.3. Through-penetration firestop systems for each location identified by firestop design designation of qualified testing and inspecting agency.	10/30/2009	5	14	30	12/18/2009
Qualifications Data	078413 - Penetration Firestopping	1.4D	**Qualification Data:** For Installer.	10/30/2009	5	14	30	12/18/2009
Product Certification:	078413 - Penetration Firestopping	1.4E	**Product Certificates:** For through-penetration firestop system products, signed by product manufacturer.	10/30/2009	5	14	30	12/18/2009
Product Test Reports	078413 - Penetration Firestopping	1.4F	**Product Test Reports:** From a qualified testing agency indicating through-penetration firestop system complies with requirements, based on comprehensive testing of current products.	10/30/2009	5	14	30	12/18/2009
Product Data	079200 - Joint Sealants	1.4A	**Product Data:** For each joint-sealant product indicated.	10/30/2009	5	14	30	12/18/2009
Samples for Initial Selection	079200 - Joint Sealants	1.4B	**Samples for Initial Selection:** Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.	10/30/2009	5	14	30	12/18/2009
Samples for Verification	079200 - Joint Sealants	1.4C	**Samples for Verification:** For each type and color of joint sealant required. Install joint sealants in 1/2-inch-wide joints formed between two 6-inch-long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.	10/30/2009	5	14	30	12/18/2009
Product Certification:	079200 - Joint Sealants	1.4D	**Product Certificates:** Signed by manufacturers of joint sealants certifying that products furnished comply with requirements and are suitable for the use indicated.	10/30/2009	5	14	30	12/18/2009
Qualifications Data	079200 - Joint Sealants	1.4E	**Qualification Data:** For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.	10/30/2009	5	14	30	12/18/2009
Preconstruction Field Test Reports	079200 - Joint Sealants	1.4F	**Preconstruction Field Test Reports**: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on preconstruction testing specified in "Quality Assurance" Article.	10/30/2009	5	14	30	12/18/2009
Field Test Report Log	079200 - Joint Sealants	1.4G	**Field Test Report Log**: For each electrometric sealant application. Include information specified in "Field Quality Control" Article.	10/30/2009	5	14	30	12/18/2009
Compatibility and Adhesion Test Reports	079200 - Joint Sealants	1.4H	**Compatibility and Adhesion Test Reports: From sealant manufacturer indicating the following:** 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants. 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.	10/30/2009	5	14	30	12/18/2009
Product Test Reports	079200 - Joint Sealants	1.4I	**Product Test Reports:** From a qualified testing agency indicating sealants comply with requirements, based on comprehensive testing of current product formulations.	10/30/2009	5	14	30	12/18/2009
Warranty	079200 - Joint Sealants	1.4J	**Warranties:** Special warranties specified in this Section.	10/30/2009	5	14	30	12/18/2009
Product Data	081200 - Interior Aluminum Frames	1.4A	**Product Data:** 1. Manufacturer's technical product data substantiating that product's comply with requirements. 2. Manufacturer's installation instructions.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	081200 - Interior Aluminum Frames	1.4B	**Shop Drawings:** 1. Provide standard installation details for typical architectural conditions. 2. Provide details of connections to special construction and other custom features.	8/31/2009	5	14	90	12/18/2009
Product Data	081313 - Hollow Metal Frames	1.5A	**Product Data:** 1. Manufacturer's standard details and catalog data demonstrating compliance with specifications and referenced standards. 2. Manufacturer's installation instructions.	9/30/2009	5	14	60	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Shop Drawings	081313 - Hollow Metal Frames	1.5B	**Shop Drawings:** 1. Indicate complete schedule in detail for each steel door and frame using the same reference number for details and openings as those on the Contract Drawings. If " any door is not by the steel door manufacturer only the door opening number should be shown along with the type of door (wood, plastic laminate faced, etc.). 2. Show details of construction, installation, connections, anchors, hardware reinforcement, hardware preparation, louvers, and floor and threshold clearances.	9/30/2009	5	14	60	12/18/2009
Samples	081313 - Hollow Metal Frames	1.5C	**Samples:** 1. 12 inch x 12 inch sample of a fire-rated and non-rated door, cut from corner of door, showing door construction. 2. 12 inch x 12 inch sample of each type of door louver specified or required, showing louver construction. 3. 6 inch long sample of a fire-rated, non-rated frame, and each type of glass stop specified or required, showing corner and construction.	9/30/2009	5	14	60	12/18/2009
Certification	081313 - Hollow Metal Frames	1.5D	**Certificates:** 1. Manufacturer's certification that oversized openings are In compliance with specifications.	9/30/2009	5	14	60	12/18/2009
Product Data	081416 - Wood Doors	1.4A	**Product Data:** For each type of door indicated. Include details of core and edge construction, louvers, and trim for openings.	3/1/2010	5	14	90	6/18/2010
Shop Drawings	081416 - Wood Doors	1.4B	**Shop Drawings:** Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data. 1. Indicate dimensions and locations of mortises and holes for hardware. 2. Indicate dimensions and locations of cutouts. 3. Indicate door finish requirements. 4. Indicate fire-protection ratings for fire-rated doors.	3/1/2010	5	14	90	6/18/2010
Samples for Initial Selection	081416 - Wood Doors	1.4C	**Samples for Initial Selection:** For plastic-laminate door faces.	3/1/2010	5	14	90	6/18/2010
Samples for Verification	081416 - Wood Doors	1.4D	**Samples for Verification:** 1. Plastic laminate, 6 inches square, for each color, texture, and pattern selected. 2. Corner sections of doors, approximately 8 by 10 inches, with door faces and edges representing actual materials to be used. a. Finish samples for each color, texture, and pattern of plastic laminate required. 3. Louver blade and frame sections, 6 inches long, for each material and finish specified. 4. Frames for light openings, 6 inches long, for each material, type, and finish required.	3/1/2010	5	14	90	6/18/2010
Warranty	081416 - Wood Doors	1.4E	**Warranty:** Sample of special warranty.	3/1/2010	5	14	90	6/18/2010
Product Data	083100 - Access Doors and Frames	1.4A	**Product Data:** For each type of door and frame indicated. Include construction details relative to materials, individual components and profiles, finishes, and fire ratings (if required) for access doors and frames.	4/30/2010	5	14	30	6/18/2010
Coordination Drawings	083100 - Access Doors and Frames	1.4B	**Coordination Drawings:** Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items with concealed framing, suspension systems, piping, ductwork, and other construction. Show the following: 1. Method of attaching door frames to surrounding construction. 2. Ceiling-mounted items including access doors and frames, lighting fixtures, diffusers, grilles, speakers, sprinklers, and special trim.	4/30/2010	5	14	30	6/18/2010
Product Data	083323 - Overhead Coiling Doors	1.6A	**Product Data:** For each type and size of overhead coiling door and accessory. Include the following: 1. Summary of forces and loads on walls and jambs. 2. Fire-Rated Doors: Include description of fire-release system including testing and resetting instructions.	3/31/2010	5	14	60	6/18/2010
Shop Drawings	083323 - Overhead Coiling Doors	1.6B	**Shop Drawings:** For special components and installations not dimensioned or detailed in manufacturer's product data.	3/31/2010	5	14	60	6/18/2010
Samples for Initial Selection	083323 - Overhead Coiling Doors	1.6C	**Samples for Initial Selection:** Manufacturer's color charts showing full range of colors available for units with factory-applied finishes.	3/31/2010	5	14	60	6/18/2010
Samples for Verification	083323 - Overhead Coiling Doors	1.6D	**Samples for Verification**: Of each type of exposed finish required, prepared on Samples of size indicated below. 1. Curtain Slats: 12 inches long. 2. Bottom Bar: 6 inches long. 3. Guides: 6 inches long. 4. Brackets: 6 inches square. 5. Hood: 6 inches square.	3/31/2010	5	14	60	6/18/2010
Qualifications Data	083323 - Overhead Coiling Doors	1.6E	**Qualification Data:** For Installer.	3/31/2010	5	14	60	6/18/2010
Product Data	083326 - Overhead Coiling Grilles	1.6A	**Product Data:** For each type and size of overhead coiling grille and accessory. Include the following: 1. Summary of forces and loads on walls and jambs.	3/31/2010	5	14	60	6/18/2010
Shop Drawings	083326 - Overhead Coiling Grilles	1.6B	**Shop Drawings:** For special components and installations not dimensioned or detailed in manufacturer's product data	3/31/2010	5	14	60	6/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

[illegible]	[illegible] Section	Article	Description	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Samples for Initial Selection	083326 - Overhead Coiling Grilles	1.6C	**Samples for Initial Selection:** Manufacturer's color charts showing full range of colors available for units with factory-applied finishes.	3/31/2010	5	14	60	6/18/2010
Samples for Verification	083326 - Overhead Coiling Grilles	1.6D	**Samples for Verification:** Of each type of exposed finish required, prepared on Samples of size indicated below. 1. Grille Curtain: 12-inch square assembly with rods, spacers, and vertical links. 2. Grille Curtain with Glazed Panels: Not less than 12-inch square assembly with full-size panels. 3. Bottom Bar: 6 inches long. 4. Guides: 6 inches long. 5. Brackets: 6 inches square. 6. Hood: 6 inches square.	3/31/2010	5	14	60	6/18/2010
Qualifications Data	083326 - Overhead Coiling Grilles	1.6E	**Qualification Data:** For Installer.	3/31/2010	5	14	60	6/18/2010
Product Data	084113 - Aluminum-Framed Entrances and Storefronts	1.5A	**Product Data:** Included construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of product indicated.	10/1/2009	5	14	90	1/18/2010
Shop Drawings	084113 - Aluminum-Framed Entrances and Storefronts	1.5B	**Shop Drawings:** For aluminum-framed systems. Include plans, elevations, sections, details, and attachments to other work. 1. Included structural analysis data signed and sealed by the qualified professional engineer responsible for the preparation. 2. Include details of provisions for system expansion and contraction and for draining moisture occurring within the system to the exterior. 3. For entrances, include hardware schedule and indicate operating hardware types, functions, quantities, and locations.	10/1/2009	5	14	90	1/18/2010
Samples for Verification	084113 - Aluminum-Framed Entrances and Storefronts	1.5C	**Samples for Verification:** For each type of exposed finish required, in manufacturer's standard sizes.	10/1/2009	5	14	90	1/18/2010
Maintenance Data	084113 - Aluminum-Framed Entrances and Storefronts	1.5D	**Maintenance Data:** For aluminum-framed systems to include in maintenance manuals.	10/1/2009	5	14	90	1/18/2010
Warranty	084113 - Aluminum-Framed Entrances and Storefronts	1.5E	**Warranties:** Special warranties specified in this Section	10/1/2009	5	14	90	1/18/2010
Product Data	084412 - Glazed Aluminum Curtain Wall	1.5A	**Product Data:** Manufacturer's specifications	10/1/2009	5	14	90	1/18/2010
Shop Drawings	084412 - Glazed Aluminum Curtain Wall	1.5B	**Shop drawings**: Window location chart; typical window elevations; details of assemblies and glazing details for factory-glazed units	10/1/2009	5	14	90	1/18/2010
Samples	084412 - Glazed Aluminum Curtain Wall	1.5C	Each specified finish for aluminum ; other samples as requested.	10/1/2009	5	14	90	1/18/2010
Quality Assurance/Control Submittals	084412 - Glazed Aluminum Curtain Wall	1.5D	**Quality Assurance/Control Submittals:** 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics.	10/1/2009	5	14	90	1/18/2010
Product Data	086200 - Unit Skylights	1.6A	**Product Data:** Submit product data, for specified products.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	086200 - Unit Skylights	1.6B	**Shop Drawings**: Submit shop drawings showing layout, profiles, and product components, including anchorage, accessories, finishes and colors. 1. Submit shop drawings for approval prior to fabrication. Include details of framing members, glazing materials where applicable, sealants, fasteners, anchors and thicknesses and types of formed flashing and closures.	8/31/2009	5	14	90	12/18/2009
Samples	086200 - Unit Skylights	1.6C	**Samples:** Submit selection and verification samples for finishes, colors and textures. 1. Glazing Samples: Submit a verification sample of plastic glazing material in specified color. 2. Finish Samples: Submit a verification sample of aluminum finish in specified color. 3. Submit samples for each type of glass, 12 x 12 inch size.	8/31/2009	5	14	90	12/18/2009
Quality Assurance Submittals	086200 - Unit Skylights	1.6D	**Quality Assurance Submittals:** Submit the following: 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties. 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria, and physical requirements. 3. Manufacturer's Instructions: Manufacturer's installation instructions. 4. Manufacturer's Field Reports: Manufacturer's field reports specified herein.	8/31/2009	5	14	90	12/18/2009
Closeout Submittals	086200 - Unit Skylights	1.6E	**Closeout Submittals:** Submit the following: 1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Procedures and Operations and Maintenance Data Sections. Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance. 2. Warranty: Warranty documents specified herein.	8/31/2009	5	14	90	12/18/2009
Product Data	087100 - Door Hardware	1.4A	**Submit manufacturer's technical product data** for each item of hardware. Final Hardware Schedule Content: Based on hardware indicated, organize schedule into vertical format "hardware sets" indicating complete designations of every item required for each door or opening. Use specification heading numbers with any variations suffixed a, b, etc	3/1/2010	5	14	90	6/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

P/A	Spec Section	Article	Description					
Coordination	087100 - Door Hardware	1.4B	**Coordinate hardware with doors, frames, and related work** to ensure proper size thickness, hand, function, and finish of hardware. If requested by Architect, submit one sample of each type of exposed hardware unit, finished as required, and tagged with full description for coordination with schedule. Submit data and schedule at earliest possible date, particularly where acceptance of schedule must precede fabrication of other work (e. g. hollow metal frames) that is critical to the Project construction schedule. 1. Type, style, function, size and finish of each hardware item 2. Name and manufacturer of each item. 3. Fastenings and other pertinent information. 4. Hardware set location cross-referenced to both Drawing floor plan and door schedule indications. 5. Explanation of all abbreviations, symbols, and codes in schedule. 6. Mounting locations for hardware. 7. Door and frame sizes and materials.	3/1/2010	5	14	90	6/18/2010
Coordination	087100 - Door Hardware	1.4C	**Coordinate keying** instructions, and keying information. Deliver keys and key control box tc Owner in person and obtain receipt (No Exceptions).	3/1/2010	5	14	90	6/18/2010
Product Data	087700 - Door and Window Accessories	1.4A	**Product Data:** Manufacturer's technical data sheets on each product to be used, including: 1. Preparation instructions and recommendations. 2. Storage and handling requirements and recommendations. 3. Installation methods.	8/31/2009	5	14	90	12/18/2009
Certificate of Compliance	087700 - Door and Window Accessories	1.4B	**Certificate of Compliance**: Product certificate from the accessory manufacturer certifying that the applicable products being supplied comply with specified requirements and that the products have been tested by Underwriters' Laboratories (UL) and Warnock Hersey International (WHI), and National Fire Protection Association (NFP A) as specified.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	087700 - Door and Window Accessories	1.4C	**Shop Drawings**: Provide details showing installation in doors of types appropriate for the project. Show cutouts, reinforcement required and other door and frame preparation.	8/31/2009	5	14	90	12/18/2009
Selection Samples	087700 - Door and Window Accessories	1.4D	**Selection Samples**: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.	8/31/2009	5	14	90	12/18/2009
Verification Sample	087700 - Door and Window Accessories	1.4E	**Verification Samples:** For each finish product specified, two samples, minimum size 12 inches (300 mm) square, representing actual product, color, and patterns	8/31/2009	5	14	90	12/18/2009
Product Data	088000 - Glazing	1.5A	**Product Data:** For each glass product and glazing material indicated.	8/31/2009	5	14	90	12/18/2009
Samples	088000 - Glazing	1.5B	**Samples**: For the following products, in the form of 12-inch square Samples for glass and of 12-inch long Samples for sealants. Install sealant Samples between two strips of material representative in color of the adjoining framing system.	8/31/2009	5	14	90	12/18/2009
Samples:	088000 - Glazing	1.5C	**Samples:** For the following products, in the form of 12-inch square Samples. 1. For each color (except black) of exposed glazing sealant indicated. 2. Window tint film.	8/31/2009	5	14	90	12/18/2009
Glazing Schedule	088000 - Glazing	1.5D	**Glazing Schedule**: Use same designations indicated on Drawings for glazed openings in preparing a schedule listing glass types and thicknesses for each size opening and location.	8/31/2009	5	14	90	12/18/2009
Product Certification	088000 - Glazing	1.5E	**Product Certificates:** Signed by manufacturers of glass and glazing products certifying that products furnished comply with requirements.	8/31/2009	5	14	90	12/18/2009
Qualifications Data	088000 - Glazing	1.5F	**Qualification Data**: For installers.	8/31/2009	5	14	90	12/18/2009
Preconstruction Adhesion and Compatibility Test Reports	088000 - Glazing	1.5G	**Preconstruction Adhesion and Compatibility Test Report** : From glazing sealant manufacturer indicating glazing sealants were tested for adhesion to glass and glazing channel substrates and for compatibility with glass and other glazing materials.	8/31/2009	5	14	90	12/18/2009
Product Test Reports	088000 - Glazing	1.5H	**Product Test Reports**: For each of the following types of glazing products: 1. Glazing sealants. 2. Glazing gaskets.	8/31/2009	5	14	90	12/18/2009
Warranty	088000 - Glazing	1.5I	**Warranties:** As specified in this Section.	8/31/2009	5	14	90	12/18/2009
Shop Drawings	089500 - Translucent Glazing Systems	1.5A	**Shop Drawings**: Submit one (1) full size set re-producible and two (2) full size copies of shop drawings plans, elevations, and section as required to fully describe the skylight construction for the Architect's approval prior to starting fabrication.	8/31/2009	5	14	90	12/18/2009
Calculations	089500 - Translucent Glazing Systems	1.5B	Submit structural calculations prepared in accordance with the Aluminum Association's Specifications for Aluminum Structures (SAS30) by a professional engineer qualified in the design of self-supporting skylights and licensed in the State of Texas.	8/31/2009	5	14	90	12/18/2009
Test Reports	089500 - Translucent Glazing Systems	1.5C	Submit test reports from an independent recognized testing laboratory, or a full size system sample, showing the skylight system has been designed to allow the glazing material to expand and contract in both the X and Y axis	8/31/2009	5	14	90	12/18/2009
Samples	089500 - Translucent Glazing Systems	1.5D	Submit two 12 inch square samples of the glazing material.	8/31/2009	5	14	90	12/18/2009
Samples	089500 - Translucent Glazing Systems	1.5E	Submit one 12 inch long snap-on cap.	8/31/2009	5	14	90	12/18/2009
Product Data	092400 - Portland Cement Plaster	1.4A	**Product Data:** For each type of product installed.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	092400 - Portland Cement Plaster	1.4B	**Shop Drawings:** Show locations and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other work.	10/30/2009	5	14	30	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

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Samples for Initial Selection	092400 - Portland Cement Plaster	1.4C	Samples for Initial Selection: for each type of factory-prepared finish coat indicated	10/30/2009	5	14	30	12/18/2009
Samples for Verification	092400 - Portland Cement Plaster	1.4D	**Samples for Verification**: For each type of factory-prepared, colored, or textured finish coat indicated; 12 by 12 inches (305 by 305 mm), and prepared on rigid backing.	10/30/2009	5	14	30	12/18/2009
Product Data	092900 - Glass Fiber Reinforced Gypsum Fabrications (GFRG)	1.4A	**Product Data**: Manufacturer's data sheets on each product to be used, including dimensions, finishes, storage and handling requirements and recommendations, and installation recommendations.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	092900 - Glass Fiber Reinforced Gypsum Fabrications (GFRG)	1.4B	**Shop Drawings**: Showing plans, sections, details, joint treatment, reinforcing fastening devices, and relation to adjacent construction.	10/30/2009	5	14	30	12/18/2009
Samples	092900 - Glass Fiber Reinforced Gypsum Fabrications (GFRG)	1.4C	**Samples:** For each finish specified, three (3) 6 inch x 6 inch flat samples for color and finish selection.	10/30/2009	5	14	30	12/18/2009
Product Data	092900 - Gypsum Board	1.4A	**Product Data**: For each type of product indicated.	11/22/2009	5	14	7	12/18/2009
Product Data	092905 - Gypsum Board Shaft-Wall Assemblies	1.4A	**Product Data**: For each type of product indicated.	11/22/2009	5	14	7	12/18/2009
Product Data	093000 - Tiling	1.5A	**Product Data**: For each type of product indicated.	3/31/2010	5	14	60	6/18/2010
Shop Drawings	093000 - Tiling	1.5B	**Shop Drawings:** Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints in tile substrates and finished tile surfaces.	3/31/2010	5	14	60	6/18/2010
Master Grade Certificates:	093000 - Tiling	1.5C	**Master Grade Certificates**: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.	3/31/2010	5	14	60	6/18/2010
Product Certification:	093000 - Tiling	1.5D	**Product Certificates**: For each type of product, signed by product manufacturer.	3/31/2010	5	14	60	6/18/2010
Qualifications Data	093000 - Tiling	1.5E	**Qualification Data**: For Installer.	3/31/2010	5	14	60	6/18/2010
Material Test Reports	093000 - Tiling	1.5F	**Material Test Reports**: For each tile-setting and -grouting product.	3/31/2010	5	14	60	6/18/2010
Product Data	093800 - Dimension Stone Tile	1.4A	**Product Data**: Submit manufacturer's product data and installation instructions for each material and product used.	3/1/2010	5	14	90	6/18/2010
Samples	093800 - Dimension Stone Tile	1.4B	**Samples**: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.	3/1/2010	5	14	90	6/18/2010
Product Data	094010 - Cementitious Terrazzo	1.4A	**Product Data**: For each type of terrazzo and accessory indicated.	3/1/2010	5	14	90	6/18/2010
Shop Drawings	094010 - Cementitious Terrazzo	1.4B	**Shop Drawings**: Include terrazzo fabrication and installation requirements. Include plans, elevations, sections, component details, and attachments to other Work. Show layout of the following: 1. Divider and control and expansion-joint strips.2. Base and border strips.3. Abrasive strips.4. Stair treads, risers, and landings.5. Terrazzo patterns.	3/1/2010	5	14	90	6/18/2010
Samples for Initial Selection	094010 - Cementitious Terrazzo	1.4C	**Samples for Initial Selection**: NTMA color plates showing the full range of colors and patterns available for each terrazzo type indicated.	3/1/2010	5	14	90	6/18/2010
Samples for Verification	094010 - Cementitious Terrazzo	1.4D	**Samples for Verification**: For each type, material, color, and pattern of terrazzo and accessory required showing the full range of color, texture, and pattern variations expected. Label each terrazzo sample to identify matrix color and aggregate types, sizes, and proportions. Prepare samples of same thickness and from same material to be used for the Work in size indicated below: 1. Terrazzo: 6-inch(150-mm-) square samples.2. Accessories: 6-inch(150-mm-) long samples of each exposed strip item required.	3/1/2010	5	14	90	6/18/2010
Qualifications Data	094010 - Cementitious Terrazzo	1.4E	**Qualification Data**: For Installer.	3/1/2010	5	14	90	6/18/2010
Material Certificates	094010 - Cementitious Terrazzo	1.4F	**Material Certificates**: For each terrazzo type, signed by manufacturers	3/1/2010	5	14	90	6/18/2010
Maintenance Data	094010 - Cementitious Terrazzo	1.4G	**Maintenance Data:** For each terrazzo type to include in maintenance manuals	3/1/2010	5	14	90	6/18/2010
Product Data	095123 - Acoustical Lay-In Ceiling	1.4A	**Product Data:** For each type of product indicated.	2/28/2010	5	14	60	5/18/2010
Coordination Drawings	095123 - Acoustical Lay-In Ceiling	1.4B	**Coordination Drawings**: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved: 1. Ceiling suspension system members. 2. Method of attaching hangers to building structure. 3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings. 4. Minimum Drawing Scale: 1/4 inch = 1 foot.	2/28/2010	5	14	60	5/18/2010
Samples for Initial Selection	095123 - Acoustical Lay-In Ceiling	1.4C	**Samples for Initial Selection:** For components with factory-applied color finishes. 1. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inchlong Samples of each type, finish, and color. Manufacturer's specifications and other data needed to prove compliance with specified requirements. Manufacturer's installation instructions.	2/28/2010	5	14	60	5/18/2010
Samples	095123 - Acoustical Lay-In Ceiling	1.4D	**Samples:** 1. 12 inch x 12 inch sample of each ceiling panel. 2. 12 inch long sample of each type grid and actual accessories.	2/28/2010	5	14	60	5/18/2010
Research/Evaluation Report	095123 - Acoustical Lay-In Ceiling	1.4E	**Research/Evaluation Reports:** For each acoustical panel ceiling and components and anchor and fastener type.	2/28/2010	5	14	60	5/18/2010
Maintenance Data	095123 - Acoustical Lay-In Ceiling	1.4F	**Maintenance Data:** For finishes to include in maintenance manuals.	2/28/2010	5	14	60	5/18/2010
Product Data	096530 - Resilient Wall Base and Accessories	1.4A	**Product Data**: For each type of product indicated.	2/28/2010	5	14	60	5/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

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Samples for Initial Selection	096530 - Resilient Wall Base and Accessories	1.4B	**Samples for Initial Selection**: For each type of product indicated	2/28/2010	5	14	60	5/18/2010
Samples for Verification	096530 - Resilient Wall Base and Accessories	1.4C	**Samples for Verification**: For each type of product indicated, in manufacturer's standardize Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required	2/28/2010	5	14	60	5/18/2010
Product Data	096813 - Carpet Tile	1.4A	**Product Data:** 1. Manufacturer's material product data, including adhesive. 2. Manufacturer's installation instructions. 3. Manufacturer's maintenance instructions.	2/28/2010	5	14	60	5/18/2010
Samples	096813 - Carpet Tile	1.4B	**Samples:** 1. Showing manufacturer's colors (12 inches x 12 inches) of each type carpet tile for Architect's selection and approval. 2. Actual sample of each type carpet tile in approved color from factory to produce each run of carpet tile.	2/28/2010	5	14	60	5/18/2010
Shop Drawings	096813 - Carpet Tile	1.4C	**Shop Drawings**: Showing layout of all carpet tile, and location and type of carpet tile accessories.	2/28/2010	5	14	60	5/18/2010
Certification	096813 - Carpet Tile	1.4D	**Certificates:** 1. Showing information on manufacturer's mill where carpet tile was or will be produced and date of last inspection for specification tolerances.	2/28/2010	5	14	60	5/18/2010
Detail Sheets	096900 - Access Flooring	1.9A	Detail sheets, for each proposed product type, which provide the necessary information to describe the product and its performance.	2/28/2010	5	14	60	5/18/2010
Test Reports	096900 - Access Flooring	1.9B	Test reports, certified by an independent testing laboratory with a minimum of five years experience testing access floor components in accordance with CISCA Recommended Test Procedures, certifying that component parts perform as specified.	2/28/2010	5	14	60	5/18/2010
Submittals for Information	096900 - Access Flooring	1.9C	**Submittals for Information:** 1. Manufacturer's installation instructions and guidelines. 2. Manufacturer's Owner Manual outlining recommended care and maintenance procedures.	2/28/2010	5	14	60	5/18/2010
Manufacturer's Installation Instructions	096900 - Access Flooring	1.10A	Manufacturer's installation instructions and guidelines.	2/28/2010	5	14	60	5/18/2010
Manufacturer's Owner Manual	096900 - Access Flooring	1.10B	Manufacturer's Owner Manual outlining recommended care and maintenance procedures.	2/28/2010	5	14	60	5/18/2010
Product Data	097750 - Fiber Reinforced Plastic Panels (FRP)	1.4A	**Product Data:** Provide data on materials, product characteristics, performance criteria, and limitations.	2/28/2010	5	14	60	5/18/2010
Samples	097750 - Fiber Reinforced Plastic Panels (FRP)	1.4B	**Samples:** 1. Submit two, 12 x 12 inches in size plastic panels illustrating color and texture of finish. 2. Submit two, 8 inch long plastic joint moldings illustrating color and texture of finish.	2/28/2010	5	14	60	5/18/2010
Installation Instructions	097750 - Fiber Reinforced Plastic Panels (FRP)	1.4C	**Installation Instructions:** Submit manufacturer's printed installation instructions.	2/28/2010	5	14	60	5/18/2010
Product Data	097950 - Concrete Floor Sealer and Finish	1.4A	**Product Data:** Submit manufacturer's product data describing materials, recommended application procedures and coverage rates.	2/28/2010	5	14	60	5/18/2010
Product Data	098410 - Acoustical Wall Panels	1.4A	**Product Data:** Submit manufacturer's product data for wall panels.	1/29/2010	5	14	90	5/18/2010
Shop Drawings	098410 - Acoustical Wall Panels	1.4B	**Shop Drawings**: Submit manufacturer's shop drawings of wall panels.	1/29/2010	5	14	90	5/18/2010
Samples	098410 - Acoustical Wall Panels	1.4C	**Samples:** 1. Submit 12 by 12 inch samples of each color and fabric finish specified for Architect's selection.2. Submit 24 by 24 inch samples of typical panel including corners, seams, and mounting details.	1/29/2010	5	14	90	5/18/2010
Informational Submittals	098410 - Acoustical Wall Panels	1.4D	**Submit following Informational Submittals:** 1. Test Reports: a. Submit independent laboratory sound transmission test report on letterhead of testing laboratory.b. Submit certified test reports on composite fabric and backing flame spread and smoke contribution.2. Certifications specified in Quality Assurance article.3. Qualification Data: Manufacturer's qualification data.4. Manufacturer's instructions.5. Manufacturer's field reports.	1/29/2010	5	14	90	5/18/2010
Closeout Submittals	098410 - Acoustical Wall Panels	1.4E	**Closeout Submittals:** 1. Cleaning and maintenance data.	1/29/2010	5	14	90	5/18/2010
Material List	099000 - Painting and Staining	1.5A	**Material lists.** Give the supplier's name, product name, number and generic description of each proposed product and its use. Provide product data sheets and MSDS sheets for each product. Include VOC content.	4/15/2010	5	14	14	5/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Item	Description					
Samples	099000 - Painting and Staining	1.5B	**Samples.** Submit full range of colors, patterns, textures and finishes available for selection, including the following: 1. Color Chips: Provide complete duplicate sets of color chips for color selection. 2. Small Applied Samples: Provide pieces of actual material on which paint will occur with minimum dry mil thickness of specified paint. Provide painted 12 inch x 12 inch actual gypsum wallboard samples with approved textures for Architect's approval. Approved samples will become standard for which all work will be judged. 3. Sheen Samples: Provide full range of varying sheens when sheens are controllable by intermixing.	4/15/2010	5	14	14	5/18/2010
Installed Samples	099000 - Painting and Staining	1.5C	Installed Samples. Provide large size samples for approval. Approved samples may be left in place as part of the work.	4/15/2010	5	14	14	5/18/2010
Installed Samples	099000 - Painting and Staining	1.5D	One room and/or area, as selected by the Architect, shall be painted with materials specified or accepted and applied directly from container, unthinned. After acceptance by Architect, room and/or area shall be standard of quality of entire project	4/15/2010	5	14	14	5/18/2010
Certification	099000 - Painting and Staining	1.5E	**Certifications:** 1. Furnish a letter certifying that materials submitted are truly equivalent or better than those called out in the finish schedule. 2. Furnish certification by the manufacturer that products supplied comply with local regulations controlling use of volatile organic compounds (VOCs).	4/15/2010	5	14	14	5/18/2010
Product Data	099653 - Electrometric Coating	1.4A	**Product Data:** Include manufacturer's technical bulletins on each product.	3/30/2010	5	14	30	5/18/2010
Samples	099653 - Electrometric Coating	1.4B	Sample of manufacturer's limited warranty and warranty application procedures.	3/30/2010	5	14	30	5/18/2010
Product Data	102000 - Louvers and Vents	1.5A	**Product Data:** 1. Manufacturer's literature, including schedules, charts, and illustrations to indicate the performance, fabrication, procedures, product variations, and accessories. 2. Air flow and water entrainment performance test results. 3. Material types and thickness.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	102000 - Louvers and Vents	1.5B	**Shop Drawings:** 1. Include elevations, sections and specific details for each louver. 2. Show anchorage details and connections for all component parts. 3. Include signed and sealed structural calculations.	8/1/2009	5	14	120	12/18/2009
Samples	102000 - Louvers and Vents	1.5C	**Samples**: Material of size to indicate finish for Architect's approval.	8/1/2009	5	14	120	12/18/2009
Product Data	102113 - Toilet Compartments	1.4A	**Product Data:** For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.	3/31/2010	5	14	90	7/18/2010
Shop Drawings	102113 - Toilet Compartments	1.4B	**Shop Drawings:** Include plans, elevations, sections, details, and attachments to other work. 1. Show locations of cutouts for compartment-mounted toilet accessories. 2. Show locations of reinforcements for compartment-mounted grab bars.	3/31/2010	5	14	90	7/18/2010
Samples for Initial Selection	102113 - Toilet Compartments	1.4C	**Samples for Initial Selection:** For each type of unit indicated	3/31/2010	5	14	90	7/18/2010
Samples for Verification	102113 - Toilet Compartments	1.4D	**Samples for Verification:** Of each type of color and finish required for units, prepared on 6-inch square Samples of same thickness and material indicated for Work.	3/31/2010	5	14	90	7/18/2010
Product Data	102410 - Louvered Screen Wall	1.4A	Submit manufacturer's product literature describing materials and finishes.	3/1/2010	5	14	120	7/18/2010
Shop Drawings	102410 - Louvered Screen Wall	1.4B	Submit shop drawings for the fabrication and erection of screen enclosures. Include plans, elevations, and detail sections. Show jointing, anchorage and accessory items, and specify finishes.	3/1/2010	5	14	120	7/18/2010
product Data	102813 - Toilet Accessories	1.4A	**Product Data**: For each type of product indicated. Include the following: 1. Construction details and dimensions. 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation 3. Material and finish descriptions. 4. Features that will be included for Project. 5. Manufacturer's warranty.	4/30/2010	5	14	60	7/18/2010
Samples	102813 - Toilet Accessories	1.4B	**Samples**: Full size, for each accessory item to verify design, operation, and finish requirements. 1. Approved full-size Samples will be returned and may be used in the Work.	4/30/2010	5	14	60	7/18/2010
Product Schedule	102813 - Toilet Accessories	1.4C	**Product Schedule**: Indicating types, quantities, sizes, and installation locations by room of each accessory required. 1. Identify locations using room designations indicated on Drawings.	4/30/2010	5	14	60	7/18/2010
Maintenance Data	102813 - Toilet Accessories	1.4D	**Maintenance Data**: For toilet and bath accessories to include in maintenance manuals.	4/30/2010	5	14	60	7/18/2010
Product Data	103500 - Flagpoles	1.5A	**Product Data:** 1. Manufacturer's specifications and other data needed to prove compliance with specified requirements. 2. Manufacturer's installation instructions. 3. Manufacturer's operation and maintenance data.	4/30/2010	5	14	60	7/18/2010
Shop Drawings	103500 - Flagpoles	1.5B	**Shop Drawings**: Show general layout, dimensions, base details, anchorage, finishes and components of system	4/30/2010	5	14	60	7/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Schedule	104000 - Identifying Devices	5.1	A detailed graphic timeline schedule by phases of production and installation is to be submitted by the successful bidder at the same time as final bid quote submittals.	3/1/2010	5	14	120	7/18/2010
Samples	104000 - Identifying Devices	5.2	**Samples** Submit (4) 8" x 10" samples of each color and finish of exposed materials and accessories, or final material substrate to be used in the project. Match the following paint colors using Matthews/Grip Gard acrylic polyurethane paint with a semi-gloss finish. They are as follows: P-I, PMS 0000 (Color). P-2, Brand (Color). P-3, Brand (Color). Submit one (1) Digital Print control sample of the following for the Graphic Designer's approval before beginning final production: Use final approved artwork for sample. Sign Type EXT.03.! EXT.06.1 EXT.O! Description 000000 000000 000000 Submit one (1) vinyl control sample of the following for the Graphic Designer's approval before beginning final production: V-I, Brand (Color). V-2, Brand (Color). V-3, Brand (Color). December 8, 2008 Permit Set These samples shall become the property of the Graphic Designer for use in checking quality levels of workmanship at the time of final on-site punch reviews. Submit one (1) control sample of the following for the Graphic Designer's approval before beginning final production: Sign Type Description These samples shall become the property of the Graphic Designer.	3/1/2010	5	14	120	7/18/2010
Shop Drawings	104000 - Identifying Devices	5.3	**Shop Drawings** Submit one (1) reproducible copy of shop drawings in ledger font (11" x 17"), for the manufacturing, fabrication and erection of signs and graphic work at large scale. Show jointage, anchorage, accessory items, and finishes. A. Acceptance of shop drawings does not in any way change the documents. Documents may only be changed in writing. B. The Signage Contractor is responsible for reviewing shop drawings for conformance with the documents and notifying, in writing, the Graphic Designer of any variation from the documents. C. It is the Signage Contractor's responsibility to generate all such shop drawings without use of the Graphic Designers electronic contract documents and files, to demonstrate the complete understanding of the work to be completed. D. Changes to the shop drawings are to be made by the Signage Contractor as directed by the Graphic Designer.	3/1/2010	5	14	120	7/18/2010
Copy Layouts	104000 - Identifying Devices	5.4	**Copy Layouts** Copy layouts are to be provided for each sign type. Submit full-scale drawings of typical sign faces showing copy layout. Half-scale drawings will be sufficient for sign faces 40" x 40" and larger. For multiple-message sign types, a typical of each variation to the original layout should be provided.	3/1/2010	5	14	120	7/18/2010
Manufacturer's Data	104000 - Identifying Devices	5.5	**Manufacturer's Data** Submit one (1) copy of the manufacturer's printed specifications, anchorage details and installation, and maintenance instructions for products to be used in the fabrication of signs and graphics work.	3/1/2010	5	14	120	7/18/2010
Product Data	105050 - Metal Lockers	1.4A	**Product Data:** Submit manufacturer's product data and installation instructions. Include product data on hardware, filler panels, tops, and other accessory items specified.	3/1/2010	5	14	120	7/18/2010
Samples	105050 - Metal Lockers	1.4B	**Samples**: Submit three (3) 6 inch x 6 inch samples of each required metal finish and color, on the same metal which will be used in the finished lockers.	3/1/2010	5	14	120	7/18/2010
Maintenance Instructions	105050 - Metal Lockers	1.4C	**Maintenance Instructions:** Instructions for cleaning lockers and for adjusting, repairing, and replacing locker doors and latching mechanisms	3/1/2010	5	14	120	7/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

