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*County Manager*

September 4, 2015

**SANTA FE COUNTY**  
**IFB#2016-0067-PW/BT**  
**CONSTRUCTION SERVICES FOR THE**  
**STANLEY CYCLONE CENTER ARENA**

**ADDENDUM #3**

Dear Proponents,

This addendum is issued to reflect the following immediately. It shall be the responsibility of interested bidders to adhere to any changes or revisions to the IFB as identified in this Addendum No. 3. This documentation shall become permanent and made part of the departmental files.

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|----------------------|--|
| <b>ATTACHMENT A:</b> | <b>PRE-BID ATTENDANCE SHEET</b>  |
| <b>ATTACHMENT B:</b> | <b>SECTION 08710-1<br/>DOOR HARDWARE</b>   |
| <b>ATTACHMENT C:</b> | <b>SECTION 09220<br/>PORTLAND CEMENT PLASTER</b>   |
| <b>ATTACHMENT D:</b> | <b>SECTION 126100<br/>BLEACHERS</b>  |
| <b>ATTACHMENT E:</b> | <b>SHEET SK-FP01<br/>FIRE PROTECTION WATER PUMP EQUIPMENT AND<br/>PIT DETAIL</b>                                 |
| <b>ATTACHMENT F:</b> | <b>SHEET SK-FP02<br/>WATER STORAGE TANK WITH COMBINATION FIRE<br/>PROTECTION WATER AND DOMESTIC WATER DETAIL</b> |

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Listed below are clarifications of the IFB and questions received via email concerning the above referenced IFB.

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- Question# 1- Sheet FP-0.1 gives information about the new water storage tank. Can you please provide information regarding required foundations or compaction requirements.
- Answer# 1- *Compaction requirements and allowable soil bearing pressures are as specified in the Soils Report. Copies of the Soils Report are available at Academy Reprographics, along with the Bid Documents. Foundation design shall be provided by the tank supplier, must adequately support the tank proposed, and is dependent on proposed tank design and size.*
- Question# 2- Sheet FP-0.1 show dimensions for the new below grade pump equipment pit. Keynote #2 indicates that the pit is to be by others. Can you please provide Civil, Architectural and Structural design for this pit?
- Answer# 2- *Please see attached Fire Pump Pit Sketch – SK FP-0.1*
- Question# 3- Sheet CO indicates a new 8” water line servicing the proposed events center. Sheet C2 indicates the 8” water line is “by others”. FP-1.0 shows a new 4” fire service line to the building from the new fire pump/tank and a new 8” line to a fire hydrant out to Kinsell Avenue. Sheet SU1.0 only shows a new 1 ¼” domestic line. Can you please clarify if the fire service line to the new events center will be a 8” line per CO or a 4” line per FP-1.0?
- Answer# 3- *The required water lines include the 8” and 4” lines as shown on FP-1.0 and the 1-1.4” line shown on SU-1. The notes on C0 and C2 are referring to these lines; please rely on FP-1.0 and SU-1 for exact configuration.*
- Question# 4- Sheet S-0001 under the Structural Earthwork Note #1: “the contractor shall employ a qualified independent geotechnical engineering testing agency...” Spec Section 3100000 indicates that the “Owner will engage a qualified independent geotechnical engineering testing agency...” Please clarify.
- Answer# 4- *It is the responsibility of the Contractor to engage and coordinate the services of a qualified independent geotechnical engineering testing agency. The testing services will be paid for by the Owner.*
- Question# 5- Sheet S-001 under the General structural notes, item 6.I.1.A. “engage a qualified testing laboratory to perform material evaluation and design concrete mixes, and to perform testing during concrete placement.” Spec Section 02751 Paragraph 3.10.A indicates that “Testing Agency: Owner will engage a qualified testing and inspection agency to sample materials,

perform tests, and submit test reports during concrete placement.” Please clarify.

Answer # 5- *See answer to Question #5.*

Question# 6- Can you please provide a depth below grade for the light pole base detailed on E1.1?

Answer # 6- *24”.*

Question# 7- Item “F”, page 2 & Item 2.5. C.3 – page 9 FM Global 4471 as referenced typically is on certain standing seam roof panels. Can you please confirm that this does pertain to a PBR roof panel?

Answer # 7- *Delete all requirements for FM Global FMRC 4471.*

Question# 8- Item 2.1 Products – 2.1 “C 1” – please clarify if “Galv.” Purlins & grits are required. Some manufactures provide as standard product and other provide as a “premium” product which may add to the overall cost.

Answer# 8- *Secondary members may be finished consistent with primary members, in other words, factory cover steel with 1 coat of gray water-reducible alkyd primer paint formulated to equal or exceed performance requirements SSPC-Paint 15 with a minimum coating thickness of 1.0 mil.*

Question# 9- Item “D” page 6 Collateral loads. Please provide required collateral loads (i.e. for lights, sprinkler, etc.).

Answer# 9- *5 psf.*

Question# 10- Item 1.7 Warranty. It states a 10 year weather tightness warranty. Please clarify as the specified roof panel is a PBR, which does not carry a weather tightness warranty.