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Manufacturer's Technical Data	105200 - Fire Protection Specialties	1.5A	Submit manufacturer's technical data and installation instructions for all fire extinguishers and cabinets required. For fire extinguisher cabinets include roughing-in dimensions, and details showing mounting methods, relationships to surrounding construction, door hardware, cabinet type and materials, trim style and door construction, style, and materials. Where color selection is required include color charts showing full range of manufacturer's standard colors and designs available.	4/30/2010	5	14	60	7/18/2010
Product Data	107316 - Aluminum Canopy	1.4A	**Product Data**: Manufacturer's literature and data on all components.	8/1/2010	5	14	120	12/18/2010
Shop Drawings	107316 - Aluminum Canopy	1.4B	**Shop Drawings**: Include plans, anchor-bolt plans, engineering for foundation drawings and engineering for structural-framing drawings, and attachments to other Work sealed by professional engineer registered in the State of Texas showing the required live and wind loads of the Project	8/1/2010	5	14	120	12/18/2010
Samples	107316 - Aluminum Canopy	1.4C	**Samples**: 6 inch x 6 inch samples of each material with specified finish	8/1/2010	5	14	120	12/18/2010
Product Data	111300 - Loading Dock Equipment	1.5A	**Product Data**: Include construction details, material descriptions, rated capacities, operating characteristics, furnished specialties, accessories, dimensions of individual components and profiles, and finishes.	6/15/2009	5	14	45	8/18/2009
Shop Drawings	111300 - Loading Dock Equipment	1.5B	**Shop Drawings**: Show fabrication and installation details. Include plans, elevations, sections, details, and attachments to other work.	6/15/2009	5	14	45	8/18/2009
Product Test Reports	111300 - Loading Dock Equipment	1.5C	**Product Test Reports**: Based on evaluation of tests performed by manufacturer and supervised and verified by a qualified independent professional engineer, indicate compliance of dock levelers with requirements of MH 30.1 for determining rated capacity, which is based on comprehensive testing within the last two (2) years of current products.	6/15/2009	5	14	45	8/18/2009
Maintenance Data	111300 - Loading Dock Equipment	1.5D	**Maintenance Data:** For loading dock equipment to include in maintenance manuals.	6/15/2009	5	14	45	8/18/2009
Warranty	111300 - Loading Dock Equipment	1.5E	**Warranties:** Special warranties specified in this Section.	6/15/2009	5	14	45	8/18/2009
General	111900 - Detention Equipment	1.4A	**General:** Submittals shall be made in accordance with procedures outlined in Division 1, Section 01340, and as listed herein	6/29/2009	5	14	45	9/1/2009
Quality and Control	111900 - Detention Equipment	1.4B	**Quality and Control:** The DEC will extensively check each of the submittals under their scope of work prior to submittal, ensuring their correctness and compatibility, not only with each other, but also with the Contract Documents. The DEC shall specifically coordinate all hardware, locking devices, and glazing with the hollow metal. The DEC will promptly notify the CM/CM/GC and Architect of any discrepancies, conflicts, errors, etc., which become apparent during the preparation of submittals. 1. The DEC shall develop and submit complete submittals and do so in a timely manner. By failing to do so, the DEC agrees to be fully responsible for any and all damages that might be occasioned by the DEC's failure to do so. Review of submittals shall be limited to 2 submissions. The Architect shall be compensated for additional reviews. 2. Review of shop drawings or schedules by the Architect shall not relieve the DEC from responsibility for deviations from drawings or specifications, unless they have, in writing, called attention to such deviations at the time of submission and secured written approval; nor shall it relieve them from responsibility for errors in shop drawings or schedules. 3. Submittals for individual systems and equipment assemblies that consist of more than one item or component shall be made for the system or assembly as a whole. Partial submittals will not be considered. Partial submittals will be returned at the expense of the DEC. 4. The DEC shall schedule a submittal review meeting for the purpose of initial submittal review for this Section of work. The meeting shall be scheduled and held within 60 days of award of contract. Notify the Architect three weeks in advance of proposed meeting date. Provide 2 sets of submittals to the Architect two weeks prior to the meeting. The pre-submittal review meeting will be held in the Architect's offices. If submittals are not sufficiently complete for proper review, a additional meeting will be rescheduled at the expense of the DEC.	6/14/2009	5	14	60	9/1/2009
Shop Drawings	111900 - Detention Equipment	1.4B2	**Shop Drawings (General)**: Shop drawings and/or templates on all materials and equipment of this Section shall be submitted for approval. All shop drawings shall be to scale. All shop drawings shall clearly indicate each item's location, size, type of materials, construction, finishes, spacing of anchors and joinery details with adjacent work. 1. Hollow Metal Drawings: Shop drawings showing all Hollow Metal constructions shall be submitted for approval. They shall clearly indicate item location, size, type of materials, construction, finishes, spacing of anchors and joinery details with adjacent work. The Hollow Metal Submittal shall include a complete 'Opening Schedule' showing all door and window openings. (Also-See Locking Device coordination drawings). 2. Locking Device Coordination Drawings: Shop drawings showing all Locking Device constructions shall be submitted for approval. They shall clearly indicate item location, size, type of materials, construction, finishes, spacing of anchors and joinery details with adjacent work. The Locking Device coordination drawings shall combine the Locking Device submittal drawings and the affected Hollow Metal frames into one, coordinated package. 3. Detention Equipment Drawings: Shop drawings showing all Detention Equipment (Furniture and Accessories) shall be submitted for approval. They shall clearly indicate item location, size, type of materials, construction, finishes, spacing of anchors and joinery details with adjacent work.	6/14/2009	5	14	60	9/1/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Number	Description				
Schedule	111900 - Detention Equipment	1.4C	**Schedules (General):** Schedules and/or templates on all materials and equipment of this Section shall be submitted for approval. They shall clearly indicate each item's location, size, type of materials, construction, finishes, spacing of anchors and joinery details with adjacent work. 1. Security Hardware Schedule: The DEC shall provide a complete Security Door/Hardware Schedule. This submittal shall include ALL openings provided under this section. The DEC shall cross-reference their hardware set numbers with the hardware set numbers used within the Contract Documents .. The submittal shall include cut sheets of all products included therein. 2. Security Glass I Glazing Schedule: The DEC shall provide a complete Security Glass I Glazing Schedule. This submittal shall include ALL openings provided under this section. The DEC shall cross-reference the glass types with those used within the Contract Documents. . The submittal shall include cut sheets of all products included therein. Product Data: Submit manufacturer's printed technical product data and catalog sheets indicating product characteristics, performance and limiting criteria. 3. Keying Schedule: The DEC shall provide a preliminary keying schedule for ALL openings provided under this section. The DEC shall attend a meeting with the Design Team and user to review the Hardware Schedule and the proposed keying. (See section 11192 Locks IHardware).	6/14/2009	5	14	60	9/1/2009
Templates	111900 - Detention Equipment	1.4D	**Templates:** Upon receipt of the approved security hardware schedule, the DEC shall promptly provide the security hardware templates to the security hollow metal manufacturer, the CMICMIGC, the Consultant, the ESS, or others requiring said information, for those entities' use in designing and installing their equipment and systems. The DEC shall extensively check the templates and shall certify their accuracy.	6/14/2009	5	14	60	9/1/2009
Product Data	111900 - Detention Equipment	1.4E	**Product Data:** Submit manufacturer's printed technical product data and catalog sheets indicating product characteristics, performance and limiting criteria.	6/14/2009	5	14	60	9/1/2009
Fire Labels	111900 - Detention Equipment	1.4F	**Fire Labels:** The DEC shall review the fire rated openings within the scope of this contract and identify any openings that cannot be fire labeled and the reasons why they cannot. If the designer furnishes the name of an approved manufacturer who can supply the fire labeled openings in question, the DEC shall be required to furnish the openings with fire labels at no additional cost. However, if label openings are not available as designed, the designer shall either authorize the necessary changes in opening design, hardware, glass or other features which will bring the openings into compliance or drop the fire labeling requirement on openings in question. Manufacturing the openings ""Label Construction" without factory applied fire labels shall not be acceptable unless requested by the Consultant in writing.	6/14/2009	5	14	60	9/1/2009
Samples	111900 - Detention Equipment	1.4G	**Samples:** Upon request of the Architect or Consultant, provide samples of any item specified herein for final approval/review. In each case where the sample is requested, the sample shall accurately reflect the item to be used in the project in every way and shall be of sufficient size and quality to allow judgment to be made as to its compliance with the requirements herein and the intent of the security design criteria.	6/14/2009	5	14	60	9/1/2009
Product Data	111910 - Detention Hollow Metal	1.5B	**Product Data:** Include construction details, material descriptions, core descriptions, label compliance, fire-resistance rating, and finishes for each type of detention door and frame specified.	6/14/2009	5	14	60	9/1/2009
Shop Drawings	111910 - Detention Hollow Metal	1.5C	**Shop Drawings:** For detention doors and frames. Include conditions at openings, details of construction, dimensions of profiles, and details of joints and connections. Show anchorage and accessories. Identify each detention door and frame using same reference numbers for openings as those on Drawings.	6/14/2009	5	14	60	9/1/2009
Coordination Drawings	111910 - Detention Hollow Metal	1.5D	**Coordination Drawings:** Drawings of each opening, including detention door and frame, drawn to scale and coordinating detention door hardware. Show the following: 1. Locations, dimensions, and profiles of detention door hardware reinforcements. 2. Locations and installation details of detention door hardware. 3. Elevations of each detention door design type showing dimensions, locations of detention door hardware, and preparations for power, signal, and electrified control systems. 4. Details of each detention frame type.	6/14/2009	5	14	60	9/1/2009
Product Test Reports	111910 - Detention Hollow Metal	1.5E	**Product Test Reports:** Based on evaluation of comprehensive tests performed by a qualified testing agency, for detention doors and frames.	6/14/2009	5	14	60	9/1/2009
Test Reports	111910 - Detention Hollow Metal	1.5E2	**Test Reports:** Security hollow metal manufacturers not listed herein shall submit independent testing laboratory report certifying the following minimum performances. 1. Approved manufacturers listed herein shall submit these certificates of compliance with their approval drawings. 2. All test reports shall include details of test samples and details or photographs of the testing apparatus. The test samples shall be retained at he manufacturer's facilities for possible inspection through the warranty period. a. Thickness: + 1/16"	6/14/2009	5	14	60	9/1/2009
Samples	111910 - Detention Hollow Metal	1.5F	Provide samples of factory finishes or samples of special construction as requested by the Architect or Consultant	6/14/2009	5	14	60	9/1/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description				
Product Data	111920 - Security Locks and Hardware	1.5A	**Product Data:** Submit Manufacturer's technical product data for each item of finish hardware. Show compliance with requirements, and include instructions for installation and for maintenance of operating parts and finish.	12/30/2009	5	14	90	4/18/2010
Samples	111920 - Security Locks and Hardware	1.5B	**Samples** 1. Submit one actual unit of each piece of finish hardware, tagged with full description for coordination with the Schedule. If Samples conform to the Contract Documents, they will be returned for inclusion in the Project. 2. Submit Samples of each metal finish, on an actual piece of the metal specified.	12/30/2009	5	14	90	4/18/2010
Shop Drawings	111920 - Security Locks and Hardware	1.5C	**Shop Drawings** 1. Submit Shop Drawings showing quality, type, and location of security hardware. a. Wiring Diagrams: Detail power, signal, and control wiring and differentiate between manufacturer-installed and field-installed wiring for electrified detention door hardware. Include the following: 1) System schematic. 2) Point-to-point wiring diagram, including location of connections. 3) Riser diagram. 4) Elevation of each detention door. 2. Provide template to door/frame manufacturer after contract and hardware schedule are complete and acceptable.	12/30/2009	5	14	90	4/18/2010
Hardware Schedule	111920 - Security Locks and Hardware	1.5D	**Hardware Schedule** 1. Contractor shall prepare and submit a working schedule of finish hardware for Associate's review. This schedule shall list all items of finish hardware that are to be furnished. The format of the finish hardware schedule shall be "vertical type". Group all items of finish hardware so as to correspond to their areas of use and be readily identifiable. 2. Show required hardware and accessories for each door using door numbers indicated on Drawings. 3. List all other items required and the location in the building. 4. Establish degree of opening for doors with overhead holder, closer, etc., include on hardware schedule. 5. The schedule shall be checked and approved by the Contractor prior to submittal to Associate.	12/30/2009	5	14	90	4/18/2010
Product Data	111930 - Detention Locking Devices	1.5A	**Product Data**: Submit Manufacturer's technical product data for each item of finish hardware. Show compliance with requirements, and include instructions for installation and for maintenance of operating parts and finish.	12/30/2009	5	14	90	4/18/2010
samples	111930 - Detention Locking Devices	1.5B	**Samples** 1. Submit one actual unit of each piece of finish hardware, tagged with full description for coordination with the Schedule. If Samples conform to the Contract Documents, they will be returned for inclusion in the Project. 2. Submit Samples of each metal finish, on an actual piece of the metal specified.	12/30/2009	5	14	90	4/18/2010
Shop Drawings	111930 - Detention Locking Devices	1.5C	**Shop Drawings** 1. Submit Shop Drawings showing quality, type, and location of security hardware. a. Wiring Diagrams: Detail power, signal, and control wiring and differentiate between manufacturer-installed and field-installed wiring for electrified detention door hardware. Include the following: 1) System schematic. 2) Point-to-point wiring diagram, including location of connections. 3) Riser diagram. 4) Elevation of each detention door. 2. Provide template to door/frame manufacturer after contract and hardware schedule are complete and acceptable. 3. Provide information to the DEC for Device Coordination Drawing submittal.	12/30/2009	5	14	90	4/18/2010
Operation/Maintenance manuals	111930 - Detention Locking Devices	1.5D	**Operation/Maintenance Manuals**: 1. Operation Manual covering parts, maintenance, and operation. Refer to Division 1 for submittal procedure.	12/30/2009	5	14	90	4/18/2010
Product Certification:	111930 - Detention Locking Devices	1.5E	**Product Certificates**: For each type of electrified detention door hardware, signed by product manufacturer. 1. Certify that detention door hardware approved for use on types and sizes of labeled fire doors complies with listed fire door assemblies.	12/30/2009	5	14	90	4/18/2010
Product Data	111970 - Security Ceiling Systems	1.4A	**Product Data**: For each type of product indicated.	12/30/2009	5	14	90	4/18/2010
Coordination Drawings	111970 - Security Ceiling Systems	1.4B	**Coordination Drawings**: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items. Show the following: 1. Joint pattern. 2. Security ceiling system suspension assembly members. 3. Method of attaching hangers to building structure. 4. Ceiling-mounted items including light fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings. 5. Minimum Drawing Scale: 1/4 inch = 1 foot (1:48).	12/30/2009	5	14	90	4/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Samples for Verification	111970 - Security Ceiling Systems	1.4C	**Samples for Verification:** For the following, prepared on Samples of size indicated below: 1. Security Ceiling Panel Units: Full cross section by 12 inches(300 mm) long for each type of panel. 2. Perimeter Supports, Closures, Exposed Molding: 12-inch-(300-mm-) long Samples of each type. 3. Suspension System: 12-inch-(300-mm-) long Samples.	12/30/2009	5	14	90	4/18/2010
Welding Certificate	111970 - Security Ceiling Systems	1.4D	Welding Certificates	12/30/2009	5	14	90	4/18/2010
Qualifications Data	111970 - Security Ceiling Systems	1.4E	**Qualification Data:** 1. Manufacturer: Company specializing and regularly engaged in the domestic manufacture of metal plank security ceilings with a minimum of five years experience in the manufacture of correctional ceiling systems. 2. Installer: Company specializing in the installation of metal plank security ceilings, approved by the manufacturer, and having a minimum of three (3) years experience in the installation of correctional ceiling systems.	12/30/2009	5	14	90	4/18/2010
Product Test Reports	111970 - Security Ceiling Systems	1.4F	**Product Test Reports:** Based on evaluation of comprehensive tests performed by a qualified testing agency, for each security ceiling system.	12/30/2009	5	14	90	4/18/2010
Research/Evaluation Report	111970 - Security Ceiling Systems	1.4G	**Research Evaluation Reports:** For security ceiling system.	12/30/2009	5	14	90	4/18/2010
Informational Submittals	111970 - Security Ceiling Systems	1.4H	**Other Informational Submittals:** 1. Examination reports documenting inspection of substrates, areas, and conditions. 2. Anchor inspection reports documenting inspections of built-in and cast-in anchors. 3. Field quality-control reports documenting inspections of installed products. 4. Field quality-control certification.	12/30/2009	5	14	90	4/18/2010
Special Requirements	114000 - Foodservice Equipment	1.7A	The following are in additions to any general requirements given elsewhere in the documents	4/1/2010	5	14	120	8/18/2010
General	114000 - Foodservice Equipment	1.7B	All drawings and other submittals: indicate Worrell Design Group as foodservice consultant.	4/1/2010	5	14	120	8/18/2010
Preliminary Submittals	114000 - Foodservice Equipment	1.7C	Submit two copies of the "buy-out" equipment brochure, one Sepia (reverse reading) and one print of all roughing-in and fabrication shop drawings to the General Contractor within four weeks after award of contract, Notice to Proceed or issuance of Letter of Intent. Partial submittals will not be accepted or processed. 1. Include information listed in Article 19. Verification and Coordination of Project Data. 2. Electronically produced submittals: include to (2) copies on 3.5" D.. floppy disks in AutoCAD Release 14.	4/1/2010	5	14	120	8/18/2010
Brochure Format	114000 - Foodservice Equipment	1.7D	1. Front and rear protective cover with labeled project name. 2. Brochure index: Indicate functional Area/Room number, item number, quantity, description and manufacturer. 3. A separate fly sheet for each component or item of equipment, indicating: item number, name, quantity, manufacturer, optional equipment, modifications, special instructions and utility requirements, An item of equipment or assembly containing more than one buyout sub-assembly or component shall have the secondary item listed in parenthesis beside the primary item name. For example: Serving Counter (hot food well). 4. Catalog specification sheet and manufacturer's drawings. 5. Certification letter of equipment listing or classification by Underwriters' Laboratories, inc. or other recognized testing facility.	4/1/2010	5	14	120	8/18/2010
Shop Drawings	114000 - Foodservice Equipment	1.7E	**Shop Drawings (Rough-In Drawings):** 1. Separate drawing sheets: same size as Contact Drawings (Contact Drawings are not to be traced or reproduced.) 2. 1/4" scale drawings of fixed/movable Foodservice Equipment and pre-fabricaed Cold Storage Assemblies with itemized schedules. 3. Special Conditions Drawings, sizing and locating the follwoing conditions: a. Slab depressions, cores, sleeves or block-outs (cold storage assemblies, drain trecnhes, piping, etc.) b. concrete platforms, c. Pip sleeves, d. Blocking grounds or anchor plates required oin walls for equipment support/attachment. 4. E;lectrical rough-in drawings. 5. Plumbing/mechanical rough-in drawings. 6. Required information. a. All fixed and movable Foodservice Equipment shown on Contract Drwaings. b. ALl prefabrictaed Cold Storage Assemblies shown on Contract Drawings. c. All general - use and convenience utilities or services indicated on Contract Drawings, including those required by or connected to equipment or devices not in this section. d. All rough-in drawings: Fully dimensioned from engineering benchmark or finished-room surface to point of stub-up through floor and stub-up	4/1/2010	5	14	120	8/18/2010
Shop Drawings	114000 - Foodservice Equipment	1.7F	**Shop Drawings (manufacturer's and Fabricators):** 1. Sheet size: identical to contract drawings, drawn or plotted at 3/4" scale for plan view and elevations; 1-1/2" scale for sections and construction details. 2. Included information: item number, name and quantity. 3. Construction details, sections and elevations to reflect requirements of the Specifications and Drawings. 4. Indicate adjacent walls, columns, and equipment. 5. Indicate plumbing and electrical schematic drawings for equipment such as: fabricated fixtures with single electrical or plumbing connection. 6. Mechanical or electrical operating components or products integrated into a fabricated fixture: ventilation and service access required or recommended by the manufacturer, including panel size and location to permit easy lubrication, adjacent or replacement of all moving parts.	4/1/2010	5	14	120	8/18/2010
Regular Submittal	114000 - Foodservice Equipment	1.7G	1. After the return of one copy of the preliminary submittal, resubmit for approval. 2. Follow routine procedures specified elsewhere or as directed. 3. All data and material: thoroughly reviewed for compliance by Contractor prior to submittal. Foodservice Consultant's repetitive reviewing time (more than twice) incurred due to the Contractor's failure to comply with the requirements of this Article may be invoiced to the this Contractor at Consultant's standard hourly rates.	4/1/2010	5	14	120	8/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

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Product Data	124910 - Horizontal Louver Blinds	1.4A	**Product Data:** 1. Manufacturer's specifications and other data needed to prove compliance with specified requirements. 2. Manufacturer's installation instructions.	5/31/2010	5	14	60	8/18/2010
Shop Drawings	124910 - Horizontal Louver Blinds	1.4B	**Shop Drawings:** Indicate size, material, and finish. Show location and installation procedures. Include details, attachments and clearances for Architect's approval.	5/31/2010	5	14	60	8/18/2010
Samples	124910 - Horizontal Louver Blinds	1.4C	Samples or color charts showing manufacturer's full range of colors for Architect's selection.	5/31/2010	5	14	60	8/18/2010
Product Data	129300 - Site Furnishings	1.2B	**Product Data:** Within 45 calendar days after the Contractor has received the owner's notice to proceed. 1. materials list of items proposed to be provided under this section. 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements. 3. Shop drawings in sufficient detail to show suspension, layout, lateral restraining, installation, anchorage, and interface of the work of this section with the work of adjacent trades. 4. Manufacturer's recommended installation procedures which, when approved by the Landscape Architect, will become the basis for accepting or rejecting actual installation procedures used on the work.	5/31/2010	5	14	60	8/18/2010
Shop Drawings	13100 - Lighting Protection	1.5B	**Shop Drawings:** Furnish shop drawings layout of air terminals, grounding electrodes and bonding connections to structure and other metal objects. Include terminal, electrode and conductors size, and connections and termination details.	6/13/2009	5	14	30	8/1/2009
Project Record Documents	13100 - Lighting Protection	1.5C	**Project Record Documents:** Accurately record actual locations of air terminals, grounding electrodes, bonding connections and routing of system conductors.	6/13/2009	5	14	30	8/1/2009
Product Data	131230 - Pre-Engineered Steel Domes	1.6B	**Product Data:** Manufacture's data sheets on each product to be used, including: 1. Preparation instructions and recommendations. 2. Storage and handling requirements and recommendations. 3. Installation methods.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	131230 - Pre-Engineered Steel Domes	1.6C	**Shop Drawings:** 1. Shop drawings showing layout of dome components and accessories. 2. Indicate sizes, layout, connections and attachments for framing supporting dome structure. 3. Shop drawing shall include calculations signed and sealed by Professional Engineer licensed in the State of Texas.	8/1/2009	5	14	120	12/18/2009
Verification Sample	131230 - Pre-Engineered Steel Domes	1.6D	**Verification Samples:** For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns	8/1/2009	5	14	120	12/18/2009
Manufacturer's Certificates	131230 - Pre-Engineered Steel Domes	1.6E	**Manufacturer's Certificate:** Certify that Products meet or exceed specified requirements.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	13800 - Electronic Security General Requirements	1.5A	Review of shop drawings or schedules by Engineer shall not relieve the Contractor from responsibility for deviations from drawings or specifications, unless there is a formal letter which called attention to such deviations at the time of submission and secured written approval; nor shall it relieve him from responsibility for errors in shop drawings or schedules	9/1/2009	5	14	120	1/18/2010
Submittals for Information	13800 - Electronic Security General Requirements	1.5B	Submittals for individual systems and equipment assemblies which consist of more than one item or component shall be made for the system or assembly as a whole. Partial submittals will not be considered. Partial submittals will not be returned except at the request and expense of the contractor.	9/1/2009	5	14	120	1/18/2010
Submittal Development	13800 - Electronic Security General Requirements	1.5C	The contractor shall develop and submit complete submittals and do so in a timely manner. By failing to do so, the System Integrator agrees to be fully responsible for any and all damages which might be occasioned by the contractor's failure to do so.	9/1/2009	5	14	120	1/18/2010
Electronic Files	13800 - Electronic Security General Requirements	1.5D	Where Engineer furnished electronic files of the Contract Documents are used as part of the shop drawings, the Electronic Systems Integrator shall review such files and confirm completeness and accuracy. Submission of such documentation as a part of the shop drawings shall be indication that such review and confirmation has been performed and completed. Submission and subsequent approval shall not relieve the Electronic Systems Integrator from the requirements of the Contract Documents.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13800 - Electronic Security General Requirements	1.5E	All shop drawings shall be created using AutoCAD v2004 or later. Schedules shall be created in spreadsheet format using Microsoft Excel. Incorporate all revisions upon completion of work. Submit with record drawings in both hard copy and electronic files.	9/1/2009	5	14	120	1/18/2010
Resubmittal	13800 - Electronic Security General Requirements	1.5F	Resubmittal of items that have been previously accepted or approved will not be reviewed unless specific attention is called to changes in previously approved items. Resubmission that does not specifically call attention to previously accepted or approved submittals shall not be considered as subsequent approval of a change to the initially accepted or approved item.	9/1/2009	5	14	120	1/18/2010
Submittal Drawings	13800 - Electronic Security General Requirements	1.5G	Submit drawings, data sheets, schedules, and others, in compliance with Article "Submittal Requirements" of this Section to permit adequate time for review by the Engineer, but in not less than 14 calendar days. This 14 day review period is exclusive of time associated with travel, mail, delivery, copy, and handling. Due to the integrated system, most submittals are interrelated .and thus are expected in Groups that are large and complex. Such submittals will require longer review periods. Time required will depend on scheduling, size and complexity of submittal	9/1/2009	5	14	120	1/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Submittal Information	13800 - Electronic Security General Requirements	1.5H	Provide information required for complete review of each item in one submittal. When individual sections of specifications require more than one item for review, such as shop drawings, product data, samples, and related items, submissions shall include all specified information delivered at one time. 1. Incomplete or partial submittals will not be reviewed by the Engineer. 2. Extra copies of submittals will not be marked or returned, except at the expense of the Contractor. 3. Duplicate copies of incomplete or partial submittals, or extra copies of submittals, will be discarded after 15 calendar days unless Contractor makes arrangement for return, at Contractor's expense. 4. Submittals not requested specifically may be returned to Contractor without review.	9/1/2009	5	14	120	1/18/2010
Submittal Review	13800 - Electronic Security General Requirements	1.5I	Review of submittals shall be limited to two (2) submissions. The Engineer shall be compensated for additional reviews. In such an event, a change order to the General Construction Contract will be executed for compensation of the Engineer. The change order shall be executed prior to additional reviews.	9/1/2009	5	14	120	1/18/2010
Product Data	13800 - Electronic Security General Requirements	1.5J	**Project Data:** Electronic Systems General Requirements: Section 13800. 1. System Integrator personnel qualifications: (Project Manager, Project Engineer, On-site Supervising Technician). 2. List of all manufacturers and equipment suppliers. 3. Submittal schedule: Schedule shall be submitted within 30 days of Notice to Proceed and shall include time and duration for product data by group, shop drawings by group, touch screen demonstration station, and testing procedures. 4. Functional block diagram of complete integrated system with references to all related sub-system drawings. 5. Floor plans indicating device locations and cable assignments/groupings. Submission of these plans indicates that the contractor has coordinated the placement of all devices with architectural plans, and coordinated raceway requirements with all related trades. 6. Drawings indicating complete conduit and raceway systems. 7. Spare parts inventory with quantity, description and source listed. 8. Testing: Provide complete testing procedure for electronic security systems. The	9/1/2009	5	14	120	1/18/2010
Transient Surge protection: Section 13800	13800 - Electronic Security General Requirements	1.5K	**Transient Surge Protection: Section 13800** 1. Project Data: Submit material specifications and installation data for products specified herein. a. Include electrical characteristics, and ratings for each type of TSP equipment. b. Indicate wiring diagrams indicating internal connections of TSP components within each enclosure. c. Drawings shall be provided indicating unit dimensions, weights, mounting provisions, and connection details. d. Submittals of each system shall indicate location of TSP devices.	9/1/2009	5	14	120	1/18/2010
Project Data	13820 - Intercom and Paging System	1.4A.1	**Project data:** Description of system operation indicating purpose and capabilities of each component of system with functional system diagram indicating all interfaces to other systems. Description shall include, and call attention to, all variances from the contract documents.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13820 - Intercom and Paging System	1.4A.2	**Shop drawings**: Complete installation drawings including system diagrams and terminal point to terminal point wiring diagrams or schedules.	9/1/2009	5	14	120	1/18/2010
Product Data	13820 - Intercom and Paging System	1.4A.3	**Product data:** Technical data sheets and specifications for each and every component	9/1/2009	5	14	120	1/18/2010
Calculations	13820 - Intercom and Paging System	1.4A.4	**Calculations**: Amplifier sizing	9/1/2009	5	14	120	1/18/2010
Testing	13820 - Intercom and Paging System	1.4A.5	**Testing:** Test reports of fiber optic cable installation.	9/1/2009	5	14	120	1/18/2010
Project Data	13830 - Cabinets and Enclosures	1.4A.1	**Project data:** Layouts of all electronic rooms equipment including floor plans and wal elevations. NEC required working clearances shall be identified.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13830 - Cabinets and Enclosures	1.4A.2	**Shop drawings**: Assembly drawings of each control console arrangement including plan view, elevations, and sections.	9/1/2009	5	14	120	1/18/2010
Product Data	13830 - Cabinets and Enclosures	1.4A.3	**Product data**: Technical data sheets and specifications for each component.	9/1/2009	5	14	120	1/18/2010
Testing	13830 - Cabinets and Enclosures	1.4A.4	**Test results:** Cabinet and enclosure temperatures.	9/1/2009	5	14	120	1/18/2010
Project Data	13832 - Electronic Control System	1.4A.1	**Project data:** Description of system operation indicating purpose and capabilities of each component of system with functional system diagram indicating all interfaces to other systems. Description shall include, and call attention to, all variances from the contract documents. Sample of each maintenance report.	9/1/2009	5	14	120	1/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description	Date				
Certification	13832 - Electronic Control System	1.4A.2	**Certification**: Submit written certification that control wiring and locking system consoles and panels have been coordinated with security hardware. (Section 11191). No submittal review will be conducted until receipt of certification. Certification letter shall read as follows: "(Manufacturer/Supplier name) has reviewed all electrical characteristics and control wiring requirements of all electric operated security devices, i.e., electric locks, position switches, door operators to be installed in this project and has incorporated all modifications and revisions required to provide a completely coordinated and functional control system." 3. Shop drawings: Complete installation drawings including system diagrams and terminal point to terminal point wiring diagrams or schedules 4. Product data: Technical data sheets and specifications for each component. 5. Testing: Test reports of fiber optic cable installation	9/1/2009	5	14	120	1/18/2010
Electronic Files	13833 - Touch Screen Control and Management System	1.4A	Electronic files of the electronic systems floor plans will be made available to the electronic system integrator upon request for the purpose of development of touch screen maps and other submittal requirements. Payment of an administrative charge of $250.00 for the electronic files is required. The fee covers the labor and shipping costs associated with binding the drawings, writing to CD-RW and verification.	9/1/2009	5	14	120	1/18/2010
Project Data	13833 - Touch Screen Control and Management System	1.4B.1	**Project data:** Description of system operation indicating purpose and capabilities of each component of system with functional system diagram indicating all interfaces to other systems. Description shall include, and call attention to, all variances from the contract documents.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13833 - Touch Screen Control and Management System	1.4B.2	**Shop drawings:** Complete installation drawings including system diagrams and terminal point to terminal point wiring diagrams.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13833 - Touch Screen Presentation and Display System	1.4C.1	**Shop drawings**: a. Full size layout of each graphic map. b. List of system integrator suggested modifications to graphic maps. c. Design of custom control stations. d. Theory of Operation describing all functional operations of the system.	9/1/2009	5	14	120	1/18/2010
Demonstration	13833 - Touch Screen Presentation and Display System	1.4C.2	**Demonstration:** Two operating touch screen stations shall be provided for the purpose of review of the presentation and display system. The stations shall be networked in order to demonstrate task group management features. Each function of the system shall be emulated via function keys. a. Upon preliminary approval of the graphic maps, the Electronic Systems Integrator shall fabricate and program two networked touch screen control stations with all maps, icons, and functions as required by these contract documents. b. Engineer Demonstration: The Electronic Systems Integrator shall set up the stations at the offices of the Engineer and demonstrate the operational capabilities. The stations shall remain at the offices of the Engineer for a minimum period of four weeks. At the end of the review period, the Engineer will provide the Electronic Systems Integrator with a listing of modifications and/or adjustments deemed appropriate for the proper operati on of the unit. c. Upon completion of the Engineer review, the Electronic Systems Integrator shall remove the unit from the offices of the Engineer and make all modifications and/or adjustments listed by the Engineer. If re-submittal is required, the Electronic Systems Integrator shall send updated software with instructions for loading and making operational or install updated software as necessary to allow review of revised operation. d. Owner Review: Upon completion of the modifications and/or adjustments listed by the engineer, the Electronic Systems Integrator shall set up the station at the offices of the Owner and demonstrate the operational capabilities. The stations shall remain at the offices of the Owner for a review period of 30 days. At the end of the review period, the Engineer will provide the Electronic Systems Integrator with a listing of modifications and/or adjustments deemed appropriate for the proper operation of the unit. e. Upon completion of the Owner review, the contractor shall make all modifications and/or adjustments listed by the Engineer and update the demonstration stations with software and hardware as required. If resubmittal is required, the Electronic Systems Integrator shall install updated software as necessary to allow review of revised operation. The demonstration stations shall remain at the offices of the Owner.	9/1/2009	5	14	120	1/18/2010
Submittal Review	13833 - Touch Screen Presentation and Display System	1.4C.3	Completion of the submittal review for this portion of the work shall not be construed as an approval of the presentation system. Modifications and adjustments shall be provided after installation and field testing on site.	9/1/2009	5	14	120	1/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description	Submit By				
Sample	13833 - Touch Screen Presentation and Display System	1.4D.1	Sample screens are provided in order to graphically display the screen layout, initially identify areas to be assigned to each functional area, and assist in understanding of design intent. Further definition will be required during the submittal process as described in Section 13801. Further definition will be at the cost of the systems integrator and shall not be the basis for, or subject of change proposals, time extensions, etc. 2. Sample screens are representative of the typical layout of a given area. Multiple screens will be required for each area to display control condition, monitor condition, emergency operations condition, etc. See informati on in this specification section for further definition. 3. Sample screens have been provided for utility and management functions. Such screens will require modifications to coordinate with system integrator needs as well as specific project requirements. 4. The drawings provided do not represent all the screens that will be required. Nor do they represent all screen conditions that will be required.	9/1/2009	5	14	120	1/18/2010
Project Data	13835 - Access Control System (Software house C-Cure)	1.4A.1	**Project data:** Description of system operation indicating purpose and capabilities of each component of system with functional system diagram indicating all interfaces to other systems. Description shall include, and call attention to, all variances from the contract documents.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13835 - Access Control System (Software house C-Cure)	1.4A.2	**Shop drawings:** Complete installation drawings including system diagrams and terminal point to terminal point wiring diagrams or schedules.	9/1/2009	5	14	120	1/18/2010
Product Data	13835 - Access Control System (Software house C-Cure)	1.4A.3	**Product data:** Technical data sheets and specifications for each and every component. (Including, computer, LAN, drivers and interface hardware component).	9/1/2009	5	14	120	1/18/2010
Testing	13835 - Access Control System (Software house C-Cure)	1.4A.4	**Testing:** Test reports of fiber optic cable installation (if applicable).	9/1/2009	5	14	120	1/18/2010
Project Data	13840 - Video Surveillance Systems	1.4A	**Project data:** Description of system operation indicating purpose and capabilities of each component of system with functional system diagram indicating all interfaces to other systems. Description shall include, and call attention to, all variances from the contract documents.	9/1/2009	5	14	120	1/18/2010
Shop Drawings	13840 - Video Surveillance Systems	1.4B	**Shop drawings:** Complete installation drawings including system diagrams and terminal point to terminal point wiring diagrams or schedules.	9/1/2009	5	14	120	1/18/2010
Product Data	13840 - Video Surveillance Systems	1.4C	**Product data:** Technical data sheets and specifications for each and every component.	9/1/2009	5	14	120	1/18/2010
Testing	13840 - Video Surveillance Systems	1.4D	**Testing:** Test reports of fiber optic cable installation.	9/1/2009	5	14	120	1/18/2010
Project Data	13845 - Uninterruptible Power Systems	1.3A.1	**Project data:** System and battery sizing calculations.	10/31/2009	5	14	60	1/18/2010
Product Data	13845 - Uninterruptible Power Systems	1.3A.1	**Product data:** Technical data sheets and specifications.	10/31/2009	5	14	60	1/18/2010
Product Data	13850 - Metal Detectors and X-Ray Scanners	1.3A.1	**Product data:** Technical data sheets and specifications for each and every component.	10/31/2009	5	14	60	1/18/2010
Shop Drawings	13851 - Fire Alarm System	1.4A	Furnish shop drawings indicating conduit and cable sizes and routing. Include designations. Provide complete floor plans indicating all device locations. Provide riser diagram, indicating risers and interface with other systems.	10/31/2009	5	14	60	1/18/2010
Product Data	13851 - Fire Alarm System	1.4B	Furnish product data including all individual devices dimensions and installation.	10/31/2009	5	14	60	1/18/2010
Operation	13851 - Fire Alarm System	1.4C	Furnish complete sequence of operation, alarm, signal and control zones and interface with other systems.	10/31/2009	5	14	60	1/18/2010
Informational Submittals	13851 - Fire Alarm System	1.4D	Indicate all detection, monitoring, and signal zones.	10/31/2009	5	14	60	1/18/2010
Samples	13851 - Fire Alarm System	1.4E	Furnish sample of proposed graphic and text automation.	10/31/2009	5	14	60	1/18/2010
Shop Drawings	13912 - Fire Protection Piping	1.4A	**Shop Drawings:** Indicate piping material used, joining methods, supports, floor and wall penetration seals. Indicate installation, layout, weights, mounting and support details, and piping connections.	10/30/2009	5	14	30	12/18/2009
Product Data	13912 - Fire Protection Piping	1.4B	**Product Data:** Submit manufactures catalog informational. Indicate valve data and rating.	10/30/2009	5	14	30	12/18/2009
Design Data	13912 - Fire Protection Piping	1.4C	**Design Data:** Submit shop drawings, product data, and hydraulic calculations to Authority having Jurisdiction for approval, prior to approval, prior to submittal to A/E. Submit proof of approval to A/E.	10/30/2009	5	14	30	12/18/2009
Manufacturer's Certificate	13912 - Fire Protection Piping	1.4D	**Manufacturer's Certificate:** Certify that Products meet or exceed specified requirements.	10/30/2009	5	14	30	12/18/2009
Performance Test	13920 - Fire Pumps	1.4A	Include certified labatory performance test curves showing pump performance characteristics with pump and system operating point plotted. Include NPSH when applicable.	10/30/2009	5	14	30	12/18/2009
Drawings	13920 - Fire Pumps	1.4B	Include complete dimensioned drawings showing piping, fittings, valves, gages, pumps, controllers and control wiring. Provide certification of approval of UL and other applicable agencies.	9/30/2009	5	14	60	12/18/2009
Drawings	13920 - Fire Pumps	1.4C	Include fire pump controller and automatic transfer switch data with fully dimensioned drawings and a list of all required components.	9/30/2009	5	14	60	12/18/2009
Shop Drawings	13930 - Wet-Pipe Fire Sprinkler Systems	1.5A	**Shop Drawings**: Indicate pipe materials used, jointing methods, supports, floor and wall penetration seals. Indicate installation, layout, weights, mounting and support details, and piping connections.	10/30/2009	5	14	30	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description					
Product Data	13930 - Wet-Pipe Fire Sprinkler Systems	1.5B	**Product Data:** Submit data on sprinklers, valves, and specialties, including manufacturers catalog information. Submit performance ratings, rough-in details, weights, support requirements and piping connections.	10/30/2009	5	14	30	12/18/2009
Design Data	13930 - Wet-Pipe Fire Sprinkler Systems	1.5C	**Design Data**: Submit shop drawings, product data, and hydraulic calculations to Authority Having Jurisdiction for approval, prior to submittal to A/E. Submit proof of approval to A/E.	10/30/2009	5	14	30	12/18/2009
Manufacturer's Certificate	13930 - Wet-Pipe Fire Sprinkler Systems	1.5D	**Manufacturer's Certificate**: Certify that Products meet or exceed specified requirements.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	13890 - FM 200 Agent Extinguishing System	1.7A	Submit shop drawings and hydraulic calculations to the authority jurisdiction for approval prior to submittal to A/E. Submit proof of approval to A/E with calculations and shop drawings.	11/29/2009	5	14	90	3/18/2010
Data	13890 - FM 200 Agent Extinguishing System	1.7B	Include data for each pipe of equipment comprising the system including cylinders, manifolds, control panel, and nozzles. Include product data and design calculations bearing stamp of approval of authority having jurisdiction. Include calculations that verify system pressure, nozzle flow rate, orifice code numbers, piping pressure losses, component flow data and pipe sizes.	11/29/2009	5	14	90	3/18/2010
Manufacturer's Certificate	13890 - FM 200 Agent Extinguishing System	1.7C	Include manufacturer's certificate that system meets or exceeds specified requirements and NFPA 2001.	11/29/2009	5	14	90	3/18/2010
Welders Certificates	13890 - FM 200 Agent Extinguishing System	1.7D	Include welder's certificate of compliance with ASME SEC 9.	11/29/2009	5	14	90	3/18/2010
Installation Instructions	13890 - FM 200 Agent Extinguishing System	1.7E	Include manufacturer's installation instructions.	11/29/2009	5	14	90	3/18/2010
Product Data	142100 - Gearless Traction Elevator	1.6A	**Product Data:** Submit manufacturer's product data for each system proposed for use. Include the following: 1. Signal and operating fixtures, operating panels and indicators. 2. Cab design, dimensions and layout. 3. Hoistway-door and frame details. 4. Electrical characteristics and connection requirements. 5. Expected heat dissipation of elevator equipment in control room space and machine space (BTU). 6. Color selection chart for Cab and Entrances.	8/2/2009	5	14	150	1/18/2010
Shop Drawings	142100 - Gearless Traction Elevator	1.6B	**Shop Drawings:** Submit approval layout drawings. Include the following: 1. Car, guide rails, buffers and other components in hoistway. 2. Maximum rail bracket spacing. 3. Maximum loads imposed on guide rails requiring load transfer to building structure. 4. Clearances and travel of car. 5. Clear inside hoistway and pit dimensions. 6. Location and sizes of access doors, hoistway entrances and frames.	8/2/2009	5	14	150	1/18/2010
Operations and Maintenance Manuals	142100 - Gearless Traction Elevator	1.6C	**Operations and Maintenance Manuals**: Provide manufacturer's standard operations and maintenance manual.	8/2/2009	5	14	150	1/18/2010
Keys	142100 - Gearless Traction Elevator	1.6D	**Keys:** Furnish four (4) keys.	8/2/2009	5	14	150	1/18/2010
Product Data	142423 - Hydraulic Passenger Elevator	1.6A	**Product Data:** Submit manufacturer's product data for each system proposed for use. Include the following: 1. Signal and operating fixtures, operating panels and indicators. 2. Cab design, dimensions and layout. 3. Hoistway-door and frame details. 4. Electrical characteristics and connection requirements. 5. Expected heat dissipation of elevator equipment in machine room (BTU).	8/2/2009	5	14	150	1/18/2010
Shop Drawings	142423 - Hydraulic Passenger Elevator	1.6B	**Shop Drawings:** Submit approval layout drawings. Include the following: 1. Signal and operating fixtures, operating panels and indicators. 2. Car, guide rails, buffers and other components in hoistway. 3. Maximum rail bracket spacing. 4. Maximum loads imposed on guide rails requiring load transfer to building structure. 5. Loads on hoisting beams. 6. Clearances and travel of car. 7. Clear inside hoistway and pit dimensions. 8. Location and sizes of access doors, hoistway entrances and frames.	8/2/2009	5	14	150	1/18/2010
Operations and Maintenance Manuals	142423 - Hydraulic Passenger Elevator	1.6C	**Operations and Maintenance Manuals:** Provide manufacturer's standard operations and maintenance manual.	8/2/2009	5	14	150	1/18/2010
Keys	142423 - Hydraulic Passenger Elevator	1.6D	**Keys:** Furnish four (4) keys.	8/2/2009	5	14	150	1/18/2010
Product Data	143100 - Escalators	1.6A	**Product Data:** Submit manufacturer's product data, installation instructions, and maintenance recommendations for each material proposed for use.	8/2/2009	5	14	150	1/18/2010
Shop Drawings	143100 - Escalators	1.6B	**Shop Drawings**: Submit shop drawings for approval prior to fabrication. Include detailed plans, sections, elevations and large scale details indicating escalator system and relationship with adjacent construction. Include electrical characteristics and ventilation requirements.	8/2/2009	5	14	150	1/18/2010
Keys	143100 - Escalators	1.6C	**Keys:** Furnish four (4) keys to restart units.	8/2/2009	5	14	150	1/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Submittal	Spec Section	Article	Description	Due				
Product Data	144200 - Vertical Platform Lift	1.4A	**Product Data:** 1. Complete list of all items proposed to be furnished and installed under this Section. 2. Manufacturer's specifications, catalog cuts, and other data to demonstrate compliance with specified requirements. 3. Manufacturer's installation instructions. 4. Manufacturer's operation and maintenance manuals.	8/2/2009	5	14	150	1/18/2010
Shop Drawings	144200 - Vertical Platform Lift	1.4B	**Shop Drawings:** 1. Drawings showing dimensions including plans, elevations, and sections to show equipment locations, and locations of all items including supporting structure and clearances required. 2. Provide load and reaction drawings by the lift manufacturer and detailed on drawings. 3. Indicate all rough-in and wiring requirements	8/2/2009	5	14	150	1/18/2010
Samples	144200 - Vertical Platform Lift	1.4C	**Samples:** Provide adequate size samples of all items with colors and finishes for Architect's selection	8/2/2009	5	14	150	1/18/2010
Certification	144200 - Vertical Platform Lift	1.4D	**Certification**: Load ratings and safety factors certification by a professional engineer registered in the State of Texas.	8/2/2009	5	14	150	1/18/2010
Submittals for Information	15050 - Mechanical General Requirements	1.6A	**Access Doors:** Furnish product data and shop drawings. Indicate detailed dimensions.	11/15/2009	5	14	14	12/18/2009
Product Data	15055 - Motors	1.4A	Include product data on motors.	9/30/2009	5	14	60	12/18/2009
Data	15055 - Motors	1.4B	Where similar items of equipment are utilized, include separate data sheet for each item, individually identified as to function.	9/30/2009	5	14	60	12/18/2009
Operation and Maintenance Manuals	15055 - Motors	1.4C	Provide operation and maintenance manuals	9/30/2009	5	14	60	12/18/2009
Product Data	15060 - Hangers and Supports	1.5A	Submit product data on all hanger and support devices. Product shall include materials, finishes, load ratings, application, and dimension information.	11/15/2009	5	14	14	12/18/2009
Product Data	15070 - Vibration Isolation	1.4A	Submit product data on all isolators, equipment bases, inertia bases, and flexible connections to include materials, dimensions, rated loads and deflections, mountings, and accessories. Submit calculations where required.	11/15/2009	5	14	14	12/18/2009
Drawings	15070 - Vibration Isolation	1.4B	Submit mounting drawing details for all applications	11/15/2009	5	14	14	12/18/2009
Schedule	15070 - Vibration Isolation	1.4C	Submit schedule of flexibility-mounted equipment referencing specific isolators to be used.	11/15/2009	5	14	14	12/18/2009
Schedule	15075 - Mechanical Identification	1.4A	Submit painting/labeling schedule identifying the following: 1. System (i.e. Chilled Water Supply) 2. Pipe Color (i.e. Dark Blue) 3. Identification Tag Label (i.e. C.H.W.T.R.) 4. Identification Tag Color (i.e. Black Letters, Green Background). 5. Identification Tag text Size.	11/15/2009	5	14	14	12/18/2009
Product Data	15075 - Mechanical Identification	1.4B	Submit manufacturer's product data on paint.	11/15/2009	5	14	14	12/18/2009
Product Data	15075 - Mechanical Identification	1.4C	Submit manufacturer's product data on identification labels for piping, ductwork, valves, and equipment.	11/15/2009	5	14	14	12/18/2009
Schedule	15075 - Mechanical Identification	1.4D	Submit valve schedule for all valves installed, including valve tag number, location, function, and valve manufacturer's name and model number.	11/15/2009	5	14	14	12/18/2009
Installation Instructions	15075 - Mechanical Identification	1.4E	Submit manufacturer's installation instructions for all products.	11/15/2009	5	14	14	12/18/2009
Product Data	15081 - Ductwork Insulation	1.4A	Manufacturer's product data to include the following: 1. Application Company Qualifications 2. Product Descriptions 3. provide a table indicating ductwork system, with insulation type and thickness for each type of ductwork system in project. 4. Manufacturer's installation instructions.	11/15/2009	5	14	14	12/18/2009
Product Data	15081 - Ductwork Insulation	1.4B	Submit product data for: 1. Duct insulation. 2. Duct insulation jackets. 3. Sealants. 4. Adhesives 5. General materials.	11/15/2009	5	14	14	12/18/2009
Product Data	15082 - Equipment Insulation	1.4A	Manufacturer's product data to include the following: 1. Application Company Qualifications 2. Product Descriptions 3. Provide a table including equipment designations, insulation type, density, and thickness for each piece of equipment in the project.. 4. Manufacturer's installation instructions.	11/15/2009	5	14	14	12/18/2009
Product Data	15082 - Equipment Insulation	1.4B	**Submit product data for:** 1. Duct insulation. 2. Duct insulation jackets. 3. Sealants. 4. Adhesives 5. General materials.	11/15/2009	5	14	14	12/18/2009
Product Data	15083 - Piping Insulation	1.4A	Manufacturer's product data to include the following: 1. Application Company Qualifications 2. Product Descriptions 3. Provide a table indicating piping system, insulation type, density, and thickness for each piece of piping system in the project.. 4. Manufacturer's installation instructions.	11/15/2009	5	14	14	12/18/2009
Product Data	15083 - Piping Insulation	1.4B	**Submit product data for:** 1. Duct insulation. 2. Duct insulation jackets. 3. Sealants. 4. Adhesives 5. General materials.	11/15/2009	5	14	14	12/18/2009
Manufacturer's Literature	15110 - Valves	1.4A	Provide detailed manufacturers catalog literature for each type of valve clearly indicating valve make, model, type, size, and pressure rating. Indicate all options and materials.	8/31/2009	5	14	90	12/18/2009
O&M	15110 - Valves	1.4B	Provide operation and maintenance manuals	8/31/2009	5	14	90	12/18/2009
Drawings	15122 - Expansion Tanks	1.4A	Include outline drawings indicating weight, dimensions and required clearances.	8/31/2009	5	14	90	12/18/2009
Product Data	15122 - Expansion Tanks	1.4B	Include product data on accessories.	8/31/2009	5	14	90	12/18/2009
O&M	15122 - Expansion Tanks	1.4C	Provide operation and maintenance manuals	8/31/2009	5	14	90	12/18/2009
Product Data	15130 - HVAC Pumps	1.4A	Provide manufacture's product including: 1. materials and options with all options and accessories clearly identified. 2. Pump dimensions and connections. 3. Certified pump curves showing pump performance characteristics with pump and operating point plotted. Include NPSH curve when applicable.	8/31/2009	5	14	90	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description	Due				
Certification	15130 - HVAC Pumps	1.4B	Certifications and Statements: 1. For each pump with a motor horsepower greater that 10 hp, submit a certified shop performance test curve indicating capacity, head, horsepower and flow rates from shutoff to 125 percent of design flow. 2. For centrifugal pumps, include certification that pump impeller diameter is less than 85 percent of the published impeller selection range. 3. For pumps, include certification that fabricated structural steel base is of sufficient strength to prevent vibration, warping or misalignment of the pump.	8/31/2009	5	14	90	12/18/2009
Manufacturer's Literature	15130 - HVAC Pumps	1.4C	Submit manufacturer's data on seals, and drives with exact seals and drives identified and selected based on pump operating characteristics and horsepower.	8/31/2009	5	14	90	12/18/2009
Procedures	15130 - HVAC Pumps	1.4D	Provide start-up report detailing pump start-up procedures, including: Pump alignment lubrication, voltage and amperage readings, proper electrical connections, pump balance, discharge and suction gauge readings, and head adjustment.	8/31/2009	5	14	90	12/18/2009
O&M	15130 - HVAC Pumps	1.4E	Provide operation and maintenance manuals	8/31/2009	5	14	90	12/18/2009
Product Data	15140 - Domestic Water and Sanitary Drainage Piping	1.4A	Include data on pipe materials, pipe fittings, and special fabricated items	6/29/2009	5	14	14	8/1/2009
Product Data	15140 - Domestic Water and Sanitary Drainage Piping	1.4B	Include component sizes, rough-in requirements, service sizes and finish for specialties.	6/29/2009	5	14	14	8/1/2009
O&M	15140 - Domestic Water and Sanitary Drainage Piping	1.4C	Provide operation and maintenance manuals	6/29/2009	5	14	14	8/1/2009
Product Data	15160 - Storm Drainage Piping	1.4A	Include data on roof drains, pipe materials and pipe fittings	6/29/2009	5	14	14	8/1/2009
Data	15183 - Hydronic Piping and Specialties	1.4A	Submit data on pipe materials, pipe fittings and accessories. Include ASTM designations and manufacturing location's), and indicate all fittings types and accessories.	6/29/2009	5	14	14	8/1/2009
Product Data	15183 - Hydronic Piping and Specialties	1.4B	Submit product data sheets showing all dimensions, code specifications, and accessories (all options and accessories shall be clearly marked) on the following equipment: 1. Air Vents 2. Strainers 3. Pump suction diffusers 4. Thermometers 5. Pressure gauges 6. Air separators	6/29/2009	5	14	14	8/1/2009
Test Reports	15183 - Hydronic Piping and Specialties	1.4C	Provide test reports on the following: 1. Piping welds non-destructive testing report. 2. Pressure test report: Document all tests performed, include test summaries, all repairs/adjustment made, and final test results.	6/29/2009	5	14	14	8/1/2009
Product Data	15185 - Chemical Water Treatment	1.3A	Include product data for all chemical treatment materials, chemicals, and equipment.	12/29/2009	5	14	60	3/18/2010
Installation Instructions	15185 - Chemical Water Treatment	1.3B	Include manufacturer's installation instructions.	12/29/2009	5	14	60	3/18/2010
Shop Drawings	15185 - Chemical Water Treatment	1.3C	Include shop drawings indicating all system schematics, equipment locations and controls schematics.	12/29/2009	5	14	60	3/18/2010
O&M	15185 - Chemical Water Treatment	1.3D	Provide operation and maintenance manuals	12/29/2009	5	14	60	3/18/2010
Data	15189 - Underground Pre-Insulated Piping	1.4A	Submit data on pipe materials, pipe fittings and accessories. Include ASTM designations and manufacturing location's), and indicate all fittings types and accessories.	6/3/2009	5	14	40	8/1/2009
Data	15189 - Underground Pre-Insulated Piping	1.4B	For high temperature piping systems, the pre-insulated piping manufacturer shall make a complete layout of the system showing anchors, expansion provisions, and building entrance details. Expansion means shall be in pipe offsets or loops.	6/3/2009	5	14	40	8/1/2009
Data	15210 - Natural Gas Piping	1.3A	Include data on pipe materials, pipe fittings, valves and accessories.	11/15/2009	5	14	14	12/18/2009
Data	15410 - Plumbing Fixtures	1.2A	Include fixtures, sizes, utility sizes, trim and finishes	11/15/2009	5	14	14	12/18/2009
O&M	15410 - Plumbing Fixtures	1.2B	Provide operation and maintenance manuals	11/15/2009	5	14	14	12/18/2009
Product Data	15440 - Plumbing Pumps	1.4A	**Product Data:** Indicate pump type, capacity, powered requirements, and affected adjacent construction.	11/15/2009	5	14	14	12/18/2009
Certified Pump Curves	15440 - Plumbing Pumps	1.4B	Certified Pump Curves: Show pump performance characteristics with pump and system operating point plotted. Include NPSH curve when applicable.	11/15/2009	5	14	14	12/18/2009
O&M	15440 - Plumbing Pumps	1.4C	Provide operation and maintenance manuals	11/15/2009	5	14	14	12/18/2009
Product Data	15480 - Domestic Water Heaters	1.4A	**Product Data:** 1. Submit heat exchanger dimensions, size of tappings, and performance data. 2. Include dimensions of tanks, tank lining methods, anchors, attachments, lifting points, tappings, and drains.	11/15/2009	5	14	14	12/18/2009
Certification	15480 - Domestic Water Heaters	1.4B	Certification: Include manufacturer's certificate that pressure vessels meet or exceed specified requirements.	11/15/2009	5	14	14	12/18/2009
O&M	15480 - Domestic Water Heaters	1.4C	Provide operation and maintenance manuals	11/15/2009	5	14	14	12/18/2009
Product Data	15513 - Water-Tube Boilers	1.4A	**Product Data:** Submit general layout and dimensions. Include size and location of water, fuel, electric and vent connections, electrical characteristics, weight and mounting loads.	8/1/2009	5	14	120	12/18/2009
Test Reports	15513 - Water-Tube Boilers	1.4B	**Test Reports:** Indicate specified performance and efficiency is met or exceeded. Provide combustion test that include boiler firing rate, over fire draft, gas flow rate, heat input, burner manifold gas pressure, percent carbon dioxide (CO), percent oxygen (o), percent excess air, flue gas temperature at outlet, ambient temperature, net stack temperature, percent stack loss, percent combustion efficiency, and heat input.	8/1/2009	5	14	120	12/18/2009
Manufacturer's Installation Instructions	15513 - Water-Tube Boilers	1.4C	**Manufacturer's Installation Instructions:** Submit assembly, support details, connection requirements, and include start-up instructions.	8/1/2009	5	14	120	12/18/2009
O&M	15513 - Water-Tube Boilers	1.4D	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Test Reports	15514 - Fire-Tube Boilers	1.4B	**Test Reports**: Indicate specified performance and efficiency is met or exceeded. Provide combustion test that include boiler firing rate, over fire draft, gas flow rate, heat input, burner manifold gas pressure, percent carbon dioxide (CO), percent oxygen (o), percent excess air, flue gas temperature at outlet, ambient temperature, net stack temperature, percent stack loss, percent combustion efficiency, and heat input.	8/1/2009	5	14	120	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Note	Description	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manufacturer's Installation Instructions	15514 - Fire-Tube Boilers	1.4C	**Manufacturer's Installation Instructions:** Submit assembly, support details, connection requirements, and include start-up instructions.	8/1/2009	5	14	120	12/18/2009
O&M	15514 - Fire-Tube Boilers	1.4D	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Shop Drawings	15622 - Water-Cooled Centrifugal Chillers	1.4A	Include shop drawings for mechanical room showing all equipment and piping.	8/1/2009	5	14	120	12/18/2009
Product Data	15622 - Water-Cooled Centrifugal Chillers	1.4B	Include product data indicating all components, assembly, dimensions, operating weights, and loadings, required clearances and locations and size of field connections. Indicate equipment, auxiliary support requirements, piping and connections, valves, strainers and thermostatic valves required for a complete system.	8/1/2009	5	14	120	12/18/2009
Product Data	15622 - Water-Cooled Centrifugal Chillers	1.4C	Indicate on product data all rated capacities, specialties and accessories, electrical requirements and wiring diagrams.	8/1/2009	5	14	120	12/18/2009
Performance Data	15622 - Water-Cooled Centrifugal Chillers	1.4D	Include performance data indicating energy input versus cooling load output from 20 to 100 percent of full load at specified and minimum condenser water temperatures.	8/1/2009	5	14	120	12/18/2009
Certified Test Reports	15622 - Water-Cooled Centrifugal Chillers	1.4E	Include certified factory test reports prior to installation showing that horizontal or vertical vibration at any bearing does not exceed 1.0 mil.	8/1/2009	5	14	120	12/18/2009
O&M	15622 - Water-Cooled Centrifugal Chillers	1.4F	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Product Data	15641 - Induced Draft Cooling Tower	1.3A	include product data indicating all rated capacities, dimensions, weights and point loadings, accessories, required clearances, electrical requirements, wringing diagrams and location and size of field connections.	8/1/2009	5	14	120	12/18/2009
Performance Test	15641 - Induced Draft Cooling Tower	1.3B	Certify performance based on CTI 201, and submit performance curve plotting leaving water temperature against wet bulb temperature.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	15641 - Induced Draft Cooling Tower	1.3C	Indicate on shop drawings suggested structural steel supports including dimensions, sizes and locations for mounting bolt holes	8/1/2009	5	14	120	12/18/2009
O&M	15641 - Induced Draft Cooling Tower	1.3D	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Shop Drawings	15721 - Air Handling Units	1.4B	**Shop Drawings:** submit 1/4 inch scale equipment layouts showing all walls, structural beams and other components, equipment, piping, ductwork, electrical panels, transformers, and any other equipment located with the mechanical space. Include dimensions, access doors, required clearances (code and maintenance), condensate drains, and connections. These shop drawings shall be submitted with the initial product data submittal. Submittals without the equipment layout required by this paragraph shall be rejected. If air handling unit is submitted as a substitution then these shop drawings shall be submitted with the substitution request. Substitution requests without these coordinated shop drawings will be rejected.	8/1/2009	5	14	120	12/18/2009
Product Data	15721 - Air Handling Units	1.4C	Indicate dimensions, weights, capacities, ratings, fan performance, motor electrical characteristics, gauges, and finishes of materials. Indicate dimensions, eight, capacities, required clearances, and location and size of field connections. Include data for filter frames.	8/1/2009	5	14	120	12/18/2009
Calculations	15721 - Air Handling Units	1.4D	**Base Rail Height Calculations:** Provide calculations for required baserail heights to allow for proper condensate trapping.	8/1/2009	5	14	120	12/18/2009
Performance Data	15721 - Air Handling Units	1.4E	**Fan Performance Curves**: Submit with specified operating point clearly plotted. Base performance curves on tests in accordance with ARI standards. Conduct tests in ARI-approved library.	8/1/2009	5	14	120	12/18/2009
Performance Data	15721 - Air Handling Units	1.4F	**Sound Power Levels:** Submit sound power levels in octave bands from 63 to 8,000 Hz for unit inlet, outlet and casing radiation at rated capacity. Base sound power levels on actual factory test data on fan sizes and accessories being furnished.	8/1/2009	5	14	120	12/18/2009
Report	15721 - Air Handling Units	1.4G	**Start-up Report**: Submit a written start-up report to the owner and unit manufacturer containing all test data recorded and a letter certifying that the unit is operating properly and in accordance with the intended design. Note: This report shall be after installation of unit and shall be a separate submittal	8/1/2009	5	14	120	12/18/2009
O&M	15721 - Air Handling Units	1.4H	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Product Data	15725 - Blower Coil Units	1.4A	**Product Data:** Indicate dimensions, weights, capacities, ratings, fan performance, motor electrical characteristics, gauges, and finishes of materials. Indicate dimensions, eight, capacities, required clearances, and location and size of field connections. Include data for filter frames.	8/1/2009	5	14	120	12/18/2009
Performance Data	15725 - Blower Coil Units	1.4B	**Fan Performance Curves**: Submit with specified operating point clearly plotted. Base performance curves on tests in accordance with ARI standards. Conduct tests in ARI-approved library.	8/1/2009	5	14	120	12/18/2009
O&M	15725 - Blower Coil Units	1.4C	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Product Data	15735 - Computer Room Chilled Water Air Conditioning Units	1.4A	Indicate water, drain, electrical rough-in connections on shop drawings or product data	8/1/2009	5	14	120	12/18/2009
Data	15735 - Computer Room Chilled Water Air Conditioning Units	1.4B	Include rated capacities, dimensions, weights, accessories, required clearances, electrical requirements, wiring diagrams and location and size of field connections.	8/1/2009	5	14	120	12/18/2009
Manufacturer's Installation Instructions	15735 - Computer Room Chilled Water Air Conditioning Units	1.4C	Include manufacturer's installation instructions.	8/1/2009	5	14	120	12/18/2009
O&M	15735 - Computer Room Chilled Water Air Conditioning Units	1.4D	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Product Data	15771 - Heat Tracing Cable	1.1A	Submit product data	11/8/2009	5	14	21	12/18/2009
Shop Drawings	15810 - Ductwork	1.1A	Provide 1/4-inch scale shop drawings for all ductwork	11/8/2009	5	14	21	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Shop Drawings	15810 - Ductwork	1.1B	Provide shop drawings for sheet metal fabricated casings or plenums, indicating materials, pressure class, reinforcing bars, joints, access doors, and penetrations. Indicate sealing methods.	11/8/2009	5	14	21	12/18/2009
Product Data	15810 - Ductwork	1.1C	Provide the following for each sheet metal system furnished on the project: System name and type; Duct system design pressure; Duct material; Duct gauge; Transverse joint methods; Longitudinal seam type; Sealant type; SMACNA reinforcement type.	11/8/2009	5	14	21	12/18/2009
Product Data	15820 - Ductwork Accessories	1.4A	Provide product data for shop fabricated assemblies including but not limited to volume control dampers, duct access doors, duct test holes. Provide product data for hardware used.	11/8/2009	5	14	21	12/18/2009
Performance Data	15820 - Ductwork Accessories	1.4B	Fire Dampers: Provide performance data developed from testing in accordance with AMCA 500D standards and shall show the pressure drops for all sizes of dampers required at anticipated air flow rates. Maximum pressure drop through fire damper shall not exceed 0.05-inch water gauge.	11/8/2009	5	14	21	12/18/2009
Performance Data	15820 - Ductwork Accessories	1.4C	Combination Fire/Smoke Dampers and Smoke Dampers: Assign identification numbers for each damper with corresponding number noted on Drawings. Provide air quantity, size, free area of damper, pressure drop and proposed velocity through each damper. Provide manufacturer's data of damper and its accessories or options. Provide power requirements.	11/8/2009	5	14	21	12/18/2009
Manufacturer's Installation Instructions	15820 - Ductwork Accessories	1.4D	Included manufacturer's installation instructions	11/8/2009	5	14	21	12/18/2009
O&M	15820 - Ductwork Accessories	1.4E	Provide operation and maintenance manuals	11/8/2009	5	14	21	12/18/2009
Literature	15836 - Power Ventilations	1.4A	Provide literature that indicates dimensions, weights, capacities, ratings, fan performance, gauges and finishes of materials, electrical characteristics and connection requirements. Include: 1. fan curves with specified operating point clearly plotted. The recommended range of operation shall be stable. 2. Fans shall be capable of operating stably at reduced loads imposed by means of variable speed drives, inlet guide vanes or controlling pitch of fan blades. 3. Data on sound power levels for both fan inlet and outlet at rated capacity. 4. Data on special coatings and construction where applicable. 5. Electrical characteristics and connection requirements. 6. All data on fan accessories.	9/30/2009	5	14	60	12/18/2009
O&M	15836 - Power Ventilations	1.4B	Provide operation and maintenance manuals	9/30/2009	5	14	60	12/18/2009
Product Data	15840 - Air Terminal Units	1.5A	indicate on product data the configuration, general assembly, and materials used in fabrication.	9/30/2009	5	14	60	12/18/2009
Manufacturer's Installation Instructions	15840 - Air Terminal Units	1.5B	Include manufacturer's installation instructions.	9/30/2009	5	14	60	12/18/2009
Factory Test	15840 - Air Terminal Units	1.5C	Include factory test results	9/30/2009	5	14	60	12/18/2009
O&M	15840 - Air Terminal Units	1.5D	Provide operation and maintenance manuals	9/30/2009	5	14	60	12/18/2009
Product Data	15850 - Air Outlets and Inlets	1.4A	include product data for outlets and inlets indicating type, size, location, applications, and noise level.	9/30/2009	5	14	60	12/18/2009
Requirements	15850 - Air Outlets and Inlets	1.4B	review requirements of outlets and inlets to size, finish, and type of mounting prior to submitting product data and schedules of outlet and inlets.	9/30/2009	5	14	60	12/18/2009
Manufacturer's Installation Instructions	15850 - Air Outlets and Inlets	1.4C	Include manufacturer's installation instructions.	9/30/2009	5	14	60	12/18/2009
Product Data	15862 - Air Filters	1.3A	Include filter media, filter performance data, filter assembly and filter frames	9/30/2009	5	14	60	12/18/2009
O&M	15862 - Air Filters	1.3B	Provide operation and maintenance manuals	9/30/2009	5	14	60	12/18/2009
Product Data	16050 - Electrical General Prov.	1.6A	Access Doors: Indicate detailed dimension	6/29/2009	5	14	14	8/1/2009
Product Data	16060 - Grounding and Bonding Systems	1.5A	Product Data: Submit grounding electrodes and connections; for fastening components; and nameplates, labels, and markers	6/13/2009	5	14	30	8/1/2009
Test Reports	16060 - Grounding and Bonding Systems	1.5B	Test Reports: Indicated overall resistance to ground and resistance of each electrode	6/13/2009	5	14	30	8/1/2009
Manufacturer's Installation Instructions	16060 - Grounding and Bonding Systems	1.5C	Manufacturer's Installation Instructions: Submit for active electrodes	6/13/2009	5	14	30	8/1/2009
Project Record Documents	16060 - Grounding and Bonding Systems	1.5D	Project Record Documents: Record actual locations of components and grounding electrodes	6/13/2009	5	14	30	8/1/2009
Product Data	16075 - Electrical Identification	1.2A	Submit product data	6/13/2009	5	14	30	8/1/2009
Test Reports	16080 - Electrical Testing	1.3A	Submit test report forms for review a minimum of 90 days prior to requesting a final review by A/E.	6/13/2009	5	14	30	8/1/2009
Test Data	16080 - Electrical Testing	1.3B	Furnish six individually bound copies of test data. Neatly type and arrange data. Include with the data the date tested, personnel present, weather conditions, nameplate record of test instrument and list all measurements taken, both prior to and after any corrections are mare to the system. Record all failures and corrective action taken to remedy incorrect situation.	6/13/2009	5	14	30	8/1/2009
Product Data	16135 - Indoor Service Poles	1.4A	Product Data: Submit data on materials, finishes, receptacle and connector configuration, and attachment details.	12/31/2009	5	14	30	2/18/2010
Samples	16135 - Indoor Service Poles	1.4B	Samples: Submit two finish color chips	12/31/2009	5	14	30	2/18/2010
Operation and Maintenance Manuals	16135 - Indoor Service Poles	1.4C	Operation and Maintenance Data: Submit instructions form cleaning of finishes and adjusting.	12/31/2009	5	14	30	2/18/2010
Samples	16141 - Decorator Style Wiring Devices	1.4A	Furnish samples upon request of A/E.	10/30/2009	5	14	30	12/18/2009
Product Data	16210 - Service Entrance	1.4A	Submit Product Data	10/30/2009	5	14	30	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Item	Description	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Shop Drawings	16231 - Packaged Engine Generator Systems	1.5A	Furnish shop drawings showing plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and combustion air requirements, and electrical diagrams including schematic and interconnection diagrams. Show actual room layout and verify combustion air requirements and cooling water requirements.	8/1/2009	5	14	120	12/18/2009
Product Data	16231 - Packaged Engine Generator Systems	1.5B	Furnish product data showing dimensions, weights, ratings, interconnection points and internal wiring diagrams for engine, generator, control panel, battery, battery pack, battery rack, battery charger, exhaust silencer, vibration isolators, day tank and remote annunciatory. Submit computer analysis for generator loading, motor starting, critical speed and vibratory stress.	8/1/2009	5	14	120	12/18/2009
Manufacturer's Installation Instructions	16231 - Packaged Engine Generator Systems	1.5C	Furnish manufacturer's installation instructions.	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16231 - Packaged Engine Generator Systems	1.5D	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Product Data	16236 - Static Uninterruptible Power Supply	1.4A	Furnish battery pack dimensions	8/1/2009	5	14	120	12/18/2009
Product Data	16236 - Static Uninterruptible Power Supply	1.4B	Include battery, size, dimensions and weight	8/1/2009	5	14	120	12/18/2009
Product Data	16236 - Static Uninterruptible Power Supply	1.4C	Included detailed equipment outlines, weight and dimensions	8/1/2009	5	14	120	12/18/2009
Shop Drawings	16236 - Static Uninterruptible Power Supply	1.4D	Include location of conduit entry and exit.	8/1/2009	5	14	120	12/18/2009
Line Diagram	16236 - Static Uninterruptible Power Supply	1.4E	Furnish single line diagram indicating metering, control and external wiring requirements, heart rejection and air flow requirements.	8/1/2009	5	14	120	12/18/2009
Product Data	16236 - Static Uninterruptible Power Supply	1.4F	Furnish product data for major components, including catalog sheets and technical data sheets to indicate physical data and electrical performance.	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16236 - Static Uninterruptible Power Supply	1.4G	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Product Data	16276 - Dry Type Transformers	1.4A	Include outline and support point dimensions of enclosures and accessories, unit weight, voltage, KVA< and impedance ratings and characteristics, no load core loss, full load winding conductor loss, full load losses, efficiency at 25 percent, 50 percent, 75 percent and 100 percent rated loads, percent regulation with 80 percent and 100 percent power factor loads, sound level, tap configurations, insulation system type and rated temperature rise	8/1/2009	5	14	120	12/18/2009
Product Data	16276 - Dry Type Transformers	1.4B	Indicate K-factor where applicable	8/1/2009	5	14	120	12/18/2009
Product Data	16276 - Dry Type Transformers	1.4C	Base data for electrical characteristics on actual laboratory tests of typical transformers	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16276 - Dry Type Transformers	1.4D	Provide operation and maintenance manuals	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3A	Provide an equipment manual that details the installation, operation and maintenance instructions for the specified unit.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3B	Provide drawings that show unit dimensions, weights, mounting provisions, connection details and layout diagram of the unit	8/1/2009	5	14	120	12/18/2009
Product Data	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3C	Provide data showing UL1449 product listing. Also submit certified documentation of applicable Location Category Testing in full compliance with NEMA LS I-1992, paragraphs 2.2.10 and 3.10.	8/1/2009	5	14	120	12/18/2009
Certified Documentation	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3D	Provide certified documentation of the unit's Single Pulse Surge Current Capacity based on ANSI/IEEE C62.41-1991 Standards.	8/1/2009	5	14	120	12/18/2009
Certified Documentation	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3E	Provide certified documentation of the unit's Minimum Repetitive Surge Current Capacity Testing based on ANSI/IEEE C62.45-1987 Standards.	8/1/2009	5	14	120	12/18/2009
Parts List	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3F	Provide a list of customer-replaceable spare parts. All spare parts shall be quickly and easily field-replaceable.	8/1/2009	5	14	120	12/18/2009
Test Reports	16336 - Transient Voltage Surge Suppressors (High Exposure)	1.3G	The unit shall include a Diagnostic Signature Card listing factory-established benchmark suppression voltage values for all modes of protection. The suppression voltage values shall be established during final production line testing utilizing the DTS-2 Diagnostic Test Set. This Diagnostic Signature Card shall provide space for subsequent field testing allowing comparison of the initial factory benchmark testing with subsequent field testing suppression voltage values.	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3A	Provide an equipment manual that details the installation, operation and maintenance instructions for the specified unit.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3B	Provide drawings that show unit dimensions, weights, mounting provisions, connection details and layout diagram of the unit	8/1/2009	5	14	120	12/18/2009
Product Data	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3C	Provide data showing UL1449 product listing. Also submit certified documentation of applicable Location Category Testing in full compliance with NEMA LS I-1992, paragraphs 2.2.10 and 3.10.	8/1/2009	5	14	120	12/18/2009
Certified Documentation	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3D	Provide certified documentation of the unit's Single Pulse Surge Current Capacity based on ANSI/IEEE C62.41-1991 Standards.	8/1/2009	5	14	120	12/18/2009
Certified Documentation	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3E	Provide certified documentation of the unit's Minimum Repetitive Surge Current Capacity Testing based on ANSI/IEEE C62.45-1987 Standards.	8/1/2009	5	14	120	12/18/2009
Parts List	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3F	Provide a list of customer-replaceable spare parts. All spare parts shall be quickly and easily field-replaceable.	8/1/2009	5	14	120	12/18/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Test Reports	16337 - Transient Voltage Surge Suppressors (Medium Expose)	1.3G	The unit shall include a Diagnostic Signature Card listing factory-established benchmark suppression voltage values for all modes of protection. The suppression voltage values shall be established during final production line testing utilizing the DTS-2 Diagnostic Test Set. This Diagnostic Signature Card shall provide space for subsequent field testing allowing comparison of the initial factory benchmark testing with subsequent field testing suppression voltage values.	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3A	Provide an equipment manual that details the installation, operation and maintenance instructions for the specified unit.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3B	Provide drawings that show unit dimensions, weights, mounting provisions, connection details and layout diagram of the unit	8/1/2009	5	14	120	12/18/2009
Product Data	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3C	Provide data showing UL1449 product listing. Also submit certified documentation of applicable Location Category Testing in full compliance with NEMA LS I-1992, paragraphs 2.2.10 and 3.10.	8/1/2009	5	14	120	12/18/2009
Certified Documentation	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3D	Provide certified documentation of the unit's Single Pulse Surge Current Capacity based on ANSI/IEEE C62.41-1991 Standards.	8/1/2009	5	14	120	12/18/2009
Certified Documentation	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3E	Provide certified documentation of the unit's Minimum Repetitive Surge Current Capacity Testing based on ANSI/IEEE C62.45-1987 Standards.	8/1/2009	5	14	120	12/18/2009
Parts List	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3F	Provide a list of customer-replaceable spare parts. All spare parts shall be quickly and easily field-replaceable.	8/1/2009	5	14	120	12/18/2009
Test Reports	16338 - Transient Voltage Surge Suppressors (Low Expose)	1.3G	The unit shall include a Diagnostic Signature Card listing factory-established benchmark suppression voltage values for all modes of protection. The suppression voltage values shall be established during final production line testing utilizing the DTS-2 Diagnostic Test Set. This Diagnostic Signature Card shall provide space for subsequent field testing allowing comparison of the initial factory benchmark testing with subsequent field testing suppression voltage values.	8/1/2009	5	14	120	12/18/2009
Product Data	16411 - Disconnect Switches	1.4A	Furnish dimensions and ratings for voltage, ampacity, horsepower, and short circuit	9/30/2009	5	14	60	12/18/2009
Classification	16411 - Disconnect Switches	1.4B	Indicate enclosure material finish and NEMA classifications type.	9/30/2009	5	14	60	12/18/2009
Written Verification	16423 - Contactors	1.2A	Furnish written verification that contractor type is compatible with all controlling devices	9/30/2009	5	14	60	12/18/2009
Classification	16423 - Contactors	1.2B	Indicate enclosure material finish and NEMA classifications type.	9/30/2009	5	14	60	12/18/2009
Operation and Maintenance Manuals	16423 - Contactors	1.2C	Provide operation and maintenance manuals	9/30/2009	5	14	60	12/18/2009
Product Data	16424 - Individual Motor Starters	1.5A	Include data on relays, pilot devices, switching and over current protection. Include trip ratings, size and UL listing.	9/30/2009	5	14	60	12/18/2009
Classification	16424 - Individual Motor Starters	1.5B	Indicate enclosure material finish and NEMA classifications type.	9/30/2009	5	14	60	12/18/2009
Operation and Maintenance Manuals	16424 - Individual Motor Starters	1.5C	Provide operation and maintenance manuals	9/30/2009	5	14	60	12/18/2009
Drawings	16441 - Switchboards	1.4A	Indicate detailed dimensions for the front and side views	8/1/2009	5	14	120	12/18/2009
Drawings	16441 - Switchboards	1.4B	Indicate conduit entrance locations and requirements	8/1/2009	5	14	120	12/18/2009
Classification	16441 - Switchboards	1.4C	Indicate enclosure material finish and NEMA classifications type.	8/1/2009	5	14	120	12/18/2009
Legends	16441 - Switchboards	1.4D	Indicate nameplate legends	8/1/2009	5	14	120	12/18/2009
Drawings	16441 - Switchboards	1.4E	Indicate size and number of bus bars and ground; switchboard instrument details	8/1/2009	5	14	120	12/18/2009
Instructions	16441 - Switchboards	1.4F	Furnish instructions for handling and installation of switchboard.	8/1/2009	5	14	120	12/18/2009
Product Data	16441 - Switchboards	1.4G	Include electrical characteristics including voltage, frame size, and trip ratings, withstand ratings, and time-current curves of all equipment and components.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	16442 - Panel board	1.4A	Include outline and support point dimensions, NEMA enclosure type, voltage, main bus ampacity and material, integrated short circuit ampere rating, circuit breaker and fusible switch arrangement and sizes.	8/1/2009	5	14	120	12/18/2009
Shop Drawings	16451 - Bus way	1.4A	Shop Drawings: Indicate ratings, dimensions and finishes. Include dimensions layout diagram, installation details and locations of supports and fittings such as firestops and weatherseals. Include details of wall and floor penetrations.	8/1/2009	5	14	120	12/18/2009
Product Data	16451 - Bus way	1.4B	Product Data: Submit catalog data for components and plug-in units.	8/1/2009	5	14	120	12/18/2009
Coordination Drawings	16451 - Bus way	1.4C	Coordination Drawings: Indicate bus way layout and support locations.	8/1/2009	5	14	120	12/18/2009
Project Record Documents	16451 - Bus way	1.4D	Project Record Documents: Record actual locations of bus way routing.	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	16451 - Bus way	1.4E	Operation and Maintenance Data: Submit joint re-tightening schedule.	8/1/2009	5	14	120	12/18/2009
Product Data	16510 - Lighting Fixtures - Building	1.3A	Include product data for fixtures, including photometric data, reflectance, lens, lamps, ballasts, poles and lighting control	1/30/2010	5	14	120	6/18/2010
Samples	16510 - Lighting Fixtures - Building	1.3B	Furnish samples upon request	1/30/2010	5	14	120	6/18/2010
Operation and Maintenance Manuals	16510 - Lighting Fixtures - Building	1.3C	Provide operation and maintenance manuals	1/30/2010	5	14	120	6/18/2010
Product Data	16520 - Lighting Fixtures - Site	1.3A	Include product data for fixtures, including photometric data, reflectance, lens, lamps, ballasts, poles and lighting control	1/30/2010	5	14	120	6/18/2010
Samples	16520 - Lighting Fixtures - Site	1.3B	Furnish samples upon request	1/30/2010	5	14	120	6/18/2010