Answer# 10- *A weather tightness warranty is available from the specified manufacturer for the specified profile. However, in order to include as many manufacturers as possible, this requirement is hereby deleted.*

- Question# 11- Wall panels. Will a 26 ga. be approved? Specs call for a Kynar paint which is premium paint and adds to the cost. Can we provide an option for std. color 26 ga. "R" panel?
- Answer# 11- *26 gage 1-1/4" deep panels are acceptable. Other brands of paint are acceptable besides Kynar or Hylar so long as they have similar warranty.*
- Question# 12- Could not locate Eave heights. Please clarify the elevations of sections.
- Answer# 12- *Please see elevation drawings A3 and A4. They specify ridge height of 34' and roof slope of 2:12. Eave heights are derived from this information. So, for example, height at gridline A is 23'-2", at gridline E is 18'-2", at gridline is 20'-8".*
- Question# 13- Entry from FL D-E: Is this a metal building columns, purlins, roof but with stud framing? What is the Eave height?
- Answer# 13- *Yes. Eave height is same as gridline E.*
- Question# 14- Common walls with main area/lean to's: Are x-bracing cables or rod ok? Do the Contractors need to provide a portal frame/wind bend?
- Answer# 14- *Yes, except portal frame or wind bent is required along gridline C and cross bracing must not conflict with window or door openings.*
- Question# 15- Specs call for "rod" bracing, will std. cable x-bracing be allowed?
- Answer# 15- *Yes.*
- Question# 16- Please clarify if skylights are single or double layer.
- Answer# 16- *Please see specification page 133419 – 14. They are double layer.*
- Question# 17- Can you please clarify the door hardware schedule at the end of section 08710? It seems to be missing a header row and it is unclear what the "x's" represent.
- Answer# 17- *The header row was cut off. Please see attached revised section 08710.*

- Question# 18- Can you please provide a specification for the stucco finish on ½” gypsum sheathing as detailed 1/A6?
- Answer# 18- *Please see specification section 09220 attached.*
- Question# 19- Please clarify the exterior walls of Concessions 05, Fire 08, Office 06 or Storage 07, it is unclear if the contractor should provide metal framing & drywall. If metal framing & drywall is required, will 5 ½” or 3 ½” studs be acceptable?
- Answer# 19- *Yes, they are 5-1/2” metal stud, 5/8” drywall, R19 batt insulation.*
- Question# 20- Can you please provide details within the Room Finish Schedule for the painted gypsum board in in Concessions 05, Fire 08, Office 06 or Storage 07.
- Answer# 20- *See answer 19 above.*
- Question# 21- Please clarify if the main entry will be 4” metal studs similar to 1/A6 and 2/A6? Or is the main entry metal building components?
- Answer# 21- *Please see 1/A6 and 2/A6. The sidewalls of the main entry are of metal building components. The exterior wall along gridline D is 5-1/2” metal stud, 5/8” drywall, R19 batt insulation.*
- Question# 22- Please clarify section 09512 Acoustical Ceiling Tile has specified 2x2 ceiling tile but the reflected ceiling plan on A7 is showing a 2x4 tile layout.
- Answer# 22- *It is 2x2 as specified.*
- Question# 23- Please clarify the room finish schedule on A8 indicates gypsum board ceiling for Seating 02 but the reflected ceiling plan on A7 is showing this to be exposed structure.
- Answer# 23- *The room finish schedule on A8 indicates exposed structure for Seating 02, as does the reflected ceiling plan.*
- Question# 24- Please clarify the room finish schedule on A8 indicates a gypsum board ceiling in Concessions 05 and Office 06 but the reflected ceiling plan on A7 is showing an acoustical ceiling in these two rooms.

Answer# 24- *Both rooms are acoustic ceiling.*

Question# 25- Please clarify if the bleachers are part of this project. The project manual lists 126100 Bleachers but the specs are missing from the project manual.

Answer# 25- *Please see attached specification section 126100.*

Question# 26- Will yard drains and down spouts be part of this bid and/or will they be bid alternates?

Answer# 26- *As shown on sheet C0 and described on specification page 012300 - 2, the cistern is a bid alternate. The gutters, downspouts, yard drains and drain line and stormwater detention ponds are in the base bid.*

Question# 27- Will road widening be included in the base bid and/or will this be an additive alternate?

Answer# 27- *As shown on sheet C0 and C4 and described on specification page 012300 - 2, the portion east of the existing east drive (station 16+00) is in the base bid. The portion west of station 16+00 is a bid alternate.*

Question#28- Can you please provide a soils report?

Answer# 28- *Copies of soils reports are available at Academy Reprographics.*

Question# 29- Are the Contractors able to utilize the existing gates and security?

Answer# 29- *Yes. Contractors may install their own locks.*

Question# 30- Are bid bonds, payment and performance bonds required?

Answer# 30- *Yes, bid bonds are 5% of the bid. Payment and Performance bonds are 100% of the contract sum.*

Question# 31- Can you please clarify specification 133419-5 1.7, A & D? Paragraph A asks for a 10 year weather-tightness warranty. The roof is an exposed fastener roof which the type or warranty is not covered. The concealed fastener, standing seam roof would have that type of warranty.

Answer# 31- *See answer to question 10 above.*

Question# 32- Please clarify in paragraph D, the roof system manufacturer will provide certification of warranties and inspection/reporting services one week before bid date. Is the 10 year weather-tightness warranty required? Other warranties such as chalk, fade crack and peel are available.

Answer# 32- *See answer to question 10 above. Other required warranties do not need to be submitted prior to bid date.*

Please add this Addendum #3 to the original bid documents and refer to bid documents, hereto as such. This and all subsequent addenda will become part of any resulting contract documents and have effects as if original issued. All other unaffected sections will have their original interpretation and remain in full force and effect.