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Item	Description	Date				
Operation and Maintenance Manuals	16520 - Lighting Fixtures - Site	1.3C	Provide operation and maintenance manuals	1/30/2010	5	14	120	6/18/2010
Product Data	16570 - Lighting Relay Panels	1.3A	Include product data for relays, enclosures, switches, and photocells	1/30/2010	5	14	120	6/18/2010
Diagrams	16570 - Lighting Relay Panels	1.3B	Provide wiring diagrams for all components	1/30/2010	5	14	120	6/18/2010
Operation and Maintenance Manuals	16570 - Lighting Relay Panels	1.3C	Provide operation and maintenance manuals	1/30/2010	5	14	120	6/18/2010
Certification	17000 - Building Automation System (BAS)	1.4A	Complete Bill of Material, including manufacturer's certified rating data, description literature, catalog cuts, and shop drawings, for proposal: 1. Control devices and equipment. 2. Control dampers and valves. 3. Control panels. 4. Wiring materials and electrical power equipment.	8/1/2009	5	14	120	12/18/2009
Diagrams	17000 - Building Automation System (BAS)	1.4B	Include control, interlock, and power wiring diagrams and descriptions on operation of all control systems (sequences of operation) and their effect on other equipment and systems.	8/1/2009	5	14	120	12/18/2009
Drawings	17000 - Building Automation System (BAS)	1.4C	Include and HVAC control schematic layout showing, in detail, the exact quantity of function points, printed circuit cards, the relationship of these elements and a description of how they interrelate operationally.	8/1/2009	5	14	120	12/18/2009
Schematics	17000 - Building Automation System (BAS)	1.4D	Include a BACnet protocol Implementation Conformance Statements (PICS) for each type of controller and operator interface included in the submittal.	8/1/2009	5	14	120	12/18/2009
Operation and Maintenance Manuals	17000 - Building Automation System (BAS)	1.4E	Final submittal shall include operation and maintenance manuals.	8/1/2009	5	14	120	12/18/2009
Software	17000 - Building Automation System (BAS)	1.4F	Provide and install, at no additional cost to owner, the latest firmware and software applicable for this project before the expiration of the warranty period.	8/1/2009	5	14	120	12/18/2009
Drawings	17000 - Building Automation System (BAS)	1.4G	Combination Fire/Smoke Dampers and Smoke Dampers: Assign identification numbers for each damper with corresponding number noted on Drawings. Provide air quantity, size, free area of damper, pressure drop and proposed velocity through each damper. Provide manufacturer's data of damper and its accessories or options. Provide power requirements.	8/1/2009	5	14	120	12/18/2009
Product Data	221113 - Facility Water Distribution Piping	1.4A	Product Data: For each type of product indicated.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	221113 - Facility Water Distribution Piping	1.4B	Shop Drawings: Detail precast concrete vault assemblies and indicate dimensions, method of field assembly, and components. 1. Wiring Diagrams: Power, signal, and control wiring for alarms.	10/30/2009	5	14	30	12/18/2009
Coordination Drawings	221113 - Facility Water Distribution Piping	1.4C	Coordination Drawings: For piping and specialties including relation to other services in same area, drawn to scale. Show piping and specialty sizes and valves, meter and specialty locations, and elevations.	10/30/2009	5	14	30	12/18/2009
Test Reports	221113 - Facility Water Distribution Piping	1.4D	field quality-control test reports.	10/30/2009	5	14	30	12/18/2009
Operation and Maintenance Manuals	221113 - Facility Water Distribution Piping	1.4E	Operation and Maintenance Data: For water valves and specialties to include in emergency, operation, and maintenance manuals.	10/30/2009	5	14	30	12/18/2009
Product Data	221313 - Facility Sanitary Sewers	1.4A	Product Data: For the following: 1. Expansion joints and deflection fittings. 2. Backwater valves.	6/13/2009	5	14	30	8/1/2009
Shop Drawings	221313 - Facility Sanitary Sewers	1.4B	Shop Drawings: For manholes. Include plans, elevations, sections, details, and frames and covers.	6/13/2009	5	14	30	8/1/2009
Product Certificates	221313 - Facility Sanitary Sewers	1.4C	Product Certificates: For each type of cast-iron soil pipe and fitting, from manufacturer.	6/13/2009	5	14	30	8/1/2009
Reports	221313 - Facility Sanitary Sewers	1.4D	Field quality-control reports.	6/13/2009	5	14	30	8/1/2009
Data	270500 - Communications General	1.11A	The Communications Contractor shall perform no portion of the work requiring submittal and review of record drawings, shop drawings, product data, or samples until the respective submittal has been approved by PGAL Technology Planning Group and the Engineer. Such work shall be in accordance with approved submittals.	10/30/2009	5	14	30	12/18/2009
Data	270500 - Communications General	1.11B	Communications Contractor's BICSI Registered Communications Distribution Designer (RCDD) supervisor shall review, approve and stamp all documents prior to submitting	10/30/2009	5	14	30	12/18/2009
Qualifications Data	270500 - Communications General	1.11C	Qualifications: The Contractor shall submit qualification data sheets for firms and persons as specified in the "Quality Assurance", Section 1.13 of this specification. Provide evidence of applicable registration or certification.	10/30/2009	5	14	30	12/18/2009
Product Data	270500 - Communications General	1.11D	Proposed product data sheets: The Communications Contractor shall submit catalogue cut sheets that include manufacturer, trade name, and complete model number for each product specified. Model number shall be handwritten and/or highlighted to indicate exact selection. Identify applicable specification section reference for each product performance for each component specified for approval prior to purchase and installation	10/30/2009	5	14	30	12/18/2009
Samples	270500 - Communications General	1.11E	Samples: For workstation outlet connectors, jack assemblies, housings and faceplates for color selection and evaluation of technical specifications and requirements. Confirm with Architect, Interior Designer, and Owner representative for color before purchasing materials.	10/30/2009	5	14	30	12/18/2009
Product Certification:	270500 - Communications General	1.11F	Product Certificates: Signed by manufacturers of cables, connectors, and terminal equipment certifying that products furnished comply with requirements.	10/30/2009	5	14	30	12/18/2009
Field Test Reports	270500 - Communications General	1.11G	Field Test Reports: Upon completing testing of the installed system, test reports shall be submitted. See Section 3.4 of this documentation for details	10/30/2009	5	14	30	12/18/2009

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description					
Warranty	270500 - Communications General	1.11H	Warranty: Deliver manufacturer's signed 20-year Extended Product and System Assurance Warranty of installed cabling system to include all components that comprise the complete cabling system. Delivery to be effective within two weeks of the time of final punch list review. Failure of any component to pass system component tests shall be promptly ameliorated Communications Contractor shall coordinate with manufacturer for warranty paperwork and procedures prior to the start of the project.	10/30/2009	5	14	30	12/18/2009
Shop Drawings	270500 - Communications General	1.11I	Communications Contractor must clearly identify any resubmitted drawing sheets, documents or cut sheets either by using a color to highlight or cloud around resubmitted information. Maintain drawing numbering or page/sheet scheme consistency as per previously issued drawings/documents.	10/30/2009	5	14	30	12/18/2009
Testing	270500 - Communications General	1.11J	Cable Testing Plan: The Communications Contractor shall provide a test plan for media testing as described in Section 3.4, C (this specification) prior to beginning cable testing. The following minimal items shall be submitted for review: 1. All testing methods 2. Product data for test equipment 3. Certifications and qualifications of all persons conducting the testing 4. Calibration certificates indicating that equipment calibration meets National Institute of Standards and Technology (NIST) standards and has been calibrated at least once in the previous calendar year 5. Examples of test reports, including all graphs, tables, and charts necessary for display of testing results	10/30/2009	5	14	30	12/18/2009
Test Reports	270500 - Communications General	1.11K	Cable Testing Reports: The Communications Contractor shall submit cable test reports as follows: 1. Submit certified test reports of Communications Contractor-performed tests in accordance with the Section 3.4 of this document. 2. The tests shall clearly demonstrate that the media and its components fully comply with the requirements specified herein. 3. Electronic and hardcopy versions of test reports shall be submitted together and clearly identified with cable identification.	10/30/2009	5	14	30	12/18/2009
Record Drawings	270500 - Communications General	1.11L	Record Drawings: Furnish "as built" CAD drawings of completed work including cable numbers, labeled in accordance with Section 1.12 within this document.	10/30/2009	5	14	30	12/18/2009
Qualifications Data	270526 - Grounding and Bonding for Communication Systems	1.3A	Qualifications: Demonstrate compliance with requirements of Paragraph 1.4.A below.	10/30/2009	5	14	30	12/18/2009
Product Data	270526 - Grounding and Bonding for Communication Systems	1.3B	Product Data: Manufacturers' catalog data, installation procedures and instructions for handling and storage.	10/30/2009	5	14	30	12/18/2009
Record Drawings	270526 - Grounding and Bonding for Communication Systems	1.3C	Record Drawings: Furnish "as built" CAD drawings of completed work	10/30/2009	5	14	30	12/18/2009
Qualifications Data	270528.29 - Hangers and Supports for Communication Systems	1.3A	Qualifications: Demonstrate compliance with requirements of Paragraph 1.4.A below.	10/30/2009	5	14	30	12/18/2009
Data	270528.29 - Hangers and Supports for Communication Systems	1.3B	Manufacturers' data, including part numbers, cut sheets and detailed descriptions, for all proposed equipment.	10/30/2009	5	14	30	12/18/2009
Record Drawings	270528.29 - Hangers and Supports for Communication Systems	1.3C	Record Drawings: Furnish "As-Built" CAD drawings of completed work.	10/30/2009	5	14	30	12/18/2009
Qualifications Data	270528.33 - Conduits and Pull Boxes for Communication Systems	1.3A	Qualifications: Demonstrate compliance with requirements of Paragraph 1.4.A below.	10/30/2009	5	14	30	12/18/2009
Data	270528.33 - Conduits and Pull Boxes for Communication Systems	1.3B	Manufacturers' data, including part numbers, cut sheets and detailed descriptions, for all proposed equipment.	10/30/2009	5	14	30	12/18/2009
Record Drawings	270528.33 - Conduits and Pull Boxes for Communication Systems	1.3C	Record Drawings: Furnish "as built" CAD drawings of completed work	10/30/2009	5	14	30	12/18/2009
Qualifications Data	270528.36 - Cable Tray Communications Systems	1.3A	Qualifications: Demonstrate compliance with requirements of Paragraph 1.4.A below.	10/30/2009	5	14	30	12/18/2009
Data	270528.36 - Cable Tray Communications Systems	1.3B	Manufacturers' data, including part numbers, cut sheets and detailed descriptions, for all proposed equipment.	10/30/2009	5	14	30	12/18/2009
Record Drawings	270528.36 - Cable Tray Communications Systems	1.3C	Record Drawings: Furnish "as built" CAD drawings of completed work	10/30/2009	5	14	30	12/18/2009
Qualifications Data	271100 - Communications Equipment Room Fittings	1.3A	Qualifications: Demonstrate compliance with requirements of Paragraph 1.4.A below.	10/30/2009	5	14	30	12/18/2009
Data	271100 - Communications Equipment Room Fittings	1.3B	Manufacturers' data, including part numbers, cut sheets and detailed descriptions, for all proposed equipment.	10/30/2009	5	14	30	12/18/2009
Equipment Layout Drawing	271100 - Communications Equipment Room Fittings	1.3C	Communications Room Equipment Layout: Contractor shall submit shop drawings (floor plan anc elevations) of each communications room prior to installing connecting hardware, termination equipment, racks, cabinets, cable tray or other systems in the communications room.	10/30/2009	5	14	30	12/18/2009
Record Drawings	271100 - Communications Equipment Room Fittings	1.3D	Record Drawings: Furnish "as built" CAD drawings of completed work	10/30/2009	5	14	30	12/18/2009

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Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

[illegible]	Spec Section	Article	Description	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Data	271300 - Communications Backbone Cabling and Terminations	1.3A	The Communications Contractor shall perform no portion of the work requiring submittal and review of record drawings, shop drawings, product data, or samples until the respective submittal has been approved by PGAL Technology Planning Group and the Engineer. Such work shall be in accordance with approved submittals.	10/30/2009	5	14	30	12/18/2009
Data	271300 - Communications Backbone Cabling and Terminations	1.3B	Communications Contractor's BICSI Registered Communications Distribution Designer (RCDD) supervisor shall review, approve and stamp all documents prior to submitting.	10/30/2009	5	14	30	12/18/2009
Qualifications Data	271300 - Communications Backbone Cabling and Terminations	1.3C	Qualifications: The Communications Contractor shall submit qualification data sheets for firms and persons as specified in the "Quality Assurance" article of this specification to demonstrate their capabilities and experience.	10/30/2009	5	14	30	12/18/2009
Product Data	271300 - Communications Backbone Cabling and Terminations	1.3D	Proposed product data sheets: The Communications Contractor shall submit catalogue cut-sheets that include manufacturer, trade name, and complete model number for each product specified. Model number shall be handwritten and/or highlighted to indicate exact selection. Identify applicable specification section reference for each product.	10/30/2009	5	14	30	12/18/2009
Testing	271300 - Communications Backbone Cabling and Terminations	1.3E	Cable Testing Plan: The Communications Contractor shall provide a test plan for media testing as described in the article "Field Quality Control" prior to beginning cable testing. The following minimal items shall be submitted for review: 1. All testing methods 2. Product data for test equipment 3. Certifications and qualifications of all persons conducting the testing 4. Calibration certificates indicating that equipment calibration meets National Institute of Standards and Technology (NIST) standards and has been calibrated at least once in the previous calendar year 5. Examples of test reports, including all graphs, tables, and charts necessary for display of testing results.	10/30/2009	5	14	30	12/18/2009
Testing	271300 - Communications Backbone Cabling and Terminations	1.3F	Cable Testing Reports: The Communications Contractor shall submit cable test reports as follows: 1. Submit certified test reports of Communications Contractor-performed tests in accordance with the "Field Quality Control" article of this document. 2. The tests shall clearly demonstrate that the media and its components fully comply with the requirements specified herein. 3. Electronic and hardcopy versions of test reports shall be submitted together and clearly identified with cable identification.	10/30/2009	5	14	30	12/18/2009
Data	271300 - Communications Backbone Cabling and Terminations	1.3G	Cable inventory data shall be submitted for all optical fiber and multi-pair copper cabling and termination equipment. Submit data electronically on CD-ROM in a format approved by Fort Bend County IT, listing products furnished, including: 1. Manufacturer's name 2. Manufacturer's part numbers 3. Cable numbers 4. Location and riser assignments J. Record Drawings: Furnish "as-built" CAD drawings of completed work including cable numbers, labeled in accordance with 3.3.E below.	10/30/2009	5	14	30	12/18/2009
Documentation	311000 - Site Clearing	1.5A	Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing. 1. Use sufficiently detailed photographs or videotape. 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.	[illegible]	5	14	7	6/1/2009
Record Drawings	311000 - Site Clearing	1.5B	Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.	[illegible]	5	14	7	6/1/2009
Product Data	312000 - Earth Moving	1.5A	Product Data: For each type of the following manufactured products required: 1. Geotextiles. 2. Controlled low-strength material, including design mixture. 3. Geofoam. 4. Warning tapes.	[illegible]	5	14	7	6/1/2009
Samples	312000 - Earth Moving	1.5B	Samples for Verification: For the following products, in sizes indicated below: 1. Geotextile: 12 by 12 inches (300 by 300 mm). 2. Warning Tape: 12 inches (300 mm) long; of each color.	[illegible]	5	14	7	6/1/2009
Qualifications Data	312000 - Earth Moving	1.5C	Qualification Data: For qualified testing agency.	[illegible]	5	14	7	6/1/2009
Test Reports	312000 - Earth Moving	1.5D	Material Test Reports: For each [on-site] [and] [borrow] soil material proposed for fill and backfill as follows: 1. Classification according to ASTM D 2487. 2. Laboratory compaction curve according to [ASTM D 698].	[illegible]	5	14	7	6/1/2009