Responders are reminded that any questions or need for clarification must be addressed to Bill Taylor, Procurement Manager at [wtaylor@santafecountynm.gov](mailto:wtaylor@santafecountynm.gov).



**PRE BID CONFERENCE**  
**IFB# 2016-0067-PW/BT**  
**STANLEY CYCLONE CENTER ARENA**  
**AUGUST 26, 2015**  
**10:00 AM**

NAME	COMPANY	TELEPHONE	E-MAIL ADDRESS
Brandon McClellan	Richardson & Richardson	505-881-2268	Brandon@richardsonrichardson.com
BILL TAYLOR	SFC FIREWORKS	505-986-6373	WTAYLOR@SANTAFECOUNTYNM.GOV
DON COMBS	ESA	862-1608	bills@esaconstruction.com
J.C. HELMS	N.M. COMPANIES, LLC	505-975-8178	Westernservices@msn.com
David Madrid	Santa Fe County	505-986-6237	dmsdmit@Santafecountynm.gov
Fredy Gonzalez			
HUGO IRIARTE	ANCHOR BUILT	505-342-2452	hiribarren@anchorbuilt.com
DUSTIN HAMMON	Duke City Builders	505-504-0013	dustin@dukecitybuilders.com
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Lorn Tryk	Lorn Tryk Arch	982 5340	lorn@ltryk.com



**PRE BID CONFERENCE**  
**IFB# 2016-0067-PW/BT**  
**STANLEY CYCLONE CENTER ARENA**  
**AUGUST 26, 2015**  
**10:00 AM**

NAME	COMPANY	TELEPHONE	E-MAIL ADDRESS
David Pabillo	SFC Projects	995-6515	dpabillo@santafecountynm.gov
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Patricia Wood	BAR Construction	350-0767	BR@QUESTOFFICE.NET
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# ATTACHMENT B

## SANTA FE COUNTY STANLEY CYCLONE CENTER

Door #	Location	Single/Double	Hinges	Office Lockset	Storeroom Lockset	Exit Device	Padlock	Weather-strip	Threshold	Smoke Seal	Push Plate	Pull	Closer
1	Entry	Double	x			x		x	x				x
2	Entry	Double	x			x		x	x				x
3	Office exterior	Single	x		x			x	x				x
4	Seating west end	Double	x			x		x	x				x
5	Arena overhead door	Single					x						
6	Arena overhead door	Single					x						
7	Arena overhead door	Single					x						
8	Arena overhead door	Single					x						
9	Arena overhead door	Single					x						
10	Arena overhead door	Single					x						
11	Arena overhead door	Single					x						
12	Arena overhead door	Single					x						
13	Seating east end	Double	x			x		x	x				x
14	Concessions exterior	Single	x		x			x	x				x
15	Women	Single	x							x	x	x	x
16	Men	Single	x							x	x	x	x
17	Concessions rollup	Single					x			x			
18	Concessions hall	Single	x	x									
19	Fire closet	Single	x		x								
20	Office hall	Single	x	x						x			x
21	Storage	Single	x	x									x
22	Storage exterior	Single	x		x			x	x				x
23	Office rollup	Single					x						

Notes:

Hardware finish US26D, closers paint finish to match, thresholds and weatherstrip mill aluminum  
 Exterior hinges NRP

# ATTACHMENT C

## SECTION 09220 - PORTLAND CEMENT PLASTER

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Exterior portland cement plasterwork (stucco) on metal lath.

#### 1.2 SUBMITTALS

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

#### 1.3 PROJECT CONDITIONS

- A. Comply with ASTM C 926 requirements.
- B. Factory-Prepared Finishes: Comply with manufacturer's written recommendations for environmental conditions for applying finishes.

### PART 2 - PRODUCTS

#### 2.1 METAL LATH

- A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.
  - 1. Diamond-Mesh Lath: Self-furring, 2.5 lb/sq. yd..
- B. Wire-Fabric Lath:
  - 1. Woven-Wire Lath: ASTM C 1032; self-furring, with stiffener wire backing, 1.1 lb/sq. yd..

#### 2.2 ACCESSORIES

- A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.
- B. Metal Accessories:
  - 1. Foundation Weep Screed: Fabricated from hot-dip galvanized-steel sheet, ASTM A 653/A 653M, G60 zinc coating.
  - 2. Casing Beads: Fabricated from zinc-coated (galvanized) steel; square-edged style; with expanded flanges.

3. Control Joints: Fabricated from zinc-coated (galvanized) steel; one-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.

## 2.3 MISCELLANEOUS MATERIALS

- A. Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B. Fiber for Base Coat: Alkaline-resistant glass or polypropylene fibers, 1/2 inch long, free of contaminants, manufactured for use in portland cement plaster.
- C. Bonding Compound: ASTM C 932.
- D. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of no fewer than three exposed threads.
- E. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.
- F. Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, not less than 0.0475-inch diameter, unless otherwise indicated.
- G. Base Sheet: #15 asphalt impregnated felt, applied in shingle fashion, two layers.

## 2.4 PLASTER MATERIALS

- A. Portland Cement: ASTM C 150, Type II.
  1. Color for Finish Coats: Gray.
- B. Masonry Cement: ASTM C 91, Type N.
  1. Color for Finish Coats: Gray.
- C. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.
- D. Sand Aggregate: ASTM C 897.
- E. Perlite Aggregate: ASTM C 35.
- F. Acrylic-Based Finish Coatings: Factory-mixed acrylic-emulsion coating systems, formulated with colorfast mineral pigments and fine aggregates; for use over portland cement plaster base coats. Include manufacturer's recommended primers and sealing topcoats for acrylic-based finishes. Manufacturer equal to Sto.
  1. Color: As selected by Architect from manufacturer's full range.