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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Test Reports	312300 - Building Earthwork	1.5A	Laboratory Test Reports: Submit the following reports directly to the Architect/Engineer from the testing services, with copy to Contractor: 1. Test reports on borrow and fill material including optimum moisture-maximum density curve for each type of soil. 2. Verification reports of each footing subgrade. 3. Field density test reports. 4. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested. 5. All other test reports as required by "Testing Laboratory Services", and other specification sections. 6. Product Data		5	14	7	6/1/2009
Certificates	312500 - Lime Stabilized Subgrade	1.4A	Submit certificates stating that hydrated lime, quicklime, or commercial lime slurry complies with these specifications.		5	14	7	6/1/2009
Tickets	312500 - Lime Stabilized Subgrade	1.4C	Submit weight tickets, certified by supplier, with each bulk delivery of lime to work site.		5	14	7	6/1/2009
Data	312500 - Lime Stabilized Subgrade	1.4D	Submit manufacturer's description and characteristics for rotary speed mixer and compaction equipment for approval.		5	14	7	6/1/2009
Product Data	313116 - Termite Control	1.3A	Product Data: For each type of termite control product. 1. Include the EPA-Registered Label for termiticide products.	6/6/2009	5	14	7	7/2/2009
Qualifications Data	313116 - Termite Control	1.3B	Qualification Data: For qualified Installer.	6/6/2009	5	14	7	7/2/2009
Product Certification:	313116 - Termite Control	1.3C	Product Certificates: For termite control products, from manufacturer.	6/6/2009	5	14	7	7/2/2009
Report	313116 - Termite Control	1.3D	Soil Treatment Application Report: After application oftermiticide is completed, submit report for Owner's records and include the following: 1. Date and time of application. 2. Moisture content of soil before application. 3. Termiticide brand name and manufacturer. 4. Quantity of undiluted termiticide used. 5. Dilutions, methods, volumes used, and rates of application. 6. Areas of application. 7. Water source for application.	6/6/2009	5	14	7	7/2/2009
Warranty	313116 - Termite Control	1.3E	Warranties: Sample of special warranties.	6/6/2009	5	14	7	7/2/2009
Shop Drawings	315000 - Excavation Support and Protection	1.4A	Shop Drawings: For excavation support and protection system.	6/13/2009	5	14	30	8/1/2009
Design Data	315000 - Excavation Support and Protection	1.4B	Delegated-Design Submittal: For excavation support and protection system indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.	6/13/2009	5	14	30	8/1/2009
Qualifications Data	315000 - Excavation Support and Protection	1.4C	Coordinate first paragraph below with qualification requirements in Division 01 Section "Quality Requirements. "Qualification Data: For qualified professional engineer.	6/13/2009	5	14	30	8/1/2009
Record Drawings	315000 - Excavation Support and Protection	1.4D	Other Informational Submittals: 1. Photographs: Show existing conditions of adjacent construction and site improvements that might be misconstrued as damage caused by the absence of, the installation of, or the performance of excavation support and protection systems. Submit before Work begins. 2. Record Drawings: Identifying and locating capped utilities and other subsurface structural, electrical, or mechanical conditions. a. Note locations and capping depth of wells and well points.	6/13/2009	5	14	30	8/1/2009
Concrete Mix Design	316324 - Drilled and Underreamed Footings	1.9A	Concrete Mix Design: Submit concrete mix designs suitable for method of concrete placement for Engineer and Owner's Testing Laboratory approval prior to pier installation.	6/6/2009	5	14	7	7/2/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Specification	Article	Description	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Drilling Records	316324 - Drilled and Underreamed Footings	1.9B	Drilling Records: The Drilling Contractor and the Owner's Geotechnical Engineer or other authorized inspector shall each submit copies of the drilling record for each pier to the Architect/Engineer immediately after drilling. The reports shall indicate the name of the job, name of Drilling Contractor, and name of drilling superintendent. For each pier installed, the report shall indicate the following information: 1. Pier number and location 2. Pier shaft diameter 3. Pier underream diameter 4. Bottom elevation 5. Top elevation 6. Pier length 7. Theoretical volume of concrete in pier 8. Actual volume of concrete placed 9. Reinforcing steel size and depth actually placed 10. Drilling start and finish time 11 . Concreting start and finish time 12. Variation from specified tolerances including surveyed location and plumbness 13. Construction method (dry method, or casing method) 14. Groundwater conditions (rate of water infiltration and depth of water in hole prior to concreting for dry piers; water elevation in hole for wet piers) 15. Elevation of top and bottom of any casing left in place 16. Description of temporary or permanent casing (including purpose, diameter, wall thickness and length) 17. Description and elevation of any obstructions encountered and whether removal was obtained 18. Description of pier bottom including amount and extent of loose material 19. Method of concrete placement 20. Any difficulties encountered in drilling or concreting operations 21. Any deviations from specifications. Reports prepared by the Owner's Geotechnical Engineer or authorized inspector shall be compiled and signed by a licensed professional engineer in the state where the project is located. Reports prepared by the Drilling Contractor shall be compiled and signed by the drilling superintendent.	6/6/2009	5	14	7	7/2/2009
Shop Drawings	316324 - Drilled and Underreamed Footings	1.9C	Shop Drawings: 1. Reinforcing Steel: Submit shop drawings for all drilled pier and pier cap reinforcing steel. 2. Installation Method: Submit detailed procedures of the installation method, including (where applicable) type and number of drilling rigs and equipment, casing size and length, casing removal method, drilling fluid type, dewatering method, concrete placement, and reinforcing steel securing and placement.	6/6/2009	5	14	7	7/2/2009
Product Data	316324 - Drilled and Underreamed Footings	1.9D	Product Data: Submit manufacturer's product data with application and installation instructions for proprietary materials and items	6/6/2009	5	14	7	7/2/2009
Qualifications Data	316324 - Drilled and Underreamed Footings	1.9E	Qualification Data: 1. Submit qualification data for firms and persons specified in the article entitled "Qualifications" to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified. 2. Submit Welding Procedure Specifications (WPS) in accordance with ANSIIA WS D 1.1 for all welded joints in steel casing. Submit test reports showing successful passage of qualification tests for all non-prequalified WPSs. 3. Provide certification that welders to be employed in work have satisfactorily passed A WS qualification tests as specified. If recertification of welders is required, retest ting will be at Contractor's responsibility.	6/6/2009	5	14	7	7/2/2009
Alternates	316324 - Drilled and Underreamed Footings	1.9F	Alternates: The Drilling Contractor shall submit his bid based on the specifications as written without exceptions. He may submit bids for alternates to the specifications or modifications to the design, load test program, or installation specifications for consideration by the Owner's Representative and the Owner.	6/6/2009	5	14	7	7/2/2009
Post Construction Survey	316324 - Drilled and Underreamed Footings	1.9G	Post Construction Survey: After completion of pier placement, the Contractor shall provide the Owner's Representative with an as-built survey showing the actual locations of the piers at the top elevations. This survey shall show the plumbness of vertical piers, and all abandoned piers and their replacements. No construction of superstructures shall commence until this survey has been reviewed and accepted by the Owner's Representative. In order to facilitate the progress of the Work, the Contractor shall submit partial pier surveys for approval as the Work proceeds.	6/6/2009	5	14	7	7/2/2009
Product Data	316329 - Drilled Concrete Piers and Shafts	1.4A	Product Data: For each type of product indicated.	6/6/2009	5	14	7	7/2/2009

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Design Mixtures	316329 - Drilled Concrete Piers and Shafts	1.4B	Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments. 1. Indicate amounts of mixing water to be withheld for later addition at Project site.	6/6/2009	5	14	7	7/2/2009
Shop Drawings	316329 - Drilled Concrete Piers and Shafts	1.4C	Shop Drawings: For concrete reinforcement detailing fabricating, bending, supporting, and placing.	6/6/2009	5	14	7	7/2/2009
Qualifications Data	316329 - Drilled Concrete Piers and Shafts	1.4D	Qualification Data: For qualified land surveyor.	6/6/2009	5	14	7	7/2/2009
Certificates	316329 - Drilled Concrete Piers and Shafts	1.4E	Material Certificates: For the following, from manufacturer: 1. Steel reinforcement and accessories.	6/6/2009	5	14	7	7/2/2009
Product Data	321313 - Concrete Paving	1.4A	Product Data: For each type of manufactured material and product indicated.	7/16/2009	5	14	14	8/18/2009
Design Mixtures	321313 - Concrete Paving	1.4B	Design Mixtures: See Section 033000, Cast-In-Place Concrete.	7/16/2009	5	14	14	8/18/2009
Samples	321313 - Concrete Paving	1.4C	Samples: IO-lb (4.5-kg) sample of exposed aggregate.	7/16/2009	5	14	14	8/18/2009
Qualifications Data	321313 - Concrete Paving	1.4D	Qualification Data: For testing agency	7/16/2009	5	14	14	8/18/2009
Test Reports	321313 - Concrete Paving	1.4E	Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials: 1. Aggregates. Include service record data indicating absence of deleterious expansion of concrete due to alkali-aggregate reactivity.	7/16/2009	5	14	14	8/18/2009
Certificates	321313 - Concrete Paving	1.4F	Material Certificates: Signed by manufacturers certifying that each of the following materials complies with requirements: 1. Cementitious materials. 2. Steel reinforcement and reinforcement accessories. 3. Fiber reinforcement. 4. Admixtures. 5. Curing compounds. 6. Applied finish materials. 7. Bonding agent or epoxy adhesive. 8. Joint fillers.	7/16/2009	5	14	14	8/18/2009
Test Reports	321313 - Concrete Paving	1.4G	Field quality-control test reports	7/16/2009	5	14	14	8/18/2009
Minutes	321313 - Concrete Paving	1.4H	Minutes of preinstallation conference.	7/16/2009	5	14	14	8/18/2009
Product Data	321373 - Concrete paving Joint Sealants	1.4A	Product Data: For each joint-sealant product indicated.	7/16/2009	5	14	14	8/18/2009
Samples	321373 - Concrete paving Joint Sealants	1.4B	Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch(I3-mm-) wide joints formed between two 6-inch(I50-mm-)long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.	7/16/2009	5	14	14	8/18/2009
Schedule	321373 - Concrete paving Joint Sealants	1.4C	Pavement-Joint-Sealant Schedule: Include the following information: 1. Joint-sealant application, joint location, and designation. 2. Joint-sealant manufacturer and product name. 3. Joint-sealant formulation. 4. Joint-sealant color.	7/16/2009	5	14	14	8/18/2009
Qualifications Data	321373 - Concrete paving Joint Sealants	1.4D	Qualification Data: For qualified Installer.	7/16/2009	5	14	14	8/18/2009
Certificates	321373 - Concrete paving Joint Sealants	1.4E	Product Certificates: For each type of joint sealant and accessory, from manufacturer.	7/16/2009	5	14	14	8/18/2009
Test Reports	321373 - Concrete paving Joint Sealants	1.4F	Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for joint sealants.	7/16/2009	5	14	14	8/18/2009
Test Reports	321373 - Concrete paving Joint Sealants	1.4G	Preconstruction Compatibility and Adhesion Test Reports: From joint-sealant manufacturer, indicating the following: 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility with and adhesion to joint sealants. 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.	7/16/2009	5	14	14	8/18/2009
Certificates	321913 - Soil Preparation	1.3A	Certificates 1. Submit certification of fertilizer analysis. 2. Delivery tickets of soil amendments	5/16/2010	5	14	14	6/18/2010
Product Data	321913 - Soil Preparation	1.3B	Manufacturer's Product Literature, as applicable	5/16/2010	5	14	14	6/18/2010
Samples	321913 - Soil Preparation	1.3C	Samples 1. 1 gallon sample of Topsoil. 2. 1 gallon sample of Compost. 3. 1 gallon sample of Prepared Soil Mix.	5/16/2010	5	14	14	6/18/2010
Literature	328400 - Landscape Irrigation System	1.12	Using hard cover 3 ring notebooks, provide not less than three (3) copies of complete brochures describing equipment and materials, including names of manufacturer's catalog numbers, trade names, instructions for setting, connecting and operation, technical data and any special information requested. Unless resubmission is required, two will be retained and one returned after being reviewed. If resubmission is required, one corrected copy and one original copy will be returned after being reviewed. If resubmission is required, one corrected copy and one original copy will be returned and one will be retained. One approved copy shall be in the file of the Contractor's representative at the project site.	5/31/2010	5	14	60	8/18/2010

Exhibit K
Shop Drawing/Submittal Schedule (Based on 6/1/09 NTP)

Type	Spec Section	Article	Description	Required				
Product Data	329219 - Seeding	1.2A	Product Data: 1. Fertilizer 2. Seed	5/31/2010	5	14	60	8/18/2010
Data	329219 - Seeding	1.2B	Turf Establishment Superintendent 1. Name, address, telephone number of individual directly responsible for turf establishment operations.	5/31/2010	5	14	60	8/18/2010
Closeout Submittals	329219 - Seeding		Contract Closeout Submittals 1. Maintenance Instructions: Submit to the Owner prior to the final acceptance	5/31/2010	5	14	60	8/18/2010
Certificates	329223 - Sodding	1.3A	Certificates: 1. Grower certification that the sod meets the specification requirements. 2. File certificates with the Owner prior to material acceptance and delivery to the site.	5/31/2010	5	14	60	8/18/2010
Certificates	329300 - Plants	1.3A	Certificates: 1. Test reports: Submit certification of fertilizer analysis with delivery ticket. 2. File certificates with Landscape Architect prior to material acceptance.	5/31/2010	5	14	60	8/18/2010
Literature	329300 - Plants	1.3B	manufacturer's product literature, as Applicable.	5/31/2010	5	14	60	8/18/2010
Maintenance Instructions	329300 - Plants	1.3C	Maintenance Instructions: Submit written maintenance schedule for maintaining plant material after completion of job to Owner before the final inspection.	5/31/2010	5	14	60	8/18/2010
Product Data	334100 - Storm Utility Drainage Piping	1.4A	Product Data: For each type of product indicated.	6/29/2009	5	14	14	8/1/2009
Shop Drawings	334100 - Storm Utility Drainage Piping	1.4B	Shop Drawings: 1. Manholes: Include plans, elevations, sections, details, frames, and covers. 2. Catch basins. Include plans, elevations, sections, details, frames, covers, and grates.	6/29/2009	5	14	14	8/1/2009
Certificates	334100 - Storm Utility Drainage Piping	1.4C	Product Certificates: For each type of cast-iron soil pipe and fitting, from manufacturer.	6/29/2009	5	14	14	8/1/2009
Reports	334100 - Storm Utility Drainage Piping	1.4D	Field quality-control reports	6/29/2009	5	14	14	8/1/2009
Product Data	334600 - Subdrainage	1.4A	Product Data: For the following: 1. Perforated-wall pipe and fittings. 2. Solid-wall pipe and fittings. 3. Drainage conduits. 4. Drainage panels. 5. Geotextile filter fabrics.	7/6/2009	5	14	7	8/1/2009
Approval from Agent	334600 - Subdrainage	1.4B	Approval of waterproofing manufacturer's service agent for use of drainage panels against and for waterproofing membrane protection.	7/6/2009	5	14	7	8/1/2009

Exhibit L

Architect's Concurrence with the Design Completion Schedule, Shop Drawing Schedule and Component Schedule

To be Provided by PGAL

May 26, 2009

Mr. Don Brady
Director, Facilities Management and Planning
Fort Bend County
1402 Band Road, Suite 100
Rosenberg, Texas 77471

Re: Fort Bend County Justice Center

Dear Don,

We are in receipt of the Final GMP Proposal, dated May 26, 2009 from J. E. Dunn. After review of Exhibits G and K (the Design Completion Schedule and Shop Drawing/Submittal Schedule) contained in the proposal, we are in concurrence with those documents.

Thank you,

David L. Andrews, AIA
Principal
PGAL

Pierce Goodwin Alexander & Linville
Alexandria | Atlanta | Austin | Boca Raton | Boston | Dallas | Houston | Las Vegas | Los Angeles | Mexico City

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RFI Log - GMP (Permit Set)

JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
1	Sheet S2.01A, of the Dec. 8 plans, showed a bell 54/168 at Column 04/H5.5. The new set of Jan. 5 does not show a bell at this location, however it notes a bell 54/168. Is there a bell at this location?	S2.01A	1/12/2009	1/26/2009	***Yes, refer to S2.00A. Bearing elevation of this bell will be revised to 54.0'. Bearing elevation of bell at 05 will be revised to 60'-0". Bearing elevation of footing at 06 will be 67'-6". Shaft diameter at 04 and 05 will be revised to 60" (60/168). See revised drawing. (WPMA)***
2	Sheet S2.01A, of the Dec. 8 plans, noted a 54/168 to the left of Column 04/H2.5. The new set does not have the note there. Is there a bell at this location?	S2.01A	1/12/2009	1/26/2009	***Yes, refer to S2.00A. Bearing elevation of this bell will be revised to 51.0'. Bearing elevation of bell at 05 will be revised to 57'-0". Shaft diameter at 04 and 05 and 05/G will be revised to 60" (60/168). Foundation at 06 will be revised to a 66/186 underream pier with a bearing elevation of 61'-6". Footings at 7.2 will be a F13x9. Footigns at H2-8.2 and H6-8.2 will be F7. See revised drawing. (WPMA)***
3	Sheet S2.01 has a detail #9/S4.04 at the pits at columns 06 to 07 & H, and H4 & 08 to 09. The note below the first pit does not match the detail. Please advise.	S2.01 and S4.04	1/12/2009	1/12/2009	***Delete note that says "8" thick pit walls with 10" thick pit slab typ"***
4	Soils Report Section 5.1 states "...the soil at 6 ft and to at least 13 ft is LEAN CLAY for the most part. This soil is competent to support the structure." Specification Section 31 23 00 page 9 Section 3.4 Part C-5 refers to 2 options for the building pad in short a select fill pad or a lime stabilized pad built from on site materials. Both of these options are in conflict with the referenced section of the Geotechnical Report, please clarify which system is going to be the preferred option to construct the building foundation on.	Soils Report Section 5.1 and Spec Section 312300	1/16/2009	1/20/2009	***Referenced section from Geotechnical Report refers to foundations. Referenced section from specifications relates to slabs-on-grade. Geotechnical engineer on site will verify if the existing material could be used as select fill. (WPMA)***
5	Sheet C2.10 note 28 refers C3.10 detail 10 "Monolithic Curb and Gutter", (concrete) next to an asphalt paving.The parking area north of ring road is now concrete, is this detail correct? Will the curb still be monolithic or due we price a topset curb?	C2.10 and C3.10	1/16/2009	1/22/2009	***Parking Lot curb to be constructed per C3.26-7. Sheet C3.10, Detail 10 will be eliminated. (PGAL)***
6	Concerning the Landscaping drawings note 2 ROW alternate pricing: Will the irrigation within this area be priced as part of this "ROW alternate" or be included with the base bid?	L Drawings	1/16/2009	1/20/2009	***Price irrigation in the R. O. W. as part of the alternate. (PGAL)***
7	Plans call for a 5000 gallon grease trap, but Specifications/Plans due not have a size for a 5000 gallon grease trap. Please provide a size.		1/16/2009	1/22/2009	***See sheet P5.01, detail 1. (PGAL)***

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JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
8	Sheet C2.50 references sheet C3.25 for details 4 and 6 for storm sewer inlets and manholes to be constructed out of brick and mortar, which conflicts with the specifications. Spec section 334100 Section 2.11 and 2.13 refers to "Precast Concrete" for the manholes and inlets. Please confirm the storm sewer inlets (catch basins) and the storm sewer manholes are to be Precast Concrete.	C2.50, C3.25, and Spec Section 334100	1/16/2009	1/22/2009	***Storm manholes and inlets may be precast or brick per note on sheet C3.25 (PGAL)***
9	Specifications call to stockpile or spread excavations on site. After excavations are used to raise site as needed, please clarify if excavations will be left stockpiled or will we spread remaining excavations. At this phase will are estimating approxiamately 3000-5000 cubic yards of material will remain after construction is complete.	Spec Section	1/16/2009		
10	Please clarify where the terrazzo flooring terminates according to the room finish schedule as found on sheet A0.20 for rooms 10002, 10004, and 10006.	A0.200, A2.01, A2.01A, and A2.01B	1/16/2009	1/20/2009	***Terrazzo flooring terminates at the North edge of the columns along Gridline 6. (PGAL)***
11	Please confirm that the stone wall tile located in the prep rooms will go from corner to corner and only along one wall in the prep room.	1/A4.02 and 4/A8.00	1/16/2009	1/20/2009	***Terminate stone aligned with the nosing of the bottom stair tread. If referencing enlarged plan 7/A4.02, stone to be on South wall only, extending from the right corner to the nosing of the stair tread on the left. Remainder of South wall to be painted. (PGAL)***
12	Where is the point of demarcation for Storm Sewer System for pricing Alternate 4? Please provide a drawing to issue for the subcontractors.	C2.50	1/16/2009	1/22/2009	***All proposed storm sewer inlets and drain lines located within the limits of the parking lot north of the Ring Road are included in Alt. 4. The proposed connecting lateral within the Ring Road ROW is by Others. (PGAL)***
13	Does the stucco finish wall that is shown on detail 23 sheet A6.02 to receive a "Thorocoat" paint finish underneath the stucco finish? The cut thru the door references detail 19 on A7.80 which shows a cmu block wall. This would be similar to other details found on sheet A6.02, ex. Detail 4: "Cement Stucco Finish over CMU with "Thorocoat" Paint.	A6.02	1/16/2009	1/20/2009	***Confirmed. Portland cement plaster over CMU w/ elastomeric coating. (PGAL)***

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JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
14	The following detention doors are shown on the drawings but not on the detention door schedule. 80, 96, 174A, 175, 220A, 248A, 10452, 10464A, 20524, 30178, 30224 Please clarify.	D2.00A - D2.03	1/16/2009	1/26/2009	***Price these doors as follows:*** ***Door 80 - price to match Door 78A*** ***Door 174A - price to match Door 96A*** ***Door 175 - does not exist - omit*** ***Door 220A - on the detention door schedule*** ***Door 248A - price to match Door 96A*** ***Door 10452 - price to match Door 20466*** ***Door 10464 - price to match Door 10462*** ***Door 20524 - price to match Door 20526*** ***Doors 30178 & 30224 - price to match Door 30180 (PGAL)***
15	On page D2.00A no entracnce door is given from corridor 00004 to corridor 00080. Please clarify	D2.00A	1/16/2009	1/26/2009	***Price a door here per response to RFI 14. (PGAL)***
16	Single restrooms and Mens rm 10112 indicate there is an enlarged floor plan on A4.03, but there is no enlarged floor plan for those rooms on that page. Please clarify.	A2.01B and A4.03	1/16/2009	1/20/2009	***See revised Sheet A4.03. (PGAL)***
17	Sheet A0.20, finish schedule, calls for room 10402 & 10408 to have B2, base, which is rubber base. Is that correct?	A0.20	1/16/2009	1/20/2009	***B1 wood base in both. (PGAL)***
18	Sheet A0.22, finish schedule, calls for no base in rooms 30106, 30140, 30156, 30188, 30202, 30234, 30250, & 30284. Is that correct?	A0.20	1/16/2009	1/20/2009	***B1 wood base in all. (PGAL)***
19	Sheet A0.22, finish schedule, has a room 30238, Prep. The plan on sheet A2.03A has this as room 30753. This should be changed. This also occurs on room 30752, Storage, on sheet A2.03A, and room 30236, on sheet A0.22.	A0.22 and A2.03A	1/16/2009	1/20/2009	***Correct. This will be revised for future drawing issuances. (PGAL)***
20	Sheet A0.20, finish schedule, calls for base in rooms 10004 and 10006. Interior elevations 1, 2, & 3 on A8.02 calls for wood base in room 10006. Which is correct? If there is wood base in 1006, does it occur in 1002? This also shows the same on the 2nd and 3rd floors.	A0.22 and A8.02	1/16/2009	1/20/2009	***B1 wood base in both. (PGAL)***
21	Sheet A2.00B shows a blowup 19/A4.03 for the lockers, rooms 00028 and 00030. That detail plan is room 00208, male cell. Please advise.	A2.00B	1/16/2009	1/20/2009	***See revised Sheet A4.03. (PGAL)***
22	Sheet A0.22, finish schedule, has rooms 10100 and 10196 with base B2, rubber base. Sheet A8.01, however shows wood base. Please advise which is correct?	A0.22 and A8.01	1/16/2009	1/20/2009	***B1 wood base in both. (PGAL)***
23	On drawing page A7.59, on detail 1 on the second level it states that the handrail and picket rails are to be painted galvanized, whereas on detail 31 it states for the handrail and picket rails to be aluminum. Please clarify.	A7.59	1/16/2009	1/20/2009	***Provide painted galvanized railing. (PGAL)***

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JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
24	Handrail material type is not identified on A1.03. A1.04 notes stainless steel rails and A1.05 notes painted galvanized rails. Please identify material type for those shown on A1.03.	A1.03 and A1.05	1/16/2009	1/20/2009	***Provide stainless steel railings. (PGAL)***
25	The Message schedule includes sign types that there are no drawings for. The exterior signs are (a) Main ID signs and (b) Vehicular directionals. In the Garage - there are the location drawing signs (example G1001, G1001A, G1002) but they are not on the message schedule. Shall we do our take off from the message schedule or location plans? Please advise.	Signage and Graphics	1/16/2009	1/20/2009	***See updated signage program, dated 1.5.09 (PGAL)***
26	There are two different specifications for the skylights. One is for glass skylights, and the other is for polycarbonate glazed skylights. Is it safe to assume that the 3 dome skylights are glass and the 4 barrel vault skylights are to be polycarbonate? Please advise. You mentioned to me that glass was desired at all the skylights, but that is not feasible with the 4 - curved barrel vault skylights. If glass is desired, the 4 barrel vault skylights would need to be changed to segmented barrel vaults or some other design. If the design is changed, please provide new details for the 4 barrel vaults.	Spec Section 086200	1/16/2009	1/26/2009	***Provide segmented barrel vault skylights. (PGAL)***
27	Sheet A4.01, section 22 & 23, show a concrete beam on blowup detail 17/A7.78. That detail says to see the structural drawings. The details 5 & 6/S4.04 does show it. These are located in the central plant building. Please advise which is correct.	A4.01 and A7.78	1/16/2009	1/20/2009	***Structural drawings are correct. (PGAL)***
28	Detail 6/A4.04 shows a cast in place concrete bench. How is this to be built?	A4.04	1/16/2009	1/26/2009	***This is a means and methods question which we cannot answer. (PGAL)***
29	Details 8, 9, & 21/A5.00 show a round column. The structural indicate a 18' x 18' column at these locations. Please advise which is correct.	A5.00	1/16/2009	1/20/2009	***Structural drawings are correct. (PGAL)***
30	Sheet A8.05 indicates elevations 17 & 18 to be in room 20236. The plan on sheet A2.02B does not show this in the room, plus the size of the room is not large enough for the cabinets. Please advise where this is to go on that floor.	A8.05 and A2.02B	1/16/2009	1/20/2009	***Elevation 17 is in Room 20236, Elevation 18 is in Locker/Break 00124. (PGAL)***

RFI Log - GMP (Permit Set)

JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
31	Sheet A8.11 has elevations 15 & 16 in entrance room 1002. Are these by others? If they are by the GC, please give us some information on the materials.	A8.11	1/16/2009	1/22/2009	***The enclosures around x-ray machines and magnetometers, as well as the half wall and gate, are part of the project, and are to be transparent finish millwork. Provide stone cap. (PGAL)***
32	Sheet A8.01, elevations 2, 4, & 6, have several conditions that is not shown what is above the wood veneer panels. Please advise what appears at these locations.	A8.01	1/16/2009	1/20/2009	***Areas not shaded as acoustical fabric wrapped panels are to be full height wood veneer panels. (PGAL)***
33	In SPEC Section 064100-Interior Architectural Woodwork, Page 4, Part 2, subsection 2.1, paragraph C, lines 2 and 5, calls for "NO ADDED UREA FORMALDEHYDE (NAUF)". NAUF plywood / MDF panels cost about twice as much as traditional panels, on this bid it could be about $300m to $400m extra. If there is no LEED's Certification should this expense be included?	Spec Section 064100	1/16/2009	1/20/2009	***Price per specifications. Cost savings may be presented as a voluntary alternate. (PGAL)***
34	Spec 14 21 00 - 2.1 only lists Otis Elevator as an approved mfr. but 14 24 23 and 14 31 00 lists Otis, Kone, Thyssen Krupp and Schindler as approved mfrs. Are these four mfr's approved for use for Spec 14 21 00?	Spec Sections 142100 and 142423	1/16/2009	1/20/2009	***Yes. (PGAL)***
35	Spec 14 21 00 - 3.7 lists cab finishes for Elevator #5 as Unknown. We need the finishes identified or an Allowance amount to be identified.	Spec Sections 142100	1/16/2009	1/22/2009	***Match finishes of Elevators #3, 6 & 7. (PGAL)***
36	Elevator #4 - A2.04B shows a stop in the Unoccupied Space at the roof level. Spec 14 21 00 - 3.7 also identifies a stop at the roof level. Detail 15/A411 does not exist so we could not check that detail for a stop at the roof level but 1/A753 does not appear to show a stop at the roof level. Please confirm their is a stop at this level for Elevator #4.	A2.04B and Spec Section 142100	1/16/2009	1/20/2009	***Confirmed. There is a stop at the roof level for Elevator #4.***
37	Spec 05 05 10 - 1.2 identifies tamper-proof fasteners at all areas exposed to inmates. Does this include corridors not identified as "Secure" and the rooms beyond those corridors? include Elevators? include Courtrooms?	Spec Section 050510	1/16/2009	1/26/2009	***Include corridors 00012 & 00104, Elevators 3, 5, 6 & 7 and their associated lobbies, including Future Elevator Lobby 00024. Do not include courtrooms. (PGAL)***
38	There are conflicts in ceiling types between the Reflected Ceiling Plans and the Room Finish Schedules. Please review and advise any changes to either or identify absolutely which to follow, the Plan or the Schedule.		1/16/2009	1/26/2009	***Reflected Ceiling Plan should govern. (PGAL)***
39	We can not find the cementitious spray fireproofing or intumescent fireproofing locations (Spec 07 81 20 & 07 81 60, respectively) shown in the plans. Please identify.	Spec 178120 and 078160	1/16/2009	1/26/2009	***Price intumescent fireproofing on roof screen steel structure. (PGAL)***

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40	We can not find a Spec for the spray insulation below Level 1. Please provide.		1/16/2009	1/26/2009	***Provide International Cellulose K-13 spray insulation. 3" in pans, 1" on joists. (PGAL)***
41	Spec 03 30 00 - 2.2 GG identified insulation under toppings and slab-on-grade. We can't find this on the drawings. Is this required?	Spec 033000	1/16/2009	1/26/2009	***Yes, 8S4.10 (WPMA)***
42	Spec 03 30 00 - 3.9 B identifies curing at underside of beams, slabs, etc. Will this be required?	Spec 033000	1/16/2009	1/20/2009	***Typically no, only needed in exposed cases. (WPMA)***
43	Please verify there is no HVAC required at the Electrical room of the Garage.		1/16/2009	1/26/2009	***Provide split system same as shown on 3/M3.01. (Jacobs)***
44	We can not find Electronic Security plans for the Central Plant and no Telecommunications plans for the site, Central Plant, Garage or Tunnel. Please verify no work is required in these areas.		1/16/2009	1/26/2009	***No security plan needed for Central Plant. Telecom required for elevator in parking garage. Re: E1.00, keyed note 4 for site telecommunications, and E3.02, keyed note 11 for telecommunications in tunnel. (PGAL)***
45	In reviewing the plant schedule, there are several trees that have disjointed bucket size to caliper size. To achieve the caliper size indicated, a bucket size (in gallons) of at least two or more standard sized is required. At a minimum, the tree requirements of 4"CL should be in at least a 65gl bucket. Should we be pricing based on the 30gl size or the 4"CL size requirement?		1/16/2009	1/20/2009	***Pricing should be based on specified container size. (Knudson)***
46	Parking Garage Building Code Analysis (top left corner of A0.02) states the fire sprinkler should be Dry Pipe System. Plumbing drawings for the Garage show a wet pipe system with insulated piping, etc.Please clarify.	A0.02	1/22/2009	1/26/2009	***Garage fire sprinkler system will be changed to a dry pipe system (Jacobs)***
47	Sheet SG4.01, detail 7, says to see plan for thickness and reinforcing. The plan of slab on grade, sheet SG2.01 gives the slab thickness, but not what the reinforcing is to be at the slab. Please advise what reinforcing is to be used.	SG4.01 and SG2.01	1/22/2009	1/26/2009	***#3@12" EW (WPMA)***
48	Sheet A8.01 shows the interior elevations of the Jury Assembly room. Elevations 2, up shows flush wainscot panels with acoust-fabric panels. This will be also in the corridors, floors 1 – 3. Is there a reveal between the panels. If so, please give us a detail. The specs do not give a cut and match. Is there one and will be it be used in the Courtrooms.	A8.01	1/22/2009	1/26/2009	***See attached sketches SK-0001 & 0002 for flush panel wall sections at jury assembly and typical corridor wainscot. Note that the intent is direct glue fabric wallcovering in the corridors, not acoustical. The paneling is to be plain sawn cherry, book matched. (PGAL)***
49	Elevation 1/A8.01, shows a rail and stile panel detailed on 7/A8.53. Please give a detail for the typical flush panel.	A8.01 and A8.53	1/22/2009	1/26/2009	***See attached SK-002. (PGAL)***

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50	Sheet A2.03B, room 30302, about grid line 07, indicates a piece of millwork. Is there one here and if so, what?	A2.03B	1/22/2009	1/26/2009	***Yes, this is millwork. Lower cabinets with plastic laminate finish per detail 31/A8.50. (PGAL)***
51	Section 124910 of the specs calls for Horizontal Louver Blinds, but these are not shown on the drawings. Are blinds wanted on this project? If so, where? Please advise.	Spec Section 124910	1/22/2009	1/26/2009	***Provide for all exterior windows with exception of those at main lobby / dome. (PGAL)***
52	Sheet A2.00A calls for window type W-23 in Control Room 00168 and window types W-20 and W-21 in Control Room 00120. There is no detail for these window types on page A0.33. Please clarify.	A2.00A and A0.33	1/22/2009	1/26/2009	***Refer to detention drawings for these windows. (PGAL)***
53	There is no spec given for the security glass/glazing. Is one available?		1/22/2009	1/26/2009	***See attached spec section 11 19 50 - Security Glazing. (PGAL)***
54	Sheet SG2.01, has a detail 7/SG4.01, along column E. Is the top of slab there 95.05', which is 11.5' above the slab on grade of 83.55'?	SG2.01 and SG4.01	1/22/2009	1/26/2009	***Refer to attached mark-ups on plan sheets. (WPMA)***
55	The footings along column lines 3 & 2 from F thru K, has a (+) plus elevation. Is that elevation 83.55' (+) plus that elevation for the slab on grade at that point? If that is correct, then the (+) plus elevation on columns 3/E, 2/E, 2/F, & 2/G is incorrect. If the elevations (+) plus means something else, please explain what it is.		1/22/2009	1/26/2009	***The (+) or (-) is relative to the reference floor elevation. Level 1 reference elevation is 83.55'. The height between the levels is shown on each plan sheet. Refer to attached mark-ups on plan sheets. (WPMA)***
56	There is a detail 10A/SG4.01 along column line 2 that is not drawn. Please draw this detail.	SG4.01	1/22/2009	1/26/2009	***Revise reference to detail 8A (WPMA)***
57	Along column line 2 & 3, between E to L, there needs to be a wall to hold the dirt of the slab on grade. Please draw this detail.		1/22/2009	1/26/2009	***On column line 3, refer to detail 8/SG4.01. On column line 2, refer to detail 8ASG4.01. (WPMA)***
58	Sheet AG6.00, elevation 10, cannot have a guard rail if item 57 is correct above.	AG6.00	1/22/2009	1/26/2009	***Refer to structural drawings and response to RFI 57. (PGAL)***
59	The footing at column 1/D shows the bottom of this footing at 0"-0" to be 76.4'. Along this column line is detail 9/SG4.01. This shows a 2'2" turn down at the slab. This means at these columns there is a 2.98' pier. Is that correct?	SG4.01	1/22/2009	1/26/2009	***9/SG4.01 has a 2'-0" turndown. The foundations are spread footings, not piers. (WPMA)***
60	There is a detail 8/SG4.01 at column 3/M to 3/N, A/2.7 to A/3, and N/1 to N1.5. This shows a 10" wall and a trench at a lower slab, level ref. 1. Is that correct?		1/22/2009	1/26/2009	***Revise references to 9/SG4.01 and 10/SG4.01 (at precast). (WPMA)***

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61	Sheet A0.20, finish schedule, calls for W18 on the walls in Room 10002. The walls are all glass. The cabinets in that room are shown on sheet A8.11, elevations 4, 5, 6, 10, & 12. Those show W1 wood panels. Please advise what is correct. W1 on sheet A0.23 is not a wood panel.	A0.20, A8.11 and A0.23	1/22/2009	1/26/2009	***Walls are all glass with painted gyp. bd. above. Details on A8.11 are for security desk only. (PGAL)***
62	Sheet A2.00A, room 00124, has a cabinet without an elevation. Please advise.		1/22/2009	1/26/2009	***See 18/A8.05. (PGAL)***
63	Spec section 064100 calls for window sills, however all window sills are aluminum. Please advise.	Spec 064100	1/22/2009	1/26/2009	***Provide aluminum, as detailed. (PGAL)***
64	Sheet S1.00 item 111, shows the concrete strengths used on the building. What psi concrete is used on the parking garage.	S1.00	1/22/2009	1/26/2009	***The 5000 psi concrete listed for columns and floor systems on S1.00 applies to the garage also. (WPMA)***
65	Division 16 specifications do not include a section for automatic transfer switches. Specification section 16231 1.2-D references section 16413 but this section is not included in the division 16 specifications. Please provide specification section 16413 automatic transfer switches.		1/22/2009	1/28/2009	***See attached specification section. (Jacobs)***
66	On the electrical drawings levels 2 & 3, there are 23 locations for floor poke thru devices that are not shown on the telecommunications drawings. Should we use the quantities shown on the electrical drawings?	E Drawings	1/22/2009	1/26/2009	***Use quantities shown on electrical drawings. (Jacobs)***
67	On the electrical drawings there are symbols shown for power poles to feed the electrified furniture systems. On the telecommunications drawings these locations show symbols for floor poke thrus or floor boxes for the Power / Tele / Data entrance feed to the electrified furniture systems. Do we include power poles or floor poke Thru device / floor boxes for the Power / Tele / Data feeds to the electrified furniture systems?	E Drawings	1/22/2009	1/26/2009	***Provide power poles. (Jacobs)***
68	On sheet T4.01 Detail #16 references a typical floor box at first floor in slab and raised floor conditions. Since the building has a basement level can we use floor poke thru devices where applicable for the floor outlets on level 1?	T4.01	1/22/2009	1/26/2009	***The "typical" floor box shown on T4.01 telecommunication drawings is for reference and coordination. The actual floor boxes or poke-thru assemblies are identified in the Div 16 electrical specifications and drawings. (PGAL)***
69	The telecommunications drawings show 4" x 12" cable tray furnished by division 16. Specification section 27 05 28.36 2.2-A. references cable tray materials and finish and list 4 types, Aluminum, Pre-Galvanized Steel, Hot-Dip Galvanized Steel and Stainless steel. Which type are we to include in our proposal.	T Drawings	1/22/2009	1/26/2009	***The required cable tray should be of aluminum construction. (PGAL)***

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70	On the telecommunications drawings there is no cable tray shown in the area for alternate #1 which is the addition of 2 courtrooms. Will cable tray be required as part of this alternate? If so please provide drawing with cable tray shown for this alternate.	T Drawings	1/22/2009	1/26/2009	***Provide pricing for alternate per layout on Sheet T2.03A. (PGAL)***
71	There is not a TVSS Surge Suppressor shown for main switchboard "MSA" and emergency switchboard "MSE". Will these switchboards require a high exposure TVSS unit?		1/22/2009	1/26/2009	***Provide high exposure TVSS units. (Jacobs)***
72	Does the unoccupied expansion areas in the basement get any type of heat? Sprinkler? Smoke Detection?	M Drawings	1/22/2009	1/26/2009	***No fire alarm, detection or heat. Ventilation only and dry pipe sprinkler system. (Jacobs)***
73	Does the Secured Vehicle Storage need carbon monoxide exhaust?	M Drawings	1/22/2009	1/26/2009	***The secured vehicle storage will have a ventilation system to maintain CO level. (Jacobs)***
74	What is the extent, if any, of minimum size for bars in the ductwork?	M Drawings	1/22/2009	1/26/2009	***Any duct 8/8 and larger thru the security boundary needs to have security bars. (Jacobs)***
75	Doesn't state code require some special smoke exhaust?	M Drawings	1/22/2009	1/26/2009	***No smoke exhaust for court holding. (Jacobs)***
76	Does Maintenance or Janitorial Supply Storage Rooms require exhaust air?	M Drawings	1/22/2009	1/26/2009	***Storage rooms do not require exhaust air. (Jacobs)***
77	Do interior VAV Boxes need heat?	M Drawings	1/22/2009	1/26/2009	***All VAV terminal units have heat. (Jacobs)***
78	Do we need conditioned air into the stairwells?	M Drawings	1/22/2009	1/26/2009	***No conditioned air in 2-hour rated stairwells. (Jacobs)***
79	M5.01 asks that the MC supply the Variable Frequenct Drives for the Air Handling Units, Pumps and Cooling Tower. That is a good idea since they would be considered "Integral Starters", but they are specified in Electrical Specification 16424. Can the Engineer move this section to Division 1500 and state that the MC will provide them for the EC to install?	M5.01	1/22/2009	1/26/2009	***No. General Contractor is free to assign this responsibility to any sub-contractor. (Jacobs)***
80	The total outside air is 50,000 CFM. Total exhaust air is 20,300. Will a barometric relief need to be provided to keep the door closers functional?	M Drawings	1/22/2009	1/28/2009	***Building pressure relief dampers are shown on drawings M2.04A and M2.04B. (Jacobs)***
81	Who will provide the transformers - us or the utility company?	E Drawings	1/22/2009	1/26/2009	***Utility transformers will be provided by CenterPoint. (Jacobs)***
82	Will unoccupied area require more lighting?	E Drawings	1/22/2009	1/26/2009	***No additional lighting is required. (Jacobs)***
83	Sheet A8.10, elevation 24 of the Jury Assembly, has details 13 & 15/A8.50 thru the cabinets. These are plastic laminate finish. Is that correct? Please provide a section thru the top.	A8.10	1/22/2009	1/26/2009	***Provide transparent finish wood veneer millwork. (PGAL)***
84	Please provide a detail at the fabric where there is an applied trim.		1/22/2009	1/26/2009	***Square edge, with butted joints. Ease edge of wood millwork. (PGAL)***

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85	Please provide a casing detail at window and doors indicated.		1/22/2009	1/26/2009	***This refers to door types D-10 thru D-13. The wood trim around the door frames should be provided as indicated in Details 5, 6, 10 & 11 on A0.34. (PGAL)***
86	According to the finish schedule on sheet A0.20, rooms 10100 and 10196 are to have a W2 finish on all walls. The finish legend notes a W2 to be paint by Sherwin Williams, T.B.D. On sheet A8.01, the Jury Assembly Elevations are shown to have fabric panels. Please confirm the correct wall finish.	A0.20, A0.23, A8.01	1/22/2009	1/26/2009	***Elevations are correct. Shaded areas are acoustical fabric stretched panels. See also RFI #32 response. (PGAL)***
87	Is there a fire alarm spec? If so, please provide.		1/22/2009	1/26/2009	***See section 13851. (Jacobs)***
88	Per Section 081416-Wood Doors there is no wood veneer spelled out to provide. The millwork section indicates a plain sliced Birch while the panel section indicates a plain sliced Cherry. Please inform us as to what wood veneer we are to be providing cost's on.	Spec 081416	1/22/2009	1/26/2009	***Provide plain sliced cherry. (PGAL)***
89	Per Section 081416-Wood Doors there is a directive to match Architect's sample for the plastic laminate. Is there a manufacture and series already decided?	Spec 081416	1/22/2009	1/26/2009	***Wilsonart 10738-07 Cherry. (PGAL)***
90	Power drawings indicate in some of the keyed notes (i.e., keyed note # 10 on sheet EP2.01A) to a 60A, 120/208V, 3P, 4W plug-in busway, and these notes refer to communications plans. However, the communication plan T3.01.1 is shown details with a 60A and 100A electrical busway, and two different types of receptacles. What is the correct amperage for the electrical busway and how many receptacles of each type should be installed on it?	EP2.01A	1/22/2009	1/26/2009	***Main Tele/Data/Security room is to have 100 amp busway. All other IDF rooms to have 60 amp busway. (Jacobs)***
91	Security drawing ES3.01, detail 1(Electronic Security Equipment Room), indicates a j-box which requires a circuitry from the emergency generator for a 7KVA UPS unit, located in same room. There is no reference about circuitry in drawings or panel scheduled, please provide information for this feeder to power the 7KVA UPS unit.	ES3.01	1/22/2009	1/26/2009	***That circuit is no longer required, as the UPS will be provided by Division 16000. (Latta)***
92	Drawing T3.01.1, Details 3 and 5 Server Room 207 Cabinet Elevation, Detail 2 indicates room 151, Detail 6 and 7 indicates room 307 – these rooms do not exist. Are these the correct room numbers?	T3.01.1	1/22/2009	1/26/2009	***Detail 2 corresponds to Rooms 10620, 20996, 30712 Detail 3 and 5 correspond to Room 10200. Detail 6 corresponds to Rooms 10096, 20328, 30208 Detail 7 corresponds to Rooms 10232, 20600, 30348 (PGAL)***

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93	Drawing T3.01.1, Detail 5 Server Room 207 Cabinet Elevation – Indicates one 24 port Cat6 Patch Panel in Cabinet #1, #2, and #3 and 24 Cat6 cable to rack 3, which rack 3? Drawing T5.01 Communications Single Line & Riser Diagrams do not indicate any Cat6 cables to be installed from the Server room 10200. Please advise.	T3.01.1 and T5.01	1/22/2009	1/26/2009	***The 24 port panel should originate from Rack 3, shown in Detail 3. Twenty (24) Category 6 cables should run from each Cabinet to Rack 3. Sheet T5.01, Detail 2 indicates Category 6 distibution cabling to the work area outlets on the Lower Level. (PGAL)***
94	Are details 6 and 7 on drawing T3.01.1 the same room?	T3.01.1	1/22/2009	1/26/2009	***No. See response to Line Item 92. (PGAL)***
95	Is it your intention to have anything other than 100 pair Cat3 copper and 12SM/12MM Fiber cables leaving MER room 10200 going to TR rooms 10620, 10232, 10096, 20996, 20600, 20328, 30712, 30348 and 30208, these are the only cables shown on drawing T5.01 to leave the MER?	T5.01	1/22/2009	1/26/2009	***That is correct. (PGAL)***
96	Drawing T3.01.1 details 2, 3, 6, and 7 calls for 10" and 6" vertical managers, the specifications 271100-6 Communications Equipment Room Fittings, Part 2 Products, 2.2 Materials, B Cable Management, calls for Vertical Cable management to be Chatsworth 11729-703 which is 6" wide. Please advise.	T3.01.1	1/22/2009	1/26/2009	***Specs should indicate Chatsworth 30165-703 for 6" vertical managers and 30166-703 for 10" vertical managers. (PGAL)***
97	Regarding elevators - the drawings show 3 levels with 3 openings. The specifications call for 2 levels. Please clarify.		1/22/2009	1/26/2009	***Some elevators do not currently stop on all floors due to clerks or dist. atty. spaces. Provisions should be made so that elevators can make stops on all floors if needed in the future. (PGAL)***
98	Regarding elevators - specifications and drawings indicate platform lengths that are too short. TAS requires a 60" length for 90 degree platforms. Please clarify.		1/22/2009	1/26/2009	***This is in regard to wheelchair lifts in the courtrooms. We have successfully installed lifts of the size shown in previous projects, which have been accepted by the TDLR. While they have not been officially approved for this project, we anticipate that they will. (PGAL)***
99	Are the landing gates supplies by the Elevator Contractor, as specified, or by mill wrights as shown on the plans. Please advise.		1/22/2009	1/26/2009	***As specified. (PGAL)***
100	Power door operators are required by TDL&R on 90 degree lift, however they were waivered on the Harris County Courthouse. Will they be waivered on this project also?		1/22/2009	1/26/2009	***We have not addressed this with the TDLR for this project, but assume that they will waive this requirement. (PGAL)***
101	Regarding elevators - Are there any special keying requirements?		1/22/2009	1/26/2009	***Elevators 3, 5, 6 & 7 to be controlled by the security console in the lower level control room. Elevator 8 to be controlled by the security system in the jail. (PGAL)***