## 2.5 PLASTER MIXES

- A. General: Comply with ASTM C 926 for applications indicated.
1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. yd. of cementitious materials.
- B. Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:
1. Portland Cement Mixes:
    - a. Scratch Coat: For cementitious material, mix 1 part portland cement and 0 to 3/4 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
    - b. Brown Coat: For cementitious material, mix 1 part portland cement and 0 to 3/4 parts lime. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.
  2. Masonry Cement Mixes:
    - a. Scratch Coat: 1 part masonry cement and 2-1/2 to 4 parts aggregate.
    - b. Brown Coat: 1 part masonry cement and 3 to 5 parts aggregate, but not less than volume of aggregate used in scratch coat.
  3. Portland and Masonry Cement Mixes:
    - a. Scratch Coat: For cementitious material, mix 1 part portland cement and 1 part masonry cement. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
    - b. Brown Coat: For cementitious material, mix 1 part portland cement and 1 part masonry cement. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.
- C. Job-Mixed Finish-Coat Mixes:
1. Portland Cement Mix: For cementitious materials, mix 1 part portland cement and parts lime. Use 1-1/2 to 3 parts aggregate per part of cementitious material.
  2. Masonry Cement Mix: 1 part masonry cement and 1-1/2 to 3 parts aggregate.
  3. Portland and Masonry Cement Mix: For cementitious materials, mix 1 part portland cement and 1 part masonry cement. Use 1-1/2 to 3 parts aggregate per part of cementitious material.
  4. Plastic Cement Mix: 1 part plastic cement and 1-1/2 to 3 parts aggregate.
- D. Factory-Prepared Finish-Coat Mixes: For acrylic-based finish coatings, comply with manufacturer's written instructions.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.
- B. Prepare solid substrates for plaster that are smooth or that do not have the suction capability required to bond with plaster according to ASTM C 926.

### 3.2 INSTALLING METAL LATH

- A. Expanded-Metal Lath: Install according to ASTM C 1063.
  - 1. Partition Framing and Vertical Furring: Install woven-wire lath.
  - 2. Flat-Ceiling and Horizontal Framing: Install flat diamond-mesh lath.
  - 3. Curved-Ceiling Framing: Install flat diamond-mesh lath.
  - 4. On Solid Surfaces, Not Otherwise Furred: Install self-furring, woven-wire lath.

### 3.3 INSTALLING ACCESSORIES

- A. Install according to ASTM C 1063 and at locations indicated on Drawings.
- B. Reinforcement for External Corners:
  - 1. Install lath-type, external-corner reinforcement at exterior locations.
- C. Control Joints: Install control joints at locations indicated on Drawings.
  - 1. Where control joints occur in surface of construction directly behind plaster.

### 3.4 PLASTER APPLICATION

- A. General: Comply with ASTM C 926.
- B. Bonding Compound: Apply on unit masonry and concrete plaster bases.
- C. Walls; Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork; 3/4-inch thickness.
  - 1. Portland cement mixes.
  - 2. Masonry cement mixes.
  - 3. Portland and masonry cement mixes.
- D. Ceilings; Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork; 1/2 inch thick.
  - 1. Portland cement mixes.
  - 2. Masonry cement mixes.

3. Portland and masonry cement mixes.

- E. Acrylic-Based Finish Coatings: Apply coating system, including primers, finish coats, and sealing topcoats, according to manufacturer's written instructions.
- F. Concealed Exterior Plasterwork: Where plaster application will be used as a base for adhered finishes, omit finish coat.

### 3.5 PLASTER REPAIRS

- A. Repair or replace work to eliminate cracks, dents, blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

END OF SECTION 09220

# ATTACHMENT D

## SANTA FE COUNTY STANLEY CYCLONE CENTER

### SECTION 126100 - BLEACHERS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section includes fixed aluminum bleachers

##### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
  - 1. Seating Layout: Show seating layout, aisle widths, heights, frame and seat construction, materials, cross bracing and hardware.
- C. Maintenance Data.

#### PART 2 - PRODUCTS

##### 2.1 MATERIALS AND FINISHES

- A. Cast Aluminum: ASTM B 85 aluminum-alloy die castings.
- B. Metal Finish: Finish exposed metal parts with manufacturer's standard coating.
  - 1. Color: As selected by Architect from manufacturer's full range.

##### 2.2 BLEACHERS:

- A. Seat Boards: 2" x 12" aluminum with anodized finish with end caps.
- B. Dimensions: 27' long x 7' deep x 28" to 30" high.
- C. Configuration: 4 rows.
- D. Foot Board: 2" x 10" mill finish aluminum with end caps.
- E. Cross Bracing: Min. top two rows.
- F. Support Frames: 5 total.

## SANTA FE COUNTY STANLEY CYCLONE CENTER

- G. Fabrication: All exposed edges and corners rounded, with no burrs. All bolted and screwed connections with nylon locking hardware or other positive method of remaining tightened. Bleachers shall have no sway or looseness when fully assembled and loaded.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install seating in locations indicated and fastened securely to substrates according to manufacturer's written installation instructions.
  - 1. Use installation methods and fasteners that produce fixed audience seating assemblies capable of supporting an evenly distributed 600-lb (272-kg) static load without failure or other conditions that might impair the unit's usefulness.
  - 2. Install standards and pedestals plumb.

END OF SECTION 126100

**FIRE PUMP KEYED NOTES:**

**# FIRE PUMP EQUIPMENT: #**

1. NEW FIRE PUMP SKID ASSEMBLY IN EQUIPMENT PIT. SEE FIRE PUMP EQUIPMENT LIST FOR SPECIFICATIONS. MOUNT EQUIPMENT SKID IN PIT ON GRAVEL BASE. ENSURE THAT EQUIPMENT SKID IS STABLE FOR PROPER OPERATION.
2. INSULATED CORRUGATED STEEL EQUIPMENT PIT WITH INSULATED WEATHERPROOF CONCRETE COVER AND MANHOLE WITH LADDER. SIZE TO ACCOMMODATE NEW FIRE PUMP EQUIPMENT SKID AS SHOWN. FIRE PUMP EQUIPMENT PIPING SHALL BE A MINIMUM OF FOUR FEET BELOW FINISHED GRADE TO AVOID FREEZING. EQUIPMENT SHALL HAVE A GRAVEL FILLED BASE FOR DRAINAGE. FIELD VERIFY DIMENSIONS WITH FIRE PUMP EQUIPMENT MANUFACTURER PRIOR TO COMMENCING WORK.
3. NEW 72"x48"x24" NON-METALLIC, BASE MOUNTED NEMA 4 LOCKABLE EQUIPMENT ENCLOSURE ADJACENT TO AND WITHIN SIGHT OF THE PUMP EQUIPMENT ENCLOSURE. MOUNT ON 4 INCH CONCRETE HOUSEKEEPING PAD AND PROVIDE ALL MOUNTING EQUIPMENT FOR FIRE AND JOCKEY PUMP CONTROLLERS. SIZE PAD TO ACCOMMODATE ENCLOSURE. FIELD VERIFY EXACT LOCATION PRIOR TO COMMENCING WORK.
4. FIRE PUMP EQUIPMENT ELECTRICAL DISCONNECT BY OTHERS. COORDINATE WITH ELECTRICAL CONTRACTOR FOR EXACT LOCATION PRIOR TO COMMENCING WORK.
5. INSTALL NEW 4 INCH FIRE WATER PIPING TO/FROM PUMP PIT AND EQUIPMENT. INSTALL MINIMUM OF 4 FEET BELOW FINISHED GRADE. SEE FIRE SPRINKLER PLAN FOR CONTINUATION.
6. THREE INCH FIRE WATER TEST FLOW SWITCH AND LOOP.
7. ISOLATION BUTTERFLY VALVE. TYPICAL.
8. THREE INCH TEST HEADER CONNECTION.
9. CHECK VALVE. TYPICAL.
10. INSTALL FIRE PUMP EQUIPMENT PIT ACCESS LADDER AT MANHOLE LOCATION TO BE DETERMINED IN FIELD.
11. STRUCTURAL METAL DECK EQUIPMENT PIT CAP WITH 3 INCH CONCRETE AND #3 REBAR REINFORCING AT 16 INCHES ON CENTER. PROVIDE MANHOLE WITH COVER.
12. CONCRETE FOOTING 8"x12" WITH TWO RINGS OF #3 REBAR REINFORCING FOR CORRUGATED METAL CULVERT.