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102	On sheet L4.00 on details 2 & 3 are titled "with steel edging" but in each of them shows that no steel edging is required but to shovel edge the beds. Is steel edging required?	L4.00	1/22/2009	1/26/2009	***All landscape beds to have steel edge except when adjacent to paving (Knudson)***
103	On section cut 7 on S3.07, are the "beam 2" and "beam 4" areas designed as cantilevers where framing can be stripped and reshores installed after each of these two areas are poured? This would alleviate the problem of having framing material trapped around the pour strip and the cost of backshoring formwork.	S3.07	1/22/2009	1/26/2009	***Typically yes. There are a few locations noted on plan that must keep shoring in place until the pour strip is complete. (WPMA)***
104	What is the finish on the precast wall panels shown on the parking garage?		1/22/2009	1/26/2009	***Light sandblast finish. (PGAL)***
105	Specification section 16132 2.2-C references fittings for electrical metallic tubing to be "steel set screw type". Specification section 27 05 28.33 2.2-D & 2.2-G references electrical metallic tubing fittings to be compression ring type and 2.2-G 1 references that set screw fittings are not permitted. Are steel set screw type fittings acceptable?		1/22/2009	1/26/2009	***Set screw fittings are preferred. (Jacobs)***
106	After review of the message schedule, we are unable to locate drawings for the following sign types: INT.29, INT.31, INT.32, INT.33, INT.34, INT.35. Please advise	Signage and Graphics	1/22/2009	1/26/2009	***Refer to GMP issue dated 1.5.09 for drawings 29, 30 & 35. See attached for Drawings 31 thru 34. (The Douglas Group)***
107	Some of the sign types listed in the message schedule have a letter after the sign type name but there are no drawings to match. For example, INT.06S is listed in the schedule but there are no drawings for this specific type. Are we safe in assuming they are the same as INT.06?	Signage and Graphics	1/22/2009	1/26/2009	***Refer to GMP issue CD package dated 1.5.09. (The Douglas Group)***
108	Is there an updated message schedule to go along with the updated drawings?	Signage and Graphics	1/22/2009	1/26/2009	***The message schedule that should be used is dated 1.5.09. (The Douglas Group)***
109	Is there a "Sign Counts" sheet or "Pricing Sheet" showing quantities of each sign type available?	Signage and Graphics	1/22/2009	1/26/2009	***Sign counts are located on the message schedule dated 1.5.09. (The Douglas Group)***
110	1. There are no specifications for the following items: TA-03 Wall Mounted Paper Towel Dispenser TA-05 Recessed Toilet Tissue Dispenser TA-08 Skin Care Dispenser TA-11 Recessed Paper Towel Dispenser & Waste Receptacle TA-12 Recessed Sanitary Napkin Disposal Please Provide.		1/22/2009	1/26/2009	***Provide products from the same line and/or quality level to those specified. (PGAL)***

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111	There is little indication to what toilet accessories are to be placed into Cells. The only things shown in plans are Grab Bars. Should each toilet have a Toilet Tissue Dispenser? If so surface mounted or recessed?		1/22/2009	1/26/2009	***Refer to detention drawings for toilet accessories in cells. Detention toilet tissue dispenser is part of the plumbing fixture. (PGAL)***
112	Elevations are not consistent with plan drawings and note. For example the floor plan shows one TA-15 Mirror, 18"x36" in each restroom, however in the elevations the mirror is much larger than 18"x36. Which is correct?		1/22/2009	1/26/2009	***Elevations for main public restrooms are correct. (PGAL)***
113	Typical Restrooms on 7/A4.03 are drawn with repeating images but are not labeled. For example, it appears in the Men's Room that there are two TA-11 Paper Towel / Waste Receptacles and two TA-08 Skin Care Dispensers, but only one is labeled. Are two wanted? It also appears that there are no sanitary napkin vendors in these restrooms. Please advise.	A4.03	1/22/2009	1/26/2009	***Provide multiple fixtures if shown in plan and not labeled. Sanitary napkin dispensers are labeled as TA-13. (PGAL)***
114	The finish schedule on A0.23 lists C1: Armstrong Cirrus # 533 and C5: Random Fissured # 2909 as 2x2 ceilings. C5: Random Fissured is not shown any where. Where does C5: Random Fissured go?	A0.23	1/22/2009	1/26/2009	***There is no C5 in the project. (PGAL)***
115	C1: Armstrong Cirrus is a 2x4 tile not 2x2 as listed on A0.23. The reflected ceiling plans shows 2x2 and 2x4; Is all 2x4 tile to be C1: Armstrong Cirrus and all 2x2 tile to be Armstrong Random Fissured # 2909, or do I bid Amrstrong Cirrus # 574 2x2 square edge at all 2x2 locations?		1/22/2009	1/26/2009	***Bid Cirrus #574 where 2x2 ceiling is shown. At 2x4 ceiling, bid Armstrong Cirrus #533. (PGAL)***
116	The reflected ceiling plans show 2x2 ceilings at some of the Sec. Conf and Atty Conf rooms, but the finish schedule shows security ceilings. Does an acoustical ceiling go in these rooms?		1/22/2009	1/26/2009	***Sec. Conf. to have security ceilings. Atty. Conf. to have 2 x 2 lay-in ceilings. See also detention drawings for security ceiling locations. (PGAL)***
117	The reflected ceiling plans indictae exposed ceilings in the Electrical and Telephone typical rooms, but the room finish schedule has acoustical ceilings. Does an acoustical ceiling go in these rooms?		1/22/2009	1/26/2009	***No - provide exposed ceilings. (PGAL)***

RFI Log - GMP (Permit Set)

JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
118	There are discrepancies between the room finish schedule and reflected ceiling plans on all floors in the following rooms: Lower Level: 029, 031, 032, 036, 060, 076, 120, 128, 132, 136, 172, 174,184, 188, 192, 196, and 224 Level 1: 044, 046, 048, 114, 134, 136, 152, 154, 198, 306, 308, 414, 416, 448, and 450 Level 2: 042, 252, 254, 416, 418, 420, 464, 466, 468, 490, 514, 516, 518, 538, 542, 640, 702, 704, 706, 708, 710, and 712 Level 3: 022, 116, 118, 120, 122, 170, 188, 216, 218, 264, and 266 Level 3 Alternate #1: Needs a finish schedule also. What type of ceiling goes in these rooms?		1/22/2009	1/26/2009	***Follow the ceiling plans. For Alternate #1, provide ceilings shown in the same areas as shown on A3.03A. (PGAL)***
119	The Finish schedule on A0.23 lists W3, W4, and W5 fabric as wall panels. W4 and W5 that occur in the Main Corridor and Lobby appear to be direct glue fabric on A8.02 to A8.04 on Level 1, 2, and 3. Is this correct?	A0.23	1/22/2009	1/26/2009	***Correct. (PGAL)***
120	If wall panels are to occur in Lobby and Main Corridor does it go the full length of the wall, and wrap the columns on all 4 sides in the Lobby?		1/22/2009	1/26/2009	***Not wall panels in the lobby and corridors - direct glue fabric. Include columns. (PGAL)***
121	How thick are the wall panels? The crosscut on 7/A8.53 scales 1-1/2"? Should it be 1-5/8" high impact?	A8.53	1/22/2009	1/26/2009	***1 1/2" acoustic wall panels. High impact should be used to 6' height above the floor, min. (PGAL)***
122	Note 14/A8.02 has secure wall panels that occur in Atty Conf and Sec Cong typically. Is this security wall panels or acoustical wall panels?		1/22/2009	1/26/2009	***Security wall panels. (PGAL)***
123	Detail 1,13/A7.55 At the bottom of the stairs on level 1 the drawing shows what appears to be a full height metal fence with gate. I have unsuccessful in finding further detail as to the type and finish of this fence, gate, hinges, locks, etc. for both details. Also, does this detail occur anywhere else within the building. Please clarify	A7.55	1/22/2009	1/26/2009	***This should be chain link, and occurs in Stair No. 1 & 4. Provide manufacturer standard hinges and panic hardware. (PGAL)***
124	Sheet S2.02C has a detail 13/S4.13 at the front stairs, but there is not a sheet or detail. Please give a detail.	S2.02C and S4.13	1/22/2009	1/26/2009	***Revise reference to 14/S4.03. (WPMA)***
125	Sheet A0.23 has two S1, under solid surface. Please clarify.	A0.23	1/22/2009	1/26/2009	***Quartz composite should be S2. (PGAL)***
126	Sheet A0.35 has details 7 & 8 shown. These are not on the door schedule. Please advise where they are noted.	A0.35	1/22/2009	1/26/2009	***Not used. (PGAL)***

RFI Log - GMP (Permit Set)

JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
127	Specs 064100, para. 2.1B, states the specie of veneer panels, base & chair rail to be birch plain sawn. Is this to be everywhere except in the courtrooms?	Spec 064100	1/22/2009	1/26/2009	***Provide plain sawn cherry throughout. (PGAL)***
128	Please verify if the cherry solid in the courtrooms are solid quartered or plain sawn.		1/22/2009	1/26/2009	***Plain sawn. (PGAL)***
129	Sheet A8.52, on several details has the veneer to be V1, such as 1, 19, 16, & 27. What is V1?	A8.52	1/22/2009	1/26/2009	***Plain sawn cherry. (PGAL)***
130	What is the detail and section for the materials in the typical bathroom vanity?		1/22/2009	1/26/2009	***S1, 1/2" thickness with rounded edge. (PGAL)***
131	The finish schedule in the preparation rooms for all courtrooms to be W18. Elevations 2 & 4/A8.00 indicates stone. Which is correct?	A8.00	1/22/2009	1/26/2009	***Stone W20. See also response to RFI #11. (PGAL)***
132	Section 32/A7.59 indicates wood trim. What is the specie and how is it finished?	A7.59	1/22/2009	1/26/2009	***Plain sliced cherry to match the other millwork in the building. (PGAL)***
133	Elevations 14 & 15/A8.05 indicates sliding windows. How is it finish in section?	A8.05	1/22/2009	1/26/2009	***2" x 4 1/2" aluminum frame. (PGAL)***
134	Does the basement require under-slab waterproofing, if so what type?		1/22/2009	1/26/2009	***Refer to 1/S3.02 for under-slab moisture retarder. (WPMA)***
135	Do the site retaining walls require dampproofing or other protection?		1/22/2009	1/26/2009	***Provide below grade waterproofing. (PGAL)***
136	Detail 25 / A0.35 shows a self adhered wall flashing to be installed at the head of window condition, where as details 18 & 23 /A7.75 call for a Cont. Metal Through Wall Flashing at the head condition of the windows. Which is correct?	A0.35	1/22/2009	1/26/2009	***Self adhered wall flashing is intended at these locations. (PGAL)***
137	Window jamb and sill flashing details on A0.36 depict self-adhered and metal flashing. Please clarify the intent?		1/22/2009	1/26/2009	***Provide self adhered. (PGAL)***
138	Sheet A7.75, A7.76, A7.77, and A7.78 call out Cont. Metal Flashing in many locations. What type of metal are we to price and what thickness? Spec 042000 and Spec 076200 specify different materials.	A7.75, A7.76, A7.77, A7.78	1/22/2009	1/26/2009	***Provide Rubberized-asphalt flashing in lieu of metal per spec section 042000. (PGAL)***
139	Detail 30 / A7.77 is of a Termination Bar. Where are we to include the termination bar? At roof flashings? At all through wall flashings? Only at horizontally run through wall flashings? We don't see this detail referenced back to another detail to determine the location.	A7.77	1/22/2009	1/26/2009	***This is a standard detail that can be used if termination bars are required, and is not referenced by specific details. Provide standard warrantiable details per the roofing manufacturer selected for this project. (PGAL)***

RFI Log - GMP (Permit Set)

JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
140	Sheet A7.90 shows details for CETCO's Voltex DS, which is a bentonite waterproofing, to be installed at the below grade locations. Spec Section 071300 - Below Grade Waterproofing is written around WR Grace's Preprufe and Procor products. Which product are we to price for the below grade waterproofing at the basement walls and the tunnel? If bentonite is acceptable can you provide a specification and allow Tremco's Paraseal LG and CCW Carlisle's Miraclay to be included in the specification as approved alternates?	A7.90	1/22/2009	1/26/2009	***Provide bentonite waterproofing for these areas. Other manufacturers' equal products will be evaluated after the proposal. (PGAL)***
141	Where is Spec Section 071311 - Self-Adhered Sheet Waterproofing to be installed?	Spec 071311	1/22/2009	1/26/2009	***At window and door heads, jambs & sills, and over thruwall flashing. (PGAL)***
142	Is Spec 071300 only to be used at elevator pits?	Spec 071300	1/22/2009	1/26/2009	***Yes. (PGAL)***
143	Can you provide a specification for the Traffic Coating that is called out on the top level of the parking garage?		1/22/2009	1/28/2009	***Provide Kelmar FWC III by Technical Barrier Systems, Inc., or approved equal. (PGAL/WPMA)***
144	Which waterproof membrane are we to provide at the planters per sheet A1.03?	A1.03	1/22/2009	1/26/2009	***Grace Procor or equal. Also to be used on vertical walls of planters. (PGAL)***
145	Does all exterior exposed masonry receive a water repellent?		1/22/2009	1/26/2009	***Yes. (PGAL)***
146	Are we to caulk every joint in the cast stone veneer or just the control joints?		1/22/2009	1/26/2009	***Caulk at control joints only. (PGAL)***
147	Spec Section - 071900 - Water Repellents specifies White Roc 10 by Sonneborn. This product is no longer manufactured and is not available. Will Enviroseal 40 VOC by Hydrozo be an acceptable alternate?	Spec 071900	1/22/2009	1/26/2009	***Yes. (PGAL)***
148	The cabinets shown in the MER – three are shown as server cabinets, and four are shown to be for security. Should the telecommunications contractor provide any/all of these cabinets? If yes, size, or CPI part number?		2/10/2009	2/12/2009	***The security cabinets will be provided and installed by the security contractor. The server cabinets will be provided by and installed by the communications contractor. Note: An allowance of $15,000 should be carried for these cabinets subject to specification. (PGAL)***
149	24 port patch panels are shown in the server cabinets – Please reference Drawing T3.01.1. – detail 5. It is unclear if this detail is describing a total of (3) 24 port patch panels, or (6). Please clarify. This detail also states that 24 cat 6 cables shall run from each server cabinet to rack number three in the MER. Please confirm this is correct.		2/10/2009	2/12/2009	***From each Server Cabinet, twenty-four (24) Category 6 cables run (originate) and terminate in Rack 3 denoted in Detail 3. At each Cabinet and Rack 3, the cables will be terminated to 24-port Category 6 patch panels. (PGAL)***

RFI Log - GMP (Permit Set)

JE DUNN CONSTRUCTION

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
150	Should poke thru's (Wiremold RC3A shown on Drawing T4.01, detail 14) be provided by telecommunications contractor, or electrical? Same question for floor boxes (Detail 16). What differentiates the use of a poke thru from a floor box? Assume to be shown on E drawings.		2/10/2009	2/12/2009	***All floor boxes or poke-thru assemblies will be provided and installed by the electrical contractor. Reference E-drawings and legend sheet for specific details of these devices that will support the communication cabling and terminations. Boxes and poke through devices shown on T drawings are for reference only, for the cabling contractor, of typical types of termination conditions. (PGAL)***
151	Please identify recommended cable pathway for backbone cables feeding from MER to TR's in area A of each floor (1 through 3). There does not look to be any vert. riser directly above the MER – therefore assume backbone must be pulled to 1st floor TR's and then routed vertically. First floor seems to identify 4" conduits feeding from cable tray to Security 10450, then from this room, conduits to the 1st floor TR in area A (cabling zone 10620). Is this the correct pathway for backbone to area A TR's feeding from MER?		2/10/2009	2/12/2009	***There is no vertical riser in the MER to the floors above. Backbone cables will route horizontally on the 1st Floor to the respective TR and then make the vertical tranisition for the 2nd and 3rd Floor TR's. The identified and assumed pathway to TR 10308 - Area A is correct. (PGAL)***
152	Please clarify – Section 27 05 00, Part 2, item 2.2 specifies acceptable manf/products. This list identifies OSP product (Building entrance frames, copper splicing materials, etc.) Please clarify that this list is a general list and not used to indicate the actual use of every stated item listed. Telecommunications prints do not seem to identify the use of building entrance frames, or OSP cable – we would therefore assume they are not required. Please confirm this is correct.		2/10/2009	2/12/2009	***The identification of OSP termination and splicing components is for general use and is not necessarily representative of each required component. (PGAL)***
153	Fiber backbone cable – the specified 12MM 50 micron/12SM cable hybrid– Specification (27 13 00- item 2.2) states this is to be an ONFP cable run in innerduct. Can an armored plenum fiber cable be substituted?		2/10/2009	2/12/2009	***An armored, interlocking plenum fiber cable can be utilized in lieu of standard indoor construction fiber and innerduct. However, proper break-out, grounding and termination procedures are required. (PGAL)***
154	Please specify quantity and lengths for LC-LC duplex fiber patch cords that should be included in our price.		2/10/2009	2/12/2009	***Fiber jumpers at 7' should be provided to accomplish 100% patching of the terminated fiber strands. (PGAL)***

RFI Log - GMP (Permit Set)

PROJECT: FT. BEND COUNTY COURTHOUSE
UPDATED: 2/12/2009

		REFERENCE	DATE REQUESTED	DATE ANSWERED	RESPONSE FROM PGAL
156	Please clarify the cable tray type specified for use for cable pathways throughout the facility. Section 27 05 28.36 seems to address several cable tray types. The drawing set seems to only refer to a typical tray as12"W x 4"D tray. Should this be a basket type tray? Or an aluminum, or steel tray? Solid, ventilated, or ladder type? Please clarify.		2/10/2009	2/12/2009	***Cable tray should be of aluminum construction, ladder-type. (PGAL)***
157	Reference drawing T0.01, conduit, note 7. Note states that Backbone cable conduits for fiber optical cables shall be provided with multiple inner-ducts... reference note 8 as well. Please clarify – should the electrical contractor that is installing the conduits populate the conduit with innerducts, or the telecommunications contractor? If the use of armored fiber is approved, will innerduct still be required as stated in the referenced notes?		2/10/2009	2/12/2009	***If armored, interlocking fiber is utilized, then innerduct will not be required in conduits. If a standard construction fiber optic cable is utilized, then innerduct shall be provided by the communication contractor for the entirety of the pathway. (PGAL)***
158	Specification lists a CPI 11729-703 vertical cable manager (6" wide) drawings call for the use of 6" and 10" wide vertical cable managers. This particular double sided vertical manager only comes in the 6" wide version. Can we substitute a CPI MCS vertical manager so that both the 6" and 10 wide managers will be of the same style?		2/10/2009	2/12/2009	***Utilize the following CPI part numbers: 6" = 30162-703 and 10" = 30163-703 (PGAL)***
159	By the drawings, the voice riser cable is terminating on 110 blocks in the MER and TRs. Is this correct?		2/10/2009	2/12/2009	***That is correct. (PGAL)***
160	By the specs, all cables will be terminated on patch panels. Is this correct?		2/10/2009	2/12/2009	***All Category 6 horizontal distribution cables will terminate on modular patch panels. (PGAL)***

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Wednesday, April 01, 2009 10:08 AM
To: Kenny Eldridge
Subject: RE: FBCJC - Int Alum Frames

I agree - actually, I checked with Bruce on this a couple days ago. We're updating the details to show hollow metal, but I'll look over the other comments you had to make sure we update.

Thank you,
Paul Bonnette

PGAL

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Atlanta
[T] 404 602 3800 [F] 404 602 3810
Austin
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Boca Raton
[T] 561 988 4002 [F] 561 988 3002
Boston
[T] 617 848 0530 [F] 617 314 6196
Dallas
[T] 972 871 2225 [F] 972 871 2228
Ft. Lauderdale
[T] 954 527 5001 [F] 954 527 4177
Houston
[T] 713 622 1444 [F] 713 968 9333
Las Vegas
[T] 702 435 4448 [F] 702 435 4470
Los Angeles
[T] 310 645 3276 [F] 310 645 3026
Phoenix
[T] 602 324 7760 [F] 602 324 7768

http://www.PGAL.com

-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Wednesday, April 01, 2009 9:49 AM
To: Paul Bonnette
Subject: FBCJC - Int Alum Frames

Spec 081200 Int Alum Frames is not used.
All the door frames per the schedule are HM, Detention or Alum Storefront. The Int windows (W26-W30) were bid as HM also.
We don't have any Raco product.
Check it out and let me know this is the intent.

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Thursday, April 02, 2009 12:39 PM
To: Kenny Eldridge
Subject: RE: FBCJC - Paint

No paint is required for the structural steel at the underside of the metal roof.

As we discussed, the framing and deck for the central plant roof receives the spray fire resistive material, so it doesn't need paint.

Thank you,

Paul Bonnette

PGAL

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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Thursday, March 26, 2009 3:51 PM
To: Paul Bonnette
Subject: FBCJC - Paint

Is the galvanized steel framing and the underside of the roof deck for the roof structure on top of the courthouse required to be painted? This used to receive intumescent fireproofing. Is the primed steel roof framing and underside of the roof deck at the Central plant required to be painted?

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Friday, April 03, 2009 9:48 AM
To: Kenny Eldridge
Subject: RE: FBCJC - Int Alum Frames

We'll go with the USG Eclipse, and the Olympia Micro (the mid-level option) for the DA & Clerks areas.

I think we're going to stick with the Daltile product for now on the floor/wall tile. We just like the look a little better than the Crossville. If cost starts to become an issue again, we can re-evaluate.

Thanks,
Paul Bonnette

PGAL

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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Wednesday, April 01, 2009 10:36 AM
To: Paul Bonnette
Subject: RE: FBCJC - Int Alum Frames

Ok, thanks
Did you get the acoustical and hard tile VE samples on Friday?

>>> Paul Bonnette <PBonnette@pgal.com> 4/1/2009 10:07 AM >>>

I agree - actually, I checked with Bruce on this a couple days ago. We're updating the details to show hollow metal, but I'll look over the other comments you had to make sure we update.

Thank you,
Paul Bonnette

PGAL

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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Wednesday, April 01, 2009 9:49 AM
To: Paul Bonnette
Subject: FBCJC - Int Alum Frames

Spec 081200 Int Alum Frames is not used.
All the door frames per the schedule are HM, Detention or Alum Storefront. The Int windows (W26-W30) were bid as HM also.
We don't have any Raco product.
Check it out and let me know this is the intent.

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Thursday, April 16, 2009 1:46 PM
To: Kenny Eldridge
Cc: DonBrady; Bob Drouillard; John D. Strong; Mike Linscomb; Chi-Wai Chau; David L. Andrews
Subject: RE: FW: FORT BEND CRIMINAL JUSTICE CENTER/ RFI'S
Attachments: Kilgore RFIs 1-14.pdf

Kenny,

Attached are our responses to RFIs No. 1 - 14 from Kilgore.

Thank you,
Paul Bonnette

PGAL

Alexandria
[T] 703 836 0588 [F] 703 836 8027
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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Tuesday, April 14, 2009 11:23 AM
To: Paul Bonnette
Subject: Fwd: FW: FORT BEND CRIMINAL JUSTICE CENTER/ RFI'S

Final GMP RFI's related to plumbing, attached.
Please respond ASAP.
Thanks

>>> "Russell Roan" <rroan@kilgoreind.com> 4/14/2009 10:32 AM >>>

Kenny,
Hello, hope you are doing well. Here are some RFI'S that we will need some clarification on. If you have any questions please feel free to contact me at your earliest convenience.
Thank you,

Russell Roan
Project Manager - KILGORE INDUSTRIES
Office:(713) 924-4900 Cell: (281) 960-9807 / Fax: (281) 664-7371 rroan@kilgoreind.com

KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 001 **Subject:** STORM DRAIN PIPING

[redacted]

On plan P2.01b the 6" storm drain between column line O & O.8 @ column 03 does not go to the basement plan P2.00B & does not go to the roof plan P2.04B. Is this storm drain riser needed?

On plan P2.03A between column A.3 &B @ column 03 shows 6" storm but does not go to floors below or roof plan P2.04A. Is this storm drain riser needed?

Submitted By: _____

Title: _____

[redacted]

BOTH OF THESE STORM DROPS FROM BOTH QUESTIONS GO AWAY. LOCATIONS WERE FROM PREVIOUS PLANS AND NEVER REVISED.

STORM DRAIN LINES ARE TO BE DELETED (THESE IN QUESTION)

Signature: J. Strong

Date: 04.16.09

Regulated by the Texas Department of Licensing and Regulations, P.O. Box 12157, Austin, Texas 78711, 1-800 803-9202 TACLA 017666C

Regulated by the Texas State Board of Plumbing Examiners, P.O. Box 4200, Austin, TX, 78765, 1-800-845-6584 TPLA M-37953

KILGORE INDUSTRIES, L.P.
10050 Houston Oaks Drive
Houston, Texas 77064
(713) 924-4900 (phone) · (713) 924-5900 (fax)

KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 002 **Subject:** DOMESTIC WATER PIPING

[redacted]

On plan P2.00B The 2" waterline just west of column O goes up @ column 7.2, is on the street pressure, P 2.01B shows this water line to be 2 1/2" and feed the 2 nd floor restroom on P2.02B. The notes say streetb pressure is to feed basement & 1st floors only. Please advise>

Submitted By: _____

Title: _____

[redacted]

STREET PRESSURE LINE SHOULD BE 2" AND SERVE FIXTURES IN TOILET ROOMS AND JANITOR CLOSET BETWEEN COLS. E AND F AND 07 AND 08.

ONLY TWO TOILET ROOMS UP FED FROM FIRST FLOOR CEILING. ROOMS 2074 AND 2076 CAN BE ON STREET PRESSURE

Signature: J. Strong

Date: 04.16.09

KILGORE INDUSTRIES, L.P.
10050 Houston Oaks Drive
Houston, Texas 77064
(713) 924-4900 (phone) · (713) 924-5900 (fax)

KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 003 **Subject:** SANITARY SEWER

[redacted]

In basement Area "A" P2.00A between colmn 02&03 there is a 4" sanitary line that feeds area "B", this sanitary line passes thru the tunnel @ column G -H & 2.5 NORTH OF 02. Could this line be brought off the 6" sanitary in area "B" between colmn K & L. Please advise.

Submitted By: _____

Title: _____

[redacted]

YES..... SANITARY CAN GO TO THE 6" SANITARY NOTED ABOVE.

Signature: J. Strong

Date: 04.16.09

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KILGORE INDUSTRIES, L.P.
10050 Houston Oaks Drive
Houston, Texas 77064
(713) 924-4900 (phone) · (713) 924-5900 (fax)

KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 004 **Subject:** SANITARY SEWER

[redacted]

In area "A" P2.01A @ column 10 & D , there is a 4" sanitary drop that feeds area "A" P2.02A. This sanitary riser is not on the basement plan P2.00A. Please advise.

Submitted By:

Title:

[redacted]

CONTINUE 4" DROP DOWN THROUGH BASEMENT AND TO BELOW BASEMENT SLAB. CONNECT WITH 6" SANITARY BELOW BSMT. SLAB BETWEEN COLS. A3 AND B AND B.2 AND 09

Signature: J. Strong

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 005 **Subject:** SANITARY SEWER

[redacted]

On plan P2.01B there is a 4" sanitary drop @ column 08 & 03 , this line goes up @ column O & O2, there is not anything on the 2nd floor drawing P2.02B that requires this drain. Please advise.

Submitted By:

Title:

[redacted]

4" SAN. RISER AT O8 BETWEEN O AND O8 PICK UP TOILET ROOM ON P2.02B.

4" RISER AT O2 AND O CAN BE DELETED

Signature: J. Strong

Date: 04.16.09

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"Regulated by the Texas State Board of Plumbing Examiners, P.O. Box 4200, Austin, TX. 78765, 1-800-845-6584" TPL# M-37953

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 006 **Subject:** Floor drains

[redacted]

Do all the restrooms get floor drain FD-1, or only the restrooms shown on the plans? Please advise.

Submitted By:

Title:

[redacted]

ONLY TOILET ROOMS SHOWN ON PLANS. FLOOR DRAINS WERE REMOVED FROM SINGLE TOILET ROOMS, [redacted] EXCEPT CELL TOILETS (BASEMENT, 1, 2 & 3)

Signature: J. Strams

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 007 **Subject:** Floor drains

[redacted]

On plan P4.01 in the fixture schedule there is floor drain labeled FD-3-ACORN #1699, is this floor drain to be used?

On the revised plan P 4.01 dated 03/30/09 under general notes, they added note #4, "floor drains in holding cells are to to have vandal resistant screws"is this in place of the FD-3? Please advise.

Submitted By: _____

Title: _____

[redacted]

THIS FLOOR DRAIN IS FOR THE TWO ISOLATION CELLS

Signature: J. Strong

Date: 04.16.09

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10050 Houston Oaks Drive
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(713) 924-4900 (phone) · (713) 924-5900 (fax)

KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 008 **Subject:** SUMP PUMPS

[redacted]

On plan P3.02 there are sump pumps for the tunnel @ the stairwells, where are these pumps going to pump to?
Please advise.

Submitted By:

Title:

[redacted]

DISCHARGE THROUGH WALL TO GRADE AS PER PLANS

Signature: J. Strong

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 009 **Subject:** SUMP PUMPS

[redacted]

On the plan P 2.00A dated 03/30/09 there are clouds around the SP-1 in the elevator pits, they where originally labeled SP-1.It does not appear that they have changed. Please advise.

Submitted By:

Title:

[redacted]

ELEVATOR LOCATION SHIFTED FROM ORIGINAL PLANS SO SP-1 SUMP LOCATION SHIFTED AS WELL.

Signature: J. Strong

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 010 **Subject:** STORM DRAIN PIPING

[redacted]

On plan P0.01 under Piping Materials note #4B says above ground storm is to be SV hub & spigot cast iron w/ compression gaskets, under specifications 15160-2.1B says above grade storm can be service weight hubless w/ no hub clamps. Please advise.

Submitted By:

Title:

[redacted]

ALL STORM PIPING ABOVE GRADE TO BE SV HUB AND SPIGOT CAST IRON W/ COMPRESSION GASKETS

Signature: J. Strang

Date: 04.16.09

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16/53

KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 011 **Subject:** STORM DRAIN PIPING

[redacted]

On P 4.01 there is not a deck drain under the fixture schedule or in specifications 15140 (2.6) or in 15160, but the drain is on P3.03 & P3.04. Can you provide a specification? Please advise.

Submitted By: _____

Title: _____

[redacted]

J.B. SMITH # 2230 FOR 4" AND 6" DRAINS WITH WIDE DECK FLANGE AND HEAVY DUTY GRATE.

FOR LARGER SIZES, J.B. SMITH # 2141 WITH WIDE DECK FLANGE AND HEAVY DUTY GRATE

Signature: J. Strong

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 012 **Subject:** Heat tracing

[redacted]

On the revised drawings dated 03/30/09 , plans P2.00A & P2.00B call for crawlspace domestic wter piping to be insulated & metal jacketed, does this include Heat Tracing? If it does, is the specification 15771 the correct spec.? Please advise.

Submitted By:

Title:

[redacted]

THIS DOES NOT INCLUDE HEAT TRACING..... INSULATED AND METAL JACKET ONLY.

Signature: J. Strong

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 14, 2009 **Project Name:** FBCJC

RFI#: P 013 **Subject:** PLUMBING FIXTURE L-2

[redacted]

On revised drawings dated 03/30/09 the lavatorylabeled L-2 KOHLER#2006R does not exist. The supplier says it should read model# 2005 R, but would need to be w/ 4" center faucet ,if the soap dispenser is needed, also, will need a specification on the soap dispenser. Please advise.

Submitted By: _____

Title: _____

[redacted]

REVISE TO K-2005-2 WITH 4" CENTERS TO ACCOMODATE THE SLOAN OPTIMA PLUS FAUCET. SOAP DISPENSER TO BE ON RIGHT SIDE

RE: ARCHITECT FOR DISPENSER STYLE

DISPENSER STYLE BASIS OF DESIGN IS BOBRICK B-822 PER SPEC SECTION 10 28 13 TOILET ACCESSORIES.

Paul D. Bonnette

PAUL D. BONNETTE - PE/AE
4/16/09

Signature: J. Strong

Date: 04.16.09

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KILGORE

REQUEST FOR INFORMATION

Date: April 15, 2009 **Project Name:** FBCJC

RFI#: P 014 **Subject:** HOT WATER @ GANG RESTROOM

[redacted]

On plumbing drawing P2.01A the public restroom between colmn G & H @ column 6 &7 does not have any hot water supplying these restrooms. Do you want to add instaneoues water heaters to supply these restrooms? If so which model # ? Please advise.

On plumbing drawing P2.01B the public restrooms between column I.2 & J @ column O7 does not have hot water suppling these restrooms. Do you want to add instaneous water heaters? Please advise.

On drawing p 2.01B the restrooms @ column O & O8 @ between O7 & O8 does not have any hot water suppling these restrooms or janitors room. Please advise.

This problem exist on 2nd & 3 rd floor gang restrooms. Please advise.

Submitted By: _____

Title: _____

[redacted]

PUBLIC TOILET ROOMS ARE TO HAVE COLD WATER ONLY.

Signature: J. Strong

Date: Oct. 16. 09

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Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Thursday, April 16, 2009 2:22 PM
To: Kenny Eldridge
Cc: Don Brady; Chi-Wai Chau; David L. Andrews
Subject: RE: ft. bend

Kenny,

No - where Q, Q1 or Q2 walls are called out, make them P, P1 and P2 walls respectively.

Thank you,
Paul Bonnette

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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Wednesday, April 15, 2009 3:40 PM
To: Paul Bonnette
Subject: Fwd: ft. bend

Drywall question below

>>> "Jim Chamberlain" <JChamberlain@appliedfinishsystems.com> 4/15/2009
>>> 3:08 PM >>>
Kenny, on the lower level the q2 wall is still on the plan but not on the partition type page. Advise

James Chamberlain

Executive Vice President

jchamberlain@appliedfinishsystems.com

<http://appliedfinishsystems.com/index.html>

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Tuesday, April 21, 2009 1:39 PM
To: Kenny Eldridge
Subject: FW: Piers at North side
Attachments: image001.gif

Kenny,

See the below response from Walter P. Moore.

Thank you,
Paul Bonnette

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From: Andy Stoebner [mailto:AStoebner@walterpmoore.com]
Sent: Tuesday, April 21, 2009 1:38 PM
To: Paul Bonnette
Cc: Steve Hegyesi; Muhammad Cheema
Subject: RE: Piers at North side

Bottom of pier elevation is still 71'-0". The smaller piers at the stairs are 18/36 with a bottom of pier elevation of 71'-0".

Andrew M. Stoebner, P.E.
Senior Associate
WALTER P MOORE

Walter P. Moore and Associates, Inc.
1301 McKinney, Suite 1100
Houston, Texas 77010
713.630.7329
713.630.7396 fax
281.520.9546 mobile
astoebner@walterpmoore.com
www.walterpmoore.com

From: Paul Bonnette [mailto:PBonnette@pgal.com]
Sent: Tuesday, April 21, 2009 1:22 PM

To: Andy Stoebner; Steve Hegyesi; Muhammad Cheema
Subject: Fwd: Piers at North side

Please respond.

Paul Bonnette-PGAL

Begin forwarded message:

> **From:** Kenny Eldridge <Kenny.Eldridge@jedunn.com>
> **Date:** April 21, 2009 12:25:21 PM CDT
> **To:** Paul Bonnette <PBonnette@pgal.com>
> **Subject: Piers at North side**
>
> On S2.01C, the piers north of CL 9.3 & 10 for the north side plaza & entry used to indicate a bottom of pier elevation = 71'-0". The latest drawings do not indicate an elevation. Please provide.
>
> Also, the piers at the steps in this same area appear to be a different size than the remainder. In speaking with WPA earlier in the week, they indicated this was the case and they would provide the size for these smaller piers. Please provide.

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Wednesday, April 22, 2009 9:40 AM
To: Kenny Eldridge
Subject: RE: Spray Insulation at Walls of Basement
Attachments: image001.gif

R-19.

Thank you,
Paul Bonnette

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From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Monday, April 20, 2009 10:37 AM
To: Paul Bonnette
Subject: Spray Insulation at Walls of Basement

I can't find a thickness or R-value spec'd for the walls. Please provide.
Thanks

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Friday, April 24, 2009 9:15 AM
To: Kenny Eldridge
Subject: Re: Sprinkler Heads - Not at center of tiles

Concealed and centered in courtrooms and jury assembly - semi-recessed and not centered elsewhere.

Paul Bonnette - PGAL

On Apr 23, 2009, at 3:16 PM, "Kenny Eldridge" <Kenny.Eldridge@jedunn.com> wrote:

> Let me know where you want them centered and I'll have him price the appropriate credit for the other areas.
>
> **From:** Paul Bonnette [mailto:PBonnette@pgal.com]
> **Sent:** Wednesday, April 22, 2009 11:14 AM
> **To:** Kenny Eldridge
> **Subject:** RE: Sprinkler Heads - Not at center of tiles
>
> I don't see where that got picked up, either. I think we need to add a general note on our ceiling plan sheets to cover it. Was this in all areas, or did it omit courtrooms?
>
> Thank you,
>
> Paul Bonnette
>
> <image001.gif>

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From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Wednesday, April 22, 2009 9:17 AM
To: Paul Bonnette
Subject: Sprinkler Heads - Not at center of tiles

I thought the VE to not center heads in the ceiling tiles was acceptable, but I nor the Sprinkler sub have found it noted in the Final GMP doc's.

Is it intended and where is it noted if so?

Kenny Eldridge

From: Kenny Eldridge
nt: Saturday, April 25, 2009 11:08 AM
o: 'Tom Anguiano'; Clifton Eddington
Cc: Whit Pilcher; 'Paul Bonnette'
Subject: RE: Fort Bend County Justice Center

Barring a revised response from the Architect (who is copied on this message), please proceed with pricing based on the following responses:
1. Assume the duplicated door is for the opening 00088 not shown on the schedule 2. Assume cuff pass and security lock is required 3. Assume sliding track box is required. With no spec provided, provide clarification on box bein priced if needed.
4. It looks like the room you mentioned as an example was shown with detention ceiling on the original D dwgs which haven't changed for that area. The Architect was to coordinate the D drawings, the Finish Schedule and the Arch Refl Ceiling plans so they all provided the same information (which in the case of your example, it looks like they did).
Follow the D drawings then compare with the Arch Refl Ceiling plan and the Arch Fin Schedule and note any discrepancies. Same for Detention Doors with respect to D drawings and Arch Door Schedule. I believe the D drawings should be the basis for what is required and the Arch drawings should be following their lead.

As an aside, I need CCC to pick up the acoustical insulation above the detention ceilings if you did not already have this in your price. I believe this was discussed previously that you did include this but I don't have it written down.

Thanks

----Original Message-----
From: Tom Anguiano [mailto:TomA@cccgroupinc.com]
Sent: Friday, April 24, 2009 3:06 PM
To: Clifton Eddington
Cc: Whit Pilcher; Kenny Eldridge
Subject: Fort Bend County Justice Center

Kenny / Cliff,
My apologies for not responding sooner. We have had a very heavy bid schedule these past few weeks. We are finalizing our review of the Final GMP documents that have been revised per the date 3/30/09.

We have found numerous discrepancies regarding our scope of work and need your help clarifying. Below are some of the discrepancies we have identified. We expect to get revised pricing from our suppliers/vendors on Monday:

1. Detention door #00084 is duplicated on the revised detention door schedule on page 1. Is this an error or should this opening be #00088 as this opening is shown on the detention floor plans but not on the schedule?

2. New detention door elevation "B2" notes a cuff pass but does not show the pass opening. Is a pass required with security lock?

3. New lock type "VD" is indicated on the detention door schedule. This lock type requires a 'iding track box for overhead manual operation. This is not specified in Section 111930.

28/53

4. Security ceiling type "C4" has been added to rooms on the Finish Room Schedule that were not shown on the original finish schedule. For example, Room 10418 is indicated with "C4" in lieu of "C2".

Respectfully,
CCC GROUP INC (Detention Systems Division)

Tom Anguiano
Estimating Manager

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Monday, April 27, 2009 9:15 AM
To: Kenny Eldridge
Subject: RE: Security Sealants

Kenny,

Security sealants are not required in the locations that you mentioned (between the top of full height secure walls and the structure). However, there will most likely be a number of places where we will need them. On past projects, we've used it in cells where the CMU abuts cast-in-place concrete columns, sealing under and around the plumbing fixtures, plumbing walls, around detention doors, etc. In the cells, we have used a two-part epoxy with a Shore number of 80 - 90. In holding areas where prisoners would be escorted, use in similar locations, but with a lower Shore number of 55 - 62.

Thank you,
Paul Bonnette

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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Monday, April 20, 2009 9:38 AM
To: Paul Bonnette
Subject: Security Sealants

I can't find this shown or specified. Particularly, it's not in the Div 7 Sealants spec and it's not shown on the Partition Types.
The only hint is in the Detention Schedule Spec security sealants are referenced as work specified elsewhere.
Is this required?

31/53

Kenny Eldridge

From: Kenny Eldridge
Sent: Saturday, April 25, 2009 12:47 PM
To: 'Paul Bonnette'
Subject: Int Fence and Gate at Stairs

Keynote 3 not used on A4.05 to identify fence and gates. Subsequent stair sheets look like they identify 1 each at each of Stair 1 & 2. Is this correct?
Would be clearer to show it in plan on A4.05 but for now if there is a total of 2 each barriers, we have that covered.

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Monday, May 04, 2009 4:06 PM
To: Kenny Eldridge
Subject: RE: Flush paneling at Courtrooms
Attachments: image001.gif

Kenny,

Yes, you are correct that those areas you tagged on your attachment are intended to be flush wood panels. The detail will be slightly different than 25/A8.53 because the flush panels in courtrooms will have crown molding, and will have a reveal at 3'-2" a.f.f. in lieu of the 6" chair rail.

With regard to the left side of 13/A8.00, we intend that to be flush wood paneling. Is that what is currently priced?

Paul Bonnette

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From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Monday, May 04, 2009 1:43 PM
To: Paul Bonnette
Subject: Flush paneling at Courtrooms

One of the cost items we discussed on Friday was the Flat Paneling vs Raised Paneling at the Courtrooms. We show a deduct of $8,270 on the Final GMP because this was an item we discussed earlier and I assumed it was not shown in the Final GMP doc's by mistake.

See attached copies of A8.00 dated 3/30/09 with Details 13, 14 & 16. I've inserted a cut for 25/A8.53 where we believe the flush paneling should occur (similar to that which is shown on 4/A8.01 which does depict the flat paneling with the correct detail).
Other areas on this and other sheets that do not show acoustical panels or raised paneling would be assumed to also be flush paneling per 25/A8.53

Also, look at the left hand side of 13/A8.00 where I've indicated that 25/A8.53 should apply. Notes on this detail, but not copied on my attachment, indicate this area should be acoustical wall panels but the area is not shaded to indicate this like other acous. wall panel areas. Is this specific area intended to be flat paneling or acoustical wall panels?

Let me know for all above and call if you have questions.
Thanks

Kenny Eldridge

From: Kenny Eldridge
Sent: Tuesday, May 05, 2009 5:29 PM
To: 'Paul Bonnette'
Subject: RE: Bentonite waterproofing
Attachments: image001.gif

Tremco is the product we are planning to use.

From: Paul Bonnette [mailto:PBonnette@pgal.com]
Sent: Tuesday, May 05, 2009 4:35 PM
To: Kenny Eldridge
Subject: Bentonite waterproofing

Kenny,

I've been talking to Cetco, but it occurred to me that they may not be the manufacturer selected for this project. Is it a problem if I send them the spec?

Paul Bonnette

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Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Friday, May 08, 2009 11:21 AM
To: Kenny Eldridge
Cc: Brady, Don; David L. Andrews
Subject: FW: Stabilized sand under footings
Attachments: image001.gif

Kenny,

The requirement for cement stabilized backfill under the retaining wall footings can be removed.

Thank you,
Paul Bonnette

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From: Jeff Talbott
Sent: Friday, May 08, 2009 9:43 AM
To: Paul Bonnette
Subject: Stabilized sand under footings

Paul,

We have removed the note from our FBJC retaining wall drawings which called for cement stabilized backfill under the retaining wall footings. This note was from the beginning of the project when we did not have the geotechnical report and was intended as insurance against poor soils. We have since received the geotechnical report and it indicates that there is adequate bearing capacity so no ground improvement is needed.

Jeff Talbott, PE
Senior Associate

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Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Monday, May 11, 2009 3:24 PM
To: Kenny Eldridge
Subject: RE: E Ext Wall Insulation
Attachments: image001.gif

The rigid will be enough. No need for the batt.

Paul Bonnette

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From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Monday, May 11, 2009 3:21 PM
To: Paul Bonnette
Subject: E Ext Wall Insulation

Look at 18/A5.00 for an example of this question. It shows 2" rigid insulation on the sheathing but then shows batt insulation inside the stud. Do you want both?

Right now, I have the rigid covered but not the batt because there are other details just showing the rigid without the batt.

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Tuesday, May 12, 2009 10:30 AM
To: Kenny Eldridge
Subject: RE: Louver finish
Attachments: image001.gif

Kynar coated should be included in the GMP.

Thank you,
Paul Bonnette

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From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Tuesday, May 12, 2009 10:30 AM
To: Paul Bonnette
Subject: FW: Louver finish

Decision on this one? Trying to finish up qualifications.

From: Kenny Eldridge
Sent: Wednesday, May 06, 2009 1:25 PM
To: 'Paul Bonnette'
Subject: Louver finish

Changing louvers from clear anodized to kynar finish adds about $2,000 for the architectural louvers. I don't have a number for any HVAC supplied louvers.

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Tuesday, May 12, 2009 11:03 AM
To: Kenny Eldridge
Subject: RE: FBCJC - Vertical Lifts in Courtrooms

Sounds fine.

Paul Bonnette

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-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Tuesday, May 12, 2009 10:56 AM
To: Paul Bonnette
Subject: FW: FBCJC - Vertical Lifts in Courtrooms

I had a note from the last meeting that you were going to look back at this VE option. I think David said "cheapest option, they're never used".

The different drive needs a 20A circuit and breaker vs 15A for the hydraulic drive. It looks like Electrical is showing a 20A on the panel schedules.

I'm going to qualify using the alternate drive and apply the VE, unless you say otherwise. Thanks

-----Original Message-----

From: Kenny Eldridge
Sent: Wednesday, April 08, 2009 10:42 AM
To: Paul Bonnette
Subject: RE: FBCJC - Vertical Lifts in Courtrooms

Was their a decision on this?

Message sent 3/31:
They quoted Garaventa Lifts and say it's the same as used at the Harris County Justice Center.

See link to website http://www.garaventa.ca/vertical-elevator/drv.html

>>> Paul Bonnette < PBonnette@pgal.com > 3/31/2009 4:49 PM >>>
Possibly. Is this particular to one of the manufacturer's products?

-----Original Message-----
From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Tuesday, March 31, 2009 4:48 PM
To: Paul Bonnette
Subject: FBCJC - Vertical Lifts in Courtrooms

We have a voluntary alternate that didn't make it onto the VE Log.
It's worth about $20k credit.
Uses ACME screw drive power systems vs. hydraulic drive system as specified.
Is this something you're interested in?

Thanks

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Tuesday, May 12, 2009 11:58 AM
To: Kenny Eldridge
Subject: RE: ft bend cooling tower
Attachments: image001.gif

Kenny,

I've been corrected on this. The top of PIER needs to be 4'-0" above the finished floor level in the CHILLER ROOM (i.e. Central Plant.)

Paul Bonnette

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From: Paul Bonnette
Sent: Tuesday, May 12, 2009 11:04 AM
To: 'Kenny Eldridge'
Subject: RE: ft bend cooling tower

Top of steel needs to be 48" above the finished grade.

Paul Bonnette

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From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Tuesday, May 12, 2009 10:31 AM
To: Paul Bonnette
Subject: FW: ft bend cooling tower

Did you get the top of steel elevation? Trying to refine the Allowance as best as possible.

From: Kenny Eldridge
Sent: Thursday, May 07, 2009 9:20 AM
To: 'Paul Bonnette'
Subject: RE: ft bend cooling tower

What is top of steel with regards to the surrounding paving (i.e. how high above grade is top of steel)?

Did you look at the location and elevations of the piers with relation to the ret. wall footings? It looks too close and in conflict to just have a note to coordinate. The cooling tower will have to move north off of the wall to allow for this coordination. There may be enough room to do this based on the site layout. Take a look and see what you think.

From: Paul Bonnette [mailto:PBonnette@pgal.com]
Sent: Thursday, May 07, 2009 8:43 AM
To: Kenny Eldridge
Cc: Brady, Don; David L. Andrews
Subject: FW: ft bend cooling tower

Kenny,

Attached is a hand sketch from Walter P. Moore to base your pricing on for the cooling tower. Let me know if you have questions or need more information.

Thank you,
Paul Bonnette

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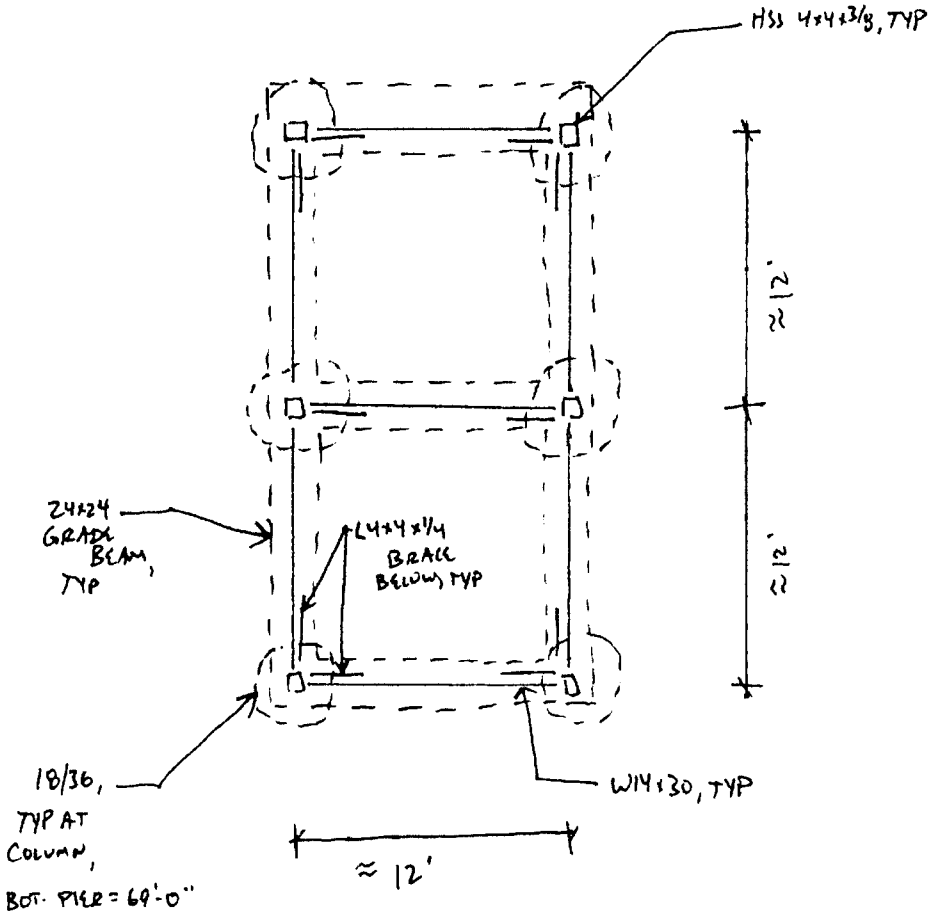
WALTER P MOORE

JOB NAME: FBCJC	
JOB NO: 07055-01	DATE: 5/7/09
ENGINEER: AMS	DWG. REF:
TAB NO.:	SHEET NO.:

SCHEMATIC COOLING TOWER FRAMING



- ALL STEEL TO BE HOT-DIP GALVANIZED
- FOUNDATIONS TO BE COORDINATED SO AS NOT TO CONFLICT WITH RETAINING WALL FOUNDATIONS

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Thursday, May 14, 2009 10:28 AM
To: Kenny Eldridge; David L. Andrews
Subject: RE: Haworth Information

Should be fine.

Paul Bonnette

From: Kenny Eldridge [Kenny.Eldridge@jedunn.com]
Sent: Thursday, May 14, 2009 10:22 AM
To: Paul Bonnette; David L. Andrews
Subject: FW: Haworth Information

See below from Sub addressing your concerns.
I'll keep the qualification included to use this system unless otherwise instructed.
Thanks

From: Mickey Gibson [mailto:mgibson@alliedinteriors.com]
Sent: Thursday, May 14, 2009 10:13 AM
To: Kenny Eldridge
Subject: RE: Haworth Information

Kenny,
This system is a bolted panel system. In other words, the panel is bolted in each corner to the pedestal underneath. This method assures no movement in the system and provides outstanding lateral support. The system is cementitious filled, providing a quiet environment. Keep in mind; this is the only system that was specifically designed for a general office use. All of the other systems, including Tate, are computer room systems that have been modified to work.
Thanks,
Mickey Gibson

From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Thursday, May 14, 2009 10:02 AM
To: joeygibson@alliedinteriors.com; Mickey Gibson
Subject: FW: Haworth Information

See below for Architect's concerns with this or any system. Can you address this?

From: Paul Bonnette [mailto:PBonnette@pgal.com]
Sent: Thursday, May 14, 2009 9:03 AM
To: Kenny Eldridge
Cc: David L. Andrews
Subject: RE: Haworth Information

Overall, it looks to be comparable to the Tate system that was specified. I do have some contacts at Gensler, who I may be able to discuss this with. I think it's fine to include, so long as they can address those acoustical issues (i.e. "hollow" sound, and creaking.)

Thank you,
Paul Bonnette

From: Kenny Eldridge [Kenny.Eldridge@jedunn.com]
Sent: Wednesday, May 13, 2009 9:26 AM
To: Paul Bonnette
Subject: FW: Haworth Information

I'm trying to get installed locations/contact info for the proposed access floor.
See below - Do you know anybody at Gensler to talk to?

From: Mickey Gibson [mailto:mgibson@alliedinteriors.com]
Sent: Wednesday, May 13, 2009 9:16 AM
To: Kenny Eldridge
Subject: RE: Haworth Information

Kenny,
We are putting together a list of users and architects that have used this system. We have millions of square feet of this system installed and the owners are very happy with it. **Gensler is a big architect that uses this material and the new Sysco Foods headquarters utilized 400,000 SF.** I have a call in to the contractor for the Sysco Corporation to get more info and see if we can get in to see the installation. Give me a little longer and I will have all of the info to you.
Thanks,
Mickey Gibson

Kenny Eldridge

From: Kenny Eldridge
Sent: Monday, May 11, 2009 11:31 AM
To: 'Paul Bonnette'
Subject: FW: FBJC Fixtures
Attachments: FBJC Bid Package Fixtures.pdf; FBJC VE Fixtures.pdf

Here are the Site fixtures as priced from the Final GMP Set, along with a VE fixture package.

The VE fixtures would save $32,550 off of the add pricing we reviewed for the attached "bid package" fixtures.

From: Walter Coffey [mailto:wcoffey@e3electric.com]
Sent: Friday, May 08, 2009 3:54 PM
To: Kenny Eldridge
Cc: Walter Coffey
Subject: FBJC Fixtures

Kenny,

The two attachments are the cut sheets for the fixtures as requested. The pricing for the bid package fixtures is the pricing you've received in our
line item pricing.

The pricing for the "VE" fixtures is as follows.

- Type "SA" – Deduct <$390.00 each> x 2 each
- Type "SP" – Deduct <$410.00 each> x 7 each
- Type "SQ" – Deduct <$1,800.00 each> x 8 each
- Type "SR" – Deduct <$2,900.00 each> x 5 each

Thanks very much for your patience.

E3 Electric, Ltd.

Walter Coffey
Estimator
Off. 713-622-1222
Cell 713-245-6710

Kenny Eldridge

From: Kenny Eldridge
Sent: Friday, May 15, 2009 12:09 PM
To: 'Paul Bonnette'
Cc: 'Walter Coffey'
Subject: FW: FBJC Fixtures

E3 has been told the SA fixture mfr. is out of business.
For now, I'm sticking with the "Bid Package" for the added site fixtures.

FYI for E3 - Architect will consider the "VE Package" but would like to see a photometric study. Can your rep do this if PGAL provides a CAD file?

From: Walter Coffey [mailto:wcoffey@e3electric.com]
Sent: Friday, May 15, 2009 11:47 AM
To: Kenny Eldridge
Subject: RE: FBJC Fixtures

I was just told that "Spero" (the manufacturer) is out of business. Their web site is still up so we can get cut sheets but nothing else.

Thanks,

E3 Electric, Ltd.

Walter Coffey
Estimator
Off. 713-622-1222
Cell 713-245-6710

From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Friday, May 15, 2009 11:35 AM
To: Walter Coffey
Subject: RE: FBJC Fixtures

Do you have an answer on the SA yet?

From: Walter Coffey [mailto:wcoffey@e3electric.com]
Sent: Thursday, May 14, 2009 12:16 PM
To: Kenny Eldridge
Subject: RE: FBJC Fixtures

I've tried to resend the 8 – page VE attachment but you may not be getting it. Attached is the page you're missing.
I'll get an answer on the SA.

E3 Electric, Ltd.

Walter Coffey
Estimator
Off. 713-622-1222
Cell 713-245-6710

From: Kenny Eldridge [mailto:Kenny.Eldridge@jedunn.com]
Sent: Thursday, May 14, 2009 11:56 AM
To: Walter Coffey
Subject: FW: FBJC Fixtures

Architect wants you to price the exact SA fixture on the fixture schedule.
I've forwarded him the additional SR VE sheets, he just hasn't seen them before sending the message below.

From: Paul Bonnette [mailto:PBonnette@pgal.com]
Sent: Thursday, May 14, 2009 11:42 AM
To: Kenny Eldridge
Subject: RE: FBJC Fixtures

Kenny -

Could you price the SA fixture that is on the electrical schedule? The County may want the exact same fixture, so we should show them that as an option, then show them the alternatives.

As we discussed by phone, I didn't see the fixture for the top of the pedestrian poles in the V/E information. Please confirm their intent. As long as the wattage/voltage and lamping is the same, I think it's worth considering, but, again, the County may have the last word.

Thanks,
Paul Bonnette
PGAL

Kenny Eldridge

From: Kenny Eldridge
Sent: Monday, May 18, 2009 11:01 AM
To: 'Paul Bonnette'
Cc: 'David L. Andrews'; bradydon@co.fort-bend.tx.us
Subject: RE: Stone Tops

As agreed upon with Paul on Friday, Zodiaq Vela Brown will be changed to Silestone Coffee Brown.
Also, Rojo Alicante will be changed to Zodiaq Rosso Verona.
This helps to reduce the Draft pricing that we reviewed on 5/1 by approx. $63,500.
Paul - Please confirm.
Thanks

From: Kenny Eldridge
Sent: Thursday, May 14, 2009 1:25 PM
To: 'Paul Bonnette'
Cc: David L. Andrews; bradydon@co.fort-bend.tx.us
Subject: RE: Stone Tops

Pricing below. I have the requested samples and I will be delivering those to Paul this evening.

1st - There was a miscommunication between myself and the sub on the pricing sent yesterday. The Sonora Gold they priced was intended by myself to be a color similar to the Rojo Alicante but still a natural stone. What they priced was the Silestone Sonora Gold. So the pricing below for the Silestone Sonora Gold matches the credit I mentioned yesterday.

Here is the VE pricing (all in comparison to the Permit Set pricing):

1. Use Silestone Coffee Brown vs Zodiaq Vela Brown at areas noted as S2, including Lobby Column Wainscot ($17,916)

2. For areas previously noted as S2 now noted as ST1 in the Courtrooms:
   A. Natural Stone Rojo Alicante +$57,545
   B. Zodiaq Rossa Verona +$11,973
   C. Silestone Sonora Gold ($18,431)
   D. Silestone Santa Fe Brown ($18,431)

Thanks

From: Paul Bonnette [mailto:PBonnette@pgal.com]
Sent: Thursday, May 14, 2009 9:03 AM
To: Kenny Eldridge; David L. Andrews; bradydon@co.fort-bend.tx.us
Subject: RE: Stone Tops

Kenny,

We found an alternate Zodiac surfacing that we like - could you price the Rosso Verona for the courtrooms?

The Silestone Coffee Brown does look close to the specified Vela Brown (by looking at them on the website), so that is a possibility. Is there any way you could get a sample for us? We may have one, but may not be able to put our hands on it until Monday or Tuesday.

Thank you,
Paul Bonnette
PGAL

From: Kenny Eldridge [Kenny.Eldridge@jedunn.com]
Sent: Wednesday, May 13, 2009 1:41 PM
To: Paul Bonnette; David L. Andrews; bradydon@co.fort-bend.tx.us
Subject: Stone Tops

I have some alternate information on the stone tops.
The Final GMP Draft spreadsheet we reviewed on 5/12 included an add of $57,545 for changing courtroom tops from Zodiaq to Stone.

If we change the stone specified in the Final GMP documents from Rojo Alicante to Sonora Gold, the add would actually become a credit of $18,431. Sonora Gold is the closest color our sub has to the Rojo Alicante.

One other item came up pertaining to the solid surface tops shown in the Final GMP documents - If we change all Zodiaq Vela Brown to Silestone Coffee Brown, there is a savings of $17,316. This includes changing the lobby column wainscoting and all other solid surface areas.

Let me know if either of the above 2 options are acceptable.
Thanks

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Thursday, May 21, 2009 2:20 PM
To: Joseph Kummer; Kenny Eldridge
Cc: bradydon@co.fort-bend.tx.us; David L. Andrews; Eric Lien
Subject: RE: FBJC - City of Richmond Public Works and Engineering comments
Attachments: image001.gif

To clarify Item 1, the existing drive that we're showing between the two buildings and back to the Central Plant is 24' wide – that will be increased to 30', moving the line of parking 6' closer to the courthouse building.

Thank you,
Paul Bonnette

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From: Paul Bonnette
Sent: Thursday, May 21, 2009 11:18 AM
To: Joe Kummer (joseph.kummer@jedunn.com); 'Kenny Eldridge'
Cc: bradydon@co.fort-bend.tx.us; David L. Andrews; Eric Lien
Subject: FBJC - City of Richmond Public Works and Engineering comments
Importance: High

Joe, Kenny,

Below is a synopsis the comments received recently from the City of Richmond that will affect pricing. Please include pricing for these items in your GMP.

1. Add drive for fire truck access between the parking garage and building. Curb cut to be 35' wide (almost immediately across from the drive entering the parking area North of the ring road), drive to be 30' wide. Turning radii will need to be modified based on the specs for the fire engine that the City uses.
2. The existing driveway culvert from the ring road to the existing parking area needs to be removed (East side existing driveway access to parking area).
3. The portion of the landscaped area immediately South of the levee easement will need to be graded to the East and West so that storm water coming off of the levee will be directed to the low points at the corners of the parking areas.
4. In parking areas where we call for 8" PVC, provide 12" HDPE (352 lf.) For other 12" piping, provide HDPE in lieu of RCP. Two stubouts from manholes that are part of the trunk line will need to be removed and replaced to accommodate this, as they have already been installed (Manholes T-7 & T-10). Piping serving the upper plaza may remain 8" PVC (or alternatively HDPE).
5. Add a sanitary sewer sampling well in lieu of the 45 degree bend in the 6" sewer line from the building.

6. Move the existing fire hydrant near the flagpoles toward the East. A new fire department connection is to be located in the vicinity of the relocated fire hydrant.
7. There is an existing fire hydrant at the NE corner of the site that needs to be relocated to the opposite side of the ring road. Also, water lines feeding the Precinct One and Gus George Academy will require new taps for the fire and domestic lines when the 8" water line planned to be relocated along the curve of the ring road.
8. Add a minimum of 18 feet of ductile iron piping for the 18" sanitary line each side of and through the tunnel (a total of 54 lf.) The section going through the tunnel will have a 26" diameter steel casing pipe and two hangers.

Feel free to call if you have any questions.

Thank you,
Paul Bonnette

PGAL

Alexandria
[T] 703 836 0588 [F] 703 836 8027
Atlanta
[T] 404 602 3800 [F] 404 602 3810
Austin
[T] 512 236 1005 [F] 512 853 6126
Boca Raton
[T] 561 988 4002 [F] 561 988 3002
Boston
[T] 617 848 0530 [F] 617 314 6196
Dallas
[T] 972 871 2225 [F] 972 871 2228
Fort Lauderdale
[T] 954 527 5001 [F] 954 527 4177
Houston
[T] 713 622 1444 [F] 713 968 9333
Las Vegas
[T] 702 435 4448 [F] 702 435 4470
Los Angeles
[T] 310 645 3276 [F] 310 645 3026
Phoenix
[T] 602 324 7760 [F] 602 324 7768
http://www.PGAL.com

Kenny Eldridge

From: Paul Bonnette [PBonnette@pgal.com]
Sent: Thursday, May 21, 2009 3:19 PM
To: Joseph Kummer; Kenny Eldridge
Cc: David L. Andrews; Gary Davis; bradydon@co.fort-bend.tx.us
Subject: FBJC - telecommunications cabling change

Importance: High

Joe, Kenny,

See below for the cabling type that is acceptable to the County. This is anticipated to be a cost savings from what we currently have specified (Belden 4800LX). Please revise the GMP to reflect the following:

Spec. Section 27 15 00 – COMMUNICATIONS HORIZONTAL CABLING AND TERMINATIONS

Article 2.1, A., 1. – change to read "Belden IBDN System 3600
Article 2.2, B., 1. – change to read "Manufactured by Belden (Datatwist 3613)"

Thank you,
Paul Bonnette

From: Charles King [Charles.King@co.fort-bend.tx.us]
Sent: Tuesday, May 19, 2009 12:11 PM
To: Gary Davis
Cc: Bob Clarkson; Charles Cook; Paul Bonnette; Shane Whatley
Subject: RE: FBJC - JE Dunn Constructability Review

Gary,

We're going to go with DataTwist 3600.

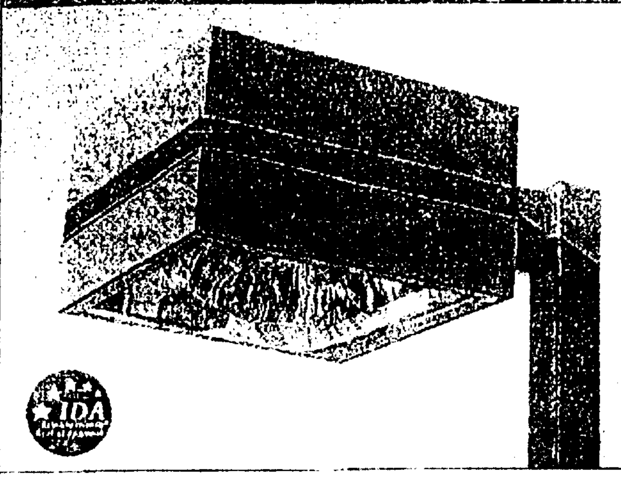
Charles D. King
Customer Services Manager
Fort Bend County Information Technology
Direct 281-341-4584

Bid Package Fixtures - SA, SR, SQ, SP
19 pages per 5/15/09 Email correspondence

AREA

American

JOB: FT. BEND COUNTY JUDICIAL COMPLEX
TYPE: SA
PRODUCT#: AME2 T4 400P 5 BOA10 BK LS W/ LAMP



Fixture	A	B	C	Stripe	Max.Watts	Lbs
AME-1	14"	14"	10	2"	175w Flat Glass Only	35
AME-2	19"	19"	12"	2"	400w Flat Glass (Convex Optional)	50
AME-3	23"	23"	13"	2"	1000w Flat Glass Only	70
AME-4	23"	23"	15"	2"	1000w Flat Glass Only	75

The **American Series** features the most advanced lighting reflector system available today. Vision™ is a patent pending, revolutionary new reflector system unlike any other. The **flat lens, vertical lamp, IES full cut-off luminaire** is Dark Sky certified to restrict light trespass, glare and light pollution for neighborhood friendly outdoor lighting. (Convex glass lens is available when required.)

The clean, compact housing style features a decorative reveal available in complementary or contrasting colors. Our patented parts on machinery, first quality materials ensure manufacturing to the highest industry standards.

American is offered in four enclosure sizes and five distribution patterns, including a special forward throw T4 A reflector for auto dealership front line lighting. Vision™ Reflector System allows the use of fewer fixtures and poles with wider spacings, providing substantial equipment, installation and energy cost savings.

American is a proven performer for auto dealerships, shopping centers, parking lots and general area lighting. A wide selection of light sources from 100 through 1000 watts are offered in Metal Halide, High Pressure Sodium, and the new Pulse Start Metal Halide lamp which provides excellent efficiency, lumen maintenance and color.

Model No.	Optics	Wattage	Source	Voltage	Mounting	Finish / Stripe	Options
AME	T4	400	P	5	BOA10	BK	LS

Model	Optics	Wattage	Source	Voltage	Mounting	Finish/ Stripe	Options
☐ AME-1 Flat Glass	☐ Type II (T2)	☐ 100 (100) ☐ 150 (150) ☐ 175 (175)	PS, HPS PS, HPS MH, PS (M), (P), (S)	☐ 120 (1) ☐ 208 (2)	☐ Bolt-On Arm 6" (BOA6)	☐ Bronze (BZ) ☐ Black (BK)	Photocell & Receptacle *Specify voltage ☐ (PC120) ☐ (PC208) ☐ (PC240) ☐ (PC277) ☐ (PCR480) ☐ Photo Receptacle (PER)
☐ AME 2 Flat Glass (Convex Glass Optional)	☐ Type III (T3)	☐ 250 (250) ☐ 320 (320) ☐ 400 (400)	MH, PS, HPS PS MH, PS, HPS (M), (P), (S)	☐ 240 (3) ☐ 277 (4) ☐ 480 (5)	☐ Bolt On Arm 10" (BOA10) Supplied with arm for use with Y90 & Quad mounting ☐ Spider Mount (SM)	☐ White (WH) ☐ Green (GN) ☐ Grey (GY) ☐ Silver Metallic (SL)	☐ Quartz Restrike (QR) Fusing *Single In Line Fuse *Specify voltage ☐ (SF120) ☐ (SF277)
☐ AME 3 Flat Glass	☐ Type IV (T4)	☐ 400 (400) ☐ 750 (750) ☐ 1000 (1000)	MH, PS, HPS PS MH, PS, HPS (M), (P), (S)	☐ M-Tap (6)	☐ Wall Mount (WM) *Cast Wall Plate (BAWP) to be ordered separately	☐ Custom (CC) **Color Stripe**	*Double In Line Fuse *Specify voltage ☐ (DF208) ☐ (DF240) ☐ (DF480) ☐ House Side Light Shield (LS) ☐ Convex Glass Lens (VLCG)
☐ AME 4 Flat Glass	☐ Type IV A Automotive (T4A) *Not Available AME-1 & 2 ☐ Type V (T5)	☐ 750 (750) ☐ 1000 (1000) ☐ 55 (55) ☐ 85 (85) ☐ 165 (165)	PS MH, PS, HPS (M), (P), (S) ☐ Induction (IND)	☐ 5-Tap (7)			☐ RPP-1 Round Pole Plate Adapter (RPP) ☐ Cast Wall Plate (BAWP)

For more detailed information on covering, wiring, or installation instructions, please consult factory. Note Bolt-on Poles are not ordered with fixtures, please specify the mounting requirements. This document contains proprietary information of Visionaire Lighting, LLC. Any use of the information requires the written approval of Visionaire Lighting, LLC.

VISIONAIRE LIGHTING
Performance In A Whole New Light

1/19

American

Housing

• All housings are manufactured using technologically advanced computerized numerical control (CNC) machinery. Precision sheared and formed from one piece .080 gauge, corrosion resistant aluminum, with tooled external reveal.

• The computerized CNC machinery enables all American housings to be constructed quickly, efficiently, and adhering to exacting ISO 9002 standards. All external hardware is stainless steel.

Lens and Door Assembly

• **Removable** Hinged door assembly is CNC precision, sheared and formed from one piece .080 gauge corrosion resistant aluminum with captive stainless steel fasteners.

• The standard lens is a clear tempered flat glass, secured by galvanized [illegible] and sealed with silicone gasketing to provide complete weather and insect protection.

• An optional convex glass lens is available when required for AME [illegible] [illegible] is standard on AME-4.

Vision™ Optical System (Patent Pending)

• Reflector is precision CNC cut and bent multi-faceted, segmented, highly efficient 95% reflective aluminum. Available in five distribution patterns.

• T4A Automotive Reflector is Field Rotatable

• Tool-less reflector entry

Quali-Guard® Finish

• **The finish** is Quali-Guard® textured, chemically pretreated through a multiple stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 mil thickness. Finish is oven baked at 400 degrees Fahrenheit to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.

Mounting

• A rounded extruded aluminum bolt-on-arm (BOA), with an in-pole nut plate securing (2) 1/2 inch zinc-plated bolts with stainless steel hardware is standard. A Round Pole Plate Adaptor (RPP) is required for mounting to 3"-5" Round Poles.

Electrical Assembly

• All ballasts are premium grade CWA or HPF regulating auto transformers. Ballast is capable of providing consistent lamp starting down to -20 degrees Fahrenheit. Available in:

- Metal Halide (MH)
- Pulse Start Metal Halide (PS)
- High Pressure Sodium (HPS)

• Socket is glazed porcelain medium or mogul base with nickel plated contacts rated at 4K (5K for 1000 watt) and 600V.

Options

- photo cell
- photo receptacle
- convex glass lens
- house side light shields
- fusing
- quartz restrike

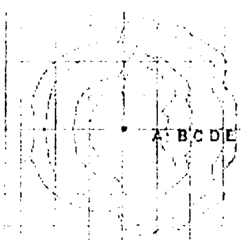
Please consult factory for custom options.

Listings

• **American** is UL listed, suitable for wet locations.

• **Dark Sky Friendly**® certified by the International Dark Sky Association. (Flat lens models only.)

Isolux Curves

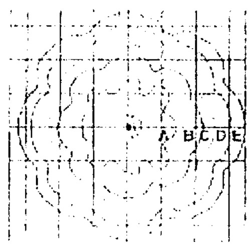


Size Two

Type III 400w
MH VLFG 25ft
Mounting Height

Foot Candle Key:
A=2, B=1, C=.5,
D=.2, E=.1

1 Block=30ft

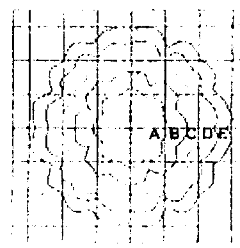


Size Two

Type V 400w
MH VLFG 25ft
Mounting Height

Foot Candle Key:
A=2, B=1, C=.5,
D=.2, E=.1

1 Block=30ft



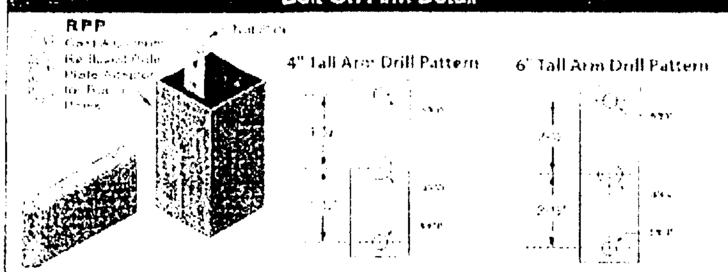
Size Four

Type V 1000w
MH VLFG 42ft
Mounting Height

Foot Candle Key:
A=2, B=1, C=.5,
D=.2, E=.1

1 Block=60ft

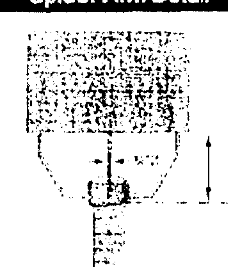
Bolt-On-Arm Detail



Cast Wall Plate

*For use with standard Bolt-on Arm

Spider Arm Detail

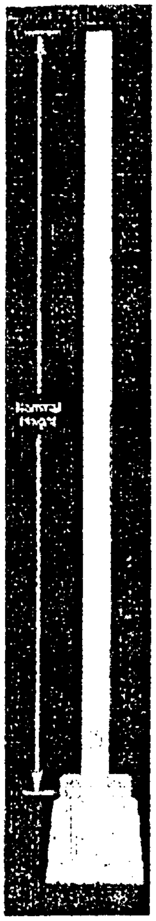


EPA Data

Fixture with Arm							Spider Mount
AME-1	1.4	2.[illegible]	2.8	3.8	3.3	4.5	1.7
AME-2	2.[illegible]	4.0	4.4	6.[illegible]	5.[illegible]	7.[illegible]	2.6
AME-3	[illegible]	5.8	5.4	8.7	7.4	10.2	3.7
AME-4	[illegible]	6.[illegible]	6.8	9.2	7.8	10.9	3.9

2/19

SSP Square Non-Tapered Steel Poles



SSP

Pole Shaft

The pole shaft is one piece construction, being fabricated from a weldable grade carbon steel structural tubing which has a uniform wall thickness of 7 gauge (0.1793"). The pole shaft material shall conform to ASTM A-500 Grade C with a minimum yield strength of 50,000 psi. The pole shaft has a full length longitudinal resistance weld and is uniformly square in cross-section with flat sides, small corner radii and excellent torsional properties.

Base Plate

The anchor base is fabricated from a structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. The anchor base telescopes the pole shaft and is circumferentially welded top and bottom. All welds are performed in accordance with the American Welding Society specification AWS D1.1, latest edition.

Bolt Circle: [illegible] **Sq. Dim.:** [illegible] **Thickness:** [illegible] **Conduit Opening:** 4.15"

Consult RW representative for non-standard dimensions.

Anchor Bolts

Anchor bolts are fabricated from commercial quality hot rolled carbon steel bar that meets or exceeds a minimum yield strength of 55,000 psi. Four properly sized anchor bolts, each with two regular hex nuts and washers, are furnished and shipped with all poles unless otherwise specified. Anchor bolts shall have the threaded end galvanized a minimum of 8 inches in accordance with ASTM A-153. Fully galvanized anchor bolts are available upon request.

Handhole

An oval reinforced gasketed handhole, having a nominal 3" x 5" inside opening, located [illegible] above base is standard on all poles. A grounding provision is located inside the handhole ring.

Finish

K-KLAD Over Galvanizing - In areas where superior performance is required, *K-KLAD* powder coating applied over hot dip galvanized steel provides an additional surface barrier, encapsulating the cathodic protective zinc surface. The exterior and interior metal surface is hot dip galvanized in accordance with ASTM A-123. The exterior galvanized surface is washed under heat and pressure with an alkaline rinse to remove any excess oxides or contaminants. The exterior surface is then centrifugally brush blasted to remove excess oxides and foreign matter providing an anchor pattern profile. The blasted metal surface is chemically pretreated with an iron phosphate conversion coating forming a dry tight micro crystalline coating. *K-KLAD* is a special powder coating formulated from a unique combination of polyester resins designed to exhibit superior outdoor weatherability, durability, and gloss retention, together with the galvanized surface to form a uniform bi-layer 8 mil coating. The internal galvanized section is coated with *[illegible]*, a corrosion inhibitor, to form a protective internal barrier.

FT. BEND COUNTY JUDICIAL COMPLEX

Series: **SSP** - *Square Non-Tapered Steel Poles*
Nominal Height: **30'** Base Diameter: **5.0"** Gauge: **7**
Finish: **KZ21** - *K-KLAD Over Galvanized - Black*
Mounting Designation: **2** - *[illegible] TENON*
Options: **BC** - *Base Cover*

Type	Height (ft.)	Pole Shaft (in.) x (in.) x (ft.)	Gauge	Handhole Size (in.)	Anchor Bolt (in.) x (in.) x (in.)	Bolt Circle (in.)	80 MPH (ft.²)	90 MPH (ft.²)	100 MPH (ft.²)	Ship WT. (lbs.)
SA	30	5.0 x 30.0	7	3 x 5	1.00 x 30 x 4	11	13.4	[illegible]	5.9	[illegible]

SSP30-5.0-7-KZ21-2-BC-VD

Print This Page Email This Page

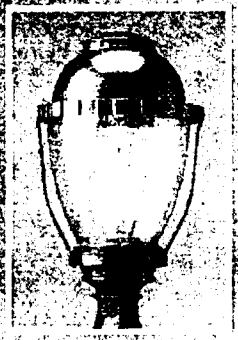
VD - VIBRATION DAMPENER

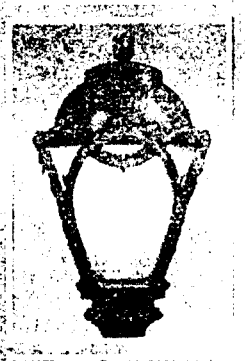
TYPE "SR"

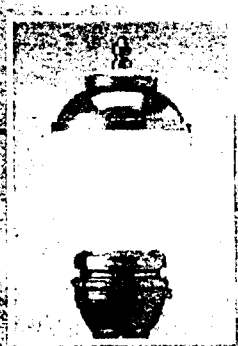
KING LUMINAIRE

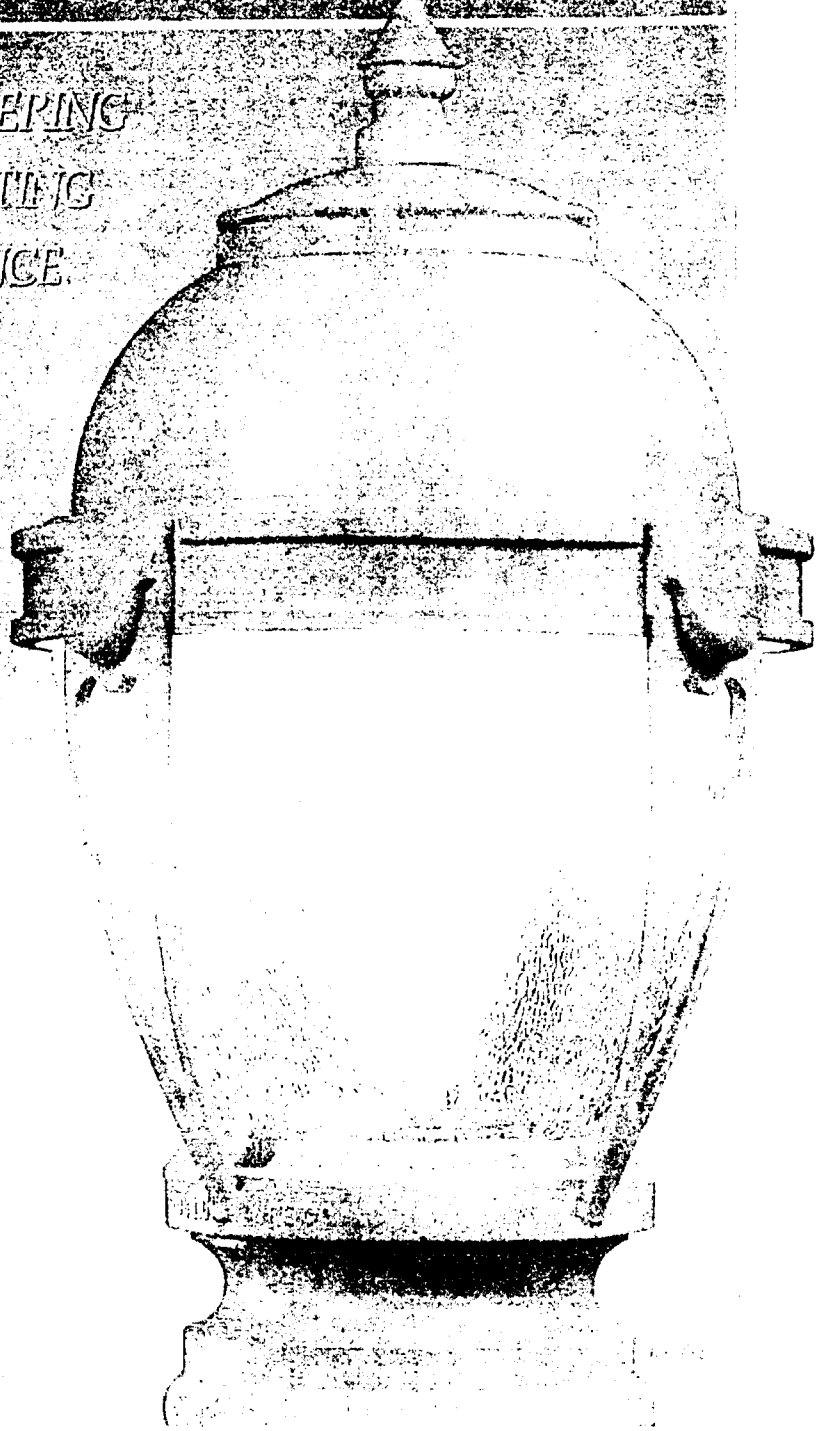
K130 SERIES POST TOP LUMINAIRES

SOLID ENGINEERING
SUPERB LIGHTING
PERFORMANCE



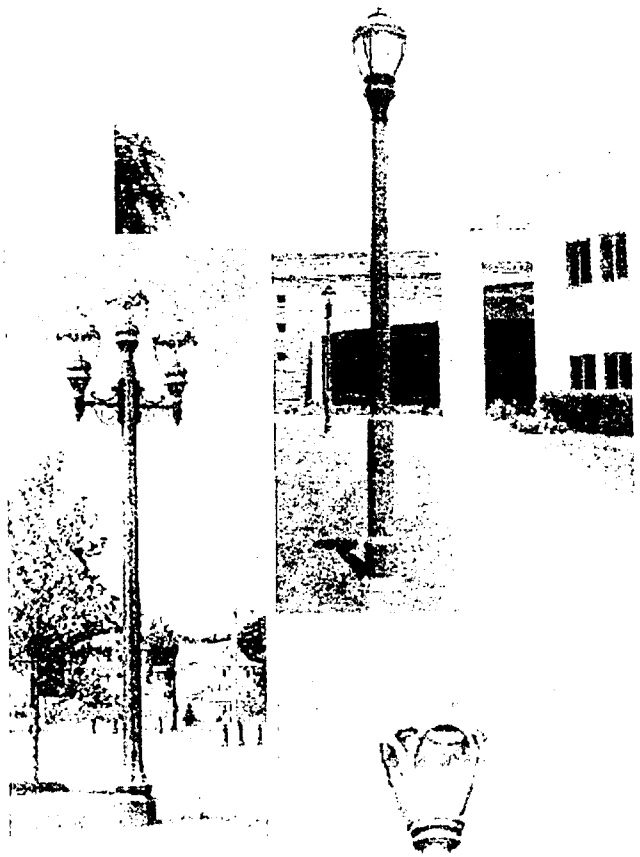


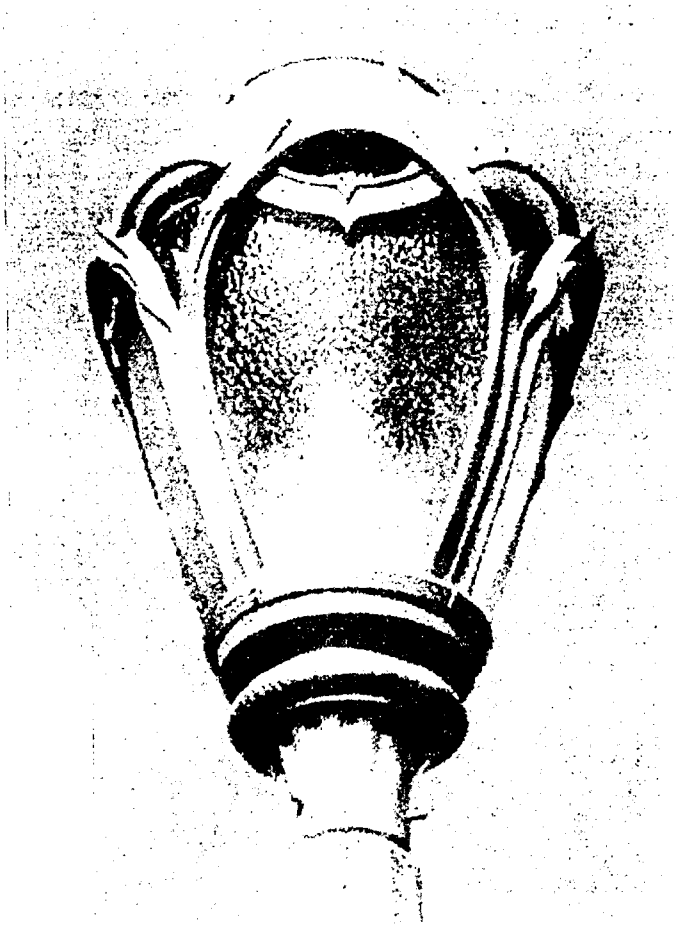


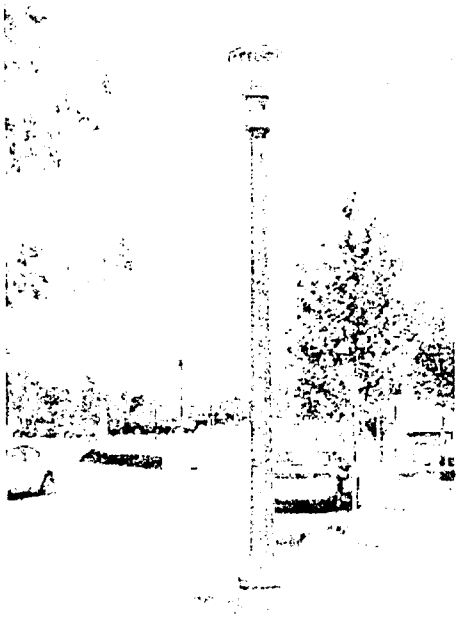


4/19

TYPE "SR"





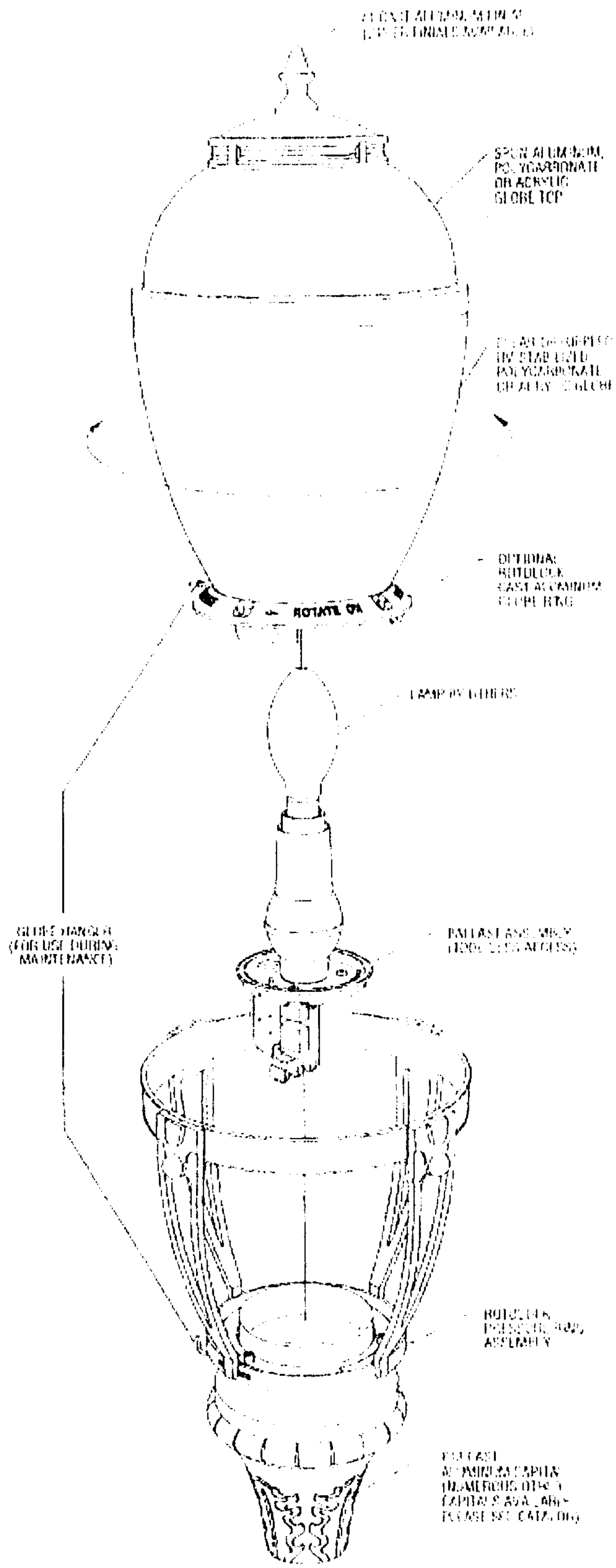


[illegible]

In selecting which of the K180 optical systems is right for your project, numerous items, besides the luminaire's lighting characteristics, need to be considered

Glare:	Luminaires must provide the ability to see, not just light the ground
Purpose:	Consideration must be given to the purpose of the lighting, i.e. roadway or area lighting and, if roadway, which type
Ambiance:	Light standards provide the finishing architectural touch – 24 hours a day
Safety:	The project must meet all codes and ordinances
Uplight:	Consider the project's environment and design accordingly
Light Trespass:	Put light in the right places, not in private areas or bedroom windows
Budget:	Consider both the initial capital investment and, especially, the ongoing maintenance costs.
Power Usage:	Use as few assemblies as is practical.