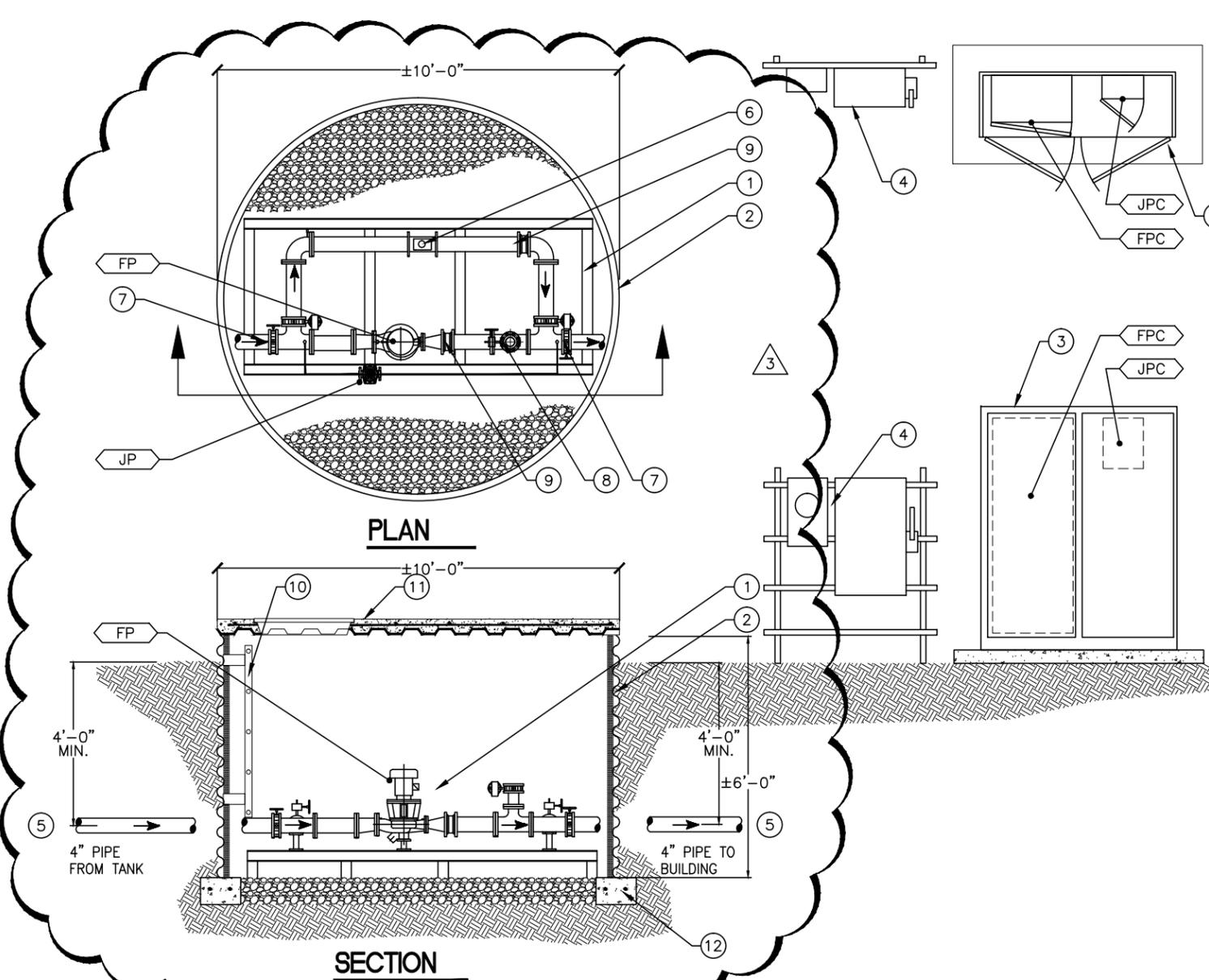
**FP FIRE PUMP:** SKID MOUNTED UL/FM LISTED/APPROVED VERTICAL IN-LINE CLOSE COUPLED FIRE PUMP. FIRE PUMP SHALL HAVE A RATED CAPACITY OF 250GPM @ 40PSI AND DELIVER NOT LESS THAN 150% OF RATED CAPACITY AT A PRESSURE NOT LESS THAN 65% OF RATED PRESSURE. MOTOR AND PUMP SPEED SHALL NOT EXCEED 3600RPM. PUMP SHALL BE COMPLETE WITH A JP NEMA HYDRAULIC INSTITUTE, OPEN DRIP-PROOF, BALL BEARING, SQUIRREL CAGE, INDUCTION MOTOR. THE MOTOR SHALL BE DESIGNED FOR 1-PHASE, 230V, 60HZ, AND SHALL BE NEMA DESIGN B, CODE G WITH A SERVICE FACTOR RATING NOT EXCEEDING 1.15. PUMP SHALL BE INSTALLED BY SKID MANUFACTURE ON A SINGLE SKID COMPLETE WITH 4 INCH SUCTION AND 3 INCH DISCHARGE MANIFOLDS, 3 INCH TEST METER LOOP, AND 3 INCH TEST HEADER CONNECTION. SKID SHALL BE DESIGNED TO HANDLE THE WEIGHT OF ALL THE PUMPING EQUIPMENT AND BE COMPLETE WITH PIPE SUPPORTS AS NEEDED. MANIFOLDS SHALL INCLUDE ALL VALVES AND FITTINGS. PRESSURE SENSING LINE(S) SHALL BE INSTALLED BY INSTALLING CONTRACTOR.

**FPC FIRE PUMP CONTROLLER:** ACROSS-THE-LINE FIRE PUMP CONTROLLER DESIGNED AND BUILT STRICTLY IN ACCORDANCE WITH THE 2013 EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION'S PAMPHLET NO. 20. ENTIRE EQUIPMENT SHALL BE LISTED FOR FIRE PROTECTION SERVICE BY UNDERWRITERS LABORATORIES AND APPROVED BY FACTORY MUTUAL RESEARCH. CONTROLLER SHORT CIRCUIT CURRENT RATING SHALL BE 100,000 RMS SYMMETRICAL AMPS. ENCLOSURE SHALL BE NEMA 12 RATED FLOOR MOUNTED, MAXIMUM 64 INCHES IN HEIGHT, 24 INCHES IN WIDTH, OR 13 INCHES IN DEPTH. ENCLOSURE DOORS SHALL BE EQUIPPED WITH SAFETY MECHANICAL INTERLOCKS TO PREVENT ALL DOORS FROM BEING OPENED UNTIL THE ISOLATING SWITCH IS OPENED.

CONTROL POWER SHALL BE 24 VDC AND SHALL BE DERIVED FROM 3 INDEPENDENT, CONTROL POWER TRANSFORMERS WITH REDUNDANT ISOLATED RECTIFIER CIRCUITS. THE CONTROLLER SHALL HAVE A DIELECTRIC STRENGTH OF 5000 VAC FOR INCREASED IMMUNITY TO VOLTAGE SURGES. POWER FOR THE CIRCUIT BREAKER DC SHUNT TRIP SOLENOID SHALL BE DERIVED FROM ANY OF THE THREE TRANSFORMERS AND SHALL BE COMPLETELY INDEPENDENT OF ANY ONE SINGLE PHASE A.C. VOLTAGE. MECHANICAL START AND STOP PUSHBUTTONS SHALL BE MOUNTED ON THE DOOR FLANGE. THEY SHALL START AND STOP THE PUMP INDEPENDENT OF THE HMI.