With the above points in mind and using the requisite IES files, the lighting designer will be enabled to make an educated decision as to which optical system will be most suitable for any given project.



K134-S

[illegible]

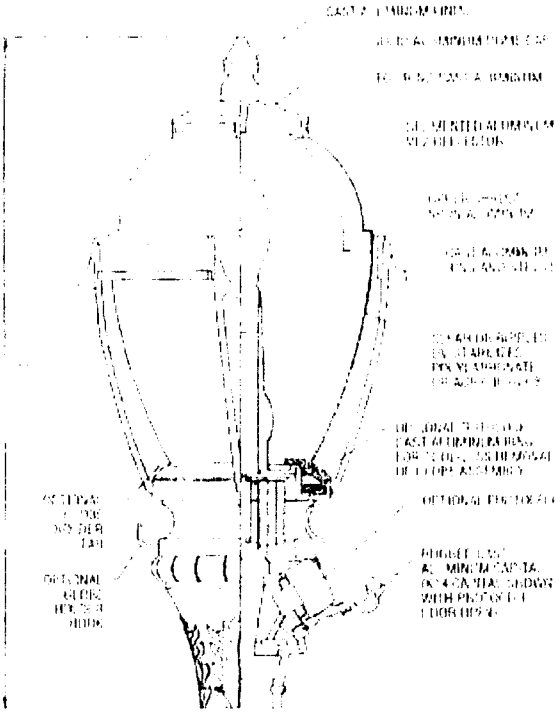
- Heavy-duty aluminum castings
- Tool less access to lamp and ballast with rotolock feature
- Available in durable polycarbonate or high impact UV stabilized acrylic
- 4 designs – 2 optical systems to choose from
- Custom fitter hardware available
- Ease of maintenance – optional globe holder for servicing
- Starlight Dome Option (available with external prismatic refractor optical system only)

6 (19

A solid looking fixture, the K134 offers a contemporary look with a hint of tradition, making it ideal for either a contemporary or historical architectural setting. This highly attractive luminaire complements any surrounding.

K134-S VL2
Segmented Reflector

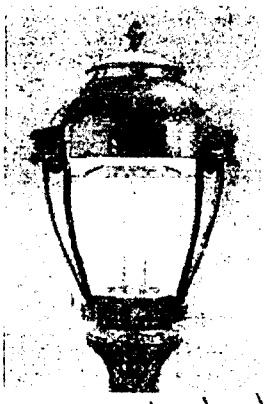
The K134-S incorporates a sophisticated, segmented aluminum reflector specifically designed to minimize glare and uplight. Offering a cutoff classification, this outstanding performer works within the parameters of the environmental issues that are becoming ever more important in our modern world.

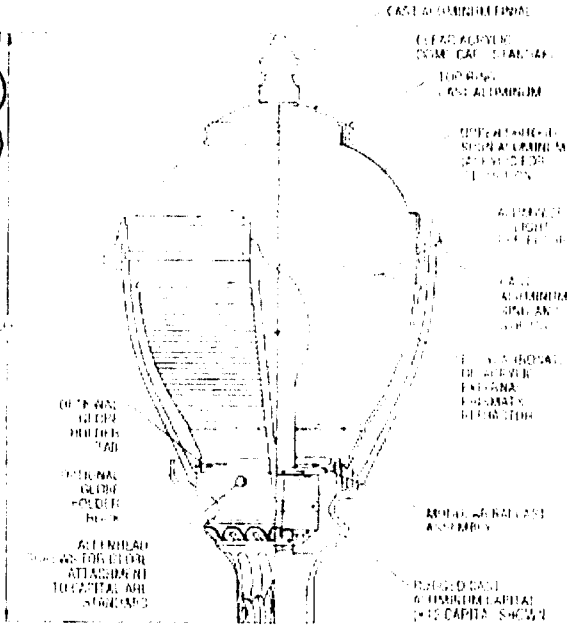


K134-S

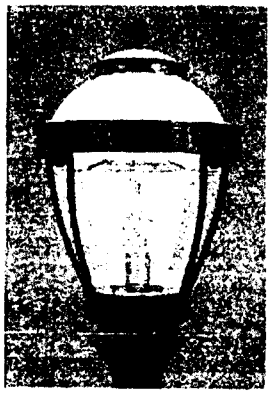
K134-E
External Prismatic Refractor

The use of the K134-E external prismatic refractor ensures that the light goes where directed, resulting in maximum spacing and lower energy costs.





K134-E



SL "Skylight Dome Option" (only available with External Prismatic Refractor)

Replacement of the solid aluminum shroud with opaque acrylic allows the dome to "glow" when the unit is operating, adding a decorative touch to the architectural atmosphere of any setting.

7/19

ILS LIGHTING CLASSIFICATION

- III - Type III (V-? only)
- IV - Type IV (telemo only)
- V - Type V

OPTIONAL STARLIGHT DOME

SL (spun aluminum [illegible] standard)

LUMINAIRE STYLE

- K134 - York
- [illegible]
- K136 - Regency
- K138 - Wellington

OPTIONAL GLOBE MOUNTING

R - Retrolock (unless specified, aluminum screw mounting is standard)

LIGHT SOURCE*

- MV - Mercury Vapor
- MH - Metal Halide
- HPS - High Pressure Sodium
- ID - [illegible]
- IND - Induction

SOCKET TYPE

- MED - Medium
- MOG - Mogul

LINE VOLTAGE

All standard line voltages are available including [illegible] (MT) and dual voltage (DV). When specifying multi-tap or dual voltage, state voltage to be wired to (ie: [illegible] MT)

MISC. OPTIONS

- PR - Twistlock Receptacle
- PE - Twistlock Receptacle complete with Photocell
- FBC - Single Button Cell
- FFC - [illegible] Button Cell
- HS - House Side Shield [illegible]

K134 R ~~LAR~~ SL ~~V~~ ~~200~~ ~~(MOG)~~ MH ~~120~~ ~~K12~~ ~~GH~~ ~~PR~~ ~~BL~~

OPTICAL SYSTEM

- LAR - External Optics / Acrylic Rippled Globe
- EPR - External Optics / Polycarbonate Rippled Globe
- AR - Internal Optics / Acrylic Rippled Globe
- PR - Internal Optics / Polycarbonate Rippled Globe
- SAR - Segmented Optics VI-? / Acrylic Rippled Globe
- SPR - Segmented Optics VI-? / Polycarbonate Rippled Globe
- SAC - Segmented Optics VI-? / Acrylic Clear Globe
- SPC - Segmented Optics VI-? / [illegible]

DESIRED WATTAGE (MAXIMUM)

- 150W - MH
- 150W - HPS
- 250W - MV
- 200W - ID
- 165W - IND

CAPITALS

- K12
- K13
- K14
- K16
- K18
- K?
- K5 [illegible]

OPTIONAL GLOBE HOLDER

GH - Globe Holder [illegible]

PAINT COLOR

- GN - Federal Green
- BL - Blue
- GY - Gray
- ~~BN - Brown~~
- BK - Black
- BZ - Bronze
- Other colors available (see color selection [illegible])

CAT # K134-E-AR-8L-11-150 MOG-HPS-277-K5-BK

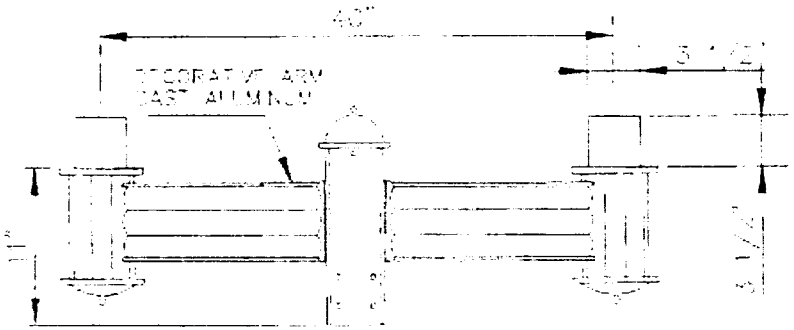
* For HPS applications, please consult [illegible]

How to Catalog for K130 Series Luminaires

SCHEMATICAL REPRESENTATION

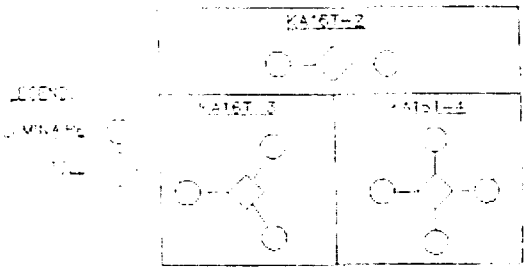
POLE MOUNT VERSION

KA16T–2
"FLORENTINE ARM"
POLE MOUNT VERSION



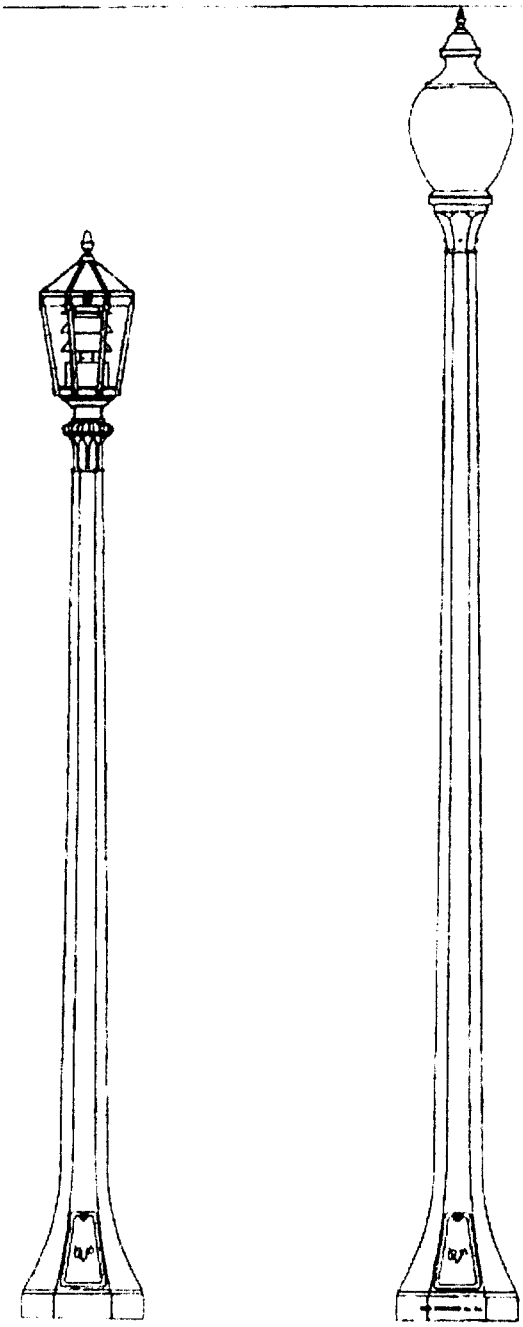
KA16T–2

OPTIONAL SCHEMATICAL CONFIGURATIONS

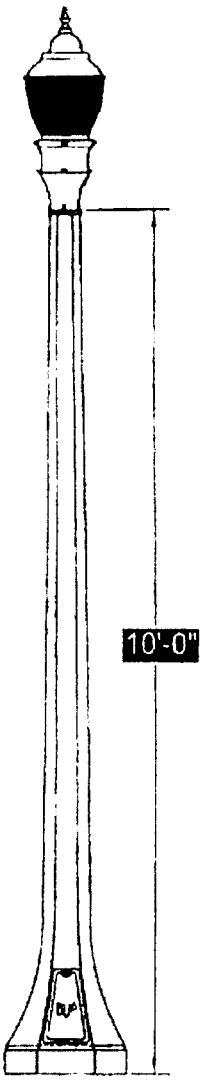


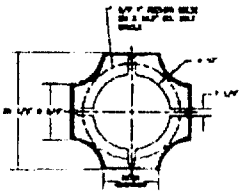
9/19

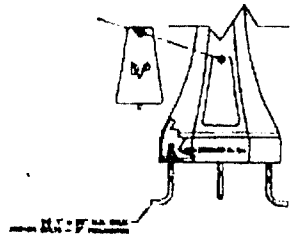
KM95-FC
"NIAGARA PARKS"



CAST IRON POLE - BLACK FINISH



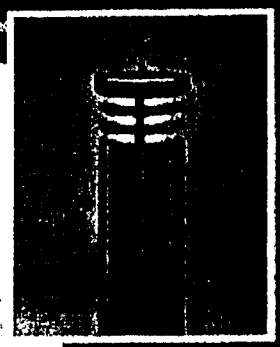


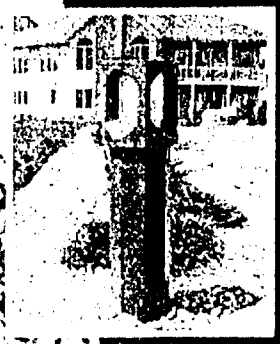


10/19

" $Q"

THE BEAUTY OF BOLLARDS





King Luminaire • StressCrete • Est. 1953

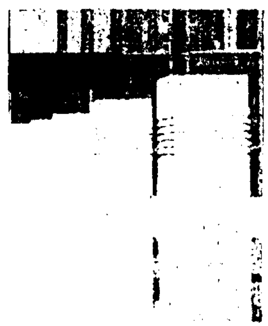
STRESSCRETE GROUP

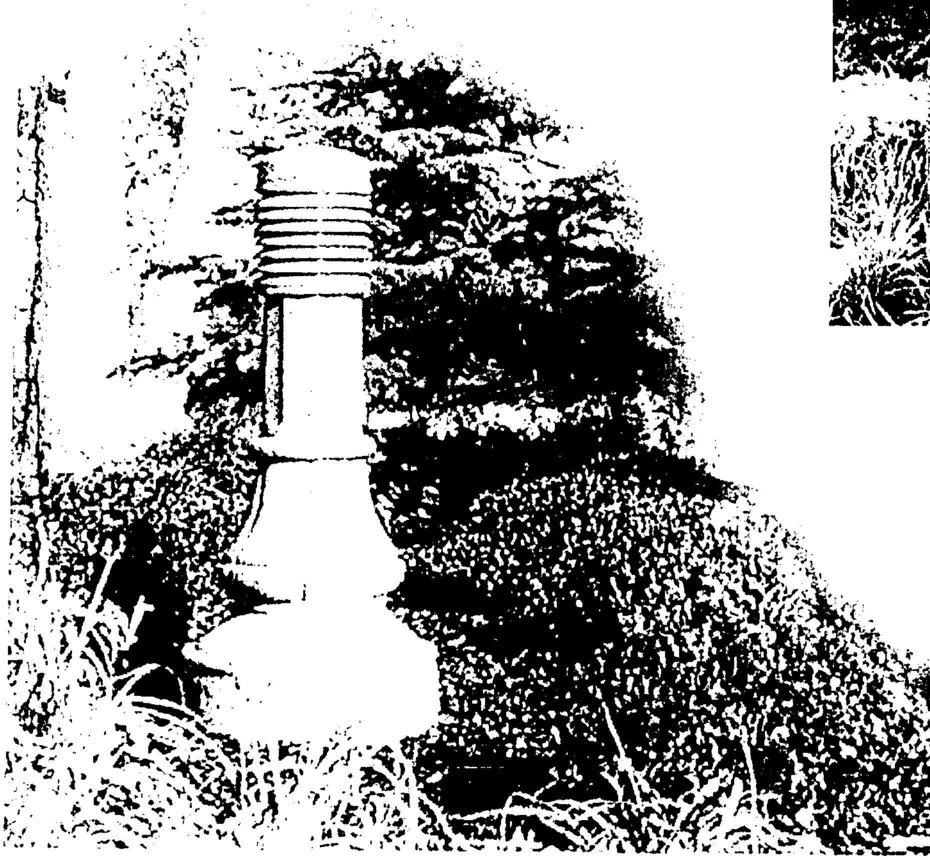
11/19

INNOVATIVE BOLLARD DESIGN. STYLISH. FUNCTIONAL. AND DURABLE.

King Luminaire is proud to present an extensive line of lighted and non-lighted bollards. Many have been specifically created to complement an extensive family of matching poles.

Historically bollards were originally used for the purely functional purpose of tying up ships at dockside. Early landscape architects borrowed from the steel-clad marine bollard and started using less massive designs to delineate special areas. At the same time the [illegible] began to appear [illegible]. The rails themselves [illegible] sometimes connected [illegible] chains, to define a given space. Thus, the word "bollard" came to be used to describe almost any short vertical influence that separated one area from another where a fence was not desired. In more modern times the option of lighting these bollards became practical, so that areas could be delineated both by day and by night. Today bollards are specified ever more frequently on all kinds of landscaping and streetscaping projects.

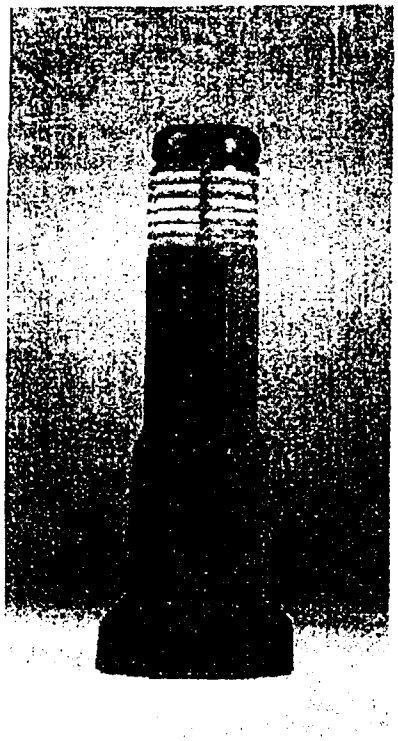


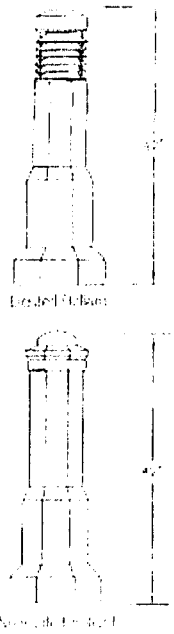


K124 [illegible] (Polycarbonate)

12/19

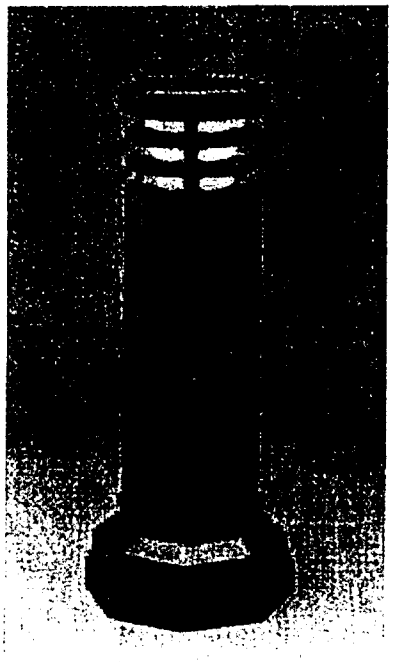
M E T A L B

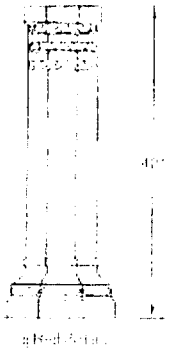




This Bollard, ~~which is available in heavy duty cast aluminum~~ or practically indestructible cast ductile iron "Terronite" is a composite of the historic and the contemporary, and is equally at home in either setting. Finished in any of the finest quality colors available on the Kingpost system, the Pacific will add distinction to any project.

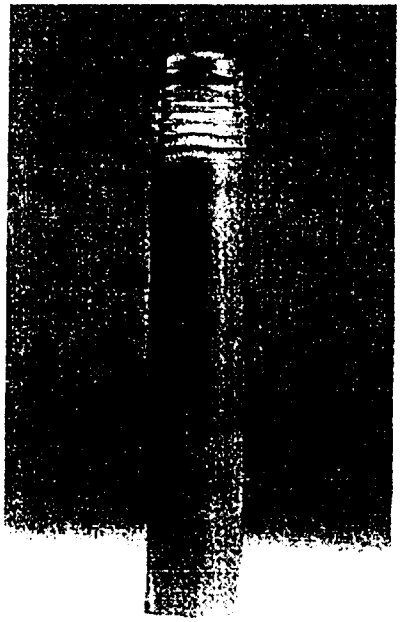
The Pacific





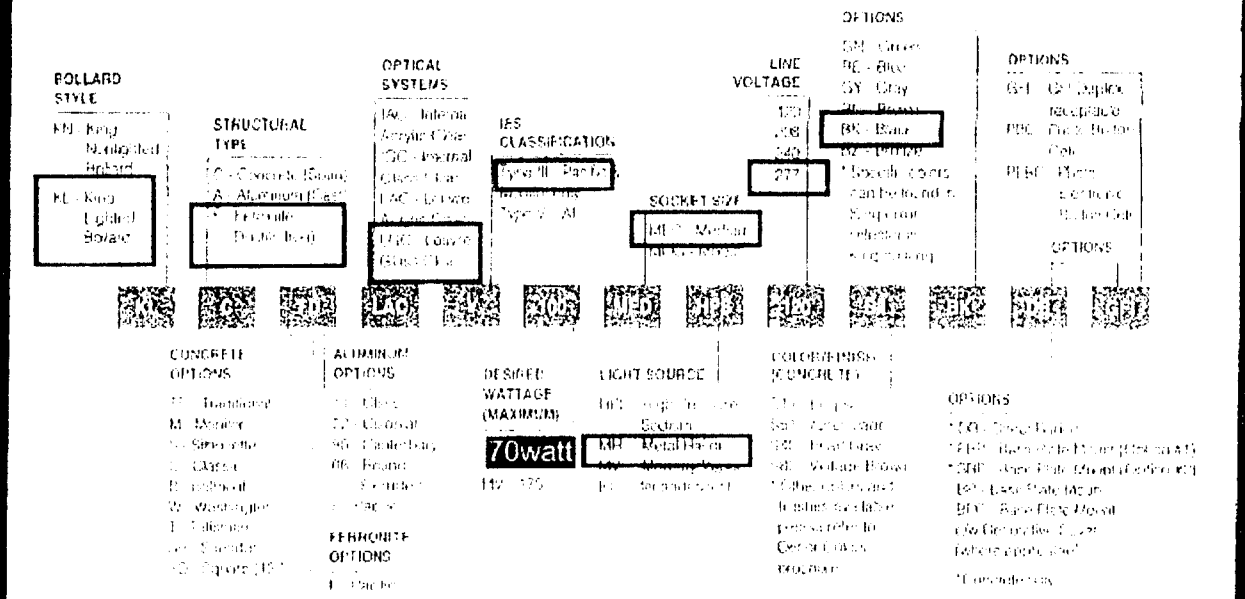
The Classic

The Classic has been so successful both as a pole and a bollard in spun concrete, that is was decided to offer it in cast aluminum for those occasions when a painted metal finish was preferred. The aluminum version is teamed with a 15' matching pole. Available lighted or non-lighted, the cast aluminum Classic can be finished in all the colors offered in the Kingpost system.



The Silhouette

The clean uncluttered lines of the Silhouette makes this the go "anywhere" bollard that will fit with any outdoor theme. Constructed in heavy wall extruded aluminum it can be finished in all the colors offered in the Kingpost system. As with all metal bollards it is available for base plate installation only in lighted or non-lighted versions.



Bollards: How to Catalog

King Luminaire • StressCrete • Est. 1953

STRESSCRETE GROUP

www.kingluminaire.com
email: sales@kingluminaire.com

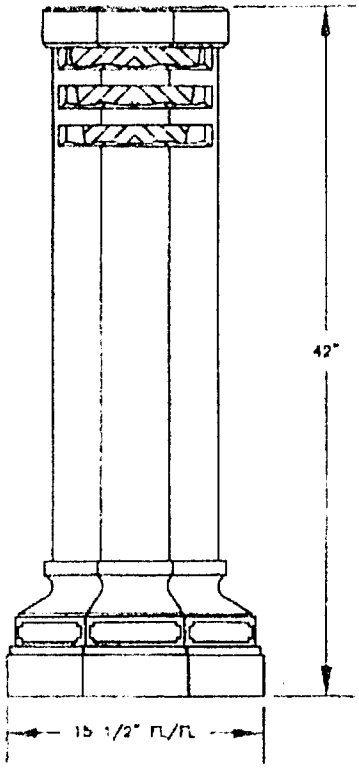
9800 Energy Lane
Northport, Alabama 35476-3442
(205) 339-0711
1-800-435-6563
Fax: (205) 339-4840

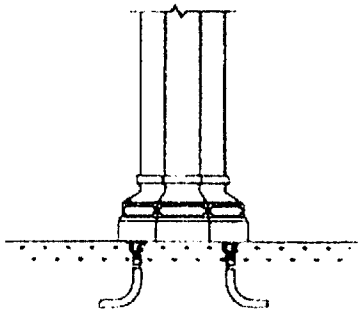
1153 State Route 46 North
P.O. Box 266
Jefferson, Ohio 44047
1-800-268-7809
Fax: (905) 632-8116

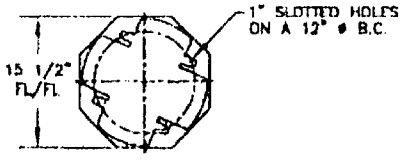
14503 Wallick Road
Atchison, Kansas 66002
(913) 255-3112
1-800-837-1024
Fax: (913) 255-3124

840 Walkers Line, P.O. Box 7
Burlington, Ontario L7R 3X9
(905) 632-9301
1-800-268-7809
Fax: (905) 632-8116

Fixture TYPE-"SQ"







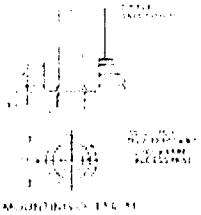
MOUNTING DETAIL #1

The StressCrete Group
PACIFIC

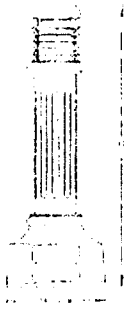
M E T A L F O O T I N G S P E C S

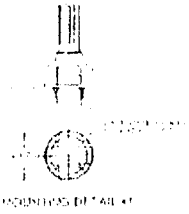
Classic

Canterbury

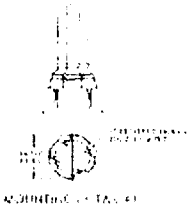


Colonial

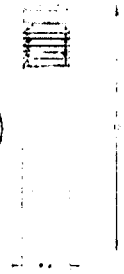


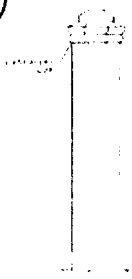


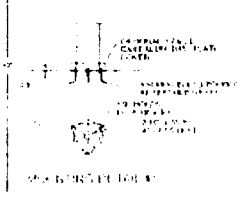
Pacific

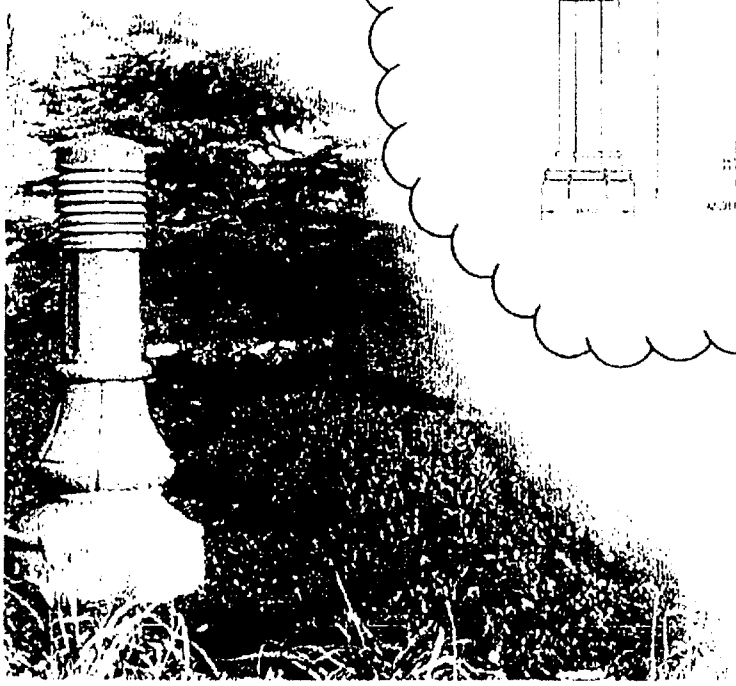


Silhouette



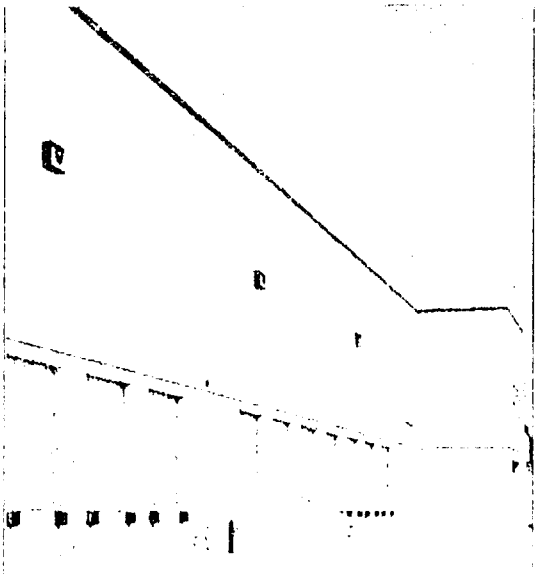




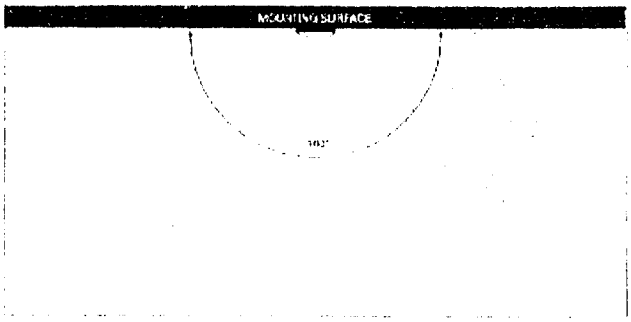


16/19

Horizontal Control and Uniformity
180° Projecting Lens

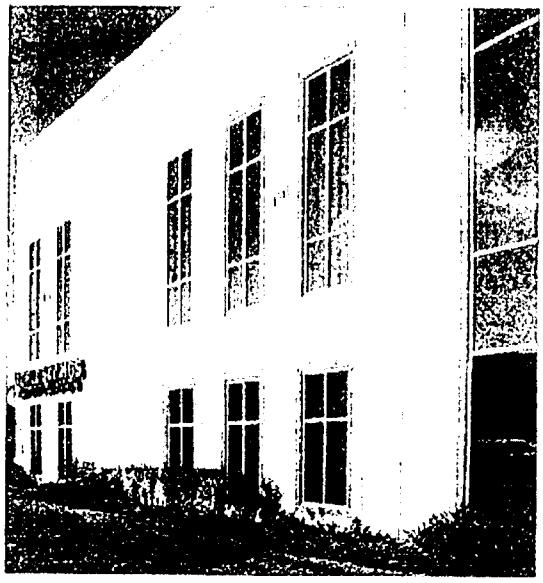


Through precise prismatic control, the projected lens provides a wide distribution pattern back to the edge of the mounting wall for excellent side-to-side spacing ratios. The sharp cutoff is preserved because the light is spread in a sideward direction without vertical distortion. A secondary reflector is utilized to throw illumination below the fixture, and cuts off light directly from the lamp at higher angles for glare control.



180° Horizontal Beam

Horizontal Control and Uniformity
130° Flat Lens



The flat lens generates an efficient distribution pattern on the ground, while eliminating any misdirected light which causes blinding glare and light trespass. The internal shield cuts off light directly from the lamp, when aimed at 86°. The shield can also be adjusted to increase distance and efficiency. The light distribution does not reflect light back to the mounting surface due to the flat lens design.

130° Horizontal Beam

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714.994.0700 / fax 714.994.0902 / www.aal.inc

PCL-L | [illegible] | [illegible] | [illegible] MH | WHT |

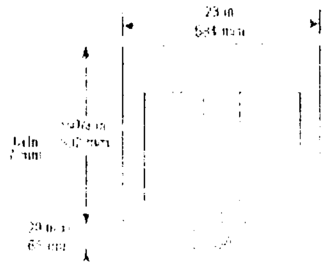
LENS OPTIONS MOUNTING OPTIONS LAMP/BALLASTS COLOR OPTIONS

PCL-L

Paracyl large, luminaire

IP= 53 EPA = 3.5

Weight 40 lbs.



4 LAMP/BALLASTS

- [ ] **175 MH** Metal halide 120/208/240/277 volt, mogul base ED 28
- [ ] **250 MH** Metal halide 120/208/240/277 volt, pulse mogul base ED 28
- [ ] **400 MH** Metal halide 120/208/240/277 volt, pulse mogul base ED 28
- [ ] **150 HPS** High pressure sodium 120/208/240/277, mogul base ED 23 1/2
- [ ] **200 HPS** High pressure sodium 120/208/240/277, mogul base ED 18
- [ ] **250 HPS** High pressure sodium 120/208/240/277, mogul base ED 18
- [ ] **400 HPS** High pressure sodium 120/208/240/277, mogul base ED-18

All ballasts are factory wired for 277 volts. Lamps not included

150PMH-150 PULSE START MH, 120/208/240/277

2 LENS OPTIONS

- [ ] **F** Flat glass lens, 180° beam
- [ ] **P** Polycarbonate projecting lens, 180° beam

3 MOUNTING OPTIONS

- [ ] **SJO** Surface mount, J-Box by others
- [ ] **SJM** Surface mount, J-Box by Moldcast
- [ ] **RJO** Recessed mount, J-Box by others (up to 175MH/150HPS only)
- [ ] **RJM** Recessed mount, J-Box by Moldcast (up to 175MH/150HPS only)
- [ ] **PJO** Pedestal mount, j-box by others
- [ ] **PM** Post mounting, slips over 2 3/8" o.d. x 4" long tenon
- [ ] **PM2** Twin fixture (180°) post mounting, slips over 2 3/8" o.d. x 4" long tenon

Please see Pg.3 for mounting dimensions.

RJM RECESS JBOX MOUNT N/A

5 COLOR

- [ ] **WHT** white
- [ ] **BLK** black
- [ ] **MTB** matte black
- [ ] **DGN** dark green
- [ ] **DBZ** dark bronze
- [ ] **WRZ** weathered bronze
- [ ] **BRM** metallic bronze
- [ ] **VGR** verde green
- [ ] **CRT** corten
- [ ] **MAL** matte aluminum
- [ ] **MDG** medium grey
- [ ] **ATG** antique green
- [ ] **LGY** light warm gray
- [ ] **RAL/CUSTOM COLOR:**

6 OPTIONS

- [ ] **FS1** Single Fuse Holder. Fuse by others.
- [ ] **FS2** Double Fuse Holder. Fuse by others.
- [ ] **PCR** Twist lock photo control receptacle, not for recessed mounting (photo cell by others)
- [ ] **TRH** Tamper resistant hardware
- [ ] **PSB** Pulse start ballast for 175MH, 250MH and 400MH lamps. Provides faster re-strike of the lamp, longer life, and improved color consistency
- [ ] **347V** 347 volt ballast (120/277/347V)
- [ ] **480V** 480 volt ballast (not available for 150MH)
- [ ] **QL** Socket for a T-4 mini-can halogen lamp. Must be field wired to a separate 120 volt circuit, maximum 250 watt.
- [ ] **QRS** Quartz re-strike controller and socket for a T-4 mini-can halogen lamp, maximum 250 watt

SOLD PO # JOB NAME

Approvals

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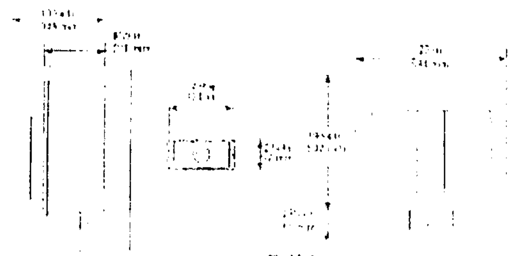
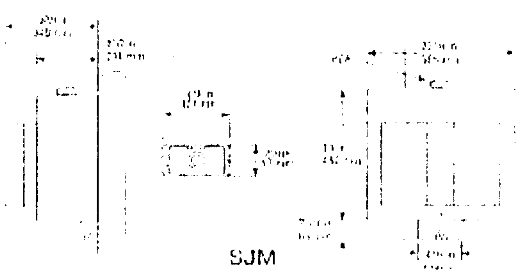
714.994.2700 / fax 714.994.0522 / www.aal.net

RECESSED MOUNT



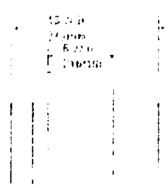
RJM

SURFACE MOUNT



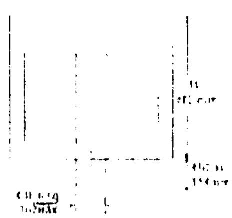
SJM

POST MOUNT



PM PM2

PEDESTAL MOUNT



PJO

Specifications

HOUSING

Housing shall consist of heavy gauge aluminum construction. (Housing for the Small Paracyl shall be diecast) Housing shall include a gasketed, hinged door frame. Door frame shall be heavy-duty cast aluminum and retained by two stainless steel torsion springs when opened for relamping or rotation of the adjustable reflector assembly. All exterior hardware shall be stainless steel. Note: An overlapping 3/4" door frame assembly shall be furnished when the recessed, poured concrete mounting option (REC) is specified, concealing the line between outer edge of recessed housing and the surrounding concrete opening.

LENS

Projecting lens shall be vandal resistant, U.V. stabilized injection molded polycarbonate, capable of spreading light horizontally at a full 180° with minimal vertical distortion. Flat lens shall be tempered glass, capable of spreading light horizontally at a full 130° with minimal vertical distortion. Lens shall be gasketed and secured from inside the cast aluminum door frame.

ELECTRICAL

Fixture shall be UL listed and CSA approved for use in outdoor wet locations. Ballast shall be high power factor multi-tap style (120/208/240/277V). 347V (120/277/347V) and 480V (480V) ballasts shall be available as options. Note: All ballasts (except 480V) are shipped from the factory wired for 277V.

OPTICAL SYSTEM

Optical system shall be adjustable, sharp cutoff type consisting of a hydroformed specular Alzak® primary reflector with both parabolic and cylindrical reflecting surfaces, auxiliary reflecting elements and a support frame. Reflector assembly shall be rotatable to permit adjustment of cutoff from 70° through 80° above nadir. Internal cutoff scale, calibrated in degrees, shall be provided to indicate the exact cutoff angle.

FINISH

Finish on housing shall consist of cleaning, etching and rinsing followed by a protective polymer coating, deionized water rinse, oven dry off and top coated with a thermoset TGIC super polyester powder coat finish. Finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

WARRANTY

Product shall be warranted against defects in material and workmanship for a period of three (3) years from the date of original invoice, except for ballasts which shall carry the ballast manufacturer's warranty.

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JE DUNN®
CONSTRUCTION

Fort Bend County Justice Center — Constructability Review – 4/29/09

We have performed a constructability review of the plans and specifications dated 12/8/08 (Updated 1/5/09). These items were reevaluated based upon the 3/30/09 Final GMP drawings. The items noted below that are not struck-through still need to be addressed. The costs that may be associated with the outstanding items have not been incorporated into the Final GMP Proposal dated 4/29/09 unless otherwise indicated below.

It is the policy of J.E. Dunn Construction to review construction documents on our projects and make suggestions that may improve the integrity of our construction. This is done to ensure a safe and high quality building for the Owner. With this team concept and spirit, we would like to submit the following suggestions and questions for review of the Architect. It is not intended that such remarks override the authority of the Architect and no changes in the work suggested herein shall occur without the Architect's authorization.

General Construction Items

~~1) Sheet C2.10: At the parking area north of Ring Road, there is a remark to "See Note 16". Note 16 doesn't exist on this sheet.~~

2) Sheet C2.10: At the east end of the site along Ring Road, Keynote10 is noted which is a note to provide a concrete driveway. This location is adjacent to the retention pond and should not be depicted at this location.

3) Sheet C2.30: Keynote 2 & 6 is part of the future trunk line work by others.

4) Sheet C2.50: At the northeast corner of the site inside Ring Road, an additional MH or storm line may be needed between MH T3 and the existing outfall of the 30" storm drain crossing Ring Road. This work is part of the trunk line work indicated to be installed by others.

~~5) Sheet C2.68: Details and routing of site communications conflict with same shown on Sheet E1.00.~~

6) Sheet C5.12: Sections noted at Detail 4 refer to sections shown on S5.12 instead of C5.12.

~~7) Sheet S2.00A: Footing Between Gridlines H2.5 & H3 / On Gridline 04; Notes section to be 7/S3.01. This Detail shows a Slab On Grade Floor Depression detail. Please provide the correct section for this location.~~

8) Sheet S2.00A: Review top of pier/footing elevations and coordinate w/slab thickness. Coverage between footing and bottom of slab = 11".

~~9) S2.00A: Two piers H2.5 & H5.5/04 show bottom of pier at 56', both piers are shown under footing, coordinate footings as well as sump pit.~~

10) Sheets S2.04A & S2.04B / M2.04A & M2.04B: Verify all roof penetrations are shown on the Structural drawings, as it relates to actual size and locations of the mechanical openings to confirm opening reinforcement is acceptable or additional beams will be required. Reference S3.05.

11) Sheets S2.05, S2.05A & S2.05B: Top of roof slab varies. Structural drawings should indicate the exact elevations within the roof slab plans for each varying location. Please provide elevations.

~~12) Sheet S3.07: Note 4 at Detail 7 & 7A indicates concrete in the pour strip shall not be poured until 90 days after Beams 2 & 4. Please change this requirement to 60 days per previous conversations during 50% DD review.~~

~~13) Detail 11/S3.11 includes a plate and clip angle at each side of the top of CMU wall. Both clip angles are shown to be welded above the CMU and would need to be installed prior to the CMU but this blocks any pocket for being able to grout the top course. We have included only the interior clip angle welded to the embed plate and bolted to the CMU. We can discuss other options if this is not acceptable.~~

~~14) Sheet SG2.01: For The Garage Level 1 and Foundation Plan, the detail that is found On Gridline 2 / Between Gridlines E & F references 10A /SG4.01. Detail 10A /SG4.01 is not found. Please provide this Detail.~~ **N/A**

3500 S. GESSNER, SUITE 200, HOUSTON, TX 77063 | TEL >713.521.4664 | FAX >713.521.2356 | www.jedunn.com

15) Sheet A0.10: Partitions Details 1 & 5 (for Partition types A, A1, E & E1) have a Note that states the following: 3 5/8" Metal Studs braced to structure as required. Provide spacing for bracing of wall partitions. Suggestion: 4' O.C.
~~16) Sheet A0.10: No Partition "J" Found In Contract Documents. Remove partition from contract documents or provide locations where the partition is to be used.~~
17) Sheets A0.20-A0.22 – Verify Finish Schedule for ceilings is coordinated with ceiling finishes shown on the RCP Sheets A3.00-A3.03.
18) Sheet A1.05: Detail 1/A1.05 references Detail 5/A1.05. Please provide 5/A1.05, which will provide an elevation for the HC Ramp & Stairs at the Judge's Parking.
19) Sheets A2.01A/M2.01A: The VAV box that is located in court room 10400 needs to be relocated outside of the room for trouble-free maintenance and removal. Other courtroom VAV boxes are located outside of the room.
20) Sheet A2.05A/A2.05B: The Roof Plans call for section details 1/A6.50 and 1/A6.51 however, these Details are not found on Sheets A6.50 and A6.51. Please provide these details.
21) Sheet A3.01: Reference Escalators in Lobby 10004. Please provide a section through the underside of the escalator soffits as none is currently provided.
22) Sheet A4.11: Need Elevator Details. Please provide Elevator Head and Sill Details. The Sections found on A4.11 reference wall sections found on Sheet A7.59.
23) Sheet A7.52: Detail 7 Wall section has incorrect detail key (19/A7.75) at wall/floor transition or detail should be labeled "SIM". Enlarged detail shows window sill.
~~24) Sheet A7.53: Detail 1 Wall section shows incorrect detail key at dock leveler (25/A7.77) Correct Detail is (31/A7.77)~~
~~25) Sheet A7.53: Detail 2 Wall section shows incorrect detail key (7/A7.75) at floor/stair transition. Enlarged detail does not show stair or stair tie-in.~~
26) Sheet A7.55: Detail 1 Wall section is missing three detail callouts.
27) Sheet A7.55: Detail 13 Wall section show incorrect detail callouts (21/A7.77) for headers at level 2 and level 3. If this is correct detail it should be labeled "SIM".
28) Sheet A7.57: Detail 1 Wall section detail callout (29/A7.75) is incorrect or should be labeled "SIM".
29) Sheet A7.60: Detail 1 Wall section shows incorrect detail key at dock leveler (25/A7.77) Correct Detail is (31/A7.77).
30) Sheet A7.60: Detail 1 Wall section detail key at wall/roof intersection on columnline 01 is incorrectly labeled as (4/A7.76) the correct detail key is (4/A7.75).
31) Sheet A7.60: Detail 1 Wall section detail key (3/A7.76) at Level two wall/floor transition on columnline 1.3 is incorrect.
32) Sheet A7.62: Detail 19 Wall section detail key (21/A7.75) at window sills on Level 1 and 2 should read "OP.H & SIM".
33) Sheet A7.75: Detail 4 Typical parapet wall shows no coatings on the CMU between the roof termination and the coping flashing.
34) ~~Sheet AG2.02: Please provide a section through the trench drain that is located on Column Line L and between Lines 2 & 3. Currently there are no Details provided for this drain~~. N/A
~~35) Sheet FS1.1 Note E: References corner guards on outside corners in foodservice area. Currently, there are no Corner Guards found in the Contract Documents. Please identify Corner Guard locations and provide Specifications or remove the notation.~~
36) Sheet S3.12: Structural steel shelf angles are not shown at or below Level 1 on the Building Elevations included in the Structural drawings.