**JP JOCKEY PUMP:** STAINLESS STEEL VERTICAL INLINE WITH MECHANICAL SEAL, CAST IRON SUCTION AND DISCHARGE CHAMBERS, WITH STAINLESS STEEL IMPELLER(S), SHAFT, AND WET PARTS. DESIGNED FOR 2.5 GPM AT A DISCHARGE PRESSURE OF 64PSI. PUMP SHALL BE COMPLETE WITH VERTICAL TOTALLY ENCLOSED FAN COOLED MOTORS RATED FOR 0.5 HP, 3 PHASE, 230 VOLT OPERATION

**JPC JOCKEY PUMP CONTROL:** JOCKEY PUMP CONTROL SHALL BE VARIABLE SPEED BASED RATED FOR 230V-1PH IN AND 230V-3PH OUT. UNIT SHALL BE DESIGNED TO HANDLE THE JOCKEY PUMP MOTOR LOAD. UNIT SHALL INCLUDE A BUILT-IN PRESSURE TRANSDUCER AND BE DESIGNED TO AUTOMATICALLY START AND STOP PUMP TO SMOOTHLY MAINTAIN THE WATER PRESSURE IN THE FIRE SPRINKLER SYSTEM. UNIT SHALL HAVE ALL OF THE FOLLOWING FEATURES: DIGITAL PRESSURE DISPLAY, PUMP RUN INDICATION, POWER ON INDICATION, AND ADJUSTABLE MINIMUM RUN TIMER. ACROSS-THE-LINE JOCKEY PUMP CONTROLS SHALL NOT BE ACCEPTED AS EQUALS AND SHALL NOT BE ACCEPTED.



**FIRE PROTECTION WATER PUMP EQUIPMENT AND PIT**  
NOT TO SCALE

**M&E MECHANICAL & ELECTRICAL ENGINEERING, INC.**

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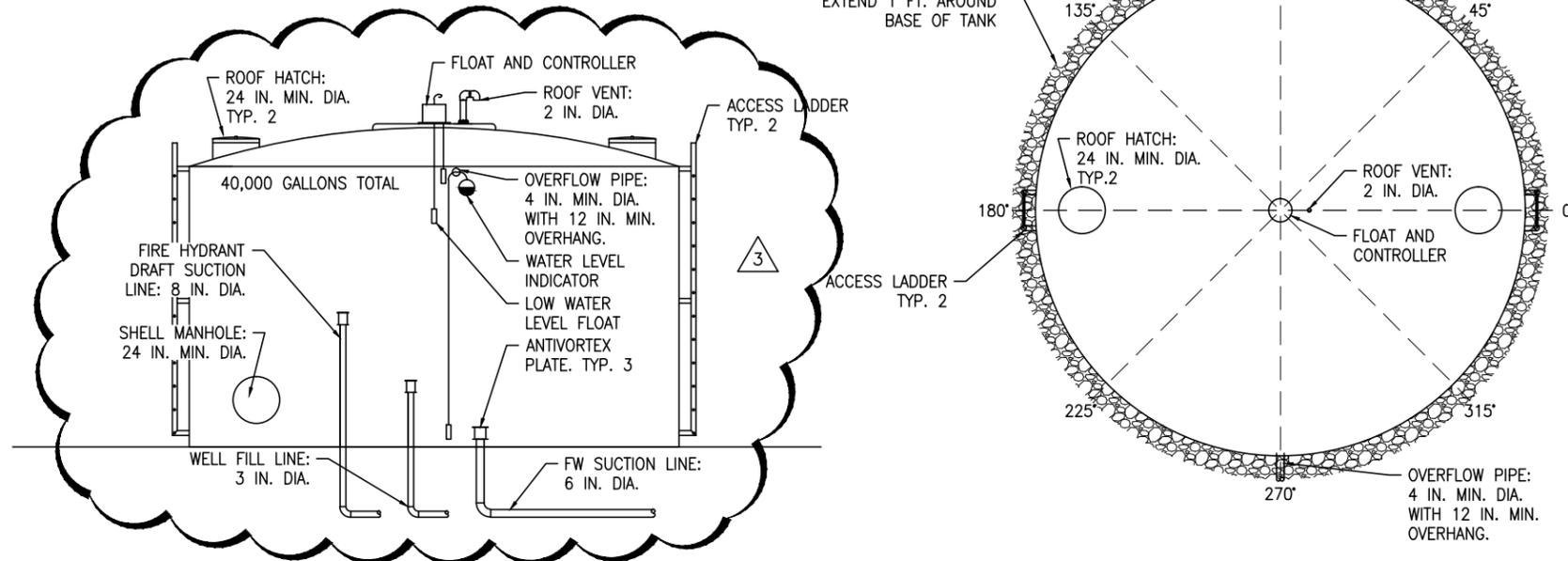
SANTA FE: 1222 Luisa St., Suite B Santa Fe, New Mexico 87505 505/983-2389

<b>Project Name:</b> STANLEY CYCLONE	<b>Drawn By:</b> KP	<b>Checked By:</b>
<b>Project Number:</b> 14030	<b>Date:</b> SEPT. 3, 2015	<b>Approved By:</b>
P:   FP:   M:   E:	<b>Reference Sheet:</b> FP-0.1	<b>Sheet Number:</b>
<b>Sheet Title:</b> FP PUMP PIT DETAIL		<b>SK-FP01</b>

FLOAT AND CONTROLLER: SINGLE LEVEL SWITCH, STAINLESS STEEL PROBE, 2 IN. CARBON STEEL MOUNT, 1/2 IN. NPT ELECTRICAL CONNECTION, ALUMINUM ELECTRICAL CONNECTION HOUSING, 304 STAINLESS STEEL FLOATS, AND ALL COMPONENTS NECESSARY FOR COMPLETE OPERATION.  
"MAGTECH", MODEL MLS-4EX

POINT	DIM. IN.	SIGNAL SWITCH
A	144	ALARM

NOTE: ALL DIMENSIONS ARE FROM BOTTOM OF THE TANK.



**WATER STORAGE TANK WITH COMBINATION FIRE PROTECTION WATER AND DOMESTIC WATER**

NOT TO SCALE

**FIRE WATER TANK:**

DEDICATED FIRE WATER SUPPLY STORAGE TANK. PROVIDE WATER STORAGE TANK WITH DEDICATED 10,000 GALLON FIRE PROTECTION SUPPLY STORAGE FOR EVENT CENTER AND 30,000 GALLON FIRE HYDRANT DRAFT WATER SUPPLY STORAGE, FOR A TOTAL TANK VOLUME OF 40,000 GALLONS. TANK SHALL CONFORM TO NFPA 22 CODE REQUIREMENTS FOR FIRE WATER SUPPLY STORAGE. INCLUDE ON SITE ASSEMBLED STORAGE TANK, DUAL LADDER, DUAL ROOF HATCH MANHOLES, LOW WATER SWITCH AD ALARM, MANUAL FILL CONNECTION TO DOMESTIC WATER LINE, WATER LEVEL INDICATOR, ROOF VENT, OVERFLOW DRAIN, ANTI SYPHON FOR TOP CONNECTION OF FIRE HYDRANT WATER SUCTION AND RISER, ANTI SYPHON FOR TOP CONNECTION OF FIRE PROTECTION WATER SUCTION, PUMP FILL PIPE, GRAVEL BASE WITH 3' STEEL RING, GROUND COMPACTION REQUIREMENTS PER MANUFACTURER TANK SUPPLIER, BOTTOM CONNECTIONS FOR FIRE HYDRANT SUCTION AND FIRE PROTECTION SUCTION, AND TANK FILL, ELECTRONIC TEMPERATURE GAUGE PORT, ELECTRIC HEATER FOR FREEZE PROTECTION, EXTERIOR PAINTING TO INCLUDE ZINC PRIMER, EPOXY COVER, AND ENAMEL FINISH. INCLUDE ALL ACCESSORIES AND EQUIPMENT FOR COMPLETE AND PROPER INSTALLATION. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION ON CONNECTION TO EXISTING WELL PUMP LINE, FIRE HYDRANT LINE, AND FIRE PUMP LINE.

**GENERAL NOTES:**

1. THIS SET OF DOCUMENTS, INCLUDING DRAWINGS AND SPECIFICATIONS, PRESENTS THE PRELIMINARY ENGINEERING AND PERFORMANCE REQUIREMENTS FOR THE FIRE PUMP SYSTEM. THE SUCCESSFUL BIDDER WILL MEET WITH THE PROJECT ENGINEER AND AFTER DEVELOPING AN UNDERSTANDING OF THE ENGINEERS' DESIGN INTENT WILL PREPARE SHOP DRAWINGS FOR THE CONSTRUCTION OF THE PROJECT.
2. ALL QUESTIONS, SUGGESTIONS, PROPOSED REVISIONS, CODE ISSUES, AND OTHER ISSUES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER DURING THE BID PERIOD. BY PLACING A BID, A BIDDER ASSURES THAT ALL CONCERNS WITH THE ENGINEER HAVE BEEN RESOLVED AND THAT THE BID REFLECTS THE COST OF A CODE-COMPLYING SYSTEM.
3. CONTRACTORS ARE ADVISED TO VISIT THE SITE AND FIELD VERIFY EXISTING EQUIPMENT AND CONDITIONS PRIOR TO COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH DEMOLITION. NO CLAIM FOR ADDITIONAL COST OR TIME EXTENSION WILL BE ALLOWED WITHOUT PROPER NOTICE PLUS PRIOR DETERMINATION OF TIME AND COST TO THE OWNER
4. COMPLETE SHOP DRAWINGS AND INSTALLATION IN CONFORMANCE WITH THE LATEST EDITIONS OF NFPA 20, NFPA 13, NFPA 101, UNIFORM FIRE CODE, UBC, UPC, UMC, LIFE SAFETY CODES, AND ANY OTHER ORDINANCES THAT APPLY WHETHER SHOWN OR NOT ON THE DRAWINGS OR IN SPECIFICATIONS. WHERE THERE IS A DISCREPANCY AMONG OR BETWEEN THE CODES OR ORDINANCES, BRING THIS TO THE ATTENTION OF THE PROJECT ENGINEER AND THEN PERFORM THE WORK IN ACCORDANCE WITH THE MORE STRINGENT.
5. PREPARE SHOP DRAWINGS AND REVIEW THEM WITH THE PROJECT ENGINEER PRIOR TO SUBMISSION TO AUTHORITY HAVING JURISDICTION AND ARCHITECT/ENGINEER FOR APPROVAL. OBTAIN ALL REQUIRED APPROVALS BEFORE ORDERING MATERIALS OR BEGINNING FABRICATION. SUBMIT A COMPLETE SET OF SHOP DRAWINGS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA-13, NFPA-20 AND ANY OTHER APPLICABLE CODES.

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