Kenny Eldridge
Senior PM

Exhibit N
Architectural Constructability Review

Project: Name: Fort Bend Country
Project Number: 07962
Drawing Set: March 30, 2009 – Final GMP Pricing Set
Date: April 17, 2009
QA Staff Reviewer: Todd Harper

The purpose of this review is to provide an assessment of the roofing, waterproofing, and exterior weatherproofing related items regarding general system design and material selection, and constructability. The following text presents our opinions/comments for this review and to be considered general and/or conceptual in nature. Please note that no changes suggested are, or will be, incorporated without direction from the Architect. If you have any questions please feel free to contact us.

Exterior Skin Materials:

- Materials per Specifications

1. Exposed Flashing – (Per Spec 04 20 00)
   - Drawings call out Stainless Steel Flashing for multiple details?
2. Flashing, Weep Holes, Cavity Drainage, and Vents – (Per Spec 04 20 00)
   - Section 3.10.B still mentions the asphalt-coated flashing which we are no longer using. This section needs to be modified to coordinate with Rubberized-Asphalt Flashing
3. Ext. Sheathing – (Per Spec 06 16 00)
   - Densglass Gold for wall applications
   - Plywood sheathing for roof applications
   - Use FRT/Rated plywood where applicable.
4. Exterior Metal Wall Panels (Per Spec 07 41 30)
   - Section Removed in Final GMP Specification
5. Joint Sealants (Per Spec 07 92 00)
   - Note: for single component sealants Dow 795 is preferred.
6. Overhead Coiling Grilles (Per Spec 08 33 26)
   - Section Removed in Final GMP Specification
7. Glazed Aluminum Curtainwall (Per Spec 08 44 13)
   - This Spec Section is missing from Specifications please clarify.
   - It appears this section was renamed/numbered (08 51 13)
8. Portland Cement Plaster (Per Spec 09 24 00)
   - This spec section is missing in Final GMP Specification

- Detail Items per Permit Drawings

1. S2.00A – Review top of pier/footing elevations and coordinate w/slab thickness. Coverage between footing and bottom of slab = 11".

Exhibit N
Architectural Constructability Review

2. S2.00A – two piers H2.5 & H5.5/04 show bottom of pier at 56', both piers are shown under footing, coordinate footings as well as sump pit.
3. A0.34/16 – Jamb detail does not show flashing. This jamb will need flashing and SAF to sufficiently protect the joint from ext. moisture. (Detail now shows SAF, but we would prefer metal flashing in this application w/SAF as tie-in material)
4. A0.34/17 – Head detail shows self adhered flashing but no drip. We would prefer using a metal flashing w/drip on top of lintel, set in mastic to separate metals, and extend past face of window. (SS flashing added w/drip edge in place of self-adhered flashing) We would then lap the self-adhered flashing (SAF) over the metal drip to seal the joint. The metal flashing material choice/installation needs to be studied so we don't run into a problem with dissimilar metals. This is why separating w/mastic might be a nice option if we can be assured we're keeping flashing/lintel separated.
5. A0.34/22 – Same comments as Detail A0.34/17
6. A0.34/23 – If this is exterior detail it would be nice to have a drip in the stone soffit transition or at the door head. We also need to add sealant to the CMU/Tube intersection to prevent moisture intrusion.
7. A0.34/24 – Same comments as Detail A0.34/17. Detail also labeled as Door Jamb but appears to be Door Head Detail, please confirm.
8. A0.35/13 – (Detail Removed)
9. A0.35/19 – (Detail Removed)
10. A0.35/22 – Window sill detail looks like it has correct components but detail is unclear. We need to make sure the sill pan flashing is set in mastic and applied to rowlock. We should be sealing window system directly to metal for best possible bond.
11. A0.35/24 – (Detail Removed)
12. A0.35/28 – Window head needs flashing if it has exterior exposure. Please confirm. If this detail is an exterior detail we need to add head flashing with drop edge. Tie-in flashing to wall with SAF.
13. A0.35/29 – Not sure if window jamb detail has exterior exposure. If it does need flashing. This will be complicated detail to execute, must be looked at carefully from a material/sequencing standpoint.
14. A0.36/1 – Window sill flashing should extend past face of window to beginning of stone sill slope. Our preference would be for window to seal directly to flashing for maximum bond strength. (Sill pan has been added, we need to provide end dams as well. Also sealant & backer rod are not shown)
15. A0.36/2 (A0.36/3) – Jamb Detail needs metal flashing extending past face of window system to separate window from cavity moisture. This provides the maximum amount of protection. The metal flashing should be applied and sealed with SAF. We should be sealing the window system directly to flashing for maximum bond strength. (The sealant & backer rod should start at the face of the window jamb instead of outboard as shown in the detail.)
16. A0.36/5 – Detail looks good, sealant & backer rod should start at face of window extrusion.

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Architectural Constructability Review

17. A0.36/13 – Window sill detail looks good. We just need to make sure sill pan is set in mastic and applied to lintel/rowlock. We also need to make sure we're sealing window system directly to metal flashing for best bond. (Sill pan has been added, we need to provide end dams as well. Also sealant & backer rod are not shown)
18. A0.36/15 – Window jamb needs metal flashing. (Ref. notes for Detail A0.36/3.)
19. A0.36/17 –Also more difficult to execute with notched masonry. Are we notching masonry? Please confirm? (Need to move the sealant & backer rod back flush with face of window head extrusion.)
20. A0.36/25 – See notes for A0.36/1
21. A0.36/27 – See notes for A0.36/3
22. A0.36/29 – Sealant & backer rod need to be moved back to align with face of window head extrusion.
23. A0.37/1 – Sill detail needs sealant & backer rod and sill pan should have end dams typical.
24. A0.37/3 – We should turn SAF out towards sealant & backer instead of in as shown in jamb detail. We would prefer adding metal flashing over Steel Angle leg and out past face of window system and seal window to metal flashing.
25. A0.37/5 – Need to move the sealant & backer rod back to the face of window head for adequate protection. Need to coordinate the sealant line with the jamb detail.
26. A0.37/13 – Need to make sure the sill pan has end dams, typ. Also detail is missing sealant & backer rod.
27. A0.37/15 – We should turn SAF out towards sealant & backer instead of in as shown in jamb detail. We would prefer adding metal flashing over Steel Angle leg and out past face of window system and seal window to metal flashing.
28. A0.37/17 – Need to move the sealant & backer rod back to the face of window head for adequate protection. Need to coordinate the sealant line with the jamb detail.
29. A0.37/25 – Sill detail needs sealant & backer rod and sill pan should have end dams typical.
30. A0.37/27 – We would prefer 90 degree metal flashing at the exterior jambs in lie of SAF flashing if possible.
31. A0.37/29 – We would prefer having head flashing and drip installed at this location. Sealant & backer rod location needs to be coordinated with jamb sealant & backer rod.
32. A0.38/1 – Sill pan needs to extend past sealant line and be set in mastic. We also need end dams tied into sill pan typical.
33. A0.38/2 – We would prefer having 90 degree metal jamb flashing here in lieu of membrane flashing. As detailed it would be our preference to have the membrane flashing turn out towards the sealant line instead to encapsulate the cavity. Sealant & backer rod need to be coordinated carefully with head flashing.

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Architectural Constructability Review

34. A0.38/5 – We need to add metal flashing with drip edge at the window head.
35. A0.38/13 – Sill detail needs sealant & backer rod and sill pan should have end dams typical.
36. A1.07/11 – Thru wall flashing above canopy needs SAF on vertical leg.
37. A5.00/1 – (Detail/Detail Callout Corrected)
38. A5.00/2 – Pipe penetrations shown in metal stud track.
39. A5.00/3, 4– Plan detail needs callout for jamb condition. Pipe penetrations shown in metal stud track.
40. A5.00/5 – Plan details need callout for jamb condition.
41. A5.00/6 – Plan detail callout A0.36/15 SIM is not really similar condition. We should have new detail for this condition.
42. A5.00/8 – Plan details need callout for jamb condition.
43. A5.00/10, 11, 12 – Plan detail needs callouts for jamb conditions.
44. A5.00/14 - Plan detail callout A0.35/31 is not drawn/shown yet. Please add detail and ref. comments for appropriate flashing techniques.
45. A5.00/15 - Plan detail needs callout for jamb condition. Pipe penetrations shown in metal stud track.
46. A5.00/16 – Plan detail needs callout to detail waterproofing behind cmu in front of conc. column.
47. A5.00/18, 19, 20 - Plan details need callout for jamb condition.
48. A5.00/21 – Plan detail needs callouts for jamb condition. This could be a very difficult detail to execute/flash properly.
49. A5.00/23 – Plan details need callouts for jamb conditions.
50. A7.52/7 – Wall section has incorrect detail key (19/A7.75) at wall/floor transition or detail should be labeled "SIM". Enlarged detail shows window sill.
51. A7.53/1 – Detail key (20/A7.76) @ overhead door head should be labeled "SIM"
52. A7.53/1 – Detail key (5/A7.76) @ Beam level should be labeled "SIM"
53. A7.53/2 – Wall section shows incorrect detail key (11/A7.75 SIM) at lower roof level @ clock tower.
54. A7.57/1 – Wall section detail callout (29/A7.75) is incorrect or should be labeled "SIM"
55. A7.60/1 - Wall section shows incorrect detail key (4/A7.76) at level 2 top of wall/roof intersection. Detail should be labeled (4/A7.75)
56. A7.75/1 –Apply SAF over top leg thru-wall metal flashing, typ.
57. A7.75/3 – (Detail Corrected)
58. A7.75/4 - We should also apply a layer of SAF at cmu/concrete ceiling joint for secondary protection should moisture get pasts damproofing.
59. A7.75/6 – We should add metal thru-wall flashing at the steel angle tied into the wall with SAF. We should also apply SAF at the wall/floor line.
60. A7.75/7 – Section detail calls for metal sill pan but not clear on execution at this scale. Sill pan needs to be set in mastic on cast stone sill. Sill pan drip should extend to start of cast stone slope. Sill pan also needs end dams typical. Window needs to seal directly to metal flashing/sill pan. Apply SAF over top leg of brick ledge metal flashing.

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Architectural Constructability Review

61. A7.75/9 –Metal flashing should be sealed with SAF, typical.
62. A7.75/10 – Ref. notes for Detail A7.75/7.
63. A7.75/11 – Section detail needs metal thru-wall flashing with drip edge at angle support. Tie in flashing with SAF, typ. We also need to add SAF at the floor/wall & ceiling/wall transitions to add extra layer of moisture protection.
64. A7.75/12 – SS Flashing needs drip edge, tie in flashing with SAF typical.
65. A7.75/13 – Window sill detail sill pan needs end dams typical. Set sill in mastic typical. Detail is too small to see flashing sequence; Architect should create enlarged detail to illustrate. Tie-in all metal thru-wall flashing with SAF typical.
66. A7.75/15 – Section detail needs to have SAF lapped over metal flashing at shelf angle. Flashing should also extend past shelf angle and have drip edge. The SAF we apply to vertical leg of metal flashing should extend 6"-8" past floor line for secondary protection. See notes for Detail A7.75/7 for window sill condition.
67. A7.75/17 – Sill detail needs SAF over interior leg of support angle. Extend sill pan flashing past face of window to cast stone sill slope. Set sill pan flashing in mastic and seal window directly to metal for max bond. Seal CMU/grade beam intersection with layer of SAF. Sill pan needs end dams typical. Need enlarged detail of sill to see flashing sequence.
68. A7.75/18 – Section detail needs metal flashing w/drip edge over steel lintel to extend past face of window. SAF should lap over cmu, steel tube, metal flashing to encapsulate joint.
69. A7.75/19 - Section detail calls for metal sill pan but not clear on execution at this scale. Sill pan needs to be set in mastic on cast stone sill. Sill pan drip should extend to start of cast stone slope. Window needs to seal directly to metal flashing/sill pan. Apply SAF over top leg of brick metal flashing at floor line. Sill pan needs end dams typical.
70. A7.75/21 – Ref. notes for Detail A7.75/17.
71. A7.75/23 – Head detail shows metal thru-wall flashing over cast stone header. The waterproofing/sealant @ window head is not clear b/c the detail is too small. We would prefer enlarged detail to study the flashing sequence and would prefer bringing the thru-wall flashing out at the window head over the lintel.
72. A7.75/27 – Install SAF at wall/floor line intersection for additional moisture protection.
73. A7.75/28 – Tie in metal thru-wall flashing to wall with SAF.
74. A7.75/29 – Add SAF to top leg of thru-wall flashing to tie into wall.
75. A7.75/35 – Section detail needs SAF for secondary protection shelf angles and at cmu wall/ceiling line. (Detail Corrected)
76. A7.76/1 – Ref. notes for Detail A7.75/4.
77. A7.76/2 - Section detail needs SAF over vertical flashing legs and flashing needs to extend past face of stone and have drip edge.
78. A7.76/3 –We need a layer of SAF over vertical leg of flashing, typ.
79. A7.76/5 – Section detail needs flashing to have drip edge and extend into stone reveal.

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80. A7.76/6 – Section detail needs SAF over CMU/Concrete intersection at ceiling line for added protection (Corrected). We need to pay careful attention to the flashing at the cast stone/metal panel intersection.
81. A7.76/8 – Make sure thru-wall flashing has drip edge.
82. A7.76/10 – Make sure thru-wall flashing has drip edge and lap SAF over vertical flashing leg. Also add SAF to floor/wall intersection for additional protection.
83. A7.76/11 – Section detail shows no metal thru wall flashing. Investigate detail further to make sure flashing not needed at galvanized steel angles. Add SAF at floor/wall and ceiling/wall intersections and tie in thru-wall flashing with SAF.
84. A7.76/14 – (Detail Corrected)
85. A7.76/16 – Section detail thru wall flashing should extend past brick and to sloping portion of cast stone coping or to cast stone edge.
86. A7.76/17 – Enlarged detail shows notched stone. We will need to coordinate flashing to stay over lintel with drip edge. Tie-in top of flashing with SAF, typ.
87. A7.76/18 – See comments for A7.76/17
88. A7.76/20 – Section detail needs SAF lapped over vertical legs of thru wall flashing, typ. Flashing at window sill should extend past face of stone with drip edge. Sill pan should be set in mastic and extend to sill stone slope. Seal Alum window system to metal flashing at sill for max bond. Sill pan needs end dams, typ.
89. A7.76/22 –Extend flashing under sill past face of brick and add drip edge. Extend sill pan to beginning of stone sill slope, set in mastic. Seal Alum window to sill flashing for max bond. Sill pan needs end dams, typ.
90. A7.76/24 – Section detail needs SAF at CMU/Concrete ceiling intersection for extra layer protection. (Detail Corrected)
91. A7.76/25 – Section detail does not show sill pan for window system. This is needed and is typical on all storefront windows. Sill pan also needs end dams, typical.
92. A7.76/26 – Section detail does not show window head flashing. Window needs head flashing w/drip edge. We also need SAF at vertical leg of flashing.
93. A7.77/2 – Sill detail is too small to see flashing sequencing, need enlarged detail. Window needs sill pan w/end dams set in mastic typ. All thru wall flashing needs metal drip and should be ties into wall with SAF, typ.
94. A7.77/5 – Section detail shows thru wall flashing at various spots. Extend all thru wall to face of material and add drip edge. All vertical flashing legs sealed with SAF, typ. Need head flashing window head and enlarged detail would be preferred.
95. A7.77/14 – Section detail needs head flashing at lower window over steel lintel. We also need flashing in the cavity wall to extend to face of stone and have drip edge. Seal vertical flashing legs with SAF, typ. Sill pan flashing should be set in mastic and extend to beginning of stone slope for proper drainage. Sill pan needs to have end dams, typ.

96. A7.77/20 – Sill pan should have end dams and be set in mastic typ.
97. A7.77/21 – Section detail needs head flashing to extend past face of window with drip edge. Seal vertical flashing leg with SAF.
98. A7.77/24 – Ref. notes for Detail A7.75/20.
99. A7.77/28 – (Detail Corrected)
100. A7.77/29 – (Detail Corrected)
101. A7.78/3 – See flashing above door head but it's not called out. Seal top leg of flashing with SAF, typ.
102. A7.78/2 – Tie in thru-wall metal flashing with SAF. Seal wall/floor and ceiling/floor transitions with SAF.
103. A7.78/3 – Section detail at louver needs sill pan w/end dams.
104. A7.78/7 – Sill pan should have end dams and needs to extend past face of window and be set in mastic. Tie in all thru-wall flashing with SAF, typ.
105. A7.78/9 – (Detail Corrected)
106. A7.78/10 – Seal vertical leg of thru-wall flashing with SAF.
107. A7.78/11 – Metal head flashing needs drip edge. Tie in flashing to wall with SAF at vertical leg.
108. A7.78/16 – Seal vertical leg of head flashing with SAF.
109. A7.78/19 – Seal top of thru-wall flashing with SAF. Add layer of SAF at wall/floor line for extra protection.\
110. A7.78/22 – Add metal door head flashing with metal drip, tie flashing into wall with SAF.
111. A7.78/25 – Ref. notes for Details A7.78/7
112. A7.80/22 – Seal concrete/cmu intersection with SAF behind rigid insulation.

- Overall construction items

    1. Stainless Steel thru-wall flashing has been added. We need to make sure flashing has drip edge typical.
    2. We need to be careful with our dissimilar metals. We need to make sure our metal flashing is compatible with the steel lintels/angles or that we're separating with mastic or some other material to resolve this issue.
    3. Since thru wall flashing needs to extend to face of ext. skin material or past it, we'll need to confirm the aesthetic with Architect. This might affect the material or finish for our flashings.
    4. Sill pan end dams are not called out/shown in drawings but are called out in specification. We need to make sure all sill pans have end dams, typical.

- The Architect addressed a lot of the comments from the January 26, 2009 Permit Set Drawing/Spec Review. There are various details that lack consistency in showing SAF, flashing, drip edges, & notation. There are also some callouts that still need to be coordinated throughout the set. The only other big issue we'd like resolved is some of the head/jamb/sill details are still "too small" to really see the Architect's flashing intent. We'd like enlarged drawings of these details if possible; otherwise

most of our comments have been addressed in some form or fashion. I've highlighted all the changes from the initial permit review in Red Text for clarification.

Exhibit N
MEP Constructability Review

Project Name: Ft. Bend County Courthouse

JE DUNN® CONSTRUCTION

DATE: 4-24-09
SCOPE OF WORK: MEP Drawings of 3-30-09

BID DOCUMENTS REVIEW/INQUIRIES

Item #	Drawing Number	Description	Response Required	Observation Only	Comments
		HVAC			
1	Specifications	The specification for the boilers needs to be deleted.	X		
2		There is no specification for the air cooled chiller.	X		
3		There is no specification for dirt separators for the chilled water or condenser water.	X		
4		The specification for the air handlers is unclear as to how and where the VFDs are to be mounted in the units. Is there supposed to be a service vestibule? Or do the VFDs just mount in the fan sections? If so will there be sufficient clearance for maintenance for the fan and the drive, in particular the 3 foot clearance in front of the drive.	X		
5		The electrical specification for the engine generator does not list the minimum run time for fuel storage and does not specify the size of the fuel tank. This information could not be found on the drawings either.	X		
6	General Notes	None of the ductwork has been drawn in 2D or 3D. The design needs to be fully coordinated to sure all duct will fit in the spaces indicated and if there is proper clearances for maintenance and service to HVAC equipment and other systems. There are several locations where duct fittings will not work because once the duct is drawn in properly the branch connection will not work. or will be noisy.	X		
7		The terminal units were detailed with the required code clearance next to the control panel for service to the electric heaters. How ever approximately 50% of all of the terminal units have clearance issues that can not be corrected by means and methods. NEC requires 36" in front of all 277V and 480 V components. The engineer and detailer also need to allow for bottom access to fan powered terminal units require for maintenance and removal of the fan sections.	X		
8		There are terminal units that have potential return air flow problems at the entrance to the box because the box is too close to a wall or other obstruction.	X		

DATE: 4-24-09

SCOPE OF WORK: MEP Drawings of 3-30-09

BID DOCUMENTS REVIEW/INQUIRIES

Item #	Drawing Number	Description	Response Required	Observation Only	Comments
9		There is a note for every fan coil unit to pipe the condensate drain to a floor drain but no where on the drawings does it indicate which one. If you go to the nearest floor drain they will be in restrooms and in the basement they will be in holding cells. Drains on the floors of rest rooms is not a desirable condition and drains in holding cells should not be done. hub drains should be added for drains for all fan coil units.	X		
10		No where on the mechanical drawings does it appear there is air conditioning or heating for the major stair wells.	X		
11		The return air boots that come out of the shafts in these drawings don't appear they will work. With the bottom of concrete at 13 feet and a 36" deep boot and the requirement to have to have the openings on top. Please provide a detail of this boot at the shafts indicating the space clear above the boot at the opening , the fire smoke dampers and the structure including the ceiling below.	X		
12		In general there are not elevations on the ductwork drawing leaving it up to the contractors to determine the routing. This leaves substantial openings for change orders as there are no fittings for duct rises or drops indicated. The bidding contractors will want additional funds for these fittings not shown or indicated in some manner.	X		
13		There are no details on any of the mechanical sheets indicating how the supply air takeoffs are to occur at the shafts. If you try and use Detail #4 on M6.04, there is not sufficient room in the shaft to allow the 45° Clinch collar in the detail. Trying to install a fire damper directly into the side of the supply air duct risers will be difficult at best and will be the source of significant pressure drop and noise.	X		
14		The chilled water piping should be shown in all of the shafts as it is intended. In the shaft at Column 4/H.5 the supply air duct needs to move and the location of the piping on the roof plan has the piping running through concrete beams. Has the penetration of the beams with chilled water lines been approved by the structural engineer? This is typical for all shafts.	X		

Project Name: Ft. Bend County Courthouse

JE DUNN CONSTRUCTION

DATE: 4-24-09

SCOPE OF WORK: MEP Drawings of 3-30-09

BID DOCUMENTS REVIEW/INQUIRIES

Item #	Drawing Number	Description	Response Required	Observation Only	Comments
15	M2.00A	The ductwork from VF-B7,B6 and TEF-B1 is stacked along the north wall of the shell space at column line 1.8. The designer should calculate the bottom of duct for all three ducts and figure out how to fix the low duct problem. Preliminary indications is the bottom of the lowest duct is 7'2" AFF.	X		
16		The ductwork indicated above is not properly detailed to indicate all of the rises etc that will have to occur. The designer should cut a section through this area,	X		
17		There are 3 fan coils on this drawing that should have hub drains added for the condensate.	X		
18		The are 2 terminal units that have potential clearance problems on this sheet.	X		
19		There are 3 terminal units that have potential return air flow problems at the entrance to the box because the box is too close to a wall or other obstruction.	X		
20		There are 3 fire smoke dampers located in ductwork at column line 6/H.2 that should be detailed in double line to ensure there is proper clearance between the middle duct and the two outside ducts to fit the damper actuator in on the side of the fire damper and to be able to remove it. Some of the ductwork may have to be offset to make it work.	X		
21	M2.00B	There are 2 terminal units with access problems on this sheet.	X		
22		At the shaft at column line H.5 there is a 34/30 duct that is not labeled. It appears it might be a return air duct coming form the shaft but it goes nowhere and has no opening except for a symbol for a reducer at the north end.	X		
23		The shaft at col H.5 does not exist at this level. The fire smoke dampers shown in the ducts will have to be moved to the floor as horizontal units. Backgrounds need to be coordinated with the architectural.	X		
24		There is no indication where the elevator mechanical room is for elevator 5 at column H.5	X		
25		There is 1 fan coil and two other locations on this drawing that should have hub drains added for the condensate.	X		

DATE: 4-24-09
SCOPE OF WORK: MEP Drawings of 3-30-09

BID DOCUMENTS REVIEW/INQUIRIES

Item #	Drawing Number	Description	Response Required	Observation Only	Comments
26	M2.01A	The Duct leaving the shaft at column E/4 may not work. Drawn in single line it appears to work fine but reality is the duct will be a lot wider then the one line on the drawings. Problems include not enough room for fittings after the fire damper, crossing over the corner of the data room which will effect the framing of that room, no room for access door for the fire smoke damper.	X		
27		The shafts on the west side of the building do not go all the way to the floor level of the first floor. They stop at the slab of the second floor. Just look at the backgrounds from the architect. The fire smoke dampers need to be located at the floor level as horizontal fire smoke dampers. typical for all shafts except Supply air riser #3 on the east half of the building. The Drawing needs to be corrected.	X		
28		The north shaft appears to be missing fire smoke dampers please correct when the drawings are fixed from the item above.	X		
29		The two terminal units in Room 10316 on the north side of the main corridor are not ducted the same as others units on the primary side of the box. Is this intended and if so why?	X		
30		There are at least 13 terminal units on this sheet that have clearance problems, Refer to the general notes above.	X		
31		There are at least 9 Terminal units on this sheet that have potential return air problems.	X		
32		In the Jury Deliberation room at column line 2/A.7 there is a potential conflict with a return air boot and the exhaust duct. Provide duct elevations and detail boot in double line to make sure there is proper clearance.	X		
33		There are 10 fan coils on this drawing that should have hub drains added for the condensate.	X		
34	M2.01B	The two shafts on the east side of the building at column line L, do not go all the way to the floor level of the first floor. They stop at the slab of the second floor. Please review the backgrounds from the architect. The fire smoke dampers need to be located at the floor level as horizontal fire smoke dampers. typical for all shafts except Supply air riser #3 on the east half of the building.	X		
35		Refer to #11 in the general notes section of this document regarding return air boots at the shaft at column H.5 only.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
36		The south shaft at column line L has a low pressure duct detailed to pass through the shaft. Please provide a detail on how this is to happen and interface with the return air duct shown.	X		
37		In the shaft at column line 04/H5 The chilled water risers are not shown, had they been drawing in the detailer would have found a conflict between the 12" chilled water risers and the Supply air duct. Please provide revised details and drawings. This can be verified by looking at the basement plans and the roof plans.	X		
38		Please provide a detail of how the revised supply air duct on the north will come out of the bottom of the shaft and pass through and or over the fire wall at passport clerks office at col 6.7/L.	X		
39		There are at least 4 terminal units on this sheet that have clearance problems, Refer to the general notes above.	X		
40		There are at least 3 Terminal units on this sheet that have potential return air problems.	X		
41		At Column line 9/M.6 there is a spin in and MVD missing.	X		
42		There are 4 fan coils on this drawing that should have hub drains added for the condensate.	X		
43	**M2.02A**	The Duct leaving the shaft at column E/4 may not work. Drawn in single line it appears to work fine but reality is the duct will be a lot wider then the one line on the drawings. Problems include not enough room for fittings after the fire damper, crossing over the corner of the data room which will effect the framing of that room, no room for access door for the fire smoke damper.	X		
44		The Duct leaving the shaft at column E/7 may not work. Drawn in single line it appears to work fine but reality is the duct will be a lot wider then the one line on the drawings. Problems include not enough room for fittings after the fire damper, crossing over the corner of the SEC Conference room which will effect the framing of that room, no room for access door for the fire smoke damper.	X		
45		At col 1.4/D.5 there is a terminal unit shown on top of a restroom wall which is probably going to be a full height wall. Please provide *installation details for this application.*	X		
46		There are at least 27 terminal units on this sheet that have clearance problems, Refer to the general notes above.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
47		There are at least 20 Terminal units on this sheet that have potential return air problems.	X		
48		At col 10/D there is a terminal unit shown on top of a Jury Room wall which is probably going to be a full height wall. Please provide installation details for this application.	X		
49		The four terminal units shown on the north side of court room 20466 have issues with clearances and maintenance issues.	X		
50		Refer to #11 in the general notes section of this document regarding return air boots at the shafts.	X		
51		There are 6 fan coils on this drawing that should have hub drains added for the condensate.	X		
52	**M2.02B**	In the shaft at column line 04/H5 The chilled water risers are not shown, had they been drawing in the detailer would have found a conflict between the 12" chilled water risers and the Supply air duct. Please provide revised details and drawings. This can be verified by looking at the basement plans and the roof plans.	X		
53		At Column line 9.1/K there is a box on top of a wall causing a problem with access and clearance.	X		
54		The high pressure take off to the terminal unit BH at column 5.5/I.2 will not work. Even if the fittings would physically fit there would not be the specified upstream duct diameters required for air flow measurement at the terminal unit inlet.	X		
55		At column line 7.5/O.8 there will be a conflict between the return air boot and the low pressure supply branch duct.	X		
56		In the assistant office 20240 at column line 5/J.7 there is a fire damper in the return air opening but none in the supply, please confirm no fire damper is required in the supply.	X		
57		There are at least 14 terminal units on this sheet that have clearance problems, Refer to the general notes above.	X		
58		There are at least 18 Terminal units on this sheet that have potential return air problems.	X		
59		Refer to #11 in the general notes section of this document regarding return air boots at the shafts.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
60		At the shaft at column line 5/H.5 there is a supply diffuser located under the already tight R/A boot and there is a low pressure duct running over the top of the boot. Please provide details on how this is all supposed to fit in the overhead clearance available.	X		
61		At column line 6/L there is a low pressure duct indicated to be running into the R/A boot at the shaft, is this intended?	X		
62		There are 4 fan coils on this drawing that should have hub drains added for the condensate.	X		
63	M2.03A	The Duct leaving the shaft at column E/4 may not work. Drawn in single line it appears to work fine but reality is the duct will be a lot wider then the one line on the drawings. Problems include not enough room for fittings after the fire damper, crossing over the corner of the data room which will effect the framing of that room, no room for access door for the fire smoke damper.	X		
64		The Duct leaving the shaft at column E/7 may not work. Drawn in single line it appears to work fine but reality is the duct will be a lot wider then the one line on the drawings. Problems include not enough room for fittings after the fire damper, crossing over the corner of the SEC Conference room which will effect the framing of that room, no room for access door for the fire smoke damper.	X		
65		At col 1.4/D.5 there is a terminal unit shown on top of a restroom wall which is probably going to be a full height wall. Please provide installation details for this application.	X		
66		There are at least 24 terminal units on this sheet that have clearance problems, Refer to the general notes above.	X		
67		There are at least 14 Terminal units on this sheet that have potential return air problems.	X		
68		The terminal units at column lines 2/B, 2/C.3, 2/E, 2/G, 9/B, 9.3/C, 9.3/B, 9/H, 8/H, 7.8/H are on top of a wall to a corridor, is this intended if so please provide a detail of how box is to get access for maintenance and NEC code clearance.	X		
69		There are 6 fan coils on this drawing that should have hub drains added for the condensate.	X		
70		*Refer to #11 in the general notes section of* this document regarding return air boots at the shafts.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
71	M2.03B	In the shaft at column line 04/H5 The chilled water risers are not shown, had they been drawing in the detailer would have found a conflict between the 12" chilled water risers and the Supply air duct. Please provide revised details and drawings. This can be verified by looking at the basement plans and the roof plans.	X		
72		The Grand Jury space at column lines 6/I.2 to 9/I.2 appears to be lacking return air openings to the shell space allowing return air to get back to the shaft.	X		
73		There are at least 7 terminal units on this sheet that have clearance problems, Refer to the general notes above.	X		
74		There are at least 13 Terminal units on this sheet that have potential return air problems.	X		
75		There are 4 fan coils on this drawing that should have hub drains added for the condensate.	X		
76		The terminal units at column lines 2/J, 2/L, 2/O, are on top of a wall to a corridor, is this intended if so please provide a detail of how box is to get access for maintenance and NEC code clearance.	X		
77		Refer to #11 in the general notes section of this document regarding return air boots at the shafts.	X		
78	M2.04A & B	No heat or cooling in stair head house.	X		
79		The direction to route the piping above the roof is a improper. Supporting piping from the roof will cause either problems with the roof or an excessive number of pitch pockets which will be hard to maintain and keep from leaking. Is it intended to hang the piping from the steel supporting the false roof? is there sufficient clearance in the locations shown? Have the loads been approved by the structural engineer?	X		
80		The piping and ductwork penetrations indicated on the drawings will not work. Roofers typically require 18" between roof curbs and adjoining obstructions for proper flashing and sealing. The only way to locate these penetrations is to build a dog house for everything but the ducts will have to be offset to allow them to be sealed and insulated. This is not a good method for doing this. Suggest the engineer look at specifying semi custom units that incorporate the return air, supply air and piping penetrations in the foot print of the unit. It will be a little more first cost but the roofing problems will be minimized.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
81		Routing of the chilled water risers needs to be coordinated down through all of the floors.	X		
82		There are no pipe sizes indicated on the drawing. These need to be added.	X		
83	M2.04B	The piping to the two fan coil units on the roof is not shown on the plan, Please correct this issue. Be sure to include hub drains.	X		
84	M3.01	There is no reference to cooling towers or frames on the structural drawings. Architectural drawings refer the plan reader to the civil drawings which indicate the towers are to sit on pads. This raises several questions: How is the external equalization line that has to be piped under the towers going to work? If the towers are not elevated so the bottom of the cold water basin is above the center line of the condenser water pumps by at least 3 feet, or the piping will air lock and the pumps will not be able to draw water from the towers	X		
85		Continuing the above thought - Note #23 requires the centerline of the condenser water pump header to be 1" above the centerline of the pump suction as a minimum. The engineer needs to perform the NPSHA calculation and make sure the distance is not greater then 1" to ensure proper flow. Also how does the engineer expect the mechaincal contractor to pipe up these large pipe diameters with a one inch offset between the center lines of r the header and pump. The pump suction piping is 10" not easy to offset a small distance with out a long run. Also if a suction diffuser is used the header will have to be a lot higher, thus making the tower higher. This issues needs to be addressed before any pumps or piping is ordered and before the piers are completed.	X		
86		The design engineer needs to provide details of how the tower is to be mounted. Suggest cutting a section through the plant and tower location and performing the net positive pump suction head calculation.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
87		The condenser water pumps are scheduled on M5.01 as end suction pumps, the detail on Drawing 8/M6.03 indicates there is a minimum of 4 pipe diameters between the pumps and the suction diffuser. The layout in the plant does not provide sufficient distance between the pump header and the suction of the pump for the 4 pipe diameters or suction diffuser.	X		
88	M4.01	The pumps indicated on the drawing are indicated as double suction horizontal split case pumps not End suction pumps as specified. Makes a difference as to how they are piped and what devices are on them.	X		
89		The chemical feed system for the cooling towers is not indicated on this flow diagram, at least the connection points should be indicated.	X		
90		There is not a dirt separator or tower sweeper system indicated anywhere on the plans. System will become very dirty very fast especially with the towers at ground level.	X		
91		There is no central air or dirt separator indicated in the chilled water system, there are air vents shown at the top of the risers on M4.02,3 but typically there is a master air and dirt separator in the plant.	X		
92		There is a flow meter indicated in the chilled water supply piping between the discharge of the last pump and the minimum flow bypass but there is no flow meter in the return line from the building. The return flow from the building is the only true indication of building load, suggest adding a flow meter in the return before the minimum bypass.	X		
93		How does the control system know how much water is flowing through the bypass? How is the bypass control valve to be actuated?	X		
94	M4.02	The piping to the fan coil units in the basement should be changed from 2" to 1-1/2" to be consistent with the piping on the remainder of the sheet.	X		
95		The piping to the fan coils units on the first floor west should be up sized to 2-1/2".	X		
96	M4.03	The CHWS and CHWR between OAHU-1 and AHU -2 could be downsized from 8 to 6" to be consistent with the pipe sizing on the rest of the sheet.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
97		The 1-1/2" piping between the fans coils in the upper right hand corner of the sheet is not consistent with similar fan coils on the sheet. The 1-1/2" should be 1" and the branch feeding both units should be 1-1/4" to be consistent.	X		
98		Why is the chilled water piping routed to the top of the building and then routed down. This could cause air locking problems. The distribution to the fan coil risers or the entire system could be done on the first floor if desired. This would reduce the number of roof penetrations significantly. It should also be less expensive, and it is possible to reduce the riser to the roof to a 10" or make all of the risers feed their respective air handlers and fan coils, reducing most of the risers to 4 or 5" pipe which has lower cost fittings and fab time. Should also reduce the number of pipe supports on the roof.	X		
99		5 of the Keyed notes at the bottom center of the sheet have no numbers, are they used on this sheet and if so where?	X		
100	**M4.04 - Detail #1, 2, 4, 5**	Where is the 72x20 R/A duct? It is not indicated on the plans anywhere? If it is to be the return air the units the velocity is 4000 FPM - very noisy. The roof plan shows a 108x44 R/A duct which is 1212 FPM. Indicate the return air to the units as required.	X		
101		The shaft does not extend below the second floor slab, coordinate with the architectural plans and located fire smoke dampers in the 2nd floor slab. Rework ductwork accordingly.	X		
102		Verify the size of the return air boots out of the shaft on all levels and make sure there is clearance above the ceiling for the boot, the ceiling and room above the boot.	X		
103	**M4.04 - Detail #3**	Where is the 24x20 & 30x20 R/A duct? It is not indicated on the plans anywhere? The roof plan shows a 108x44 R/A duct which is 1212 FPM.	X		
104		The shaft does not extend below the first floor slab, coordinate with the architectural plans and located fire smoke dampers in the 2nd floor slab. Rework ductwork accordingly. Indicate the return air to the units as required.	X		
105	**M5.01**	The end suction pump detail on M6.03 indicates suction diffusers but none are scheduled in the pump schedule.	X		

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106		The pump schedule should include the Net positive suction available, NPSHA and the Net Positive Suction Required, NPSHR for the condenser water pumps.	X		
107	M5.02	In the terminal unit schedule there is a box neck size "C" indicated but there is no table for the C neck size below?	X		
108		Does the air cooled chiller have a heat trace circuit required on the chiller barrel? If so coordinate with the electrical plan - there is no circuit shown on the electrical plan.	X		
109	M6.01	Detail # 2 does not apply to this project.	X		
110	M6.03	Detail #1 - could not find a roof top mounted packaged A/C unit on the plans? What does this detail pertain to? If it is meant to be for the roof top mounted air handlers it is not correct.	X		
111		Detail #5 is a problem waiting to happen, this will cause many roof leaks and should be avoided. Suggest finding a different method to support the piping above the roof or distribute the chilled water below the roof.	X		
112		Detail #8 - The design of the central plant did not take into account the 4 pipe diameters required between the suction diffusers and the pump suction. Typically you use a pump suction diffuser to reduce the space requirements and most manufacturers will allow and even suggest bolting them directly to the pump suction. The engineer either needs to revise the detail so it works with the current design or he needs to redesign the plant.	X		
113		If the chilled water plant is a separate slab or structure from the main building the use of spring isolators on the inertia pad is not required. Typically the pumps can be bolted directly to the floor/housekeeping pad and use the entire mass for inertia dampening.	X		
114	M6.04	Detail #1 Many of these R/A boots indicated on the drawings may have clearance problems with other ducts in the plan or other items. Suggest the designer show these units at least per the detail in the plans and resolve any conflicts before the final set is issued.	X		
115		Detail #2 - - does not show the required NEC clearance for access to the 277 V or 480 V control panel for the electric heat, please add to the detail.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
116		Detail #2 This detail does not work for several of the box locations, suggest the engineer detail up all of the terminal units in plan per this detail and make sure there is sufficient room for the 2 duct diameters of hard pipe, the flex length and the fittings or elbows upstream of the unit.	X		
117		Detail #4 - does not work for the shaft riser duct. Duct is too large to allow the take offs shown. Engineer needs to modify the duct to allow for the 45 deg clinch fitting.	X		
118	EP2.00A	There are at least 22 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
119	EP2.00B	There are at least 9 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
120	EP2.01A	There are at least 7 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
121	EP2.01B	There are at least 18 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
122		Could not find any circuits for a disposal under the sink in the kitchen. Please verify there is no disposal circuit required.	X		
123	EP2.02A	There are at least 7 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
124	EP2.02B	There are at least 12 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
125	EP2.03A	There are at least 7 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
126	EP2.03B	There are at least 12 locations on this sheet that should have power for fire/smoke or smoke dampers but none is shown. Please add the circuits and fire relays for these dampers. Coordinate the number with the mechanical engineer and detailer.	X		
127	EP2.04A &B	VFDs are indicated to be supplied by the electrical contractor but the air handler specifications indicate the VFDs for the air handler are by the manufacturer. Please clarify. Also add language to the specifications that make the air handler manufacturer responsible for the location and clearances required by the NEC for the drives.	X		
128		For disconnects not mounted on the drives or in plain sight of the drive JED recommends adding a micro switch to the disconnect handle that is wired to the emergency stop circuit in the drive so that when the power is cut off at the disconnect the drive is actually de-energized. Typical all drives meeting this criteria	X		
129		Could not find any power circuits dedicated to power up the DDC panels that are sure to be on the roof. Please add as necessary.	X		
130		Is there a lightning protection plan?	X		
131		Have the security camera positions been coordinated with the false roof etc?	X		
132	E3.01	No where in the specification or on the drawings is the size of the fuel tank indicated for the generator nor is there a minimum run time specified in hours or days without refueling. Please provide this information in the specifications and on the drawings.	X		
133		Is the circuit for the transformer ETC in the duct bank, should there be a homerun circuit shown indicating which panel it is wired from inside the building?	X		
134		Should note number 5 read "Via the VFD in..."	X		
135		Please verify the air cooled chiller does not need a separate circuit for the heat tape on the chiller barrel.	X		
136		There are no circuits shown for the cooling tower sump heaters that are specified with the towers. Please add the circuits and any other connection information required for the sub to do a complete job.	X		
137		Show wiring for cooling tower vibration switches.	X		
138		Provide circuits for heat tape on domestic cold water lines - coordinate with the plumbing engineer.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
139	E3.01 & E4.01 & 2	For disconnects not mounted on the drives or in plain sight of the drive JED recommends adding a micro switch to the disconnect handle that is wired to the emergency stop circuit in the drive so that when the power is cut off at the disconnect the drive is actually de-energized. Typical all drives meeting this criteria Show wiring for the safety circuit.	X		
140		Verify the large centrifugal chillers do not need a 120 volt control power circuit.	X		
141	E3.10	Please verify there is no disposal and corresponding circuit required.	X		
142	E4.03	Indicate circuits for cooling tower sump heaters.	X		These may have been deleted.
143	E7.01, 2, &3	Should relay panels be indicated for the fire alarm relays required for fire smoke dampers?	X		
144	P2.00A	The notes on the sheet for the roof drain overflow pipes indicate the pipe is to extend outside the building and turn down. This means there will be a large elbow outside the building projecting at least 1.5 times the diameter of the pipe so it can be properly sealed., Is that what the Architect wants?	X		
145		Are there going to be splash blocks provided for the overflow drains?	X		
146		There are 3 locations where hub drains should be added for FCU's/	X		
147	P2.00B	The notes on the sheet for the roof drain overflow pipes indicate the pipe is to extend outside the building and turn down. This means there will be a large elbow outside the building projecting at least 1.5 times the diameter of the pipe so it can be properly sealed., Is that what the Architect wants?	X		
148		Are there going to be splash blocks provided for the overflow drains?	X		
149		There are 4 locations where hub drains should be added for FCU's/	X		
150	P2.01A	There at least 5 locations where hub drains should be located for FCU's and or where FCU's can be combined into one hub drain.	X		
151	P2.01B	There at least 2 locations where hub drains should be located for FCU's and or where FCU's can be combined into one hub drain.	X		
152		What is the type of sink to be provided by Division 15 for the kitchen?	X		
153		Notes in the kitchen are hard to read should consider providing a larger plan detail.	X		
154		Please verify there are no disposals required in the kitchen.	X		

Exhibit N
MEP Constructability Review

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
155	P2.02A	There at least 3 locations where hub drains should be located for FCU's and or where FCU's can be combined into one hub drain.	X		
156	P2.02B	There at least 2 locations where hub drains should be located for FCU's and or where FCU's can be combined into one hub drain.	X		
157	P2.03A	There at least 3 locations where hub drains should be located for FCU's and or where FCU's can be combined into one hub drain.	X		
158	P2.03B	There at least 2 locations where hub drains should be located for FCU's and or where FCU's can be combined into one hub drain.	X		
159	P2.04B	Add two hub drains for the fan coil units on the roof.	X		
160	P3.01	Where does the water go when the cooling towers are emptied or cleaned? What about the dirt form the tower?	X		
161		Is there a meter on the cold water make up to the tower? Does the city or utility allow the owner to account for the evaporated water to be deducted from the sewer bill?	X		
162		Please consider adding a hose bibb at the cooling tower make up line.	X		
163		There are no electrical circuits indicate on the electrical plans for the heat tracing on the cold water piping, please coordinate with the electrical engineer.	X		
164		There is no oil separator in the central plant, what happens if one of the centrifugal chillers blows a oil circulation line? Does the Owner have a containment program? Will it be washed down the drain?	X		
165		There are no rest rooms in the central plant. The design team might want to rethink this as periodic maintenance on the chillers and towers can take several hours, if this is done by outside contractors there could be potential for these contractors to have to go in and out of the building. Better to leave them in the plant. A one stall room should be sufficient.	X		
166		Consider adding drains at both ends of the chillers. Maintenance on the tubes requires the removal of both ends and brushing the tubes with water, there is no way to avoid having a lot of water on the floor during this procedure, better to have drains at both ends.	X		
167		Consider moving the floor drain by the domestic water booster pump skid for service purposes.	X		
168	P-500	Should the emergency shower and eye wash *have a flow alarm on it back to the* BAS? The plant is remote and someone could be in the plant, have an accident and no one would know.	X		

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Item #	Drawing Number	Description	Response Required	Observation Only	Comments
169	P5.02	Fire pumps details - is a water gong required?	X		
170		Is there a roof header required	X		
171		What is the terminal connection device or valves on the fire pump test header.	X		